Item No. 05 09/16/10 (2010 SS) Mr. Wright page 3

STANDARD DRAWINGS:

601-CWGS-02	CURVED W-BEAM GUARDRAIL SYSTEM
601-CWGS-04	CURVED W-BEAM GUARDRAIL SYSTEM
601-MTGR-01	THRIE BEAM GUARDRAIL DETAILS
601-TBGC-01	THRIE-BEAM GUARDRAIL COMPONENTS
601-TMTT-01	THRIE BEAM GUARDRAIL TO THRIE BEAM GUARDRAIL TRANSITION, TTT
601-TTGB-01	GUARDRAIL TRANSITION TYPE TGB
601-TTGB-03	GUARDRAIL TRANSITION TYPE TGB
601-TTGB-04	GUARDRAIL TRANSITION TYPE TGB
601-TTGB-05	GUARDRAIL TRANSITION TYPE TGB
601-TTGP-01	GUARDRAIL TRANSITION TYPE GP
601-TTGP-02	GUARDRAIL TRANSITION TYPE GP
601-TTGT-01	GUARDRAIL TRANSITION, TGT
601-TTMS-01	DOUBLE FACED THRIE BEAM GUARDRAIL TRANSITION TO GRET TYPE MS
601-TTVH-01	GUARDRAIL TRANSITION TYPE VH
601-TTVH-02	GUARDRAIL TRANSITION TYPE VH
601-TWGB-03	GUARDRAIL TRANSITION TYPE WGB
601-TWGT-01	W-BEAM GUARDRAIL TO THRIE BEAM GUARDRAIL TRANSITION, WGT
601-WBGA-01	W-BEAM GUARDRAIL ASSEMBLIES
601-WBGA-02	W-BEAM GUARDRAIL ASSEMBLIES
601-WBGA-06	WR-BEAM GUARDRAIL
706-TBRC-01	RETROFIT THRIE BEAM BRIDGE RAILING TR
706-TBRC-02	RETROFIT THRIE BEAM BRIDGE RAILING TR COMPONENTS
706-TBRF-01	RETROFIT THRIE BEAM BRIDGE RAILING TR COMPONENTS
706-TTBC-01	CONCRETE BRIDGE RAILING TRANSITION TBC
706-TTBP-01	CONCRETE BRIDGE RAILING TRANSITION, TPF-1
706-TTBO-03	CONCRETE BRIDGE RAILING TRANSITION, TPF-2
706-TTBP-05	CONCRETE BRIDGE RAILING TRANSITION, TPS-1
706-TTBP-07	CONCRETE BRIDGE RAILING TRANSITION, TPS-2
706-TTBT-01	CONCRETE BRIDGE RAILING TRANSITION TYPE TBT
706-TTTX-01	CONCRETE BRIDGE RAILING TRANSITION, TTX
706-TWBC-01	CONCRETE BRIDGE RAILING TRANSITION TYPE WBC
706-TTCA-01	*1 1/4″ DIAMETER HOLES PLACEMENT FOR TERMINAL CONNECTOR ATTACHMENT*

RECURRING PLAN DETAILS:

706-B-140d (3 SHEETS)	BRIDGE RAILING TYPE TS-1 & GUARDRAIL TRANSITION TYPE TGS-1

Item No. 06 09/16/10 (2010 SS) Mr. Walker page 42

906.02(a)4	~~Asphalt Rubber Sealant~~
906.02(a)~~*5*~~*4*	Polychloroprene Joint Membrane and Adhesive

Item No. 07 09/16/10 (2010 SS) Mr. Walker page 45

RECURRING SPECIAL PROVISION:

401-R-XXX	JOINT ADHESIVE AND INFORMATIONAL CORES

cc: Committee Members (11)
FHWA (1)
ICA (1)

ADDENDUM 1
Mr. Wright
Date: 09/16/10

SPECIFICATION REVISIONS (09/09/10 REVISED PROPOSAL SHEET)

REVISION TO THE STANDARD DRAWINGS AND RECURRING PLAN DETAILS

PROPOSAL TO STANDARDS COMMITTEE

PROBLEM(S) ENCOUNTERED: FHWA Memorandum from David A. Nicol, P.E. dated May 17, 2010 provides guidance to all state DOTs on the height of generic guardrail G4 (1S). Recent research on standard 27 inch guardrail shows that it does not meet NCHRP Report 350 Test Level 3(TL¬3) criteria. This requires a revision of current policy with regard to new guardrail installation height. The FHWA guidance requires that transportation agencies should ensure the minimum height of newly-installed generic G4 (1S) W-beam guardrail is at least 27 ¾ inches to the top of the rail.

