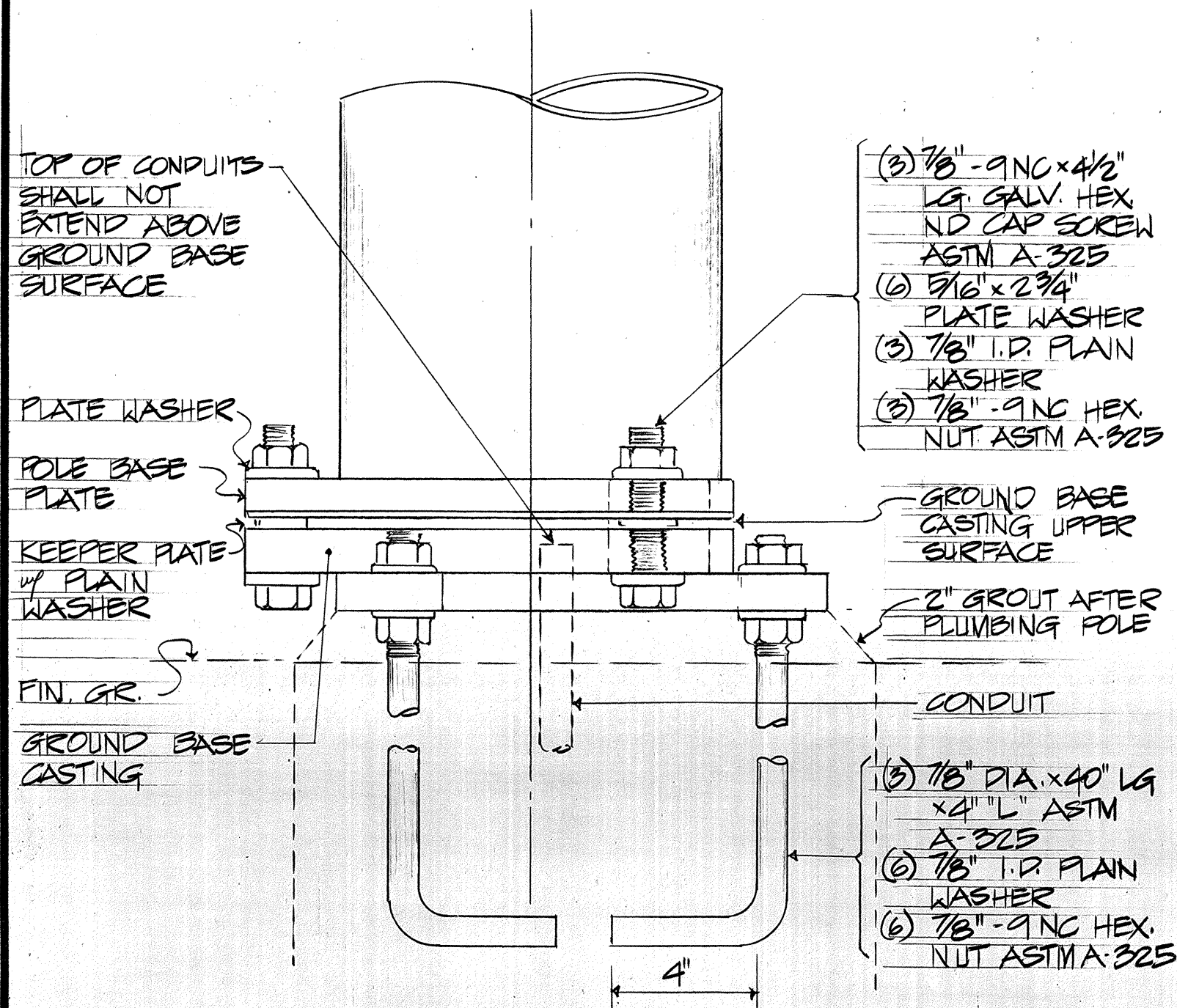
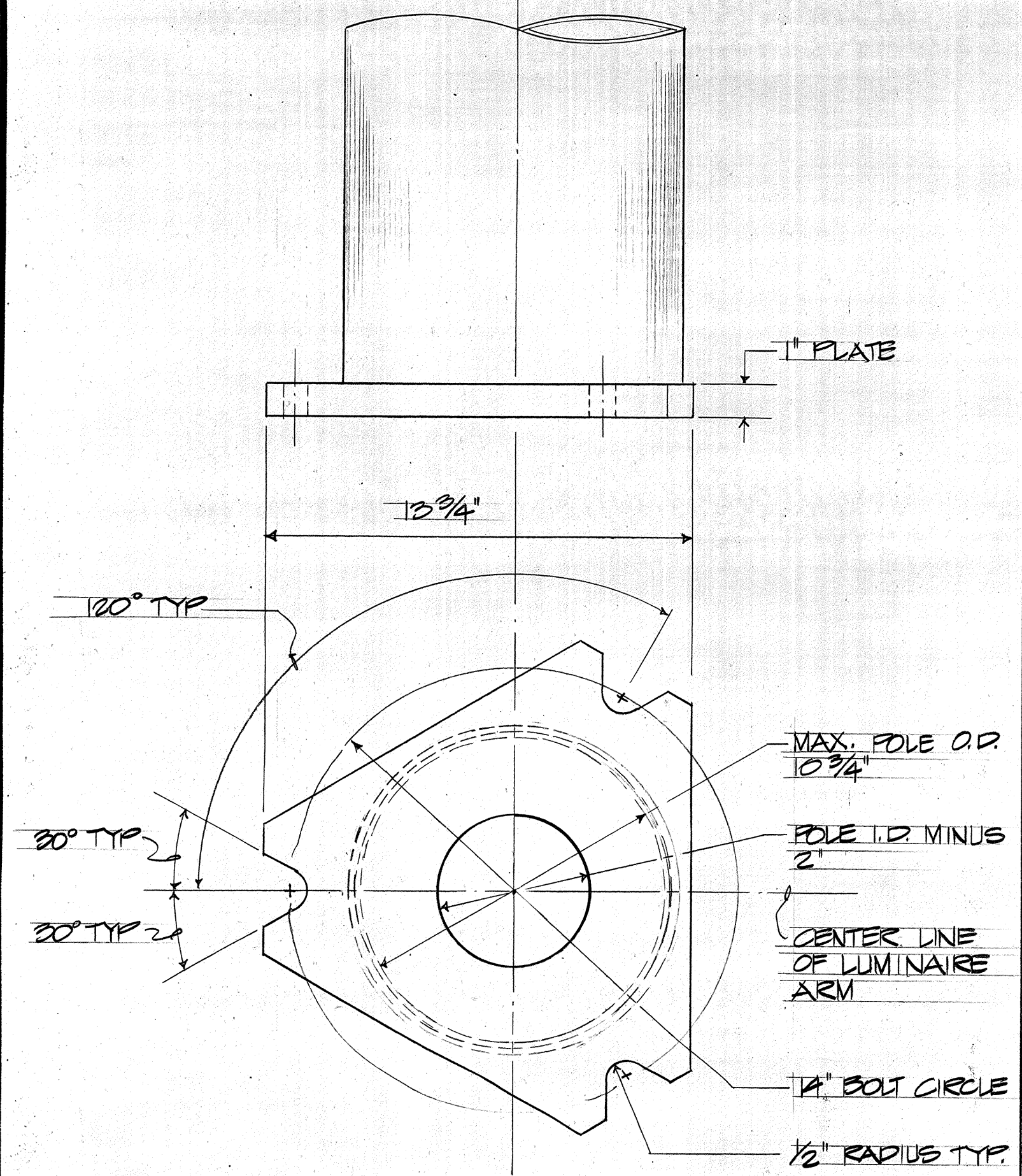




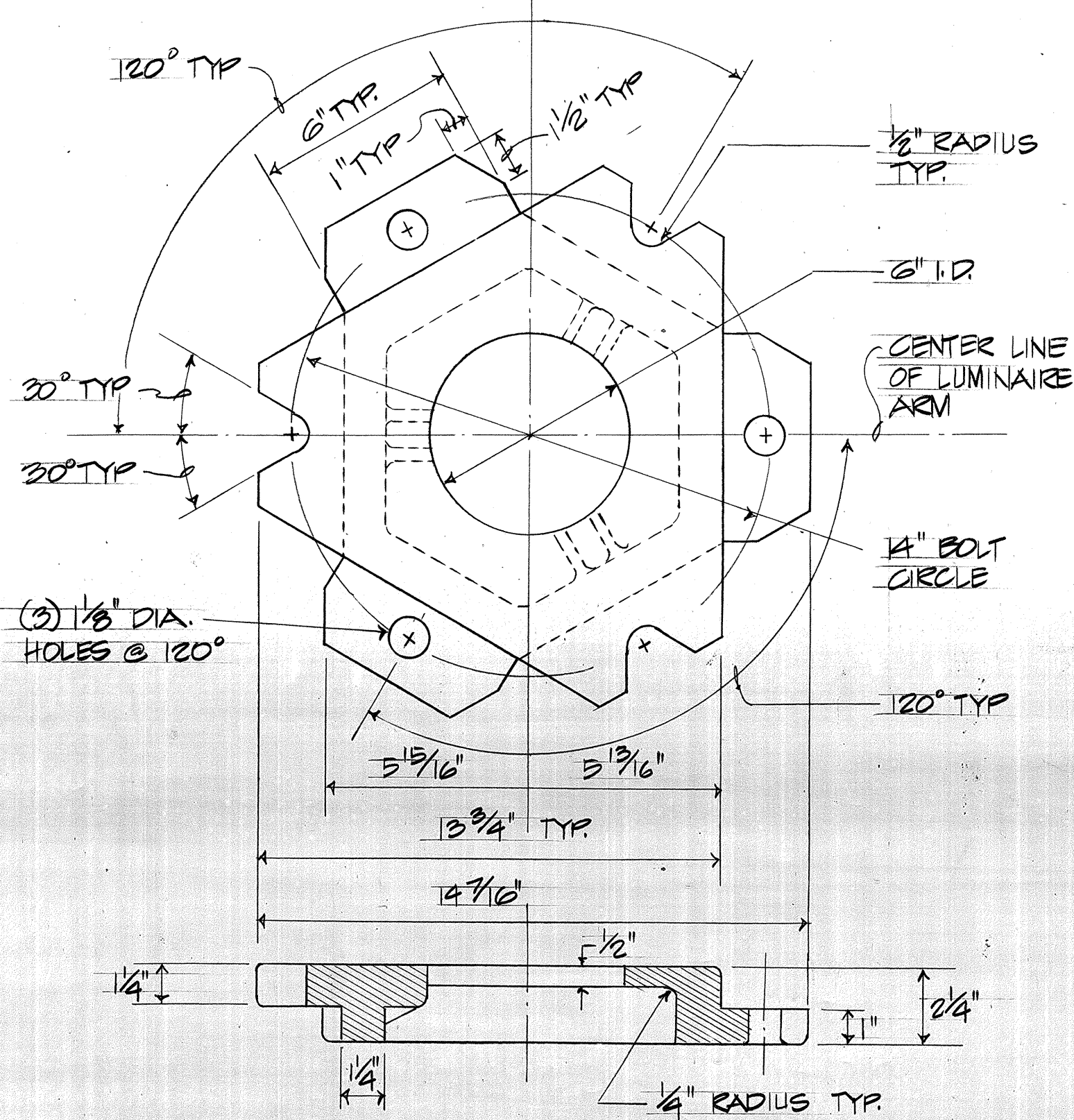
| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO.                    | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|---------------------------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | RS-0750(5)<br>HWY-0-01-81<br>(UNIT 1) | 1982        | 11        | 13           |



