

Technical drawing of a proposed concrete apron and modified grate assembly. The drawing shows a plan view of a rectangular structure with dimensions. On the left, a circular manhole with "A" and "H/H" is shown with a 4'-0" diameter. The structure has a total width of 4'-0" and a total length of 5'-4". The apron is 2'-0" wide and 8'-0" long. The grate is 3'-0" wide and 4'-0" long. The structure is labeled "Modified Type 1 Frame and Grates". A "Sawcut" is indicated on the left side. The structure is adjacent to an "Existing 36" RCP to remain" and a "To Maunaloa Hwy. Sta." arrow. The structure is also adjacent to a "Concrete Apron" and a "Concrete Apron Transition".

Technical drawing of a rectangular frame. The overall dimensions are 3'-0" in height and 4'-7 3/4" in width. The frame is composed of four L-shaped sections, each labeled L4x3x1/2. The frame is reinforced with a central horizontal bar labeled Bar 3/2x1/2. The dimensions are as follows:

- Overall height: 3'-0"
- Overall width: 4'-7 3/4"
- Height of the top and bottom horizontal members: 1'-5 3/4"
- Height of the central vertical member: 1'-5 3/4"
- Thickness of the horizontal members: 1/2"
- Thickness of the vertical member: 1/2"

PLAN
Scale: $\frac{3}{4}" = 1'-0"$

2'-0" Concrete Apron Transition

Existing concrete apron to remain

8" Class A Concrete w/ 6x6-W1.4xW1.4 Welded Wire Fabric

Modified Type "I" Frame and Grates

5'-4"

8"

4'-0"

8"

#4 Dowels @ 9" o.c. (typ)

Existing ground

Remove 8" of existing concrete inlet structure

6" (typ.)

9" (typ.)

Drill $\frac{5}{8}"$ hole. Secure dowels w/ epoxy fill (typ)

Existing 36" RCP

Existing Structure to remain

SECTION
Scale: $\frac{3}{4}" = 1'-0"$

A
H/H1

See Notch Detail

2" cl. Typ.

2 7/8"

4" cl.

Bars 3 1/2" x 1/2"

2 7/8"

12-3/8" $\varnothing$ Bars

2 1/8"

4'-6 1/4"

1'-5 1/4"

