

For Frame & Grate Details,
See Plan Sht. No. 14

Edge of Paved Shoulder

Direction of Travel

NOTE:
At Type 1 Drain Inlet reconstruction area, existing
ground/swale shall be graded or backfilled to drain.
This work shall be considered incidental to contract
Item No. 604.4331 - Reconstructed Type 1 Drain Inlet.

PLAN
Not to Scale

Remove 6" of exist. structure all around

4'-4"

8" 3'-0" 8"

Remove Exist. Frame & Grate

Install New Steel Frame & Grates (See Details on Plan Sht. No. 14)

#4 bars @ 10" o.c.

12" 12"

6" (Typ.)

#4 Dowels @ 12" o.c.

5/8" ϕ x 6" Drilled Hole Fill Annular Space with Epoxy (Typ.)

4'-4"

8" 3'-0" 8"

Reconstruct Top 12" \pm All Around

6" 6"

Remove Exist. Frame & Grate

2 1/4" A.C. Pavt. Mix No. IV

top of exist. a.c. pav't.

existing 24" RCP

Existing structure to remain

SECTION B
Not to Scale

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	580A-01-06M	2006	12	28

Direction of Travel →

For Frame & Grate Details,
See Plan Sht. No. 14

Edge of Paved Shoulder

NOTE:
At Type 2 Drain Inlet reconstruction area, existing
ground/swale shall be graded or backfilled to drain.
This work shall be considered incidental to contract
Item No. 604.4332 - Reconstructed Type 2 Drain Inlet.

PLAN
Not to Scale

4'-4"

3'-0"

8"

8"

3'-0"

4'-4"

8"

4'-4"

3'-0"

8"

Install New Steel Frame & Grates
(See Details on Plan Sht. No. 14)

2 1/4" A.C. Pavt., Mix No. IV

top of exist. a.c. pav't.

Remove top 6" of exist. structure (three sides only)

existing 24" RCP

4'-4"

8"

3'-0"

8"

Reconstruct Top 12"± All Around

6"±

6"±

Remove top 1'-10"± of exist. conc. wall (this side only)

#4 bars @ 10" o.c.

Remove Exist. Frame & Grate

#4 Dowels @ 12" o.c. (Typ.)

6" (Typ.)

5/8"ø x 6" Drilled Hole Fill Annular Space with Epoxy (Typ.)

Remove Exist. Frame & Grate

#4 bars @ 10" o.c.

6" (Typ.)

