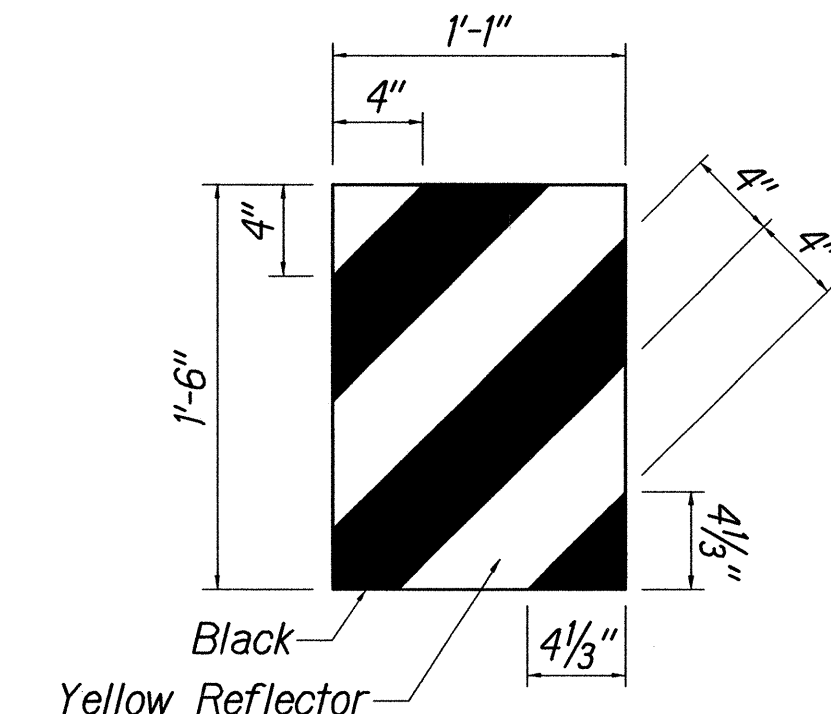
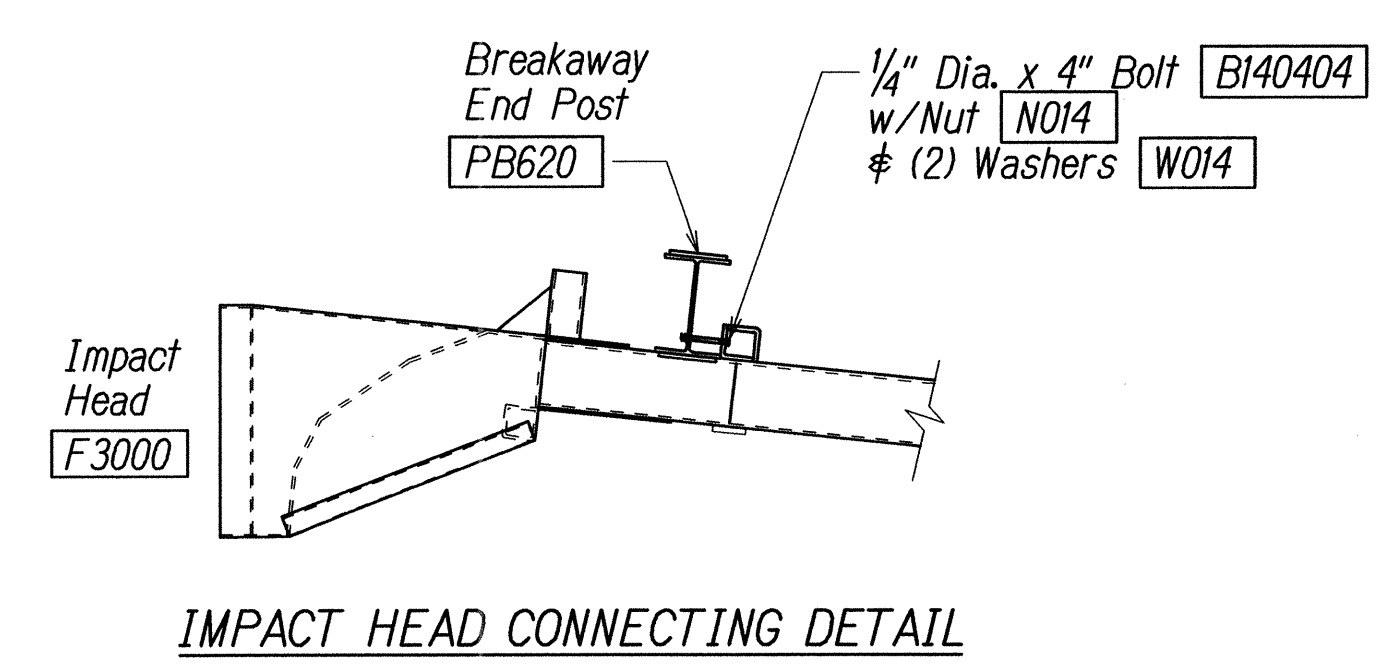
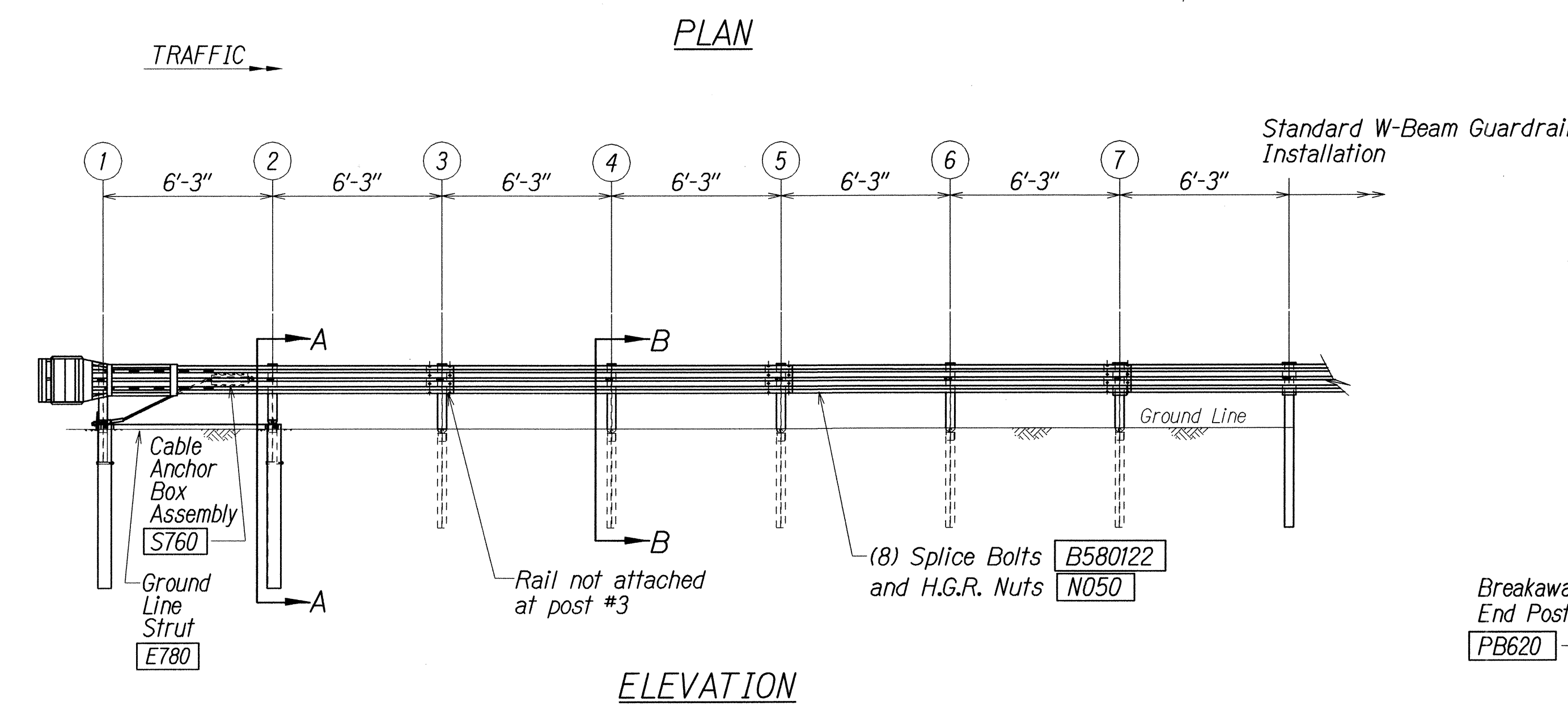
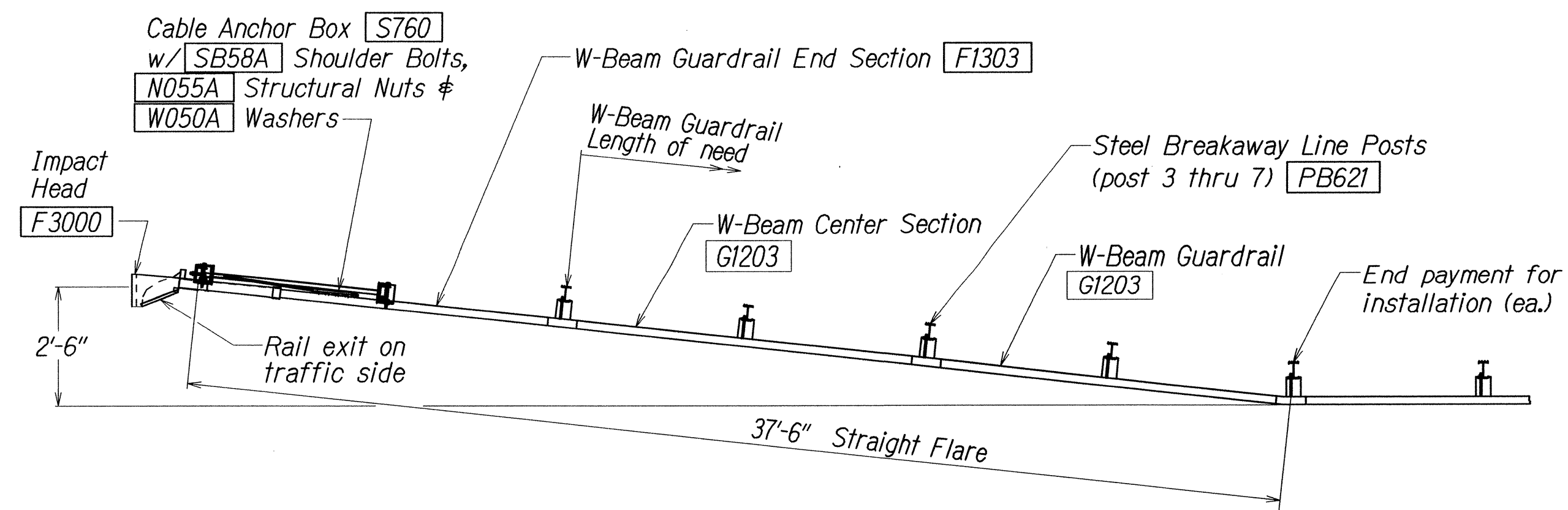
