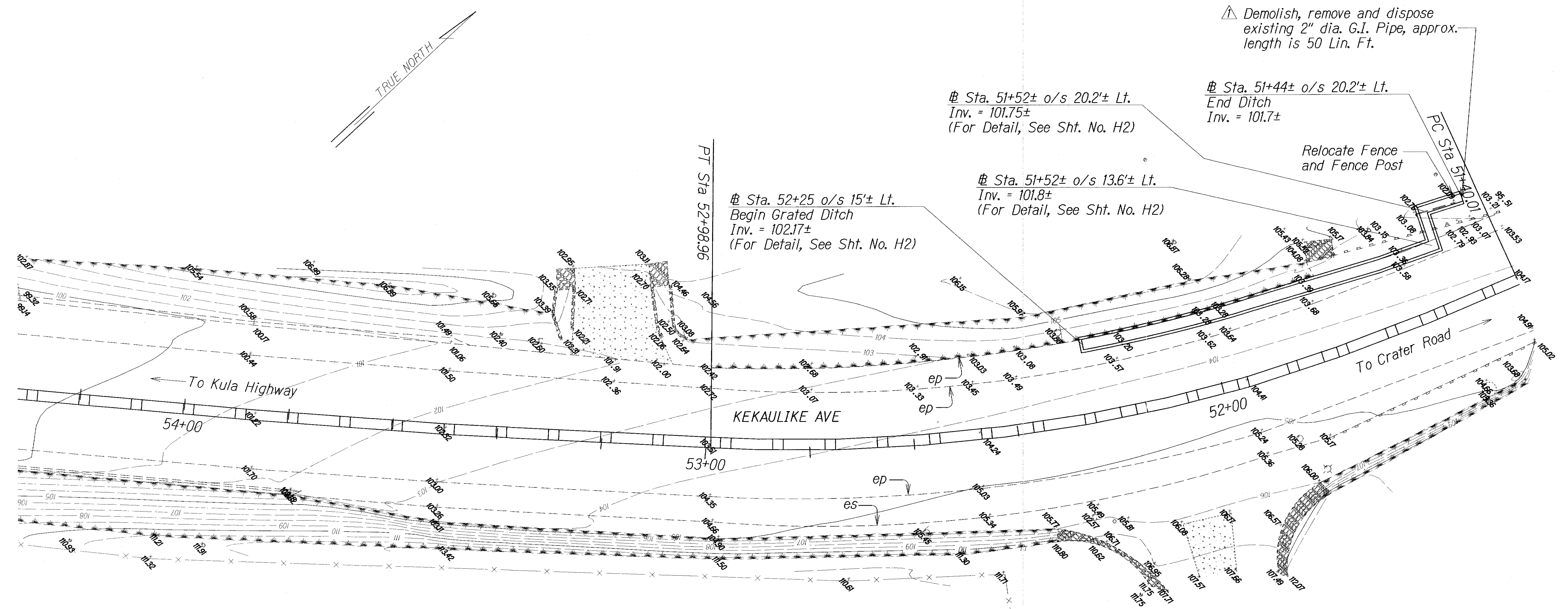


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0377(006)	2014	ADD.15	38



Notes:

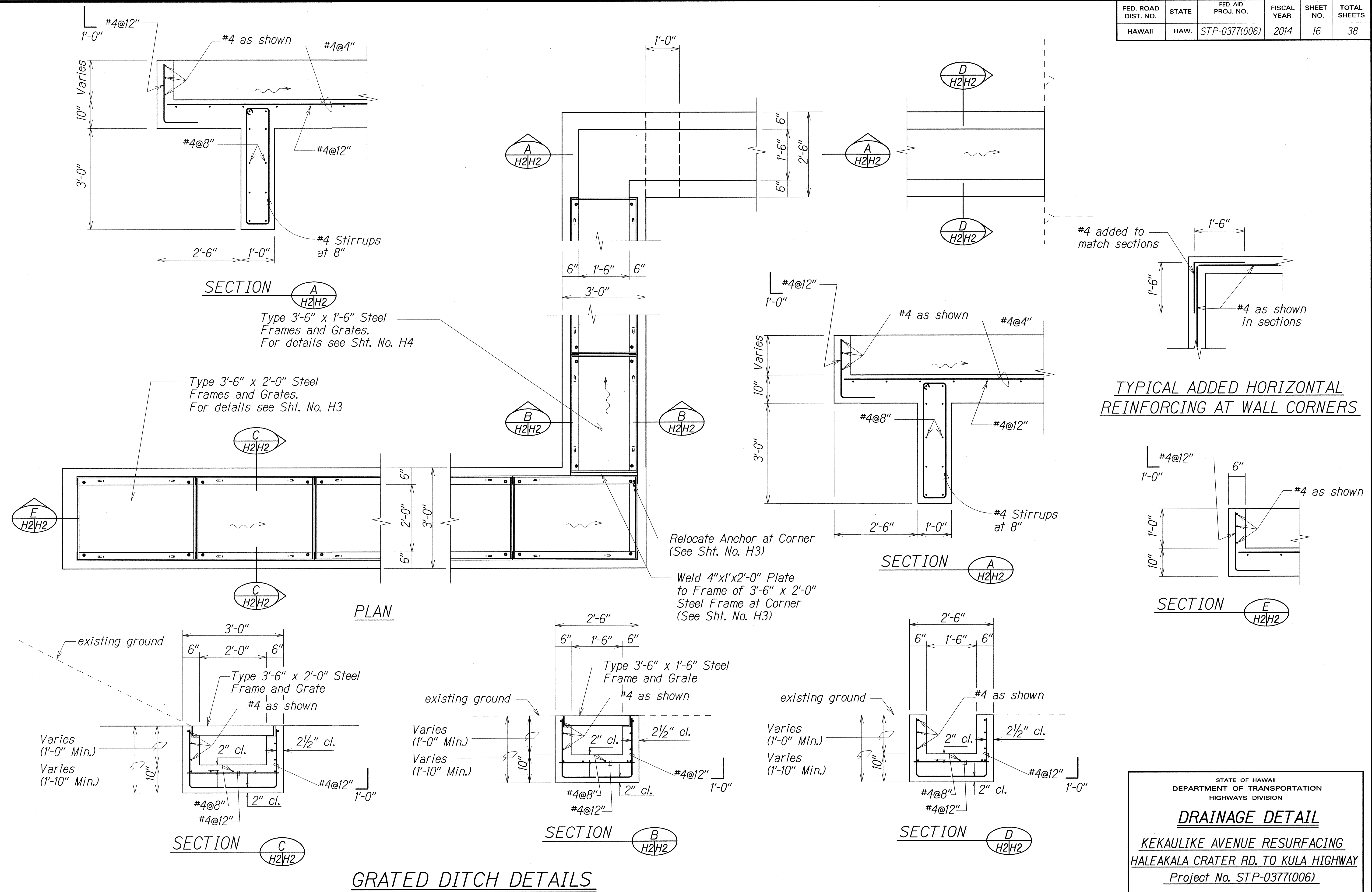
- Existing drainage systems will be functional at all times during construction. The Contractor is to furnish materials, equipment, labor, tools and incidentals necessary to accomplish maintenance of flow. The cost shall be incidental to the various Contract Items.
- The Contractor shall verify the locations of all existing culverts and utilities in the field. Any existing culverts and utilities damaged during construction shall be repaired or replaced by the Contractor at his own expense.
- Chamfer all exposed concrete edges 1".
- Demolishing, Removing, and Disposing existing water line shall not be paid for separately, but shall be considered incidental to the various contract items.

- All exposed finish grade shall be hydromulched. The work shall be considered incidental to the various Contract Items.
- Concrete shall be Class A unless otherwise noted.
- Relocating existing fence and fence post shall not be paid for separately, but shall be considered incidental to the various Contract Items.
- Removing and reinstalling existing guard rail for drainage structure installation shall not be paid for separately, but shall be considered incidental to the various Contract Items.
- The location of the ditch at Sta. 51+52± is approximate. The ditch shall be located to pass between the existing guardrail posts. The Contractor shall lay out the grated ditch and determine the length "L" of the end grate prior to fabricating grates. The end grate on the segment between Sta. 52+20 and 51+52± Lt. and between Sta. 51+52 to Sta. 51+52 Lt. shall use Dimension "L" on Drainage Sheets H3 and H4. This shall be considered incidental to the Grated Ditch.

