

1. The guardrail end anchorage assembly represented on these drawings is a proprietary design by Road Systems, Inc. and marketed under the name FLEAT. Any infringement on the rights of the design shall be the sole responsibility of the user.

2. These drawings are sufficient for plan details of the FLEAT when installed in connection with shoulder guardrail and precludes the requirement for shop drawing submittals unless the plans call for such submittals. The FLEAT shall be assembled in accordance with the manufacturer's detailed drawings, procedures, and specifications.

3. The FLEAT is available in steel or timber post configurations.

The steel post components are:

Post #1 lower is W6" x 15# with soil plate welded

Post #1 upper is 6" x 6" x 1/8" tube and is bolted to post #1 lower with 5/8" bolt

Post 2 lower is W6" x 9#

Post 2 upper is W6" x 9# and is bolted to post #2 lower with 3/4" bolt

Posts #3 and beyond are W6" x 9# x 6'-0" guardrail posts

The wood post components are:

Post #1 and #2 lowers are 6' long 6" x 8" x 1/8" foundation tubes

Post #1 and #2 uppers are 6" x 8" BCT wood posts

Posts #1 and #2 are connected with a ground strut and 5/8" bolts

Posts #3 and beyond are 6'-0" long CRT wood posts

4. The FLEAT is intended for use as an approach terminal for shoulder guardrail applications. The beginning length of need point is located at Post 3 (see Sheets 2 and 4).

5. The FLEAT shall be installed as a flared approach terminal.

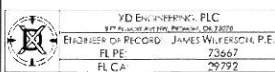
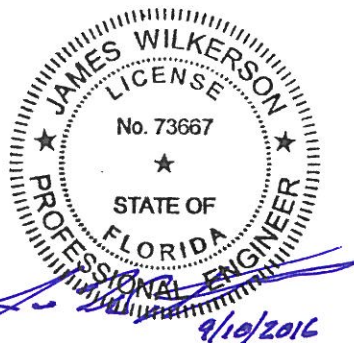
6. The FLEAT can only be used with single-faced guardrail.

7. For detail of shoulder grading around end treatments, miscellaneous asphalt pavement and pay limits, see Index 400.

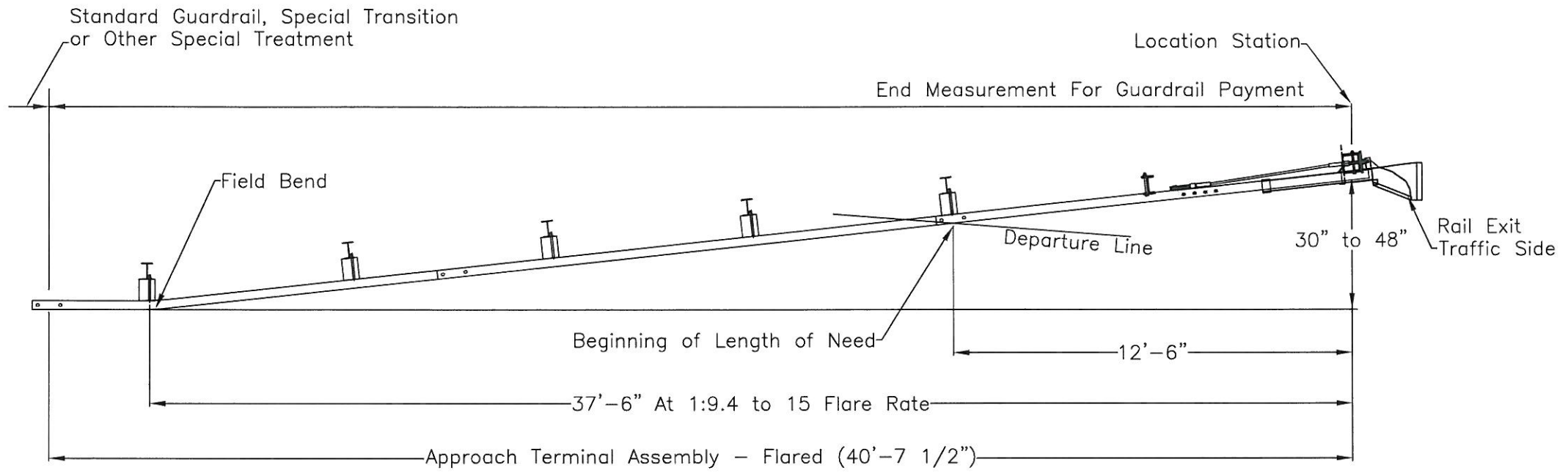
8. The FLEAT shall be paid for under the contract unit price of Guardrail, approach terminal (Flared), per EA.

