

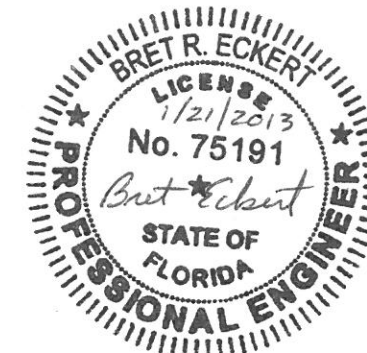
**PRODUCT GENERAL NOTES  
TRACC 05 SYSTEM  
S102-4111**

1. The energy absorbing system represented on these Qualified Products List (QPL) drawings is a proprietary design by Trinity Highway Products, LLC., and marketed under the name TRACC®, SHORTRACC®, & WIDETRACC®.
2. The TRACC® is a non-gating, redirective crash cushion which is suited for shielding hazards. The TRACC® is used for temporary installations. The beginning length of need shall be at the point of intersection between the face of the crash cushion and the departure line.
3. The TRACC® has been evaluated to NCHRP-350 crash test criteria and is suitable for Test Level 2 and Test Level 3 crash cushion applications.
4. The TRACC® shall be assembled and installed in accordance with the manufacturer's detailed drawings, procedures, specifications, product manual, or installation guide. Information and copies of the above manual are available on the Qualified Product List (QPL).
5. The TRACC® is available in 24", & 30" nominal widths. The WideTRACC® system is available in 31", 37", 39", 52.5", & 58" nominal widths. The system width will be called out in the plans, permit or other contract document for each location.
6. Metallic compounds shall meet the galvanizing requirements for guardrail, Section 967 of the FDOT Specifications .
7. A yellow Type 1 Object Marker shall be centered 3' in front of the nose of the TRACC®. Mounting hardware shall be in conformance with Section 993 of the FDOT Specifications. The cost of the Object Marker shall be included in the cost of the TRACC®. As an option, the contractor may install reflective sheeting on the nose of the crash cushion. The sheeting to be used must be solid yellow. Type III or better and must be a product listed on the Department's Qualified Products List (QPL). The sheeting to be applied to the nose of the crash cushion shall be a minimum of 360 square inches with a minimum height of 15 inches.
8. Quantity for payment is based on each independent location as called for in the plans or as directed by the Engineer. The cost of foundations, subgrade preparation, and other appurtenant construction will be included in the cost for TRACC®.
9. In compliance with the AASHTO 2011 Roadside Design Guide, remove all curbs and islands to ensure proper impact performance.
10. Supply adequate transition from the TRACC® System to the object being shielded.
11. Units of measure are in English units.

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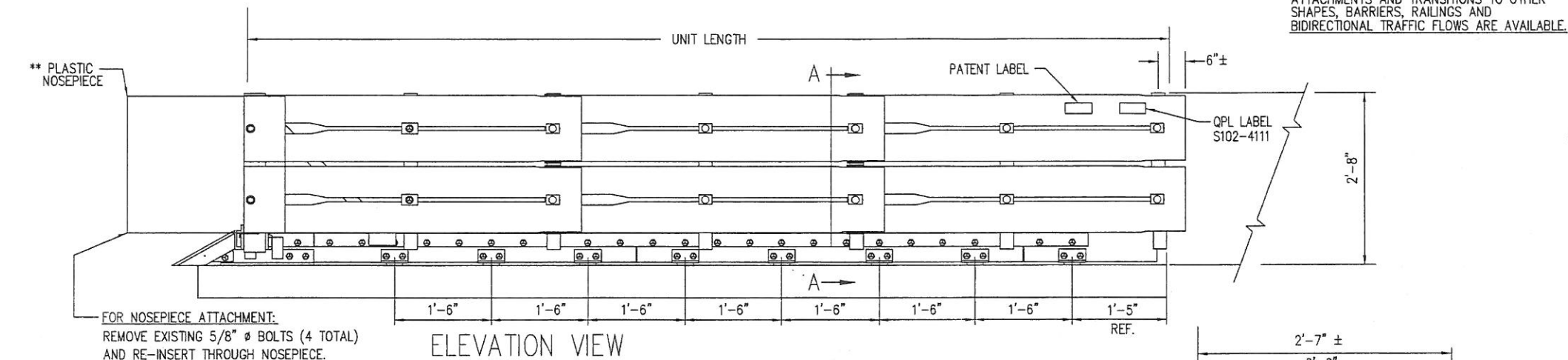
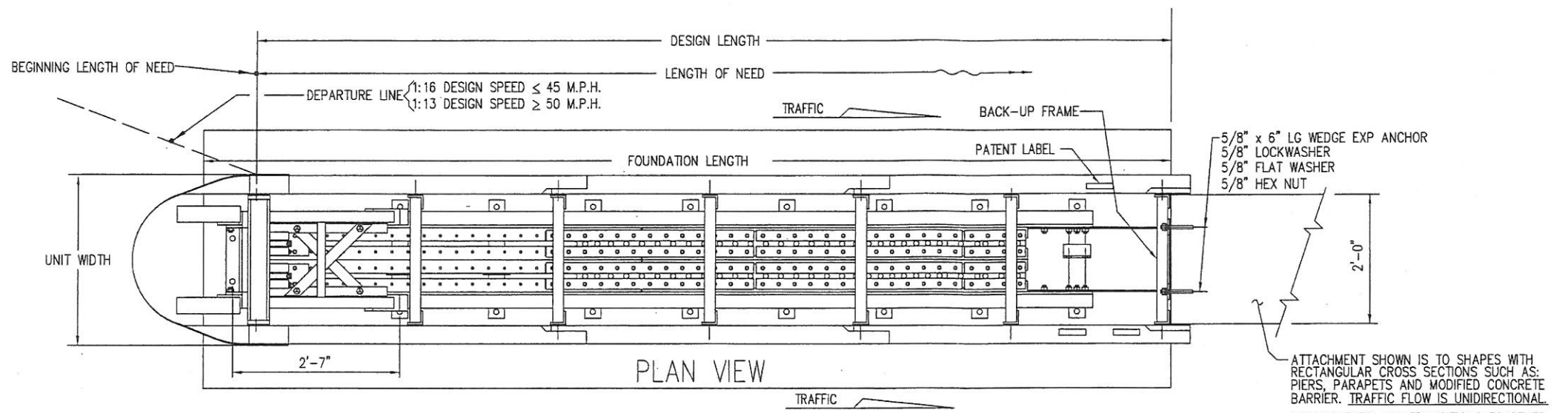
SHEET #	TITLE
1	COVER SHEET
2	TRACC 05 INSTALLATION (CONCRETE BARRIER WALL)
3	SHORTRACC INSTALLATION (CONCRETE BARRIER WALL)
4	58" WIDETRACC DOUBLE FLARE INSTALLATION
5	TRACC 05 22'-0" CONCRETE FOUNDATION
6	SHORTRACC 15'-0" CONCRETE FOUNDATION
7	WIDETRACC 22'-0" CONCRETE FOUNDATION
8	TRACC 05 TRANS. TO THRIE BEAM MEDIAN BARRIER(DRIVEN PST)
9	TRACC 05 TRANS. TO VERTICAL CONCRETE WALL, PARAPET
10	TRACC 05 TRANS. TO NEW JERSEY TYPE CONCRETE BARRIER
11	TRACC 05 TRANS. TO FLA. TYPE "K" CONCRETE BARRIER
12	WIDETRACC DOUBLE FLARE WING EXTENSION