2-4-14	Existing waterline to be removed.
DATE	REVISION
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
DRAINAGE PLAN	
KEKAULIKE AVENUE RESURFACING HALEAKALA CRATER RD. TO KULA HIGHWAY	
Project No. STP-0377(006)	
Scale: 1" = 10'	Date: April 2013
SHEET No. H1 OF 4 SHEETS	

DATE	DESIGNED BY	CHECKED BY
ORIGINAL PLAN	DESIGNED BY	CHECKED BY
NOTE BOOK	DESIGNED BY	CHECKED BY

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0377(006)	2014	16	38



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE DETAIL

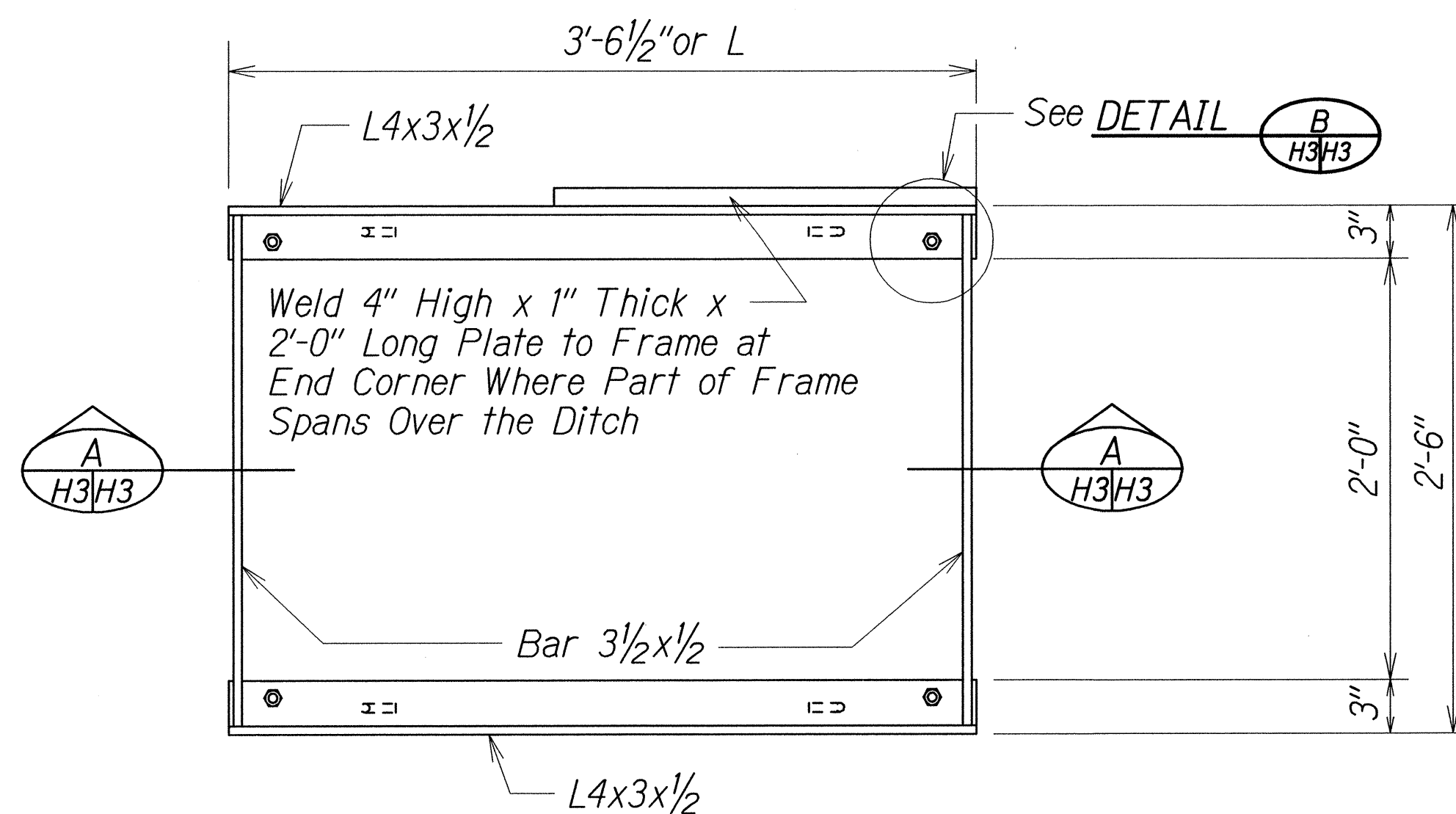
KEKAULIKE AVENUE RESURFACING
HALEAKALA CRATER RD. TO KULA HIGHWAY
Project No. STP-0377(006)

Scale: 3/4" = 1'-0" Date: April 2013

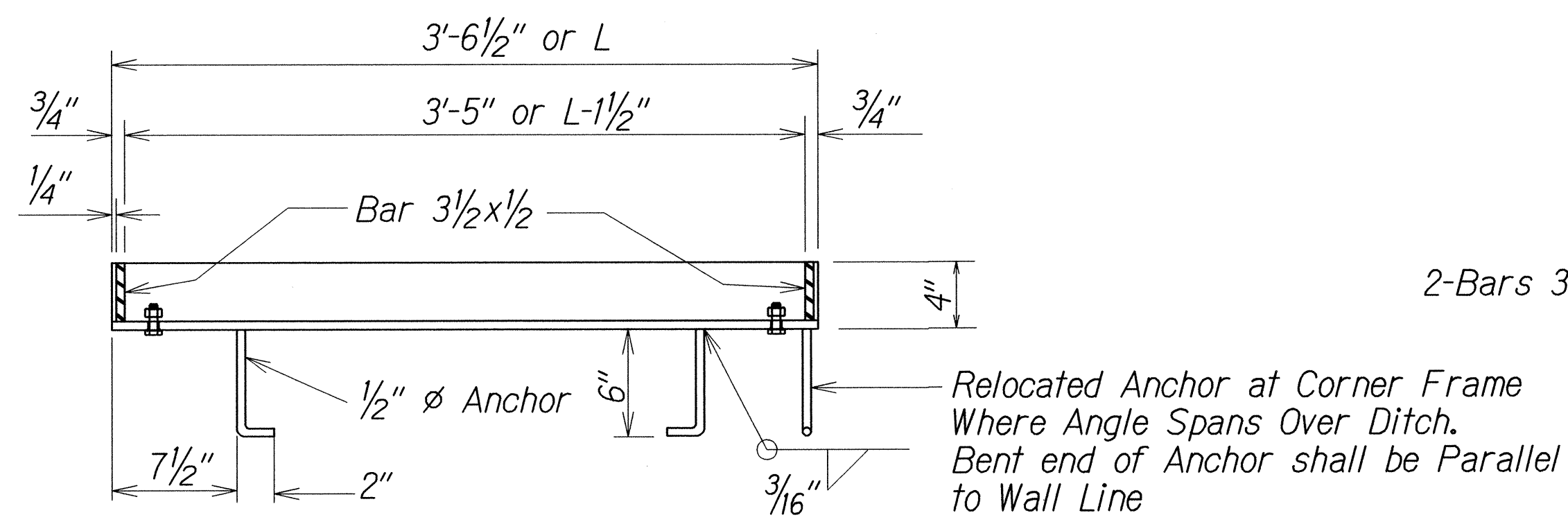
SHEET No. H2 OF 4 SHEETS

ORIGINAL PLAN	DATE 4/25/13
SURVEY PLOTTED BY	
DESIGNED BY	
NOTED BY	
CHECKED BY	
IN CHARGE	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0377(006)	2014	17	38



