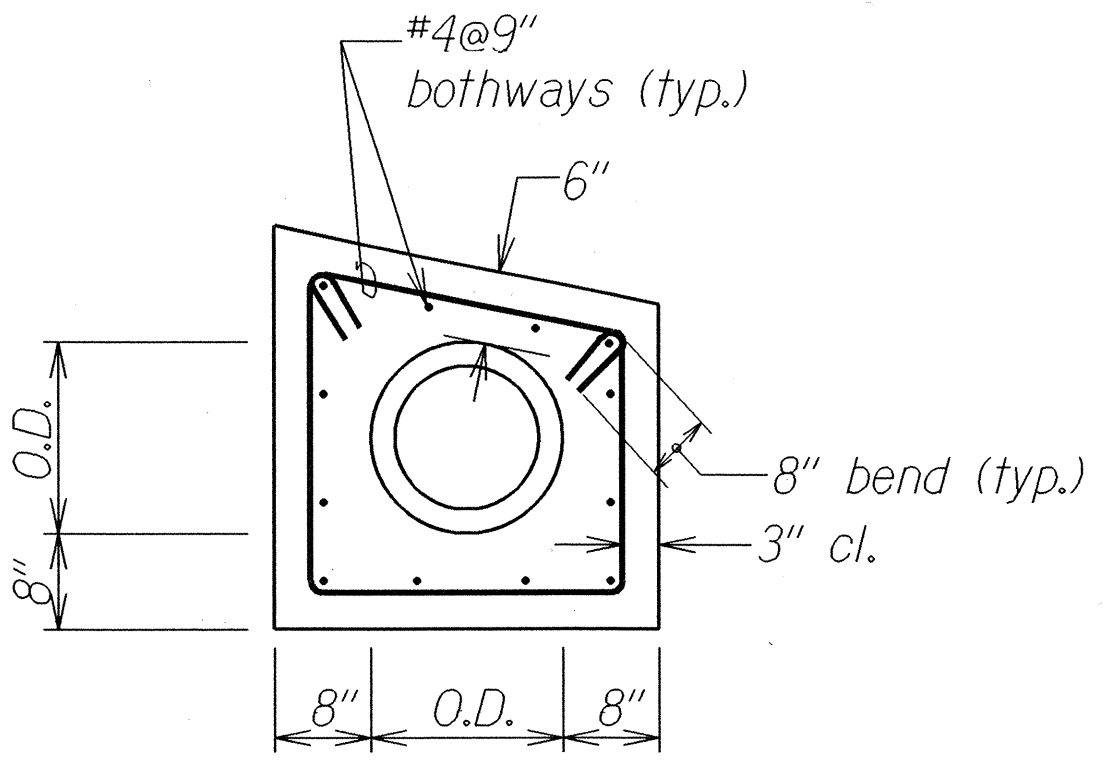
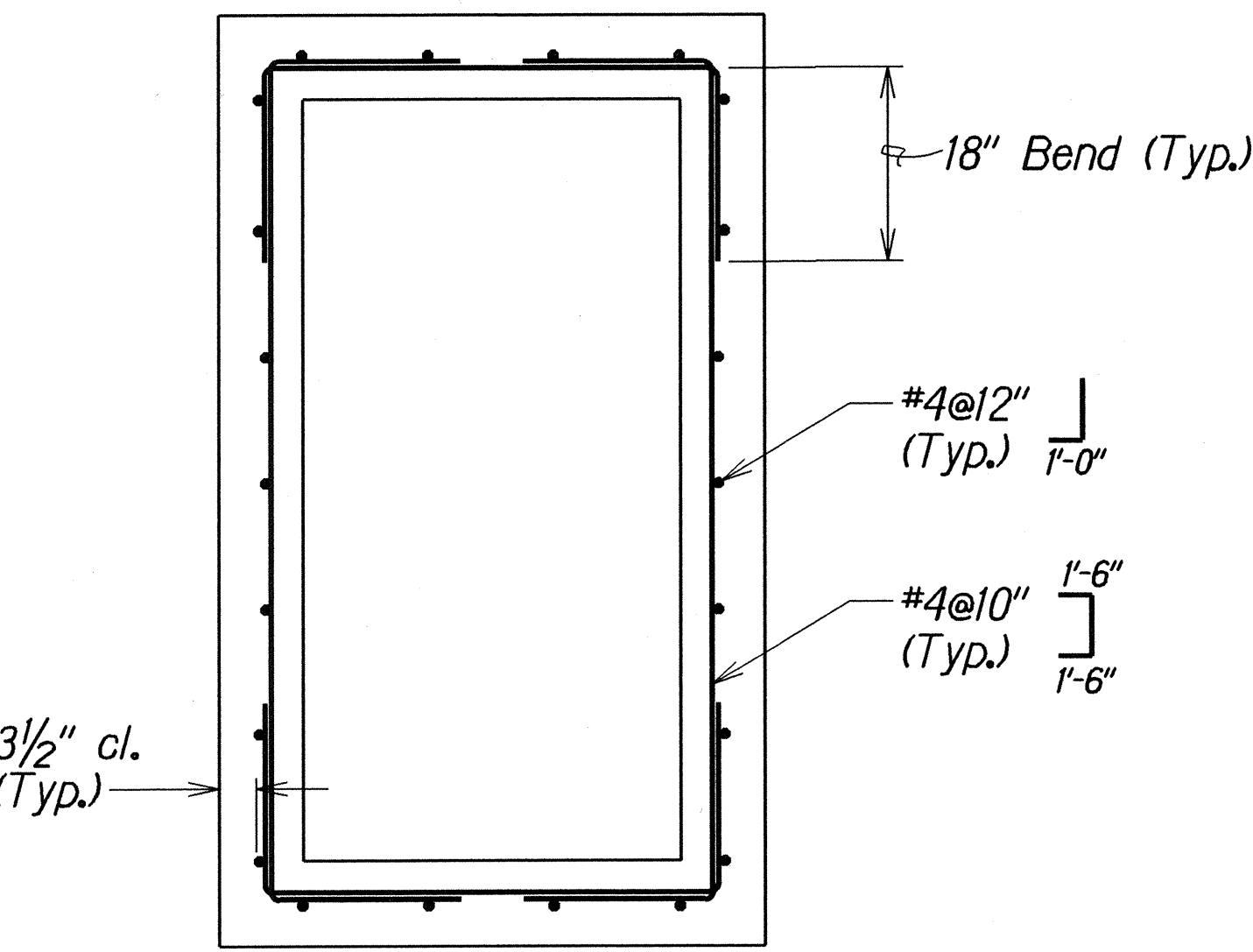
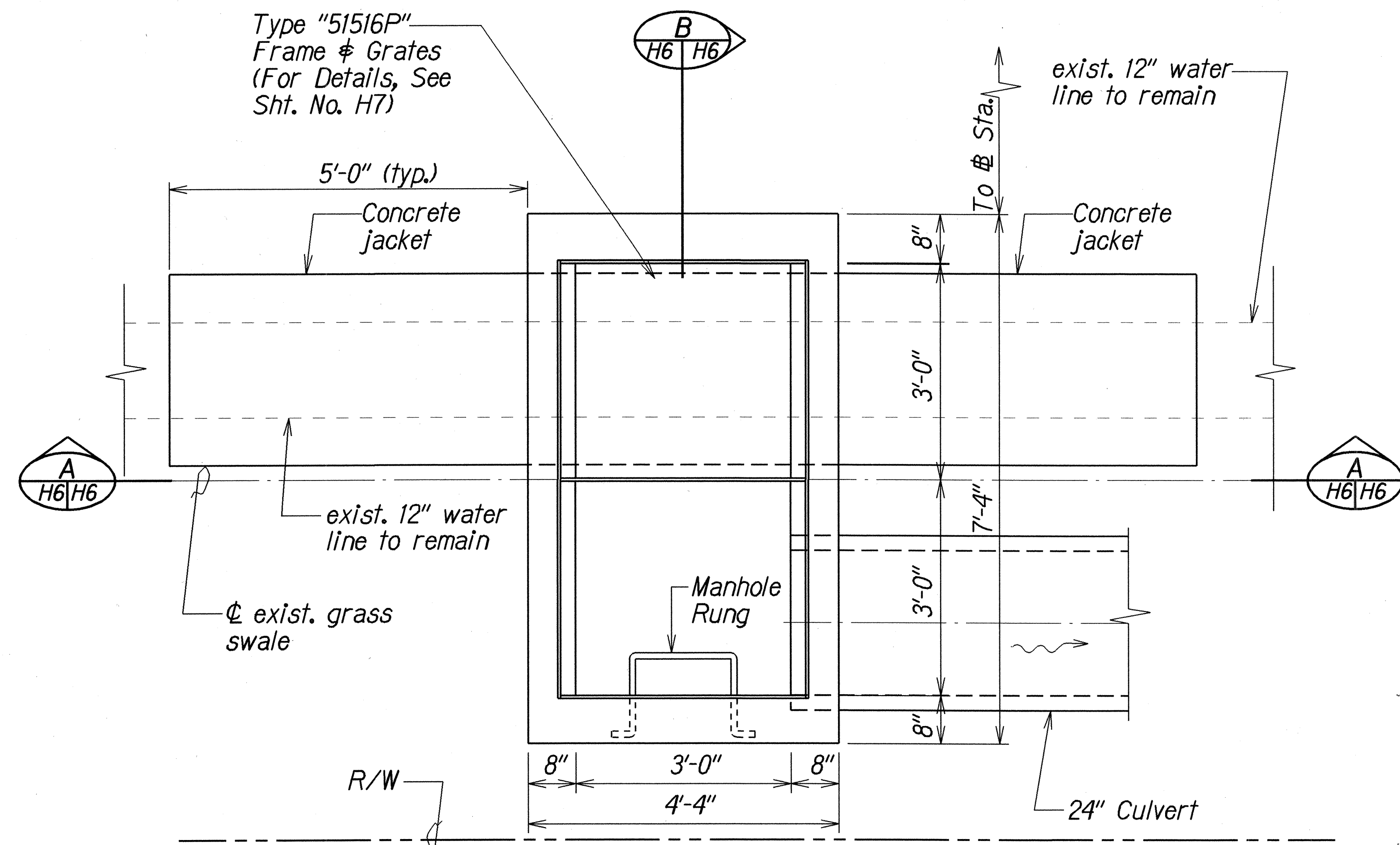
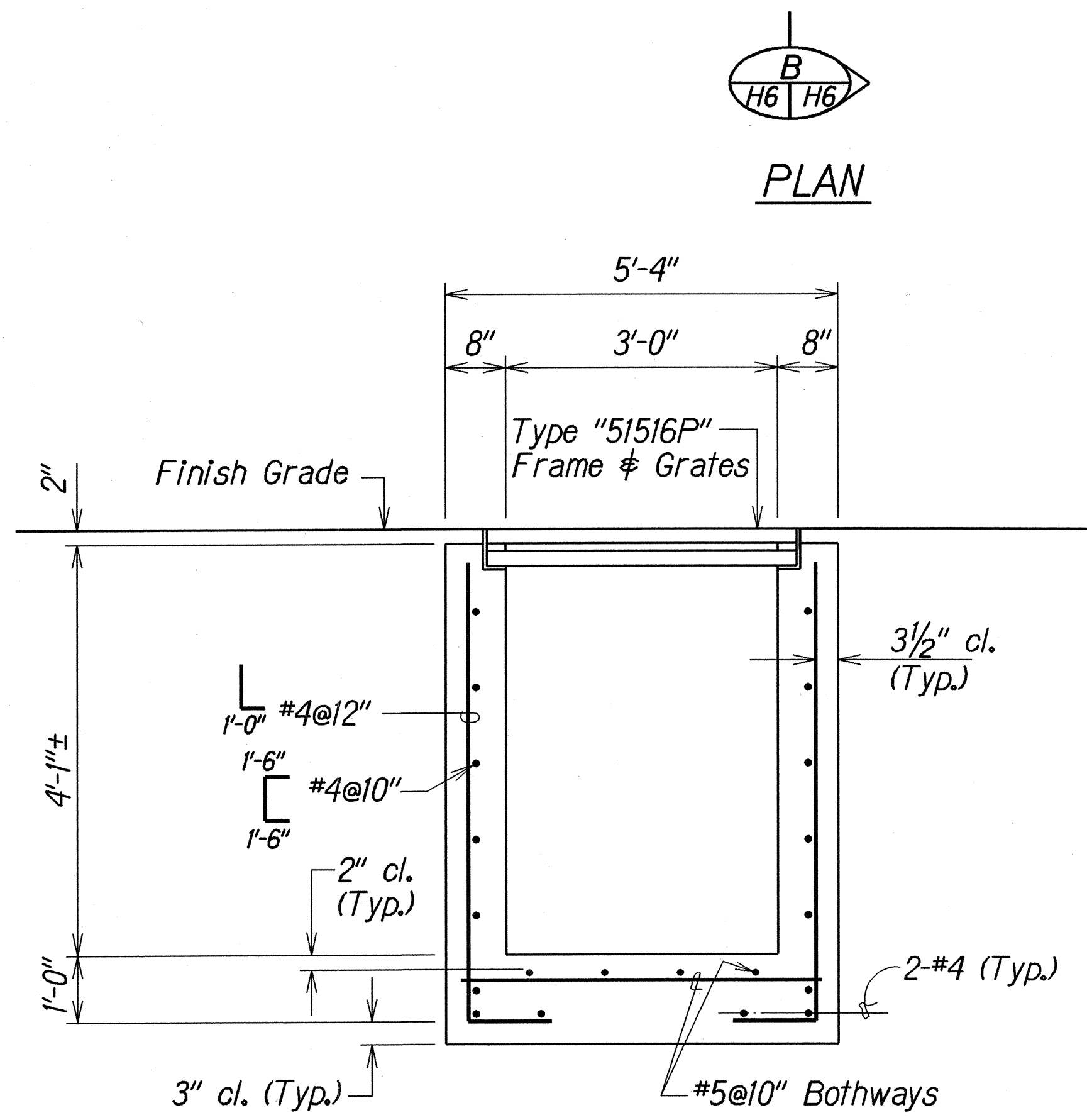


| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | DE-0200(803)       | 2000        | 17        | 79           |

