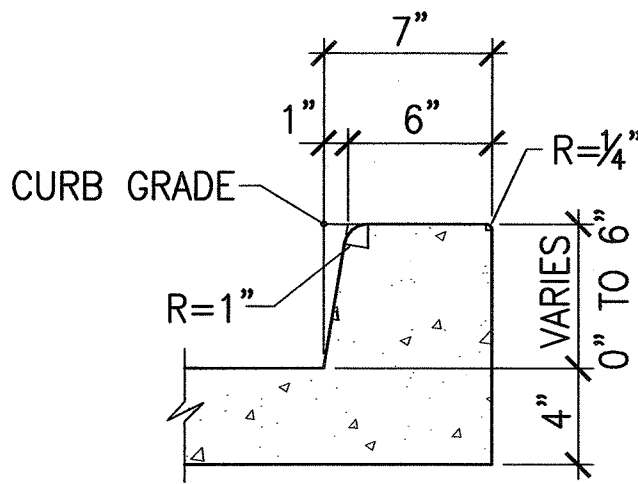
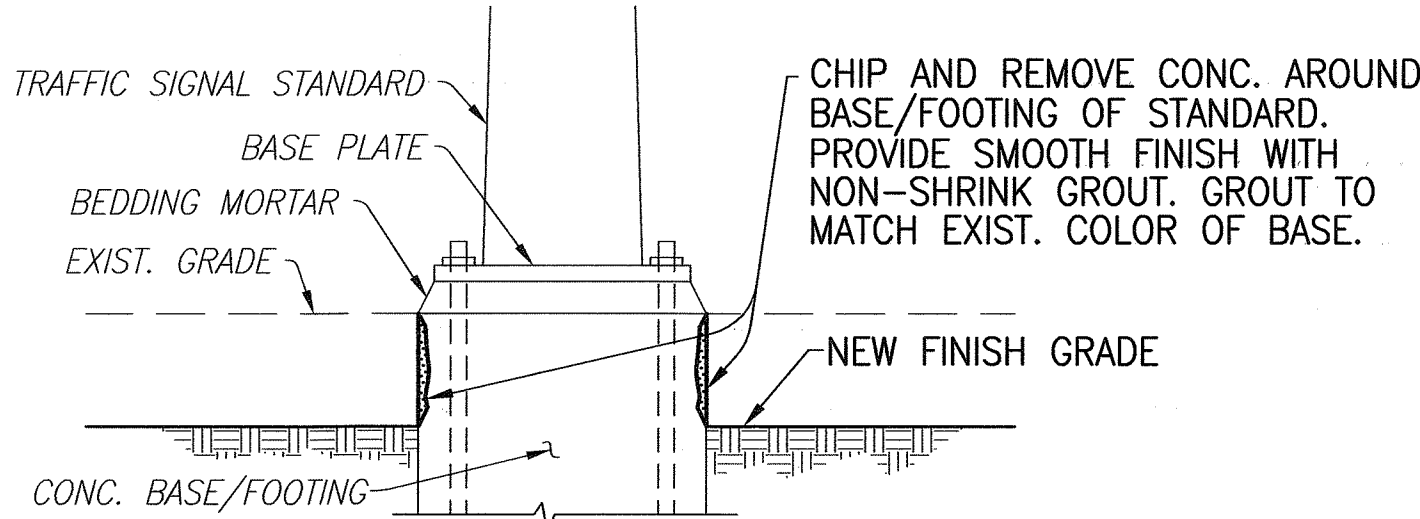


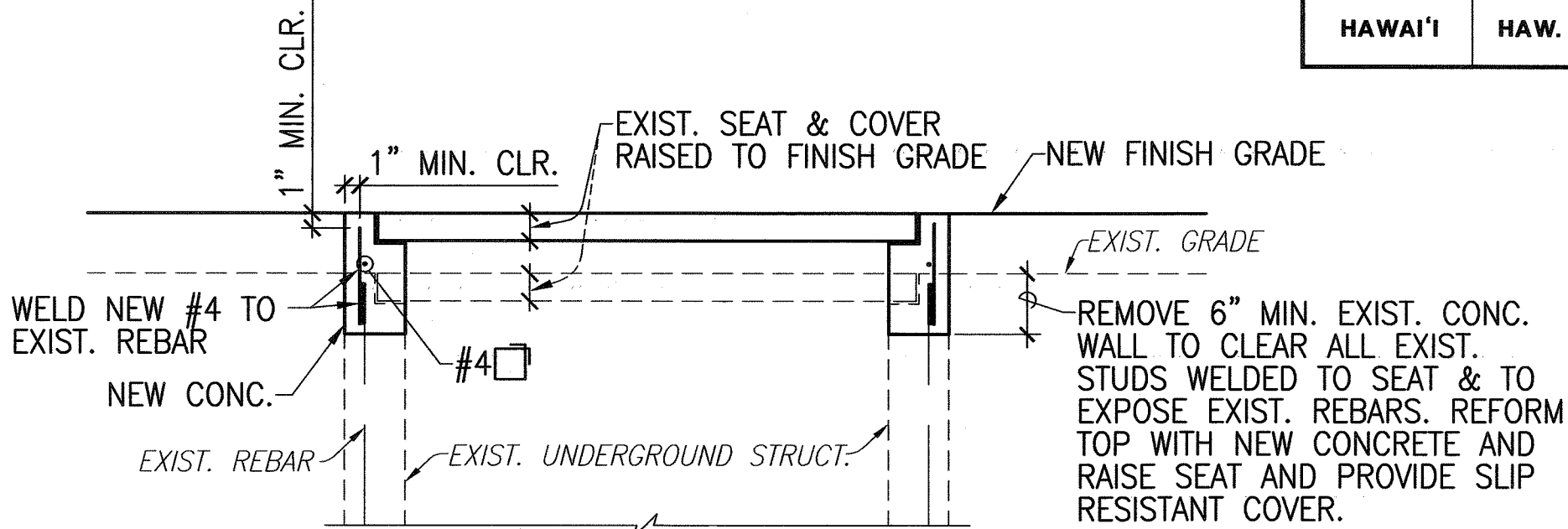
| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | CMAQ-0700(50)R     | 2004        | 22        | 100          |



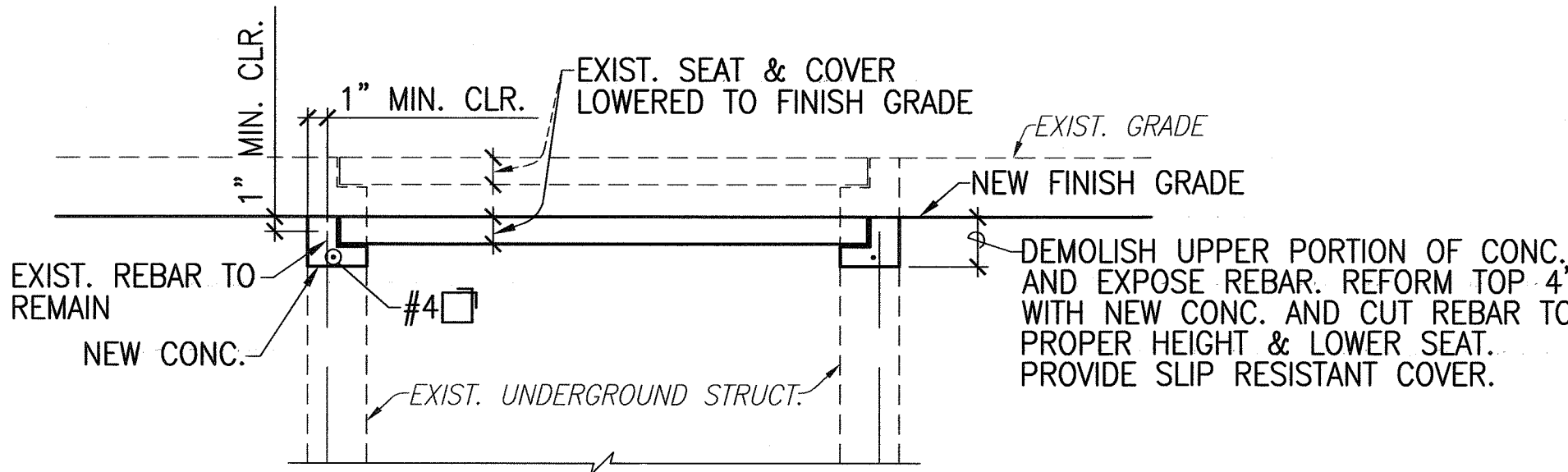
GRADE ADJUSTMENT CURB 1  
SCALE: 1 1/2"=1'-0"