PROPOSED SOLUTION: Revise applicable INDOT Standard Drawings to show the installation height from 27 inches to 27 ¾ inches to the top of the rail. The proposed change will result into ¾ inch reduced embedment length of the guardrail post which is insignificant and will not impact the strength of the post as the INDOT guardrail posts are 7 feet long compared to 6 feet required for NCHRP 350 TL-3. Also INDOT already has Approved guardrail end treatments that can be used for the 27 ¾ inches height.

APPLICABLE STANDARD SPECIFICATIONS: N/A

APPLICABLE STANDARD DRAWINGS:

LIST OF PROPOSED REVISIONS TO STANDARD DRAWINGS.

601-CWGS-02	601-CWGS-04	601-MTGR-01
601-TBGC-01	601-TMTT-01	601-TTGB-01
601-TTGB-03	601-TTGB-04	601-TTGB-05
601-TTGP-01	601-TTGP-02	601-TTGT-01
601-TTMS-01	601-TTVH-01	601-TTVH-02
601-TWGB-03	601-TWGT-01	601-WBGA-01
601-WBGA-02	601-WBGA-06	706-TBRC-01
706-TBRC-02	706-TBRF-01	706-TTBC-01
706-TTBP-01	706-TTBP-03	706-TTBP-05
706-TTBP-07	706-TTBT-01	706-TTTX-01
706-TWBC-01		

LIST OF PROPOSED NEW STANDARD DRAWINGS:

706-TTCA-01

SPECIFICATION REVISIONS

REVISION TO THE STANDARD DRAWINGS AND RECURRING PLAN DETAILS (CONTINUED)

APPLICABLE DESIGN MANUAL SECTION: N/A

APPLICABLE SECTION OF GIFE: N/A

APPLICABLE RECURRING SPECIAL PROVISIONS: N/A

APPLICABLE RECURRING PLAN DETAILS: 706-B-140d

Submitted By: John Wright

Title: Highway Design and Technical Support Director

Organization: INDOT

Phone Number: 317-232-5147

Date: 07/26/2010

APPLICABLE SUB-COMMITTEE ENDORSEMENT? Reviewed by Tony Uremovich (Design resources), Changes discussed with and endorsed by Ken Leuderalbert and Rick Drumm (FHWA).