B
H/H/H

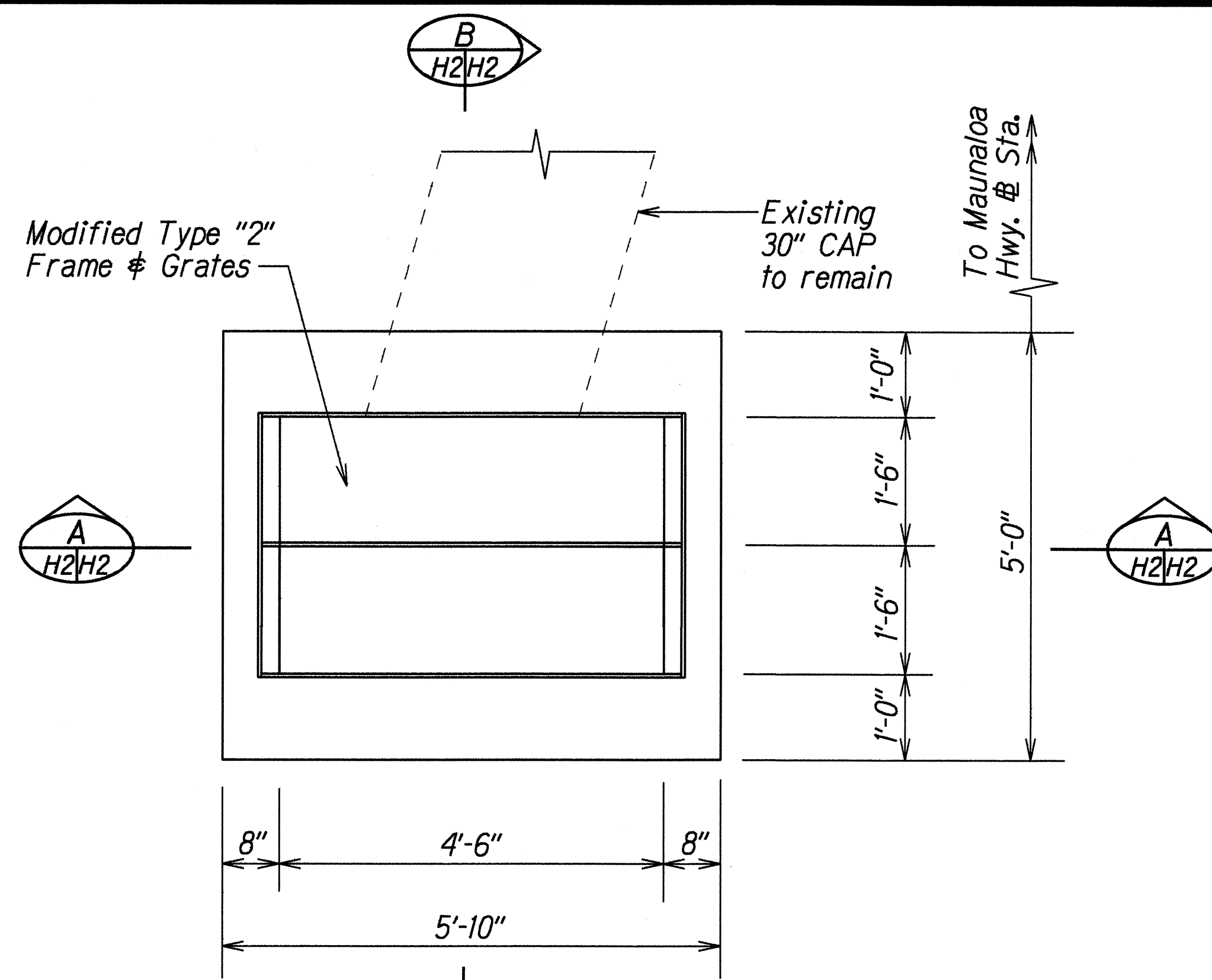
Diagram showing the elevation view of a wall section. The wall width is 1'-5 1/4". Reinforcement bars are 3 1/2" x 1/2" in size. The spacing between bars is 2" cl. (center-to-center). The bars are positioned 2 1/8" from the top and 3 1/2" from the bottom.

Diagram illustrating the lap joint for a 2x6 beam. The joint is secured with a 2x6 bar, 3/8" ϕ x 1'-5 1/4" long, flush with the surface. A 3/8" notch is cut into the beam, and a 3/16" pin is used to secure the bar.