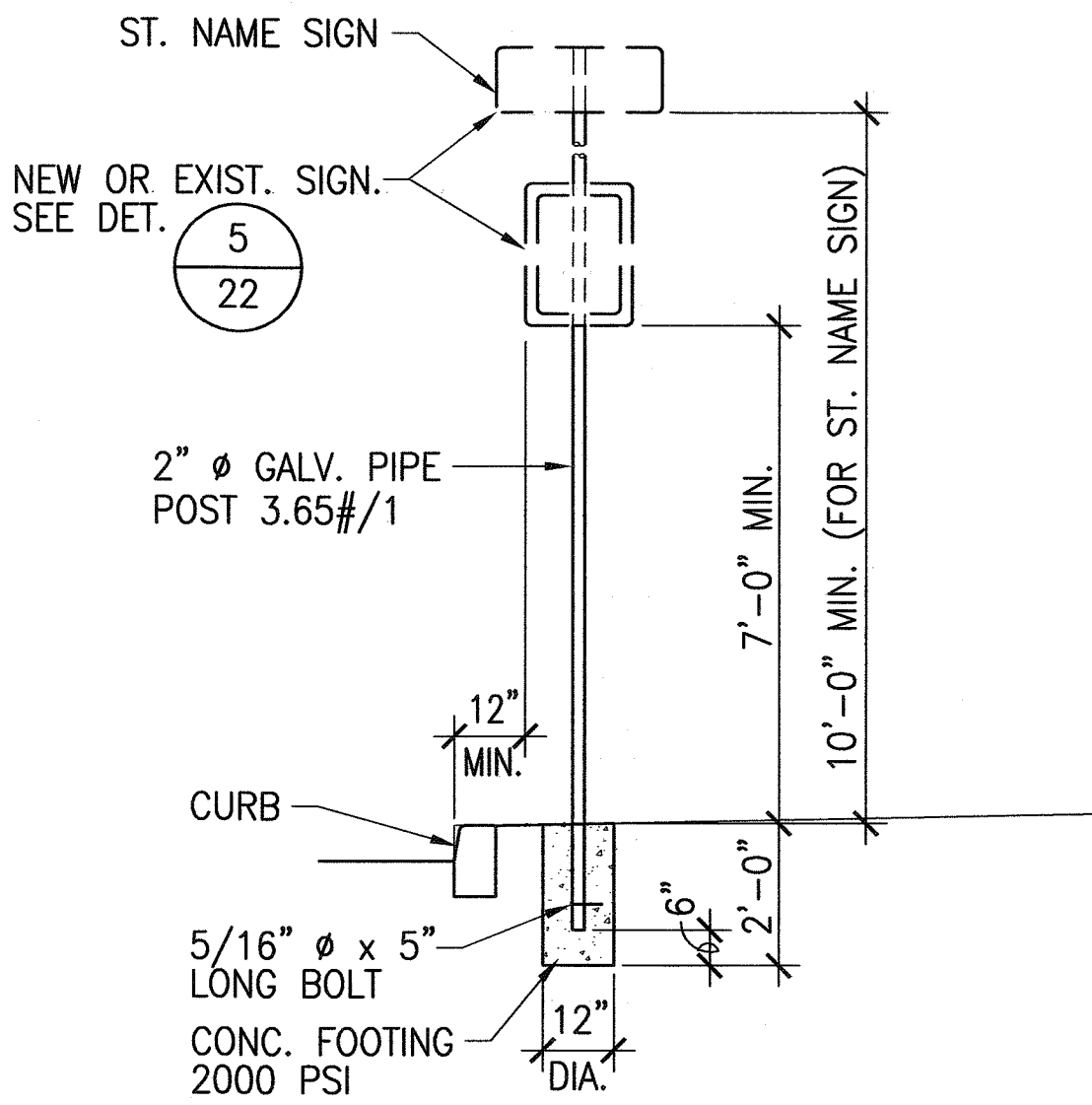
TYP. TRAFFIC SIGNAL & STREET LIGHT STANDARD BASE RESTORATION DET. 2  
NOT TO SCALE



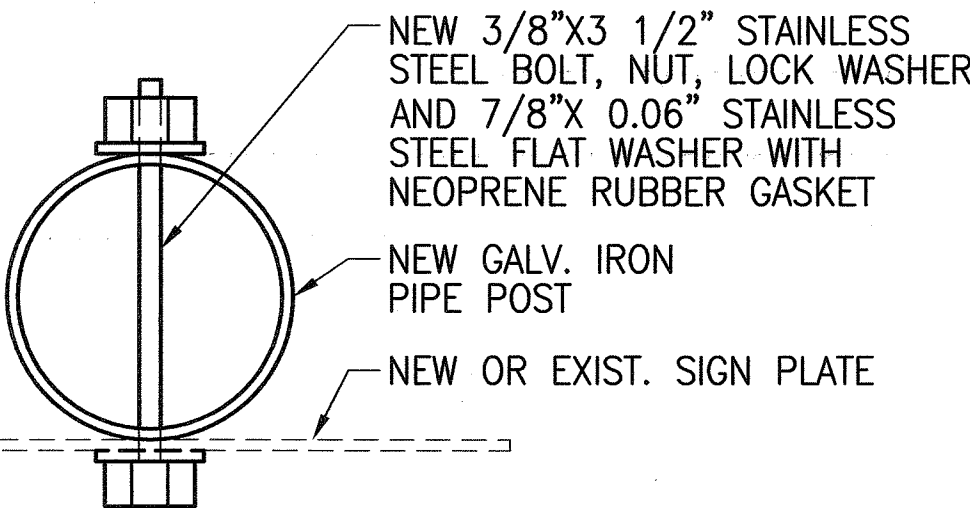
RAISED BOX & SEAT ADJUSTMENT



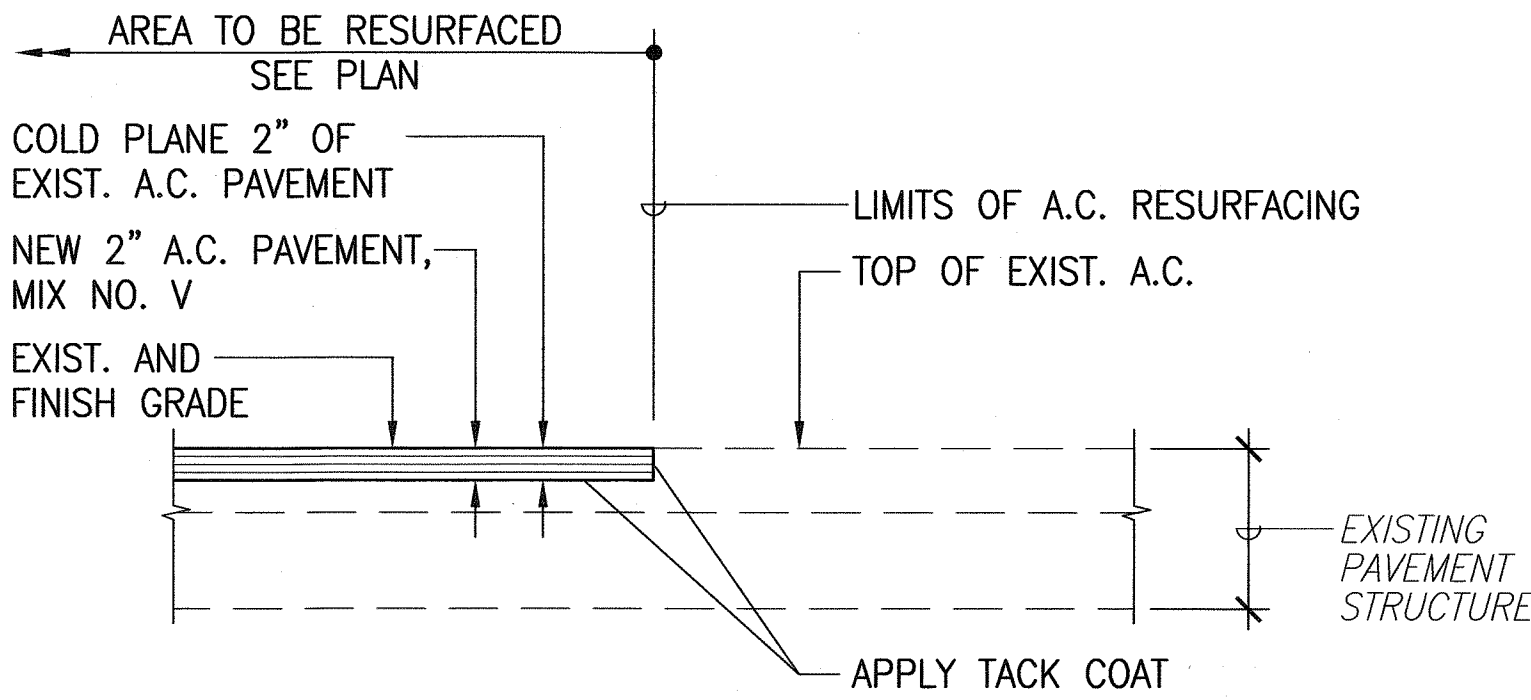
LOWERED BOX & SEAT ADJUSTMENT



TYP. SIGN POST 4  
SCALE: 3/8"=1'-0"



TYPICAL MOUNTING DET. 5  
NOT TO SCALE

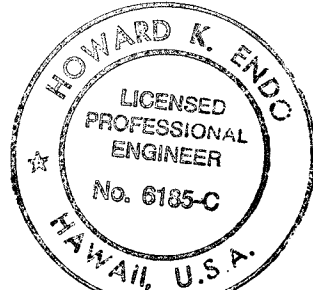


A.C. PAV'T RESURFACING DETAIL 6  
NOT TO SCALE

TYPICAL UTILITY BOX ADJUSTMENT DETAIL 3  
SCALE: 3/4"=1'-0"

|               |                   |      |
|---------------|-------------------|------|
| ORIGINAL PLAN | SURVEY PLOTTED BY | DATE |
| NOTE BOOK     | DRAWN BY          |      |
|               | DESIGNED BY       |      |
|               | CHECKED BY        |      |
| No.           |                   |      |

0351-MISC DET-01.dwg



EXPIRATION DATE: 4/30/06  
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.  
Signature: Howard K. Endo  
Date: 9/26/04  
"OBSERVATION OF CONSTRUCTION" IS DEFINED IN CHAPTER 16-115, HAWAII ADMINISTRATIVE RULES ENTITLED "PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS".