REVISION TO THE STANDARD DRAWINGS AND RECURRING PLAN DETAILS

REVISION TO 601-CWGS-02 CURVED W-BEAM GUARDRAIL SYSTEM

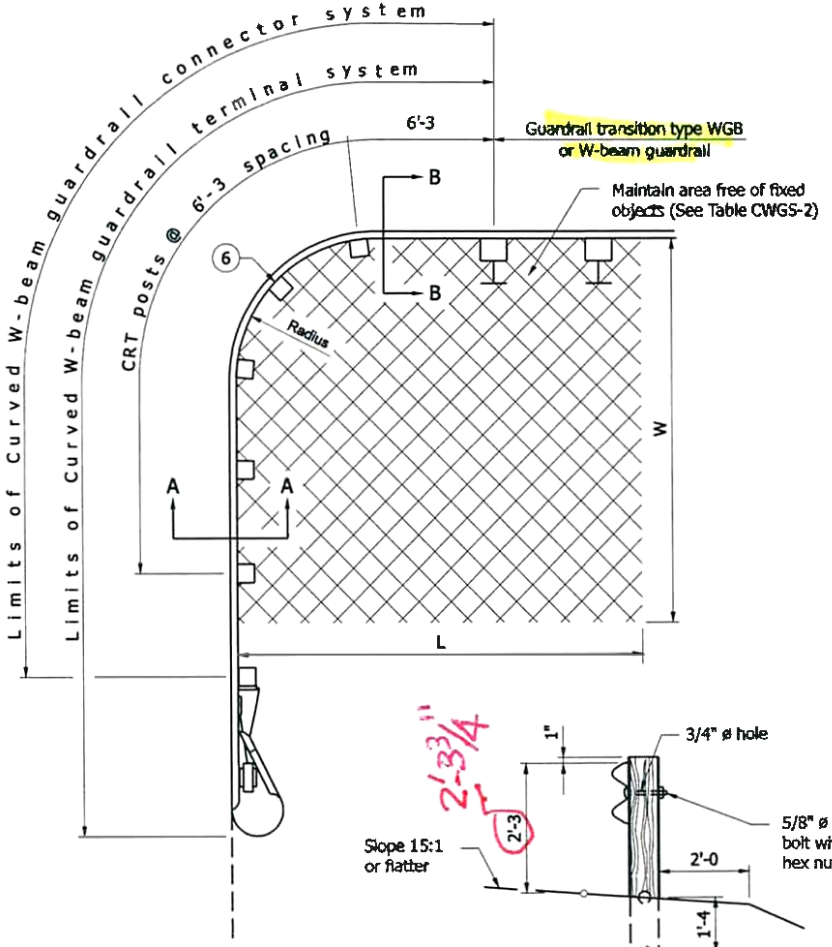
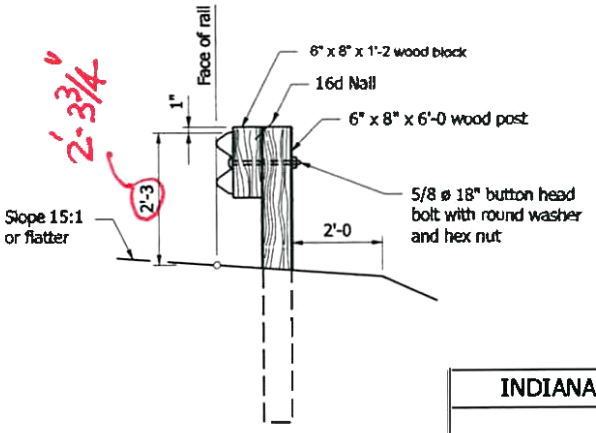
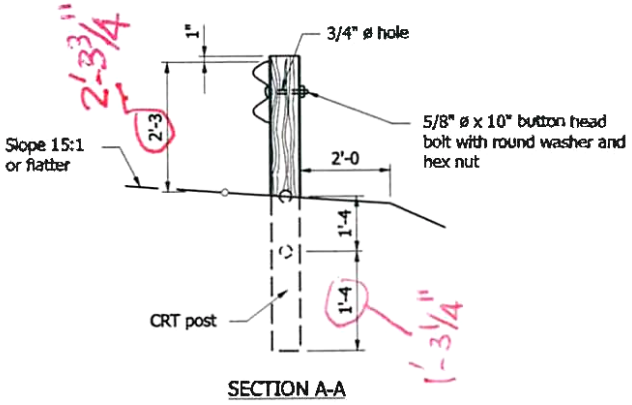


TABLE CWGS-2		
RADIUS	NO. OF CRT POSTS	REQUIRED AREA FREE OF FIXED OBJECTS L x W
8'-6	5	25' x 15'
17'	6	30' x 15'
25'-6	8	40' x 20'
35'	11	50' x 20'

See Standard Drawing E 601-CWGS-03 for General Notes.