PLAN

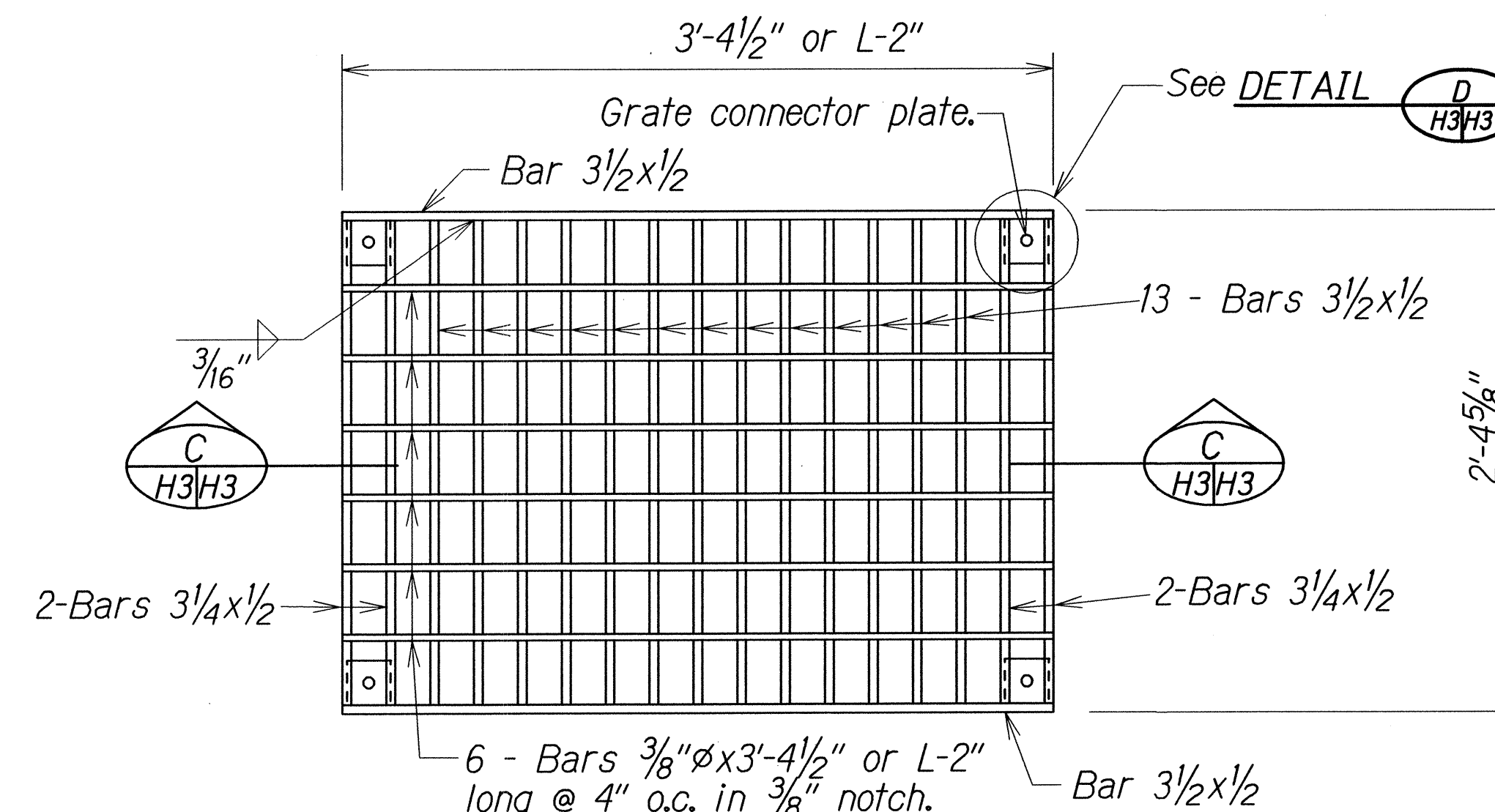


SECTION

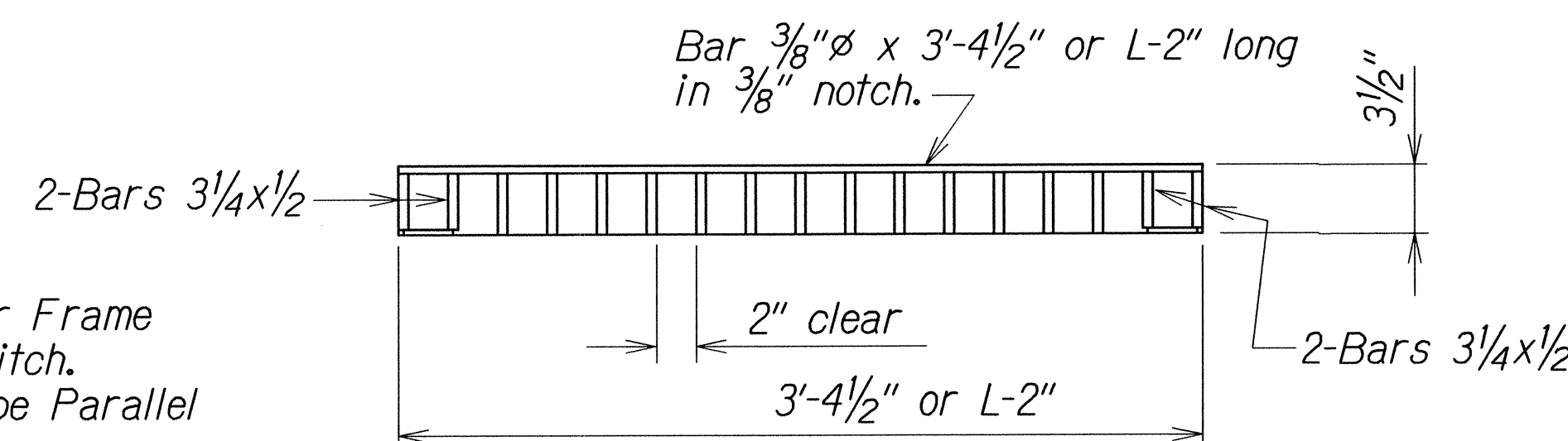
FRAME

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

NOTE: All welds 3/8" unless otherwise noted.