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REV.	CHK'D	BY	DATE	REMARKS
TRACC 05 QPL S102-4111				DRAWN LH CHECKED BT SCALE N.T.S. DATE 01/10/13 ENG. FILE # S5TOCFL S.S # S5TOCFL
TRINITY HIGHWAY PRODUCTS LLC. 2525 STEMMONS FREEWAY DALLAS, TX 75207				SHEET NO. 1 of 12 REV. 0





FOR NOSEPIECE ATTACHMENT:  
REMOVE EXISTING 5/8" Ø BOLTS (4 TOTAL)  
AND RE-INSERT THROUGH NOSEPIECE.

SHORTRACC 05						
24" WIDE PT#	WORKZONE SPEED	TESTED TO	UNIT LENGTH=14'-3"	FOUNDATION LENGTH=15'-0"	DESIGN LENGTH=14'-2"	UNIT WIDTH=2'-7"
25997A	≤ 45 M.P.H.	TL-2				

EACH TRACC UNIT SHIPS 100% ASSEMBLED  
(PLASTIC NOSE INSTALLED AFTER PLACEMENT)

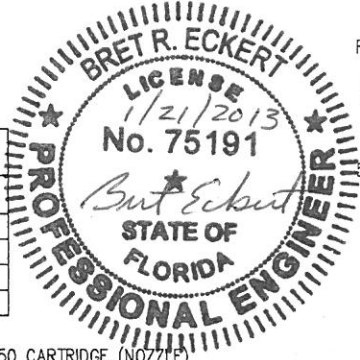
TRACC BILL OF MATERIAL		
PART NUMBER	QTY	DESCRIPTION
25997A	1	TRACC UNIT (FULLY ASSEMBLED)
3310G	4	5/8" LOCKWASHER
4451G	4	5/8" x 6" WEDGE EXP ANCHOR
6668B	4	REFLECTIVE TAPE
6531B	1	PLASTIC NOSEPIECE
** ANCHOR HARDWARE (FULL CONCRETE BASE)		
5225G	18	5/8" x 7 1/2" HAS ROD
3310G	18	5/8" LOCKWASHER
3361G	18	5/8" HEX NUT
3300G	18	5/8" FLAT WASHER
★ 5448B	3	ADHESIVE HIT HY 150(CARTRIDGE)
** ANCHOR HARDWARE (ASPHALT BASE)		
6380G	18	5/8" x 18" ALL THD ROD
3310G	18	5/8" LOCKWASHER
3361G	18	5/8" HEX NUT
3300G	18	5/8" FLAT WASHER
★ 5448B	6	ADHESIVE HIT HY 150(CARTRIDGE)

\*\* SEE PRODUCT MANUAL

NOTE:  
For Low Speed Facilities with a Design Speed ≤ 45 MPH, Use a TL-2 System.

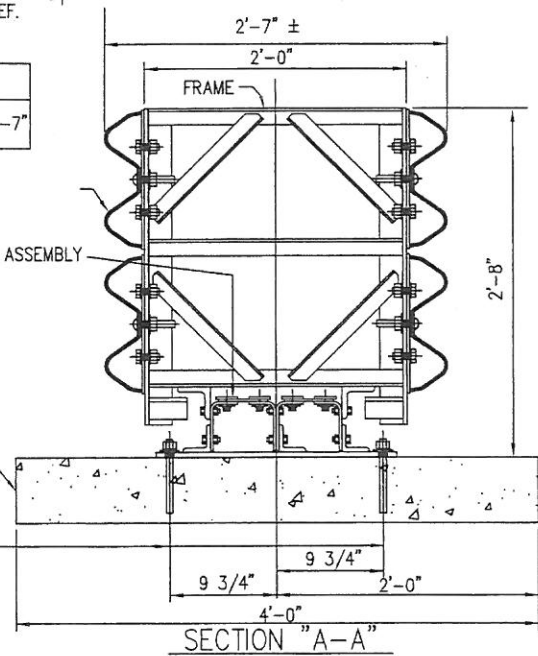
OPTIONAL TRACC ANCHOR ITEMS	
PART NUMBER	DESCRIPTION
5449B	ADHESIVE DISPENSER
5450B	MIXER HIT HY150 (NOZZLE)
5208B	FILLER HIT HY150 (FILLER TUBE)
5209B	BIT TE-C+ 11/16-18 (11/16" Ø BIT)

★ EACH CARTRIDGE INCLUDES 1 EACH: MIXER HY 150 CARTRIDGE (NOZZLE)  
FILLER HIT HY 150 (FILLER TUBE)



REINFORCED CONCRETE PAD  
4'-0" x 6" THICK  
(SEE FOUNDATION NOTES)

ADHESIVE ANCHORED  
5/8" Ø x 7 1/2" LG HAS ROD  
5/8" FLAT WASHER  
5/8" LOCKWASHER  
5/8" HEX NUT



ATTACHMENT SHOWN IS TO SHAPES WITH RECTANGULAR CROSS SECTIONS SUCH AS: PIERS, PARAPETS AND MODIFIED CONCRETE BARRIER. TRAFFIC FLOW IS UNIDIRECTIONAL. ATTACHMENTS AND TRANSITIONS TO OTHER SHAPES, BARRIERS, RAILINGS AND BIDIRECTIONAL TRAFFIC FLOWS ARE AVAILABLE.

**FOUNDATION NOTES:**

- 6" REINFORCED CONCRETE PAD IS SHOWN. OTHER OPTIONS ARE:
  - 8" THICK MINIMUM UNREINFORCED CONCRETE
  - 8" MINIMUM THICK ASPHALT
  - 3" THICK (MIN) ASPHALT OVER 3" (MIN) CONCRETE
  - 6" THICK ASPHALT OVER 6" COMPACTED SUBBASE.

The contractor is to furnish a certification that concrete installed meets the specified strength requirement of 4000 PSI.