SECTION B-B



SECTION A-A

INDIANA DEPARTMENT OF TRANSPORTATION

CURVED W-BEAM GUARDRAIL SYSTEM

SEPTEMBER 2008

STANDARD DRAWING NO. E 601- CWGS-02

RICHARD L. VanCLEAVE REGISTERED No. 9750 STATE OF INDIANA PROFESSIONAL ENGINEER

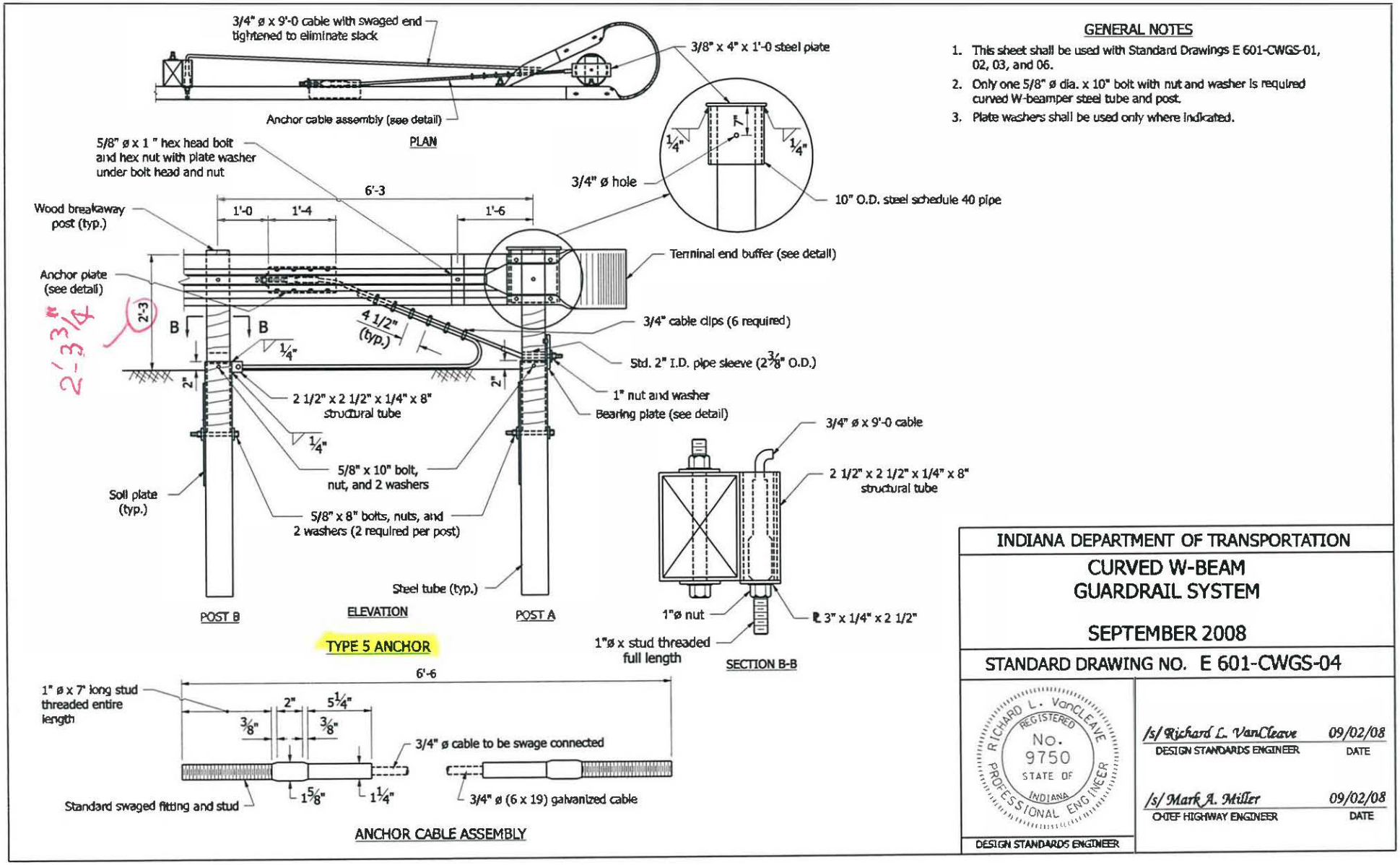
DESIGN STANDARDS ENGINEER

/s/ Richard L. VanCleave 09/02/08
DESIGN STANDARDS ENGINEER DATE

/s/ Mark A. Miller 09/02/08
CHIEF HIGHWAY ENGINEER DATE

REVISION TO THE STANDARD DRAWINGS AND RECURRING PLAN DETAILS

REVISION TO 601-CWGS-04 CURVED W-BEAM GUARDRAIL SYSTEM



GENERAL NOTES

1. This sheet shall be used with Standard Drawings E 601-CWGS-01, 02, 03, and 06.
2. Only one 5/8" ø dia. x 10" bolt with nut and washer is required curved W-beamper steel tube and post.
3. Plate washers shall be used only where indicated.