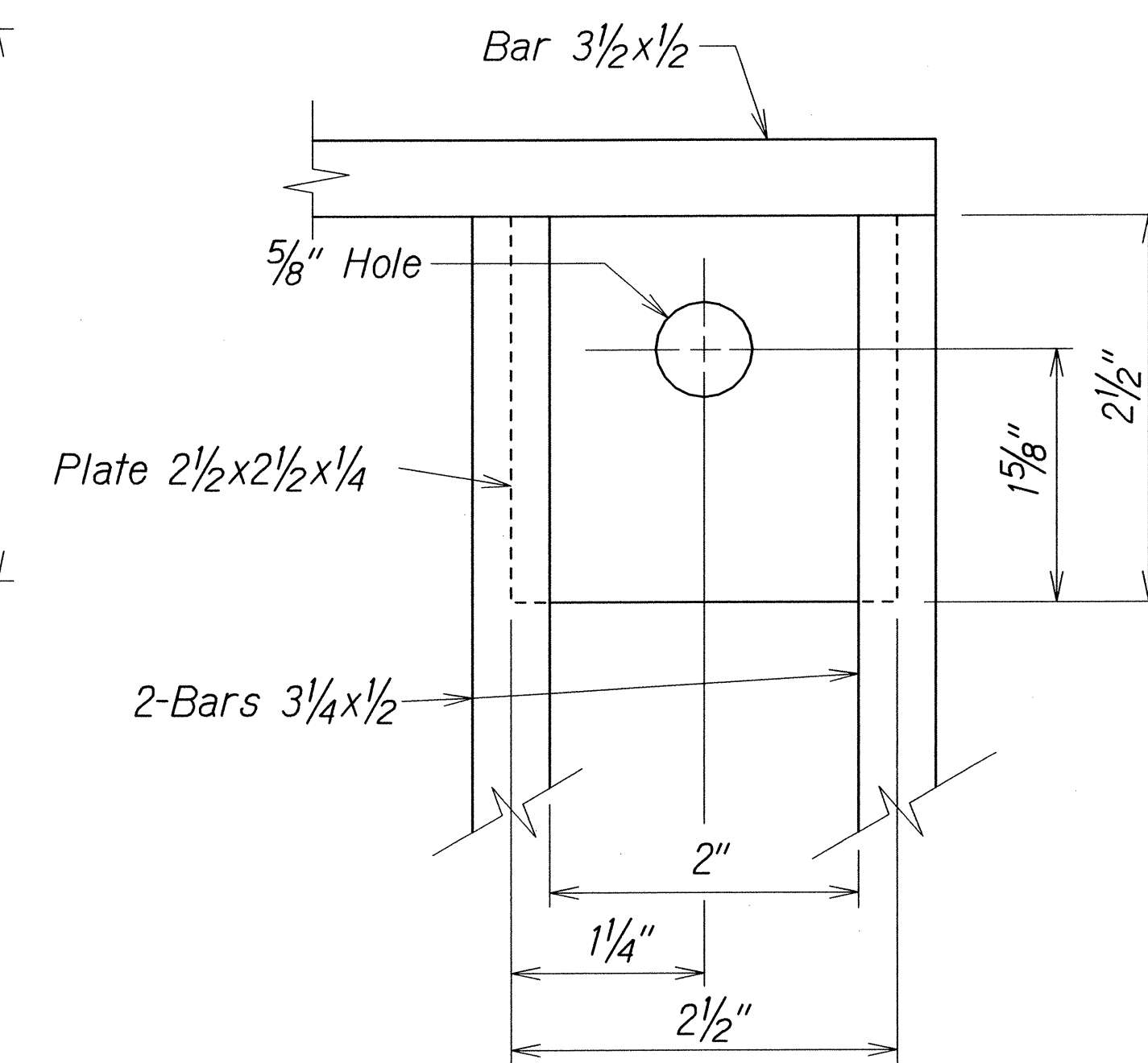
PLAN



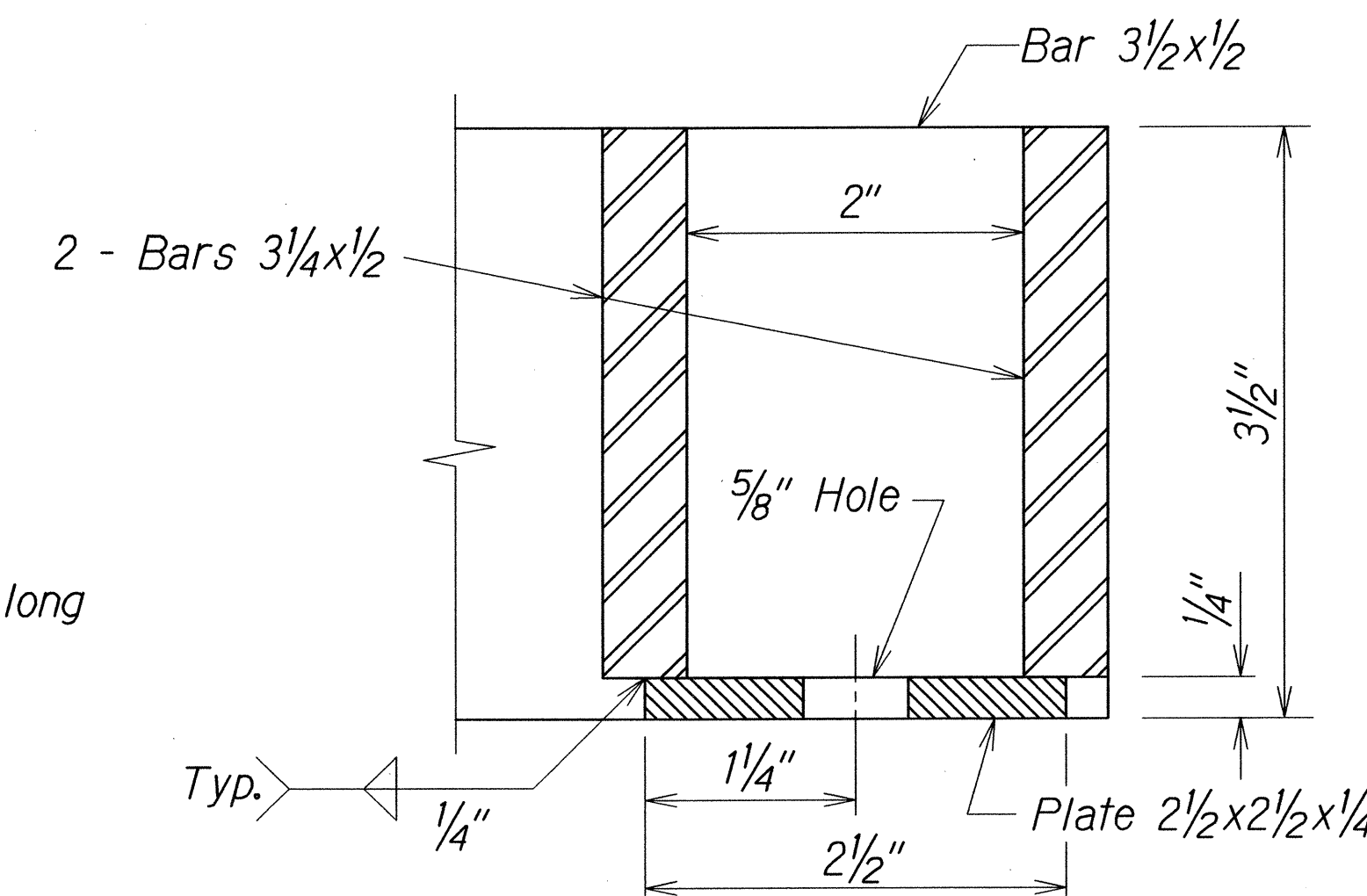
SECTION

GRATE

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



PLAN

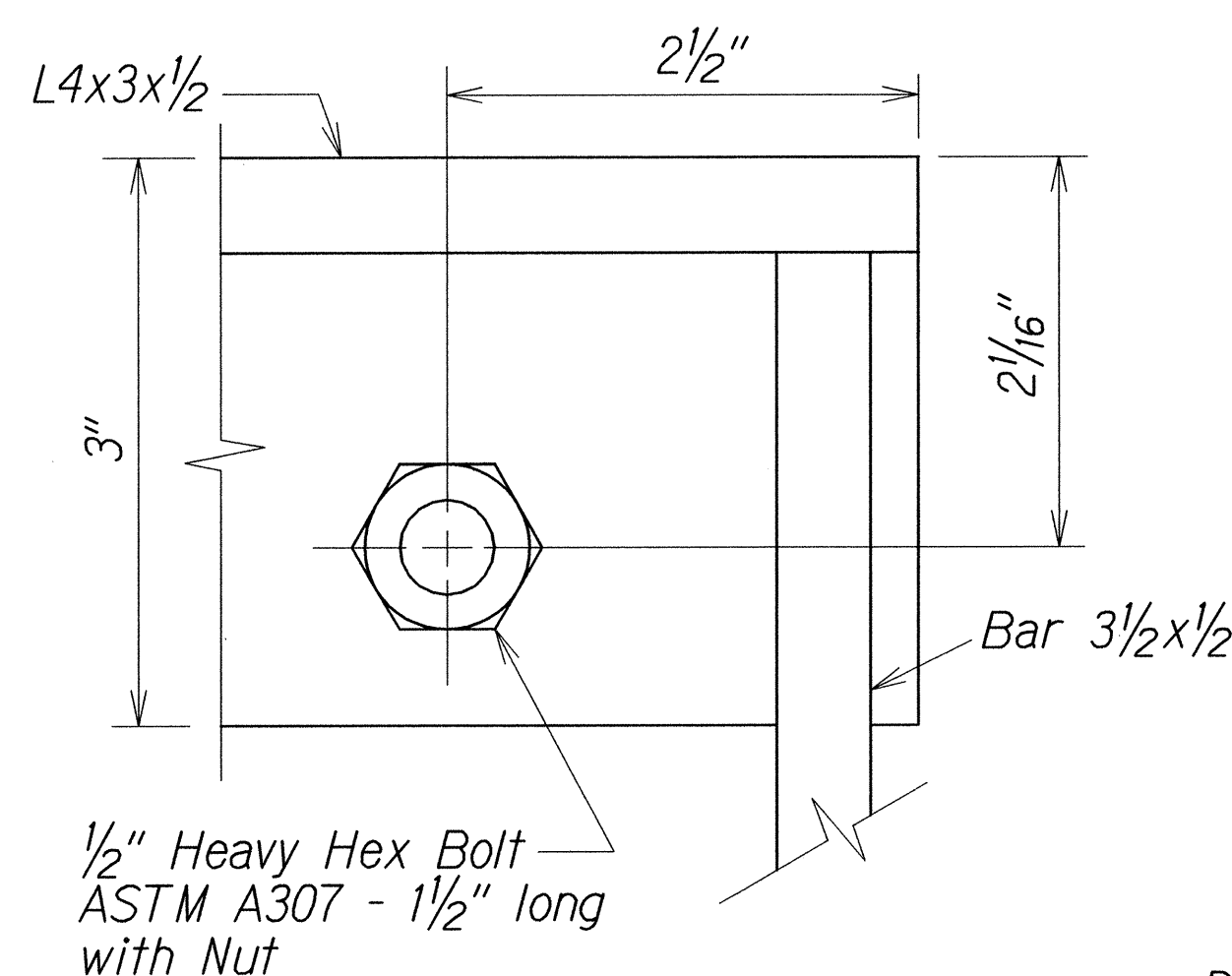


SECTION

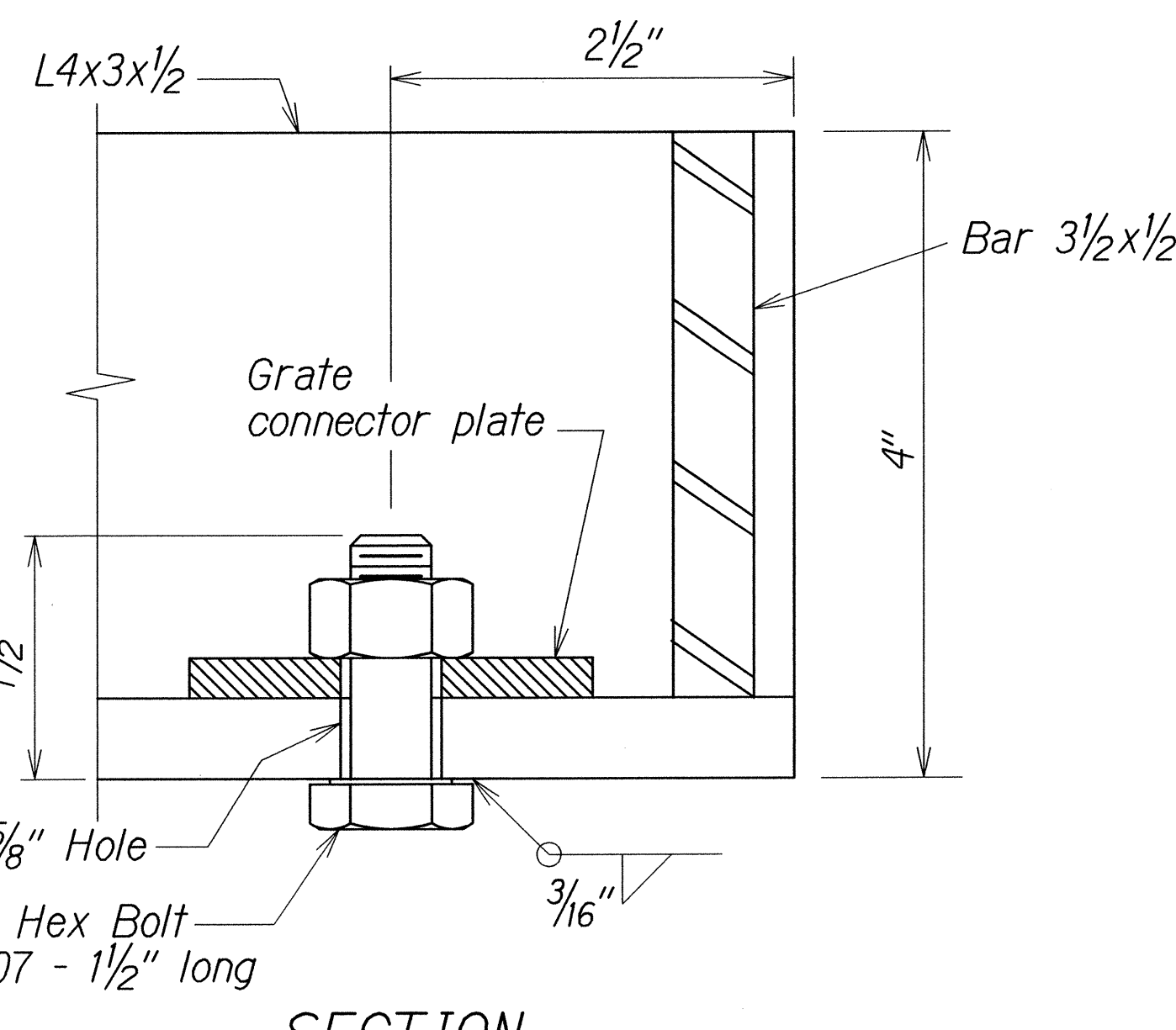
DETAIL

Full Size

D H3H3



PLAN

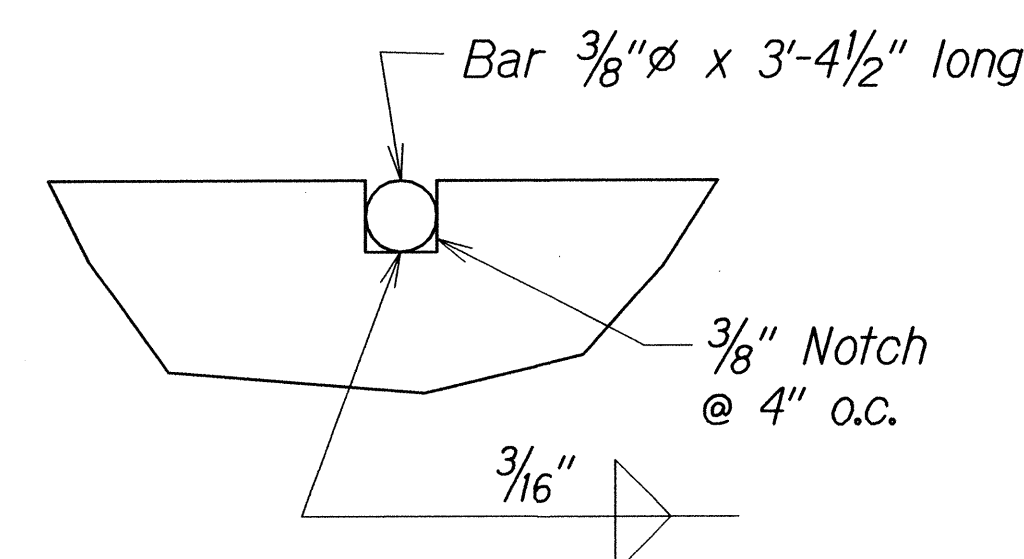


