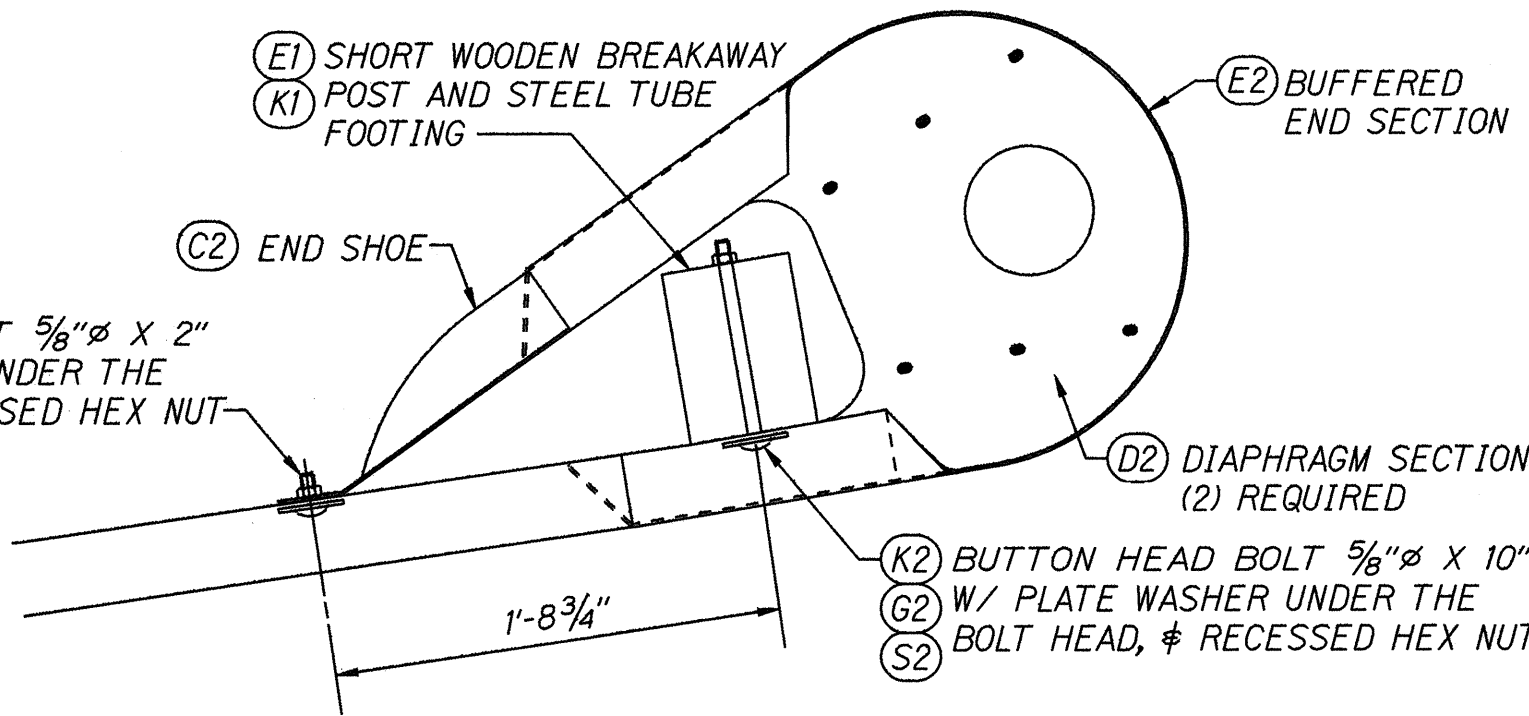


| FED. ROAD DIST. NO. | STATE | PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|-----------|-------------|-----------|--------------|
| HAWAII              | HAW.  | 56A-02-95 | 1995        | 20        | 38           |

NOTES

1. THE POST OFFSET DIMENSIONS ARE GIVEN TO THE CENTER OF THE TRAFFIC FACE OF THE BLOCKOUTS, EXCEPT AT THE FIRST POST, WHERE THE DIMENSION IS TO THE CENTER OF THE TRAFFIC FACE OF THE POST. OFFSET POINTS ARE TO BE LOCATED BY CHORD MEASUREMENTS AT THE BACK OF THE RAIL EQUAL TO THE NOMINAL POST SPACINGS SHOWN. POSTS ARE TO BE SET APPROXIMATELY RADIAL TO THE RAILING AT EACH POST LOCATION.



BUFFERED END ASSEMBLY

SUMMARY OF COMPONENTS

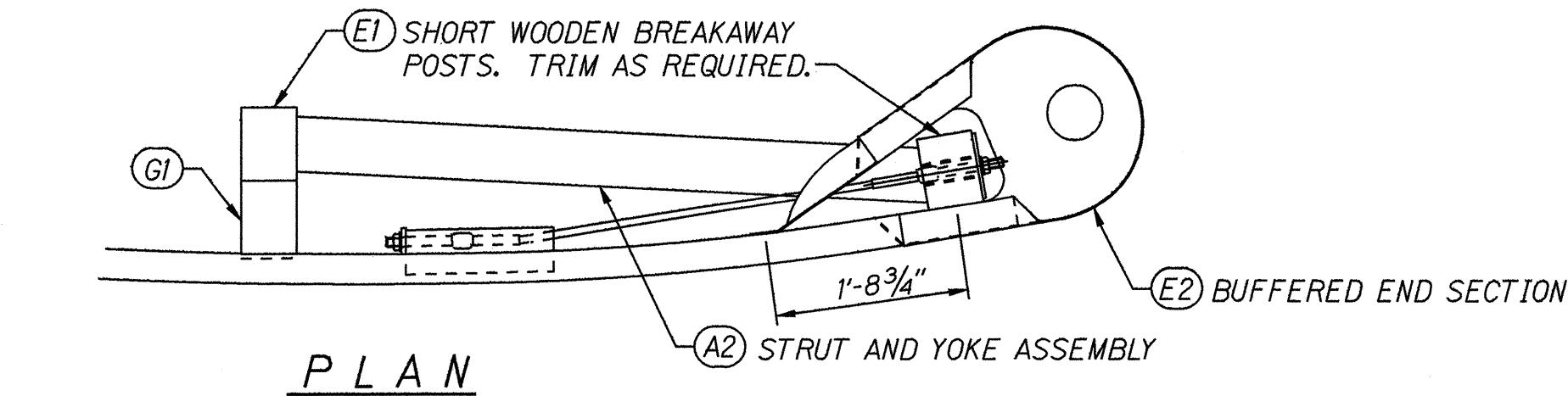
| FIND NO. | DESCRIPTION                                          |
|----------|------------------------------------------------------|
| (A)      | GUARDRAIL, 12GA X 12'-6"                             |
| (B)      | GUARDRAIL, 12GA X 12'-6"                             |
| (C)      | GUARDRAIL, 12GA X 12'-6"                             |
| (D)      | BREAKAWAY LINE POST, TIMBER - 6" X 8" X 6'-0"        |
| (E)      | BREAKAWAY POST, TIMBER - 5 1/2" X 7 1/2" X 3'-6 1/2" |
| (G)      | BLOCK, TIMBER - 5 1/2" X 7 1/2" X 1'-2"              |
| (H)      | POST - W6 X 8.5 X 6'-0"                              |
| (J)      | BLOCK - W6 X 8.5 X 1'-2"                             |
| (K)      | SOIL TUBE - TS 8 X 6 X .188 X 5'-0"                  |
| (L)      | CABLE ANCHOR BRACKET                                 |
| (M)      | BEARING PLATE                                        |
| (R)      | PIPE SPACER                                          |
| (S)      | SOIL PLATE                                           |
| (T)      | SHELF ANGLE                                          |
| (A2)     | STRUT & YOKE ASSEMBLY                                |
| (B2)     | CABLE ASSEMBLY                                       |
| (C2)     | END SHOE                                             |
| (D2)     | DIAPHRAGM PLATE                                      |
| (E2)     | BUFFERED END SECTION                                 |
| (G2)     | WASHER, PLATE                                        |
| (H2)     | BOLT, SPLICE 5/8" X 1 1/4"                           |
| (J2)     | BOLT, POST 5/8" X 2"                                 |
| (K2)     | BOLT, POST 5/8" X 10"                                |
| (L2)     | BOLT, POST 5/8" X 18"                                |
| (M2)     | BOLT, HEX 5/8" X 1 1/2"                              |
| (N2)     | BOLT, HEX 3/4" X 7 1/2"                              |
| (R2)     | BOLT, HEX 3/4" X 10"                                 |
| (S2)     | NUT, HEX, RECESSED 5/8"                              |
| (T2)     | NUT, HEX 5/8"                                        |
| (U2)     | NUT, HEX 3/4"                                        |
| (W2)     | NUT, HEX 1"                                          |
| (X2)     | WASHER, FLAT 5/8"                                    |
| (Y2)     | WASHER, FLAT 3/4"                                    |
| (Z2)     | WASHER, FLAT 1"                                      |