9. Site Conditions: The steel post system is not permitted adjacent to sidewalks.

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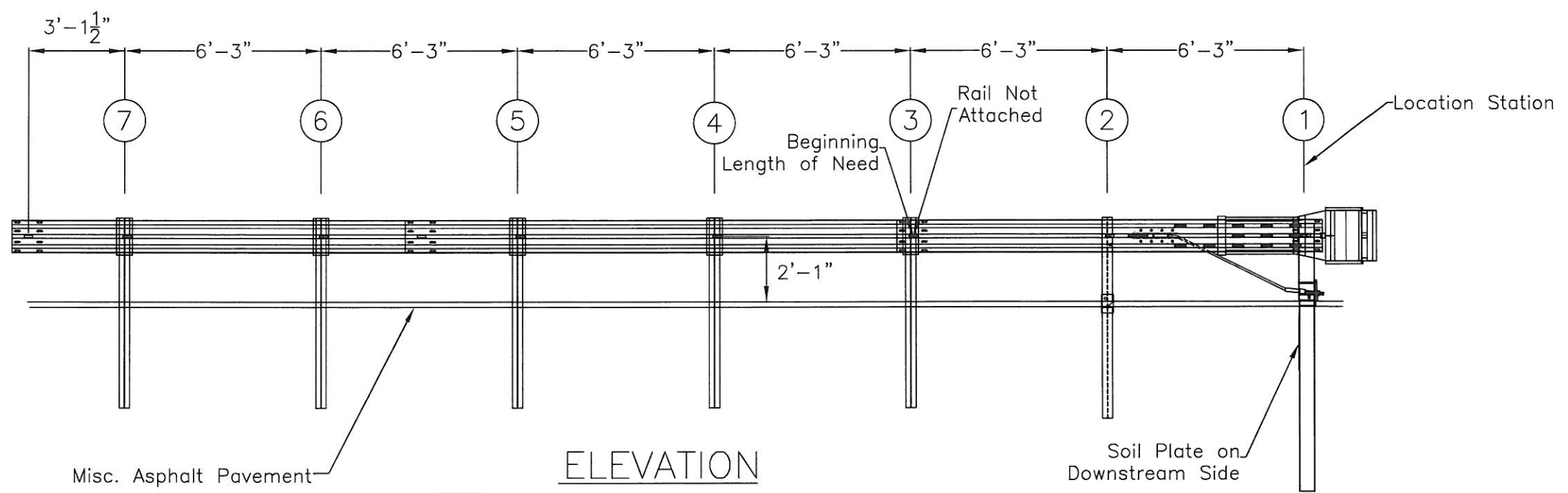


REVISIONS			RSI Road Systems, Inc.	
DATE	BY	DESCRIPTION	FLared Energy Absorbing Terminal (FLEAT) (2'-1" Mounting Height/TL-2/Flared)	
			DATE: 06/29/2016	FILE NAME: FLEAT-SP-MGS TL2
			SHEET: 1 OF 5	Florida APL No. 536-004-001



PLAN

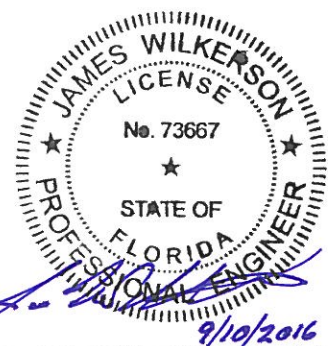
TRAFFIC ←



ELEVATION

Specification 536 – End Anchorage Assembly (FLARED)

MODEL	SYSTEM WIDTH	SYSTEM HEIGHT	SYSTEM LENGTH	DESIGN LENGTH	DESIGN SPEED	TEST LEVEL DESIGNATION
FLEAT	20"	31"	40'-7 1/2"	25'	≤45 MPH	TL-2