Asphalt concrete shall be Type SP 12.5 Traffic Level C or higher. (FDOT Specification 334)

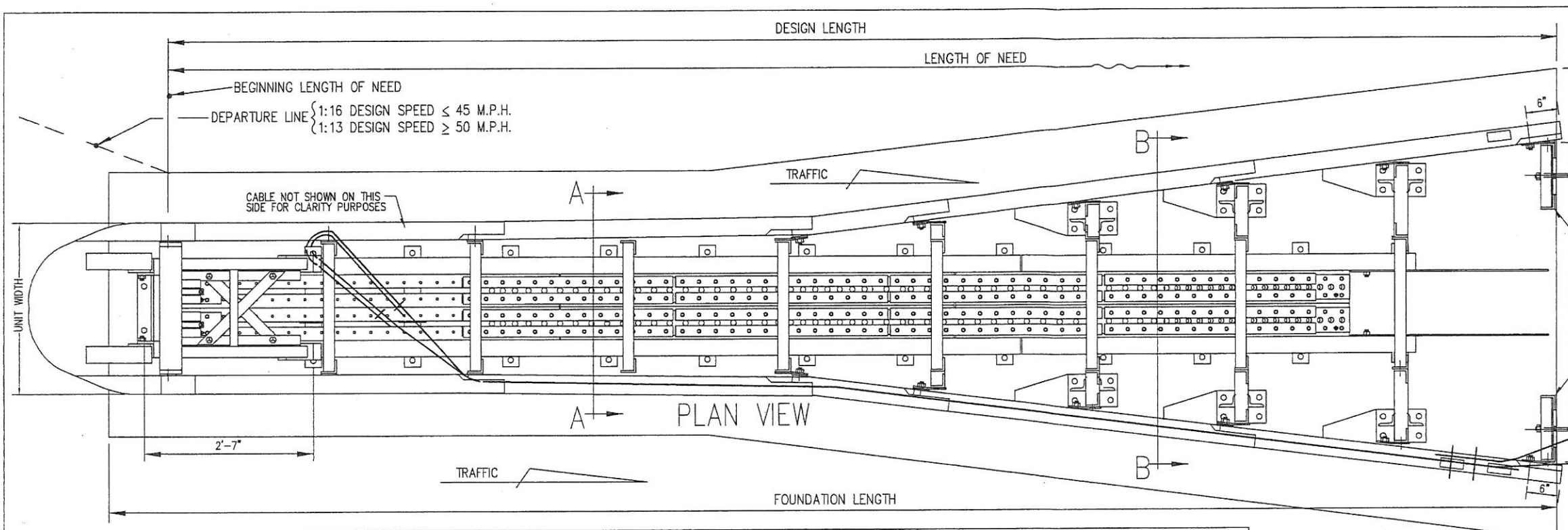
Compacted subbase shall be "Rock Base" (FDOT Specification 200) or shall be "Graded Agregate Base" (FDOT Specification 204)

- The cross slope of the SHORTRACC system foundation pad should be 1V:10H or flatter and should be the same or flatter than shoulder or surrounding pavement cross slope. The longitudinal slope should be the same slope (2% plus or minus) over the length of the pad as the roadway in the direction of the traffic. The pad slope in either or both directions can be level if the site conditions warrant it.

**PLACEMENT NOTE:**

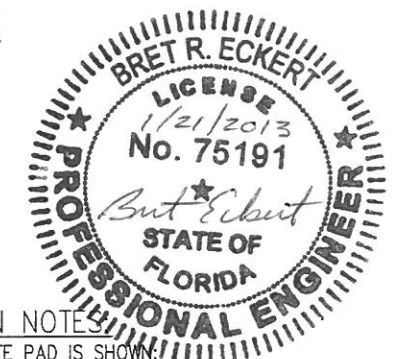
- SHORTRACC placement recommendations shall be in accordance with AASHTO "Roadside Design Guide", 2011 edition, section 8.4.6 on page 8-51.
- SHORTRACC placement shall be situated so the rear fender panels have room to slide past object being protected, upon impact; (60" minimum)

REV.	CHK'D	BY	DATE	REMARKS
<b>TRACC 05</b>				
TRACC 05 QPL S102-4111 SHORTRACC TL-2 CRASH-CUSHION ATTENUATING TERMINAL PLAN, ELEVATION & SECTIONS (UNIDIRECTIONAL, DIRECT ATTACHMENT)				DRAWN LH CHECKED BT SCALE N.T.S. DATE 01/10/13 ENG. FILE # SS1006FL S.S. # SS-1006
TRINITY HIGHWAY PRODUCTS LLC. 2525 STEMMONS FREEWAY, DALLAS, TX 75207				SHEET NO. 3 of 12 REV. 0



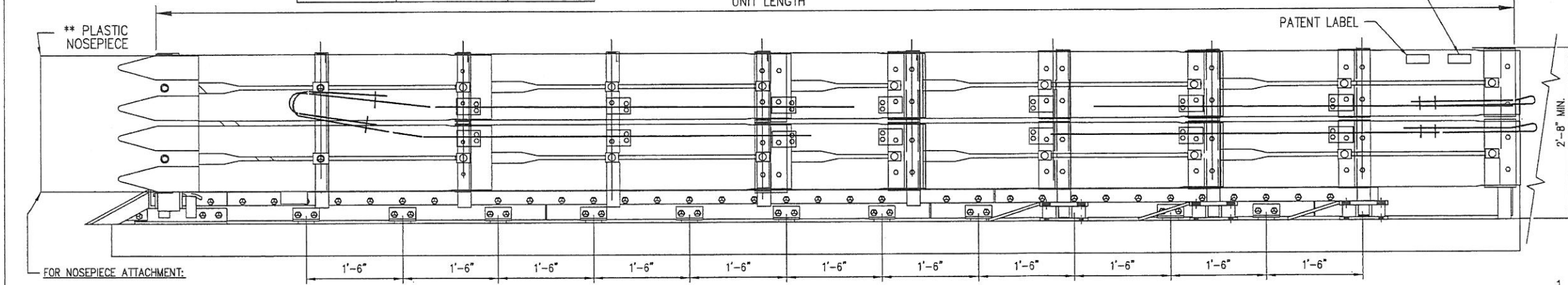
OTHER UNIT WIDTHS AVAILABLE	
39" DOUBLE FLARE	31" SINGLE FLARE
52 1/2" DOUBLE FLARE	37" SINGLE FLARE

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TRACC 05						
58" WIDE	PT#	WORKZONE SPEED	TESTED TO	UNIT LENGTH=21'-0"	FOUNDATION LENGTH=22'-0"	DESIGN LENGTH=20'-11"
25939A		≥ 50 M.P.H.	TL-3			