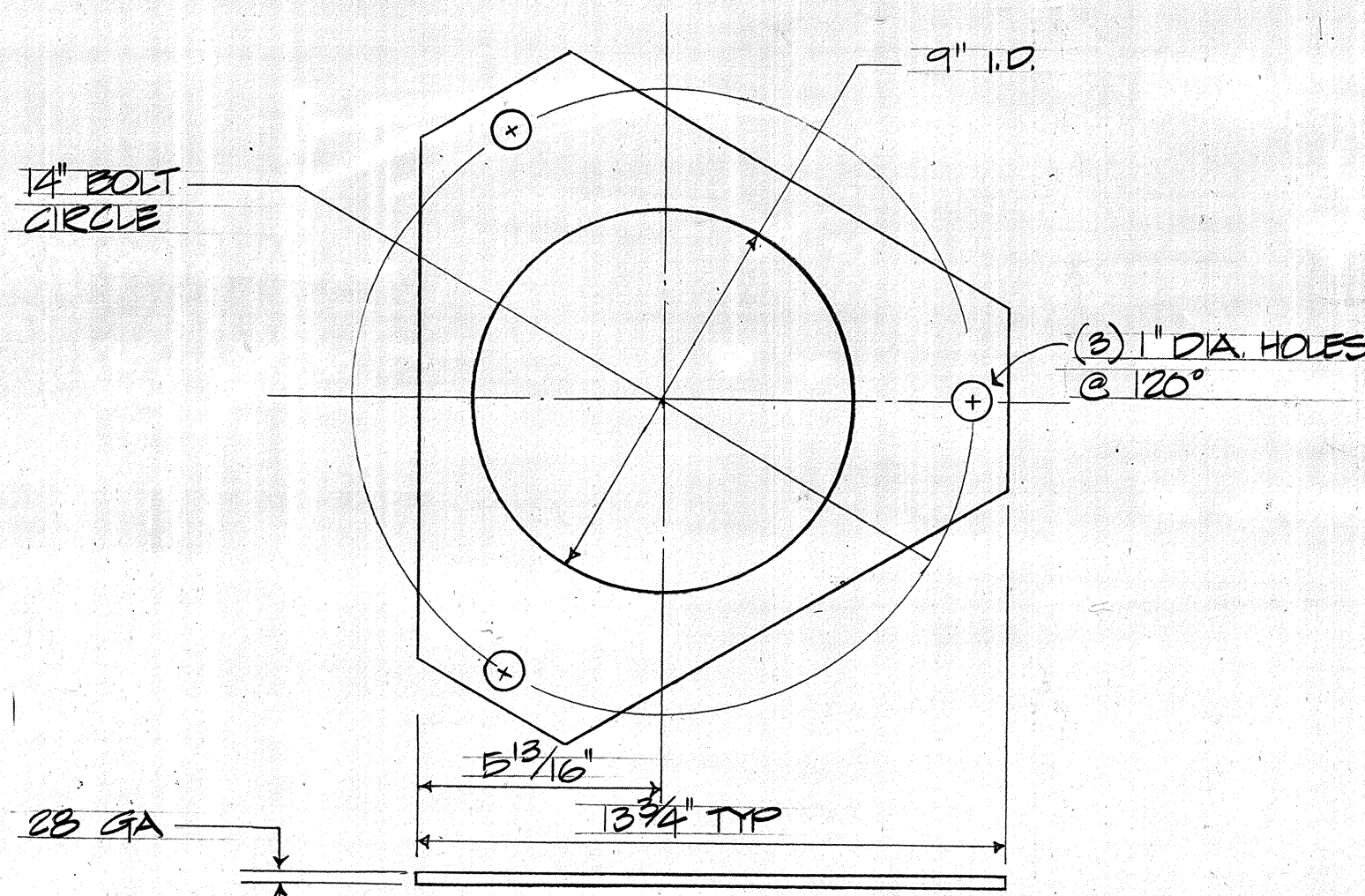
**(A) TYPICAL SLIP BASE ASSEMBLY**  
E10



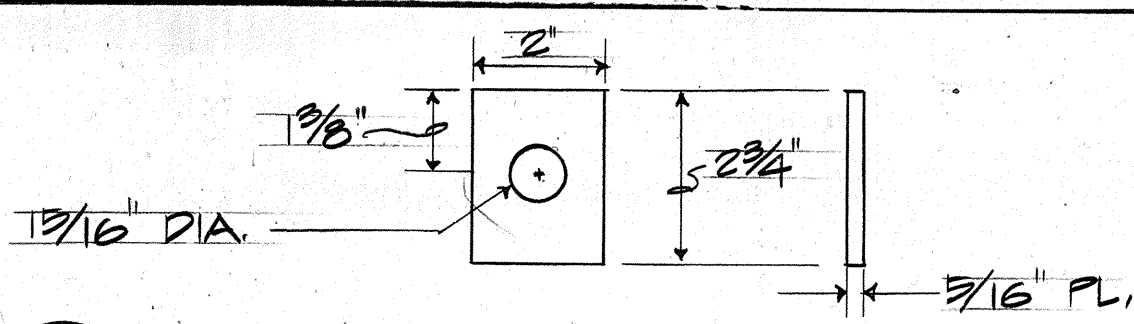
**(B) POLE BASE PLATE**  
E10  
MATERIAL: ASTM A-36



**(C) GROUND BASE CASTING**  
E10  
MATERIAL: CAST STEEL ASTM A-27 GRADE 70-40

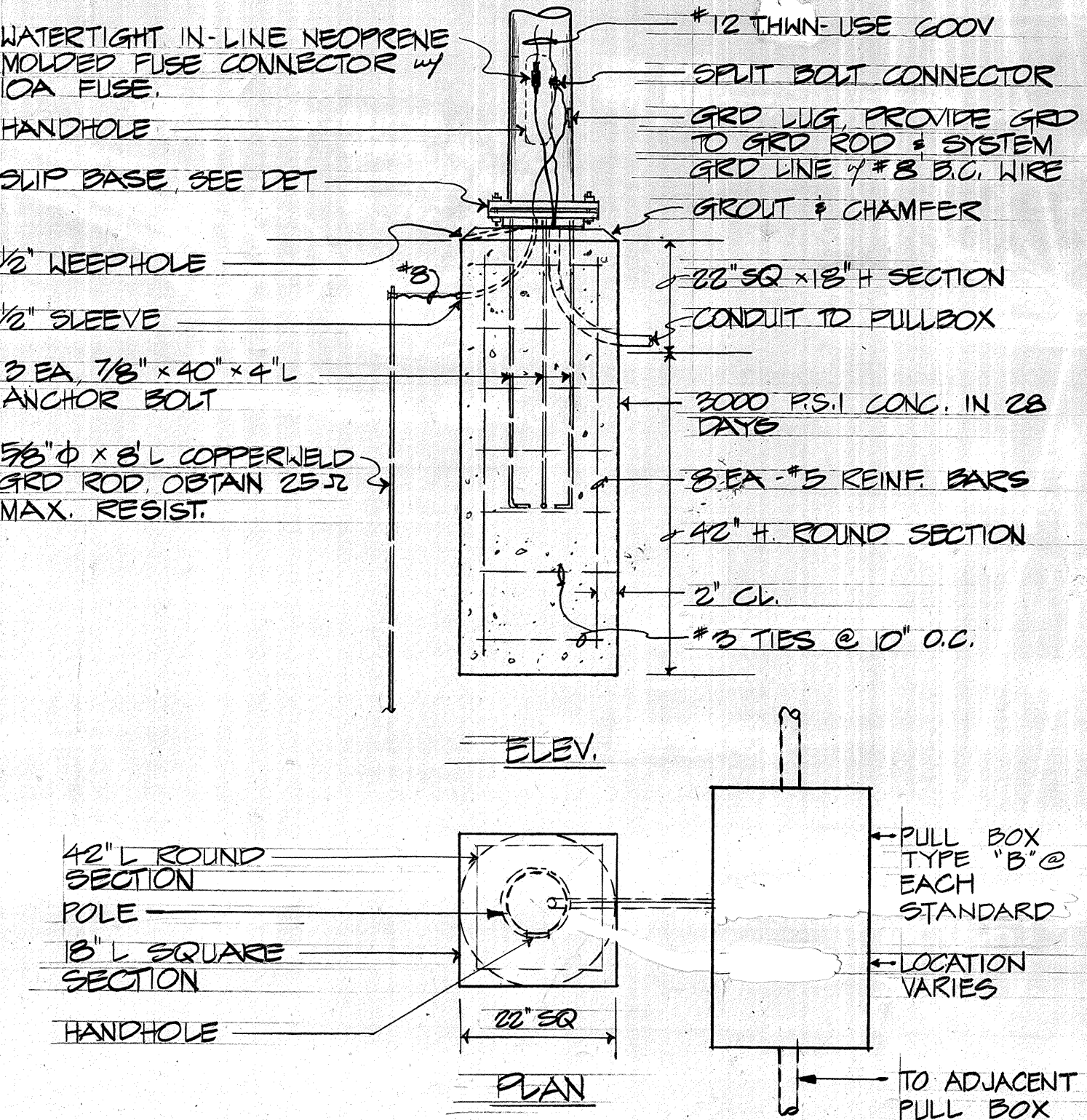
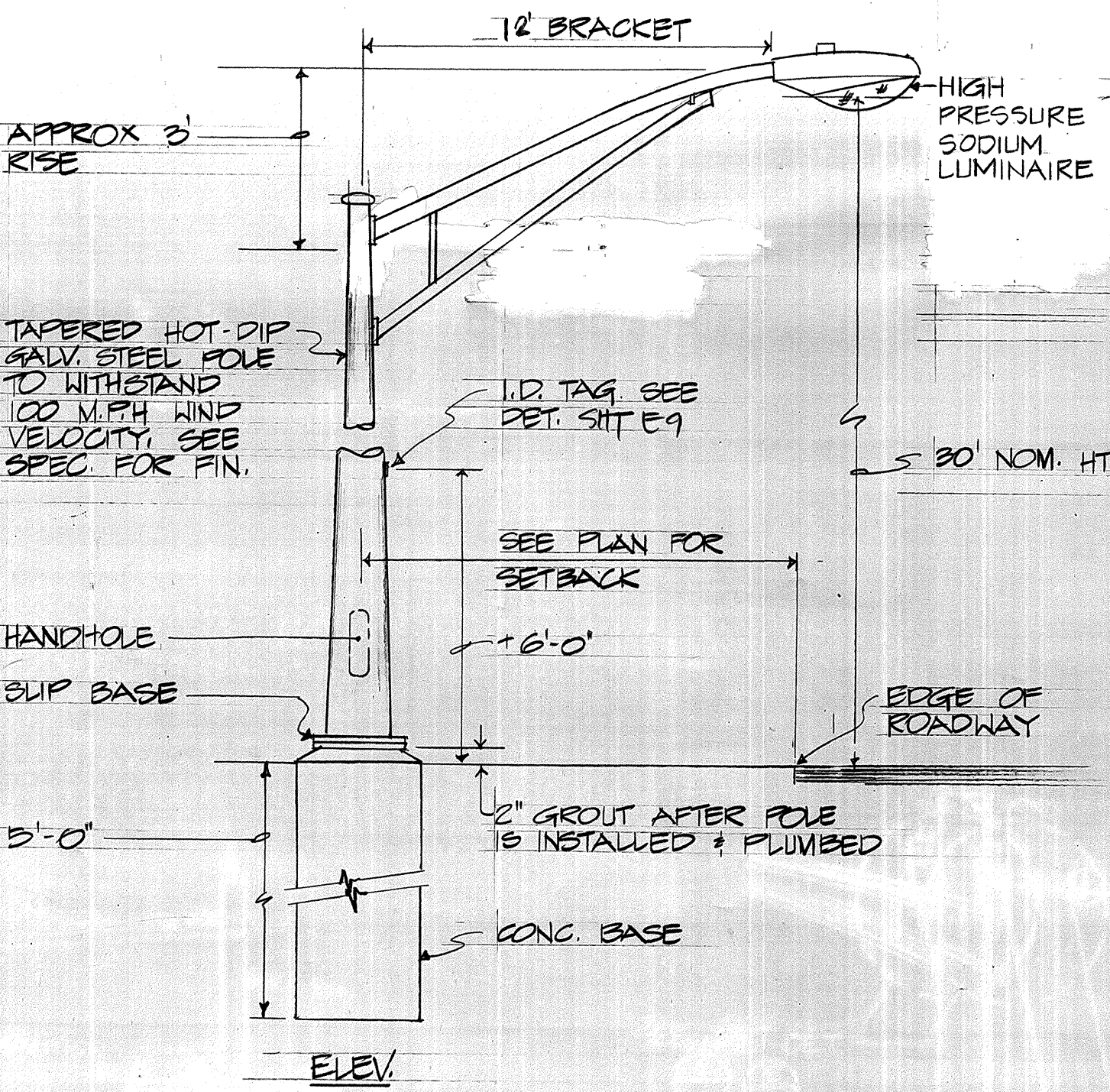


**(D) KEEPER PLATE**  
E10  
MATERIAL: ASTM A-526



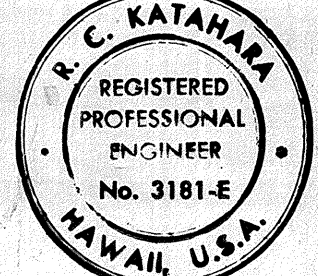
**(E) PLATE WASHER**  
E10  
MATERIAL: AISI 1018

- NOTES: (SLIP BASE)**
1. HIGH STRENGTH SLIP BOLTS SHALL BE TORQUED TO THE FOLLOWING VALUES:  
FRONT BOLTS: 84 FOOT-POUNDS  
REAR BOLTS: 110 FOOT-POUNDS
  2. POLE & SLIP BASE INSTALLATION SHALL WITHSTAND 100 M.P.H. WIND WITHOUT DAMAGE
  3. FILL ALL SLOTS WITH MASTIC.