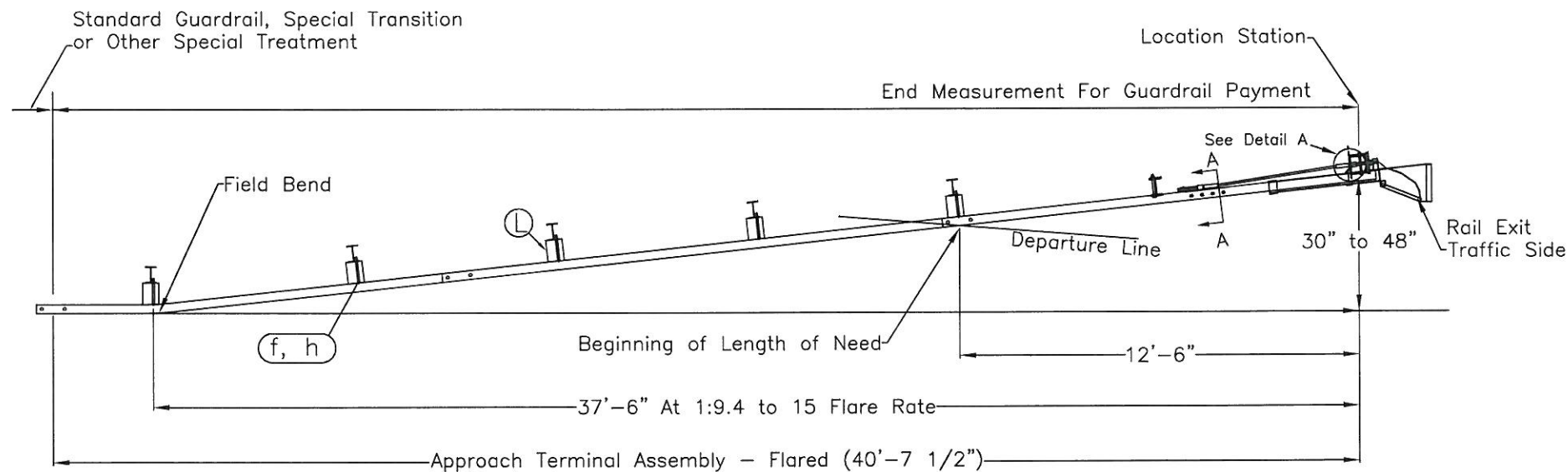
REVISIONS		
DATE	BY	DESCRIPTION

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FLared Energy Absorbing Terminal (FLEAT) Steel Post System Layout

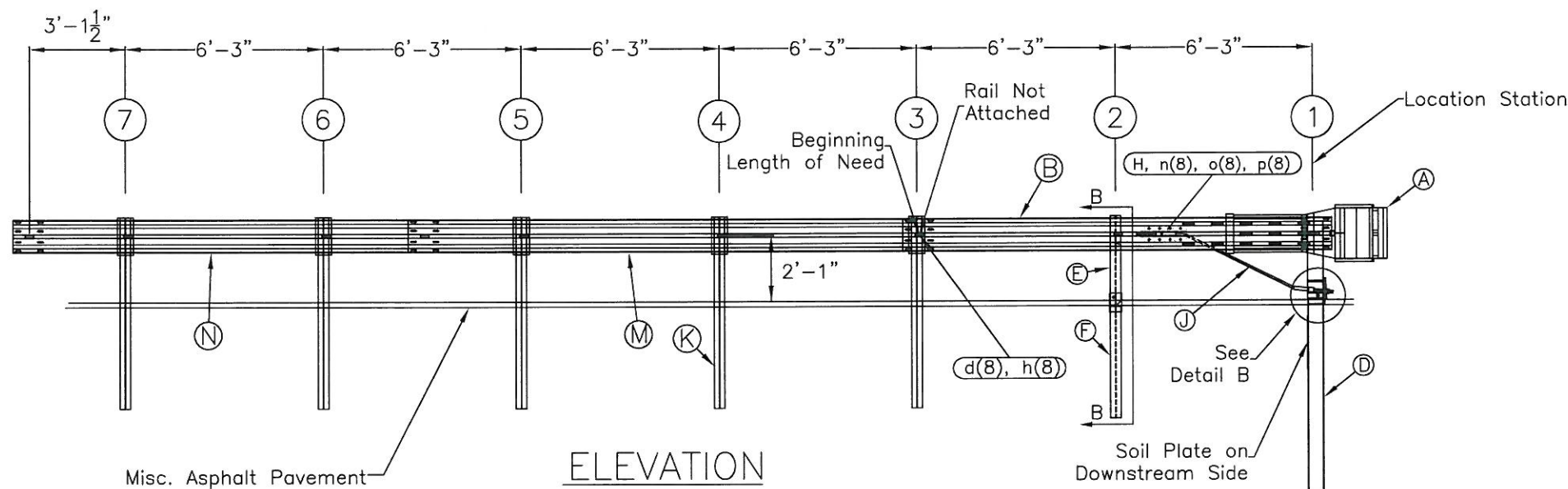
DATE: 06/29/2016 FILE NAME: FLEAT-SP-MGS TL2