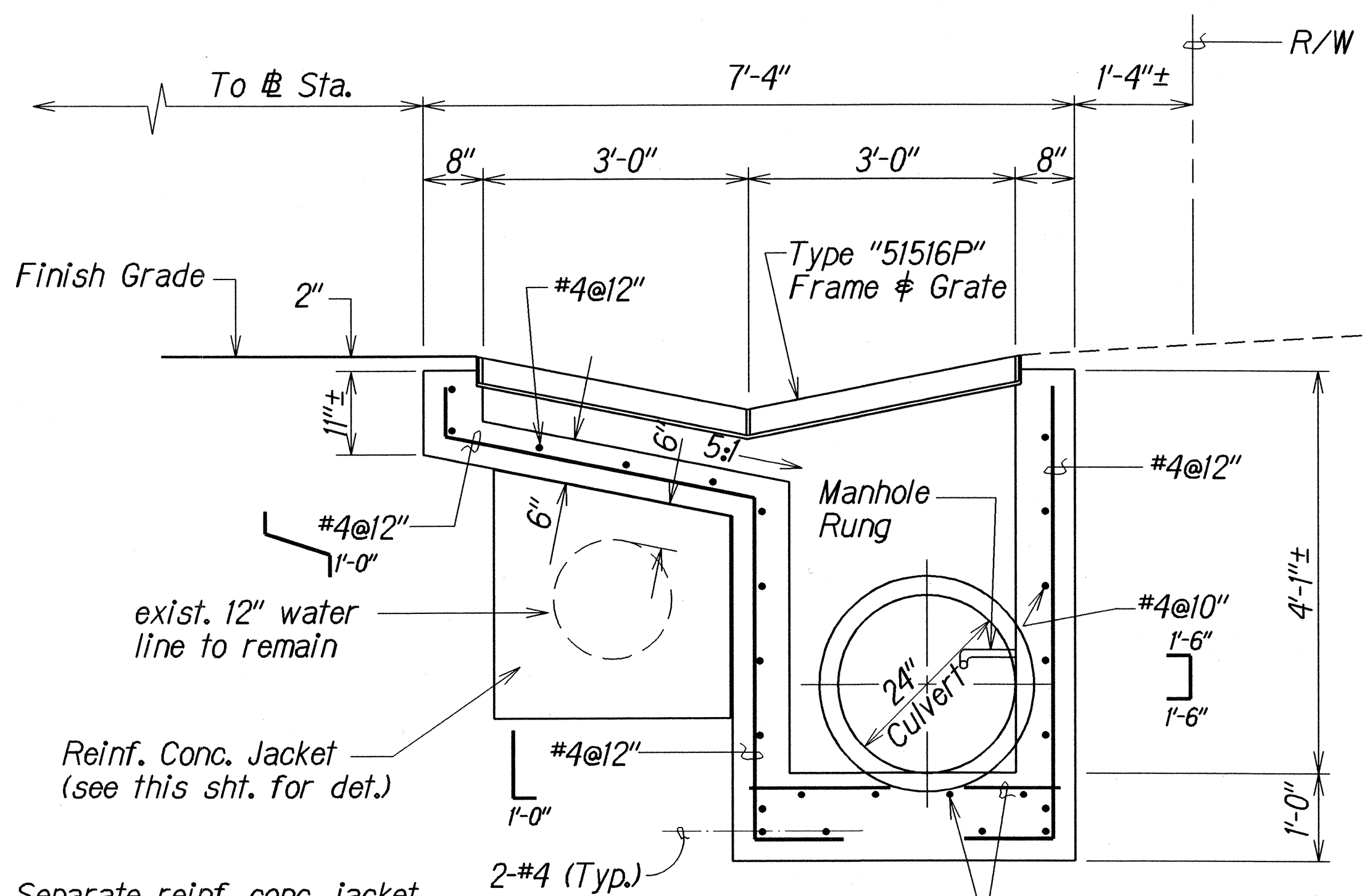


Note: Reinforcing Steel for Concrete Jacket shall conform to the requirements of ASTM 615 Grade 60.

### TYPICAL DETAILS OF REINFORCED CONCRETE JACKET



SECTION A-H6/H6



SECTION B-H6/H6

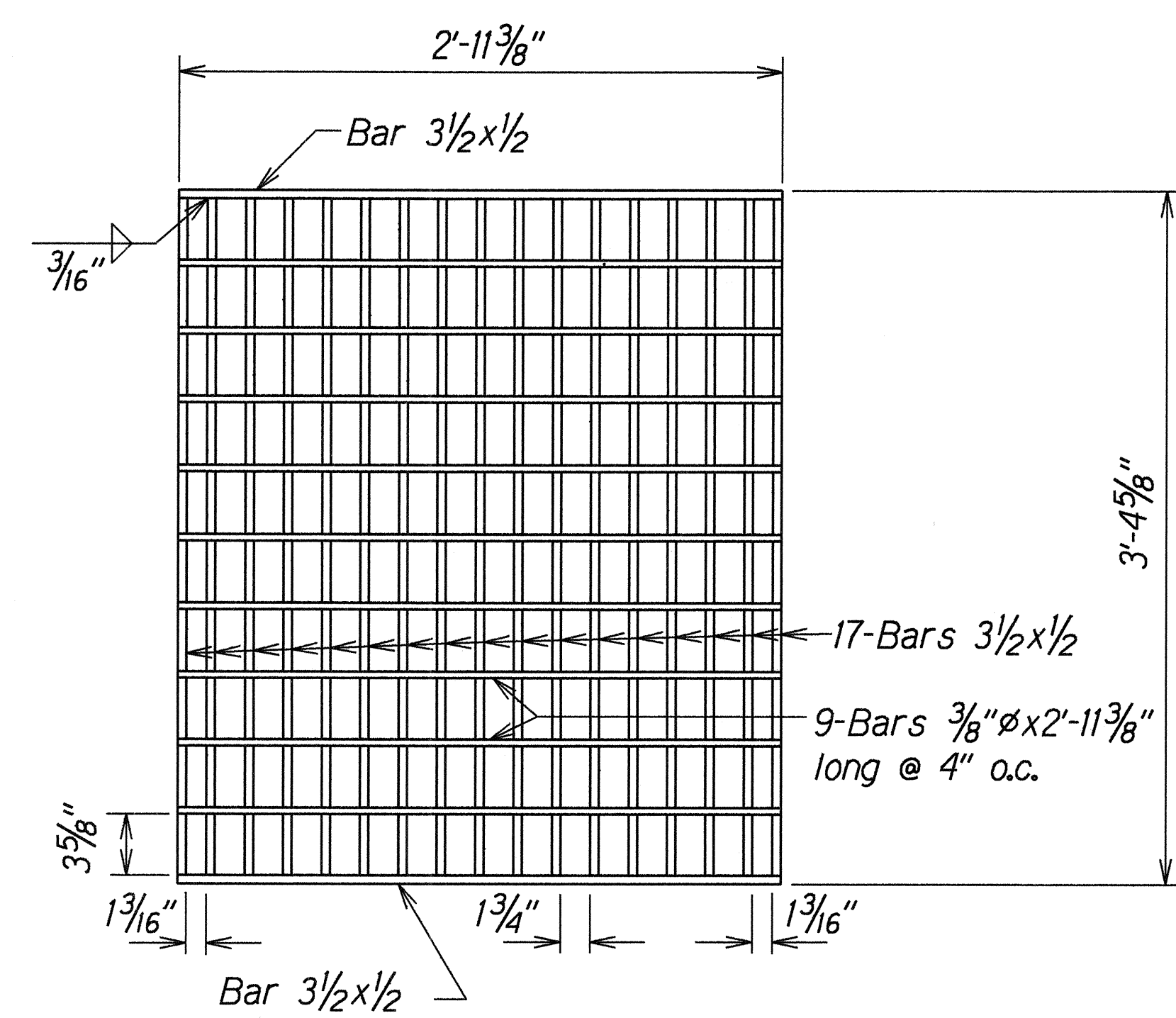
Note: Separate reinf. conc. jacket and "51516P" GDI with 30 lb felt.

### TYPICAL DETAILS OF TYPE "51516P" GRATED DROP INLET

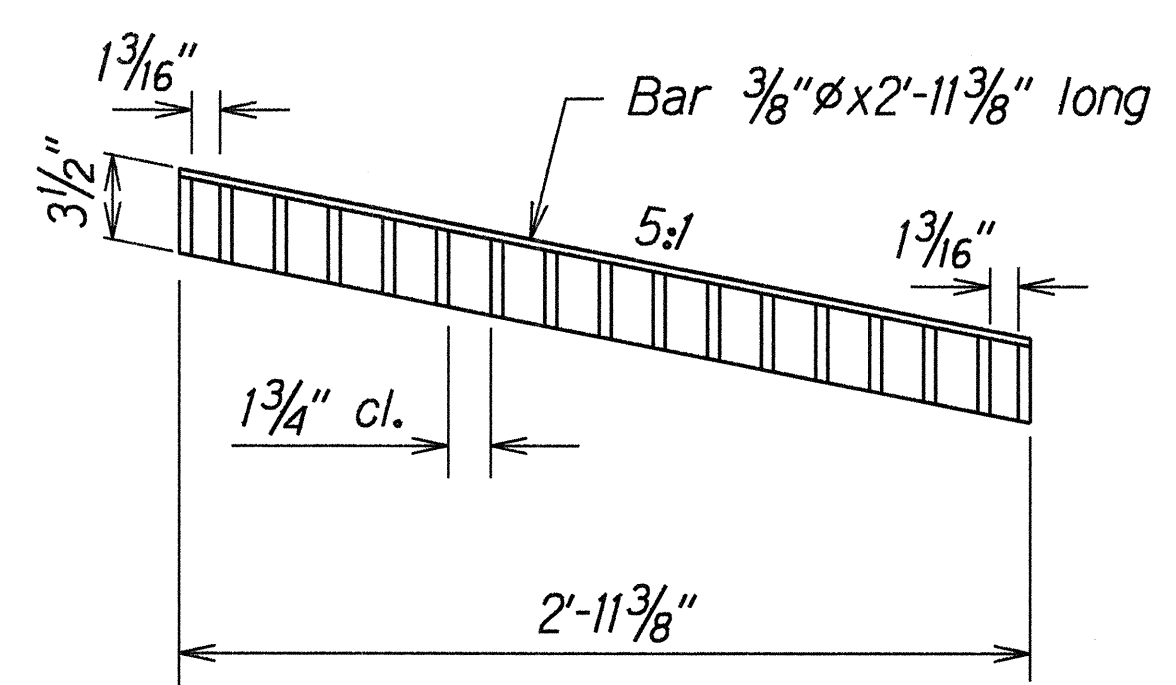
|               |             |            |
|---------------|-------------|------------|
| ORIGINAL PLAN | DATE        | 5/15/00    |
| DRAWN BY      | DESIGNED BY | CHECKED BY |
| QUANTITIES BY |             |            |

| 4/21/01                                                              | Revised detail of GDI; added waterline jacket detail |
|----------------------------------------------------------------------|------------------------------------------------------|
| DATE                                                                 | REVISION                                             |
| STATE OF HAWAII<br>DEPARTMENT OF TRANSPORTATION<br>HIGHWAYS DIVISION |                                                      |
| <b>DRAINAGE DETAIL</b>                                               |                                                      |
| <b>KAMEHAMEHA HIGHWAY</b>                                            |                                                      |
| <b>INTERSECTION IMPROVEMENTS AT</b>                                  |                                                      |
| <b>LEILEHUA GOLF COURSE ROAD</b>                                     |                                                      |
| Fed. Aid Proj. No. DE-0200(803)                                      |                                                      |
| Scale: 3/4"=1'-0"                                                    | Date: May, 2000                                      |
| SHEET No. H6 OF 14 SHEETS                                            |                                                      |

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | DE-0200(803)       | 2000        | 18        | 79           |