SECTION D

Not to Scale

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE DETAILS

SECTION D
Not to Scale 12 | 12

SECTION C
Not to Scale 12 | 12

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE DETAILS

KUAMOO ROAD RESURFACING

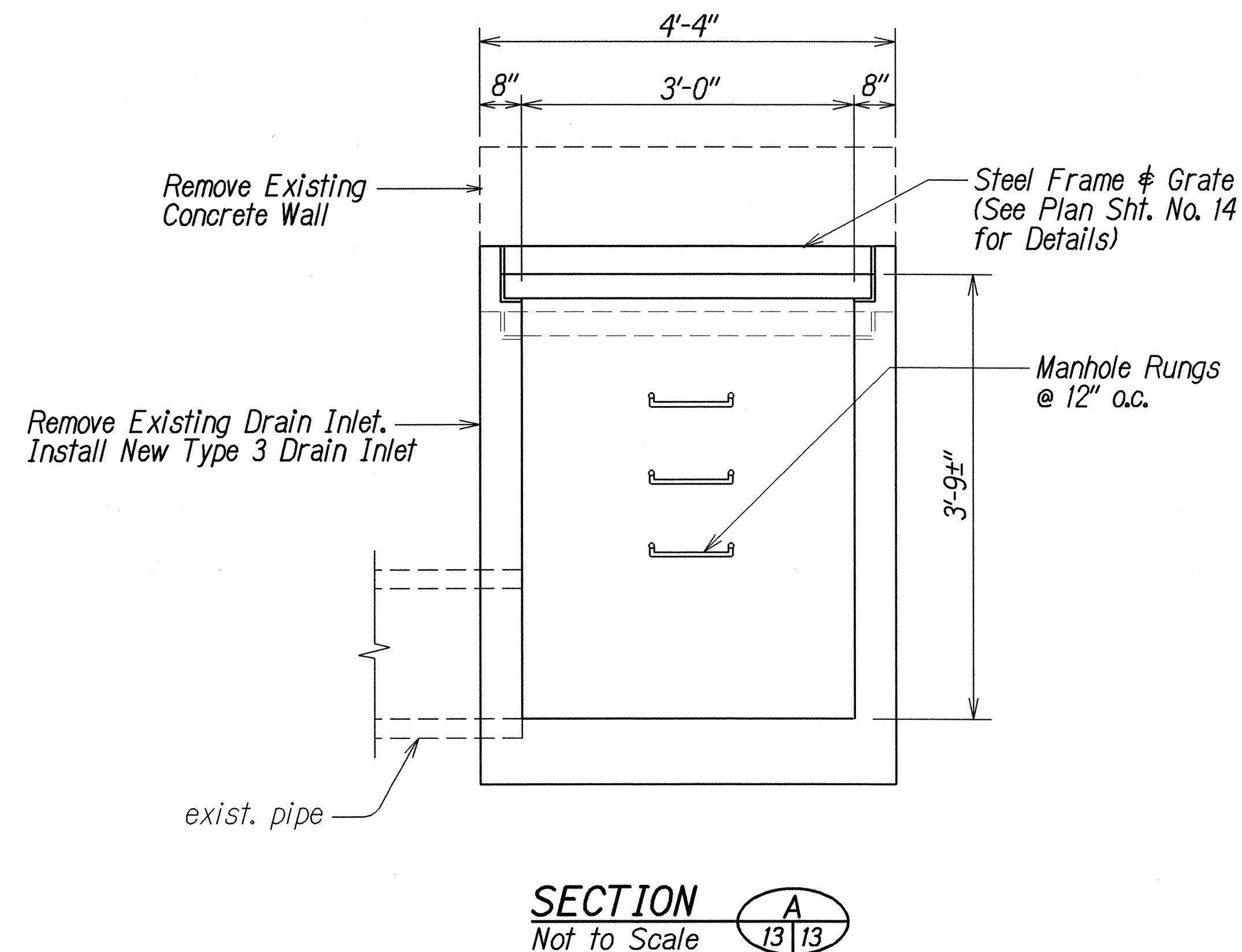
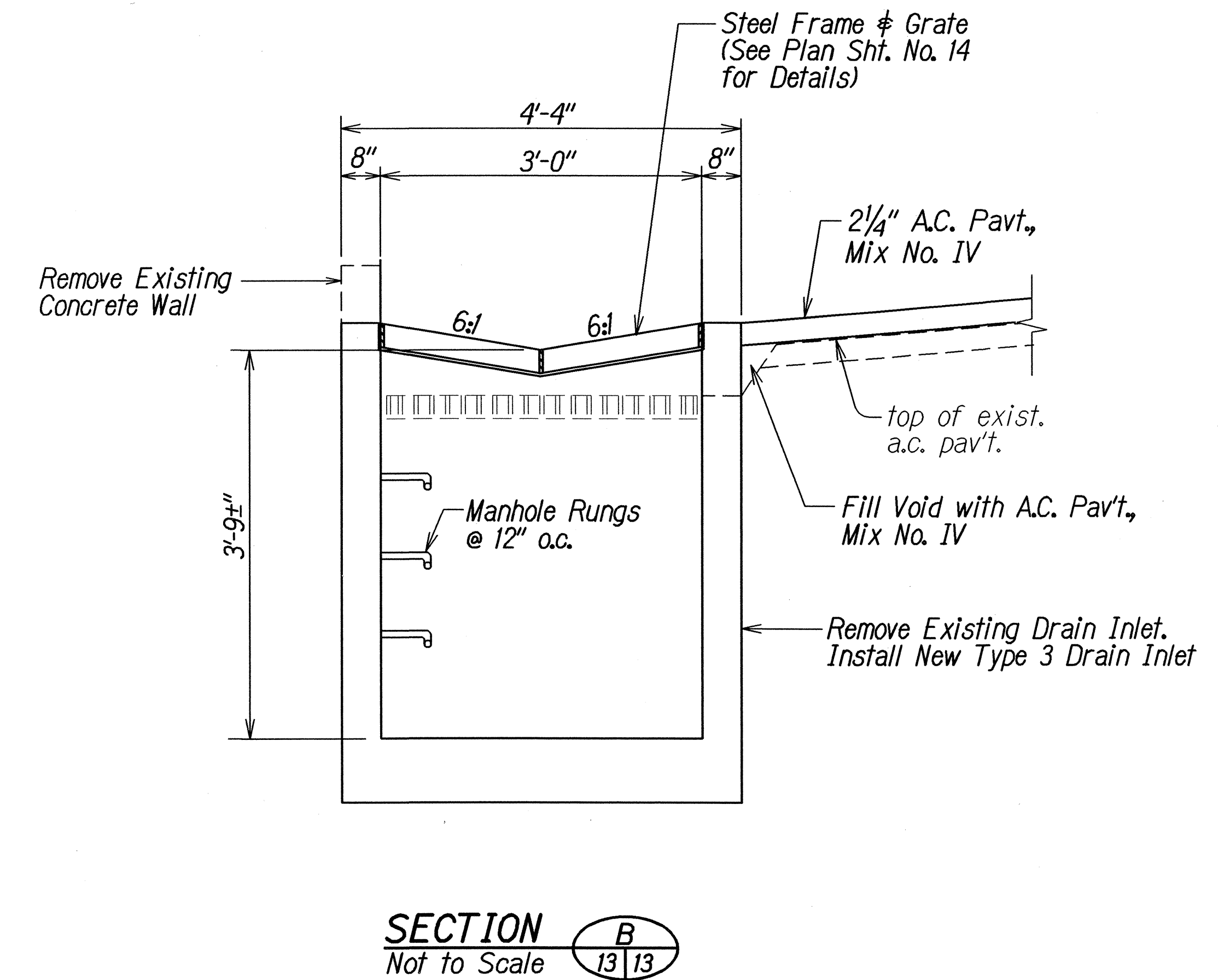
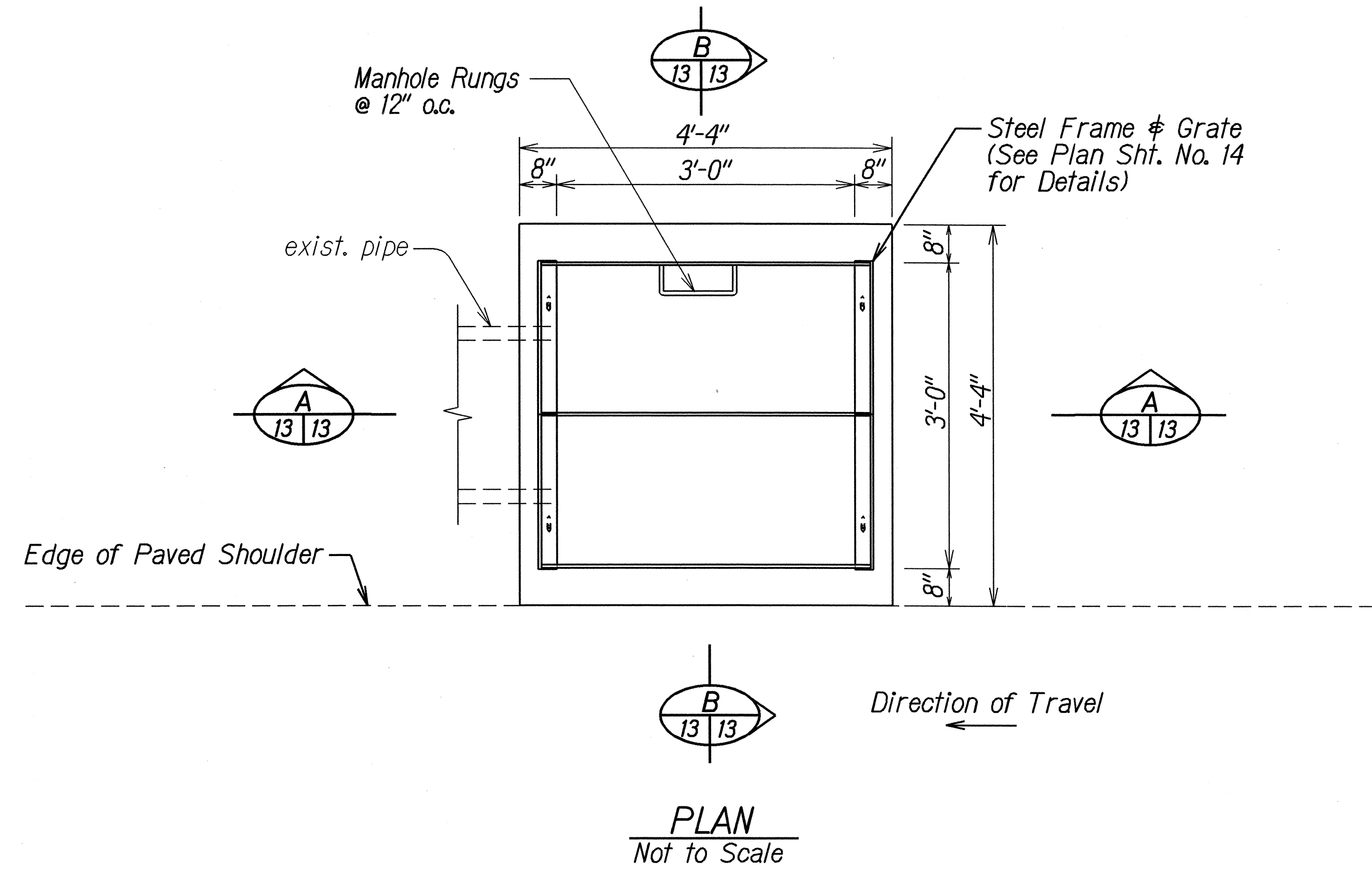
Vicinity of Hawaiiana Street to Lilla Place