SECTION

DETAIL

Full Size

B H3H3



NOTCH DETAIL

Full Size

DETAIL OF TYPE 3'-6" X 2'-0" STEEL FRAME AND GRATES

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

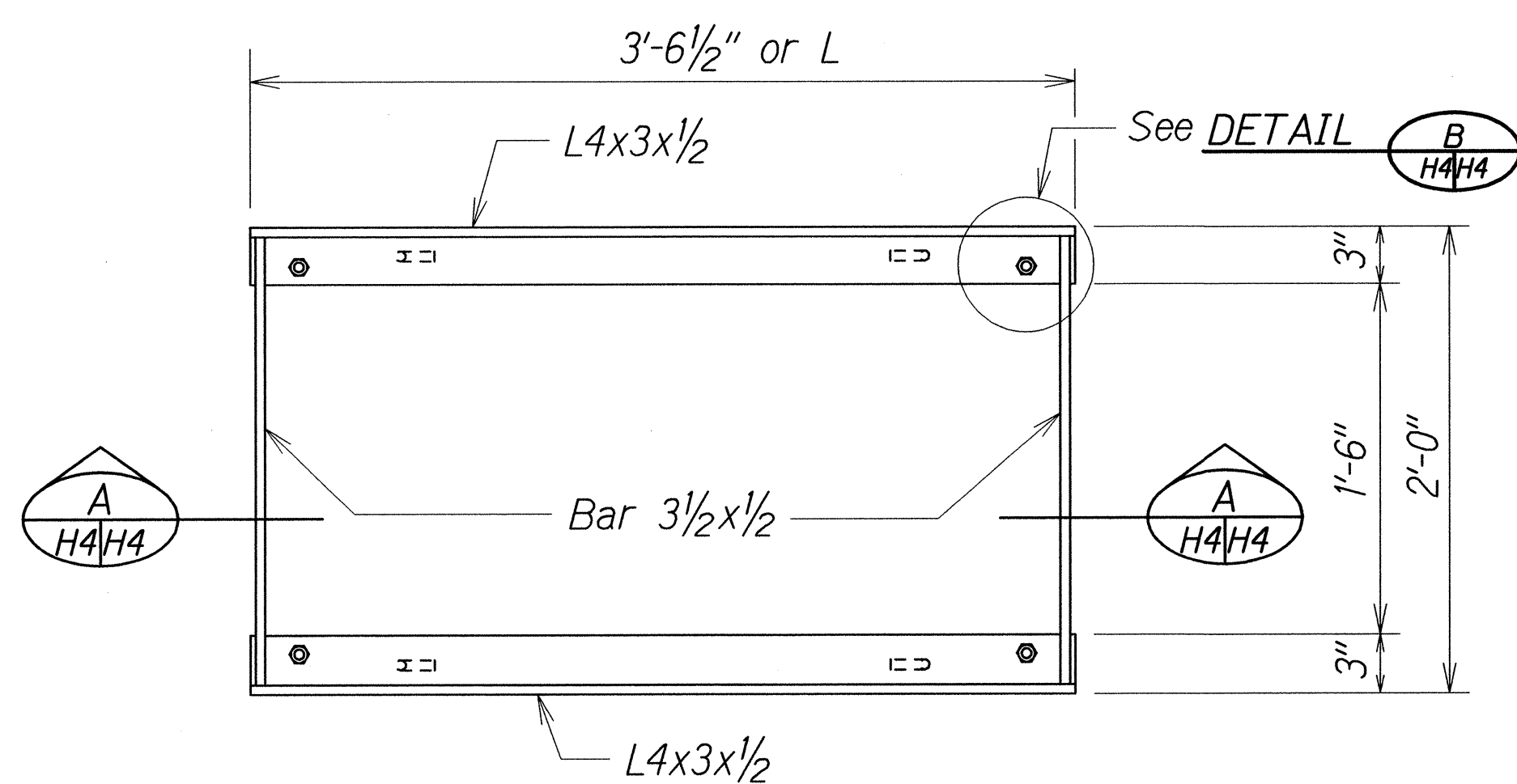
DRAINAGE DETAIL

KEKAULIKE AVENUE RESURFACING
HALEAKALA CRATER RD. TO KULA HIGHWAY
Project No. STP-0377(006)