PLAN

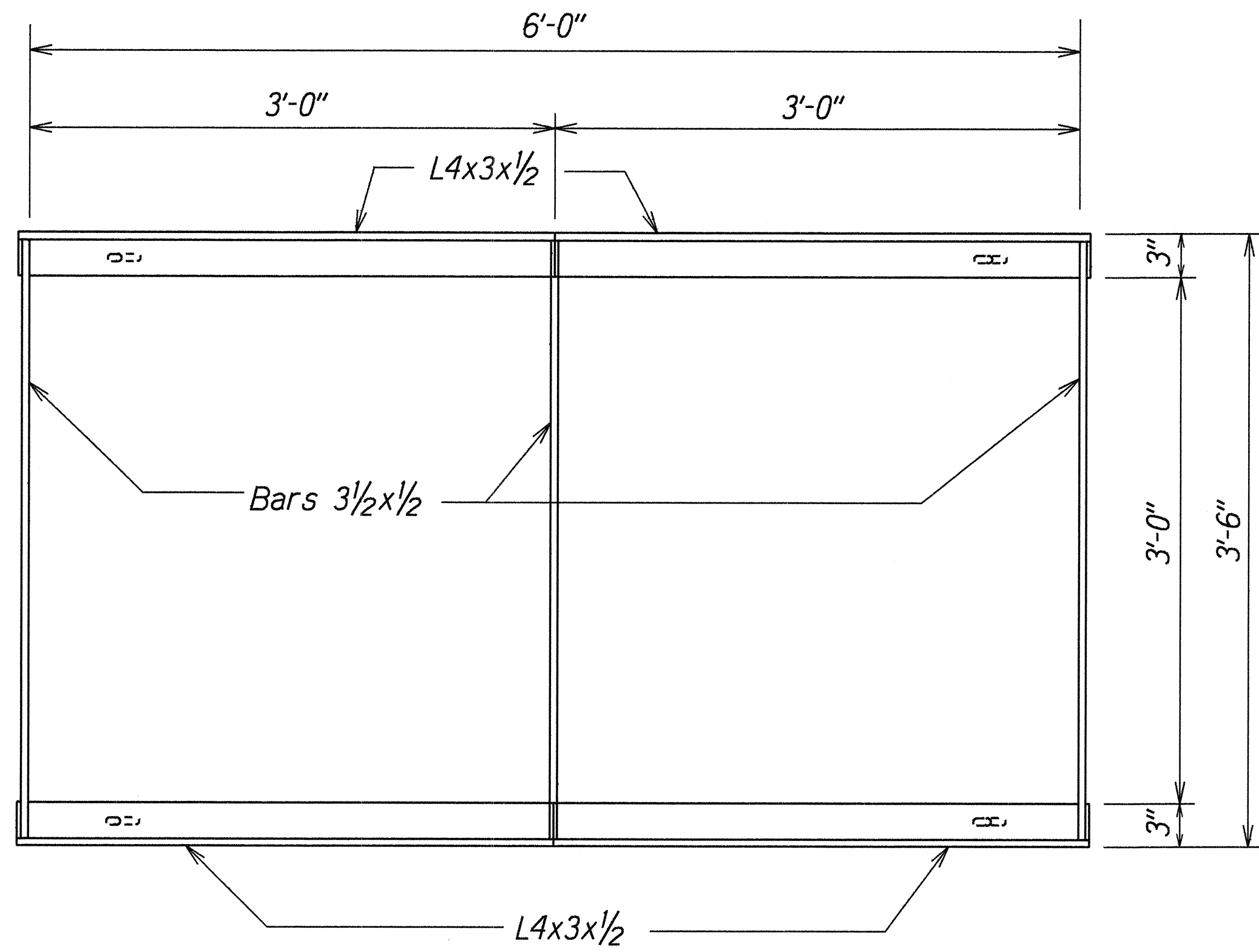


SECTION

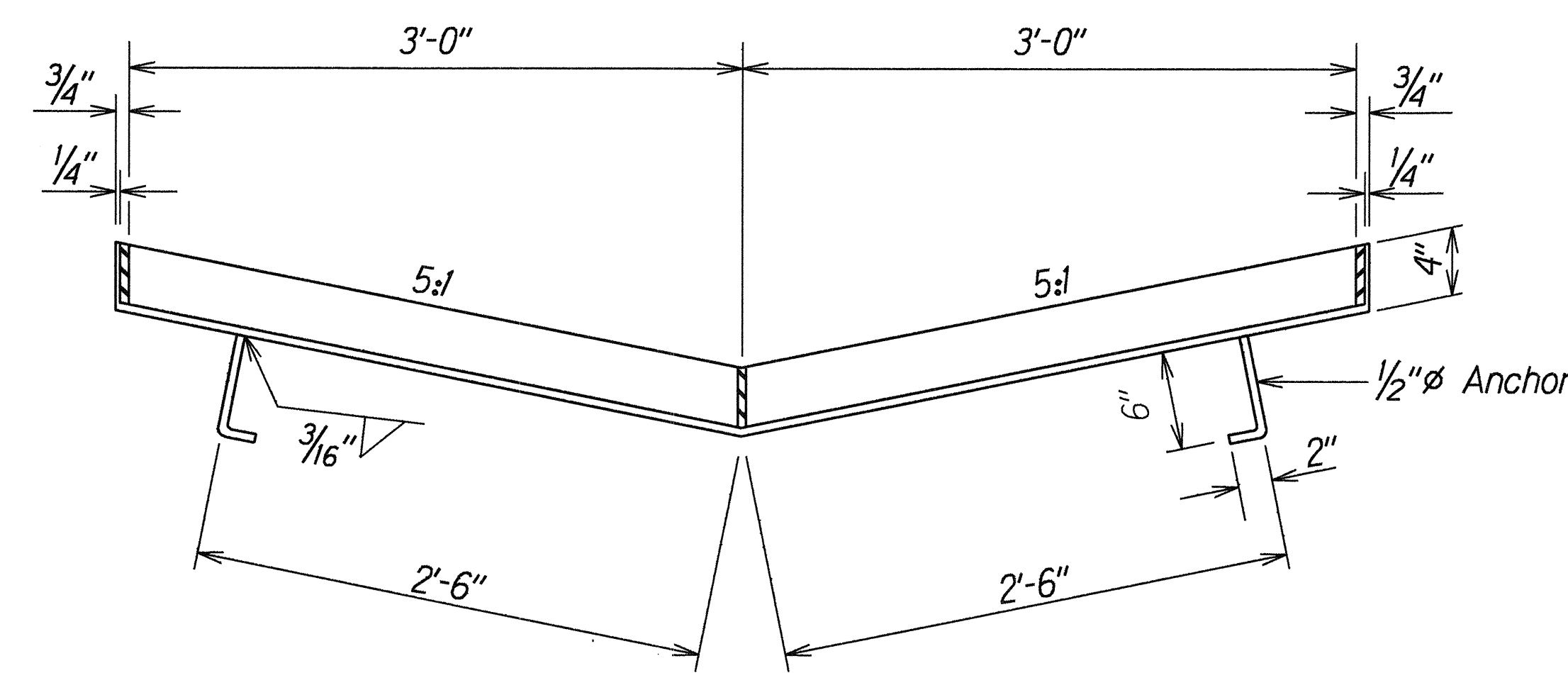
GRATE

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

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



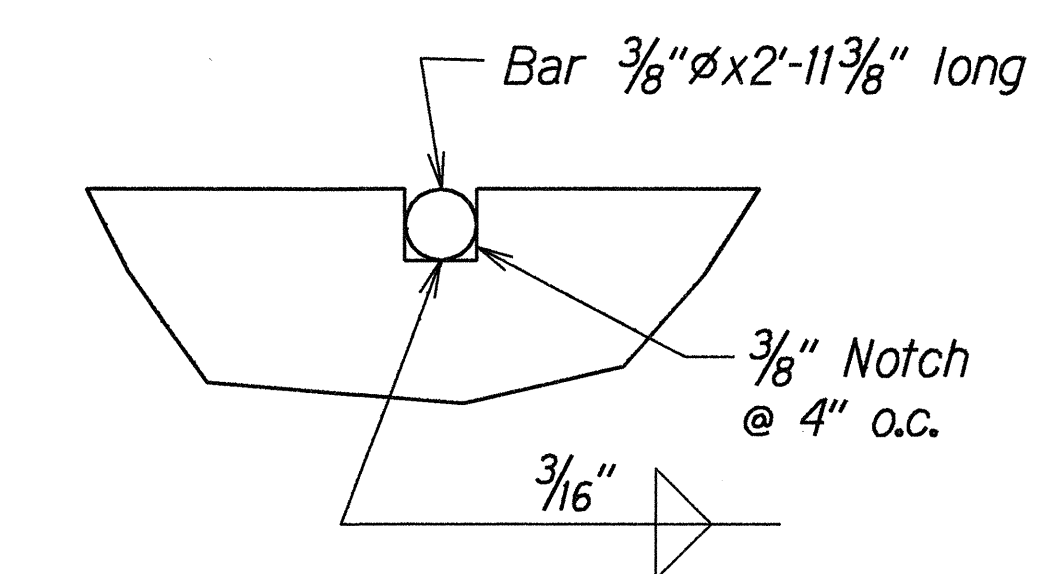
PLAN



SECTION

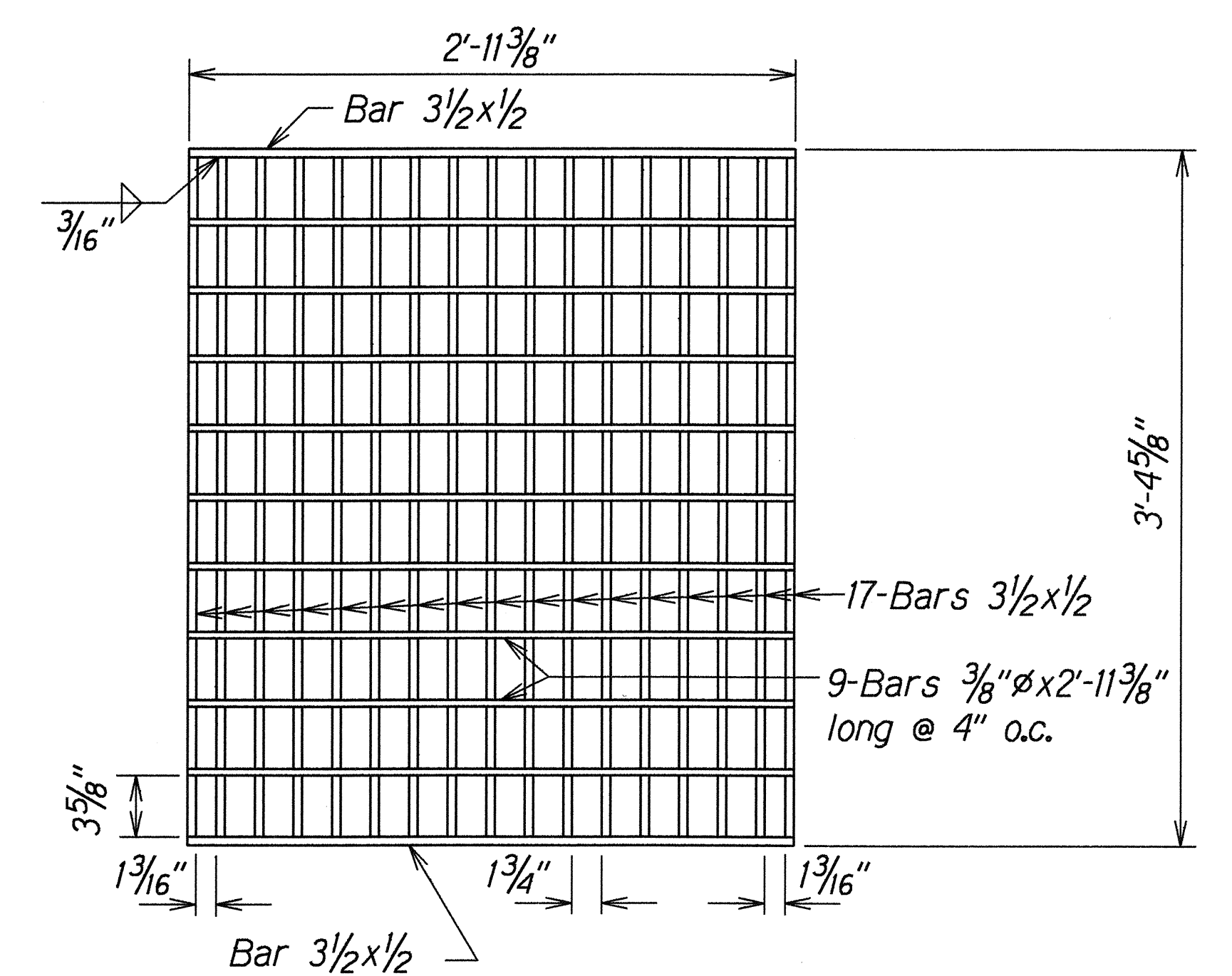
FRAME

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

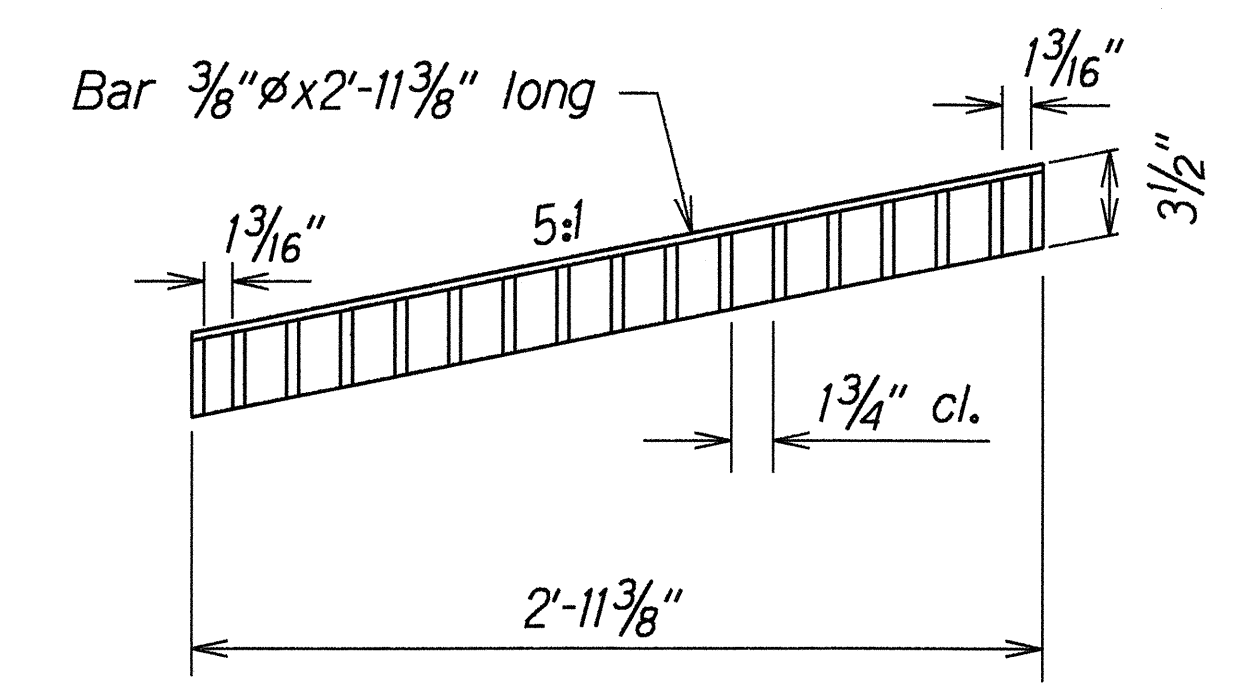


NOTCH DETAIL

Full Size



PLAN



SECTION

GRATE

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

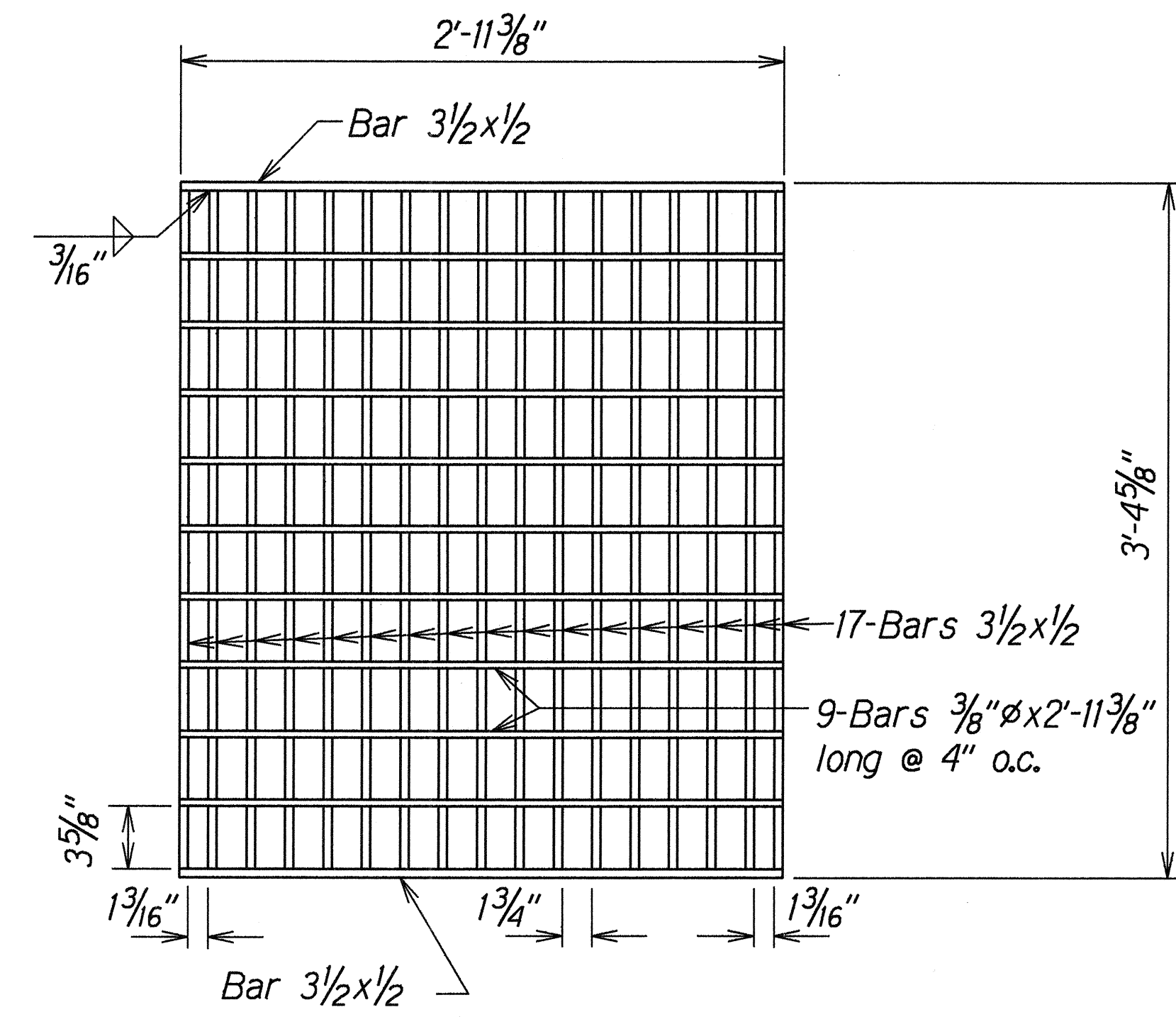
STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**DRAINAGE DETAIL**  
KAMEHAMEHA HIGHWAY  
INTERSECTION IMPROVEMENTS AT  
LEILEHUA GOLF COURSE ROAD  
Fed. Aid Proj. No. DE-0200(803)  
Scale: As Shown Date: May, 2000

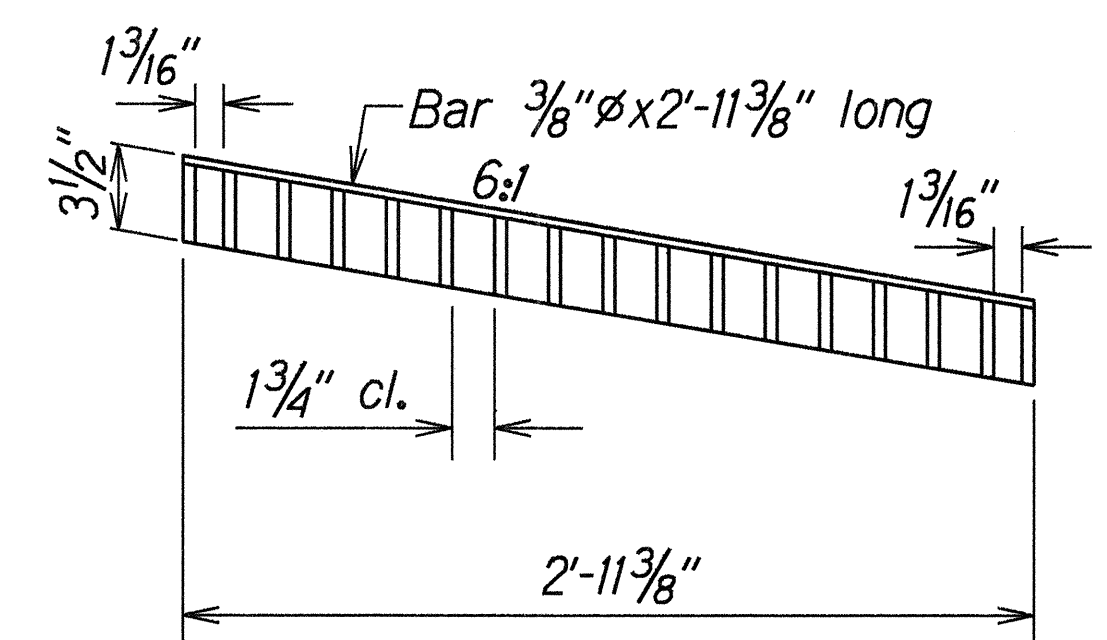
SHEET No. H7 OF 14 SHEETS

TYPICAL DETAILS OF TYPE "51516P" STEEL FRAME AND GRATES

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | DE-0200(803)       | 2000        | 19        | 79           |