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

MISCELLANEOUS DETAILS – 1  
  
Pedestrian Facilities & ADA Compliance  
at Various Locations on Kaua'i  
Fed. Aid Proj. No. CMAQ-0700(50)R  
Scale: AS NOTED  
Date: AUG. 13, 2004



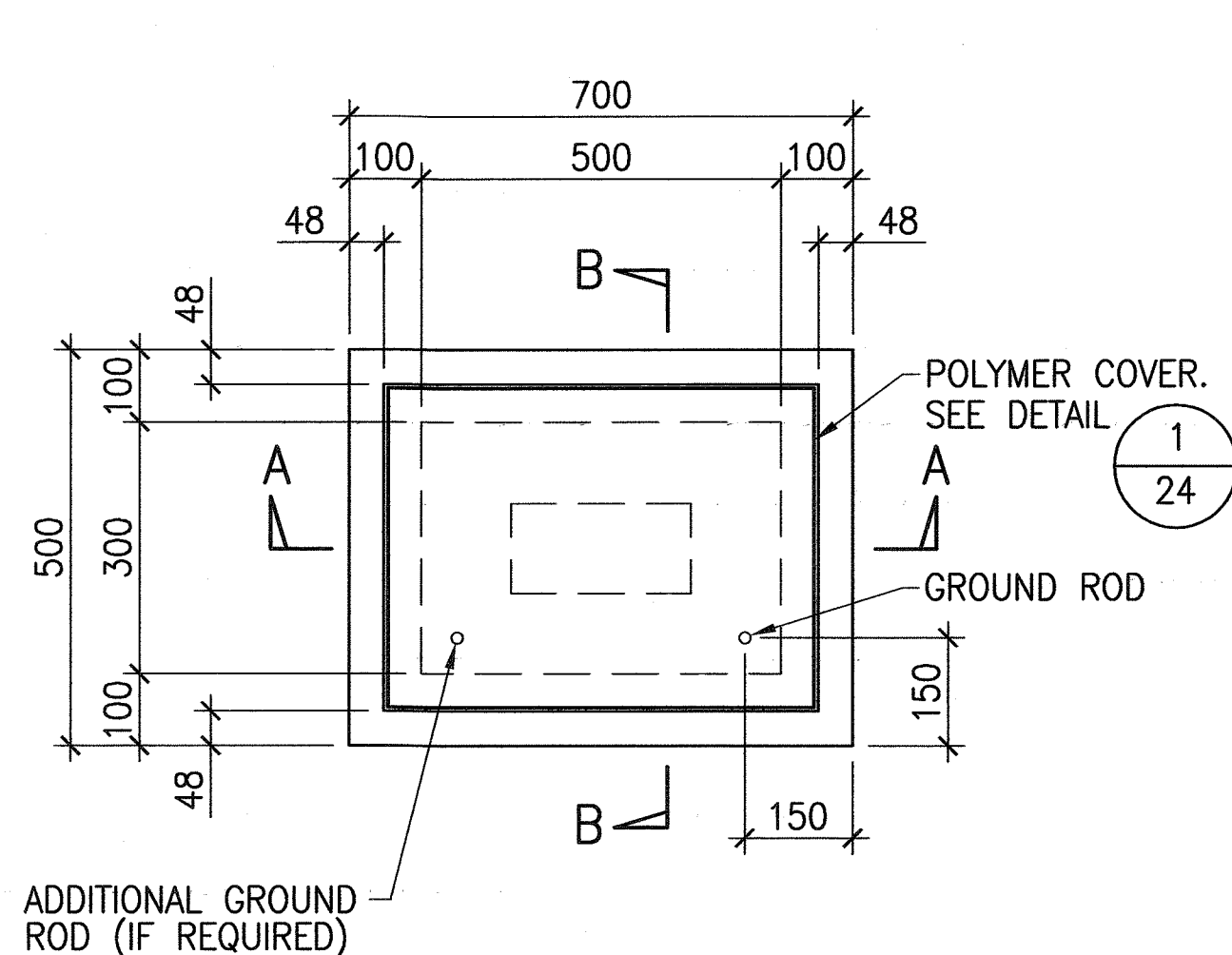


| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | CMAQ-0700(50)R     | 2004        | 24        | 100          |

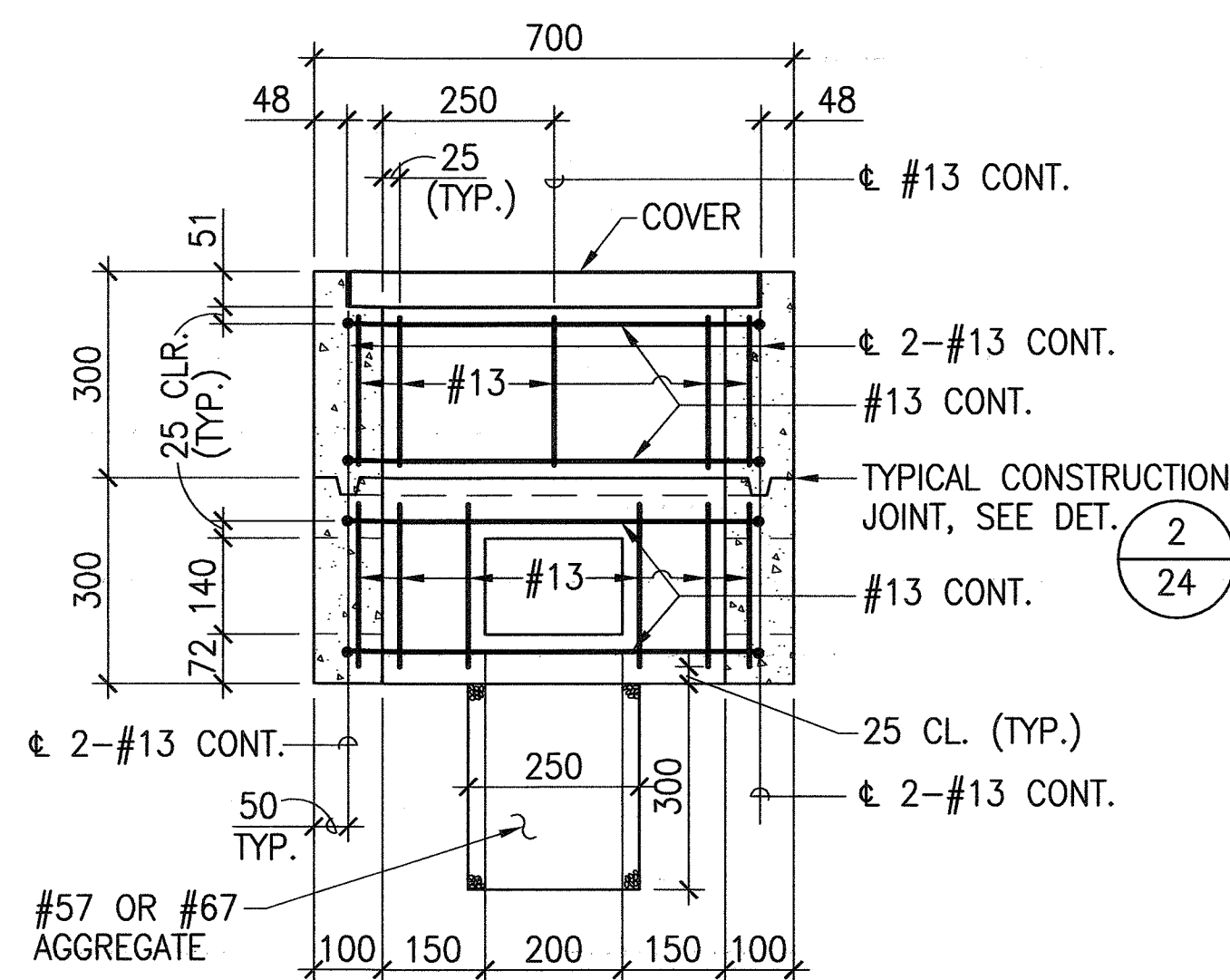
# METRIC PULLBOX NOTES:

1. PROVIDE A MINIMUM OF ONE 16m DIA. x 2.5m COPPERWELD GROUND ROD IN EACH PULLBOX. WHEN DIRECTED BY THE TRAFFIC SIGNAL INSPECTOR/ENGINEER, INSTALL ADDITIONAL GROUND RODS. COST OF GROUND RODS SHALL BE INCIDENTAL TO THE PULLBOXES.
2. ALL PRE-CAST CONCRETE PULLBOXES SHALL BE MANUFACTURED IN TWO PIECES.
3. THE PULLBOX WITH COVER SHALL BE CAPABLE OF SUPPORTING ON MS 18 LOADING.
4. THE MAXIMUM WEIGHT OF THE PULLBOX COVER SHALL NOT EXCEED 27 KILOGRAMS.
5. THE OPENINGS FOR THE CONDUITS ON ALL PULLBOXES SHALL BE PRE-CAST CONCRETE KNOCKOUTS.
6. AFTER INSTALLING THE CONDUITS IN THE OPENINGS OF THE PULLBOXES, THE CONTRACTOR SHALL FILL THE EXCESS OPENING IN THE PRE-CAST KNOCKOUTS WITH CONCRETE MORTAR.
7. PRIOR TO INSTALLING THE PULLBOXES, THE CONTRACTOR SHALL LEVEL THE BOTTOM OF THE TRENCH AND ACHIEVE A MINIMUM OF 95% RELATIVE COMPACTION OF THE BOTTOM OF THE TRENCH.
8. ALL CONCRETE SHALL BE CLASS A (25MPa, MIN.).
9. REBARS SHALL BE GRADE 300 AND ALL LAPPED SPLICES SHALL BE 360mm MINIMUM.
10. THE #57 OR #67 SIZE AGGREGATE SHALL CONFORM TO THE LATEST VERSION OF AASHTO M43 (ASTM D 448).
11. TYPE "C" PULLBOX SHALL BE INSTALLED IN A LOCATION PROTECTED FROM VEHICULAR TRAFFIC (I.E. RAISED SIDEWALK, BEHIND A.C. CURBS, TRAFFIC SIGNAL STANDARDS OR PIPE GUARDS).