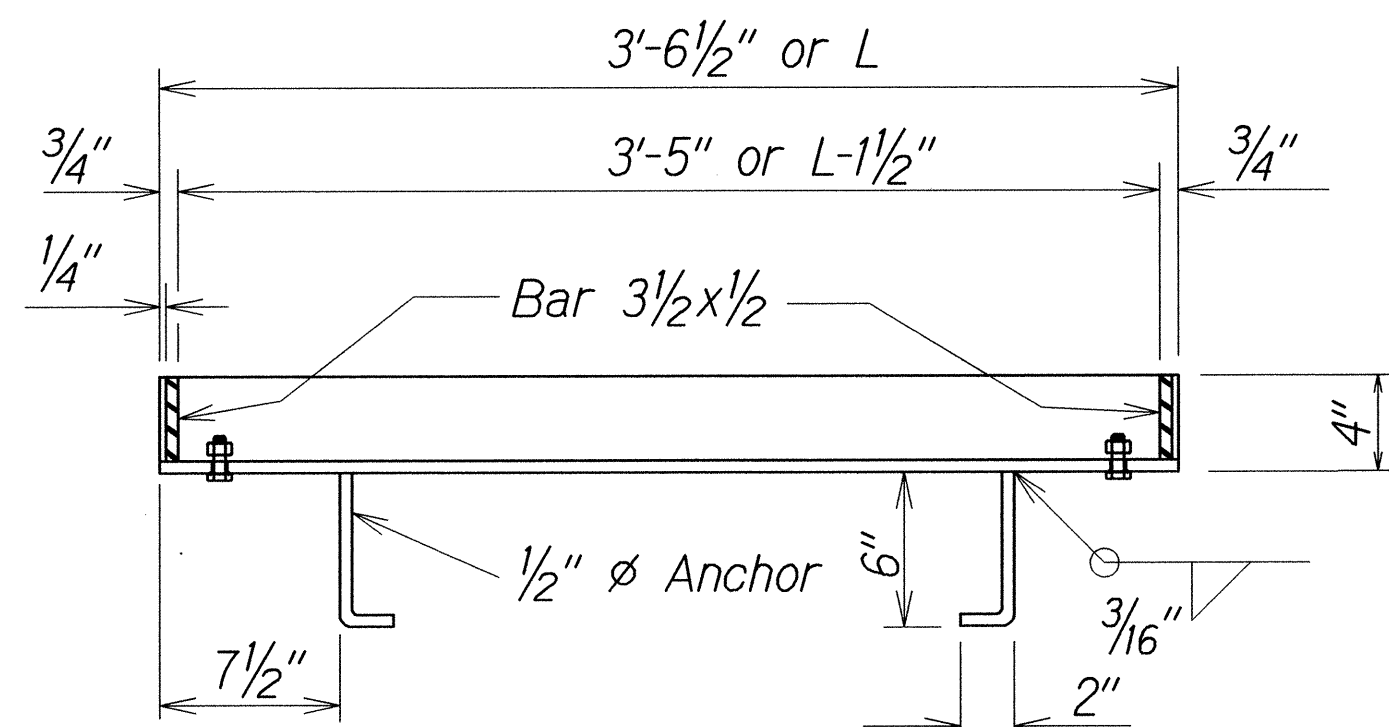
Scale: As Shown Date: April 2013

SHEET No. H3 OF 4 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-0377(006)	2014	18	38



PLAN

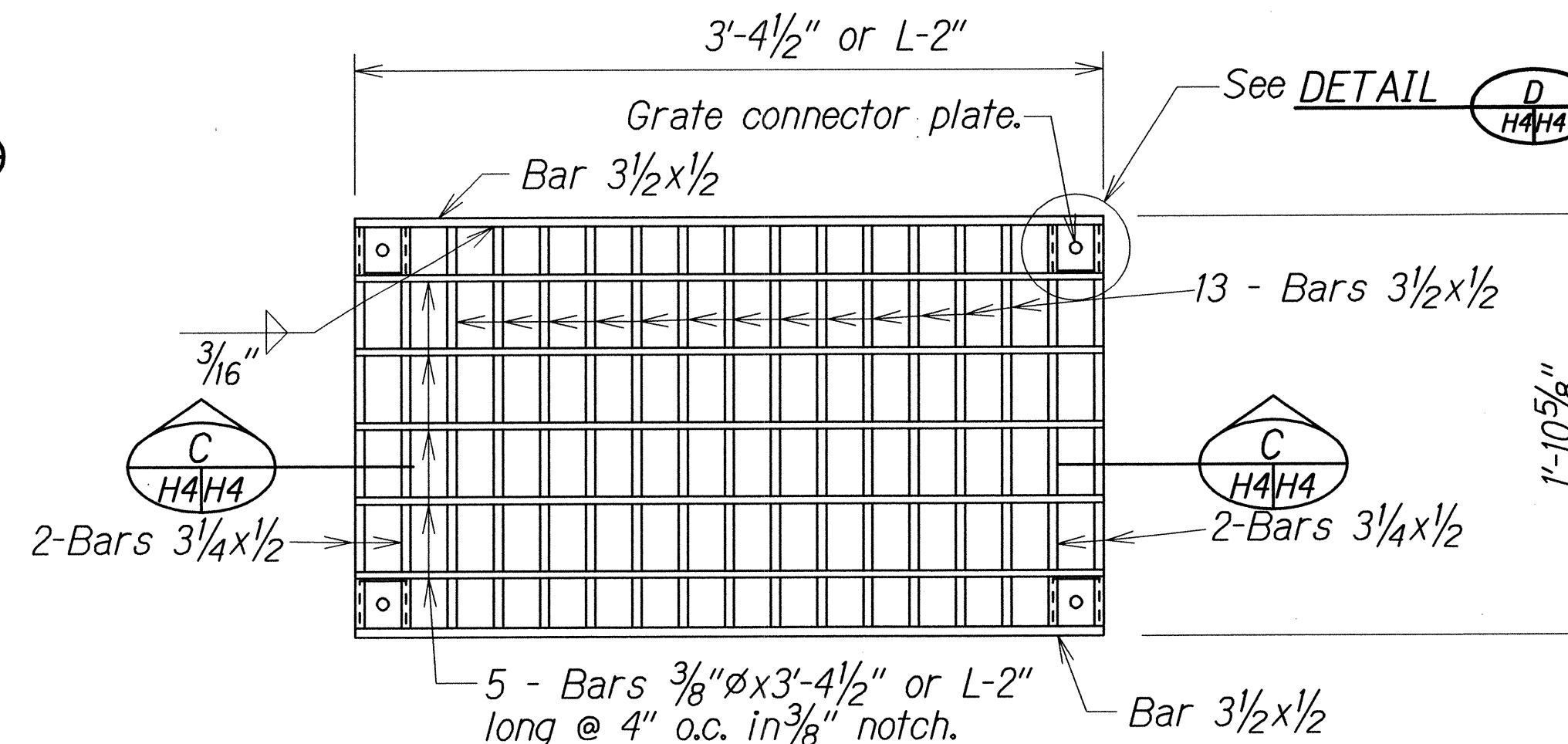


SECTION

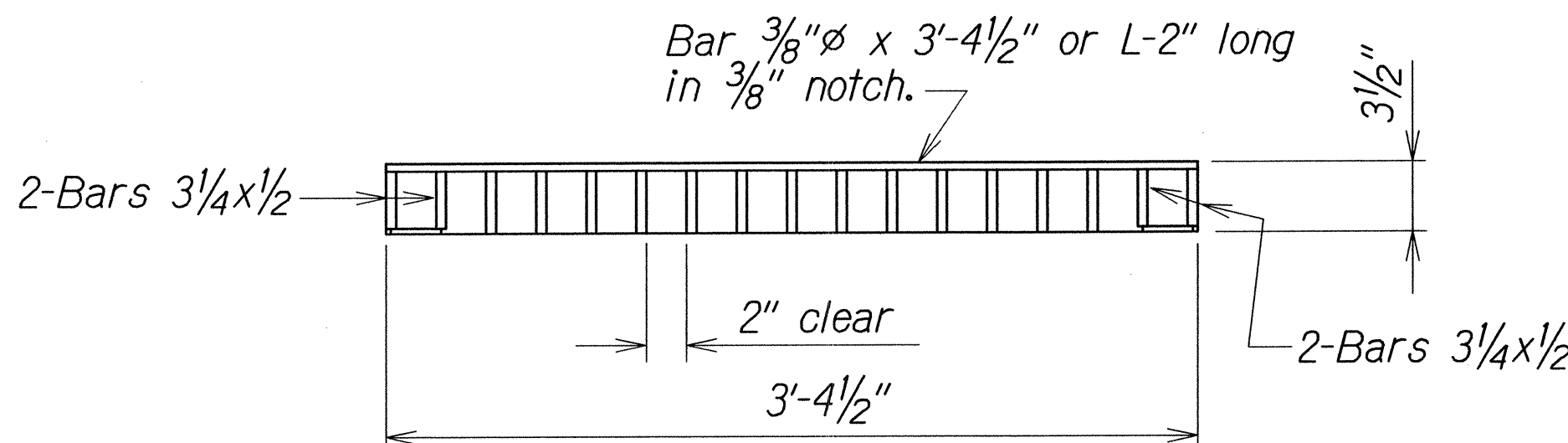
FRAME

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

NOTE:
All welds 3/8" unless otherwise noted.