- FOUNDATION NOTES:**
- 6" REINFORCED CONCRETE PAD IS SHOWN. OTHER OPTION IS: 8" THICK MINIMUM UNREINFORCED CONCRETE
    - 8" THICK MINIMUM UNREINFORCED CONCRETE
    - 8" MINIMUM THICK ASPHALT
    - 3" THICK (MIN) ASPHALT OVER 3" (MIN) CONCRETE
    - 6" THICK ASPHALT OVER 6" COMPACTED SUBBASE.
 The contractor is to furnish a certification that concrete installed meets the specified strength requirement of 4000 PSI. Asphalt concrete shall be Type SP 12.5 Traffic Level C or higher. (FDOT Specification 334)  
 Compacted subbase shall be "Rock Base" (FDOT Specification 200) or shall be "Graded Agregate Base" (FDOT Specification 204)
  - The cross slope of the TRACC system foundation pad should be 1V:10H or flatter and should be the same or flatter than shoulder or surrounding pavement cross slope. The longitudinal slope should be the same slope (2% plus or minus) over the length of the pad as the roadway in the direction of the traffic. The pad slope in either or both directions can be level if the site conditions warrant it.



**GENERAL NOTES:**

- For High Speed Facilities with a Design Speed ≥ 50 MPH, Use a TL-3 System

**PLACEMENT NOTE:**

- TRACC placement recommendations shall be in accordance with AASHTO "Roadside Design Guide", 2011 edition, section 8.4.6 on page 8-51.
- TRACC placement shall be situated so the rear fender panels have room to slide past object being protected, upon impact; (60" minimum)

**WIDE TRACC BILL OF MATERIAL**

PRODUCT CODE	QTY	DESCRIPTION
25939A	1	58" WIDETRACC UNIT ASS'LY
6668B	4	REFLECTIVE TAPE
6531B	1	PLASTIC NOSEPIECE

EACH TRACC UNIT SHIPS 100% ASSEMBLED (PLASTIC NOSE INSTALLED AFTER PLACEMENT)

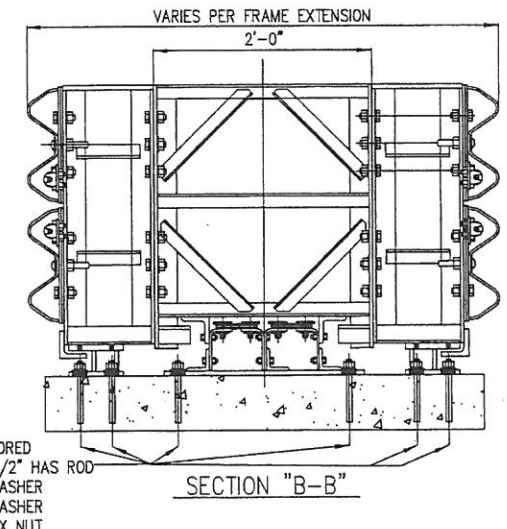
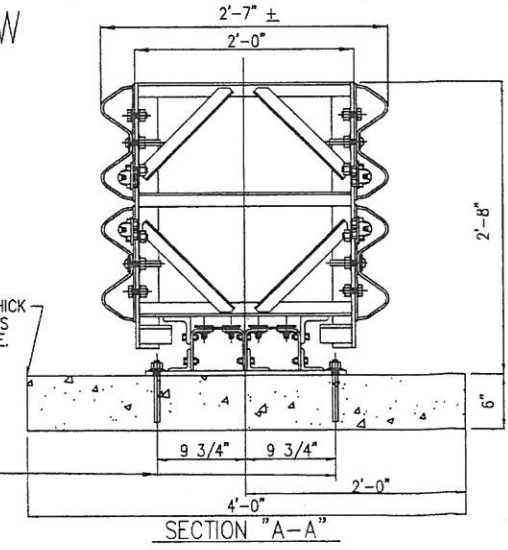
** ANCHOR HARDWARE (CONCRETE BASE)			
5225B	50	5/8" x 7 1/2" HAS ROD	
3310G	50	5/8" LOCKWASHER	
3361G	50	5/8" HEX NUT	
3300G	50	5/8" FLAT WASHER	
★ 5448B	7	ADHESIVE HIT HY150(CARTRIDGE)	

** ANCHOR HARDWARE (ASPHALT BASE)			
6380G	50	5/8" x 18" ALL THD ROD	
3310G	50	5/8" LOCKWASHER	
3361G	50	5/8" HEX NUT	
3300G	50	5/8" FLAT WASHER	
★ 5448B	14	ADHESIVE HIT HY150(CARTRIDGE)	

REINFORCED CONCRETE PAD 6" THICK REINFORCEMENT DRAWINGS FOR THIS PAD AND OTHER SIZES ARE AVAILABLE. (SEE FOUNDATION NOTES)

ADHESIVE ANCHORED  
 \*\* 5/8" x 7 1/2" HAS ROD  
 5/8" FLAT WASHER  
 5/8" LOCKWASHER  
 5/8" HEX NUT



**OPTIONAL TRACC ANCHOR ITEMS**

PRODUCT CODE	DESCRIPTION
5449B	ADHESIVE DISPENSER
5450B	MIXER HIT HY150 (NOZZLE)
5208B	FILLER HIT HY150 (FILLER TUBE)
5209B	BIT TE-C+ 11/16-18 (11/16" BIT)

\*\* SEE PRODUCT MANUAL  
 ★ EACH CARTRIDGE INCLUDES 1 EACH : MIXER HY 150 CARTIDGE(NOZZLE) : FILLER HIT HY 150 (FILLER TUBE)

**58" WIDETRACC DOUBLE FLARE INSTALLATION**

REV.	CHK'D	BY	DATE	REMARKS

**TRACC 05**

TRACC 05 QPL S102-4111	DRAWN LH
58" WIDETRACC DOUBLE FLARE	CHECKED BT
CRASH-CUSHION ATTENUATING TERMINAL	SCALE N.T.S.
PLAN, ELEVATION & SECTIONS	DATE 01/10/13
(UNIDIRECTIONAL, DIRECT ATTACHMENT)	ENG. FILE # SS1019FL
TRINITY HIGHWAY PRODUCTS LLC.	S.S.# SS-1019
2525 STEMMONS FREEWAY,	SHEET NO. 4 OF 12
DALLAS, TX 75207	REV. 0