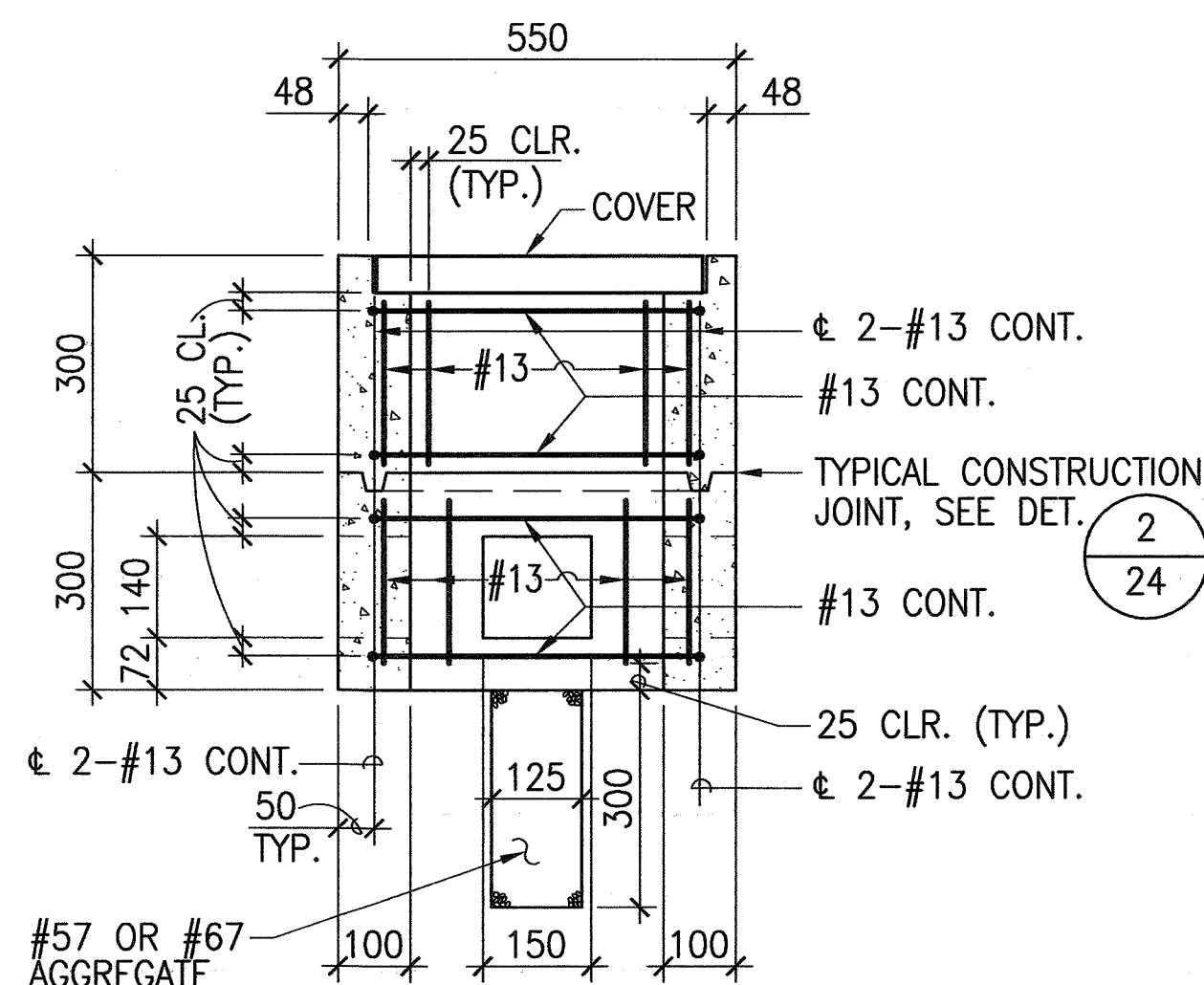
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN.