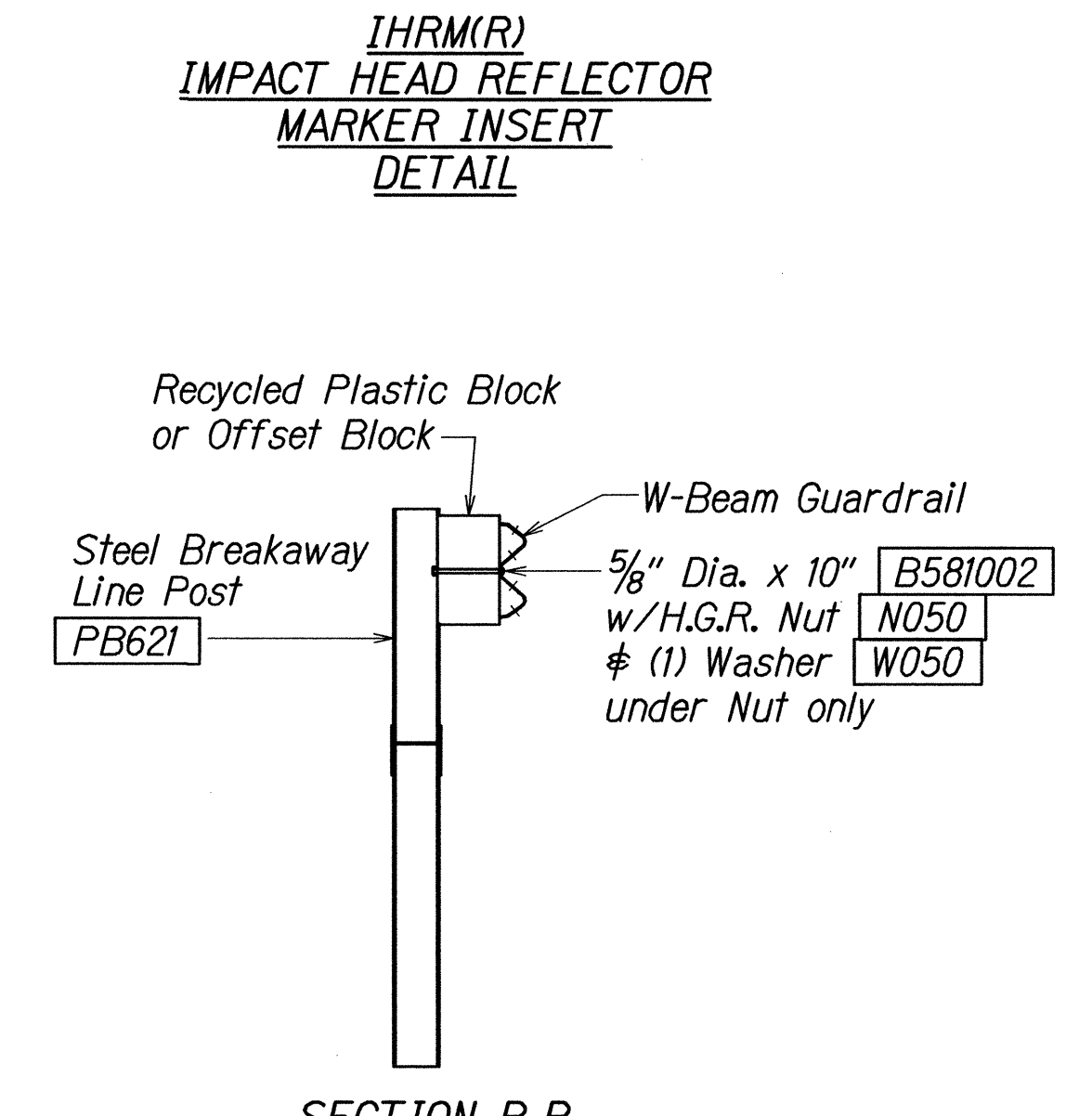
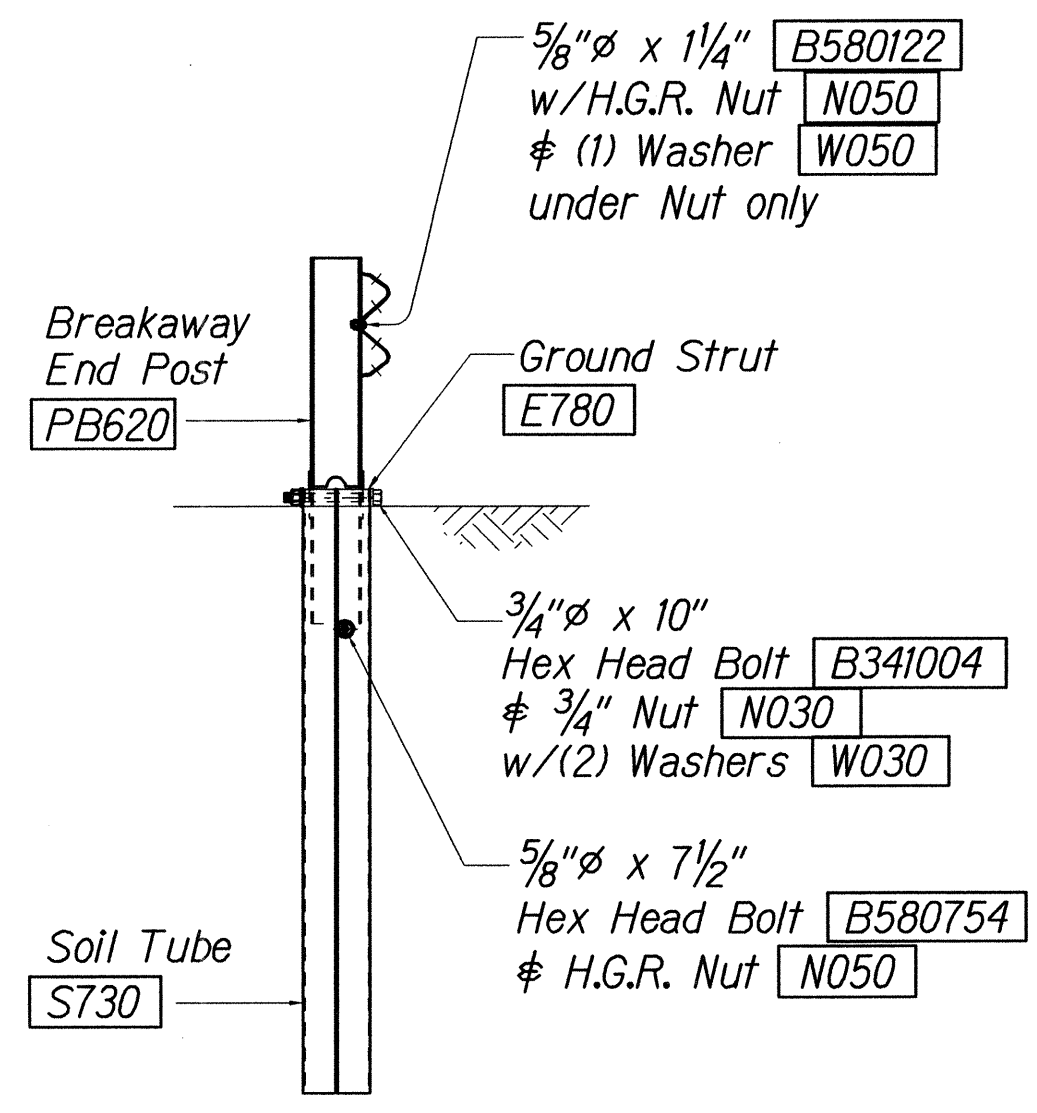
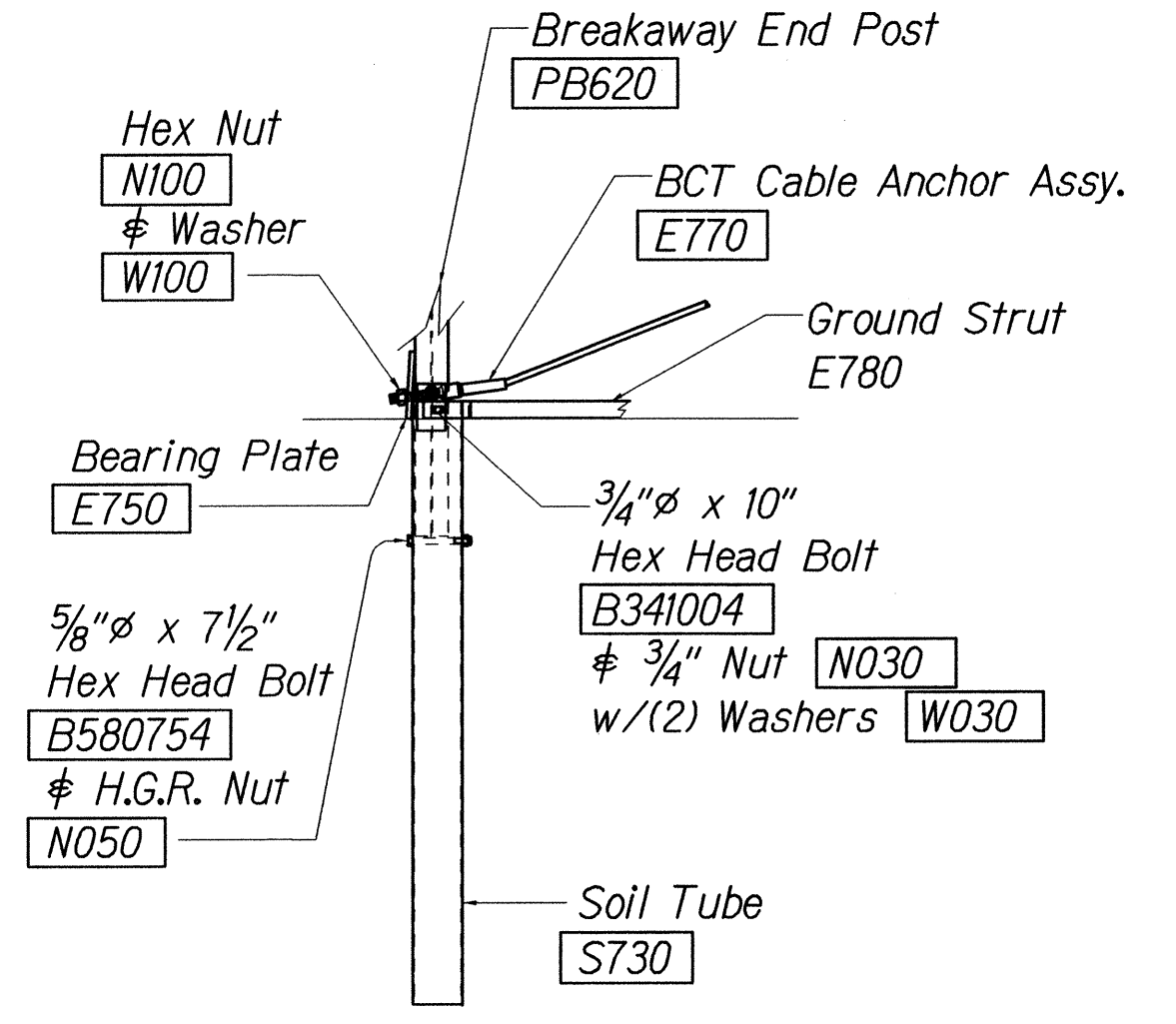
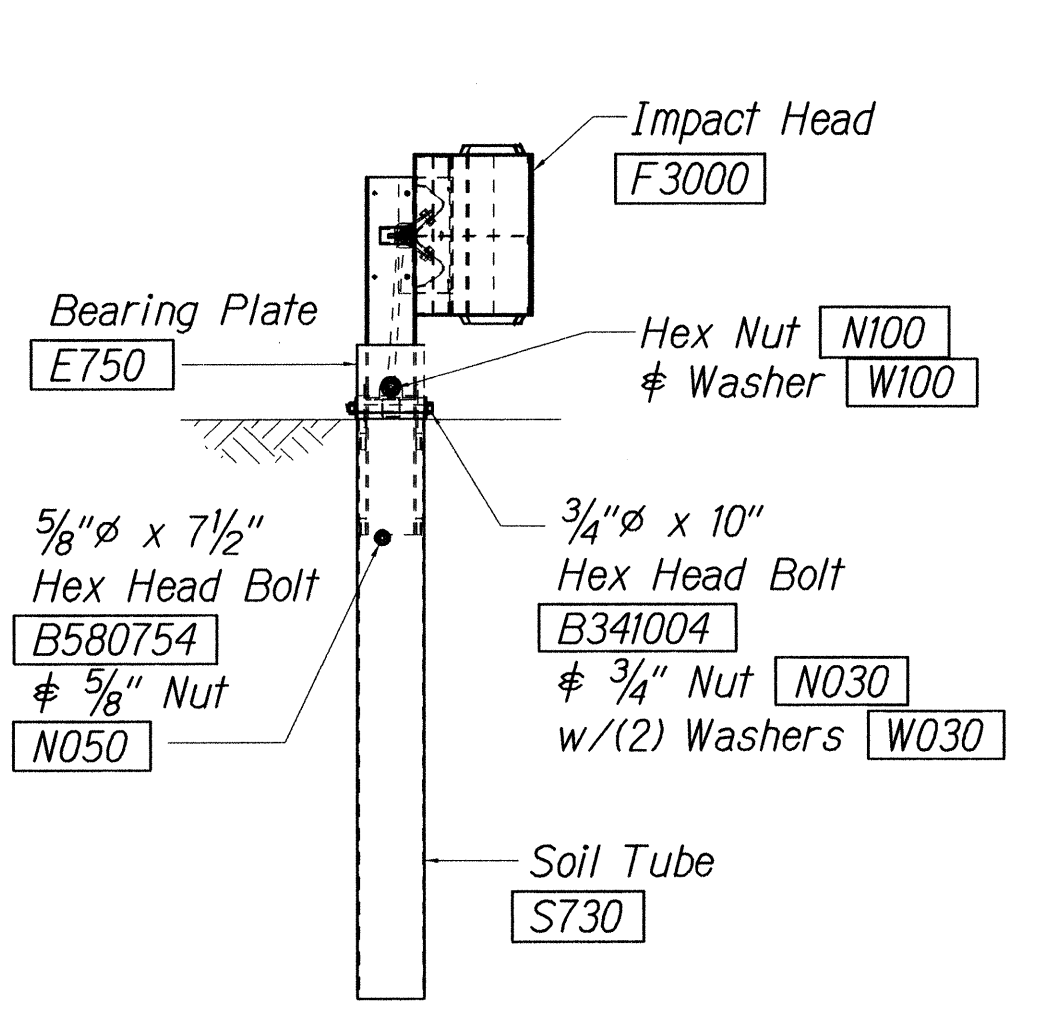


FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	50D-01-11MR	2014	15	32



ITEM NO.	QTY.	BILL OF MATERIALS
F3000	1	IMPACT HEAD
F1303	1	W-BEAM GUARDRAIL END SECTION, 12 GA.
G1203	2	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
	1	IMPACT HEAD REFLECTOR MARKER - IHRM(R) OR (L)
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 2, 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	1/4" 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 3/16" 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



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

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
FLEAT-350
FLARED ENERGY ABSORBING TERMINAL
 KAUMUALII HIGHWAY RESURFACING
 Kipu Road to Huleia Bridge
 Proj. No. 50D-01-11MR
 Scale: Not to Scale Date: Oct. 2013
 SHEET No. 3 OF 3 SHEETS

DATE: 10/08
 SURVEY PLANNED BY: [blank]
 DRAWN BY: [blank]
 DESIGNED BY: [blank]
 QUANTITIES BY: [blank]
 CHECKED BY: [blank]