**(F) LIGHT POLE STANDARD & SLIP BASE DET.**  
E10

|                   |       |
|-------------------|-------|
| DATE              | _____ |
| SURVEY PLOTTED BY | _____ |
| ORIGINAL PLAN     | _____ |
| DRAWN BY          | _____ |
| DESIGNED BY       | _____ |
| NOTE BOOK         | _____ |
| QUANTITIES BY     | _____ |
| CHECKED BY        | _____ |
| NO.               | _____ |



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.  
*R. C. Katamar*  
MX ENGINEERS, LTD.  
400 Fort Street, Suite 1630  
Honolulu, Hawaii 96813

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION  
DETAILS

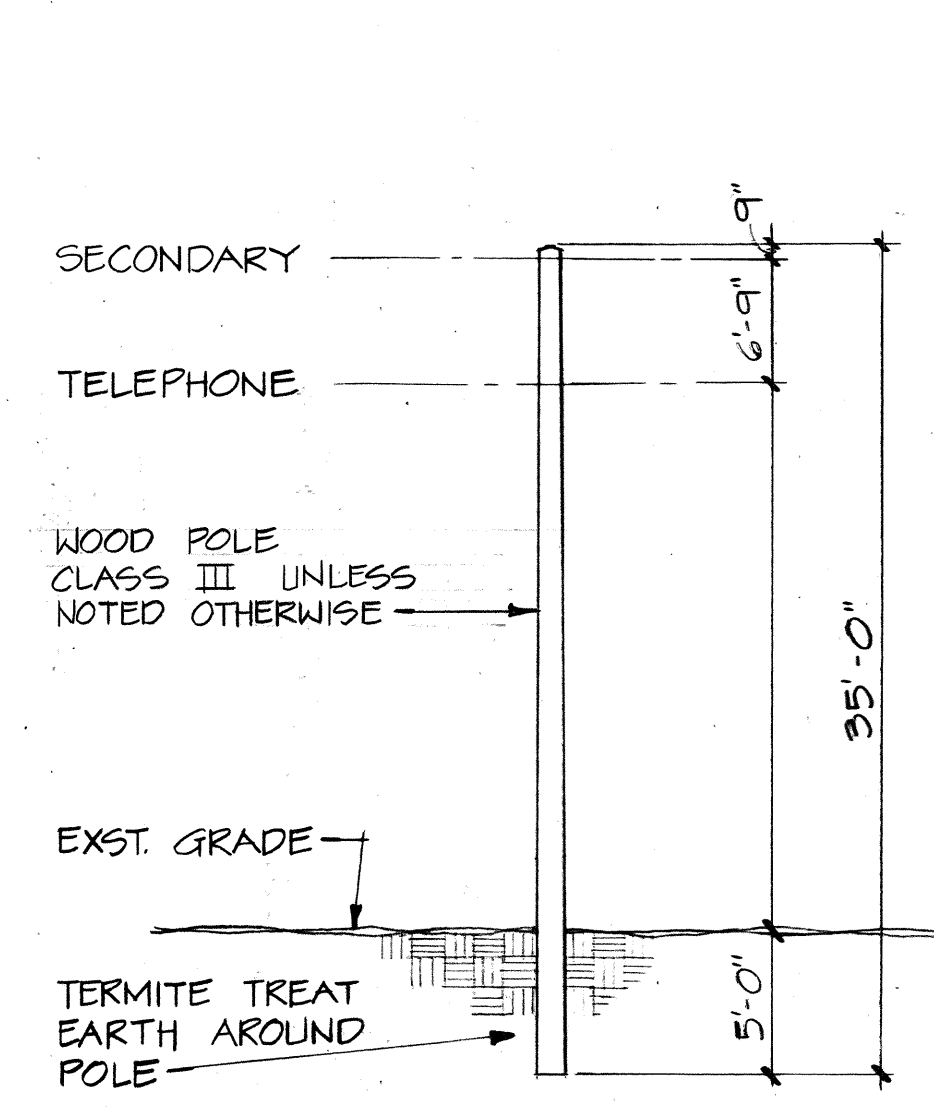
HIGHWAY LIGHTING IMPROVEMENTS, OAHU  
PROJECT NO. RS-0750(5)  
KUNIA ROAD, WILIKINA DRIVE-TOWARD WAIPAHU  
PROJECT NO. HWY-0-01-81 (UNIT 1)  
WILIKINA DRIVE, WAIHANA I.C.-TOWARD WAILUA  
SCALE: NONE  
SHEET NO. E-10 OF 13 SHEETS

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO.                    | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|---------------------------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | RS-0750(5)<br>HWY-0-01-81<br>(UNIT 1) | 1982        | 12        | 13           |

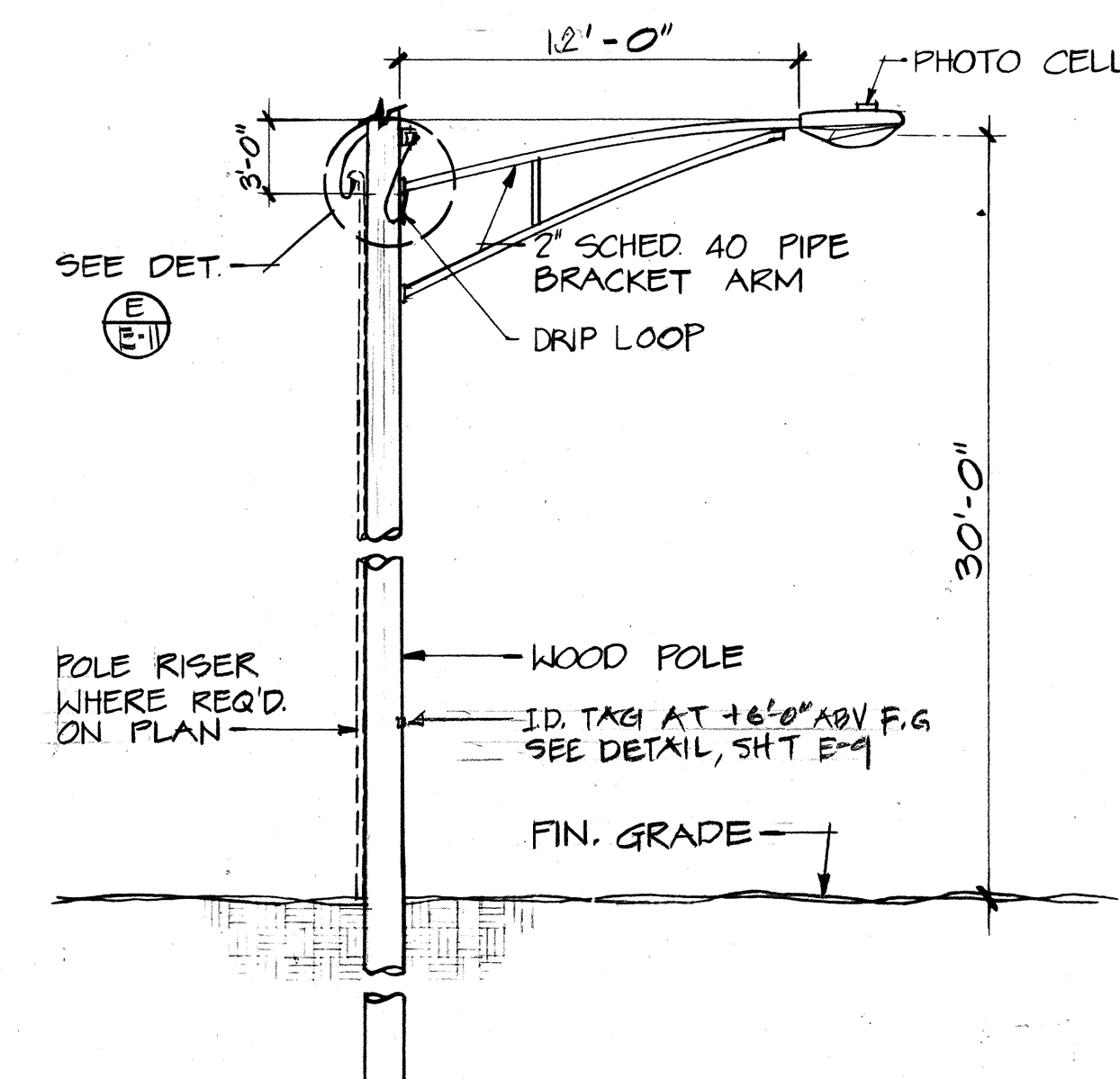
# POLE LINE MATERIAL LIST

- ① 7/16" D. GUY EYEBOLT
- ② PREFORMED STRAND GRIP
- ③ 7/16" D. GUY STRAND
- ④ STRAIN INSULATOR - 20,000 LBS.
- ⑤ YELLOW PVC GUY GUARD, 8'-0"
- ⑥ EYE FOR TWO GUYS \*
- ⑦ 3/4" D. ANCHOR ROD \*
- ⑧ 18" DIA. CONC. DEADMAN \*
- ⑨ BACKFILL W/ EXCAVATED EARTH & AVAILABLE ROCK-TAMP SOLID
- ⑩ TAP CONNECTOR
- ⑪ INSULATED SEPARABLE CONNECTOR, FUSED & NON FUSED
- ⑫ SECONDARY COND. & BARE NEUTRAL
- ⑬ GROUND ROD 3/4" D. x 8'-0" LONG
- ⑭ BARE NEUTRAL
- ⑮ ANCHOR ROD, 1" x 8'-0" SINGLE EYE W/ WASHER & NUT
- ⑯ WOOD MOULDING & GROUND WIRE (#8 BC)
- ⑰ GUY STRAND CLAMPS, SIDEWALK TYPE
- ⑱ INSULATED CLEVIS W/ PREFORMED TIE
- ⑲ 3/4" PVC 80
- ⑳ 3/8" GUY STRAND
- ㉑ 1 1/2" x 1/8" CHANNEL POLE STRUT
- ㉒ 1" D. GALV. ANCHOR W/ TWIN EYE

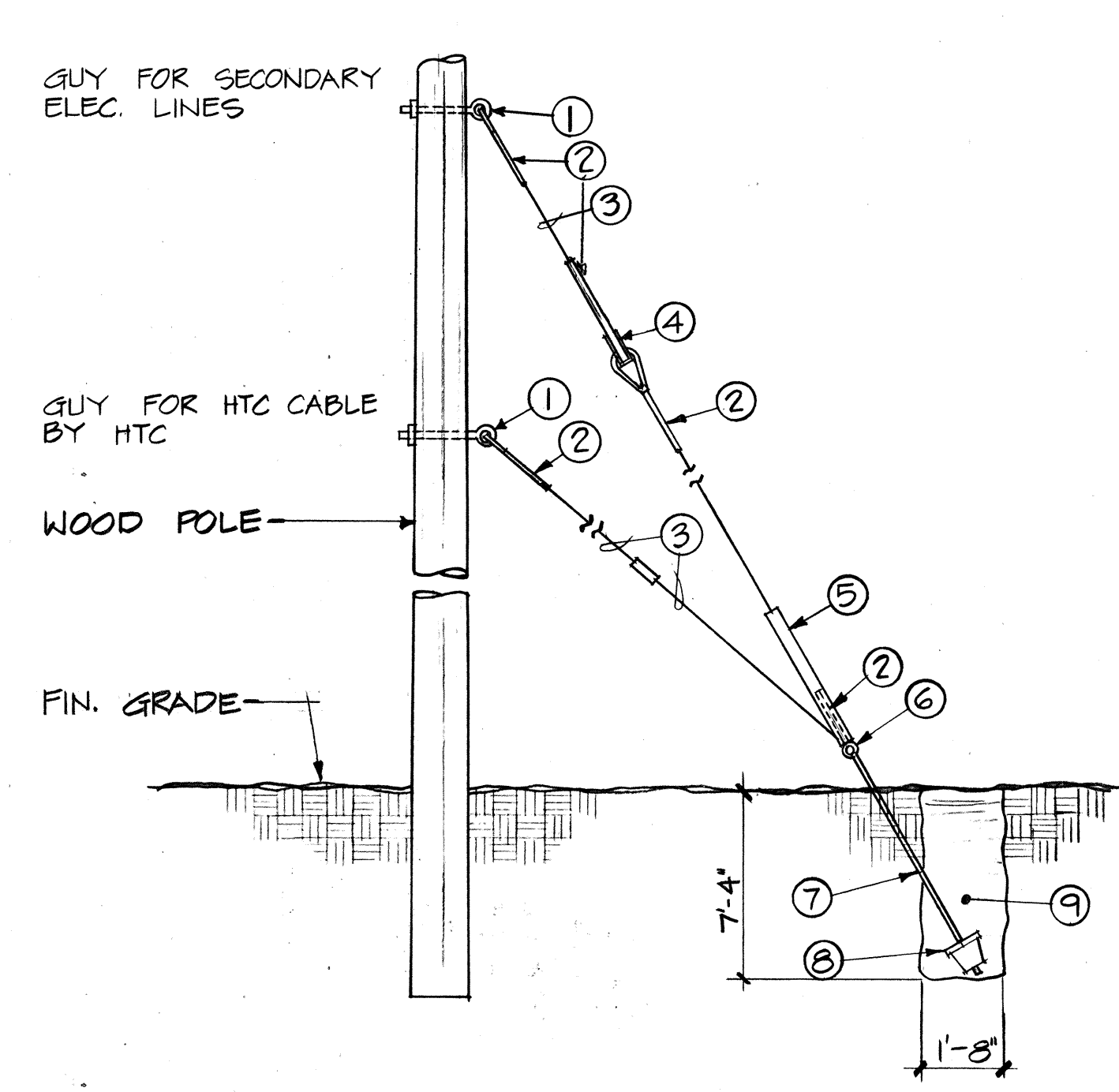
\* WHEN HTC SHARES ANCHOR, PROVIDE 1" Φ DOUBLE EYE GUY ROD & USE 24" D CONC. DEADMAN