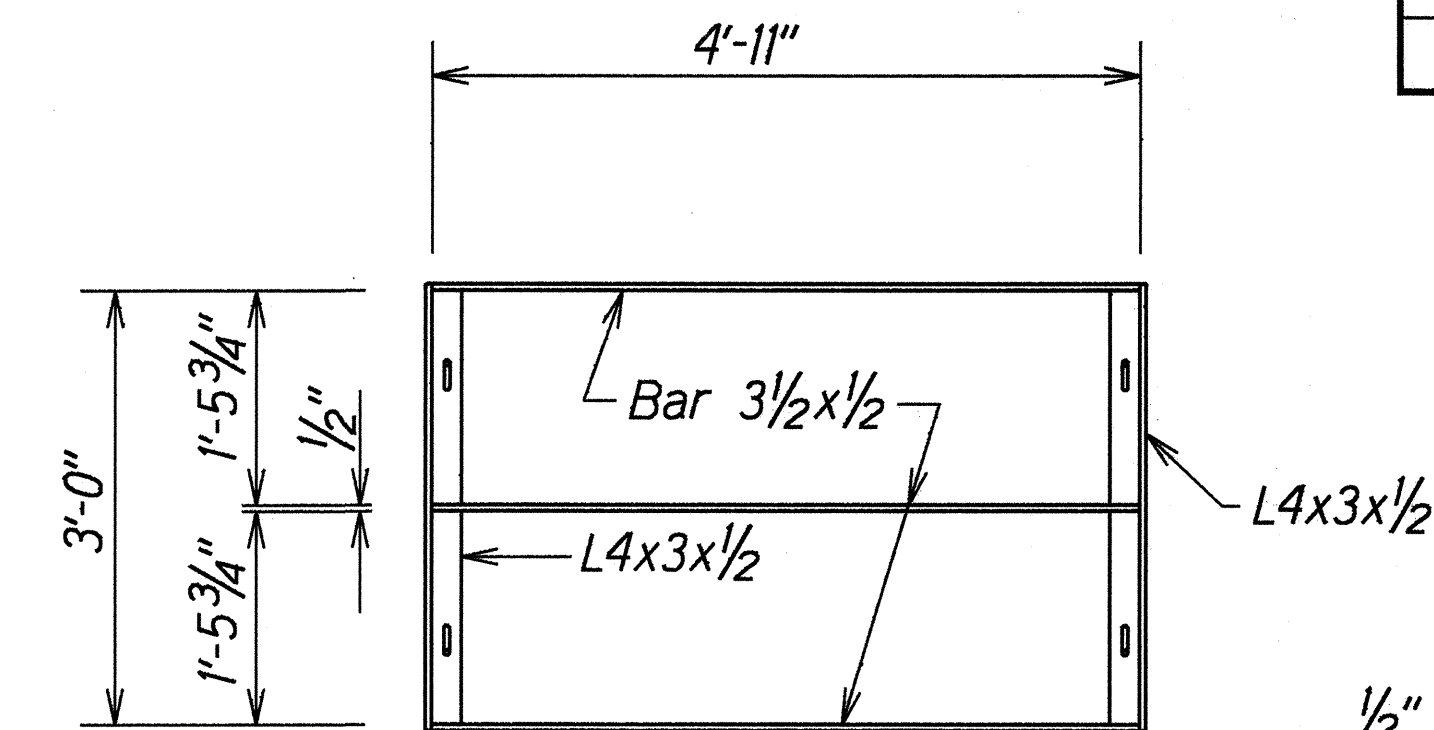
DETAILS OF MODIFIED TYPE "I"
FRAME & GRATES

ADD.5S-1

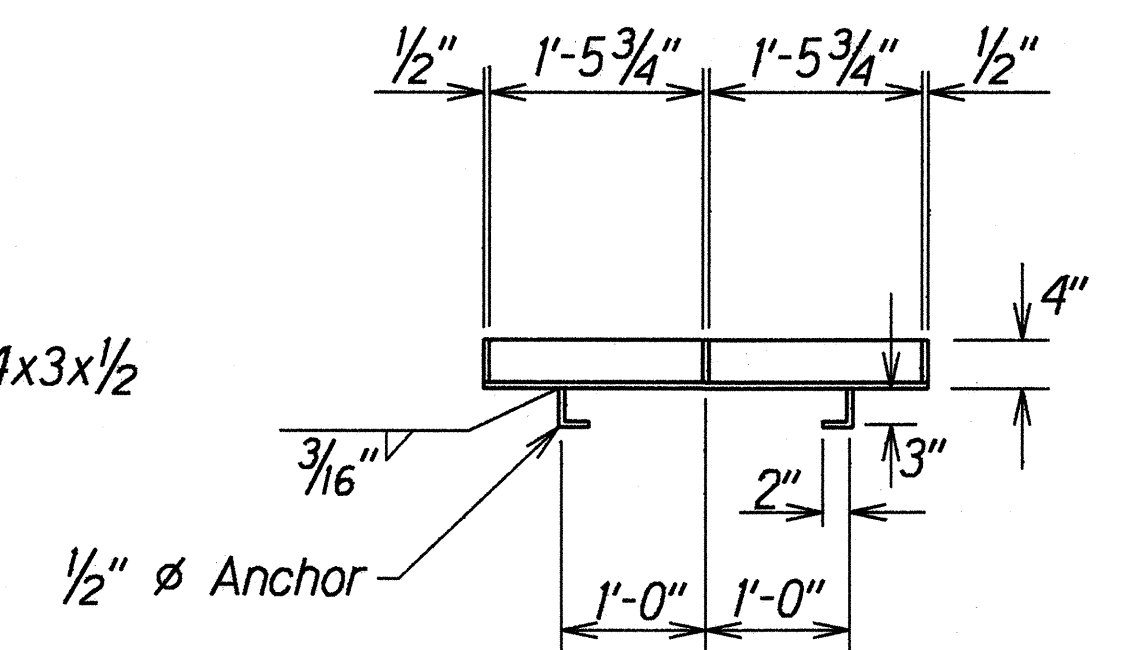
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	460A-01-99M	1998	ADD 5 S-2	41



