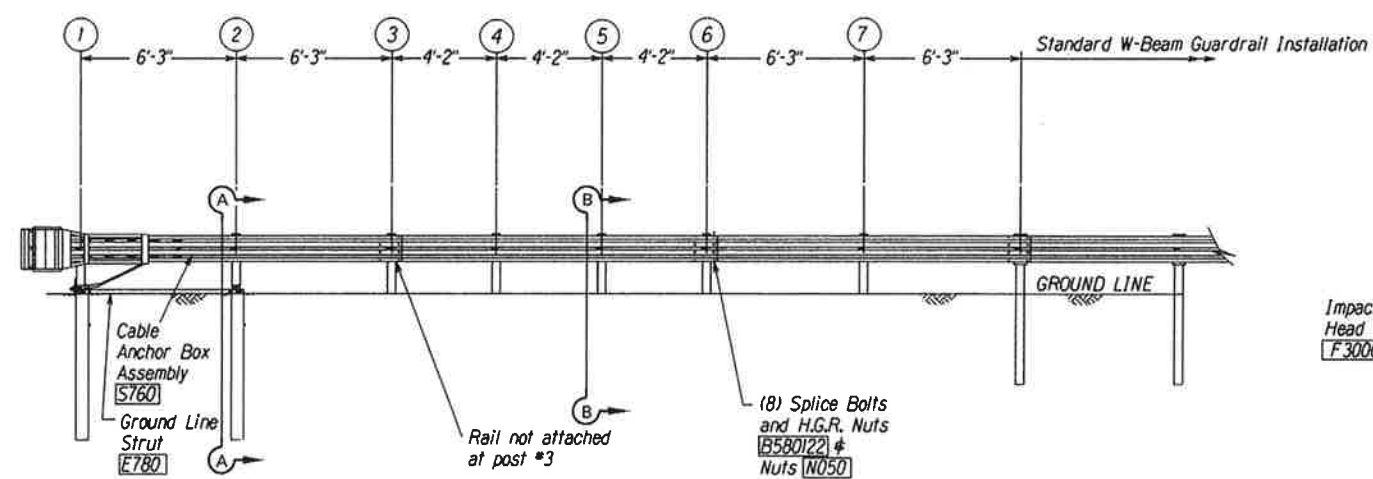


TRAFFIC →

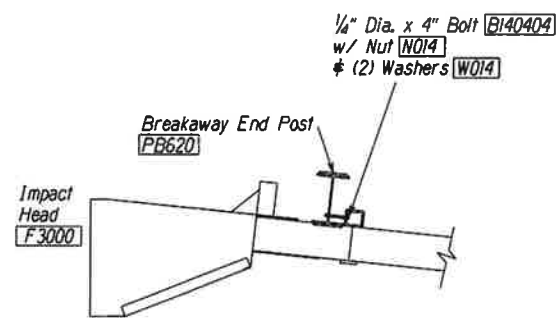
PLAN



ELEVATION

GENERAL NOTES

1. Breakaway posts are required with the FLEAT Terminal.
2. All bolts, nuts, cable assemblies, cable anchors and bearing plates shall be galvanized.
3. The soil tubes shall not protrude more than 4" above ground (measured along a 5' cord). Site grading may be necessary to meet this requirement.
4. The soil tubes may be driven with an approved driving head. Soil tubes should not be driven with the post in the tube. If the tubes are placed in drilled holes, the backfill material must be satisfactorily compacted to prevent settlement.
5. When rock is encountered during excavation, a 12" Dia. post hole, 20" deep may be used if approved by the engineer. Granular material will be placed in the bottom of the hole approx. 2 1/2" deep to provide drainage. The soil tubes will be field cut to length, placed in the hole and backfilled with adequately compacted material excavated from the hole.
6. The breakaway cable assembly must be taut. A locking device, (vice grips or channel lock pliers) should be used to prevent the cable from twisting when tightening nuts.