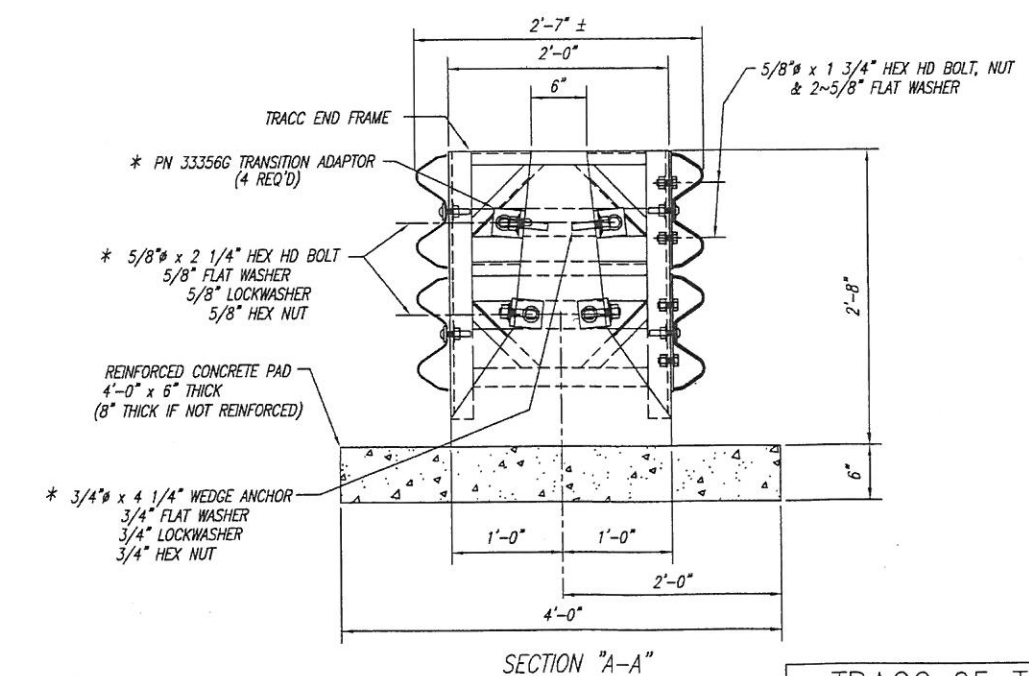
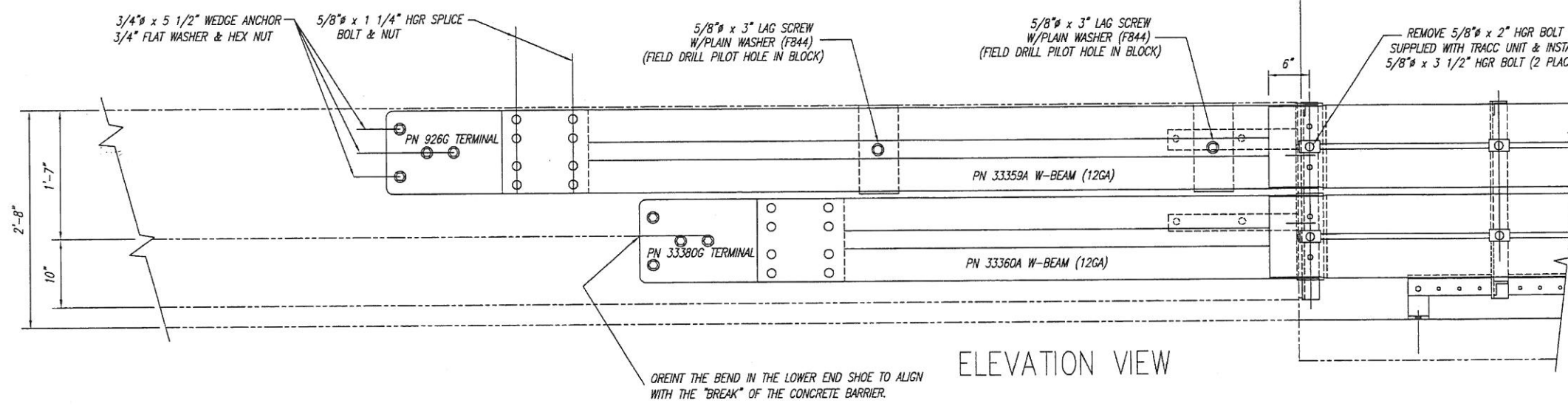
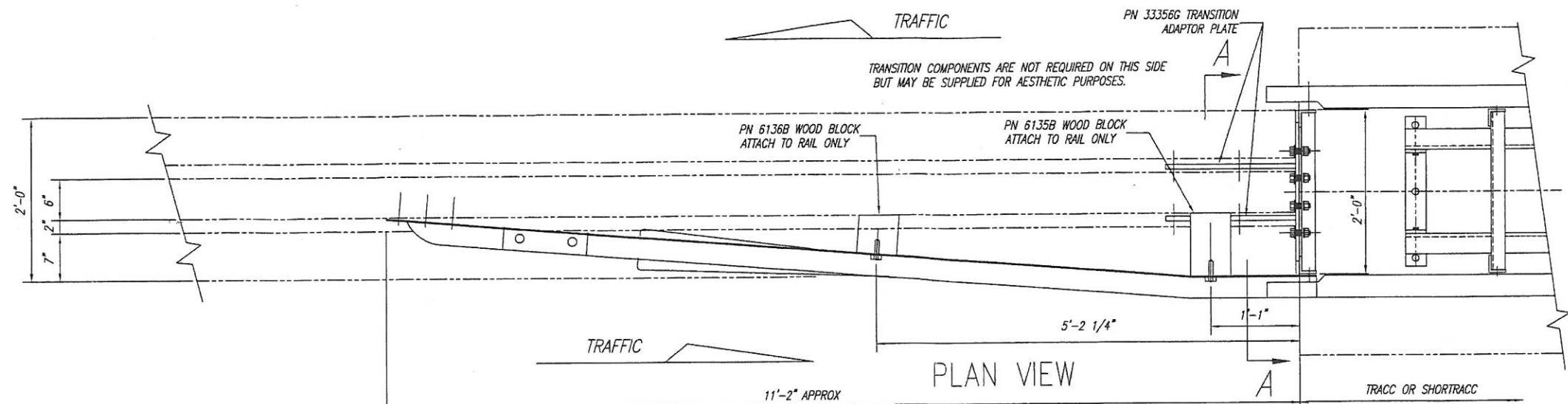