PLAN

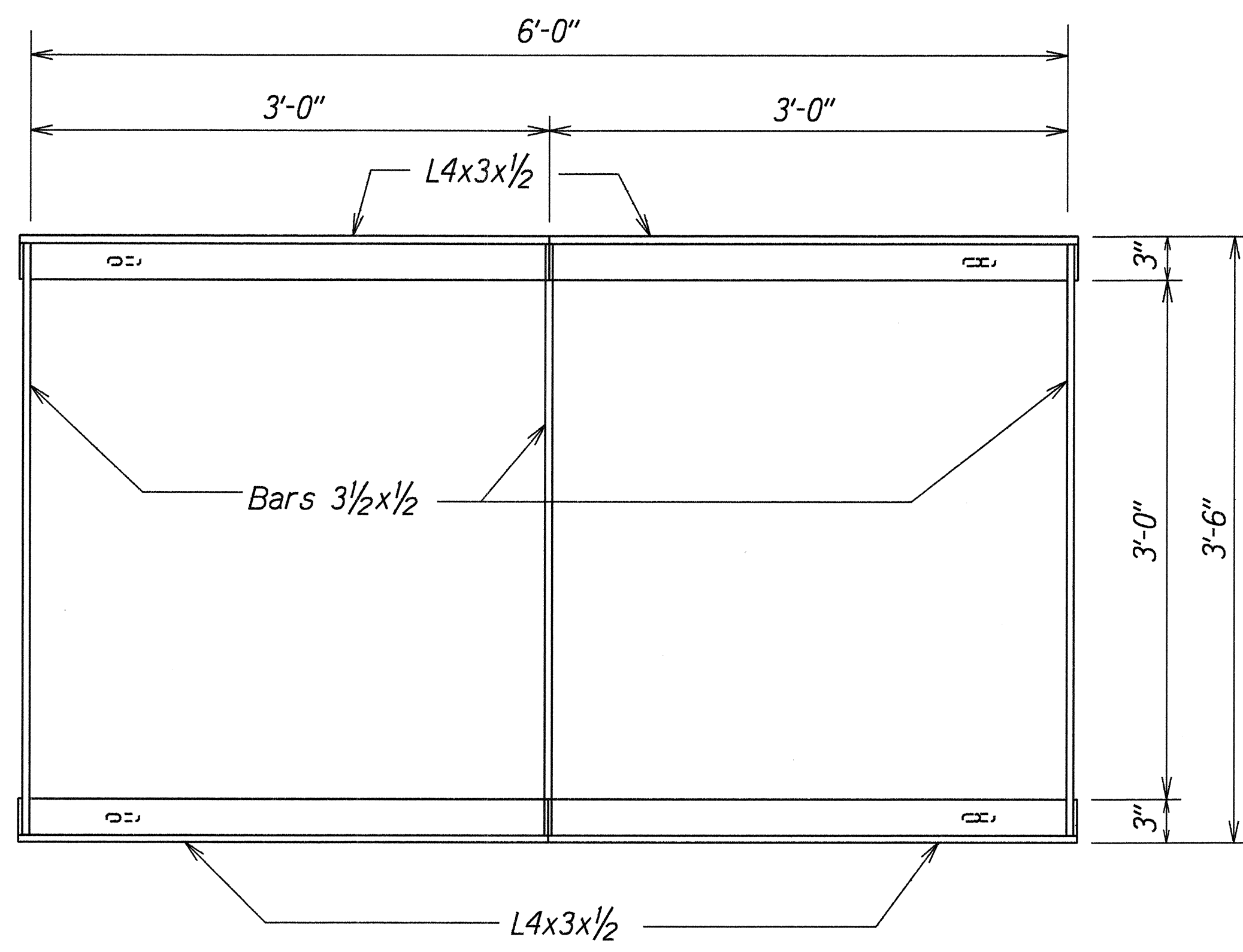


SECTION

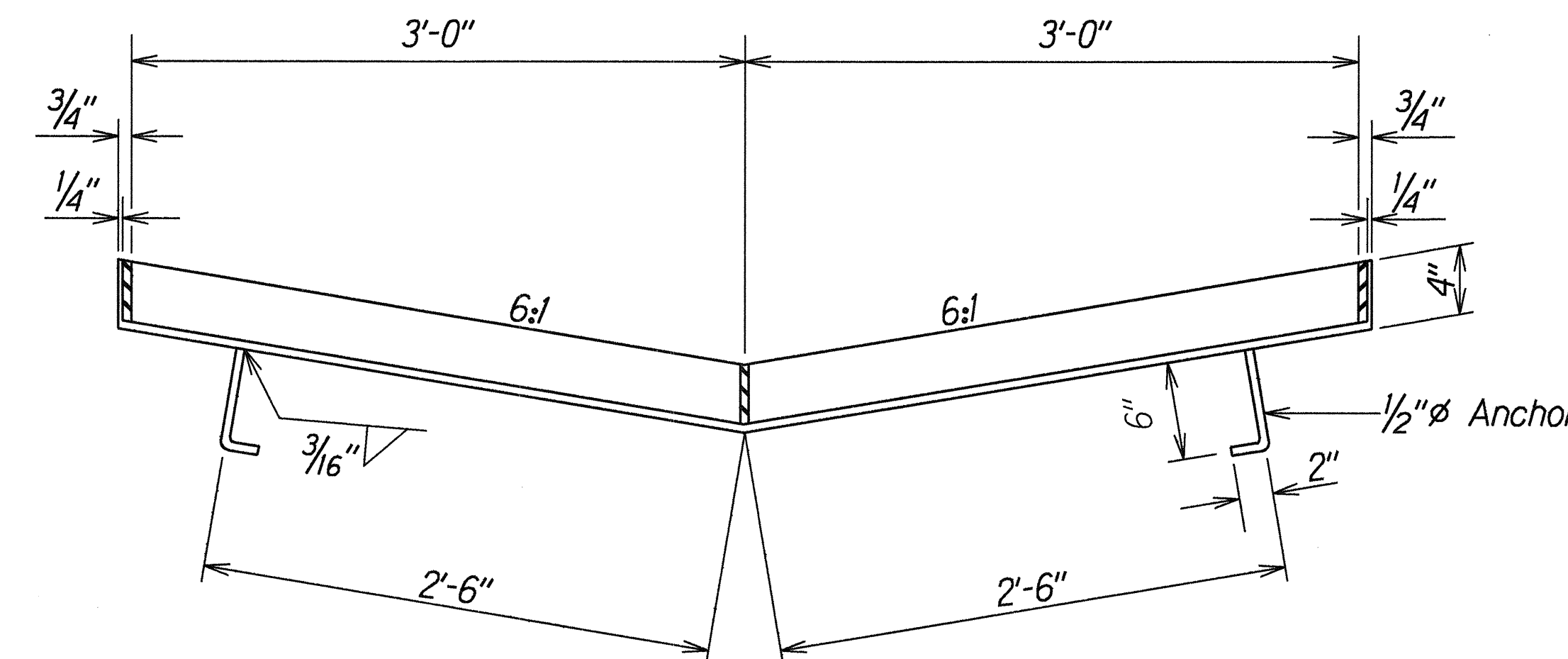
GRATE

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

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



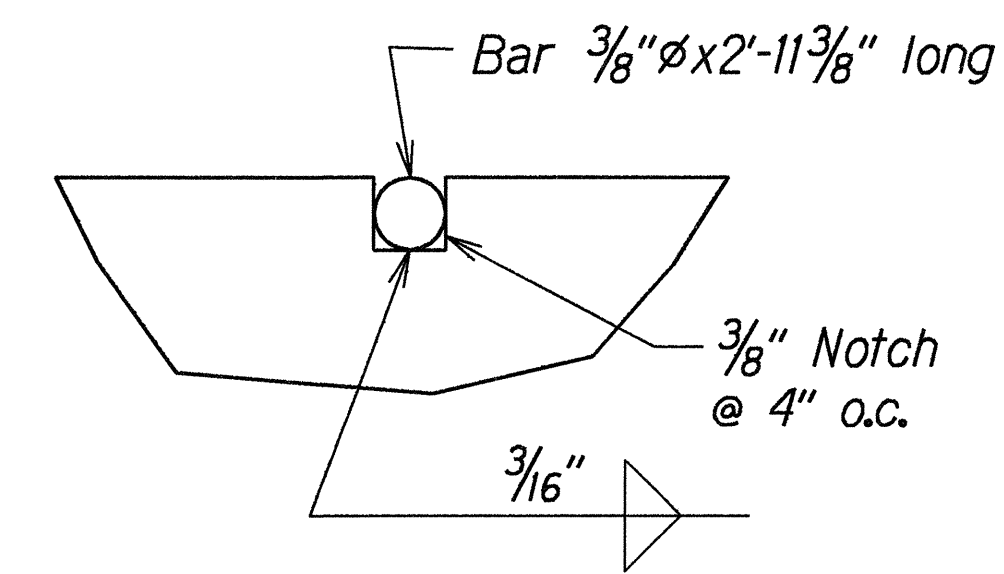
PLAN



SECTION

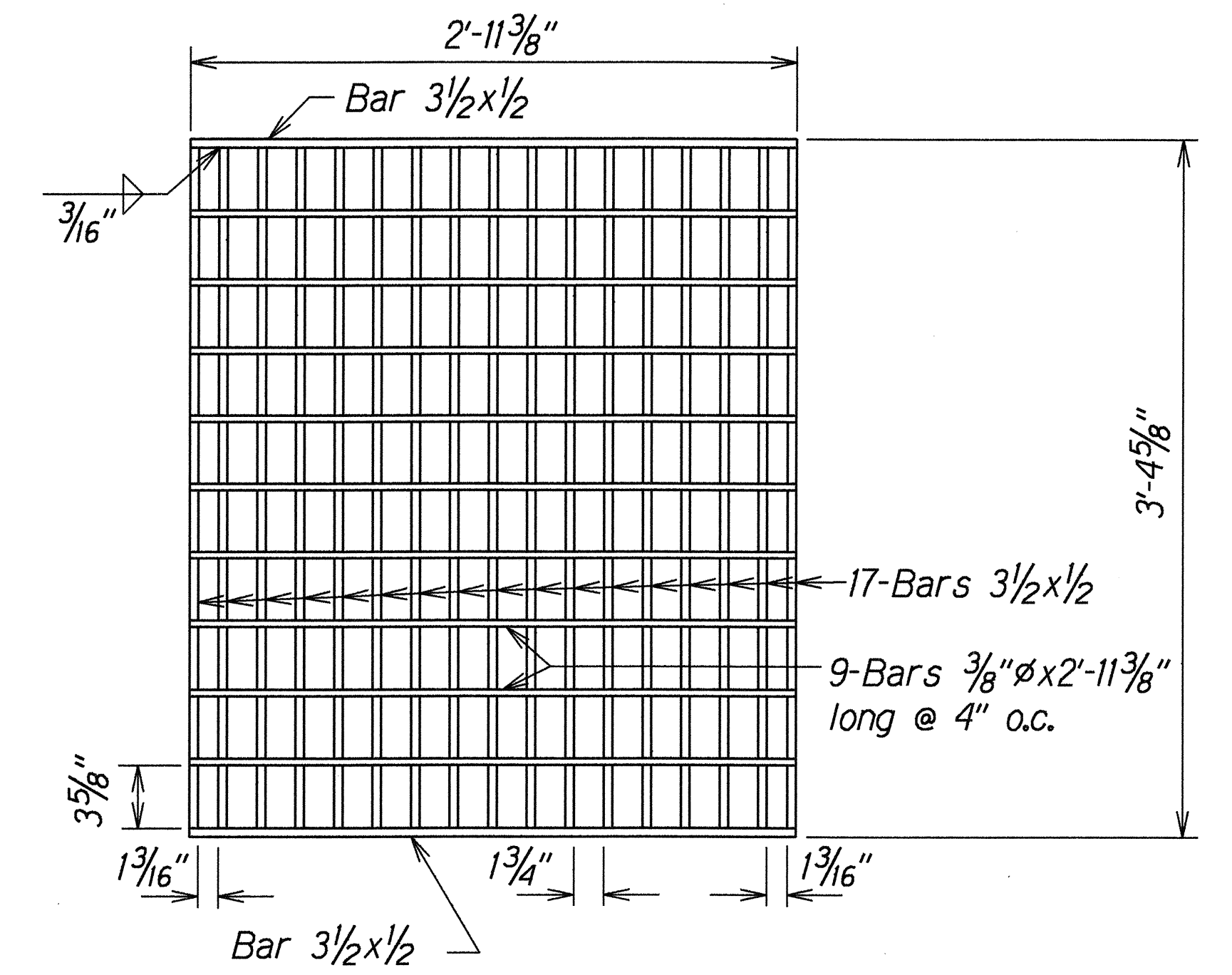
FRAME

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

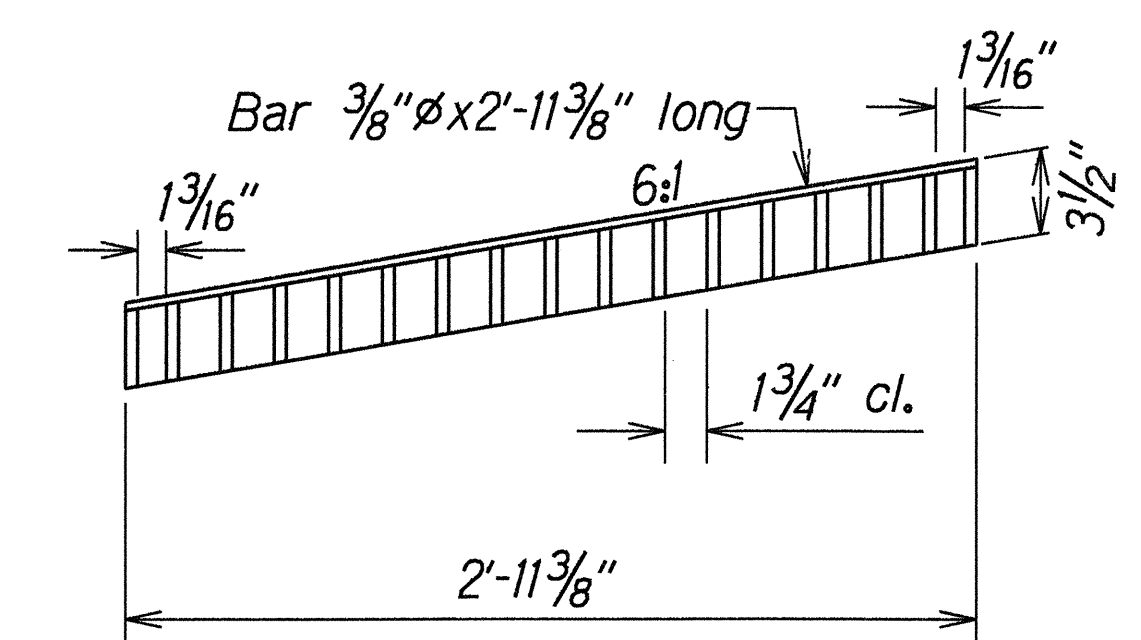


NOTCH DETAIL