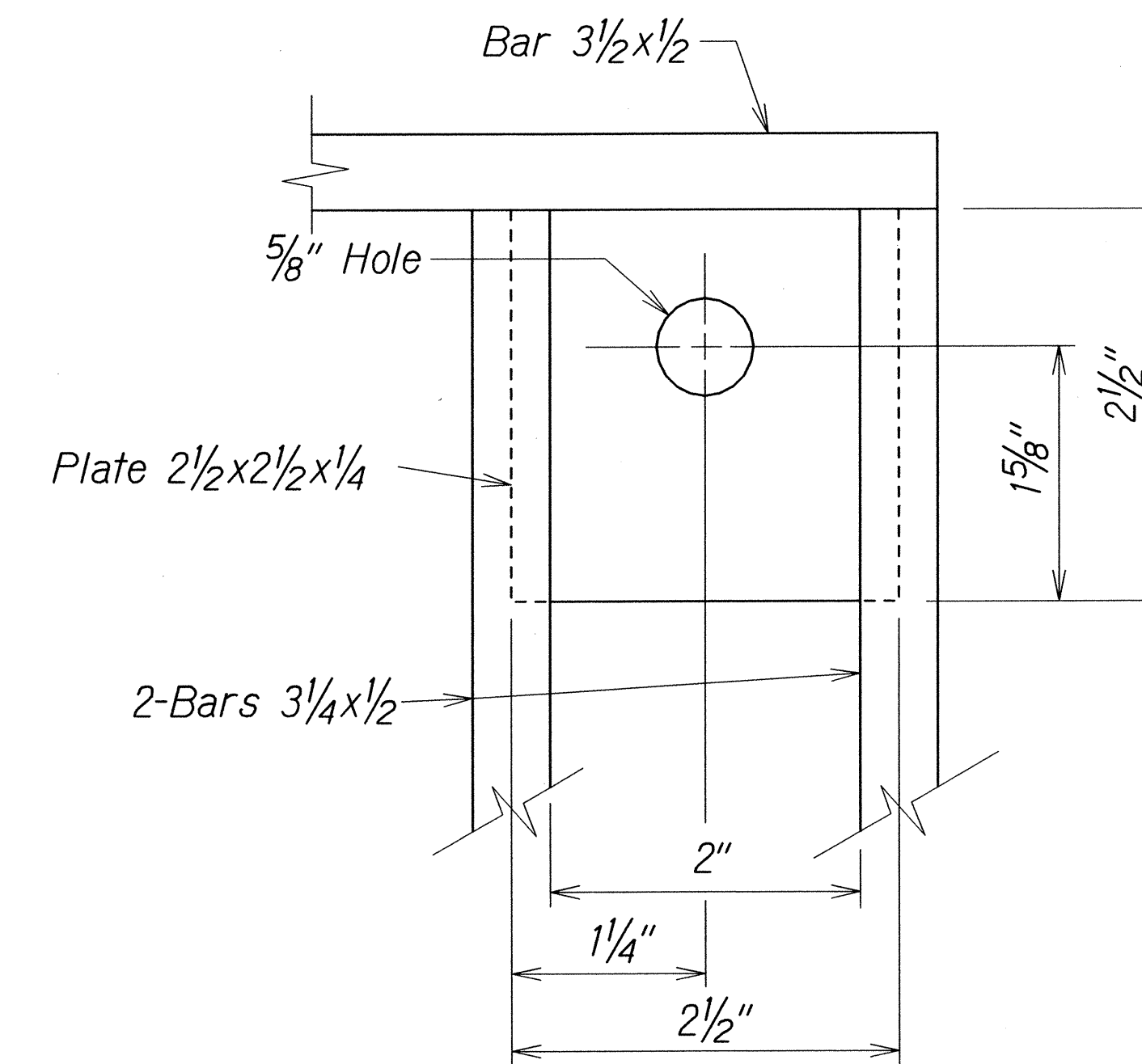
PLAN



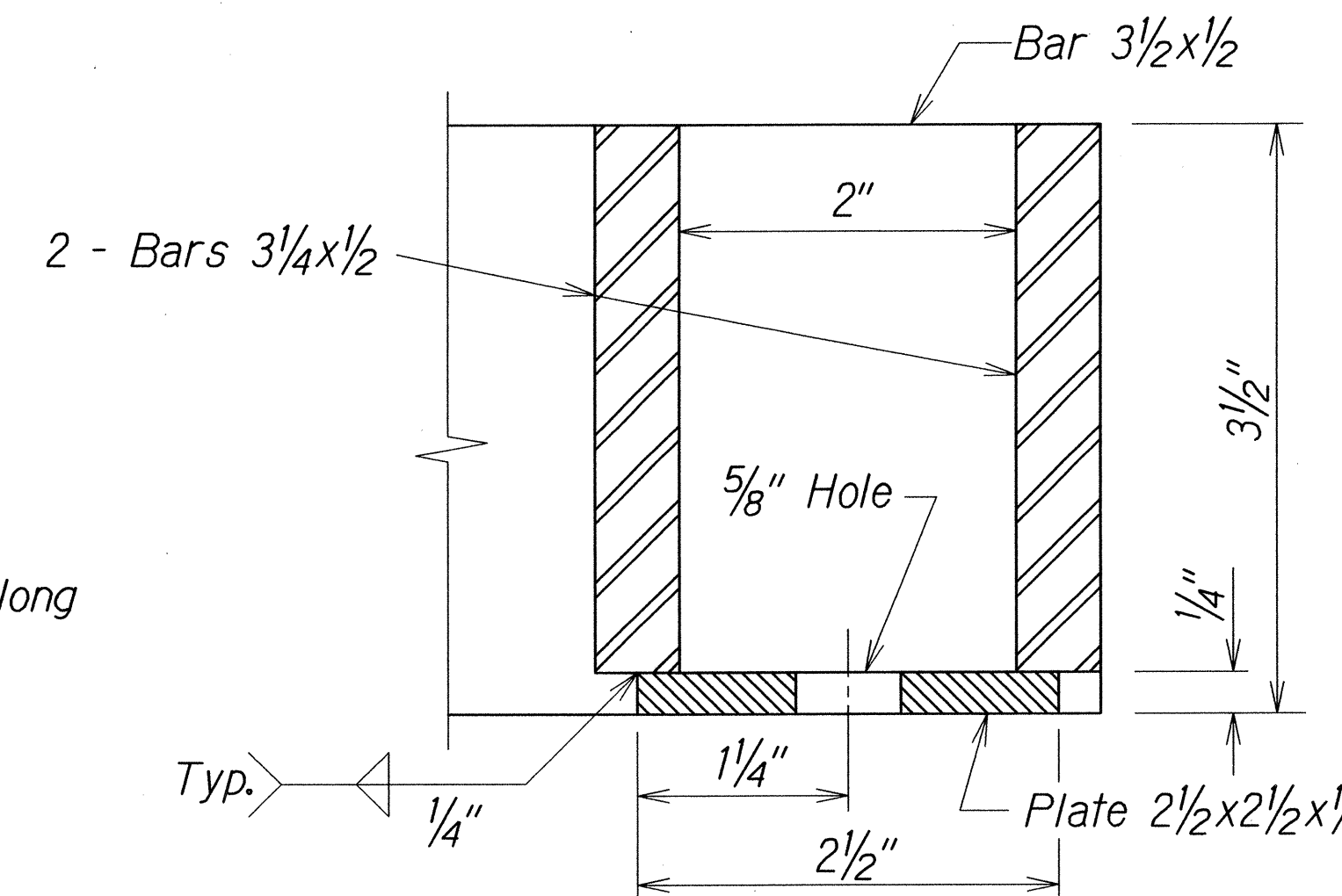
SECTION

GRATE

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



PLAN

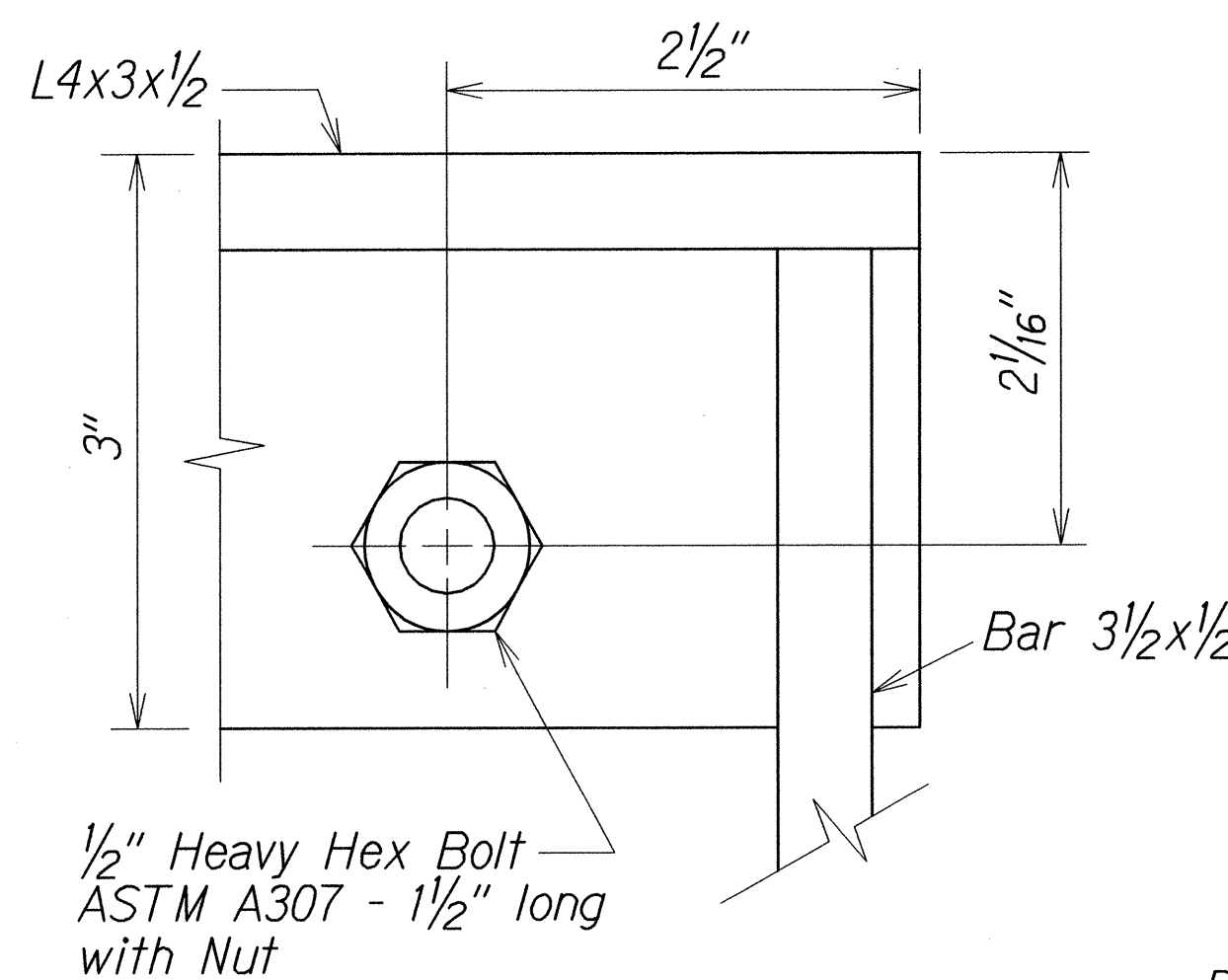


SECTION

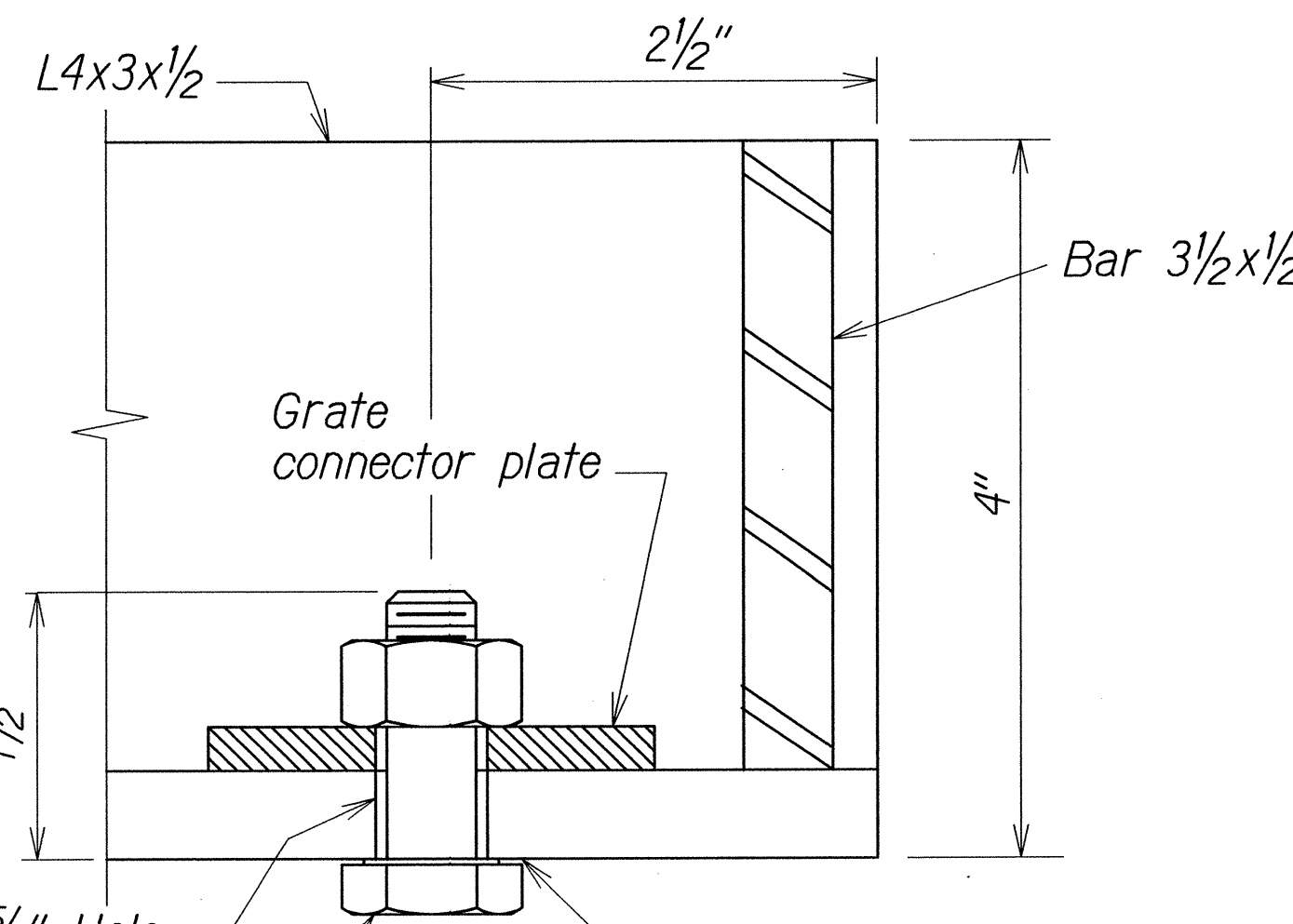
DETAIL

Full Size

D
H4/H4



PLAN

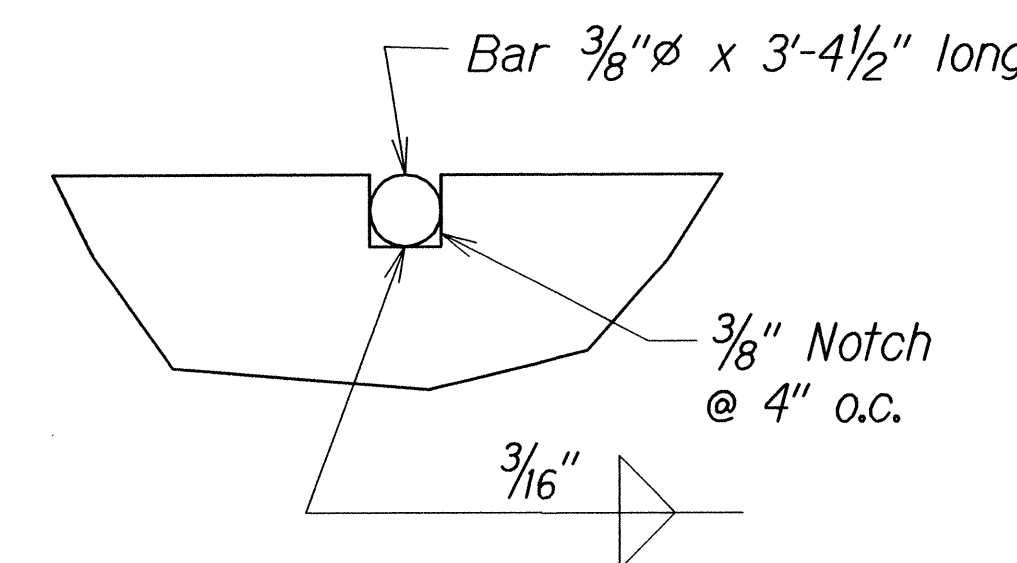


SECTION

DETAIL

Full Size

B
H4/H4



NOTCH DETAIL

Full Size

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

DRAINAGE DETAIL

KEKAULIKE AVENUE RESURFACING

HALEAKALA CRATER RD. TO KULA HIGHWAY

Project No. STP-0377(006)

Scale: As Shown

Date: April 2013

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DESIGNED BY	4/25/13
	QUANTITIES BY	
	CHECKED BY	

DETAIL OF TYPE 3'-6" X 1'-6" STEEL FRAME AND GRATES