NOTE:

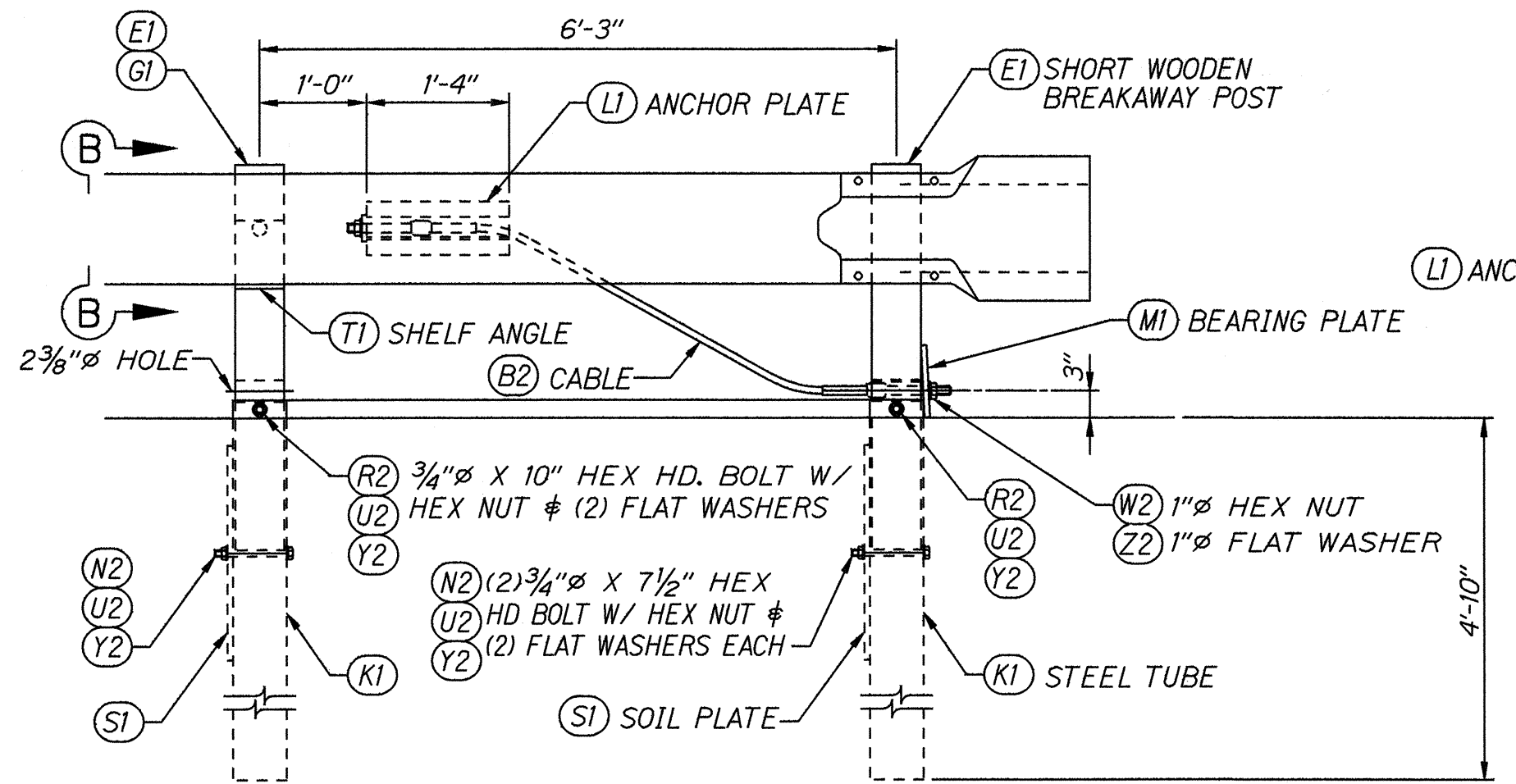
ALL WOOD COMPONENTS SHALL BE TREATED TO CONFORM WITH ANY OF THE ACCEPTED METHODS IN SECTION 714 OF THE DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND PUBLIC WORKS CONSTRUCTION", 1994.

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION  
**MODIFIED ECCENTRIC  
LOADER TERMINAL (MELT)**  
TEMPORARY KAPAA BYPASS ROAD  
Project No. 56A-02-95

