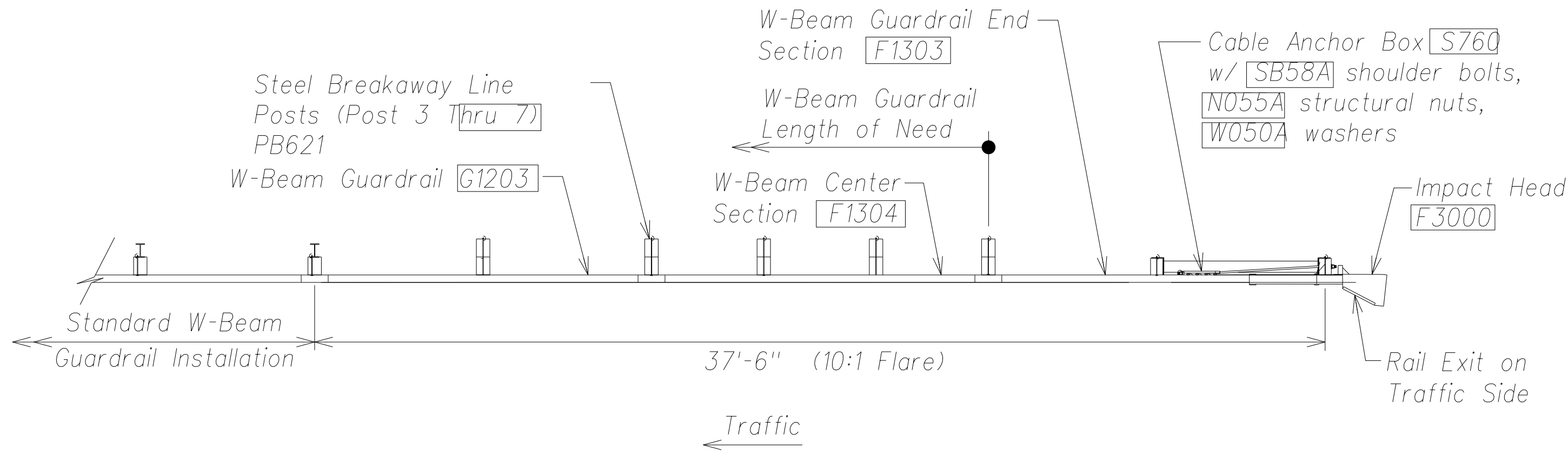
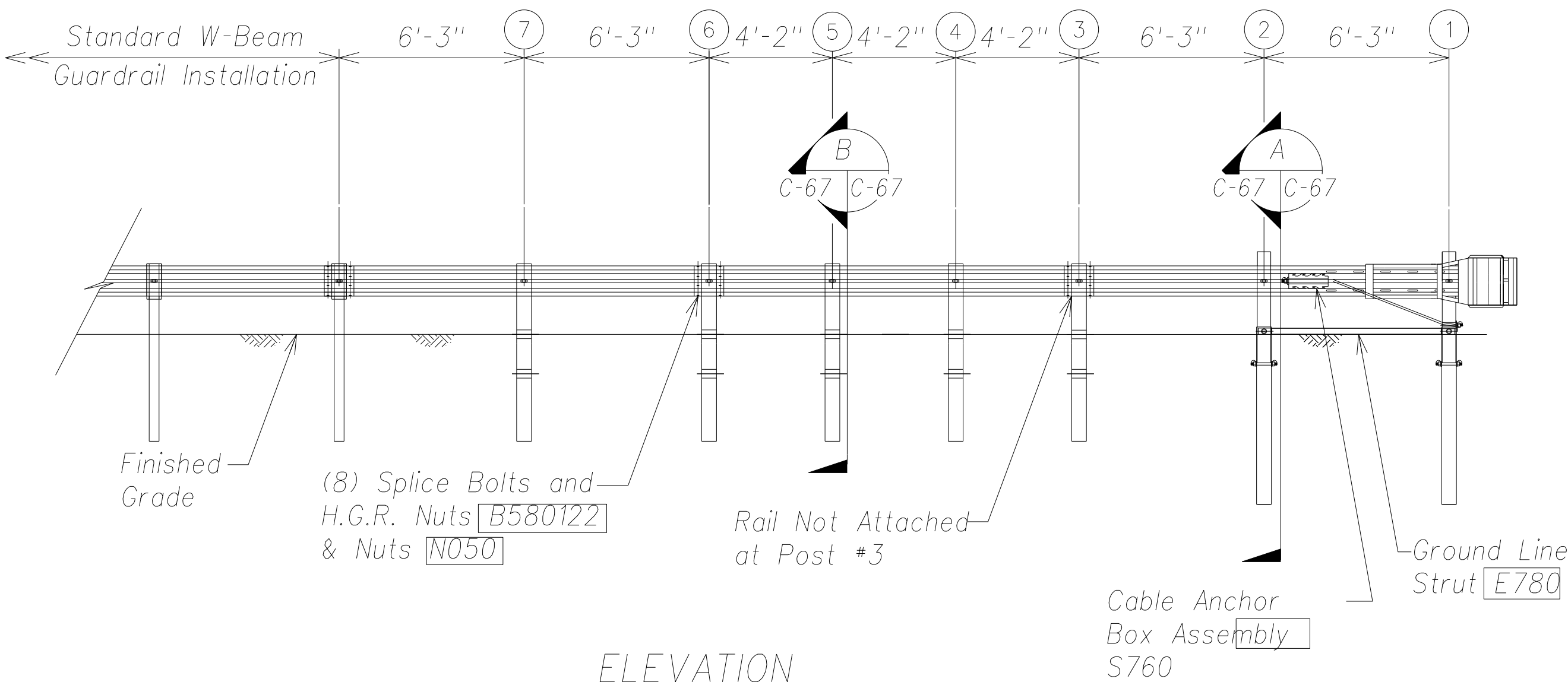