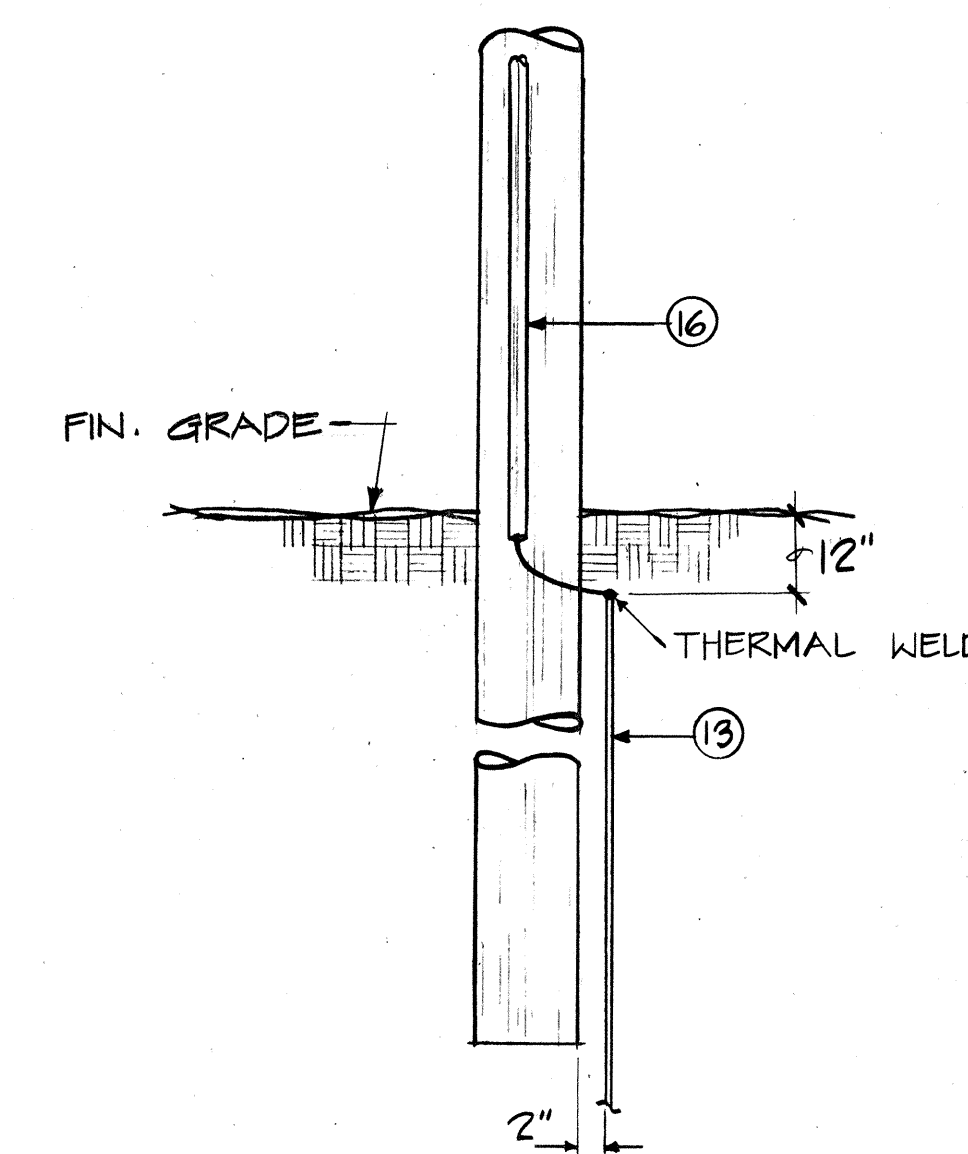
POLE FRAMING DETAIL (A) E-11  
NOT TO SCALE



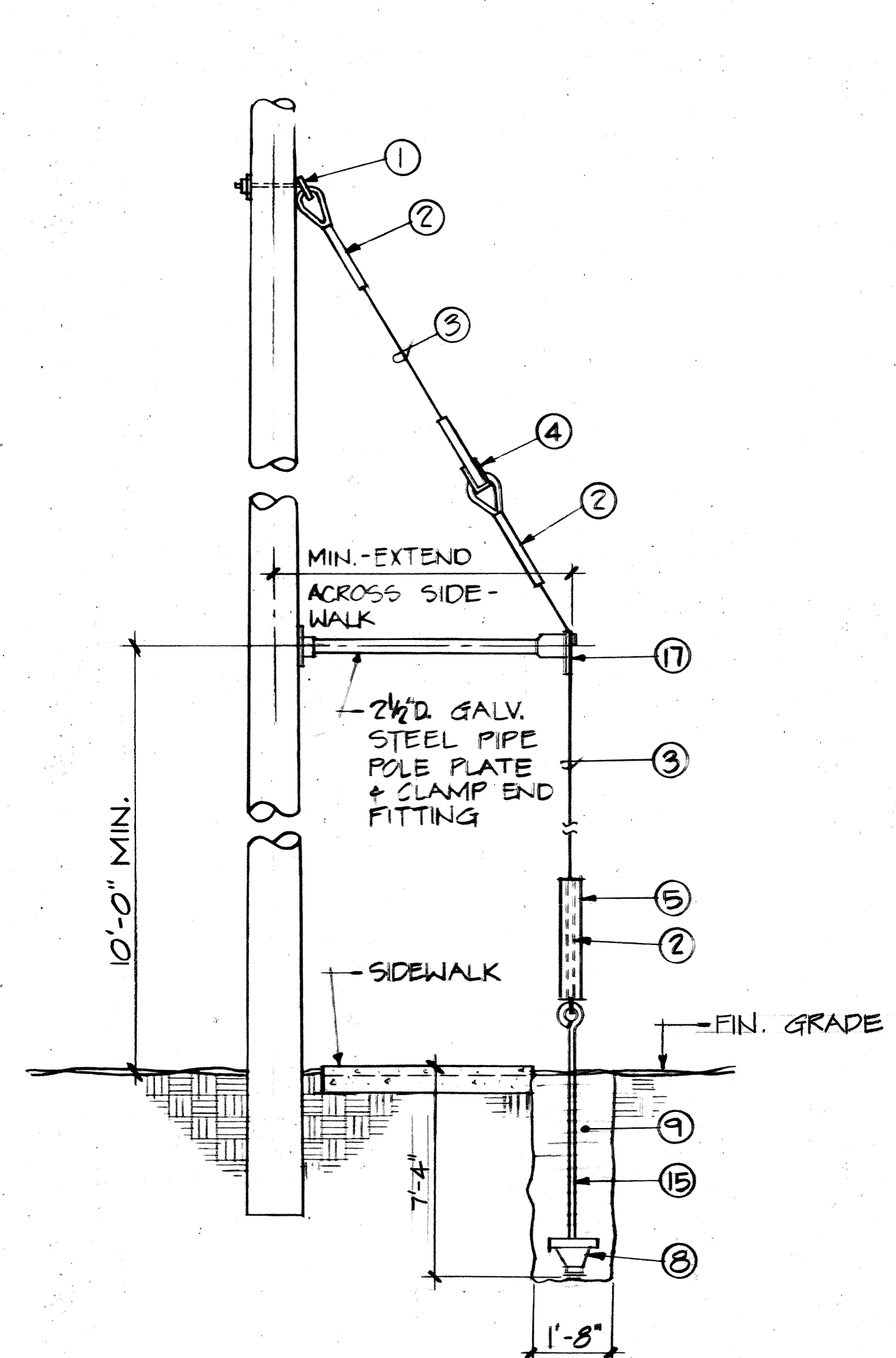
LIGHT POLE STANDARD (B) E-11  
NOT TO SCALE



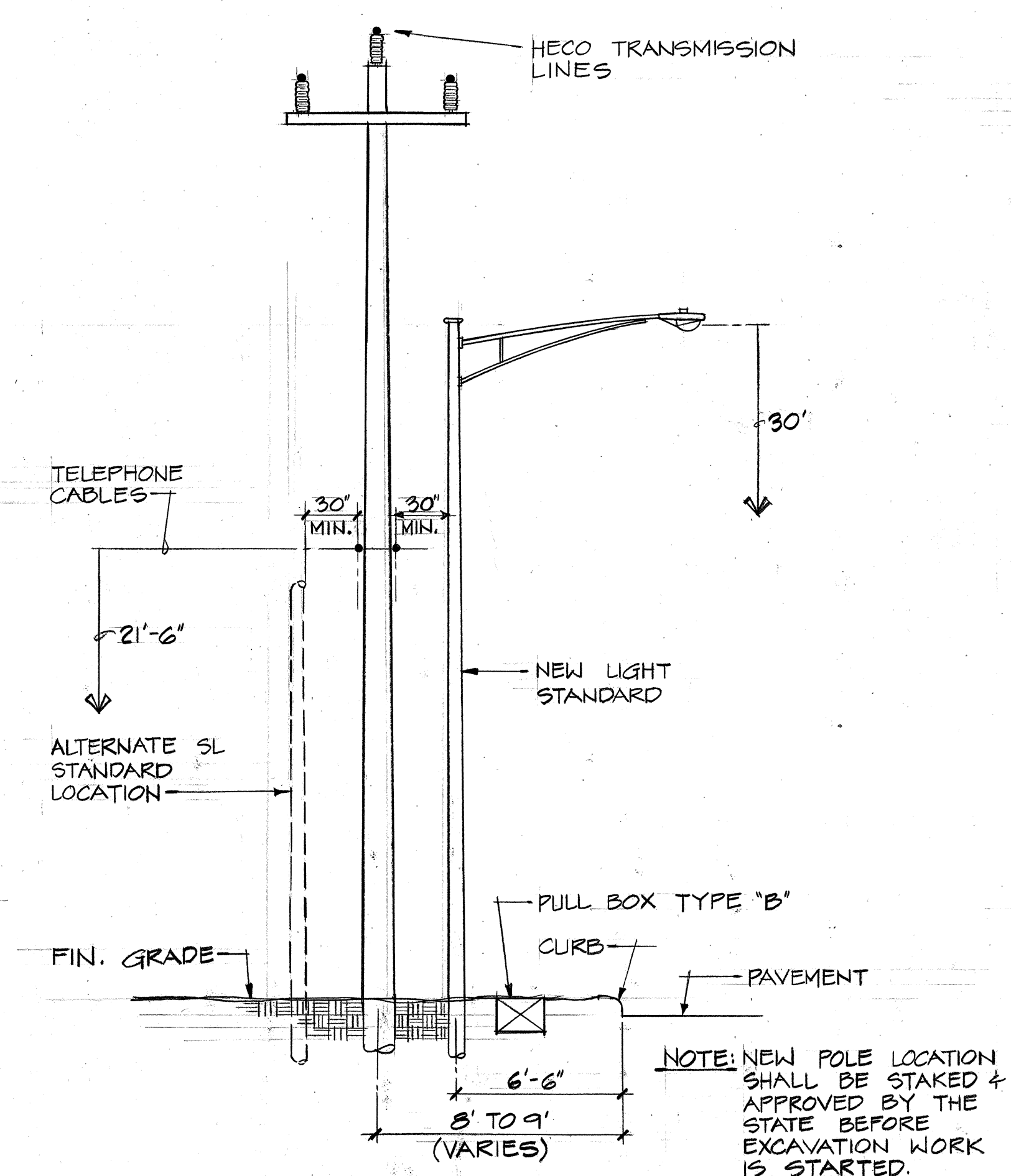
GUY ANCHOR DETAIL (C) E-11  
NOT TO SCALE