Not To Scale Date: Feb, 1995  
SHEET No. 1 OF 3 SHEETS

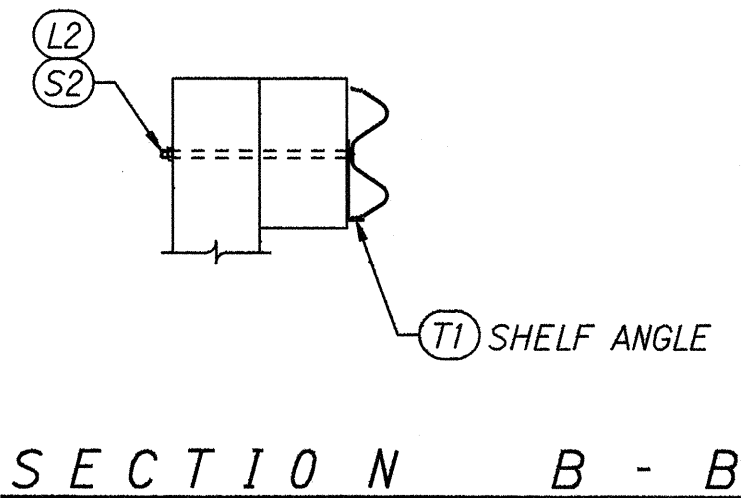


PLAN

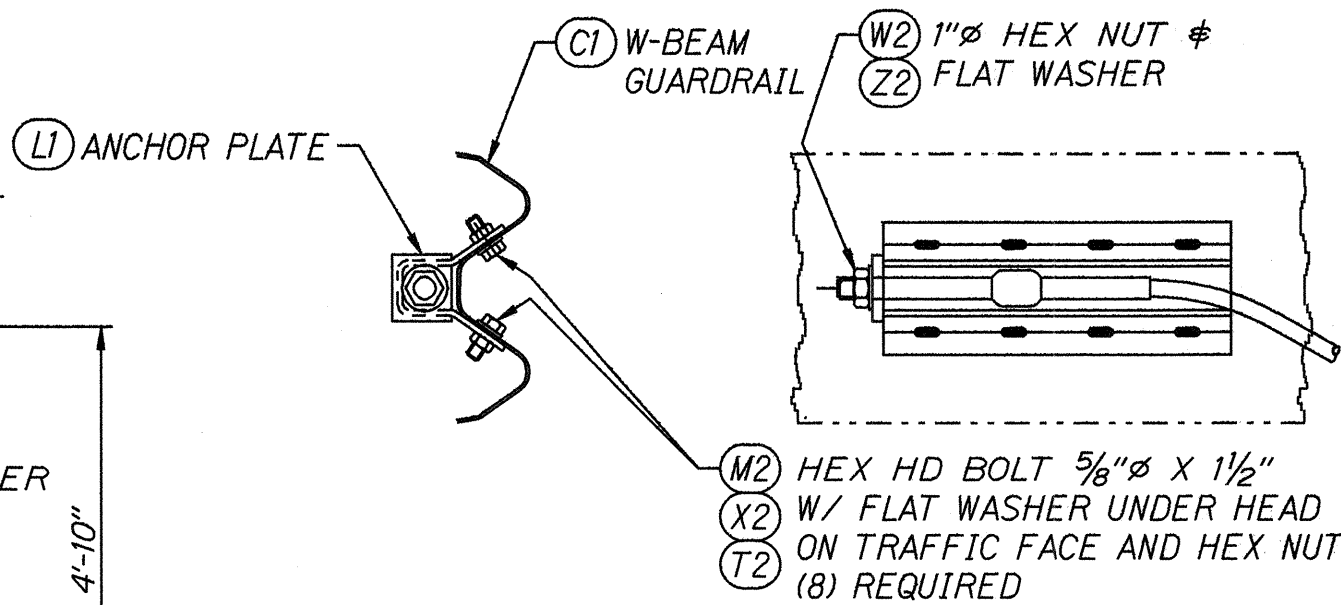


ELEVATION

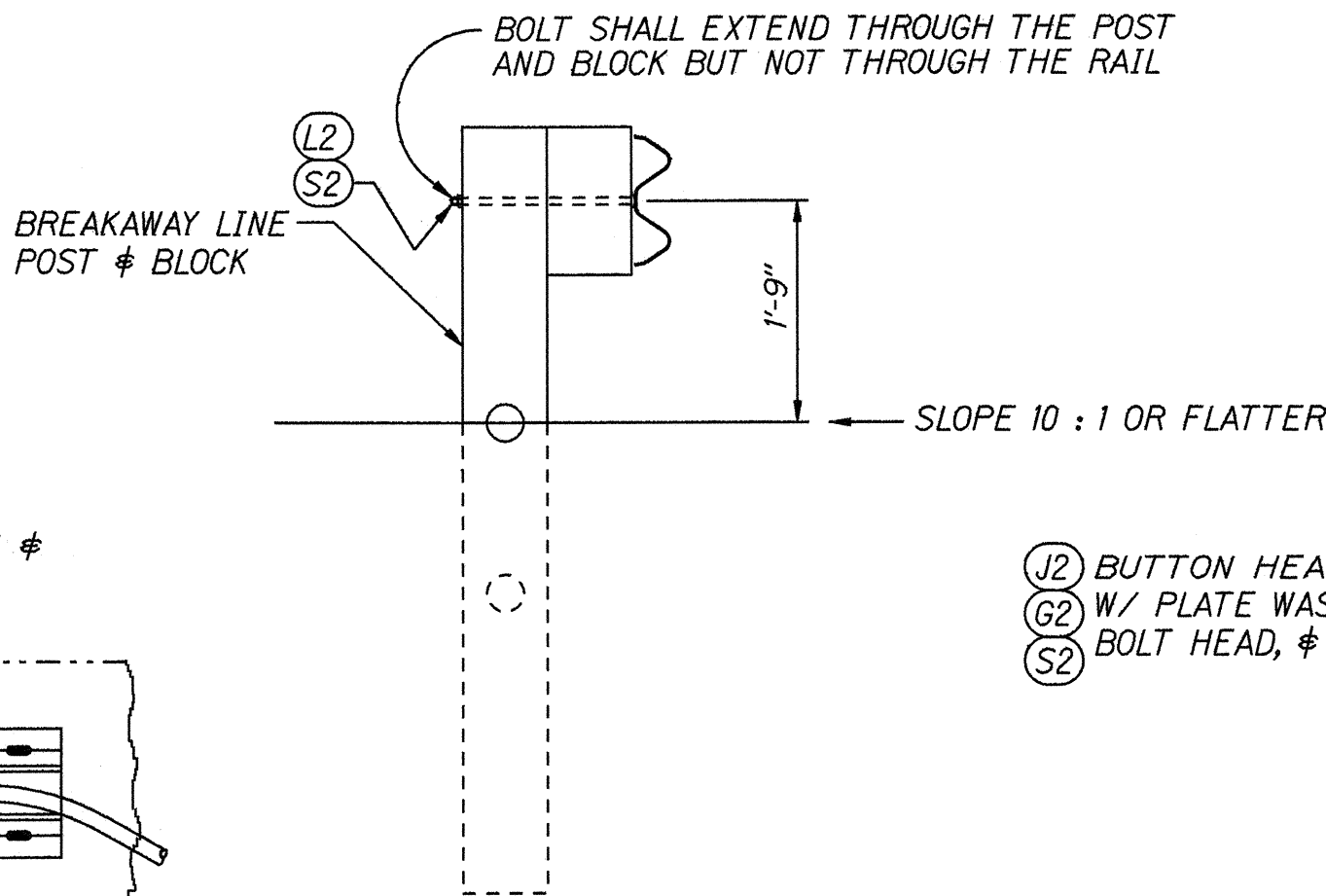
BUFFERED END & ANCHORAGE ASSEMBLY



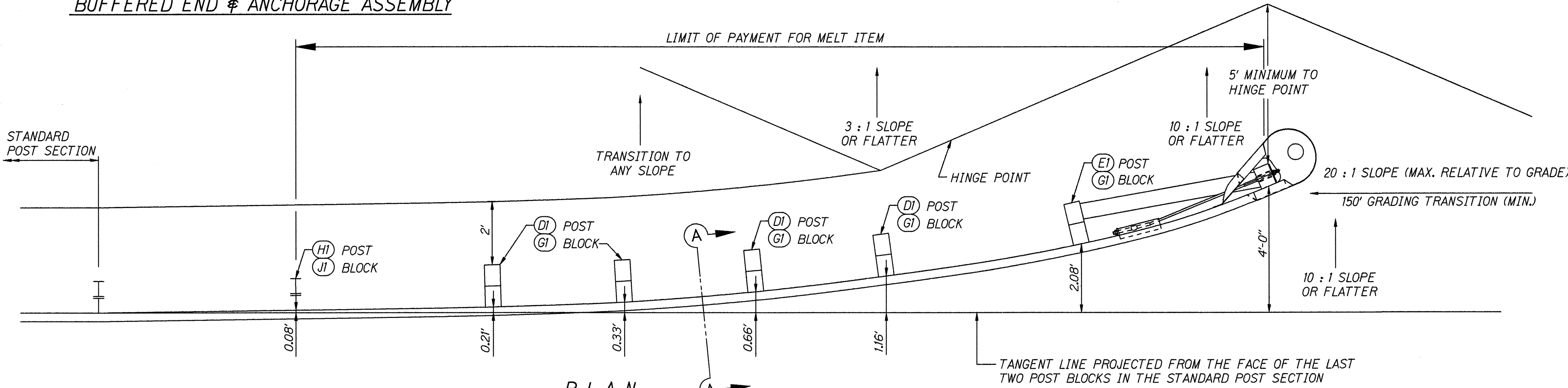
SECTION B - B



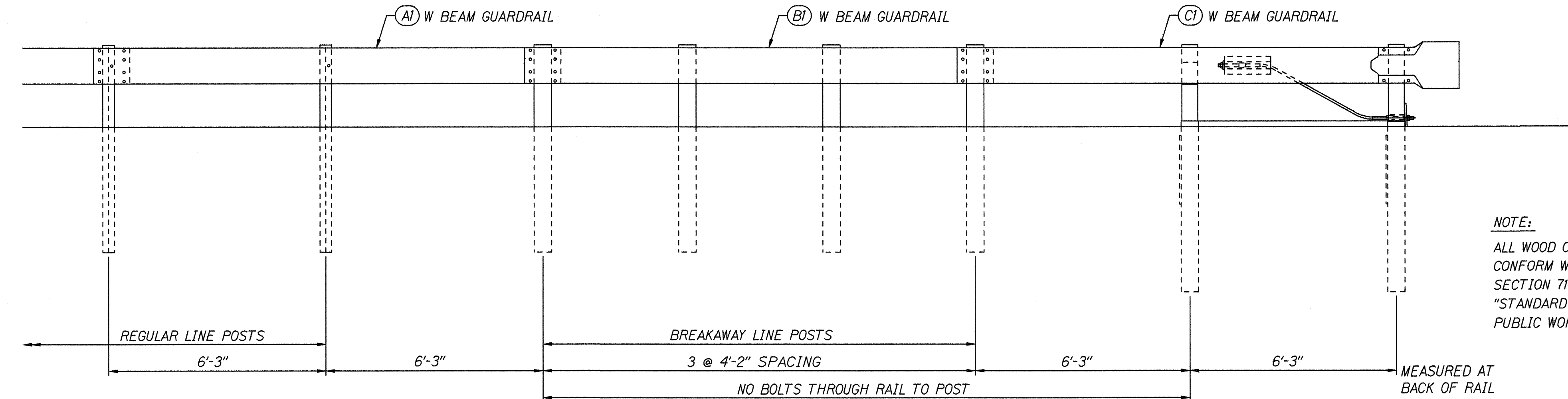
ANCHOR PLATE ASSEMBLY DETAILS



SECTION A - A



PLAN

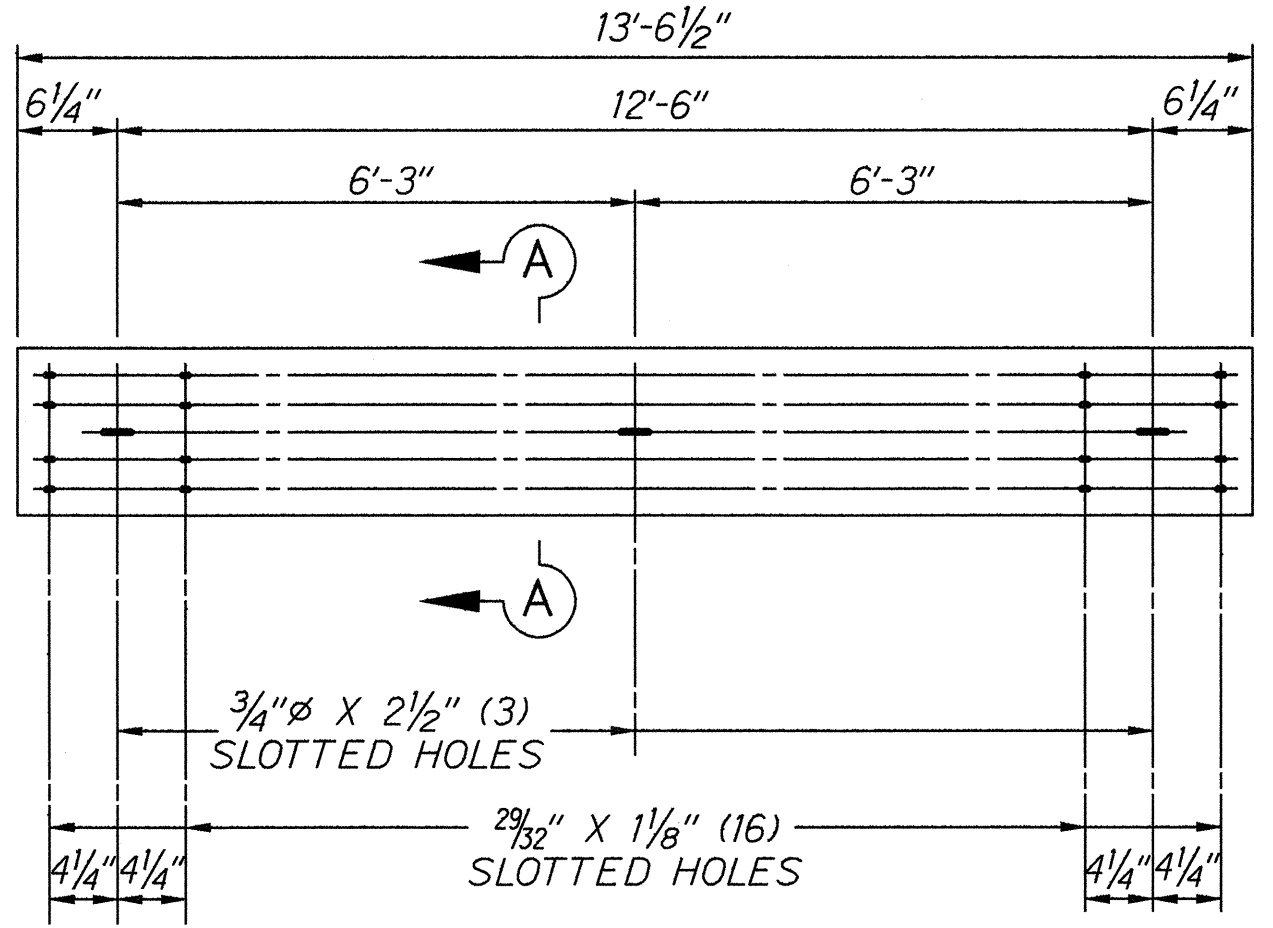


ELEVATION

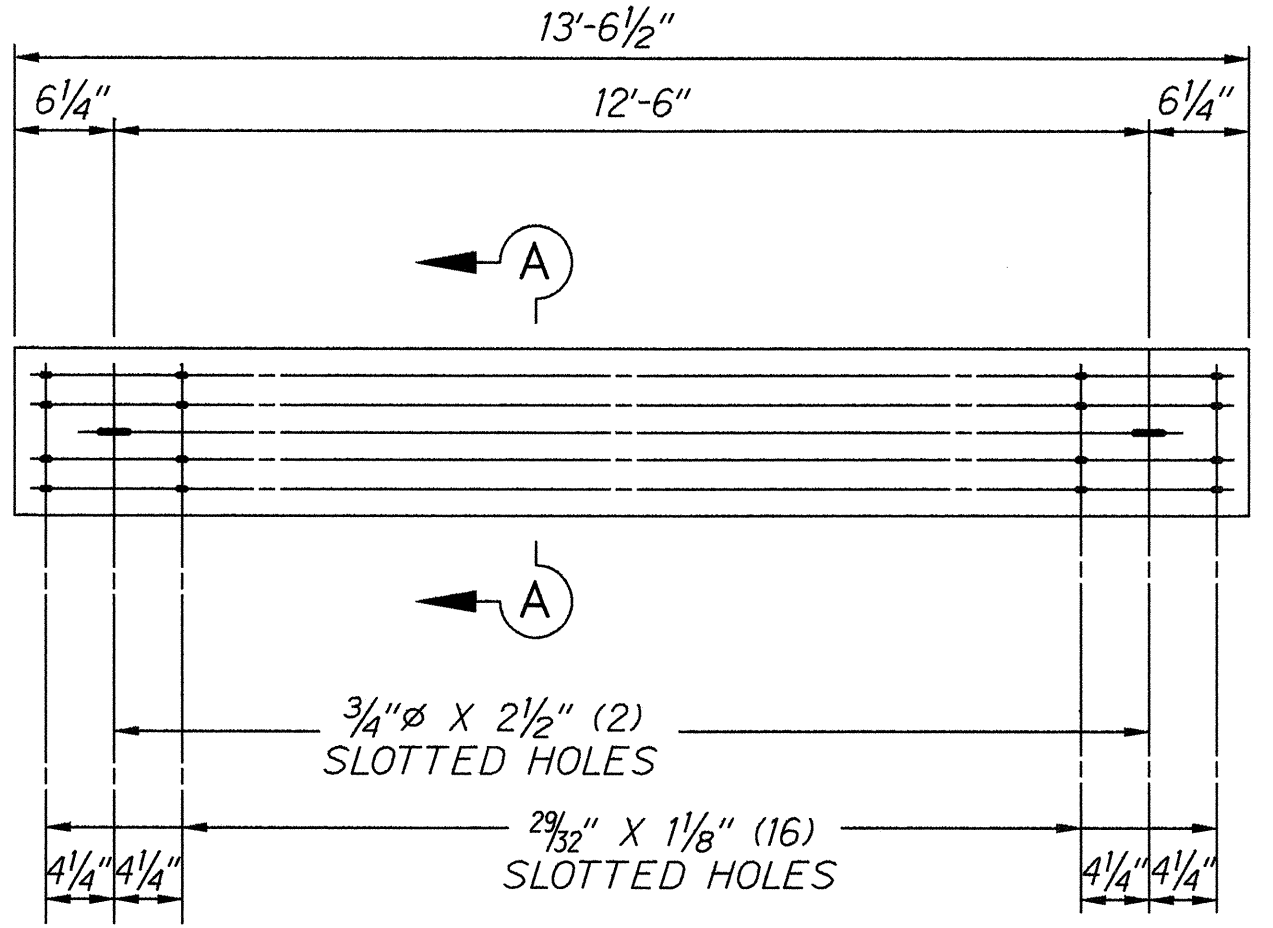
|               |             |               |
|---------------|-------------|---------------|
| ORIGINAL PLAN | DATE        | BY            |
| NOTE BOOK     | DESIGNED BY | QUANTITIES BY |
| NOTED BY      | CHECKED BY  |               |

| FED. ROAD DIST. NO. | STATE | PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|-----------|-------------|-----------|--------------|
| HAWAII              | HAW.  | 56A-02-95 | 1995        | 21        | 38           |