INDIANA DEPARTMENT OF TRANSPORTATION

CURVED W-BEAM GUARDRAIL SYSTEM

SEPTEMBER 2008

STANDARD DRAWING NO. E 601-CWGS-04

RICHARD L. VanCLEAVE REGISTERED No. 9750 STATE OF INDIANA PROFESSIONAL ENGINEER

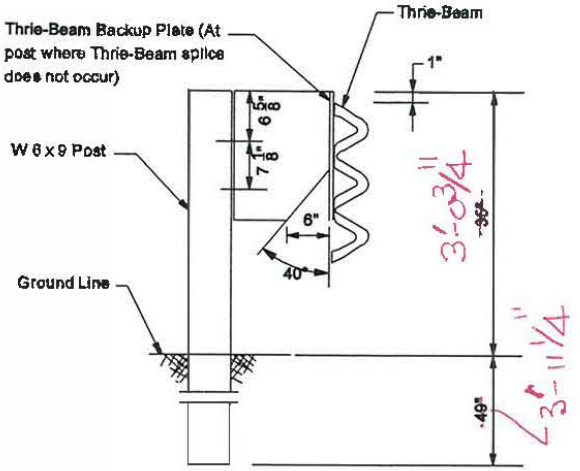
DESIGN STANDARDS ENGINEER

/s/ Richard L. VanCleave 09/02/08
DESIGN STANDARDS ENGINEER DATE

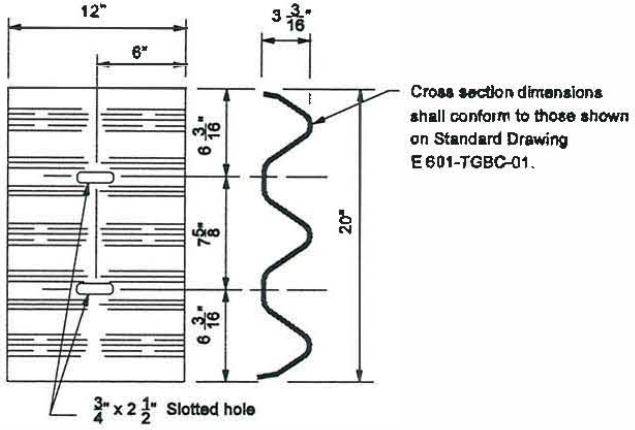
/s/ Mark A. Miller 09/02/08
CHIEF HIGHWAY ENGINEER DATE

REVISION TO THE STANDARD DRAWINGS AND RECURRING PLAN DETAILS

REVISION TO 601-MTGR-01 THRIE BEAM GUARDRAIL DETAILS



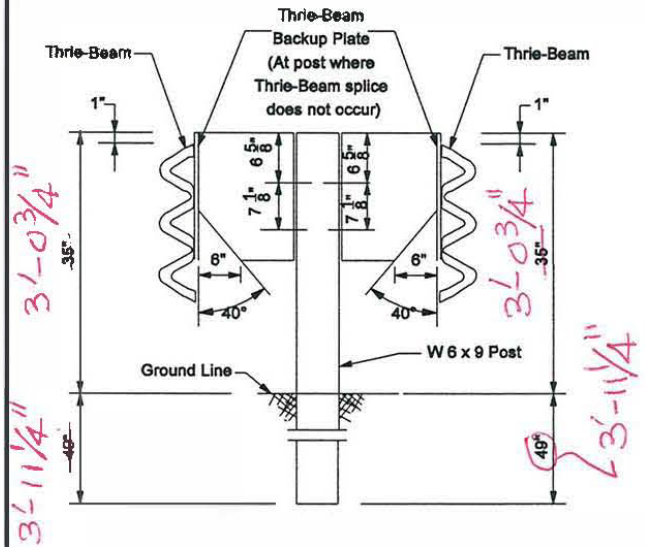
THRIE BEAM GUARDRAIL



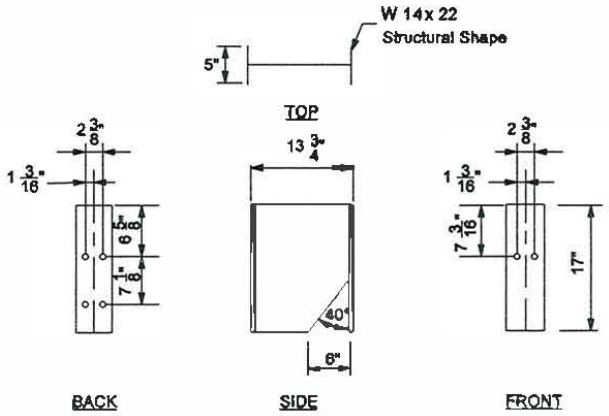
THRIE BEAM GUARDRAIL BACK-UP PLATE AT LOCATIONS WITHOUT SPLICE

Notes:

1. For Thrie Beam rail section details, see Standard Drawing E 601-TBGC-01.
2. For W 6x9 post hole pattern details, see Standard Drawings E 601-TTGB-03 and E 601-TTGB-04.
3. Typical post spacing for Thrie Beam Guardrail and Double Faced Thrie Beam Guardrail is 6' - 3".
4. Only the blockout material shown may be used.



DOUBLE FACED THRIE BEAM GUARDRAIL



THRIE BEAM GUARDRAIL BLOCKOUT
(STEEL ONLY)