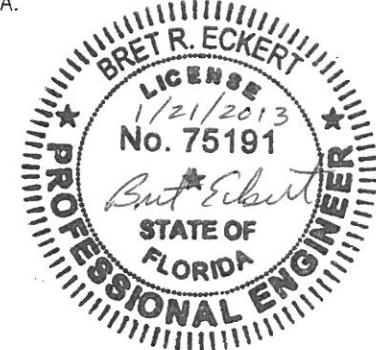


TRACC TRANSITION BILL OF MATERIAL		
PRODUCT NUMBER	QTY	DESCRIPTION
926G	1	10/END SHOE/EXTRA HOLE (UPPER)
6135B	1	TAPERED WD BLK 1'-1" (6 x 8 1/2)
6136B	1	TAPERED WD BLK 1'-1" (6 x 5 3/4)
33356G	4	TRANSITION ADAPTOR PLATE
33359A	1	12/10/0"/TRACC (UPPER GUARDRAIL)
33360A	1	12/6'10.5"/TRACC (LOWER GUARDRAIL)
33380G	1	10/END SHOE/EXTRA HOLE/BEND (LOWER)
HARDWARE		
3360G	16	5/8" x 1 1/4" HGR SPLICE BOLT
3435G	2	5/8" x 3 1/2" HGR POST BOLT
4412G	2	5/8" x 3" LAG SCREW
5306G	4	5/8" x 2 1/4" HEX HD BOLT (A325)
3391G	4	5/8" x 1 3/4" HEX HD BOLT (A325)
3300G	2	5/8" WASHER (FB44)
3340G	16	5/8" HGR NUT
4372G	12	5/8" WASHER (F436)
3310G	4	5/8" LOCKWASHER
3361G	8	5/8" HEX NUT (A563 DH)
4688G	8	3/4" x 5 1/2" WEDGE ANCHOR
4709G	8	3/4" x 4 1/4" WEDGE ANCHOR
4699G	8	3/4" LOCKWASHER
3701G	16	3/4" WASHER
3710G	16	3/4" HEX NUT

**\*-NOTE**  
WHEN SITE HAS UNIDIRECTIONAL TRAFFIC, AND DOES NOT REQUIRE A TRANSITION, ATTACH TRACC TO CONCRETE BARRIER USING ADAPTOR BRACKETS & HARDWARE PER SECTION A-A.

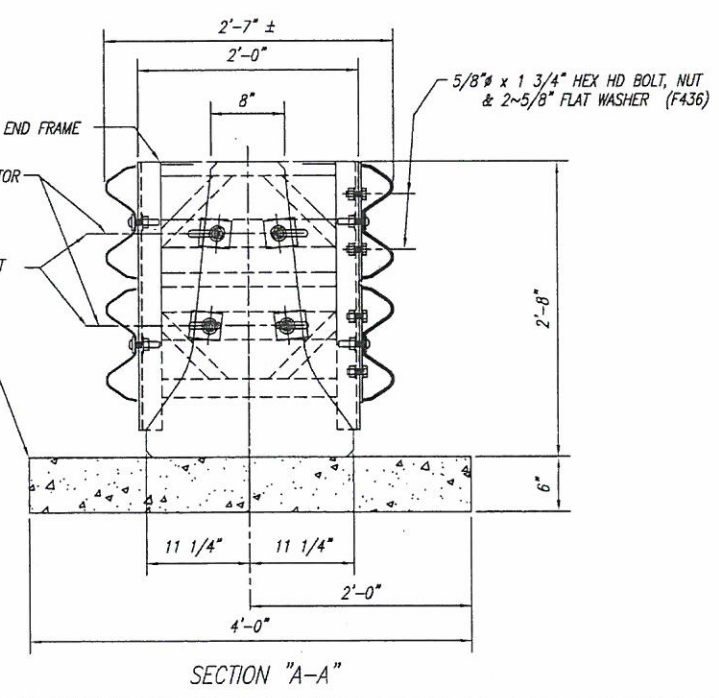
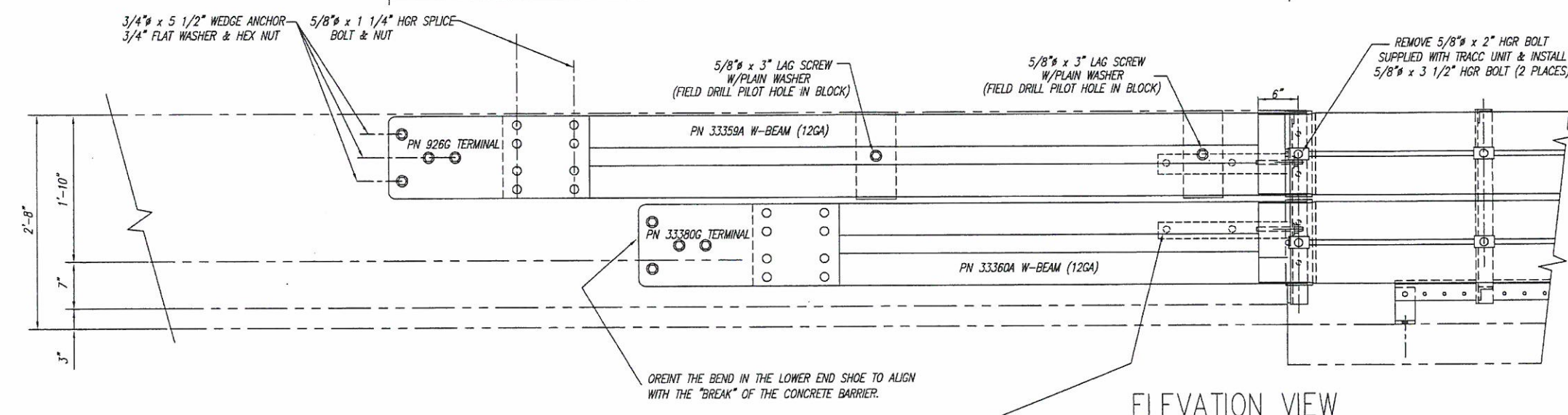
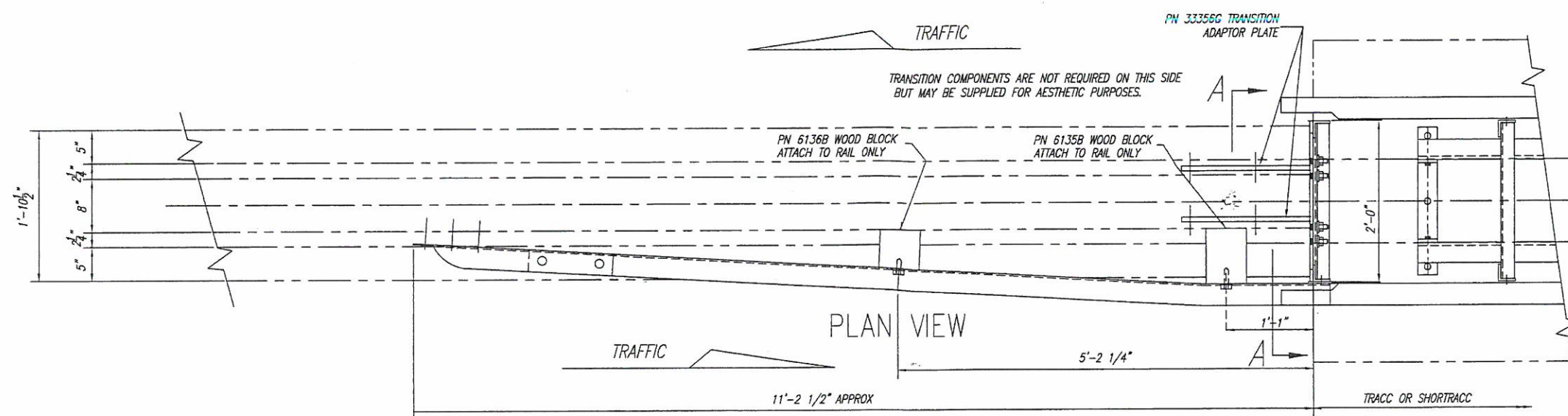
NOTE:  
FOR PROJECTS LET BEFORE JULY 2012.