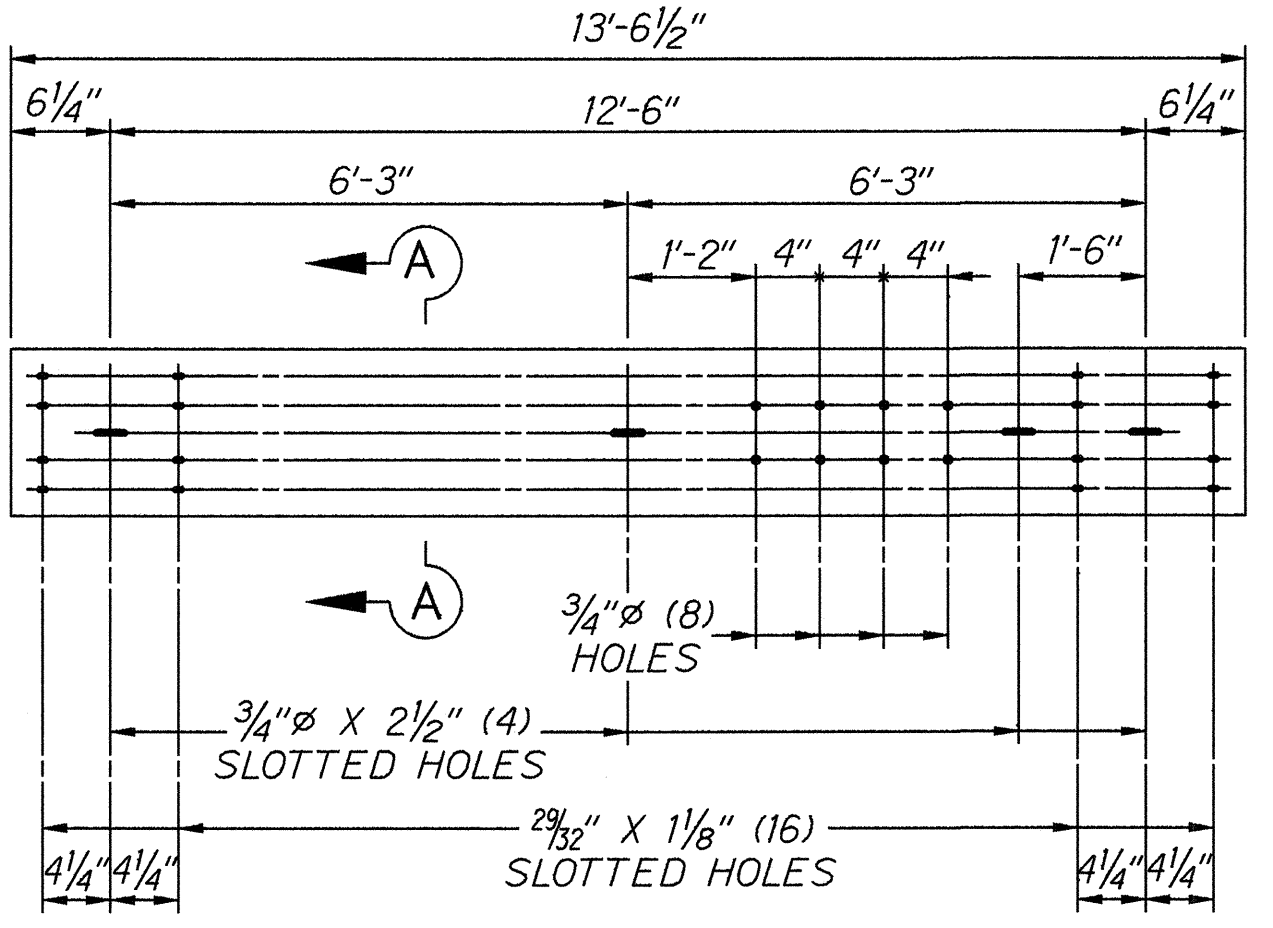
| MATERIAL SCHEDULE |            |                            |             |               |                |
|-------------------|------------|----------------------------|-------------|---------------|----------------|
| FIND No.          | PIECE MARK | MATERIAL                   | LENGTH FEET | WEIGHT INCHES | REMARKS        |
| AI                |            | GUARDRAIL, W-BEAM          |             | 95.0          | AI23           |
| BI                |            | 12 GA. W-BEAM GUARDRAIL    | 12          | 6             | 89.0 M180 AI23 |
| CI                |            | 12 GA. W-BEAM GUARDRAIL    | 12          | 6             | 89.0 M180 AI23 |
| DI                |            | 12 GA. W-BEAM GUARDRAIL    | 12          | 6             | 89.0 M180 AI23 |
| EI                |            | BREAKAWAY LINE POST        |             |               | 88.0           |
| FI                |            | TIMBER POST 6 X 8          | 6           | 0             | 352.0 M168     |
| GI                |            | BREAKAWAY POST, SHORT      |             |               | 44.6           |
| HI                |            | TIMBER POST 5 1/2 X 7 1/2  | 3           | 6 1/2         | 89.2 M168      |
| II                |            | BLOCK                      |             |               | 16.8           |
| JI                |            | TIMBER BLOCK 5 1/2 X 7 1/2 | 1           | 2             | 84.0 M168      |
| KI                |            | POST                       |             |               | 54.9 AI23      |
| LI                |            | W6 X 8.5                   | 6           | 0             | 52.0 A36       |
| MI                |            | W6 X 8.5                   | 1           | 2             | 10.1 A36       |
| NI                |            | SOIL TUBE                  |             |               | 88.9 AI23      |
| OI                |            | TS 8 X 6 X .1875           | 5           | 0             | 170.8 A500B    |
| PI                |            | CABLE ANCHOR BRACKET       |             |               | 19.3 AI23      |
| QI                | a          | PL 1/4 X 12 3/8            | 1           | 4             | 17.6 A36       |
| RI                | b          | PL 1/2 X 2 3/4             | 0           | 3             | 1.17 A36       |
| SI                |            | BEARING PLATE              |             |               | 11.9 AI23      |
| TI                | c          | PL 5/8 X 8                 | 0           | 8             | 11.3 A36       |
| UI                | d          | PL 3/16 X 1                | 0           | 8             | 0.4 A36        |
| VI                |            | POST SLEEVE                |             |               | 1.76 AI23      |
| WI                |            | PIPE 2" STD                | 0           | 5 1/2         | 1.67 A53       |
| XI                |            | SOIL PLATE                 |             |               | 84.8 AI23      |
| YI                |            | PL 1/4 X 24                | 2           | 0             | 40.8 A36       |
| ZI                |            | SHELF ANGLE                |             |               | 3.7 AI23       |
|                   |            | PL 1/4 X 6                 | 0           | 8 1/2         | 3.61 A36       |