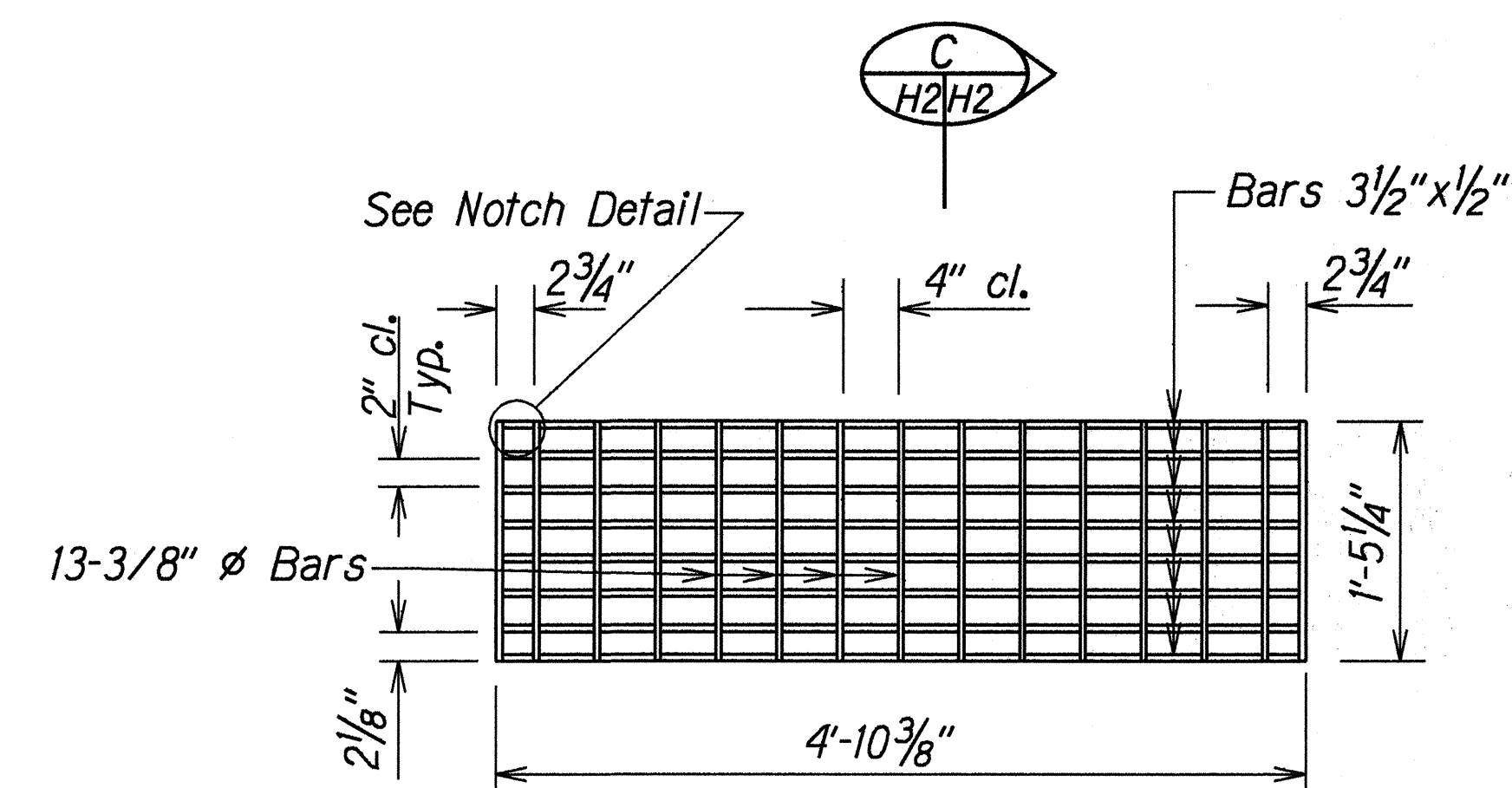
PLAN
Scale: $\frac{3}{4}" = 1'-0"$



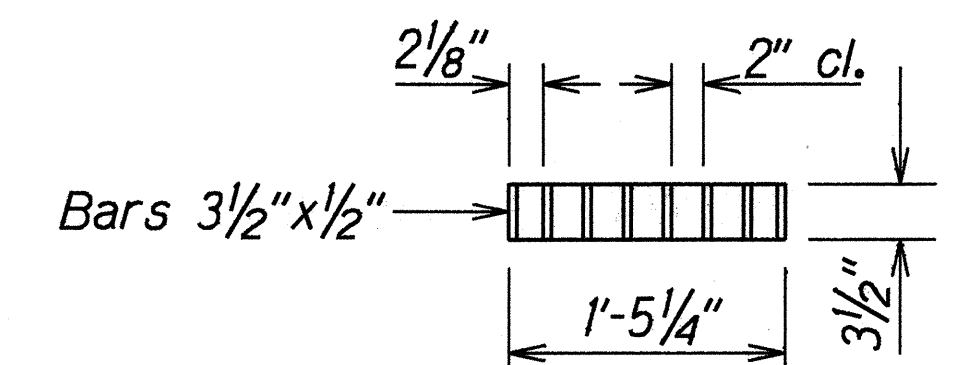
PLAN - FRAME