PLAN

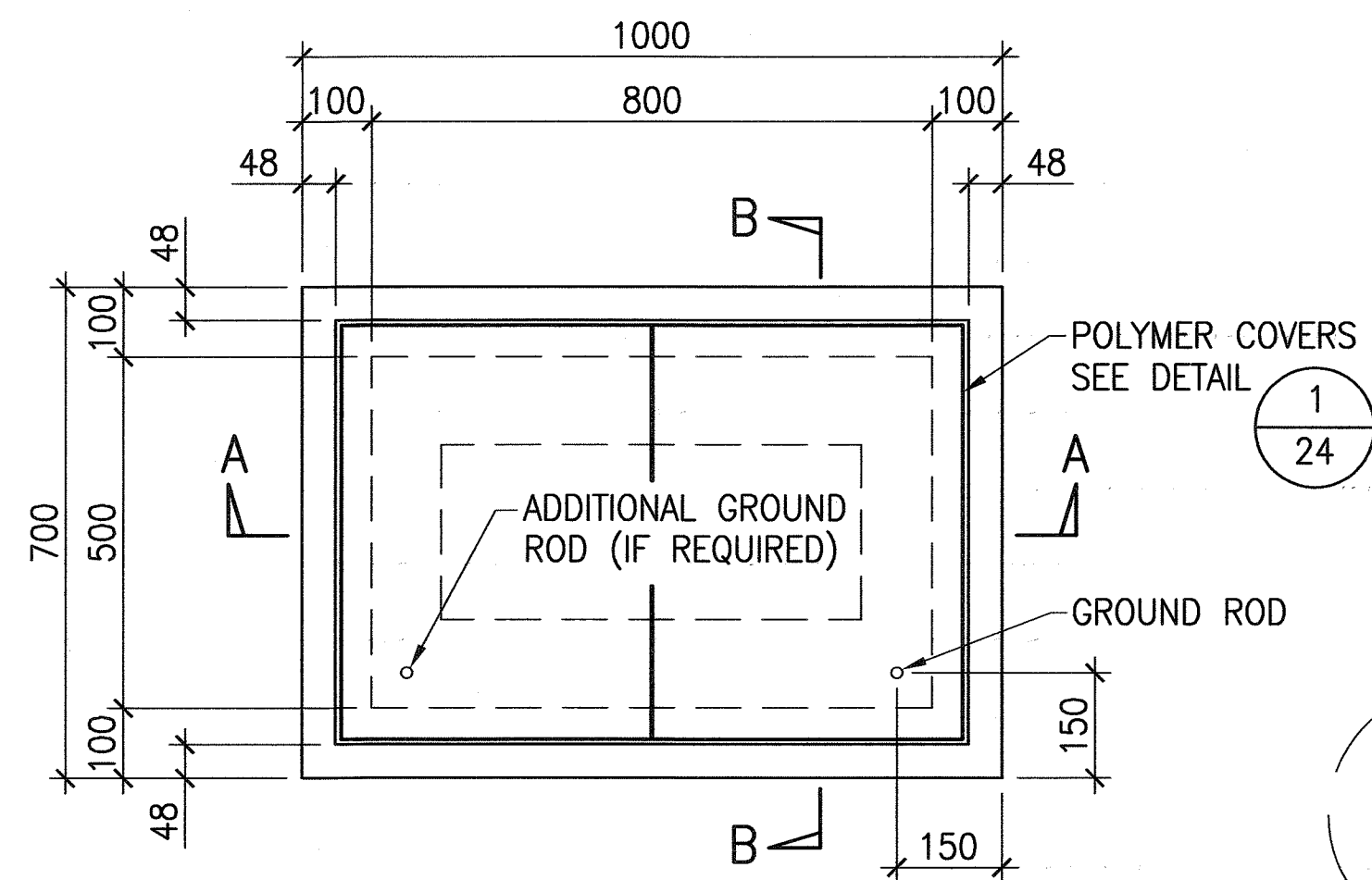


SECTION A-A

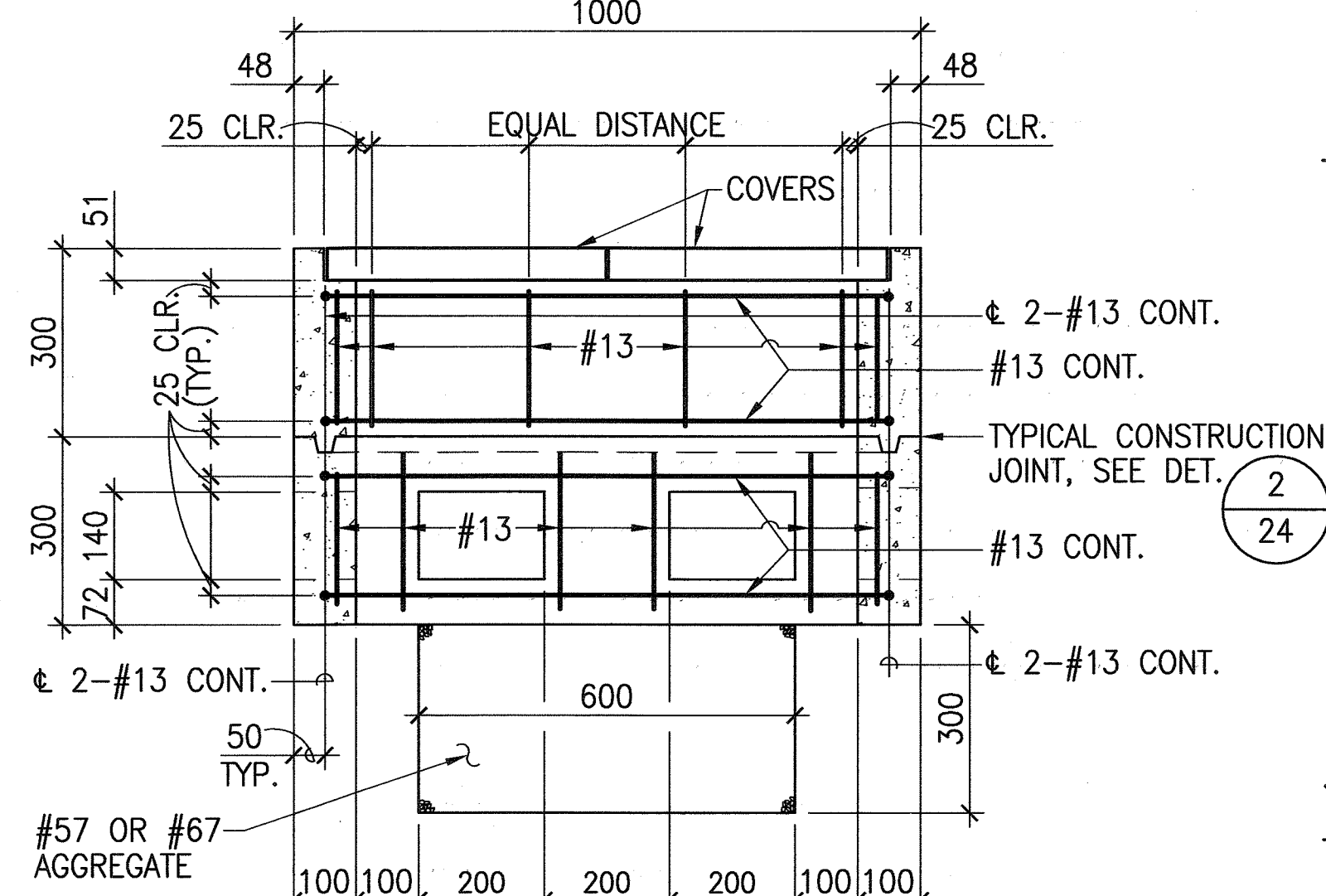


SECTION B-B

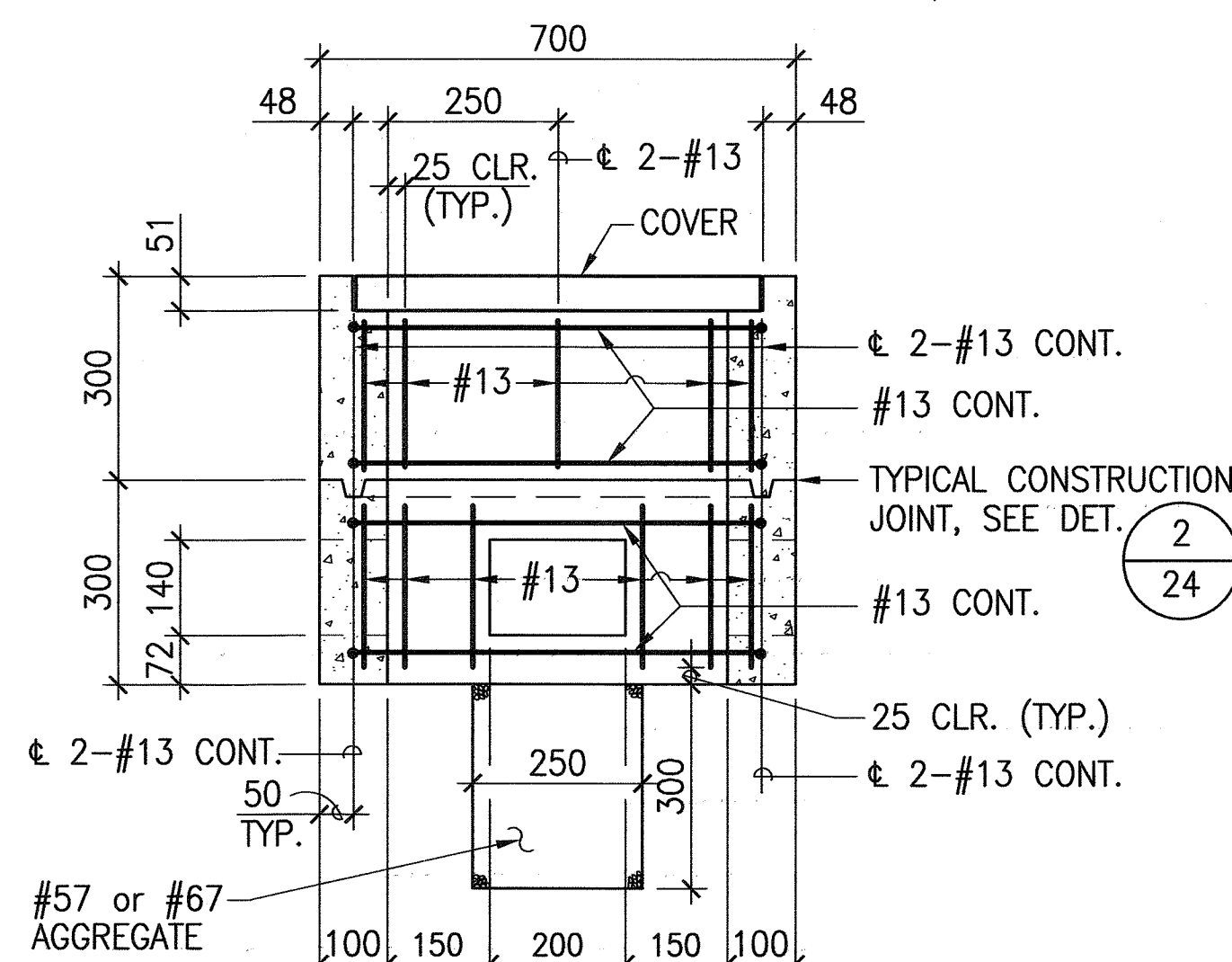
TYPE "A" PULLBOX (OLD TYPE "B")  
SCALE: 1:10