Full Size



PLAN



SECTION

GRATE

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

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

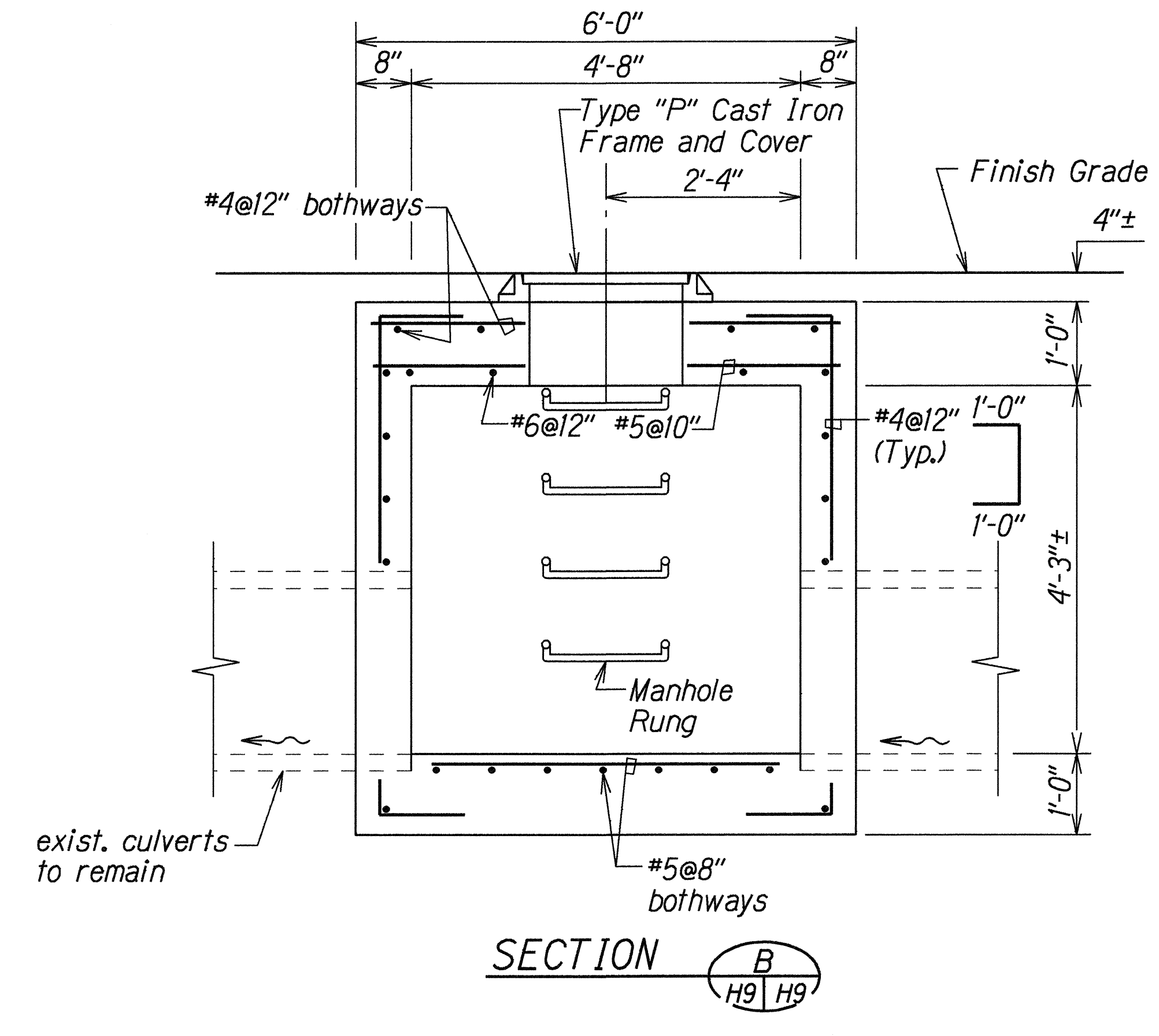
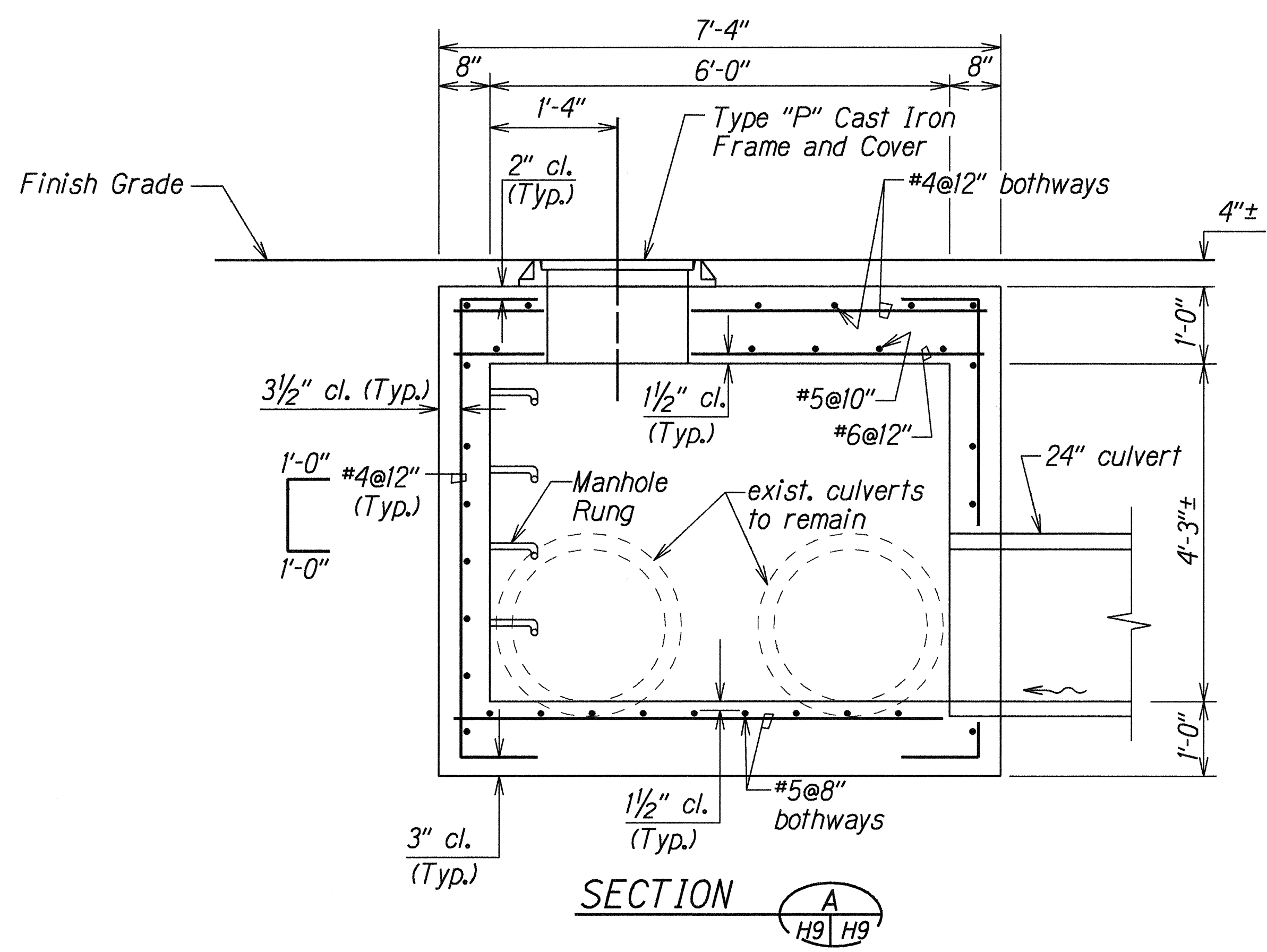
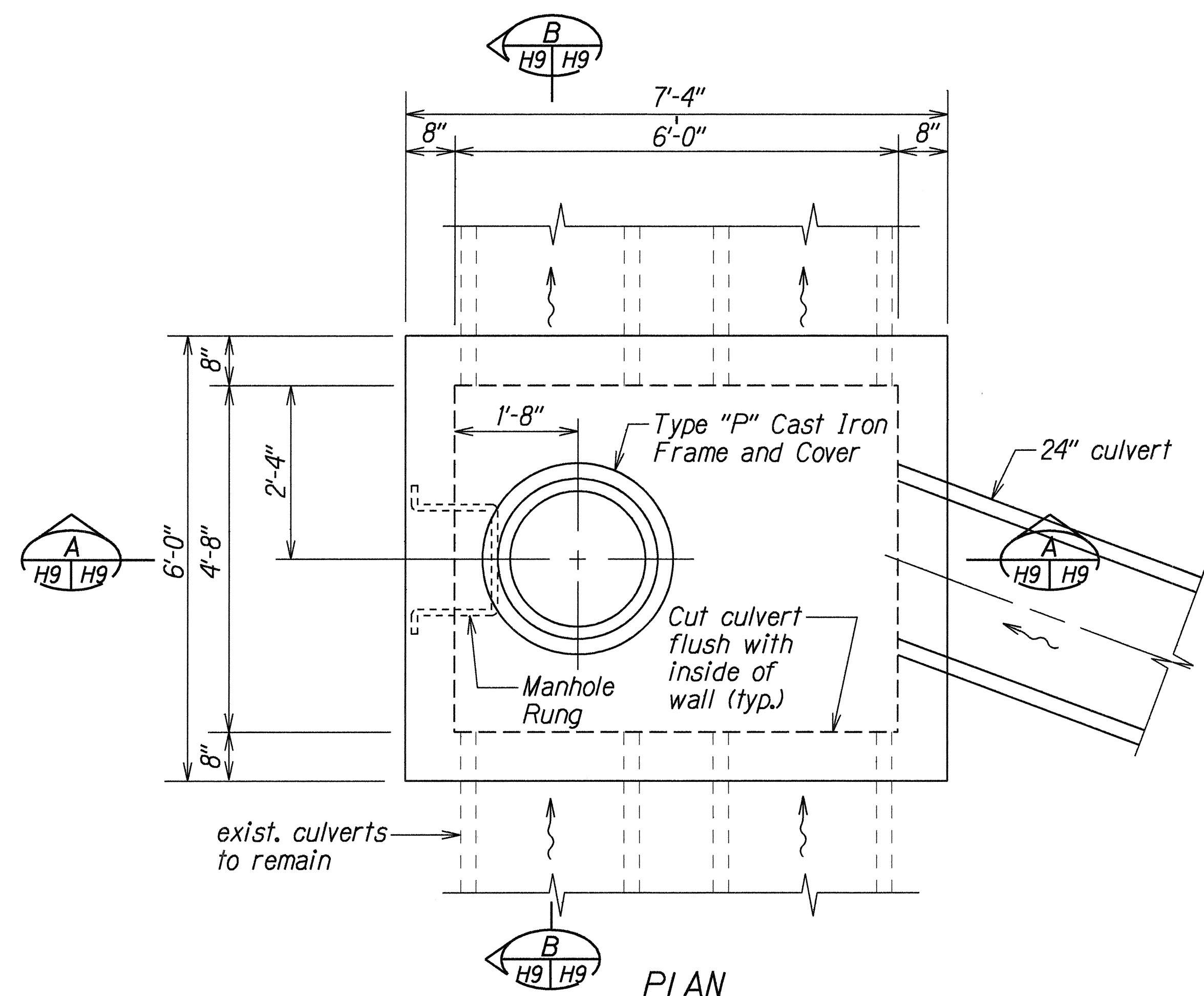
DRAINAGE DETAIL  
KAMEHAMEHA HIGHWAY  
INTERSECTION IMPROVEMENTS AT  
LEILEHUA GOLF COURSE ROAD  
Fed. Aid Proj. No. DE-0200(803)  
Scale: As Shown Date: May, 2000