Scale: $\frac{3}{4}" = 1'-0"$



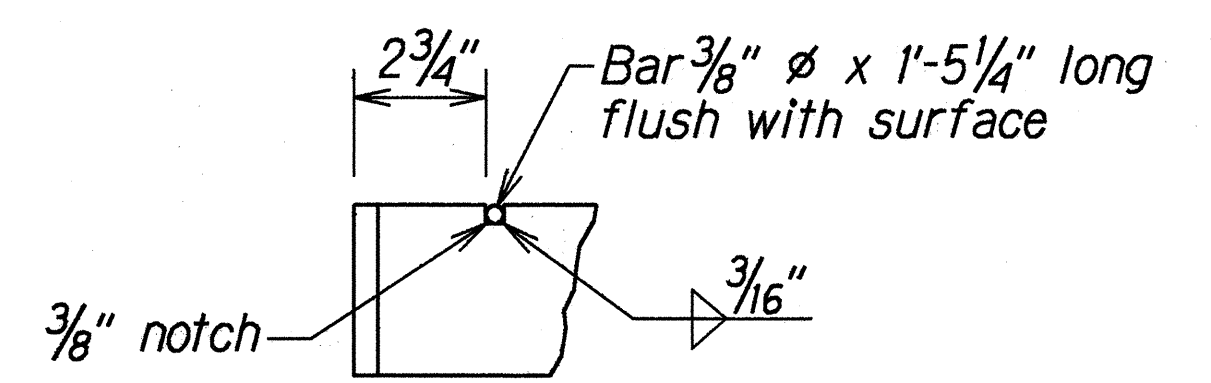
SECTION - FRAME
Scale: $\frac{3}{4}"=1'-0"$