INDIANA DEPARTMENT OF TRANSPORTATION

THRIE BEAM GUARDRAIL DETAILS

MARCH 2005

STANDARD DRAWING NO. E 601-MTGR-01

RICHARD L. VanCLEAVE REGISTERED No. 9750 STATE OF INDIANA PROFESSIONAL ENGINEER

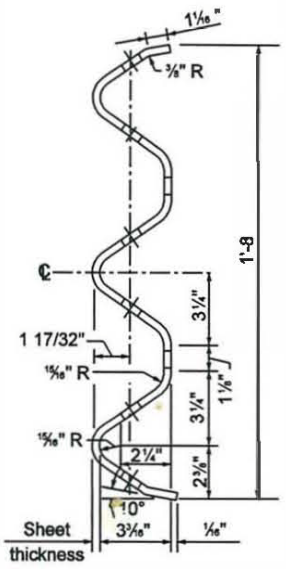
DESIGN STANDARDS ENGINEER

/s/ Richard L VanCleave 3-01-05
DESIGN STANDARDS ENGINEER DATE

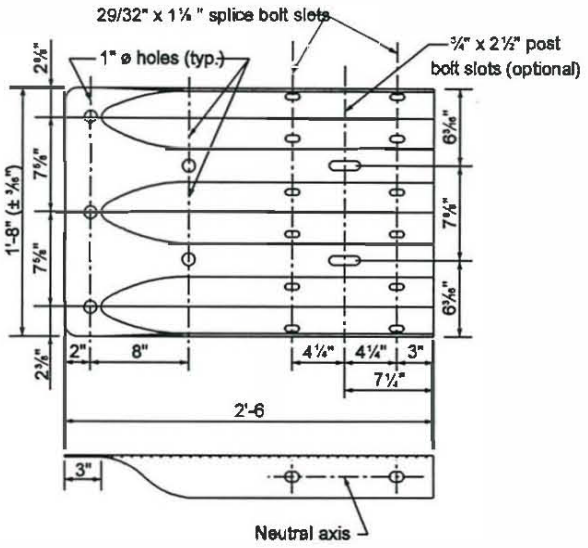
/s/ Richard K Smutzer 3-01-05
CHIEF HIGHWAY ENGINEER DATE

REVISION TO THE STANDARD DRAWINGS AND RECURRING PLAN DETAILS

REVISION TO 601-TBGC-01 THRIE-BEAM GUARDRAIL COMPONENTS



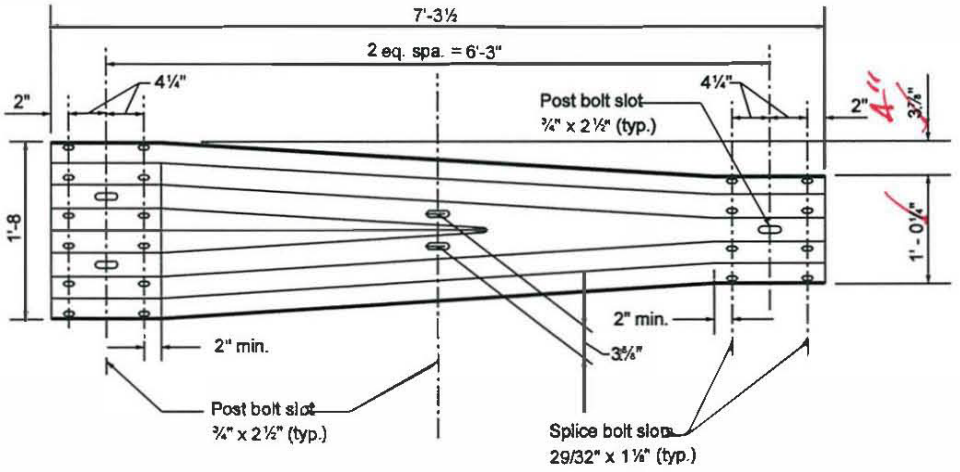
THRIE BEAM RAIL SECTION



THRIE BEAM TERMINAL CONNECTOR

NOTES:

1. This drawing shall be used where thrie-beam guardrail is specified. This drawing shall also be used if a thrie-beam guardrail system requires the use of standard W-beam guardrail components.