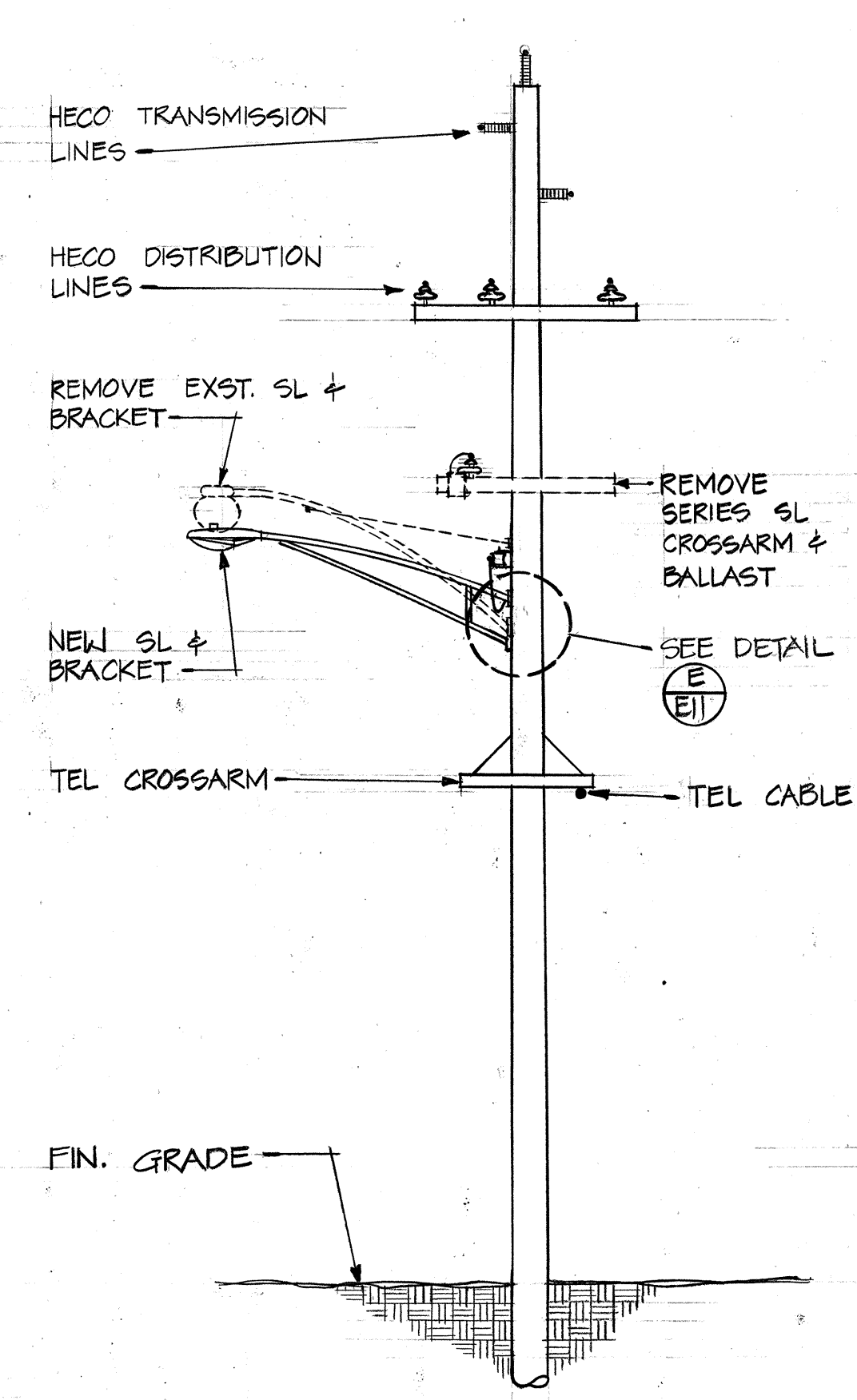
GROUNDING DETAIL (D) E-11  
NOT TO SCALE



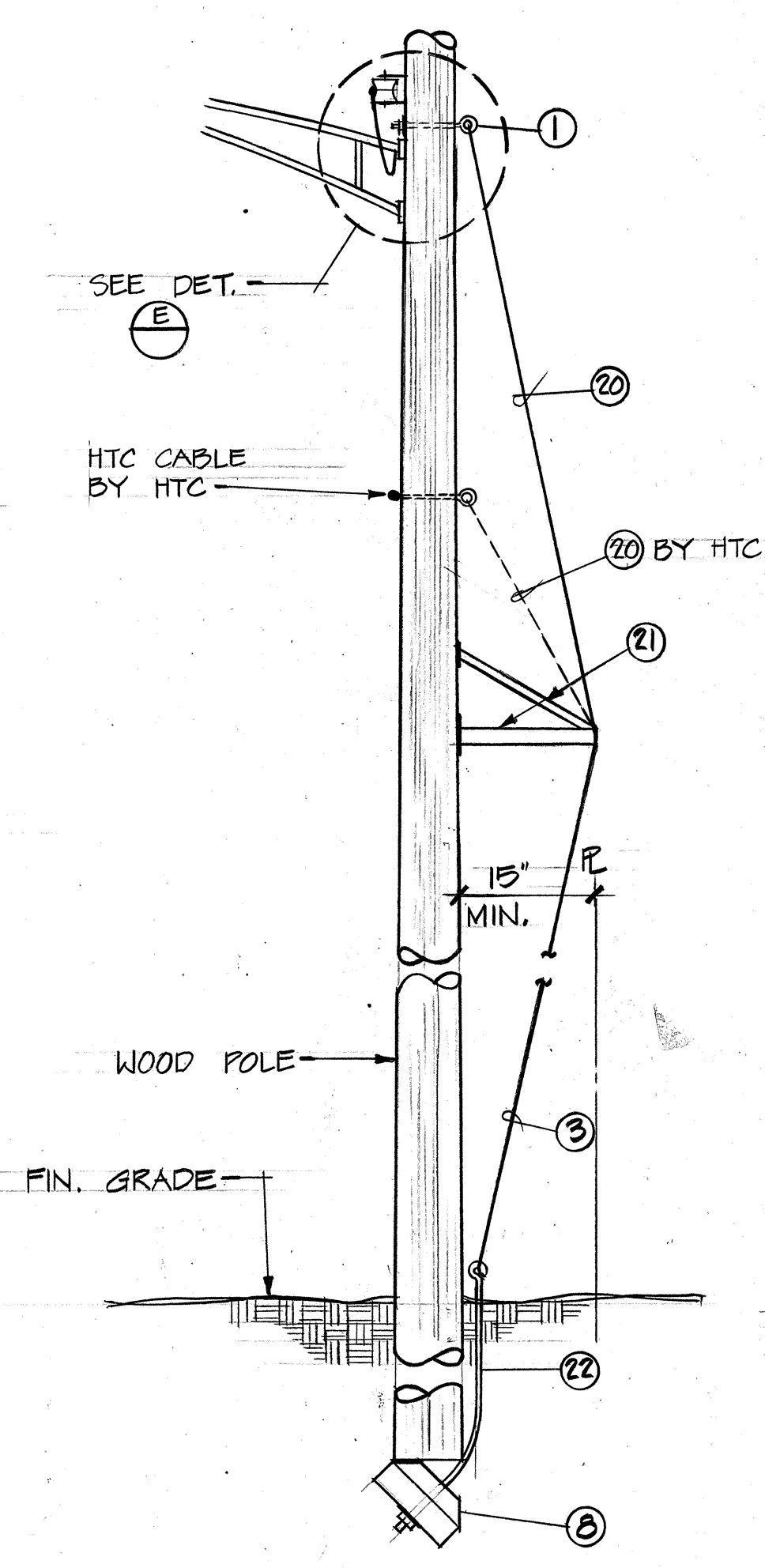
SIDEWALK GUY ANCHOR DET. (F) E-11  
NOT TO SCALE



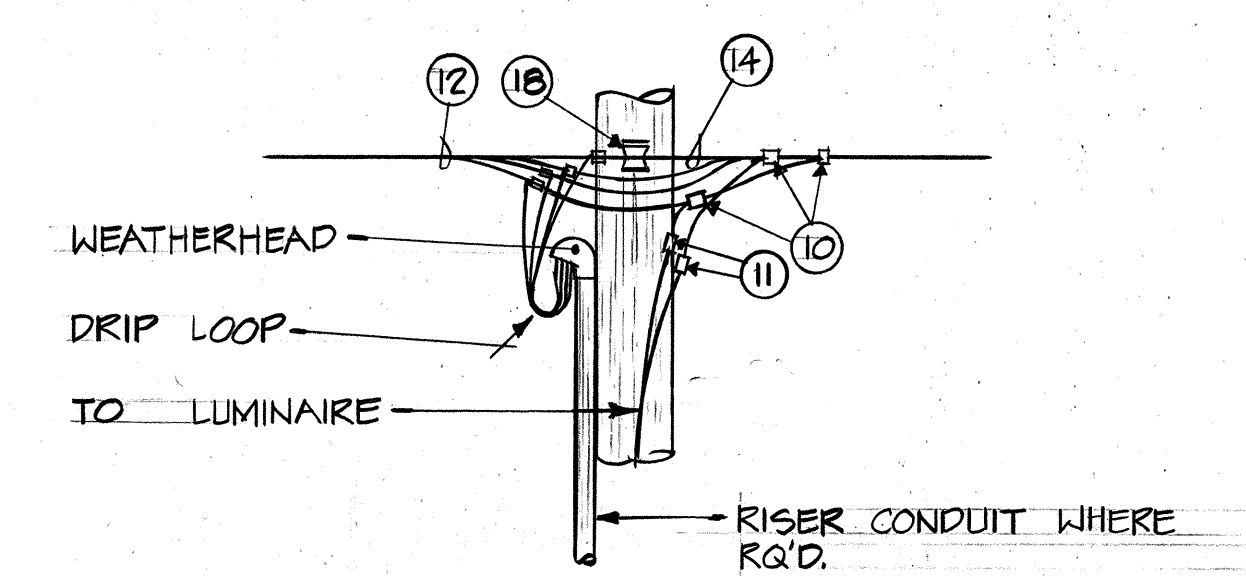
TYPICAL CONDITION AT NEW POLE INSTALLED ADJACENT TO EXST. AERIAL LINES (G) E-11  
NOT TO SCALE