Project No. 580A-01-06M

Scale: As Shown Date: March 2006

SHEET No. 1 OF 3 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	580A-01-06M	2006	13	28



NOTES:

- Existing ground/swale shall be graded or backfilled to drain. This work shall be considered incidental to contract Item No. 604.4300 - Type 3 Drain Inlet.
- Demolishing, removing and disposing of existing drain structure, and all excavation work shall be considered incidental to contract Item No. 604.4330 - Type 3 Drain Inlet.

DETAIL OF TYPE 3 DRAIN INLET

ORIGINAL PLAN	DATE
DESIGNED BY	10/05
CHECKED BY	
NOTED BY	
QUANTITIES BY	
DESIGNED BY	
CHECKED BY	
NOTED BY	
QUANTITIES BY	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

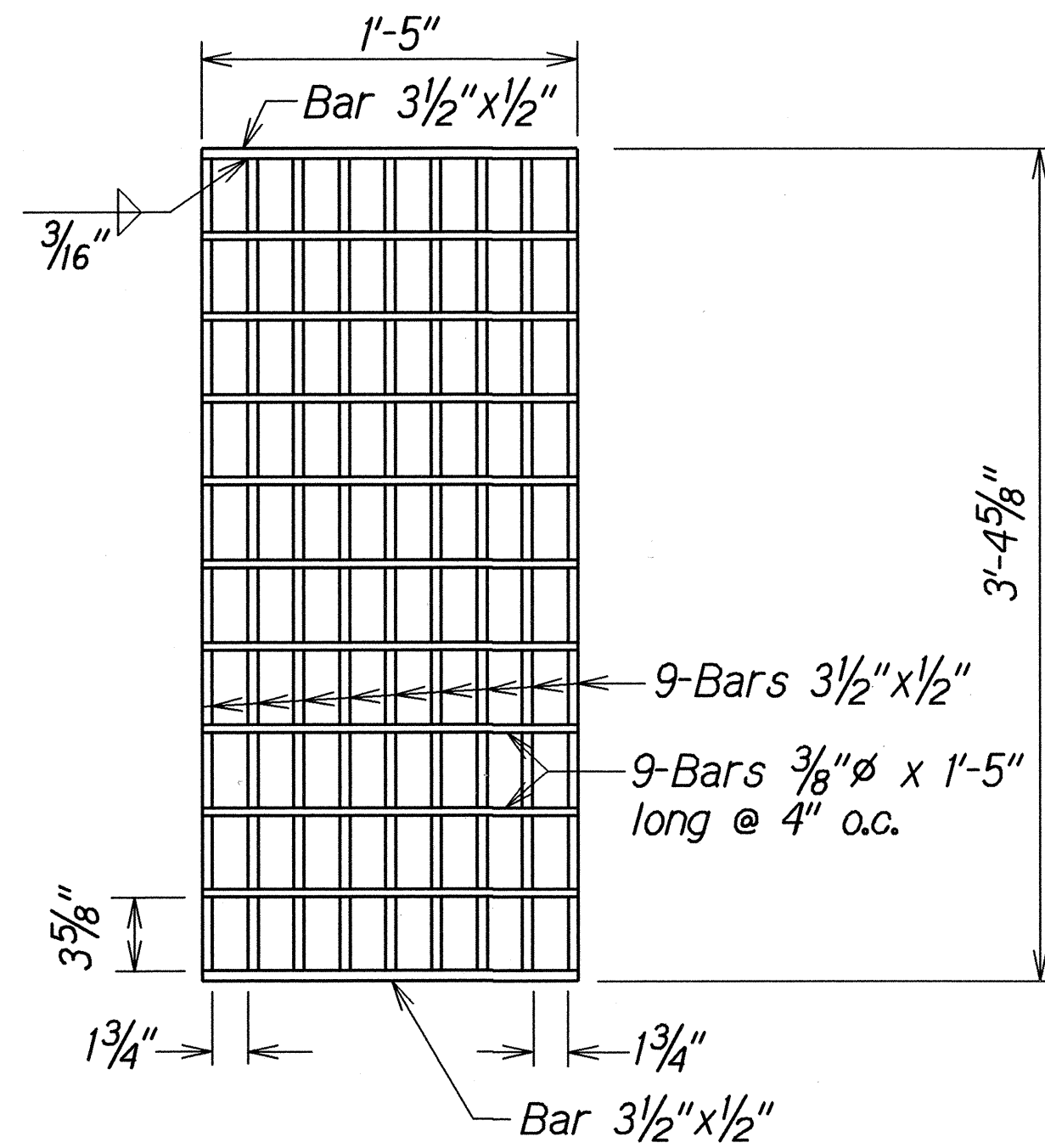
DRAINAGE DETAILS

KUAMOO ROAD RESURFACING
Vicinity of Hawaiiana Street to Liliu Place
Project No. 580A-01-06M