PLAN

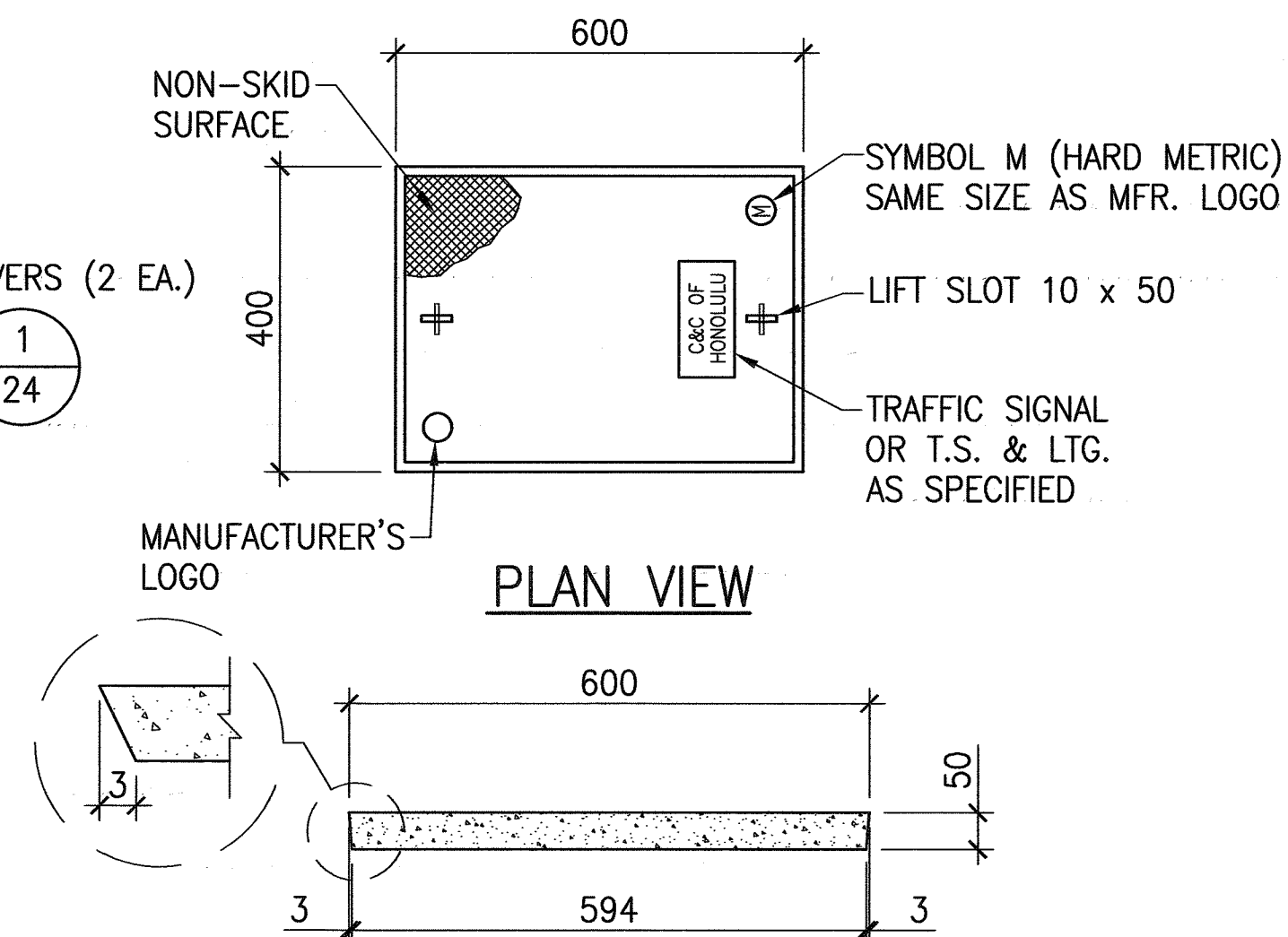


SECTION A-A



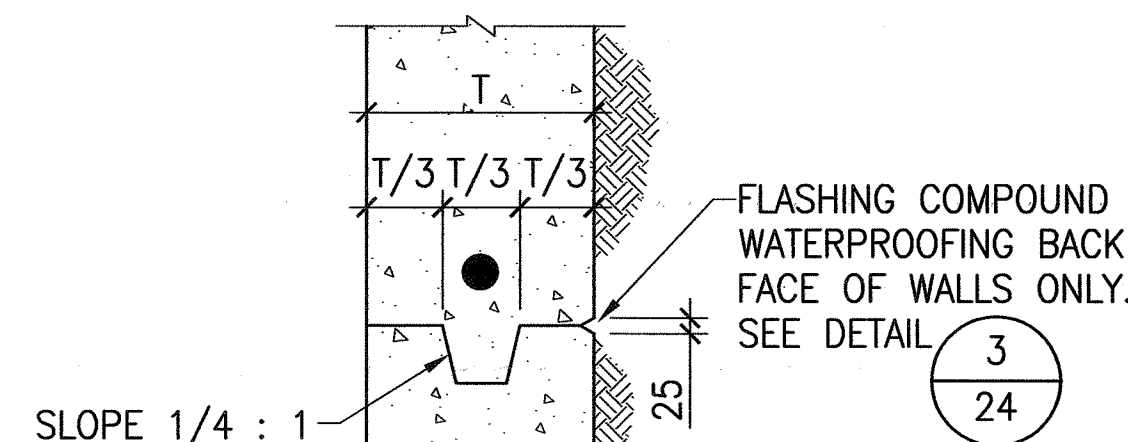
SECTION B-B

TYPE "B" PULLBOX (OLD TYPE "C")  
SCALE: 1:10

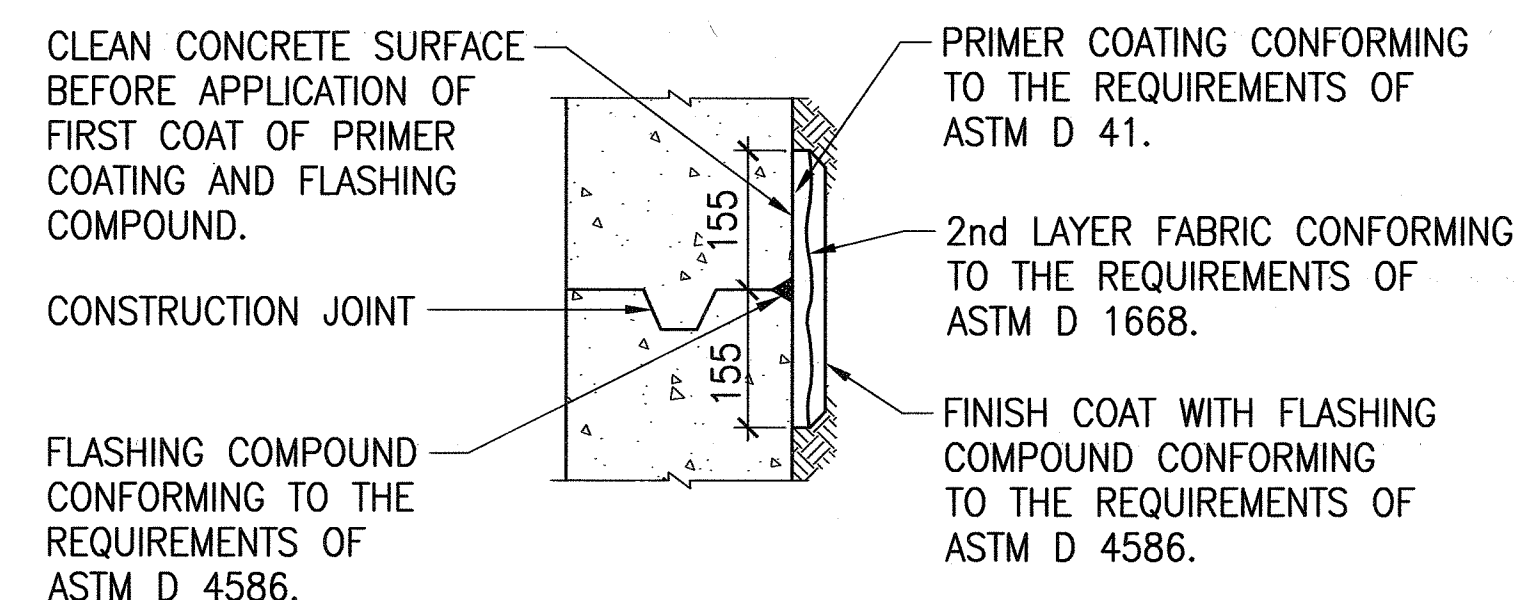


ELEVATION

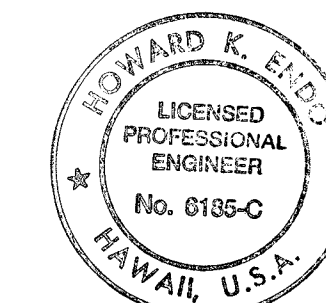
POLYMER CONCRETE COVER 1  
NOT TO SCALE



TYP. CONSTRUCTION JOINT DETAIL 2  
NOT TO SCALE



TYP. FLASHING COMPOUND WATERPROOFING DETAILS 3  
NOT TO SCALE



EXPIRATION DATE: 4/30/06

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.

Signature: Howard K. Eng Date: 9/22/04

"OBSERVATION OF CONSTRUCTION" IS DEFINED IN CHAPTER 16-115, HAWAII ADMINISTRATIVE RULES ENTITLED "PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS".

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

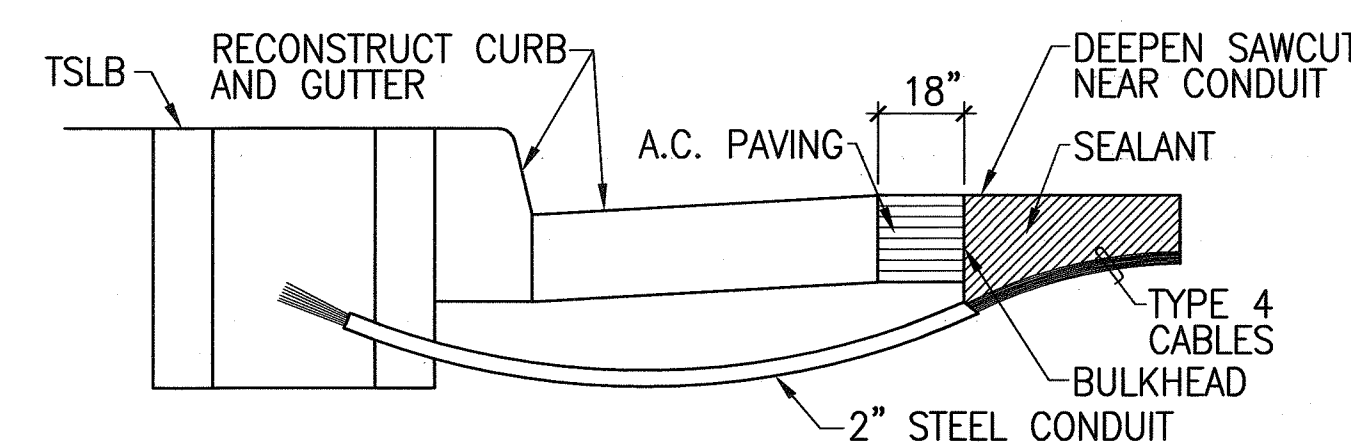
## MISCELLANEOUS DETAILS - 3

Pedestrian Facilities & ADA Compliance  
at Various Locations on Kaua'i  
Fed. Aid Proj. No. CMAQ-0700(50) R

Scale: AS NOTED Date: AUG. 13, 2004

SHEET No. 3 OF 4 SHEETS

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | CMAQ-0700(50)R     | 2004        | 25        | 100          |

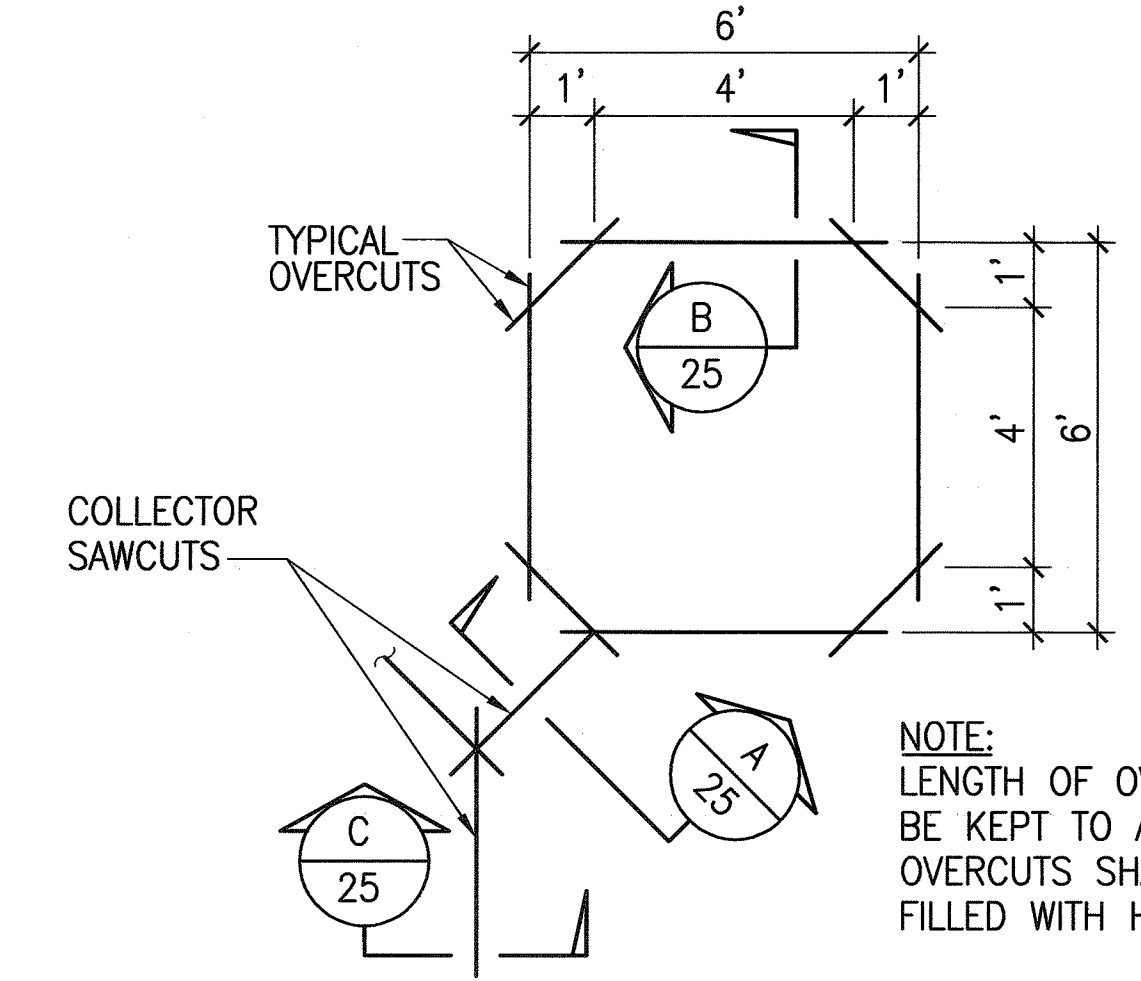


- NOTES ON CONSTRUCTION AT END OF SAWCUT:**
1. SEAL ROADWAY END OF CONDUIT AFTER INSTALLATION OF CONDUCTORS.
  2. INSTALL BULKHEAD ACROSS CONDUIT TRENCH.
  3. PLACE HOT TAR IN SAWCUT.
  4. BACKFILL OVER CONDUIT WITH NEW A.C.
  5. RECONSTRUCT CURB AND GUTTER AS REQUIRED.