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PLAN

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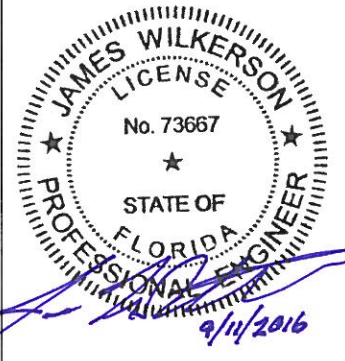


ELEVATION

ITEM	QTY	DESCRIPTION	PART #
A	1	IMPACT HEAD	F3000
B	1	W-BEAM GUARDRAIL END SECTION, 12 Ga.	SF1303
C	1	FIRST POST TOP (6"x6"x1/2" Tube)	TPHP1A
D	1	FIRST POST BOTTOM (6' W6X15)	TPHP1B
E	1	SECOND POST ASSEMBLY TOP	UHP2A
F	1	SECOND POST ASSEMBLY BOTTOM	HP3B
G	1	BEARING PLATE	E750
H	1	CABLE ANCHOR BOX	S760
J	1	BCT CABLE ANCHOR ASSEMBLY	E770
K	5	6X9 STEEL POST	P621
L	5	TIMBER BLOCK (6"x8"x14")	P616
M	1	W-BEAM MGS RAIL SECTION (15'-7 1/2")	G1507
N	1	W-BEAM MGS RAIL SECTION (12'-6")	G1203A
HARDWARE (ALL DIMENSIONS IN INCHES)			
a	2	5/16 x 1 HEX BOLT GRD 5	B5160104A
b	4	5/16 WASHER	W0516
c	2	5/16 HEX NUT	N0516
d	17	5/8 Dia. x 1 1/4 SPLICE BOLT	B580122
e	1	5/8 Dia. x 9 HEX BOLT GRD 5	B580904A
f	5	5/8" x 10" H.G.R. Bolt	B581002
g	3	5/8 WASHER	W050
h	23	5/8 Dia. H.G.R. NUT	N050
j	1	3/4 Dia. x 8 1/2 HEX BOLT GRD A449	B340854A
k	1	3/4 Dia. HEX NUT	N030
l	2	1 ANCHOR CABLE HEX NUT	N100
m	2	1 ANCHOR CABLE WASHER	W100
n	8	RSI SHOULDER BLOT w/WASHER	SB12A
o	8	1/2 STRUCTURAL NUT	N012A
p	8	WASHER	W012A
q	1	BEARING PLATE RETAINER TIE	CT-100S

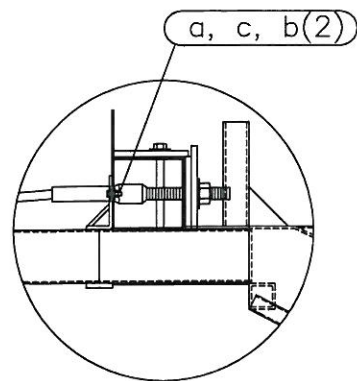
GENERAL NOTES:

1. Refer to FLEAT Assembly Manual
2. The lower sections of the Posts 1&2 shall not protrude more than 4 in above the ground (measured along a 5' cord). The center line of the hinge bolt at Post #2 is nominally 1 1/8" above the ground surface or misc. asphalt pavement. Site grading may be necessary to meet these requirement.
3. The lower sections of the hinged posts should not be driven with the upper post attached. If the post is placed in a drilled hole, the backfill material must be satisfactorily compacted to prevent settlement.
4. 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.



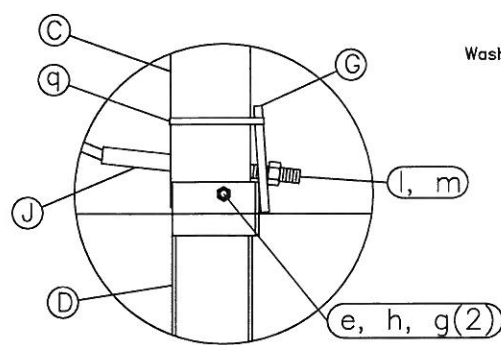
Specification 536 – End Anchorage Assembly (FLARED)