SHEET No. H8 OF 14 SHEETS

|               |                   |         |
|---------------|-------------------|---------|
| ORIGINAL PLAN | SURVEY PLOTTED BY | DATE    |
| NOTE BOOK     | DRAWN BY          | 5/19/00 |
| 33,650,000/4  | TRACED BY         |         |
| Kamoharui     | CHECKED BY        |         |

# DETAILS OF TYPE "61616P" STEEL FRAME AND GRATES

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | DE-0200(803)       | 2000        | 20        | 79           |



# DETAILS OF MODIFIED TYPE "C" STORM DRAIN MANHOLE

|               |                   |         |
|---------------|-------------------|---------|
| ORIGINAL PLAN | SURVEY PLOTTED BY | DATE    |
| TRACED BY     | CH/KK             | 5/19/00 |
| NOTE BOOK     | CH/KK             |         |
| QUANTITIES BY |                   |         |
| CHECKED BY    |                   |         |

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

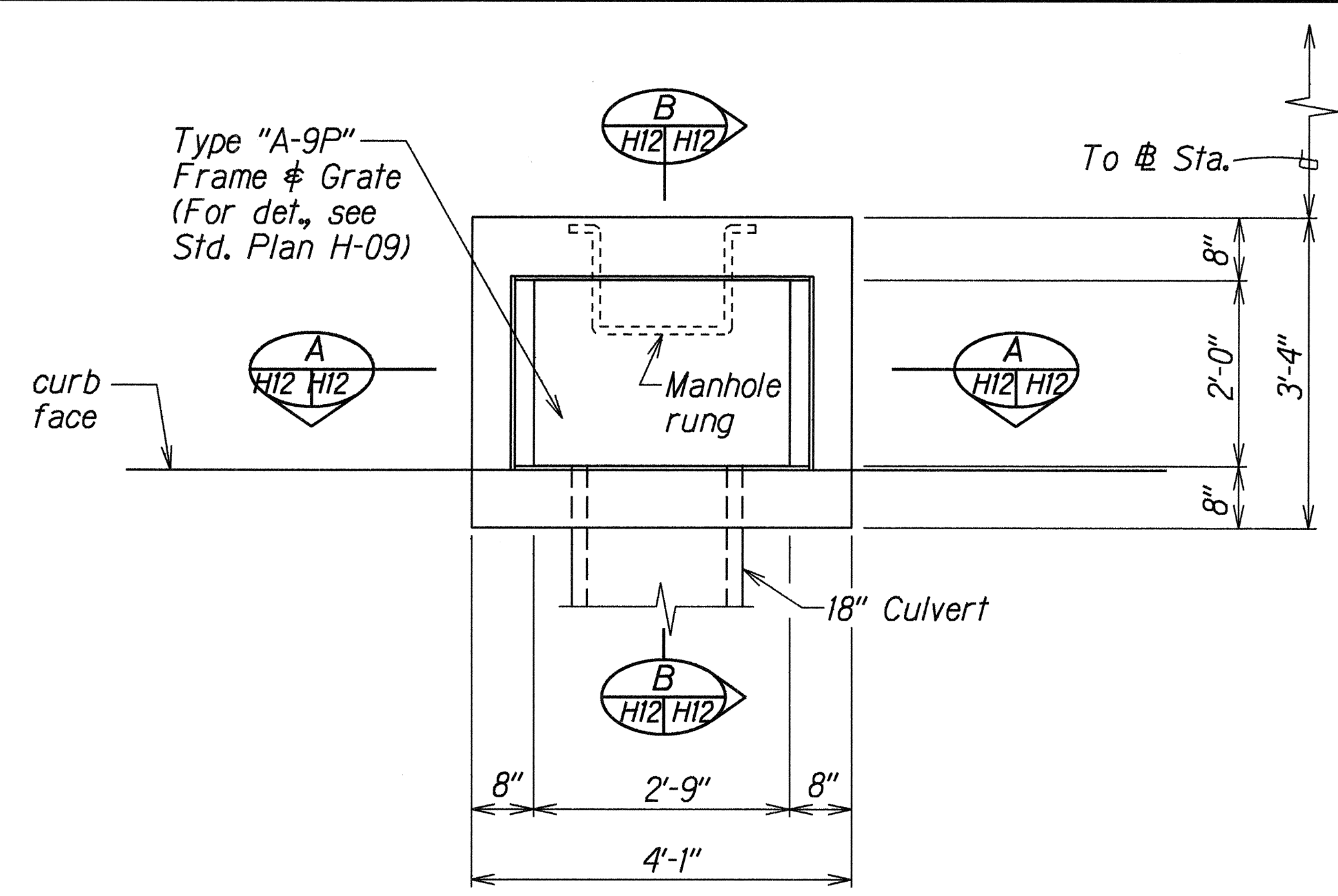
**DRAINAGE DETAIL**  
KAMEHAMEHA HIGHWAY  
INTERSECTION IMPROVEMENTS AT  
LEILEHUA GOLF COURSE ROAD  
Fed. Aid Proj. No. DE-0200(803)  
Scale: 3/4"=1'-0" Date: May 2000