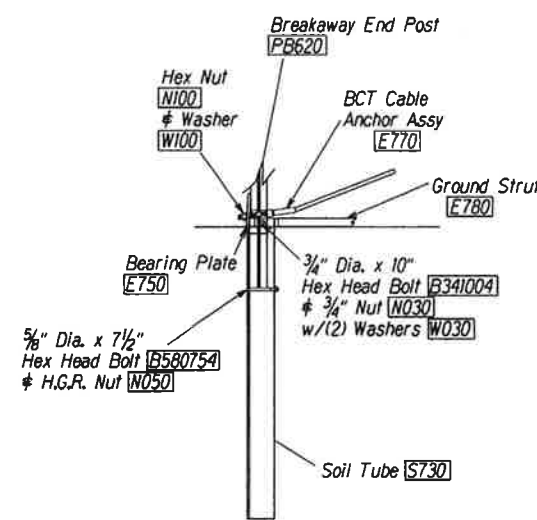


IMPACT HEAD CONNECTING DETAIL

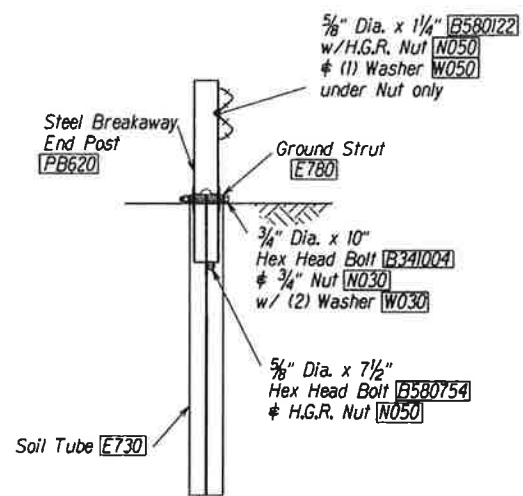
| ITEM NO. | QTY | BILL OF MATERIALS  |
|----------|-----|--|
| F3000    | 1   | IMPACT HEAD  |
| F1303    | 1   | W-BEAM GUARDRAIL END SECTION, 12 GA.                           |
| F1304    | 1   | W-BEAM GUARDRAIL CENTER SECTION, 12 GA.                        |
| G1203    | 1   | W-BEAM GUARDRAIL, 12 GA.                                       |
| S730     | 2   | *FOUNDATION SOIL TUBE, 6" x 8" x 72"                           |
| E750     | 1   | BEARING PLATE  |
| S760     | 1   | CABLE ANCHOR BOX   |
| E770     | 1   | BCT CABLE ANCHOR ASSEMBLY                                      |
| E780     | 1   | GROUND STRUT   |
| PB620    | 2   | STEEL BREAKAWAY END POST                                       |
| PB621    | 5   | STEEL BREAKAWAY LINE POST                                      |
|          | 5   | RECYCLED PLASTIC BLOCKOUT OR OFFSET BLOCK                      |
| HARDWARE |     |  |
| B580122  | 25  | 5/8" Dia. x 1 1/4" SPLICE BOLT, POST #2                        |
| B580754  | 2   | 5/8" Dia. x 7 1/2" HEX BOLT                                    |
| B341004  | 2   | 3/4" Dia. x 10" HEX BOLT                                       |
| B581002  | 5   | 5/8" Dia. x 10" H.G.R. BOLT (POST 3 THRU 7)                    |
| N050     | 32  | 5/8" Dia. H.G.R. NUT (SPLICE 24 SOIL TUBES & POST 2 THRU 7, 6) |
| N030     | 2   | 3/4" Dia. HEX NUT  |
| W050     | 6   | H.G.R. WASHER  |
| W030     | 4   | 3/4" ID WASHER   |
| N100     | 2   | 1" ANCHOR CABLE HEX NUT  |
| W100     | 2   | 1" ANCHOR CABLE WASHER   |
| B140404  | 2   | 1/4" x 4" HEX BOLT   |
| N014     | 2   | 1/1" HEX NUT   |
| W014     | 4   | 1/4" WASHER  |
| SB58A    | 8   | CABLE ANCHOR BOX SHOULDER BOLT                                 |
| N055A    | 8   | 1/2" A325 STRUCTURAL NUT                                       |
| W050A    | 16  | 1 1/16" OD x 9/16" ID A325 STR. WASHER                         |

Foundation Tube Options For Posts 1 & 2

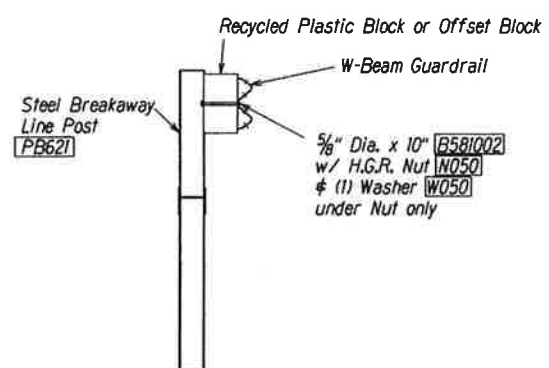
- \*6'-0" Split Foundation Tubes S730
- \*6'-0" Solid Foundation Tubes E731
- \*5'-0" Foundation Tubes S735 W/Soil Plates SP600
- \*4'-6" Foundation Tubes E735 W/Soil Plates SP600



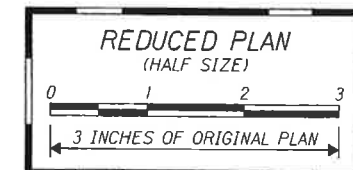
PARTIAL VIEW OF POST 1



SECTION A-A  
(Post #2)



SECTION B-B  
(Typical Post 3 - 7)  
NOTE: RAIL NOT BOLTED Post #3



This work was prepared by me or under my supervision.  
Exp. 04-30-10  
Wesley H. Segawa & Associates, Inc.

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION  
**FLEAT-350**  
**FLARED ENERGY ABSORBING TERMINAL**  
QUEEN KAAHUMANU HIGHWAY WIDENING  
HENRY ST. to KEALAKEHE PKWY - PHASE I  
Federal Aid Project No. NH-019-1(20)  
Not to Scale Date: November 2009