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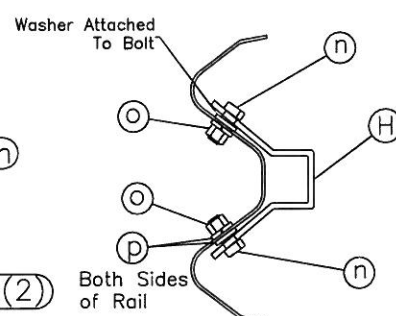
Detail A

Impact Head Connection Detail

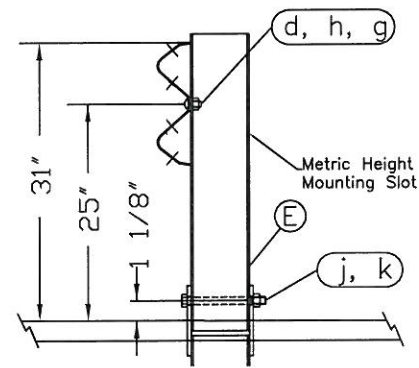


Detail B

Post #1 Connection Detail



SECTION A-A
Anchor Bracket



SECTION B-B
Post #2

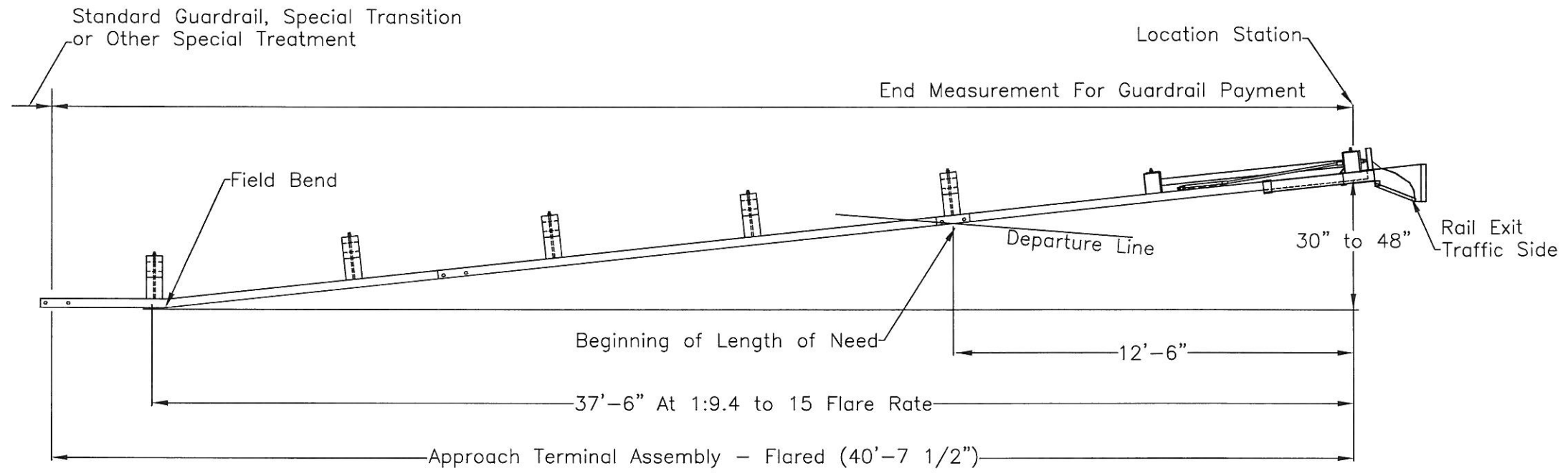
REVISIONS		
DATE	BY	DESCRIPTION

RSI Road Systems, Inc.