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TRACC 05 TRANSITION TO NEW JERSEY TYPE CONCRETE BARRIER

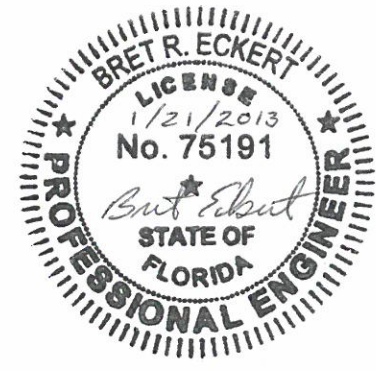
REV.	CHK'D	BY	DATE	REMARKS
<b>TRACC 05</b>				
TRACC 05 QPL S102-4111				DRAWN LH
TRACC TRANSITION TO NEW JERSEY TYPE CONCRETE BARRIER PLAN, ELEVATION & SECTIONS				CHECKED BT
TRINITY HIGHWAY PRODUCTS LLC.				SCALE N.T.S.
2525 STEMMONS FREEWAY, DALLAS, TX 75207				DATE 01/10/13
				ENG. FILE # SS461FL
				S.S. # SS-461
				SHEET NO. 10 of 12
				REV. 0



TRACC TRANSITION BILL OF MATERIAL		
PRODUCT CODE	QTY	DESCRIPTION
926G	1	10/END SHOE(UPPER)
6135B	1	TAPERED WD BLK 1'-1" (6 x 8 1/2)
6136B	1	TAPERED WD BLK 1'-1" (6 x 5 3/4)
33356G	4	TRANSITION ADAPTOR PLATE
33359A	1	12/10'0"/TRACC (UPPER GUARDRAIL)
33360A	1	12/6'10.5"/TRACC (LOWER GUARDRAIL)
33380G	1	10/END SHOE/EXTRA HOLE/BEND (LOWER)
HARDWARE		
3360G	16	5/8" x 1 1/4" HGR SPLICE BOLT
3391G	4	5/8" x 1 3/4" HEX BOLT
3435G	2	5/8" x 3 1/2" HGR POST BOLT
4412G	2	5/8" x 3" LAG SCREW
3300G	2	5/8" WASHER (F844)
3340G	16	5/8" HGR NUT
4372G	12	5/8" WASHER (F436)
3310G	4	5/8" LOCKWASHER
3361G	8	5/8" HEX NUT (A563 DH)
5306G	4	5/8" x 2 1/4" HEX HD BOLT (A325)
4688G	8	3/4" x 5 1/2" WEDGE EXP ANCHOR
3701G	16	3/4" WASHER
3710G	16	3/4" HEX NUT
4699G	8	3/4" LOCKWASHER
4709G	8	3/4" x 4 1/4" WEDGE ANCHOR

**\*-NOTE**  
 WHEN SITE HAS UNIDIRECTIONAL TRAFFIC, AND DOES NOT REQUIRE A TRANSITION, ATTACH TRACC TO CONCRETE BARRIER USING ADAPTOR BRACKETS & HARDWARE PER SECTION A-A.