SHEET No. H9 OF 14 SHEETS

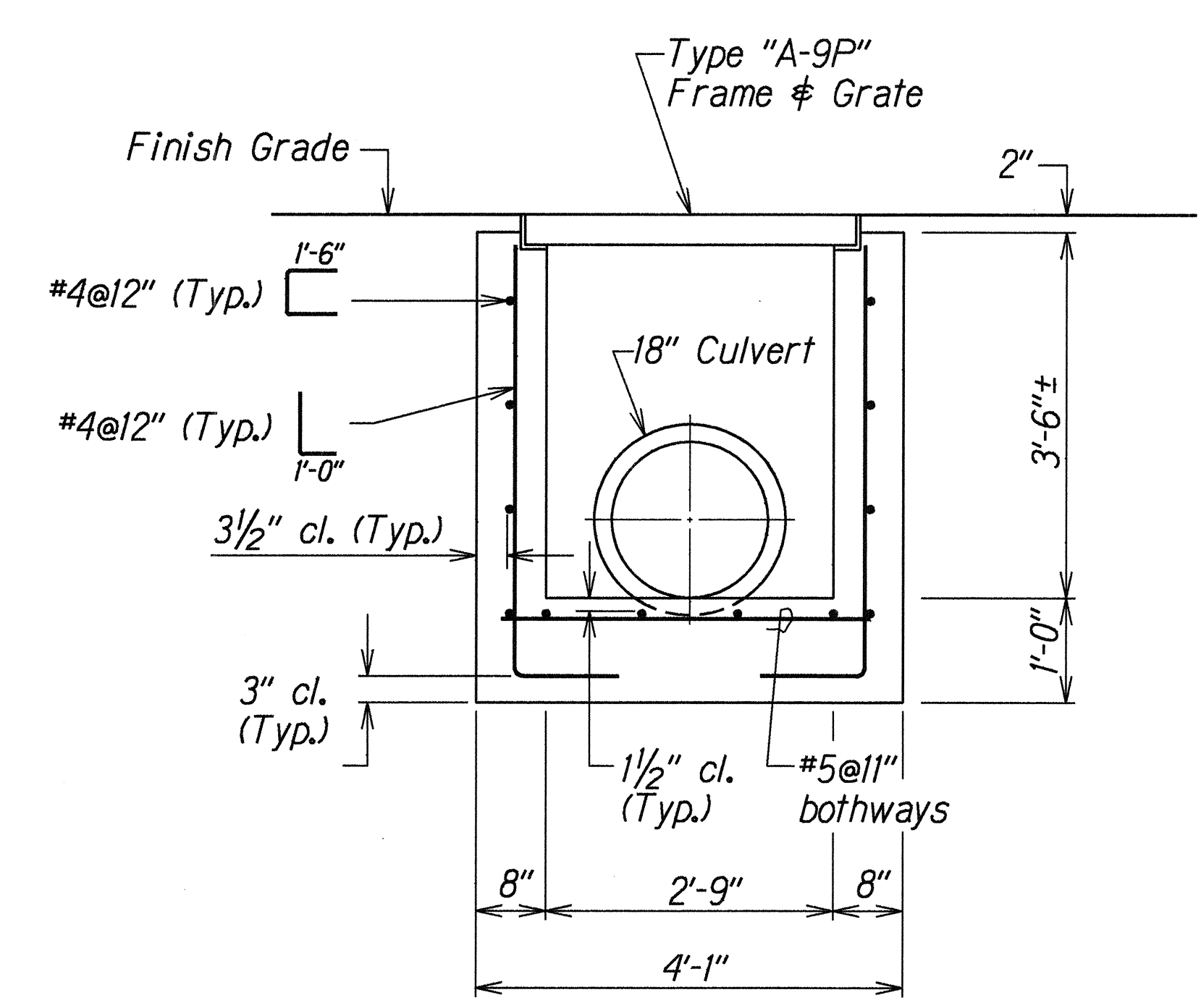




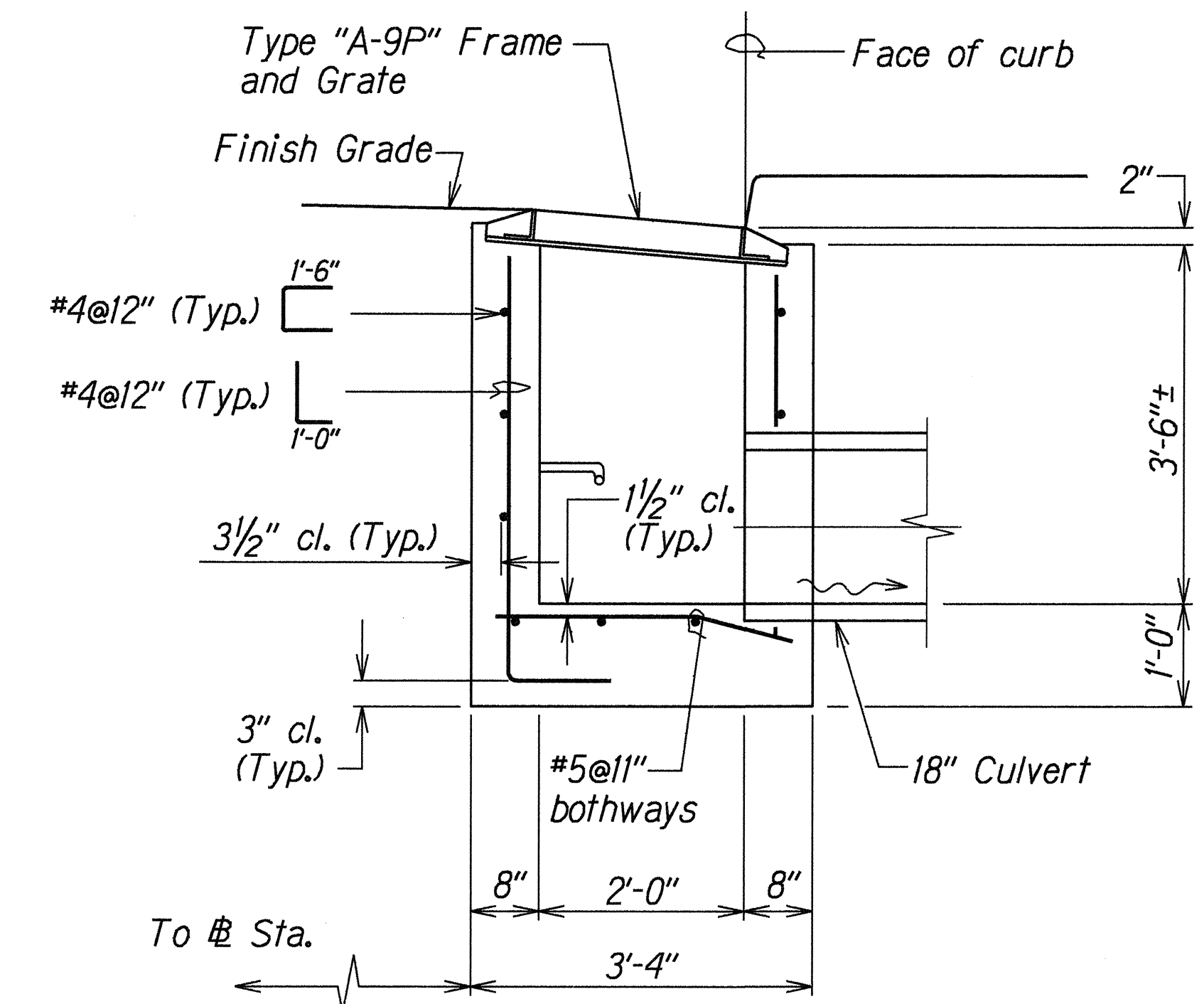
| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | DE-0200(803)       | 2000        | 23        | 79           |



PLAN



SECTION A  
HI2 HI2



SECTION B  
HI2 HI2

TYPICAL DETAILS OF MODIFIED TYPE "A-9P" GRATED DROP INLET

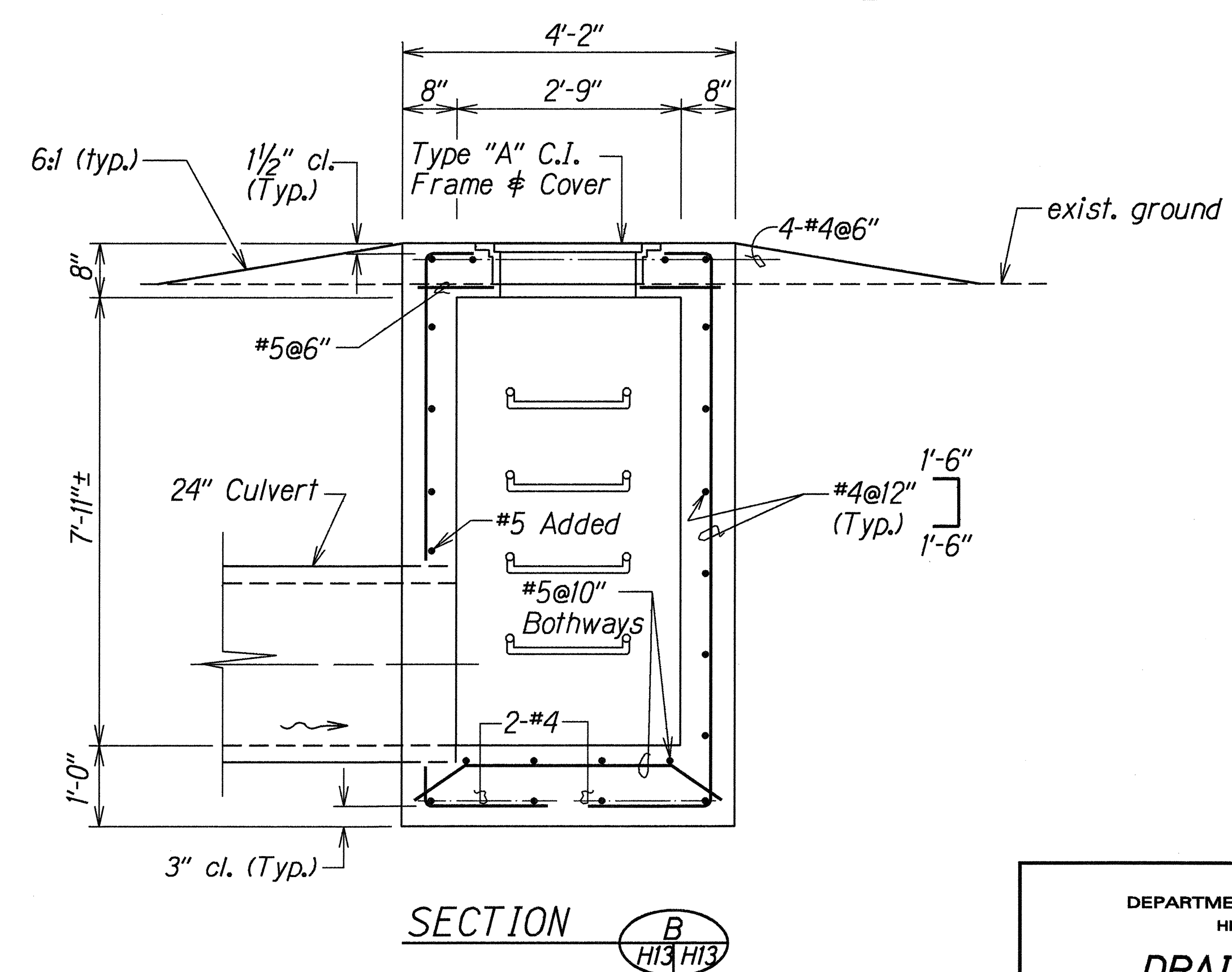
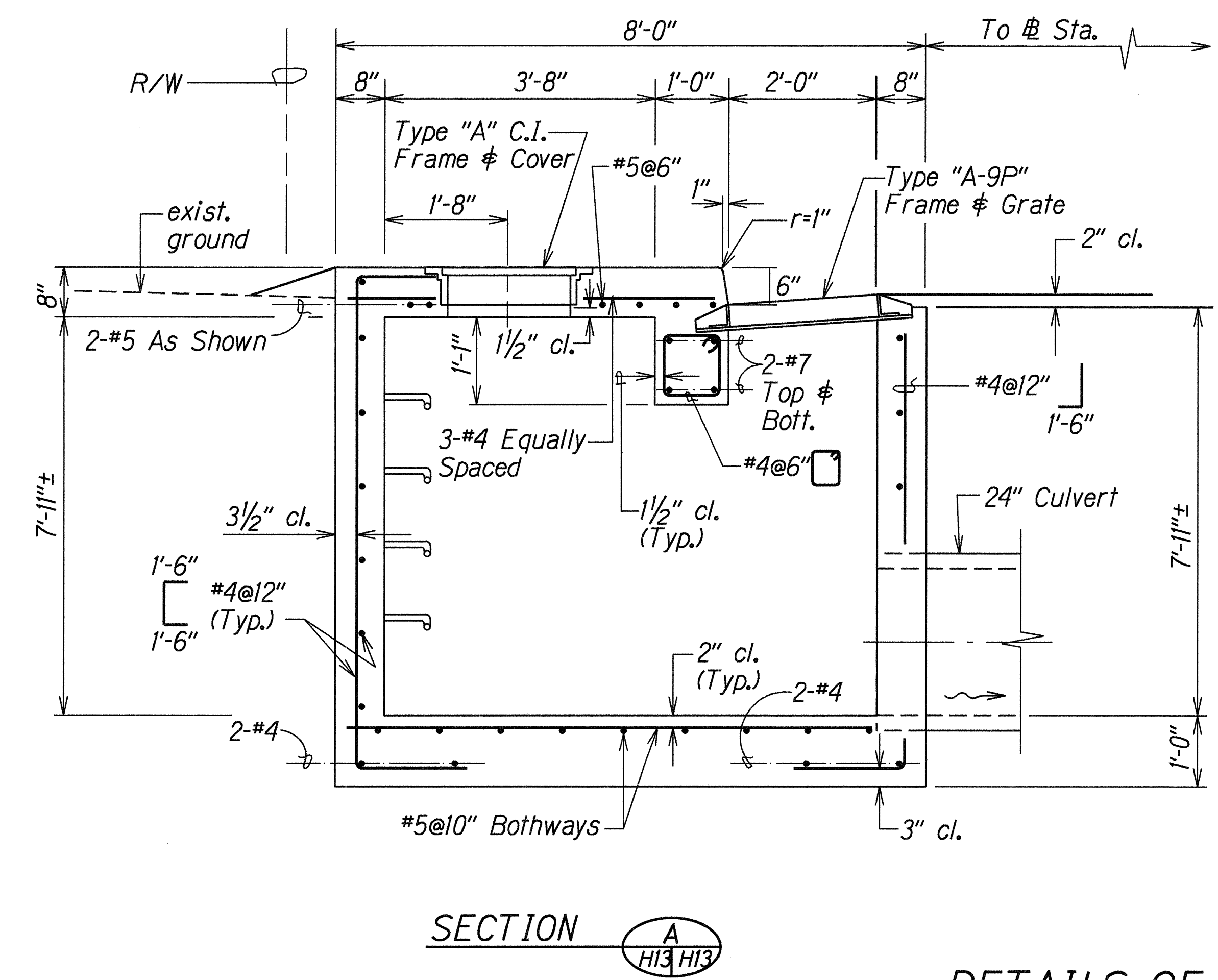
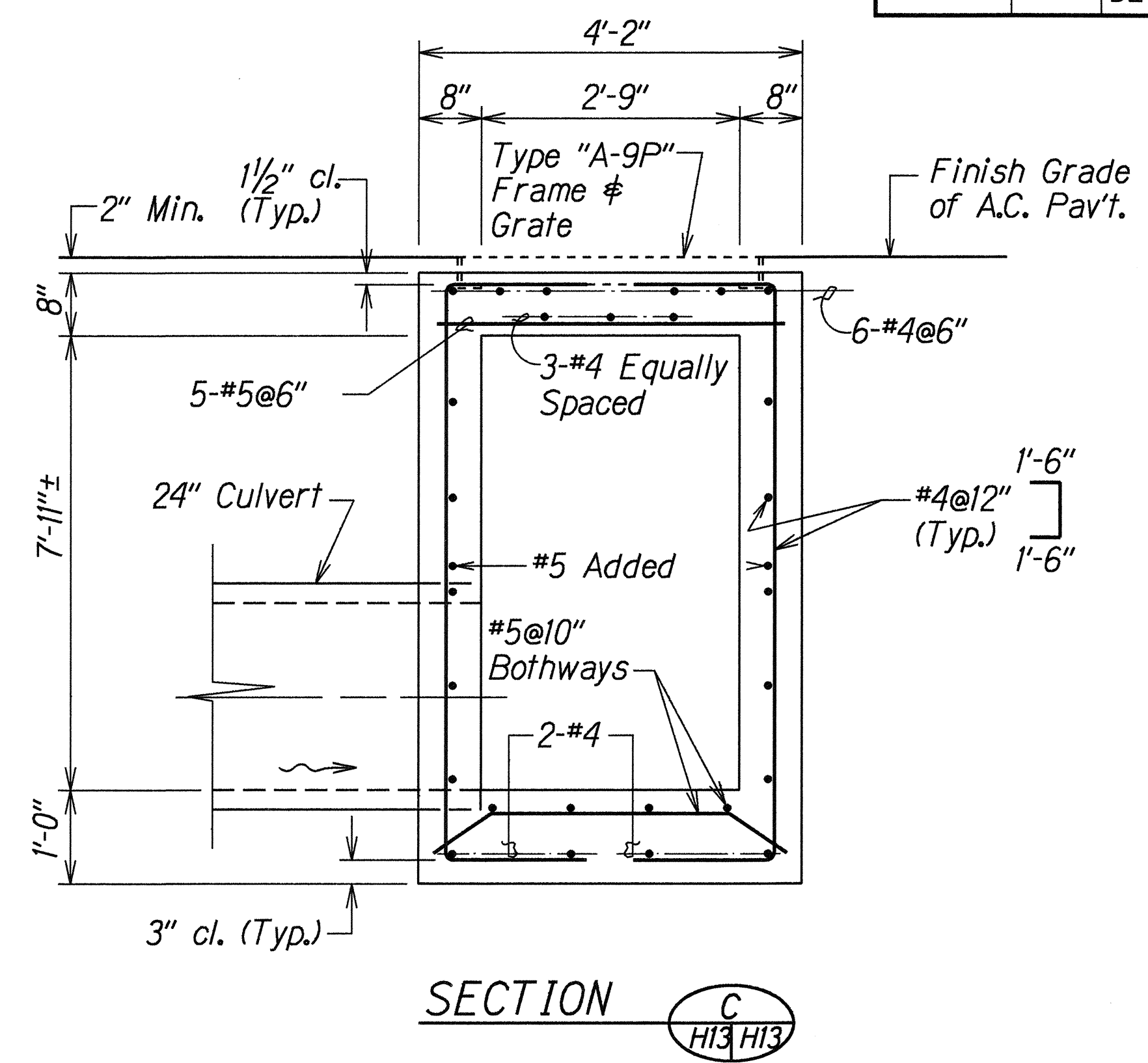
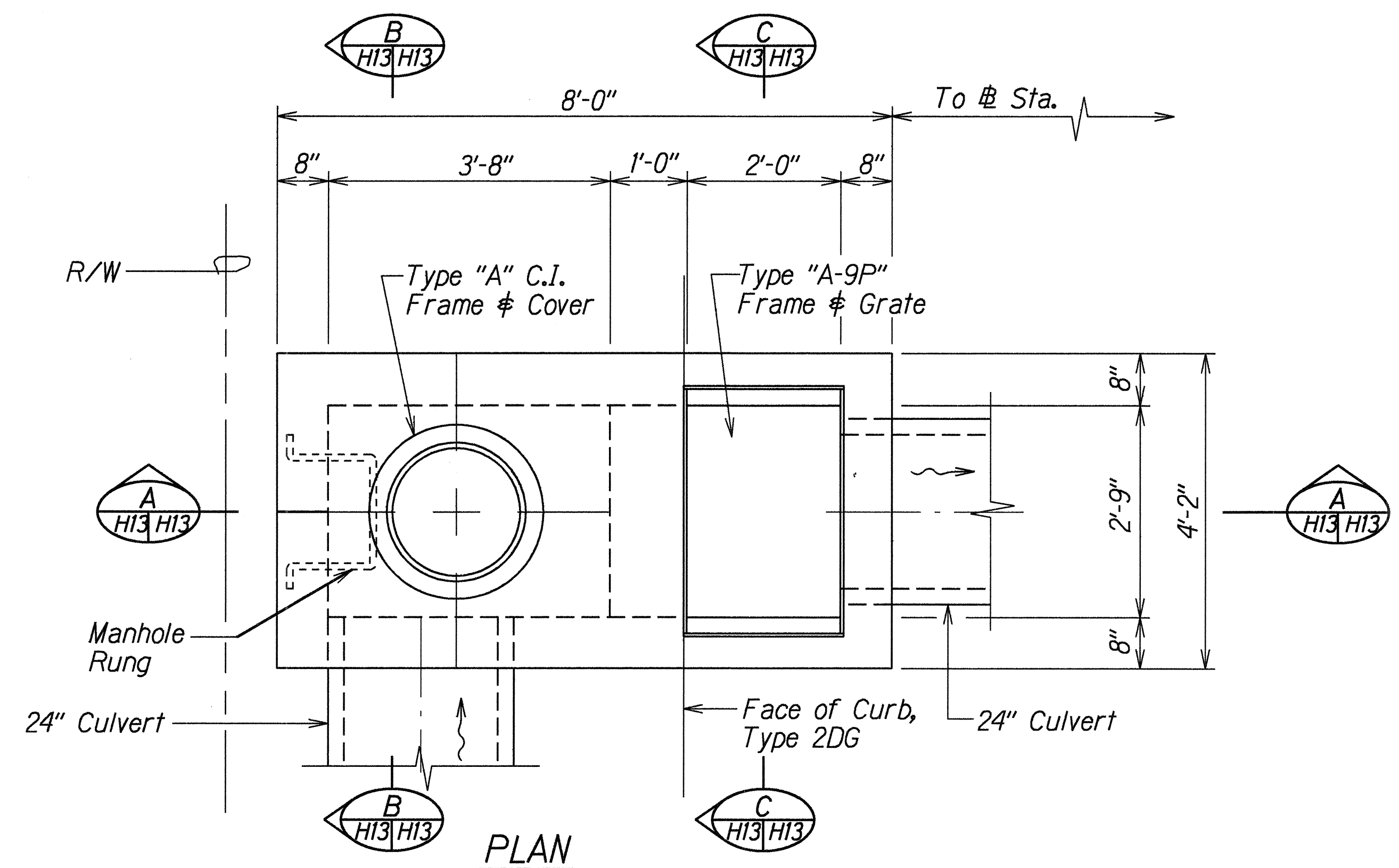
|                   |      |         |
|-------------------|------|---------|
| ORIGINAL PLAN     | DATE | 5/19/00 |
| SURVEY PLOTTED BY |      |         |
| DRAWN BY          |      |         |
| DESIGNED BY       |      |         |
| CHECKED BY        |      |         |
| NOTED BY          |      |         |
| QUANTITIES BY     |      |         |
| CHECKED BY        |      |         |