FLared Energy Absorbing Terminal (FLEAT)
Steel Post System Part Details

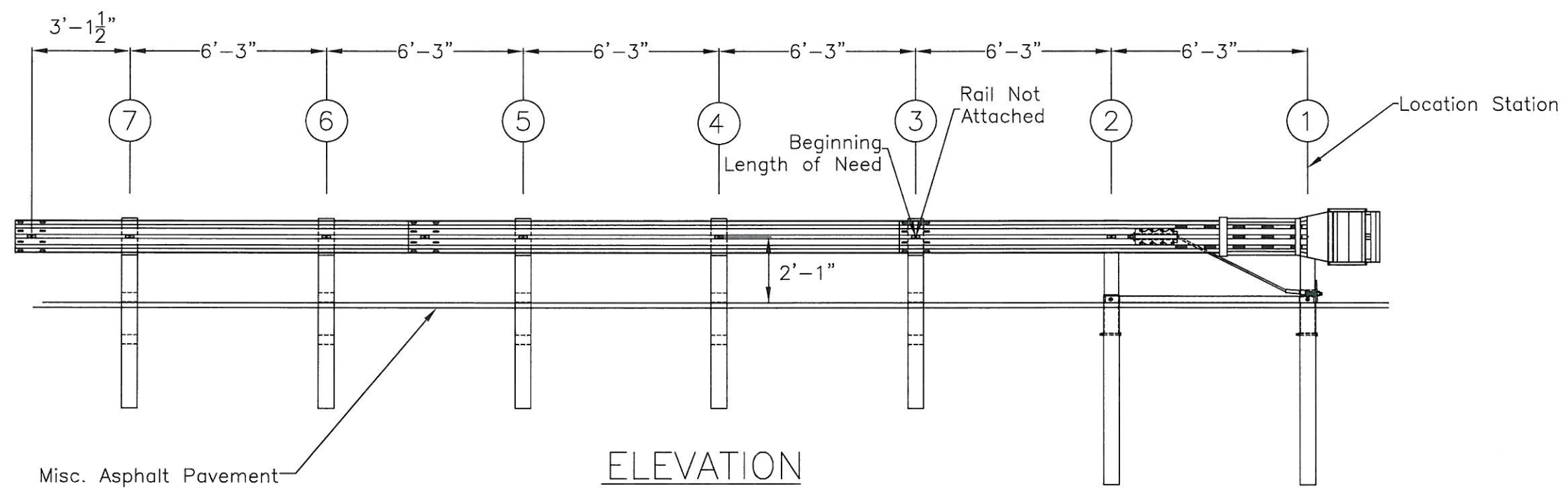
DATE: 06/29/2016 FILE NAME: FLEAT-SP-MGS TL2