W-THRIE BEAM TRANSITION SECTION

INDIANA DEPARTMENT OF TRANSPORTATION

THRIE-BEAM GUARDRAIL COMPONENTS

MARCH 2003

STANDARD DRAWING NO. E 601-TBGC-01

RICHARD L. VanCleave REGISTERED No. 9750 STATE OF INDIANA PROFESSIONAL ENGINEER

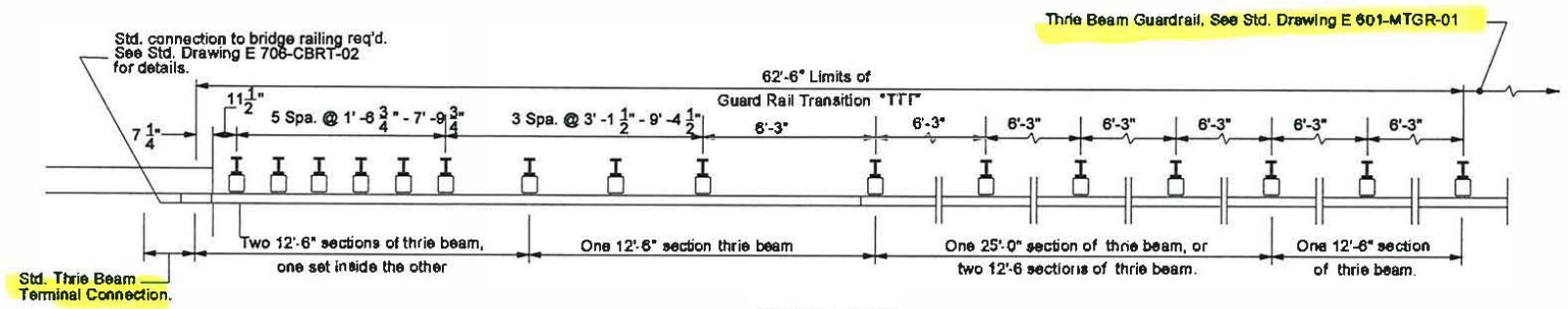
DESIGN STANDARDS ENGINEER

/s/ Richard L.VanCleave 3-03-03
DESIGN STANDARDS ENGINEER DATE

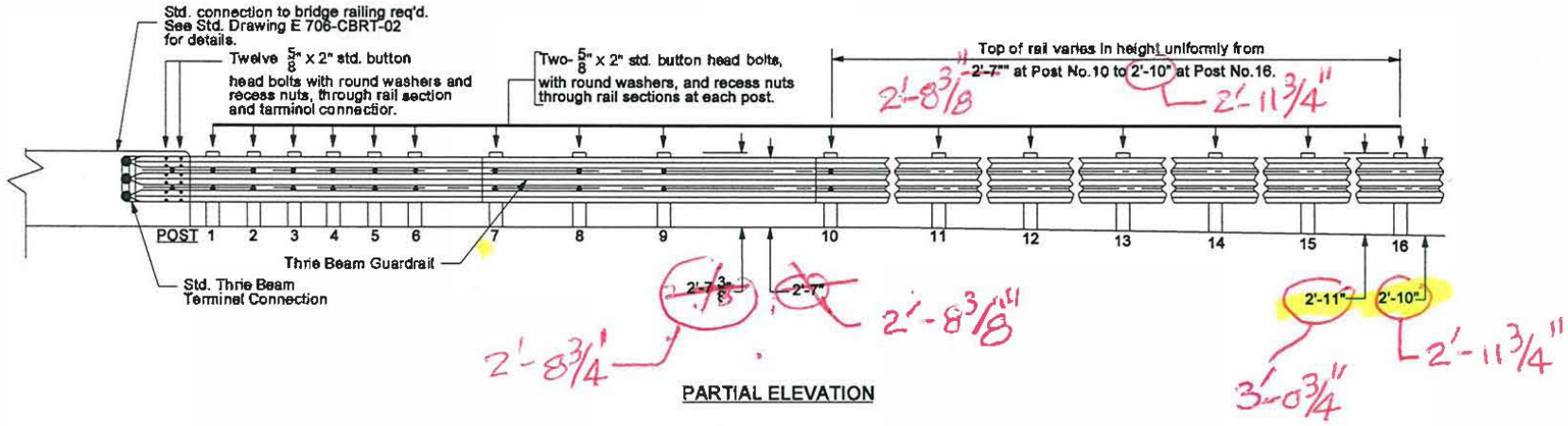
/s/ Richard K.Smutzer 3-03-03
CHIEF HIGHWAY ENGINEER DATE

REVISION TO THE STANDARD DRAWINGS AND RECURRING PLAN DETAILS

REVISION TO 601-TMTT-01 THRIE BEAM GUARDRAIL TO THRIE BEAM GUARDRAIL TRANSITION, TTT



PARTIAL PLAN



PARTIAL ELEVATION

Notes:

1. For Thrie Beam Guardrail post and blockout details from bridge rail to Post No. 10 see Standard Drawings E 601-TTGB-01 and E 601-TTGB-03.
2. For Thrie Beam Guardrail post and blockout details with the exception of height above shoulder surface for Posts No. 11 thru 16, see Standard Drawing E 601-TTGB-03.