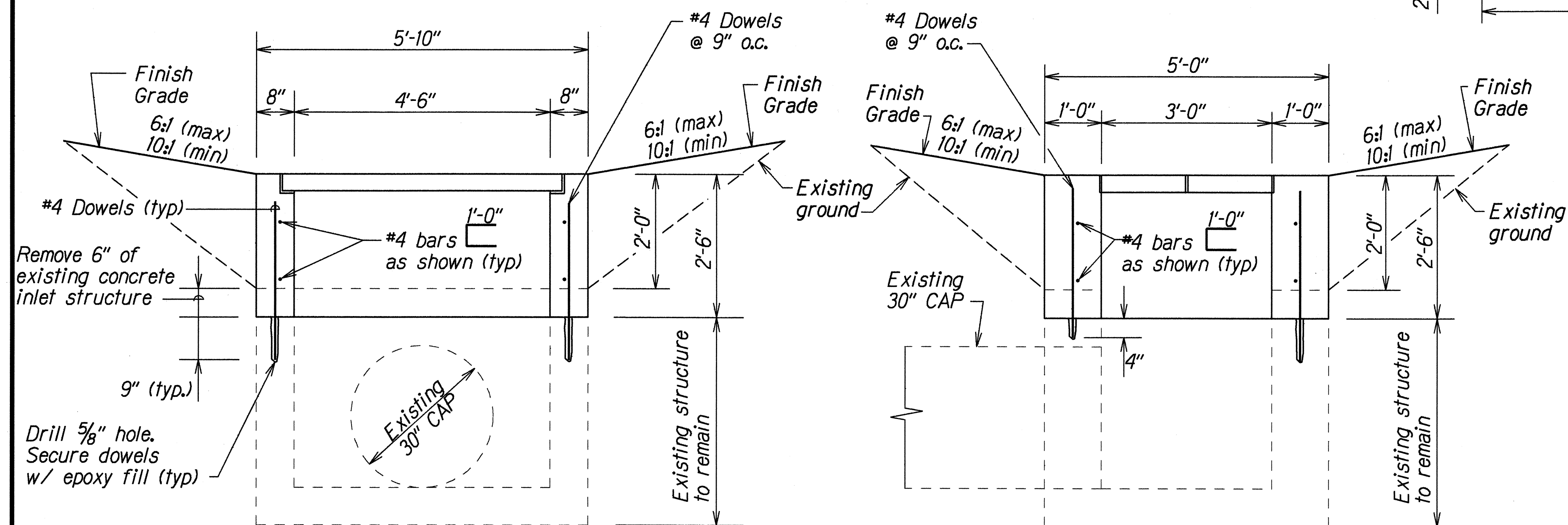
PLAN - GRATE
Scale: 1"=1'-0"



SECTION 
Scale: 1"=1'-0"



NOTCH DETAIL
Scale: 3"=1'-0"



SECTION 
Scale: $\frac{3}{4}" = 1' - 0"$

SECTION
Scale: $\frac{3}{4}" = 1'-0"$ 

DETAILS OF MODIFIED TYPE "2" INLET STRUCTURE

DETAILS OF MODIFIED TYPE "2"
FRAME & GRATES

		<u>Maunaloa Village to Mahana</u> <u>Project No. 460A-01-99M</u>	
6/2/99	Added Drainage Detail Sheet	Scale: As Shown	Date: May 1999
DATE	REVISION	SHEET No. H2 OF 2 SHEETS	

ADD.5S-2

ORIGINAL PLAN	SURVEY PLOTTED BY _____	DATE <u>3/10/99</u>
NOTE BOOK dh3randy5mg 5gaudh02.dgn	DRAWN BY <u>X</u>	_____
	TRACED BY _____	_____
	DESIGNED BY <u>B. Kawamura</u>	_____
	QUANTITIES BY _____	_____
	CHECKED BY _____	_____