### SENSOR LOOP INSTALLATION AT EDGE OF ROADWAY

NOT TO SCALE

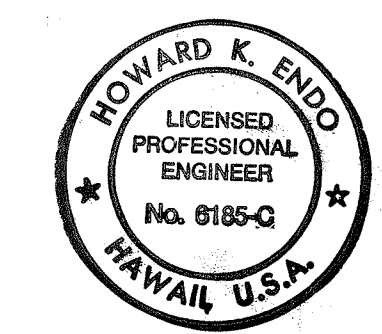
4  
25



### TYP. SENSOR LOOP SAWCUT DET.

NOT TO SCALE

6  
25

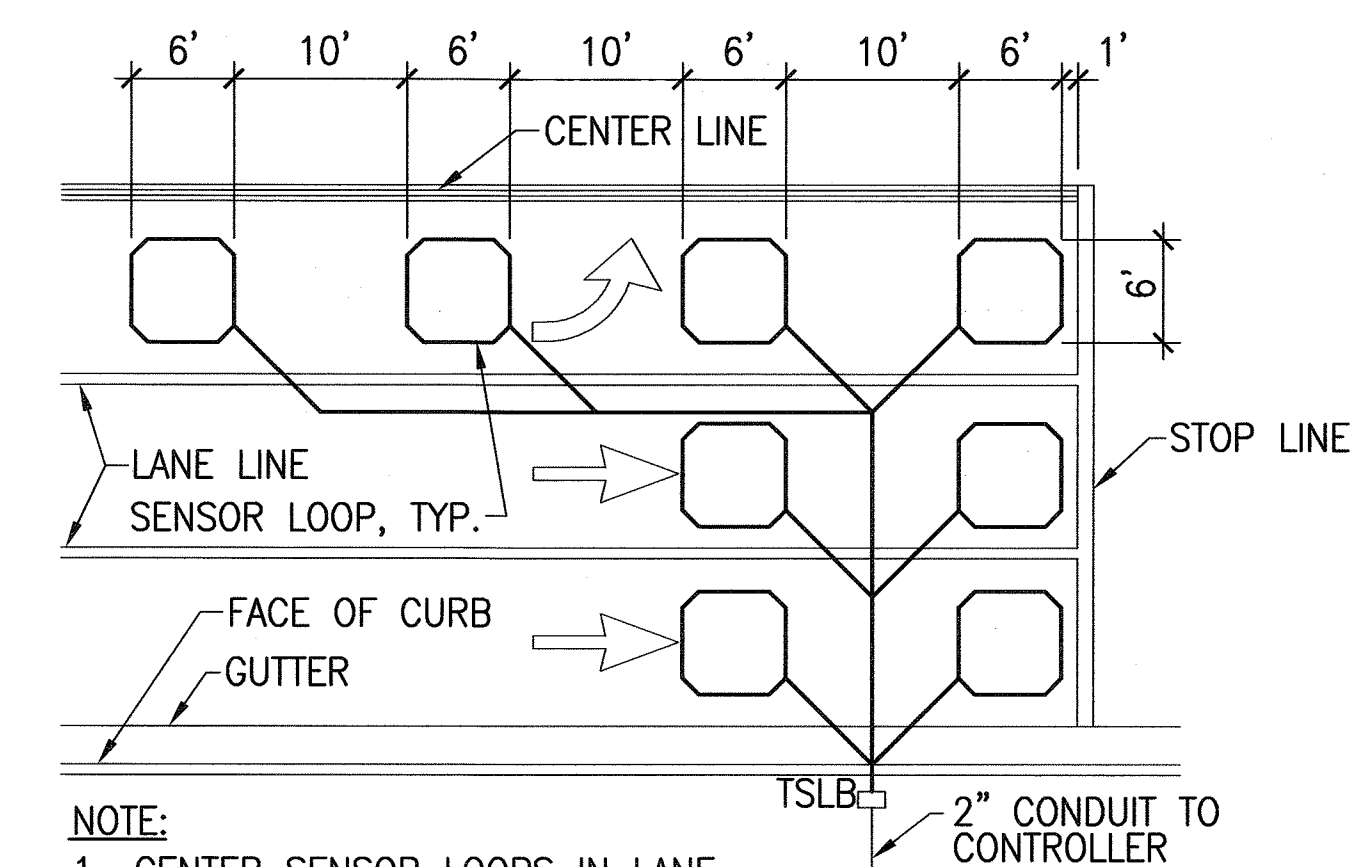


EXPIRATION DATE: 4/30/06  
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.  
*Howard K. Endo* 9/22/04  
SIGNATURE DATE  
"OBSERVATION OF CONSTRUCTION" IS DEFINED IN CHAPTER 16-115, HAWAII ADMINISTRATIVE RULES ENTITLED "PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS".

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

MISCELLANEOUS DETAILS - 4  
  
Pedestrian Facilities & ADA Compliance  
at Various Locations on Kaua'i  
Fed. Aid Proj. No. CMAQ-0700(50)R  
Scale: AS NOTED Date: AUG. 13, 2004

SHEET No. 4 OF 4 SHEETS

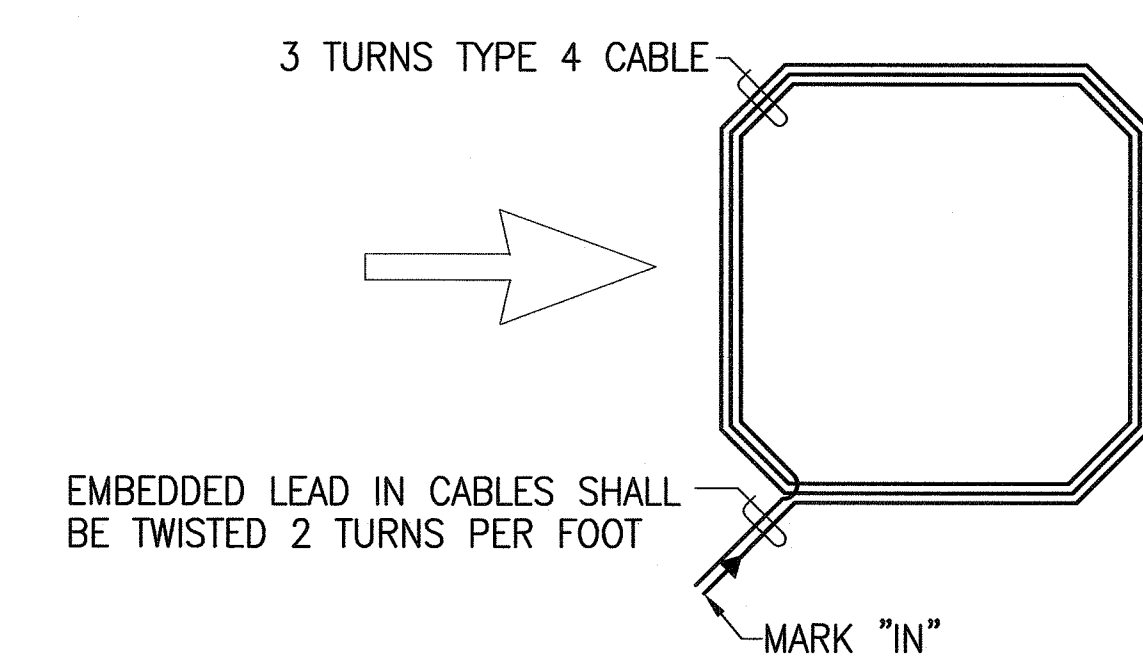


- NOTE:**
1. CENTER SENSOR LOOPS IN LANE.
  2. COLLECTOR CABLES SHALL BE TWISTED 2 TURNS PER FOOT.
  3. NUMBER OF LOOPS AND LOCATIONS VARY. SEE PROJECT PLANS.
  4. NUMBER AND LOCATIONS OF COLLECTOR SAWCUTS MAY BE VARIED IN THE FIELD TO SUIT.