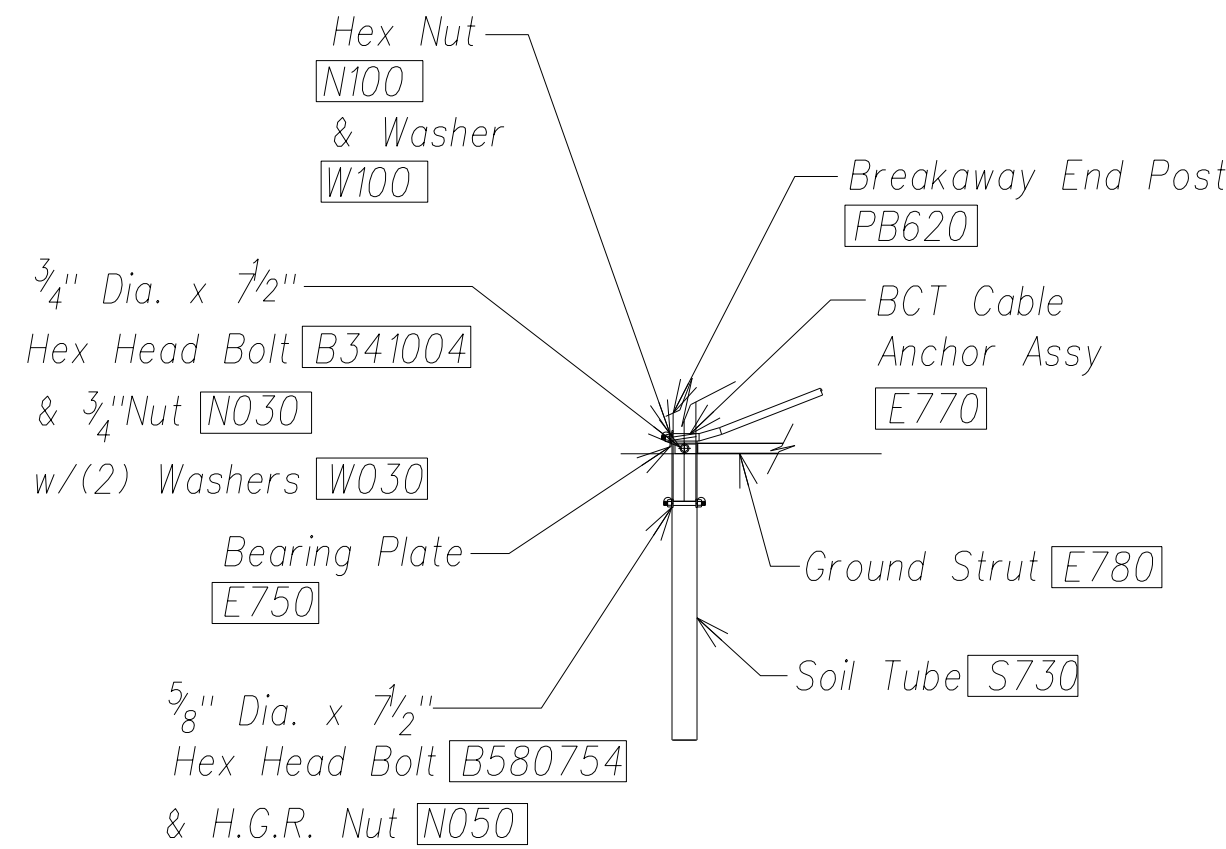
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	ARR-050-1(036)	FY13/14	Model	131