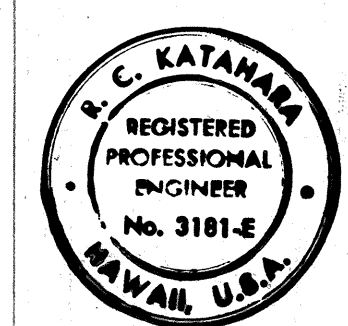
TYPICAL CONDITION AT EXST. WOOD POLES (H) E-11  
NOT TO SCALE



TOE ANCHOR DETAIL (J) E-11  
NOT TO SCALE



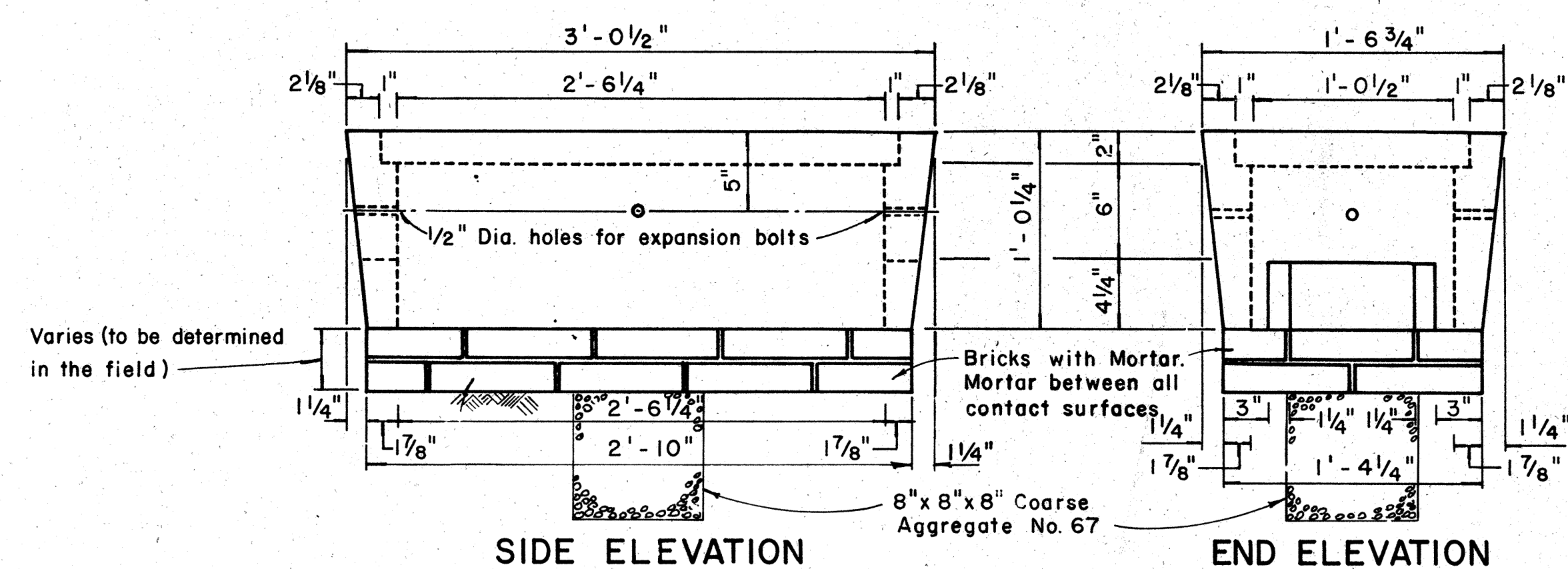
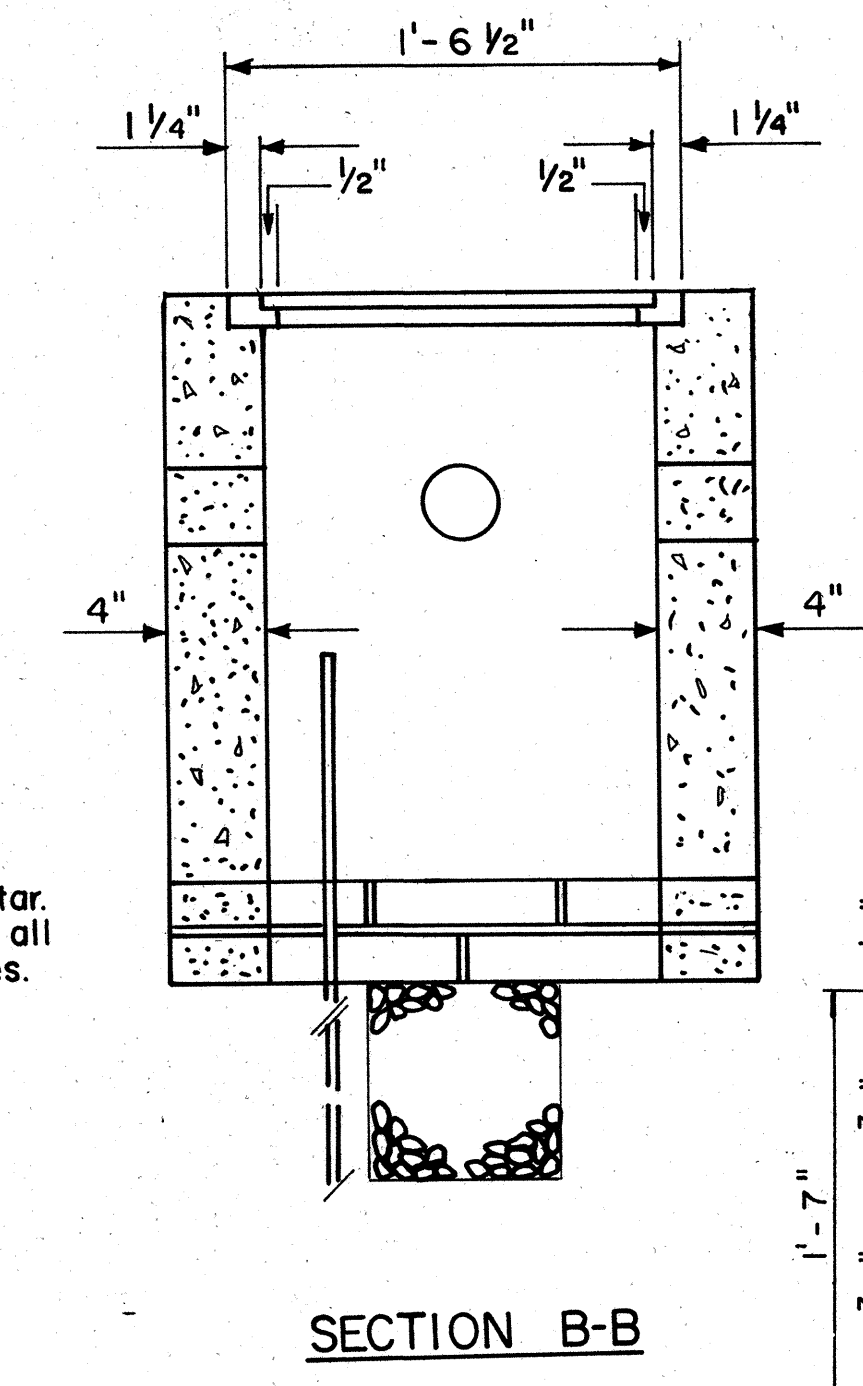
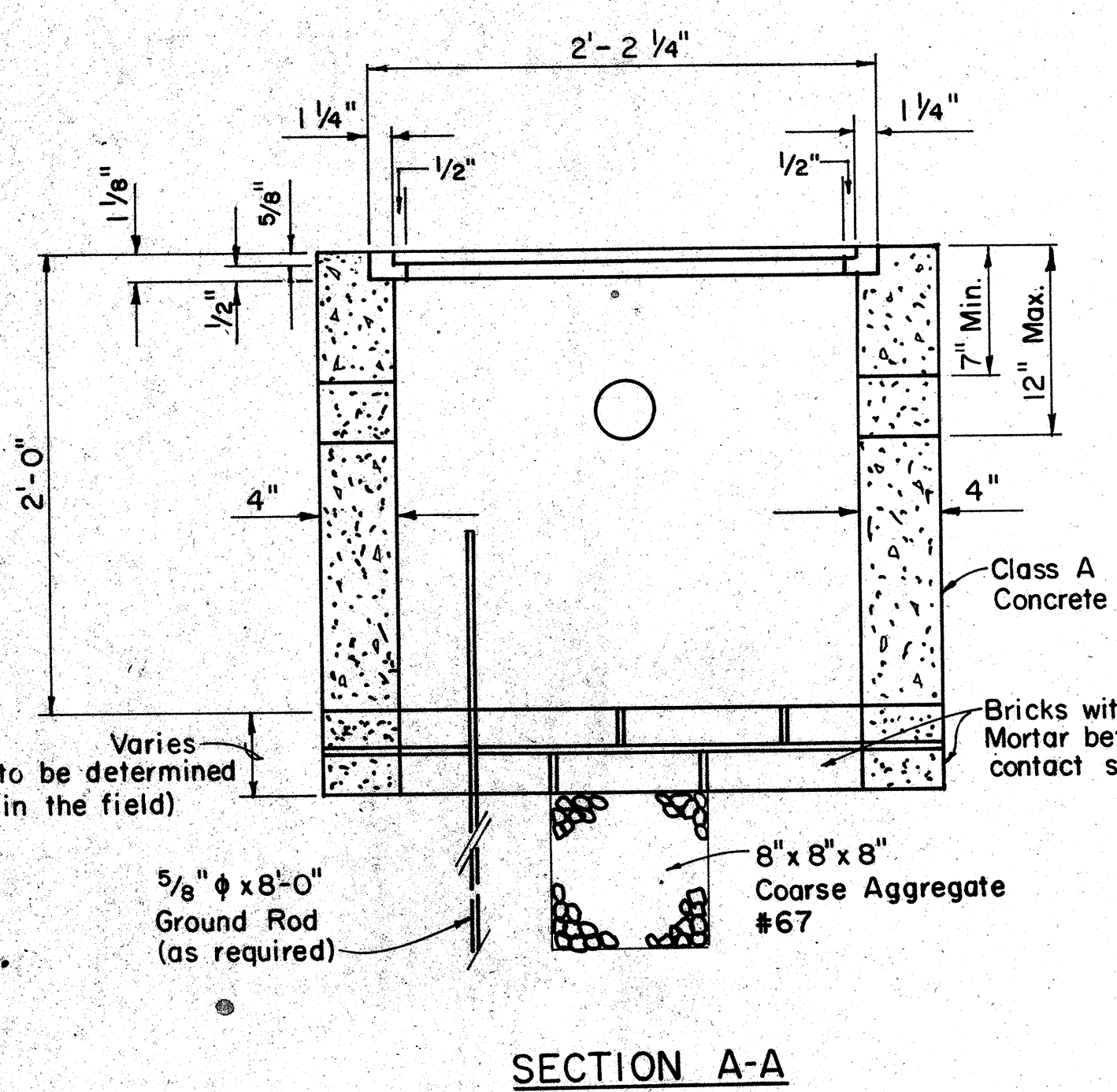
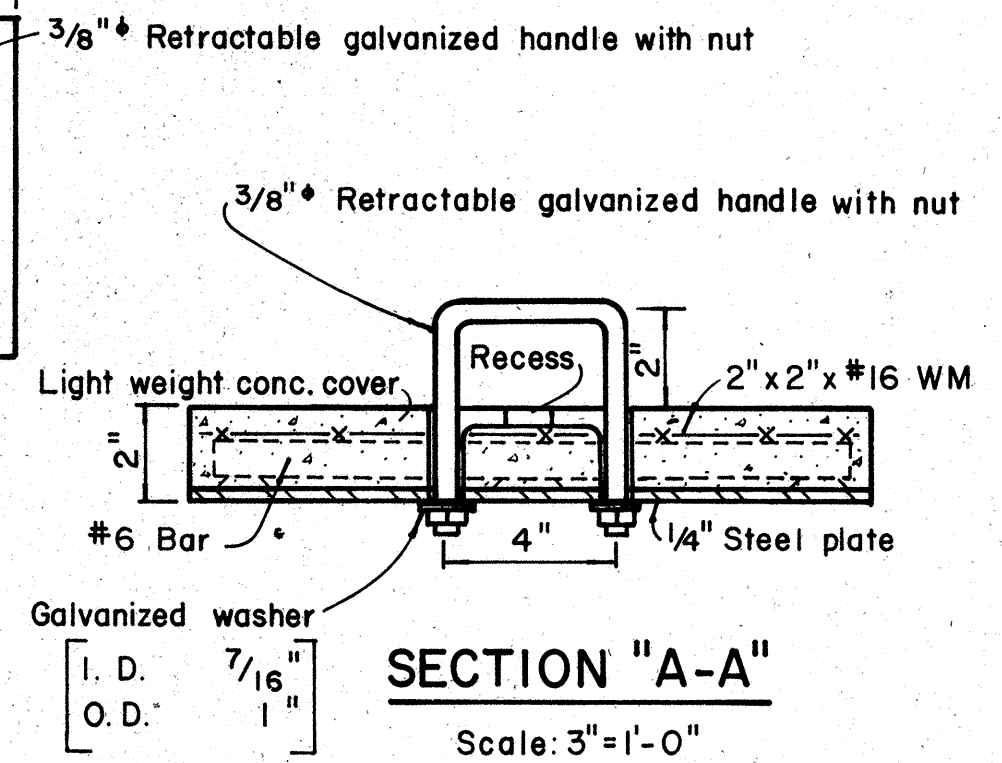
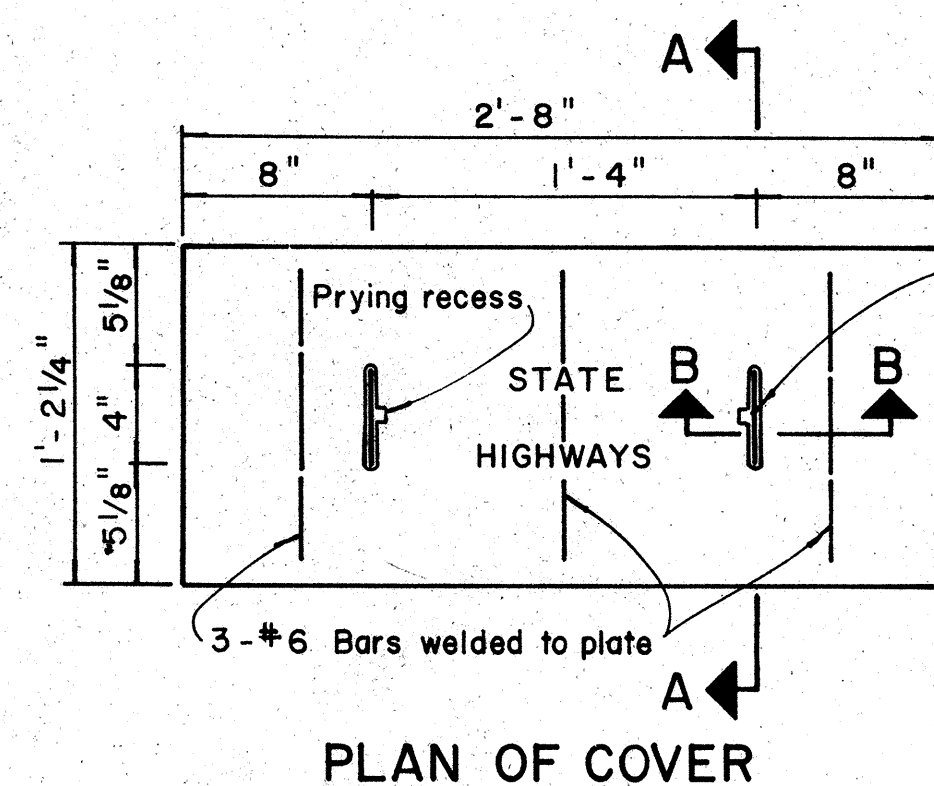
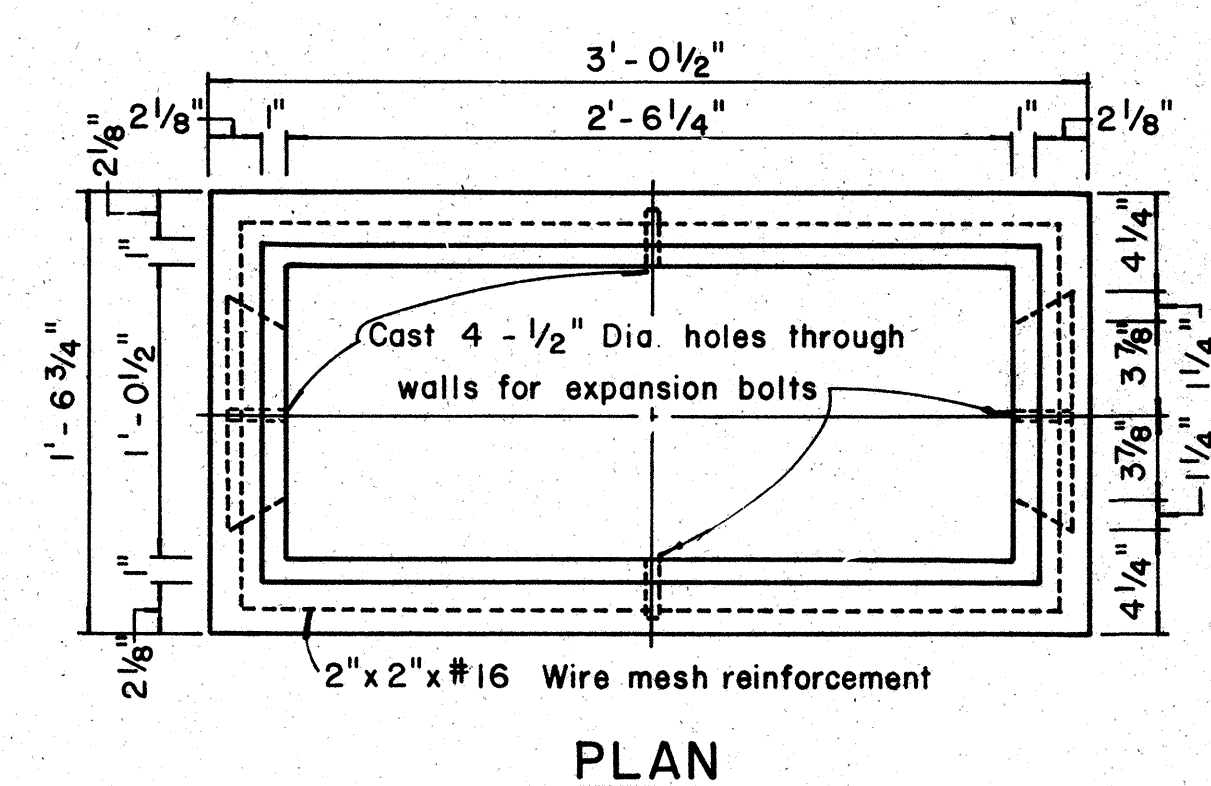
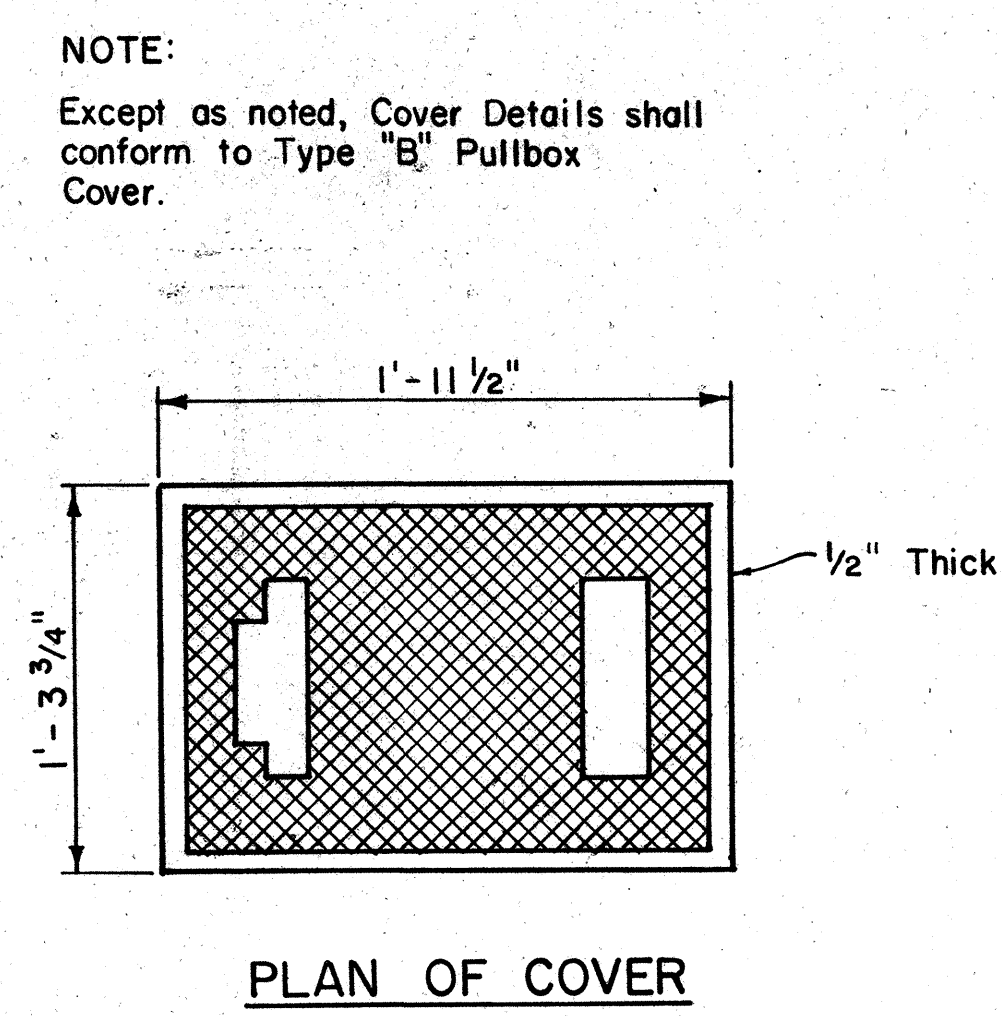
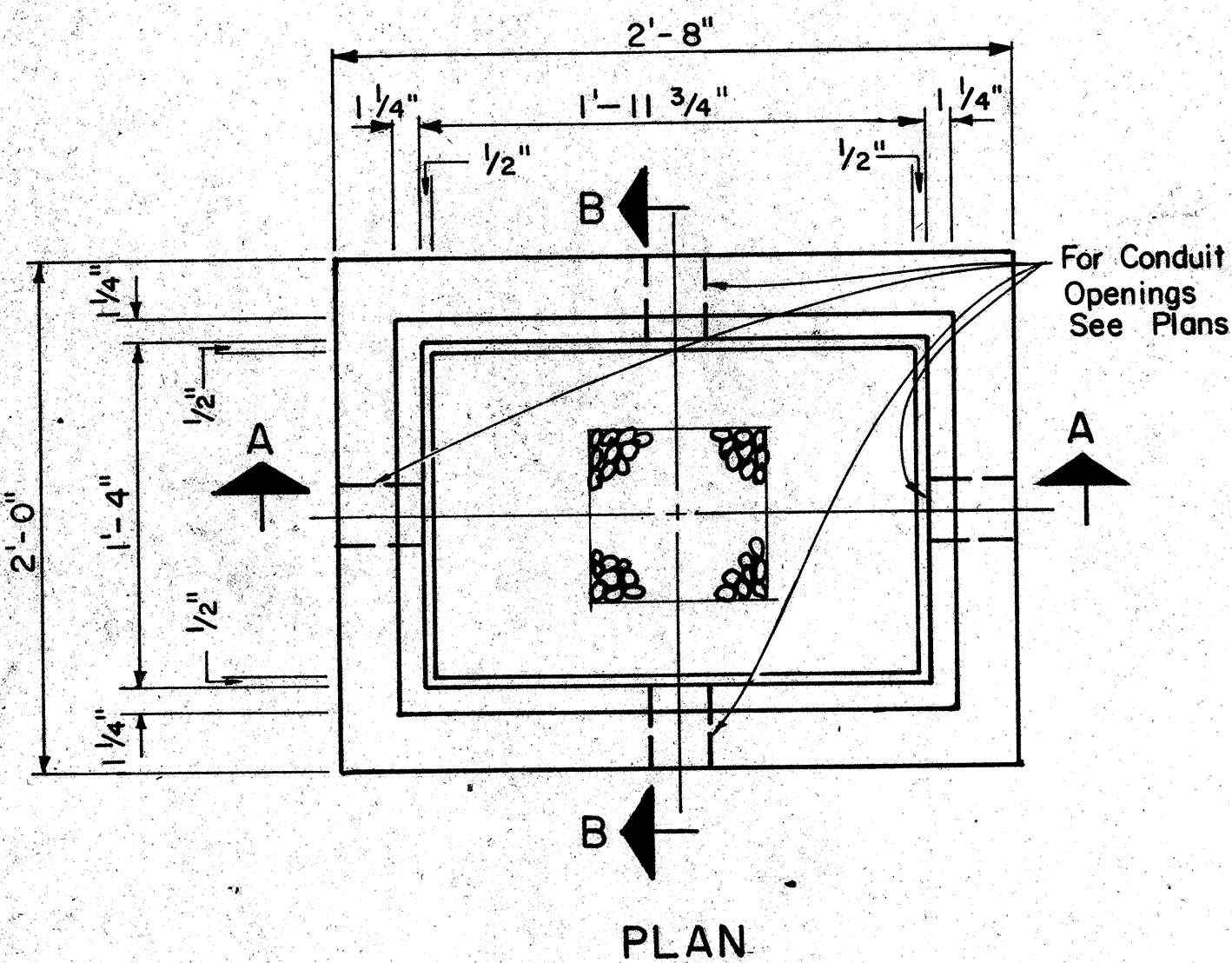
LUMINAIRE CONNECTION DET. (E) E-11  
NOT TO SCALE