SHEET: 3 OF 5 Florida APL No. 536-004-001

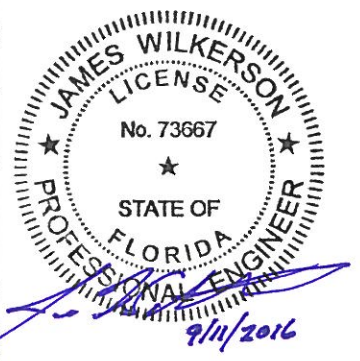


PLAN

← TRAFFIC



ELEVATION



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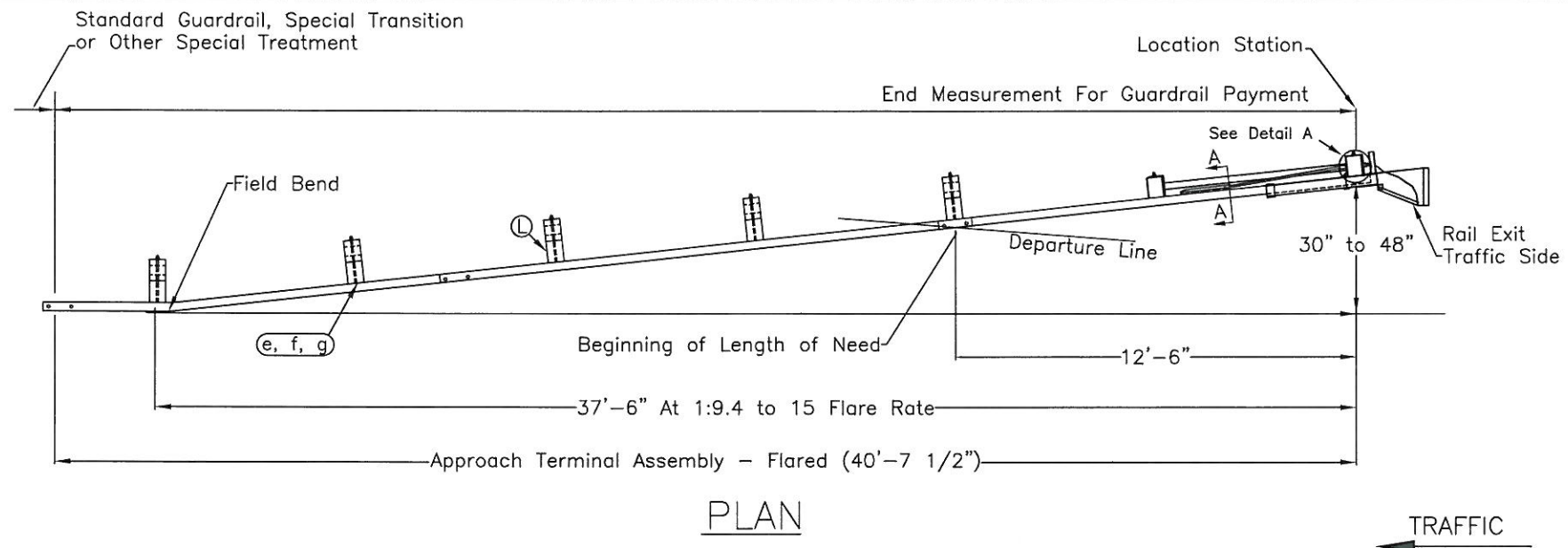
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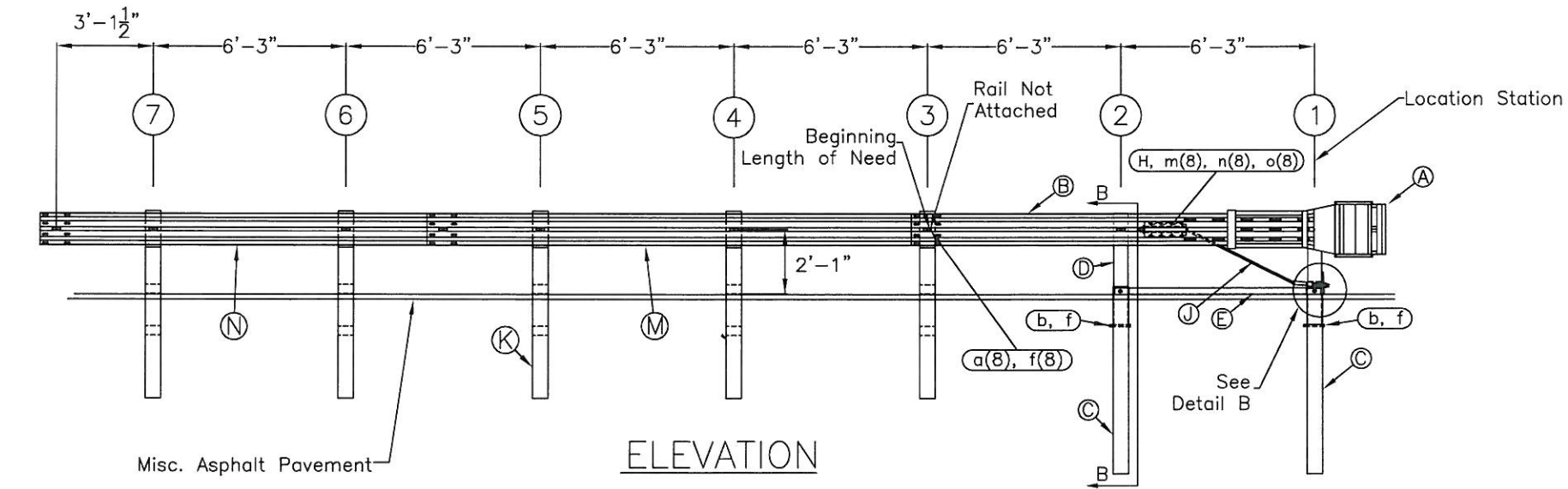
Flared Energy Absorbing Terminal (FLEAT)
Wood Post System Layout