### TYP. SENSOR LOOP LAYOUT

NOT TO SCALE

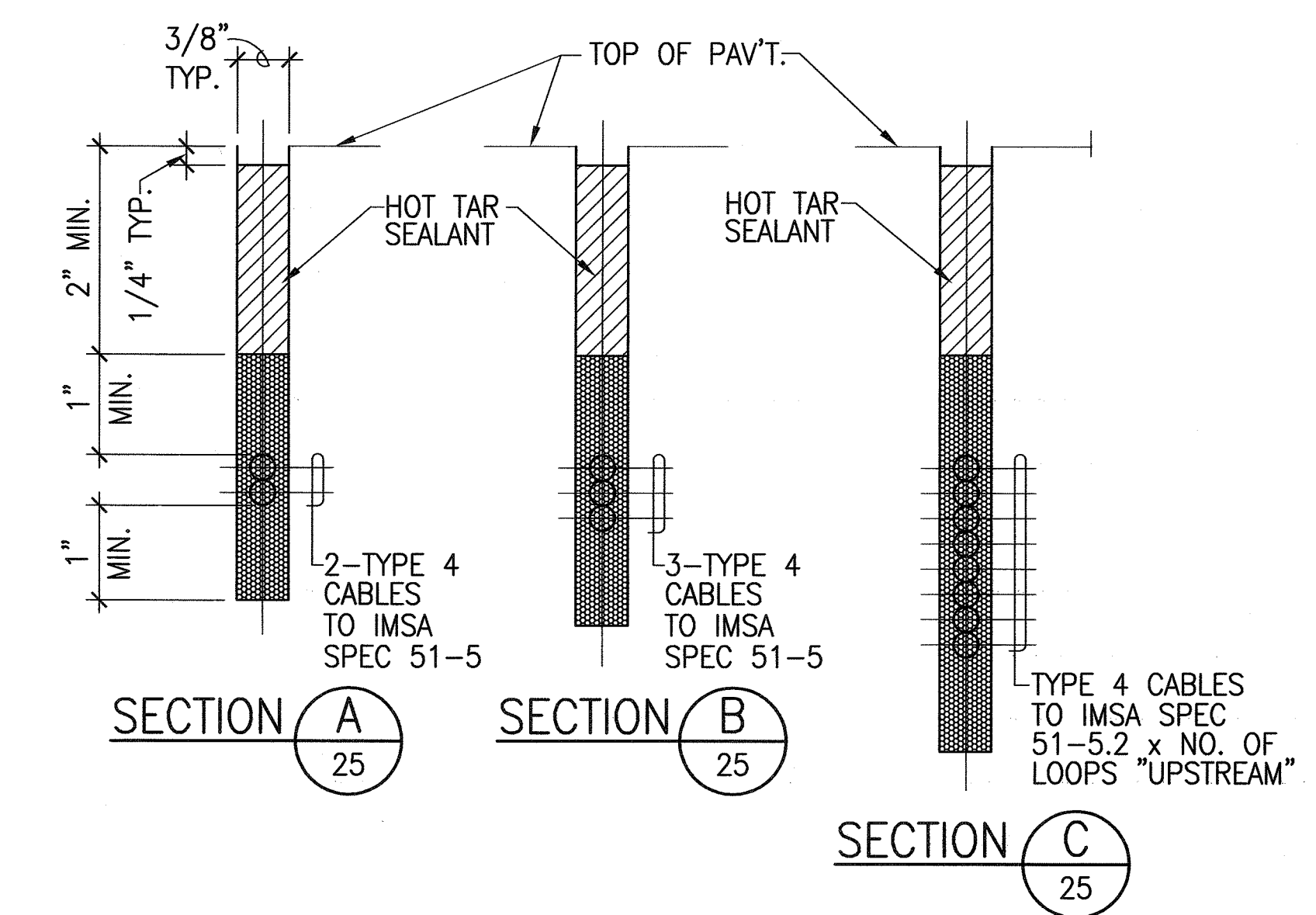
3  
25



### TYP. SENSOR LOOP WIRING DIAGRAM

NOT TO SCALE

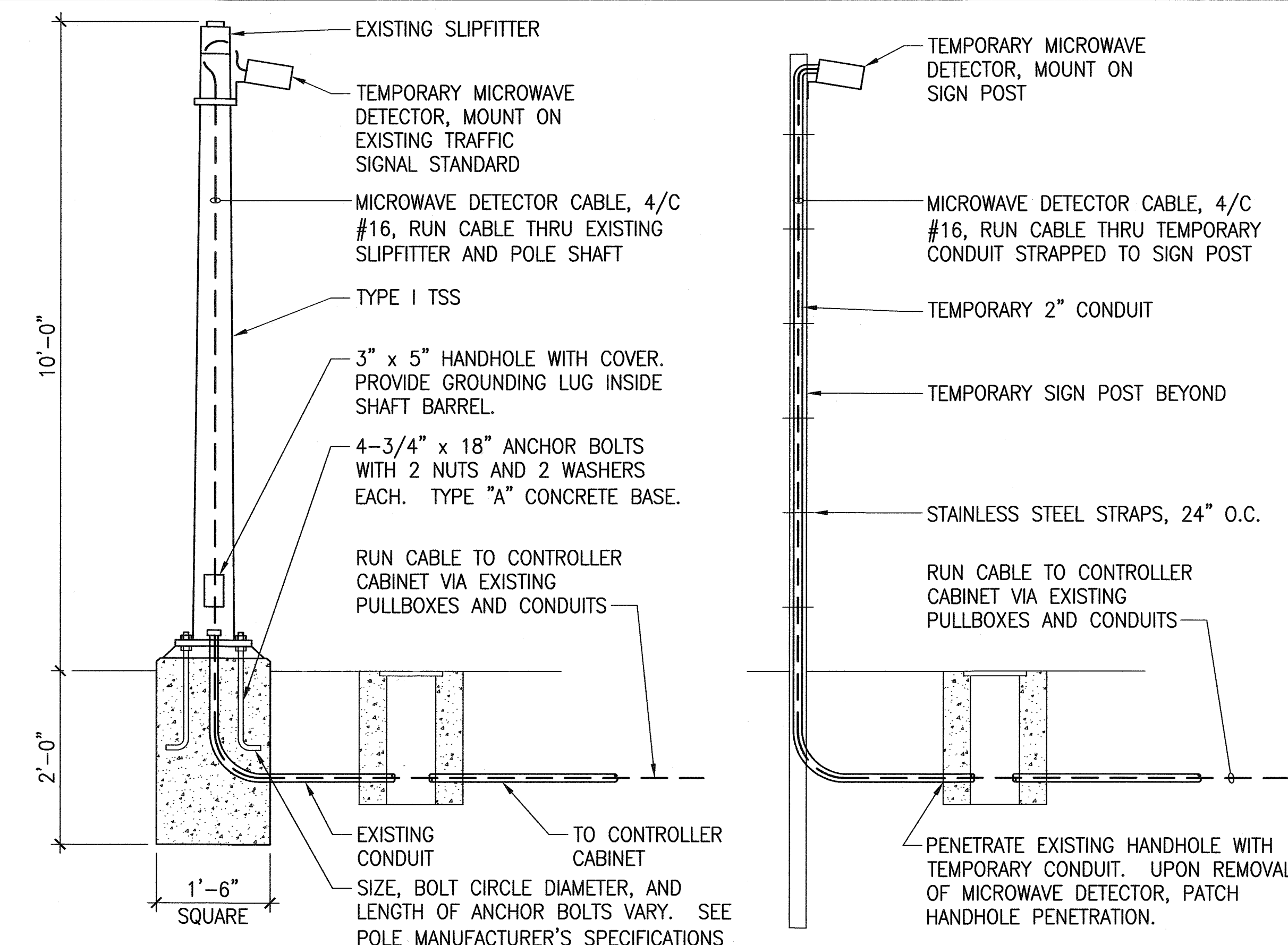
5  
25



### TYP. SECTION THROUGH SENSOR LOOP

NOT TO SCALE

7  
25



### AT EXISTING TRAFFIC SIGNAL STANDARD

### AT TEMP SIGN POST

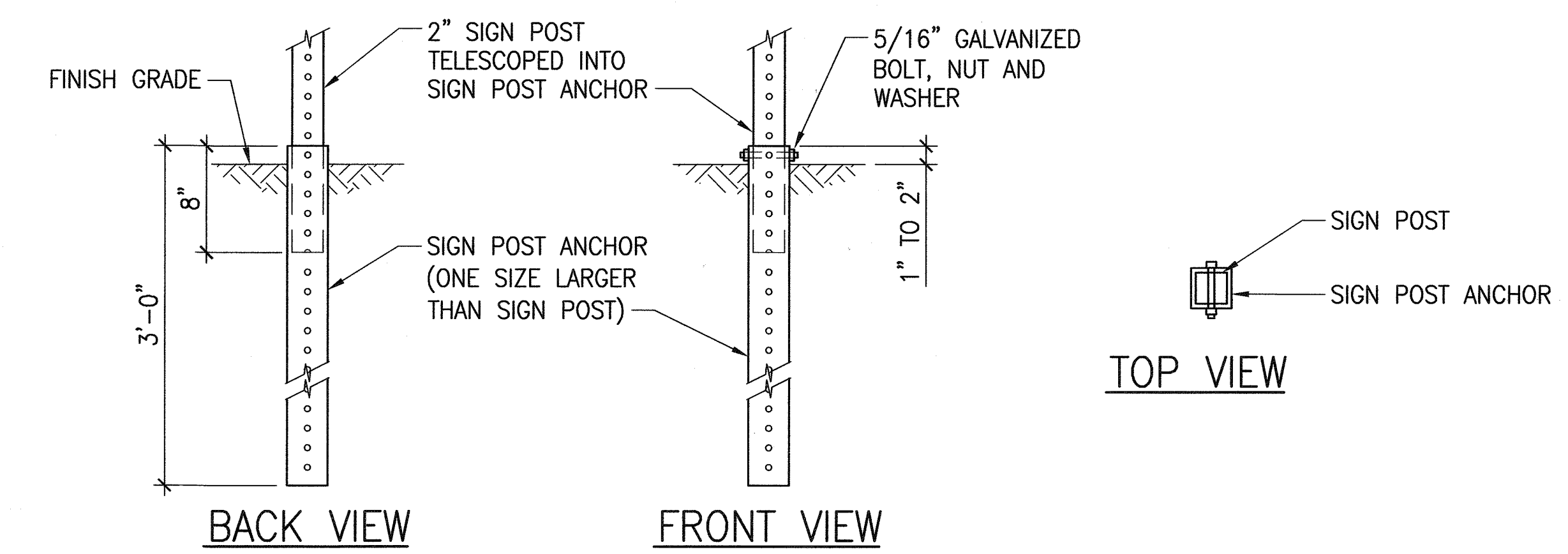
#### NOTES:

1. STANDARDS SHALL BE DESIGNED IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS.
2. CONCRETE SHALL BE CLASS "B".
3. TYPE "A" CONCRETE BASE SHALL BE USED FOR TYPE I-10, TRAFFIC SIGNAL STANDARDS.
4. CONDUIT BEND IS INCIDENTAL TO CONCRETE BASE.

### TEMPORARY MICROWAVE DETECTOR DETAIL

NOT TO SCALE

1  
25



### BACK VIEW

### FRONT VIEW

### TEMPORARY SIGN POST DETAIL

NOT TO SCALE

2  
25

#### NOTES:

1. MICROWAVE DETECTOR SHALL BE OPERATIONAL BEFORE EXISTING LOOP DETECTORS ARE DEACTIVATED.
2. REMOVE MICROWAVE DETECTOR AND ALL ASSOCIATED CABLES AFTER NEW LOOP DETECTORS ARE INSTALLED AND OPERATIONAL.

|               |                   |      |
|---------------|-------------------|------|
| ORIGINAL PLAN | SURVEY PLOTTED BY | DATE |
|               | DRAWN BY          |      |
|               | TRACED BY         |      |
|               | NOTED BY          |      |
| NOTE BOOK     | QUANTITIES BY     |      |
|               | CHECKED BY        |      |
|               | No.               |      |
|               |                   |      |

0351-MISC DET-04.dwg