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 Rocklin California 95765



TRACC 05 TRANSITION TO FLORIDA TYPE "K" CONCRETE BARRIER

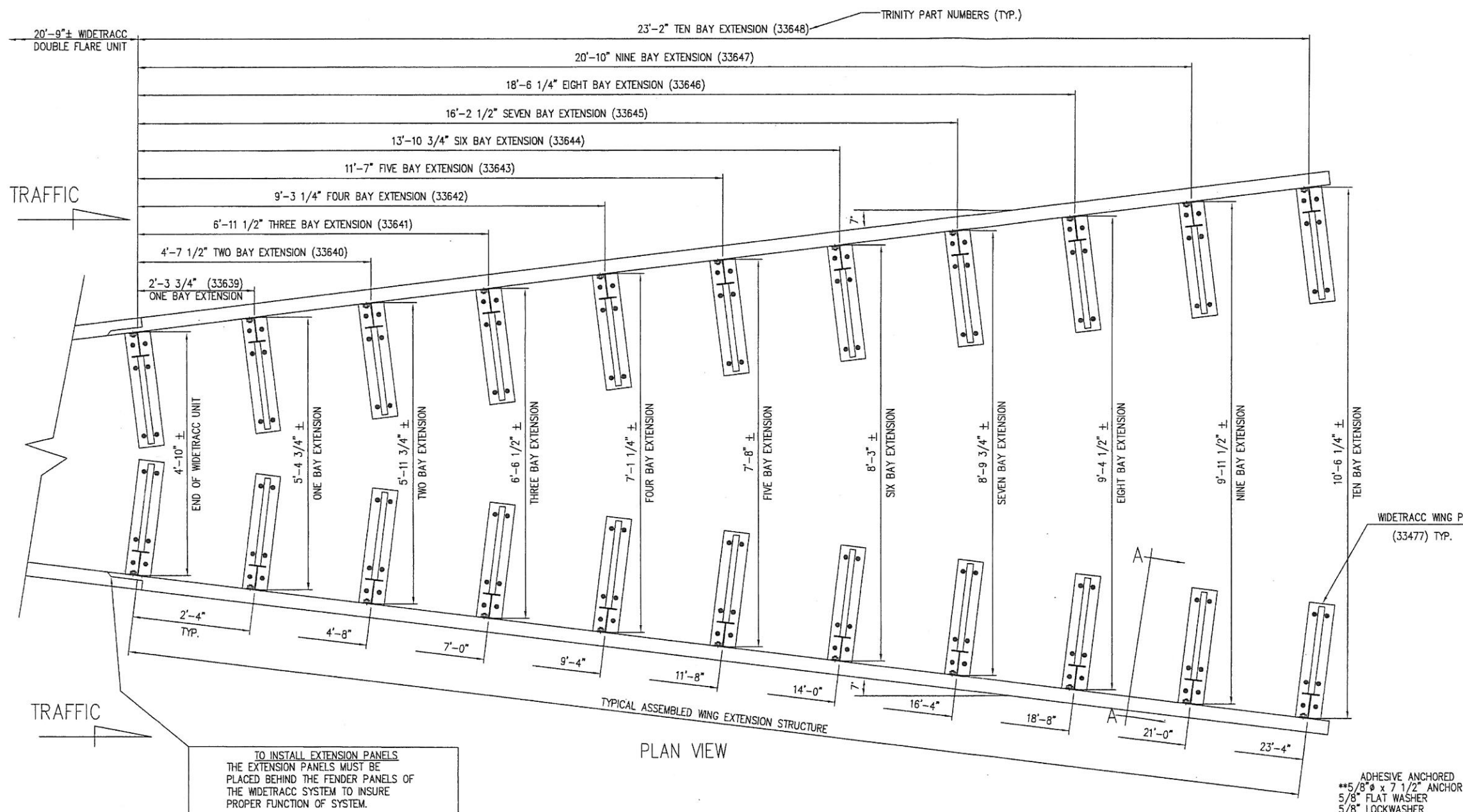
REV.	CHK'D	BY	DATE	REMARKS

**TRACC 05**

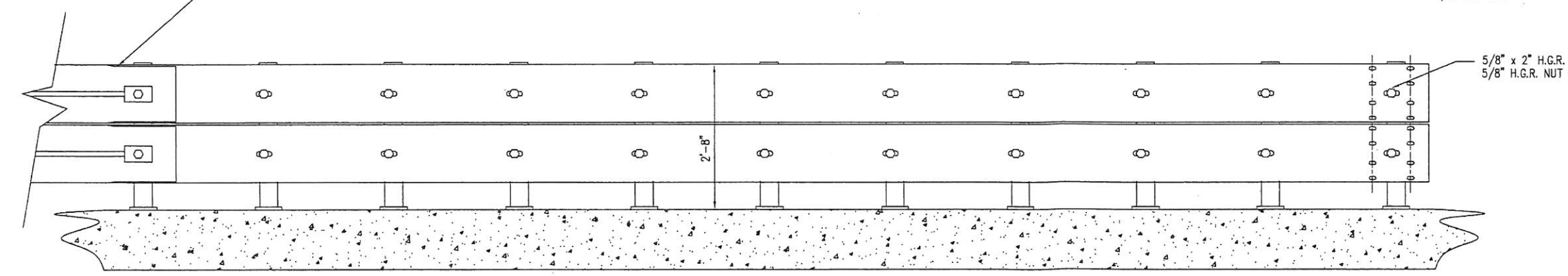
TRACC 05 QPL S102-4111  
 TRACC TRANSITION TO FLORIDA TYPE "K" CONCRETE BARRIER  
 PLAN, ELEVATION & SECTIONS

TRINITY HIGHWAY PRODUCTS LLC.  
 2525 STEMMONS FREEWAY,  
 DALLAS, TX 75207

DRAWN	LH
CHECKED	BT
SCALE	N.T.S.
DATE	01/10/13
ENG. FILE #	SS462FL
S.S. #	SS-462
SHEET NO.	11 of 12
REV.	0



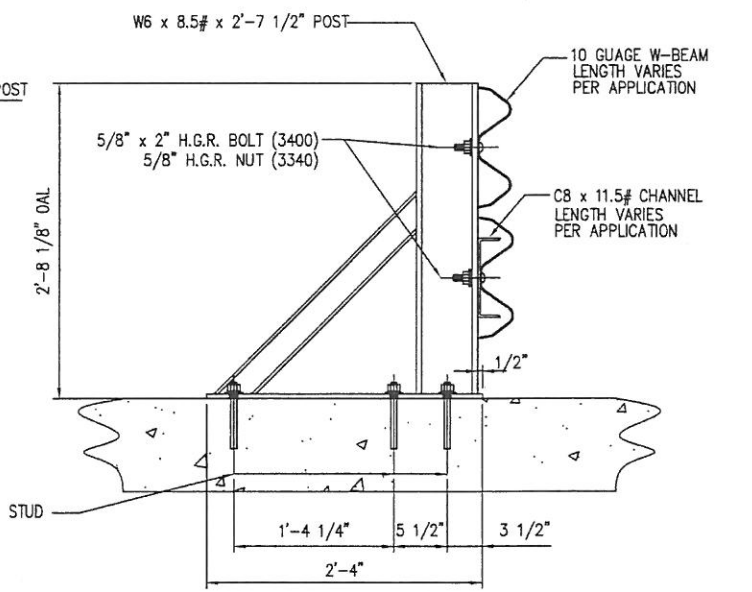
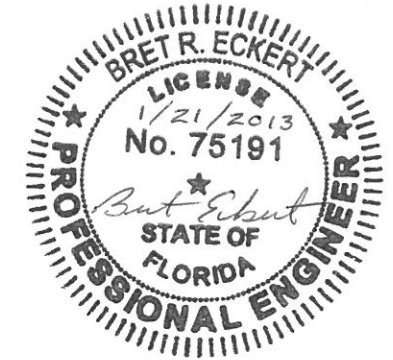
PLAN VIEW



ELEVATION VIEW

WIDETRACC DOUBLE FLARE WING EXTENSION

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SECTION A-A  
(PN 33477)

TO INSTALL EXTENSION PANELS  
 THE EXTENSION PANELS MUST BE  
 PLACED BEHIND THE FENDER PANELS OF  
 THE WIDETRACC SYSTEM TO INSURE  
 PROPER FUNCTION OF SYSTEM.

REV.	CHK'D	BY	DATE	REMARKS

**TRACC 05**

TRACC 05 QPL S102-4111  
 WIDETRACC DOUBLE FLARE  
 WING EXTENSION STRUCTURES  
 CRASH-CUSHION ATTENUATING TERMINAL  
 PLAN, ELEVATION

TRINITY HIGHWAY PRODUCTS LLC.  
 2525 STEMMONS FREEWAY,  
 DALLAS, TX 75207

DRAWN	L.H.
CHECKED	BT
SCALE	N.T.S.
DATE	01/10/13
ENG. FILE #	SS497FL
S.S. #	SS 497
SHEET NO.	12 of 12
REV.	0