DATE: 06/29/2016 FILE NAME: FLEAT-SP-MGS TL2

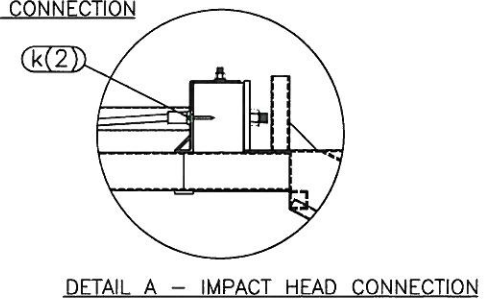
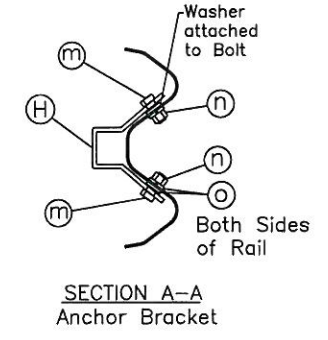
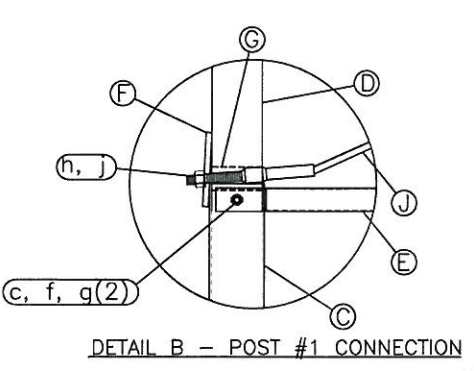
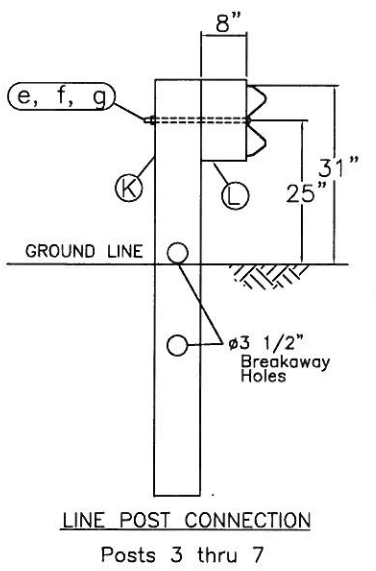
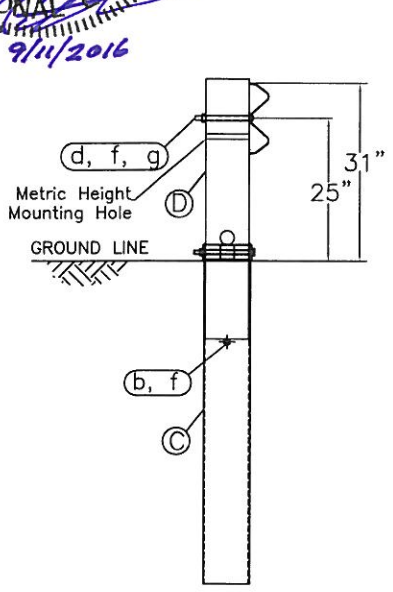
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ITEM	QTY	BILL OF MATERIALS	ITEM NO.
A	1	IMPACT HEAD	F3000
B	1	W-BEAM GUARDRAIL END SECTION, 12 Ga.	SF1303
C	2	FOUNDATION TUBE (6' - 6"x8"x1/8")	E731
D	2	UNIVERSAL BCT WOOD POST (45" Long)	UP650
E	1	GROUND STRUT	E780
F	1	BEARING PLATE	E750
G	1	PIPE SLEEVE	E740
H	1	CABLE ANCHOR BOX	S760
J	1	BCT CABLE ANCHOR ASSEMBLY	E770
K	5	UNIVERSAL CRT WOOD POST (6')	UP671
L	5	TIMBER BLOCKOUT (6"x8"x14")	P675
M	1	W-BEAM MGS RAIL SECTION (15'-7 1/2")	G1507
N	1	W-BEAM MGS RAIL SECTION (12'-6")	G1203A
HARDWARE (ALL DIMENSIONS IN INCHES)			
a	16	5/8 x 1 1/4 SPLICE BOLT	B580122
b	2	5/8 x 8 HEX BOLT	B580804
c	2	5/8 x 10 HEX BOLT	B581004
d	1	5/8 x 10 H.G.R. BOLT	B581002
e	5	5/8 x 22 H.G.R. BOLT	B582202
f	26	5/8 H.G.R. NUT	NO50
g	8	5/8 H.G.R. WASHER	WO50
h	2	1 ANCHOR CABLE HEX NUT	N100
j	2	1 ANCHOR CABLE WASHER	W100
k	2	3/8 x 3 LAG SCREW	E350
m	8	RSI SHOULDER BOLT w/WASHER	SB12A
n	8	1/2 STRUCTURAL NUT	NO12A
o	8	1/2 WASHER	WO12A



- GENERAL NOTES:**
1. Refer to FLEAT Assembly Manual
 2. The lower sections of the Posts 1&2 shall not protrude more than 4 in above the ground (measured along a 5' cord). Site grading may be necessary to meet these requirement.
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REVISIONS		
DATE	BY	DESCRIPTION

RSI Road Systems, Inc.

FLared Energy Absorbing Terminal (FLEAT)
Wood Post System Part Details

DATE: 06/29/2016 FILE NAME: FLEAT-SP-MGS TL2

SHEET: 5 OF 5 Florida APL No. 536-004-001