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**DRAINAGE DETAIL**

KAMEHAMEHA HIGHWAY  
INTERSECTION IMPROVEMENTS AT  
LEILEHUA GOLF COURSE ROAD  
Fed. Aid Proj. No. DE-0200(803)  
Scale: 3/4"=1'-0" Date: May 2000  
SHEET No. HI2 OF 14 SHEETS

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | DE-0200(803)       | 2000        | 24        | 79           |



# DETAILS OF SPECIAL TYPE "A-9P" GRATED DROP INLET

|                      |               |
|----------------------|---------------|
| ORIGINAL PLAN        | DATE: 5/19/01 |
| SURVEY PLOTTED BY: J |               |
| DRAWN BY: J          |               |
| TRACED BY: CM/KK     |               |
| NOTED BY: J          |               |
| CHECKED BY: J        |               |

STATE OF HAWAII  
 DEPARTMENT OF TRANSPORTATION  
 HIGHWAYS DIVISION

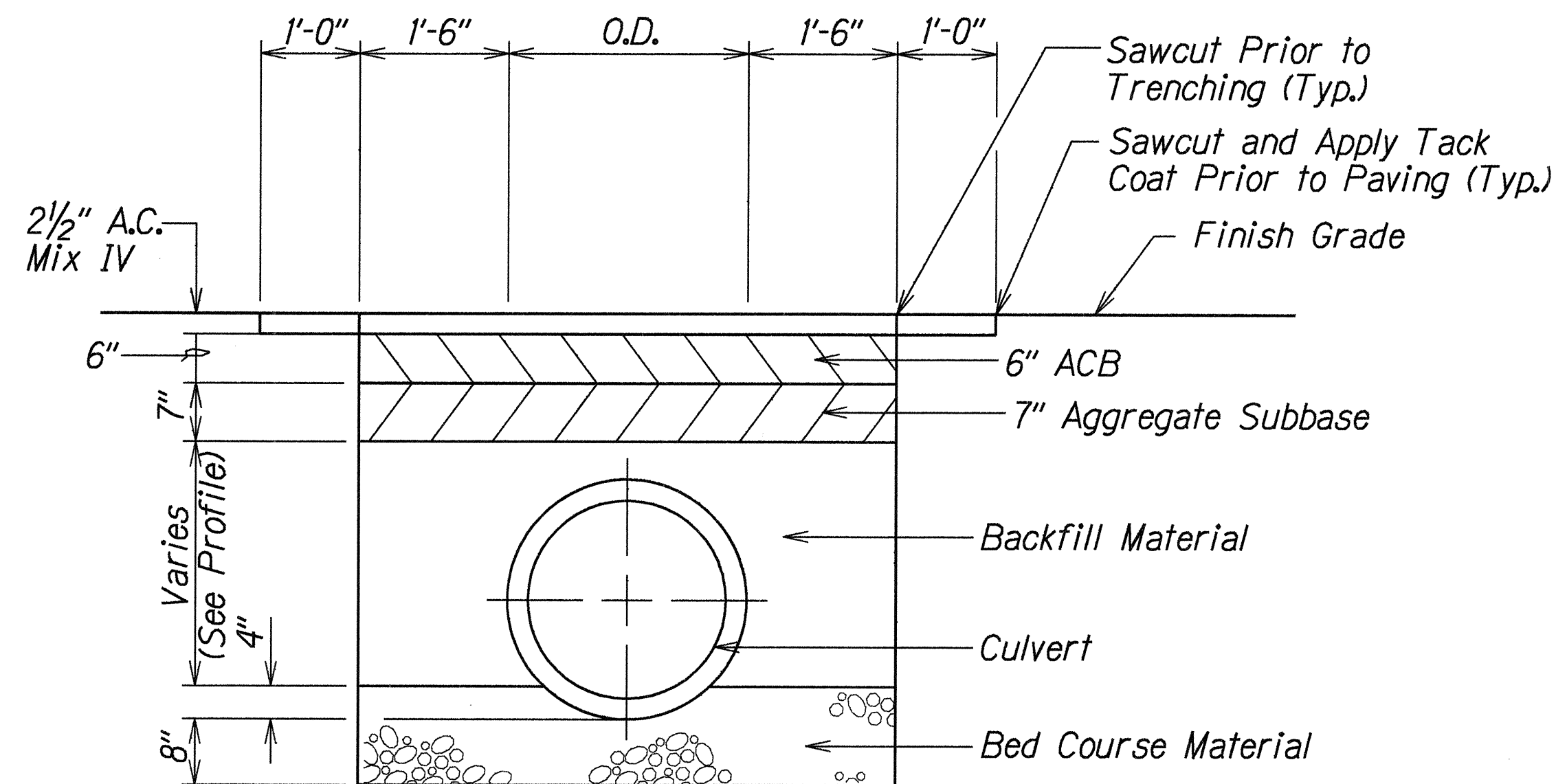
**DRAINAGE DETAIL**

**KAMEHAMEHA HIGHWAY**  
**INTERSECTION IMPROVEMENTS AT**  
**LEILEHUA GOLF COURSE ROAD**  
 Fed. Aid Proj. No. DE-0200(803)

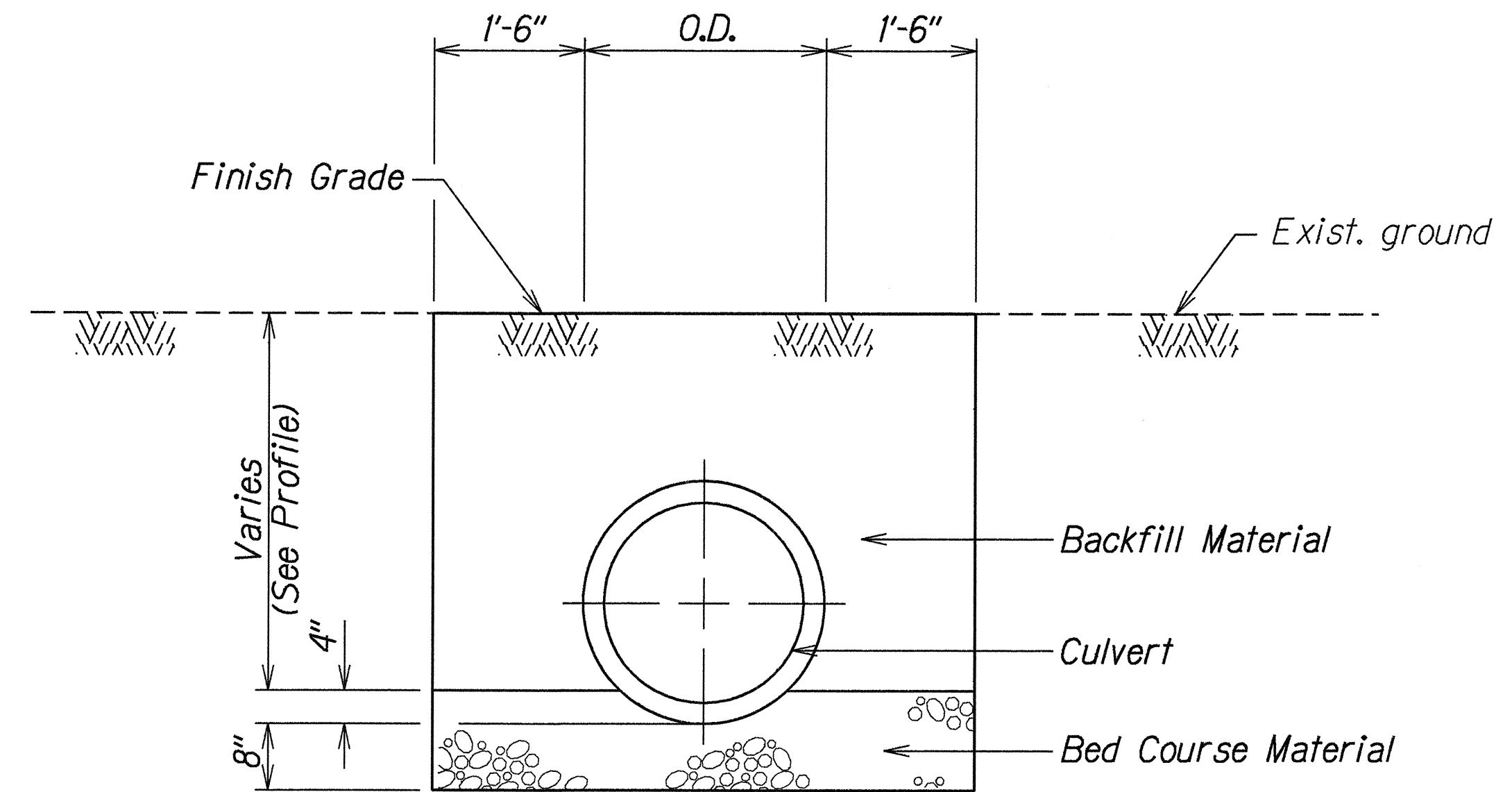
Scale: 3/4"=1'-0" Date: May, 2000

SHEET No. HI3 OF 14 SHEETS

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | DE-0200(803)       | 2000        | 25        | 79           |



TYPICAL DETAILS OF CULVERT TRENCH  
AND PAVEMENT RESTORATION  
 Scale:  $\frac{3}{4}$ "=1'-0"



TYPICAL DETAILS OF CULVERT TRENCH  
AND GRADE RESTORATION  
 Scale:  $\frac{3}{4}$ "=1'-0"

|               |                   |         |
|---------------|-------------------|---------|
| ORIGINAL PLAN | SURVEY PLOTTED BY | DATE    |
| NOTE BOOK     | DRAWN BY          | 5/19/02 |
| on 3/25/02    | TRACED BY         |         |
| checked by    | QUANTITIES BY     |         |
|               | CHECKED BY        |         |

STATE OF HAWAII  
 DEPARTMENT OF TRANSPORTATION  
 HIGHWAYS DIVISION

**DRAINAGE DETAIL**  
KAMEHAMEHA HIGHWAY  
INTERSECTION IMPROVEMENTS AT  
LEILEHUA GOLF COURSE ROAD  
Fed. Aid Proj. No. DE-0200(803)  
 Scale: As Shown Date: May, 2000

SHEET No. H14 OF 14 SHEETS