ONE - GUARDRAIL - AI

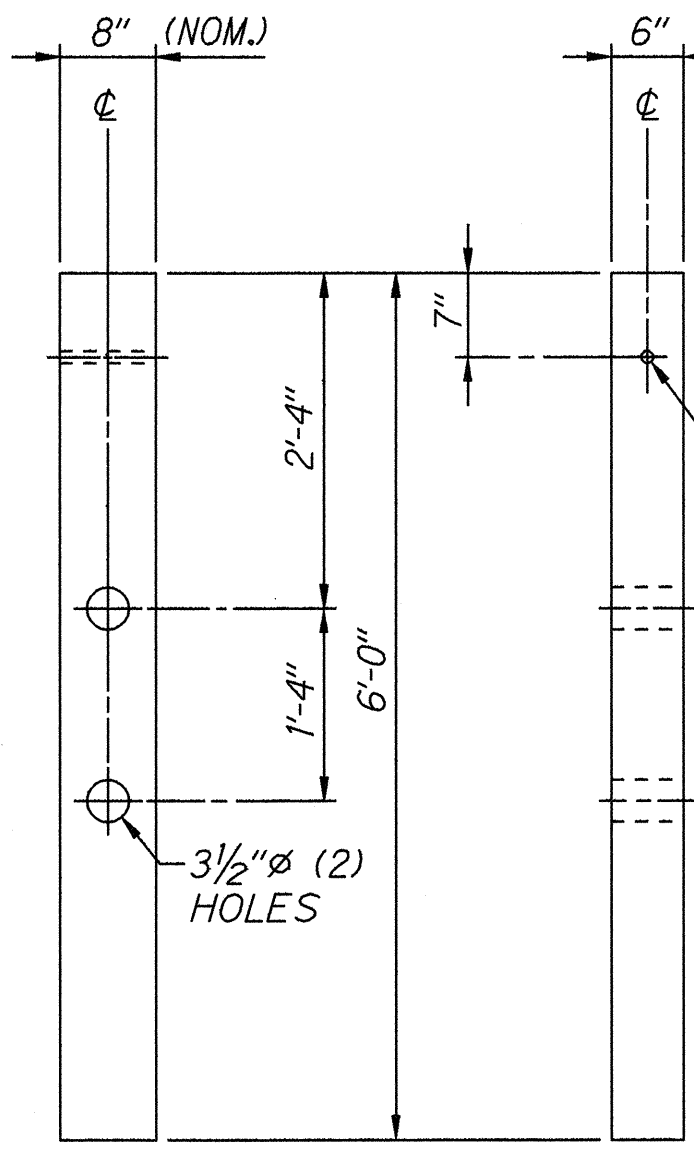


ONE - GUARDRAIL - BI

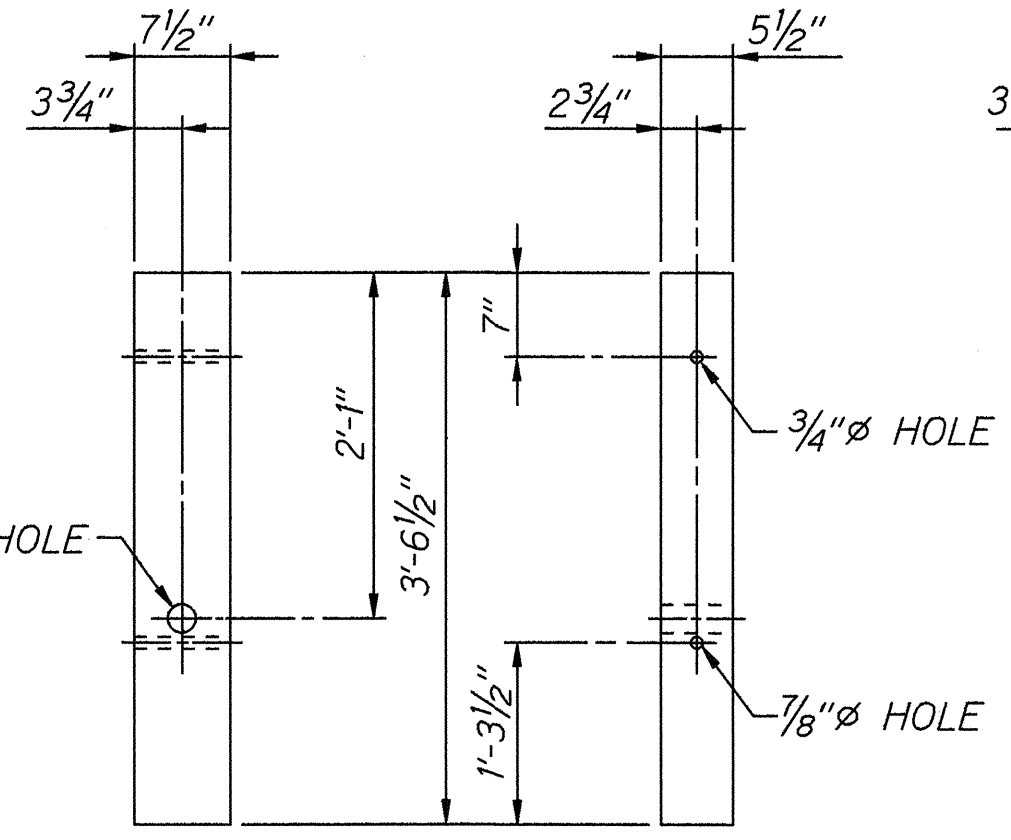


ONE - GUARDRAIL - CI

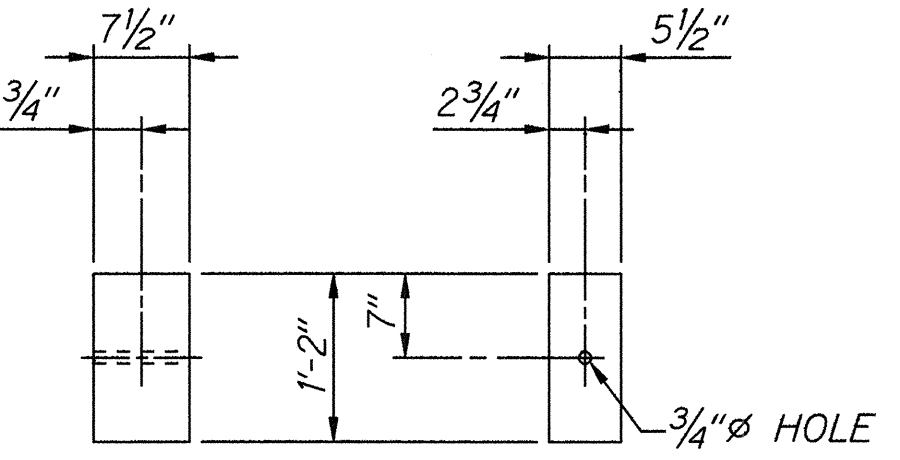
SECTION A - A



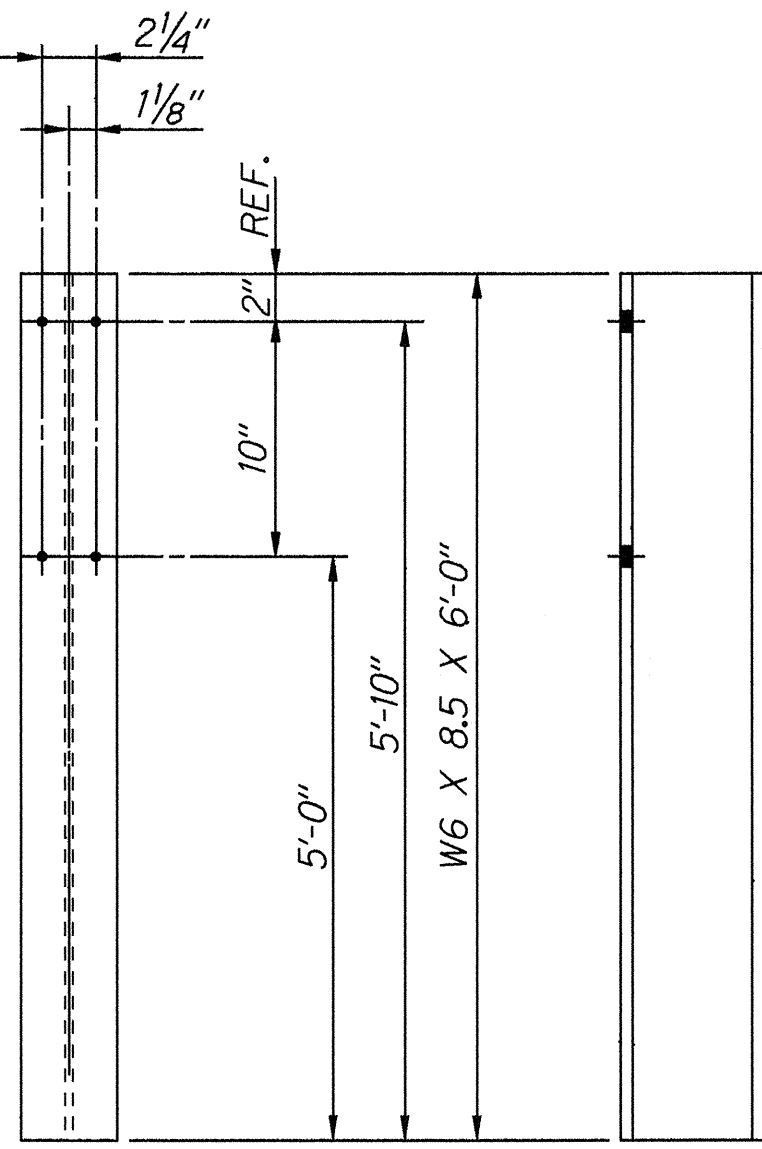
4 - WOOD POST - DI



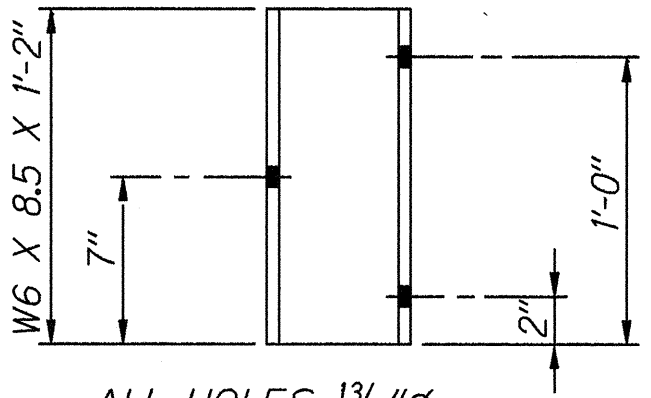
2 - WOOD POST - EI



5 - WOOD BLOCK - GI

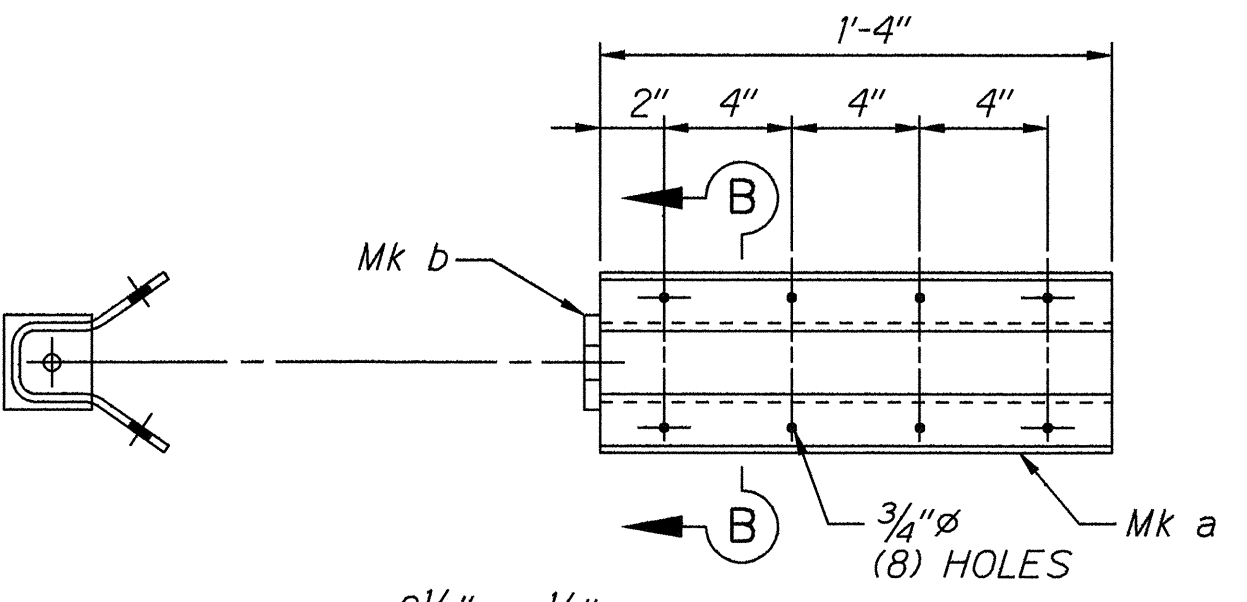


ONE - POST - HI

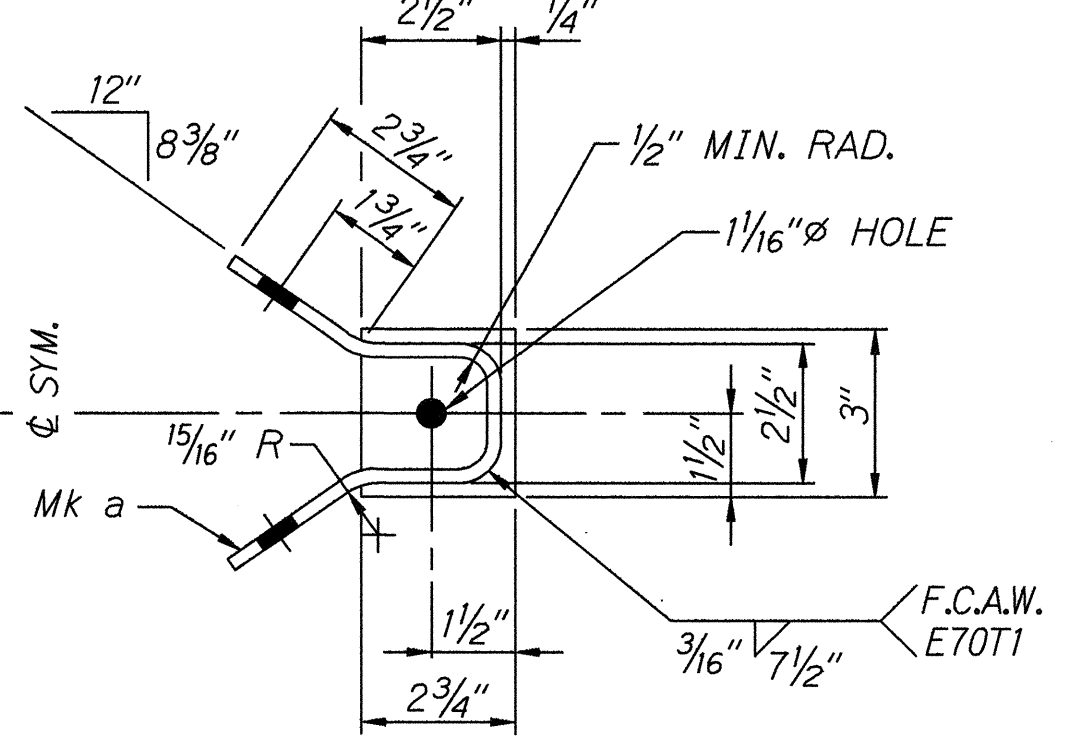