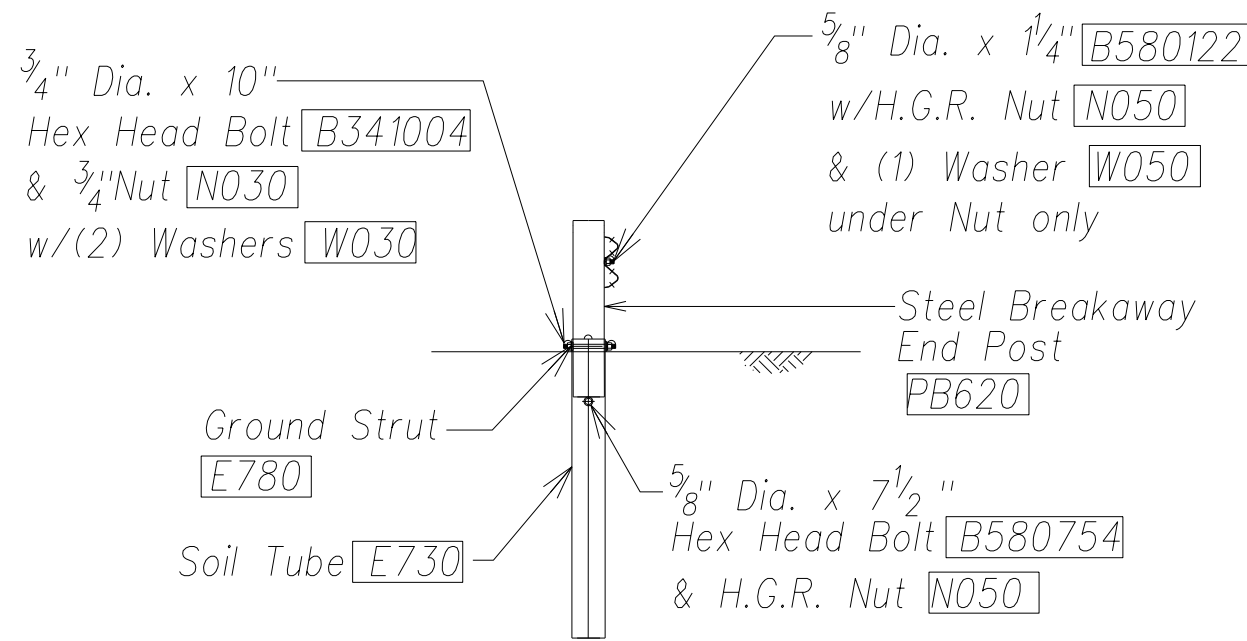
PLAN
Not to Scale



ELEVATION
Not to Scale



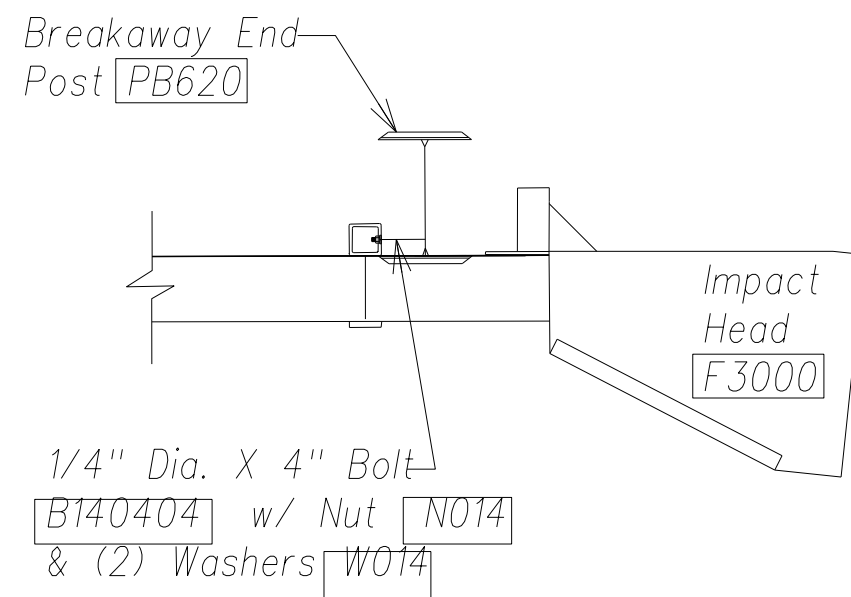
PARTIAL VIEW OF POST 1
Not to Scale



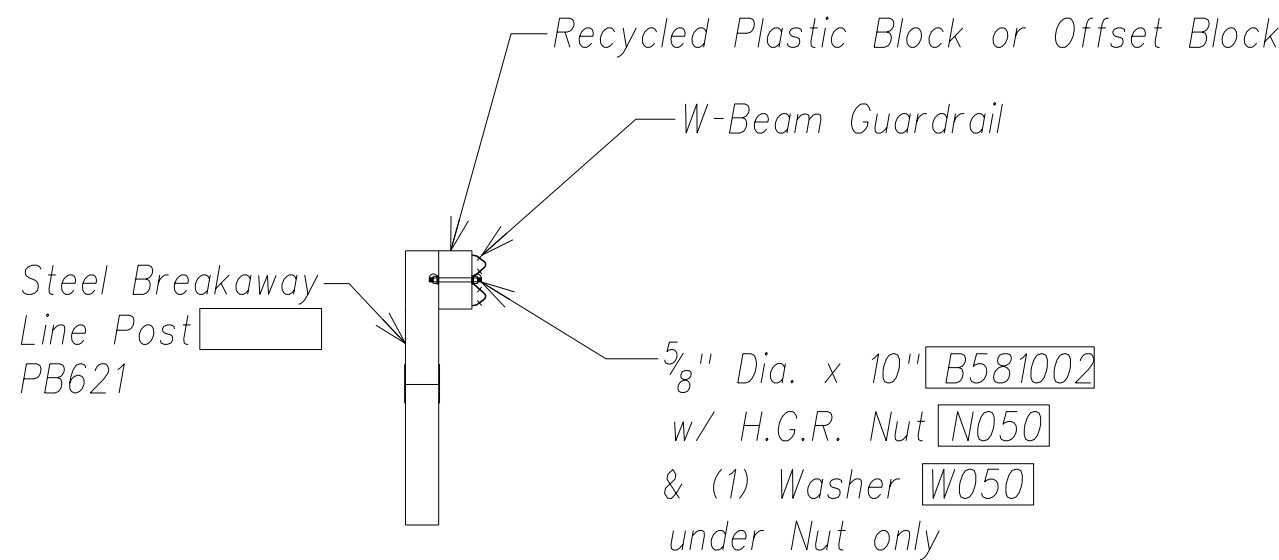
SECTION A @ Post #2
Not to Scale

General Notes:

- Breakaway posts are required with the FLEAT Terminal.
- All bolts, nuts, cable assemblies, cable anchors and bearing plates shall be galvanized.
- The soil tube shall not protrude more than 4" above ground (measured along a 5' cord). Site grading may be necessary to meet this requirement.
- 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.
- 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.
- 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
Not to Scale



Note: Rail Not Bolted @ Post #3

SECTION B @ Post #3 to #7
Not to Scale

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 3-7)
N050	32	5/8" Dia. H.G.R. Nut (splice 24, soil tubes 2, post 2 thru 7, 6)
N030	2	3/4" Dia. hex nut
W050	6	H.G.R. washer
W030	4	3/4" I.D. washer
N100	2	1" Anchor cable hex nut
W100	2	1" Anchor cable washer
B140404	2	1/4" x 4" Hex bolt
N104	2	1/4" Hex nut
W104	4	1/4" Washer
SB58A	8	Cable anchor box shoulder bolt
N055A	8	1/2" A325 Structural nut
W050A	16	1 1/16" O.D. x 9/16" I.D. A325 Straight 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

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

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

April 30, 2016
EXPIRATION DATE
OF THE LICENSE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

FLEAT 350 DETAILS

PHASE 1 - KAUMUALII HIGHWAY
LIHUE MILL BRIDGE TO RICE STREET
PHASE 2 - NAWILIWILI STREAM BRIDGE
AND MAUKA WIDENING

Scale: As Shown Date: March 25, 2013

SHEET No. C-67 OF 84 SHEETS

"AS-BUILT"

MODEL