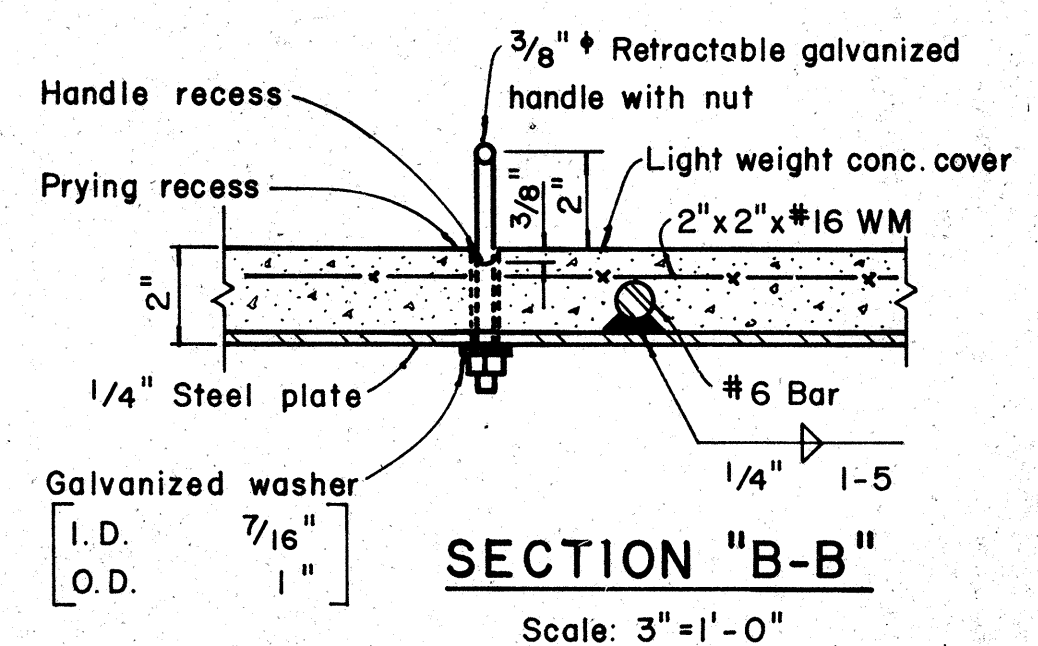
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.  
MK ENGINEERS, LTD.  
900 First Street, Suite 1600  
Honolulu, Hawaii 96813

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION  
DETAILS  
HIGHWAY LIGHTING IMPROVEMENTS, OAHU  
PROJECT NO. RS-0750(5)  
KUNIA ROAD, WILIKINA DRIVE - TOWARD WAIKALUA  
PROJECT NO. HWY-0-01-81 (UNIT 1)  
WILIKINA DRIVE, WAIKALUA I.C. - TOWARD WAIKALUA  
SCALE: NONE  
SHEET NO. E-11 OF 13 SHEETS