ALL HOLES 1 3/16" (6) REQD. @ 2 1/4" GA

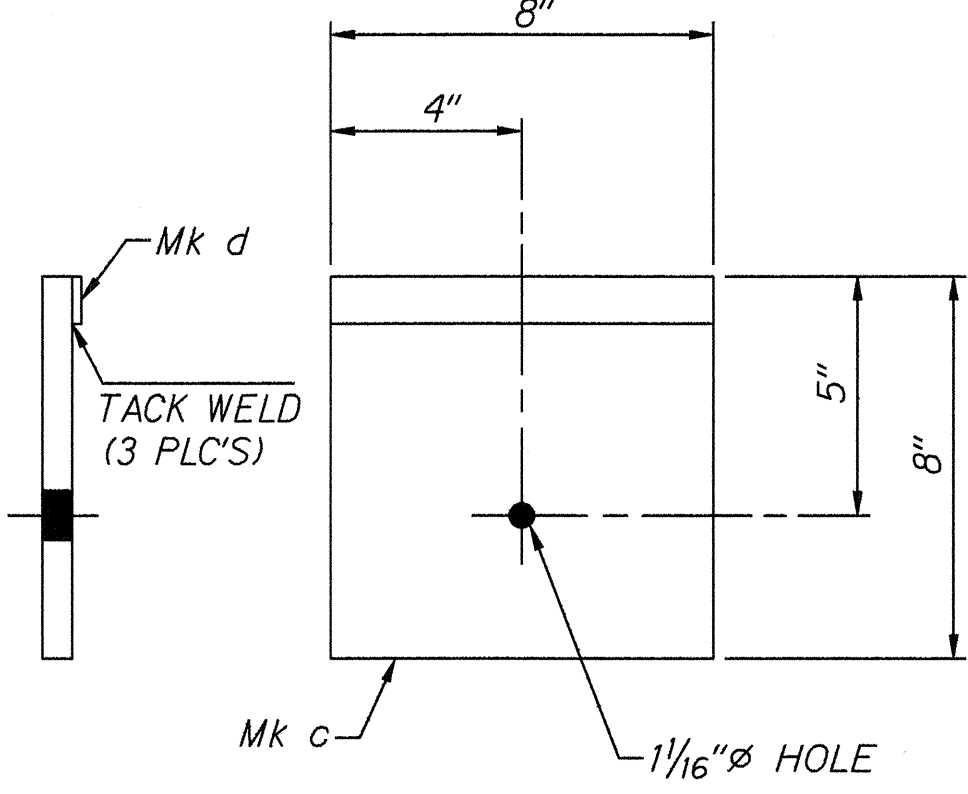
ONE - BLOCK - JI



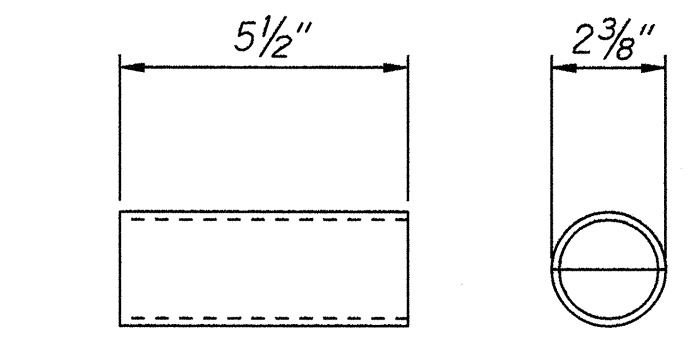
ONE - CABLE ANCHOR BRACKET - LI



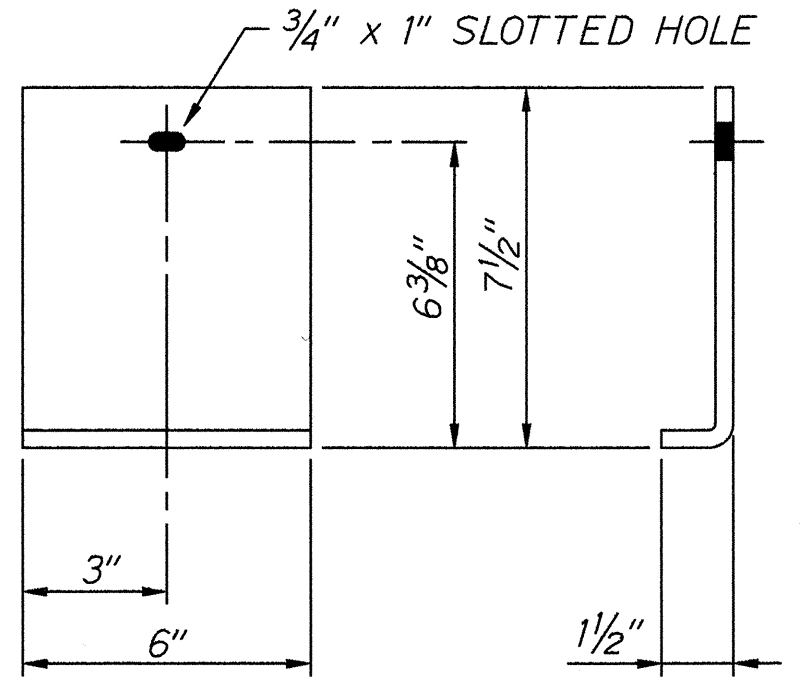
SECTION B - B



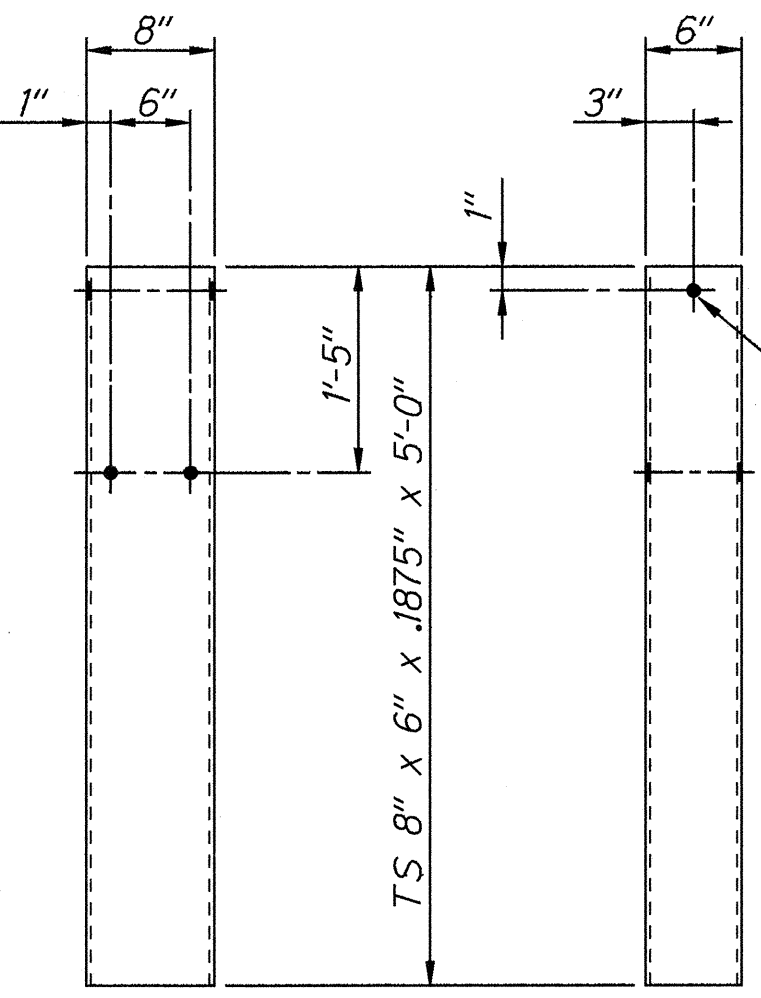
ONE - BEARING PLATE - MI



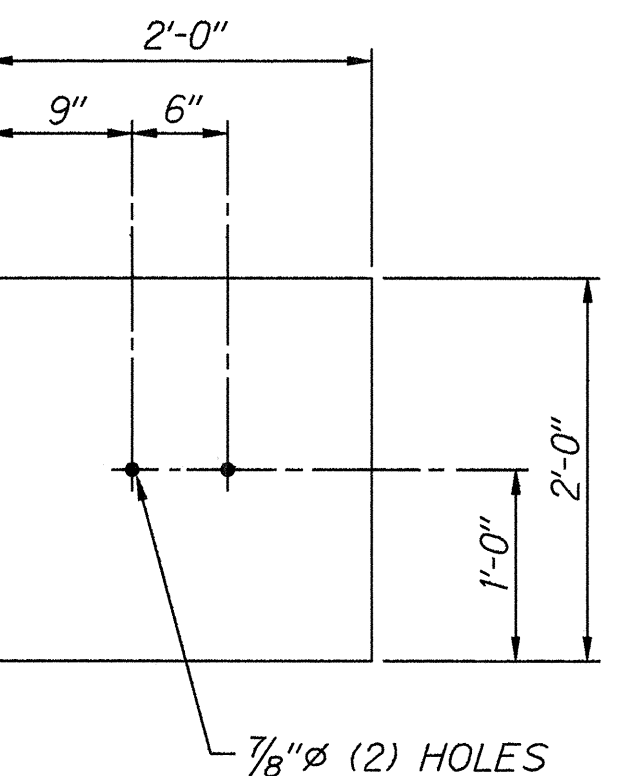
ONE - PIPE SPACER - RI



ONE - SHELF ANGLE - TI



2 - SOIL TUBE - KI



2 - SOIL PLATE - SI

|               |                   |      |
|---------------|-------------------|------|
| ORIGINAL PLAN | SURVEY PLOTTED BY | DATE |
| NOTED         | DRAWN BY          |      |
| DESIGNED BY   |                   |      |
| CHECKED BY    |                   |      |

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**MODIFIED ECCENTRIC  
LOADER TERMINAL (MELT)**

TEMPORARY KAPAA BYPASS ROAD

Project No. 56A-02-95

Not To Scale Date: Feb, 1995

SHEET No. 2 OF 3 SHEETS