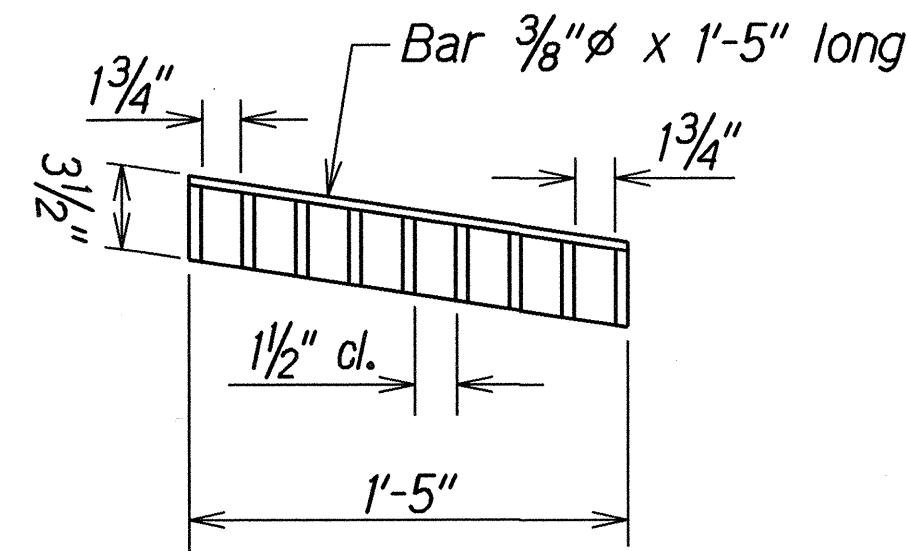
Scale: As Shown Date: March 2006

SHEET No. 2 OF 3 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	580A-01-06M	2006	14	28