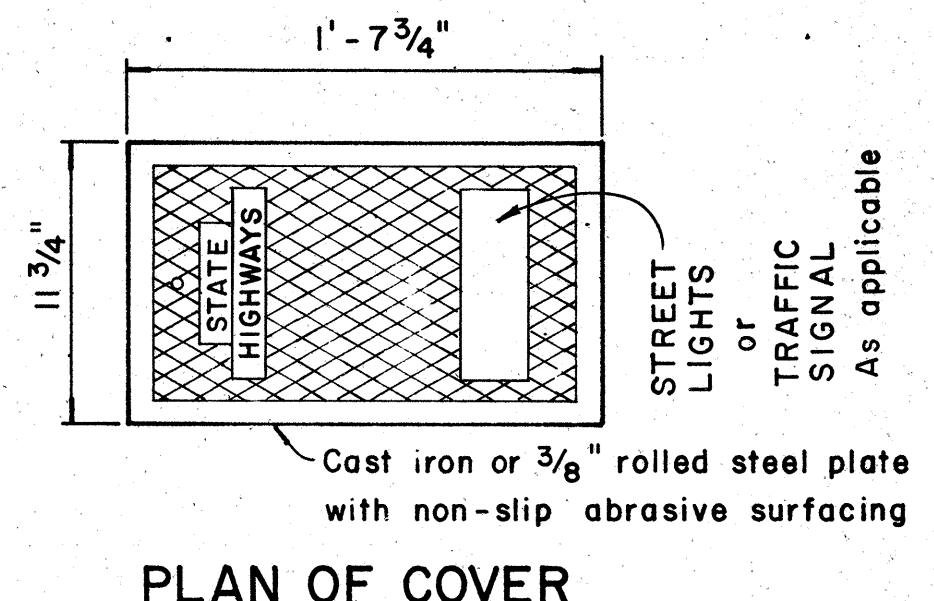
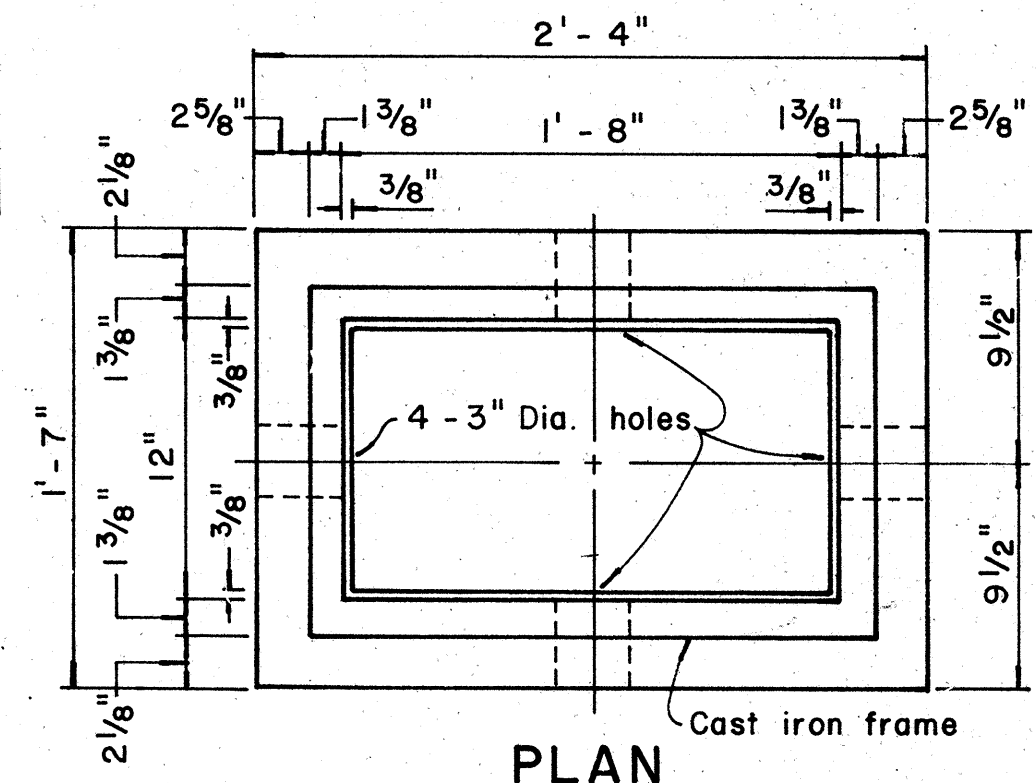
| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO.                    | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|---------------------------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | RS-0750(5)<br>HWY-0-01-81<br>(UNIT 1) | 1982        | 13        | 13           |



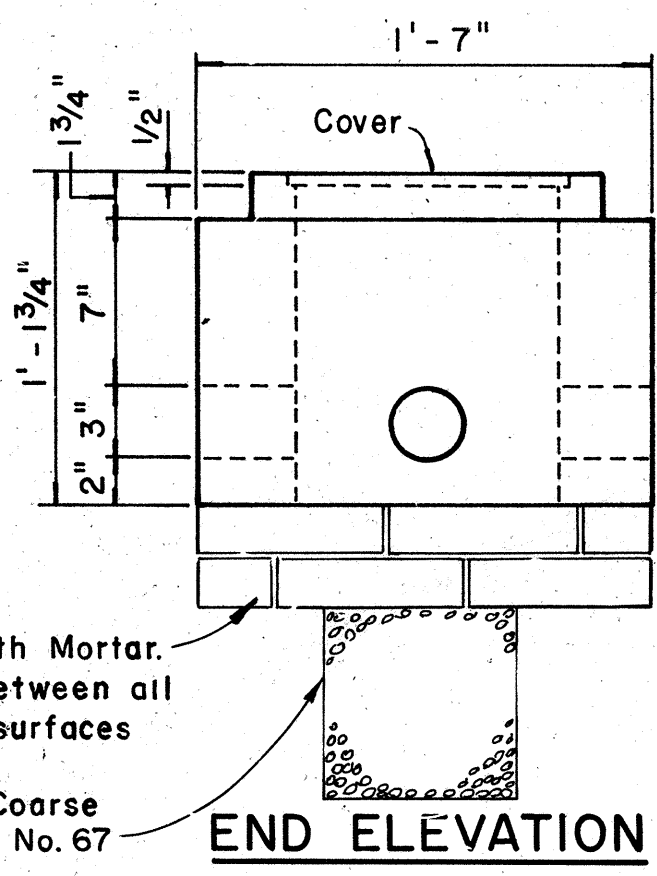
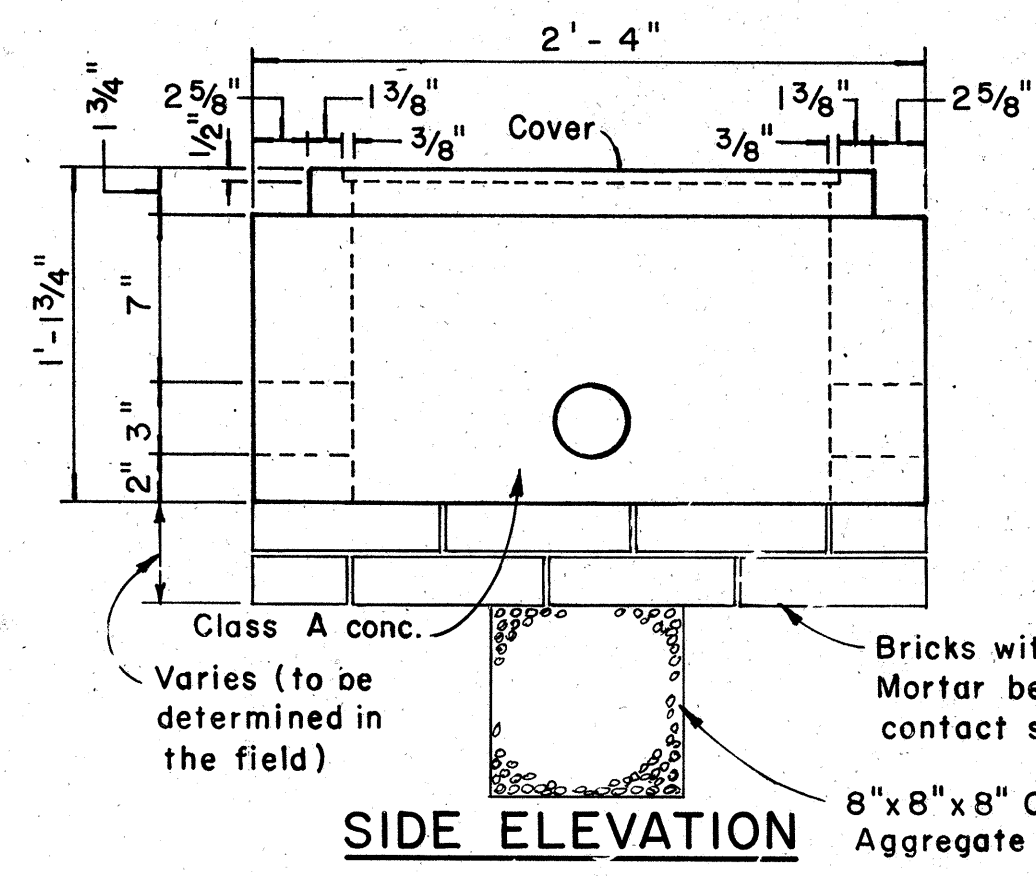
**TYPE "C" PULLBOX**  
Scale: 1 1/2" = 1'-0"



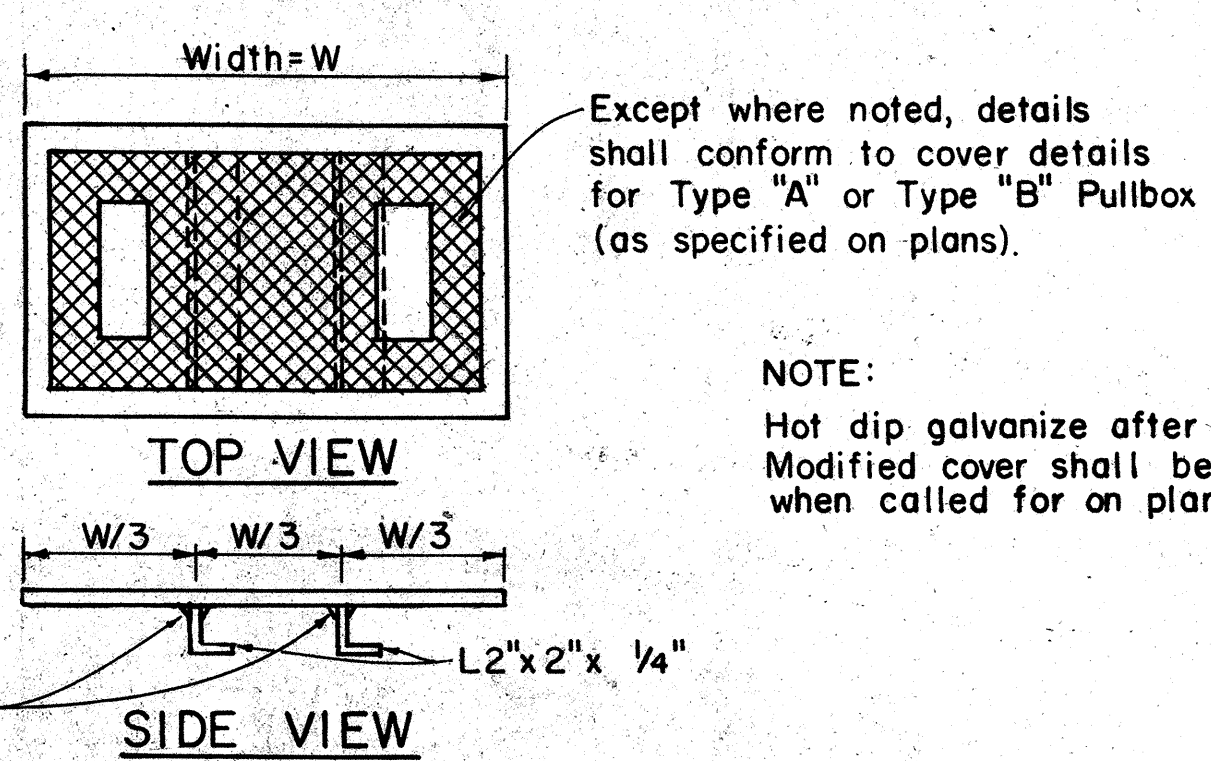
NOTE:  
Steel rim shall be welded to bottom of steel cover if necessary so that top of cover and frame are flush.



**TYPE "A" PULLBOX**  
Scale: 1 1/2" = 1'-0"



**TYPE "B" PULLBOX**  
Scale: 1 1/2" = 1'-0"



**MODIFIED COVER DETAIL**  
Not to Scale

APPROVAL RECOMMENDED:  
TRAFFIC ENGINEER  
12/29/62  
DATE

APPROVED:  
ASSISTANT CHIEF, ENGINEERING  
12-30-69  
DATE

| NO. | REVISION                                         | APPROVED BY | DATE    |
|-----|--------------------------------------------------|-------------|---------|
| 1   | Revised Type B & C Pullbox details               | H.T.        | 3-5-76  |
| 2   | Revised Type "A" Pullbox & Added Modified Cover. | H.T.        | 1-31-80 |

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION  
**STANDARD DETAILS**  
**PULLBOXES**  
HIGHWAY LIGHTING IMPROVEMENTS, OAHU  
PROJECT NO. RS-0750(5)  
KUNIA ROAD, WILIKINA DRIVE - TOWARD WAIKALUA  
PROJECT NO. HWY-0-01-81 (UNIT 1)  
WILIKINA DRIVE, WAIKALUA I.C. - TOWARD WAIKALUA  
Scale as noted  
Date  
**SHEET No. E-12 OF 13 SHEETS DT 401**