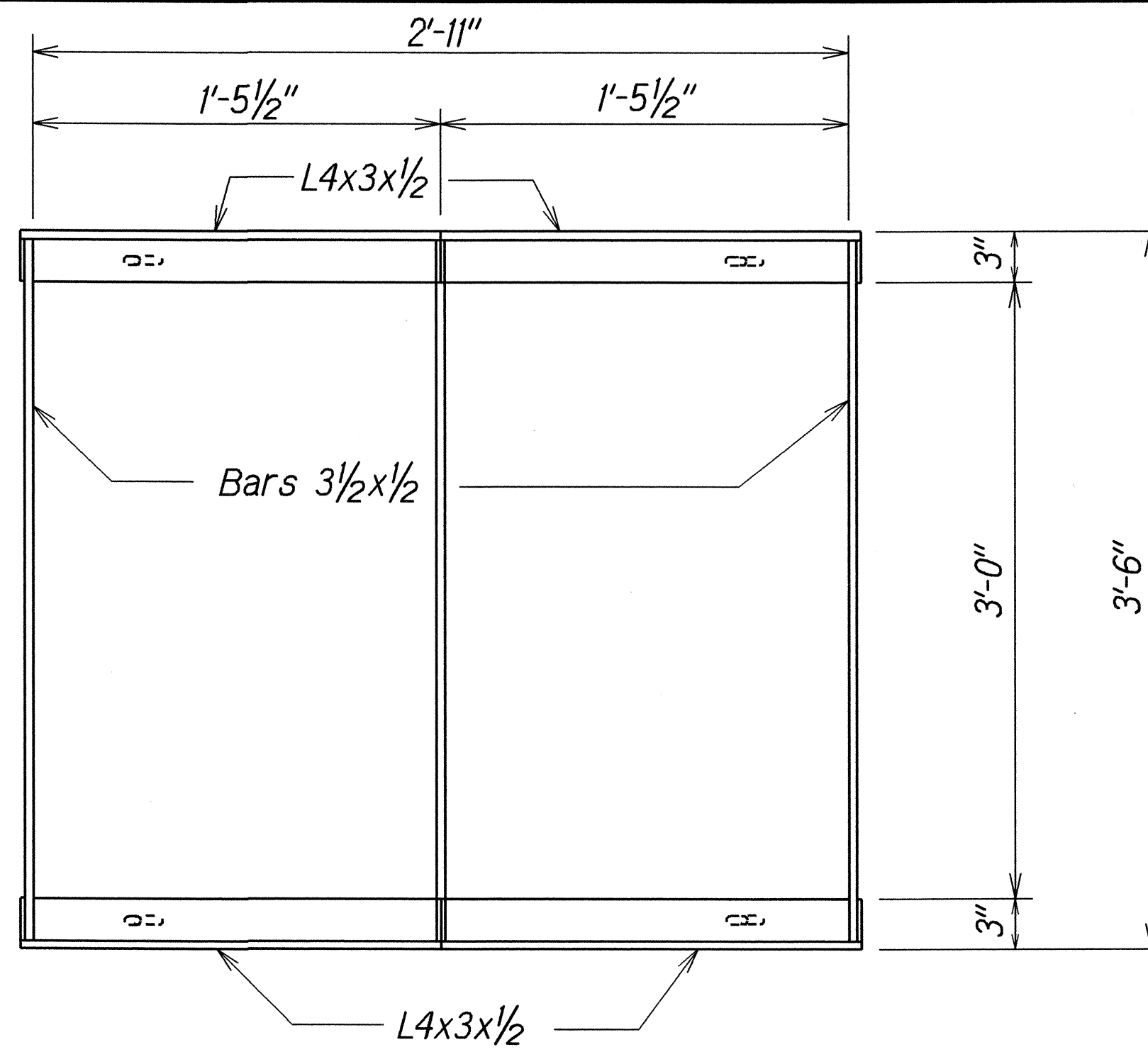
PLAN



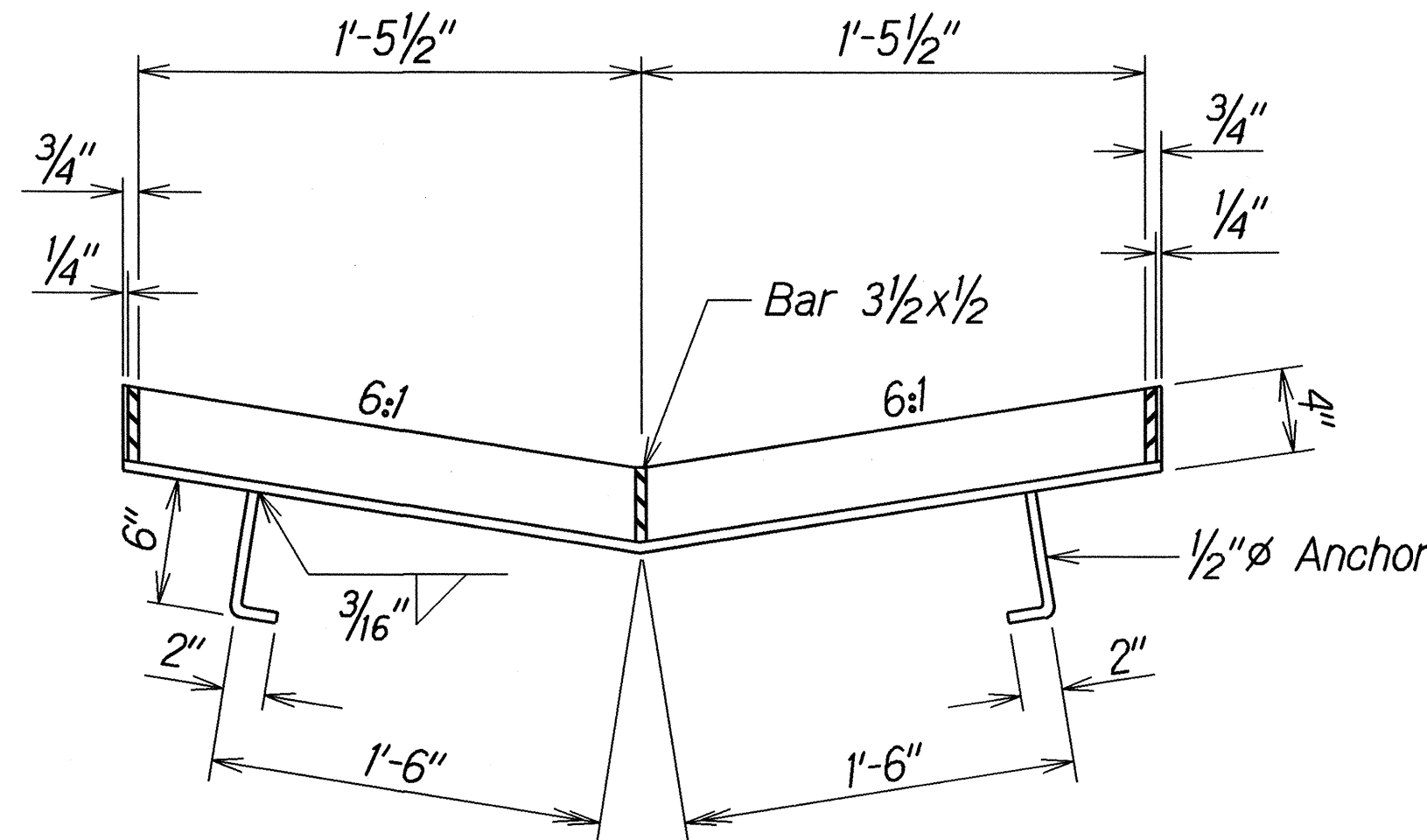
SECTION

GRATE

Not to Scale



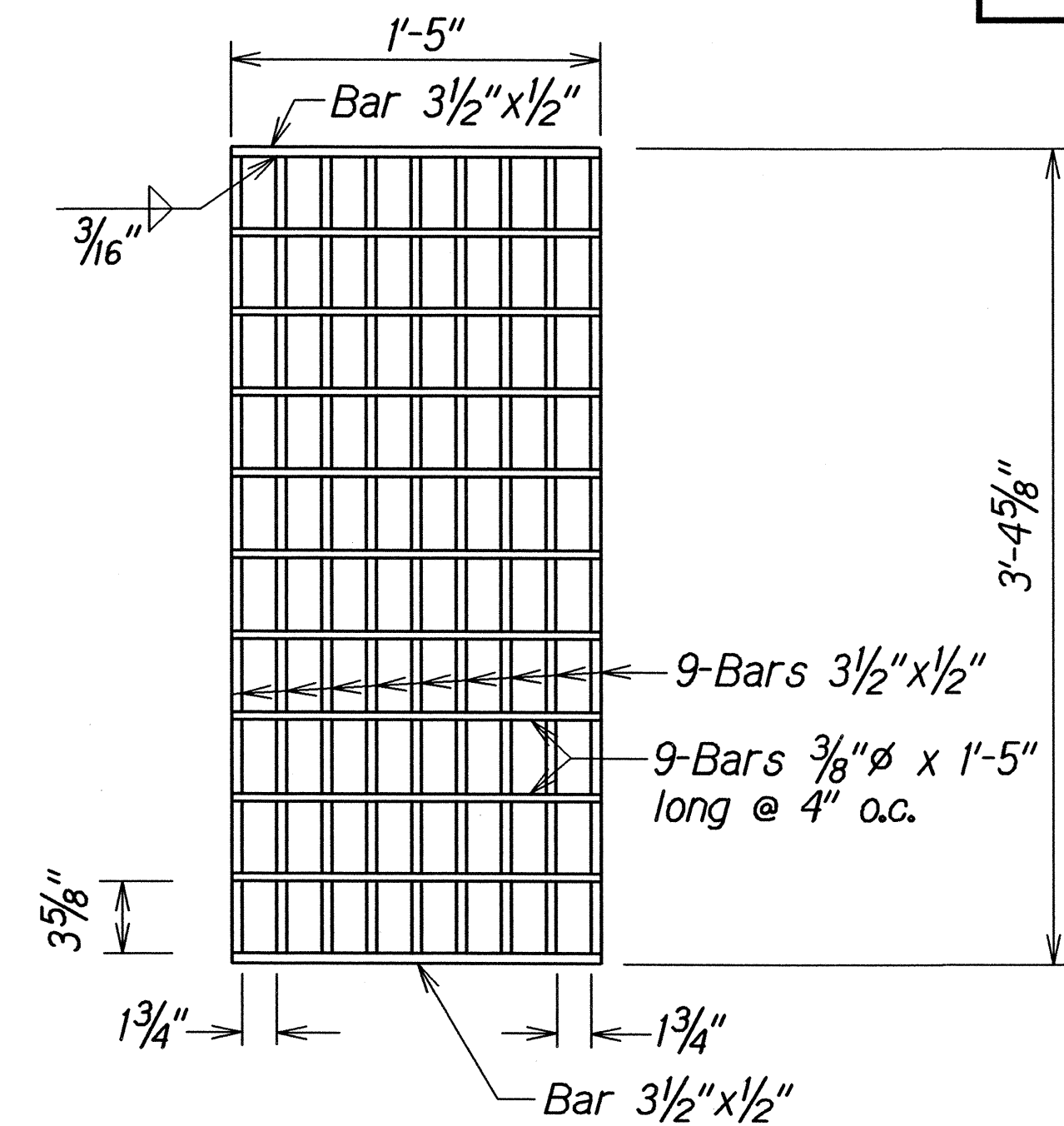
PLAN



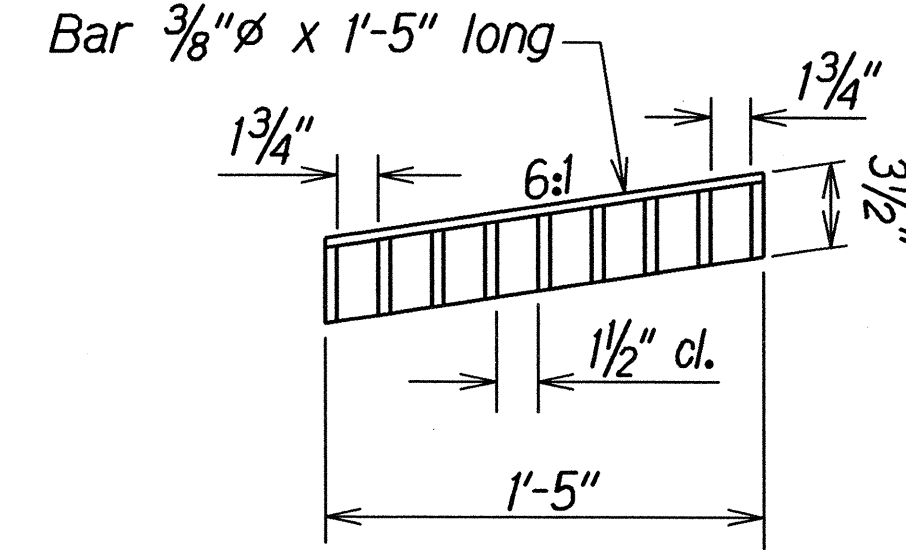
SECTION

FRAME

Not to Scale



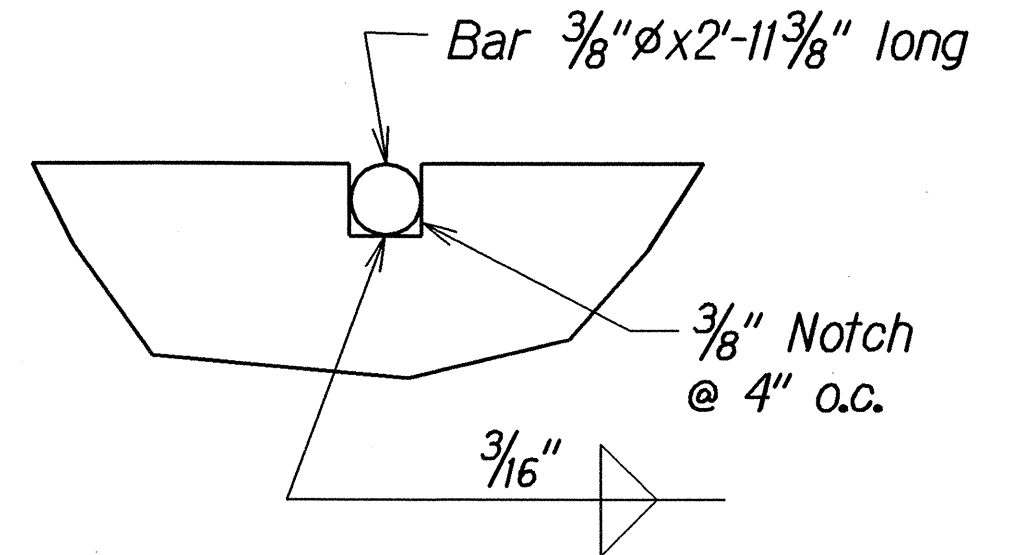
PLAN



SECTION

GRATE

Not to Scale



NOTCH DETAIL

Full Size

TYPICAL DETAILS OF STEEL FRAME AND GRATES

NOTES:

1. All welds $\frac{3}{8}$ " unless otherwise noted.
2. All steel items shall be hot-dip galvanized after fabrication.
3. Apply two layers of zinc coating to all welded areas after fabrication.
4. Removing and disposing of existing concrete, steel frames, grates and all appurtenances shall not be paid for separately but shall be considered incidental to the various contract items.

ORIGINAL PLAN	DATE	10/05
DRAWN BY	DESIGNED BY	
NOTED BY	CHECKED BY	
QUANTITIES BY		
REVISIONS		

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
<u>DRAINAGE DETAILS</u>	
<u>KUAMOO ROAD RESURFACING</u>	
<u>Vicinity of Hawaiiana Street to Lilia Place</u>	
<u>Project No. 580A-01-06M</u>	
Scale: As Shown	Date: March 2006
SHEET No. 3 OF 3 SHEETS	