INDIANA DEPARTMENT OF TRANSPORTATION

THRIE BEAM GUARDRAIL TO THRIE BEAM GUARDRAIL TRANSITION, TTT

MARCH 2005

STANDARD DRAWING NO. E 601-TMTT-01

RICHARD L. VanCLEAVE REGISTERED No. 9750 STATE OF INDIANA PROFESSIONAL ENGINEER

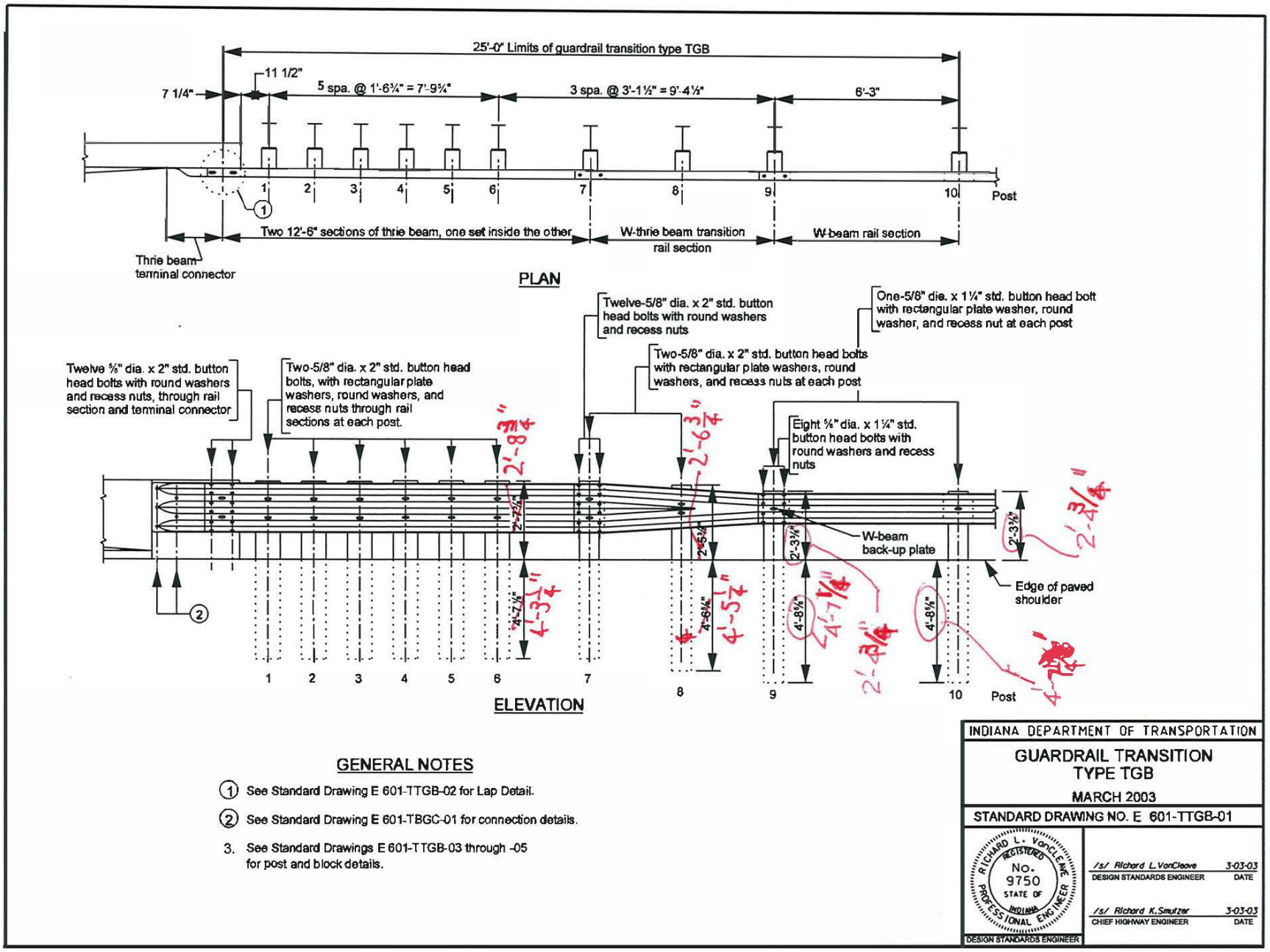
DESIGN STANDARDS ENGINEER

/s/ Richard L. VanCleave 3-01-05
DESIGN STANDARDS ENGINEER DATE

/s/ Richard K. Smutzer 3-01-05
CHIEF HIGHWAY ENGINEER DATE

REVISION TO THE STANDARD DRAWINGS AND RECURRING PLAN DETAILS

REVISION TO 601-TTGB-01 GUARDRAIL TRANSITION TYPE TGB



GENERAL NOTES

1. See Standard Drawing E 601-TTGB-02 for Lap Detail.
2. See Standard Drawing E 601-TBGC-01 for connection details.
3. See Standard Drawings E 601-TTGB-03 through -05 for post and block details.

INDIANA DEPARTMENT OF TRANSPORTATION

GUARDRAIL TRANSITION TYPE TGB

MARCH 2003

STANDARD DRAWING NO. E 601-TTGB-01

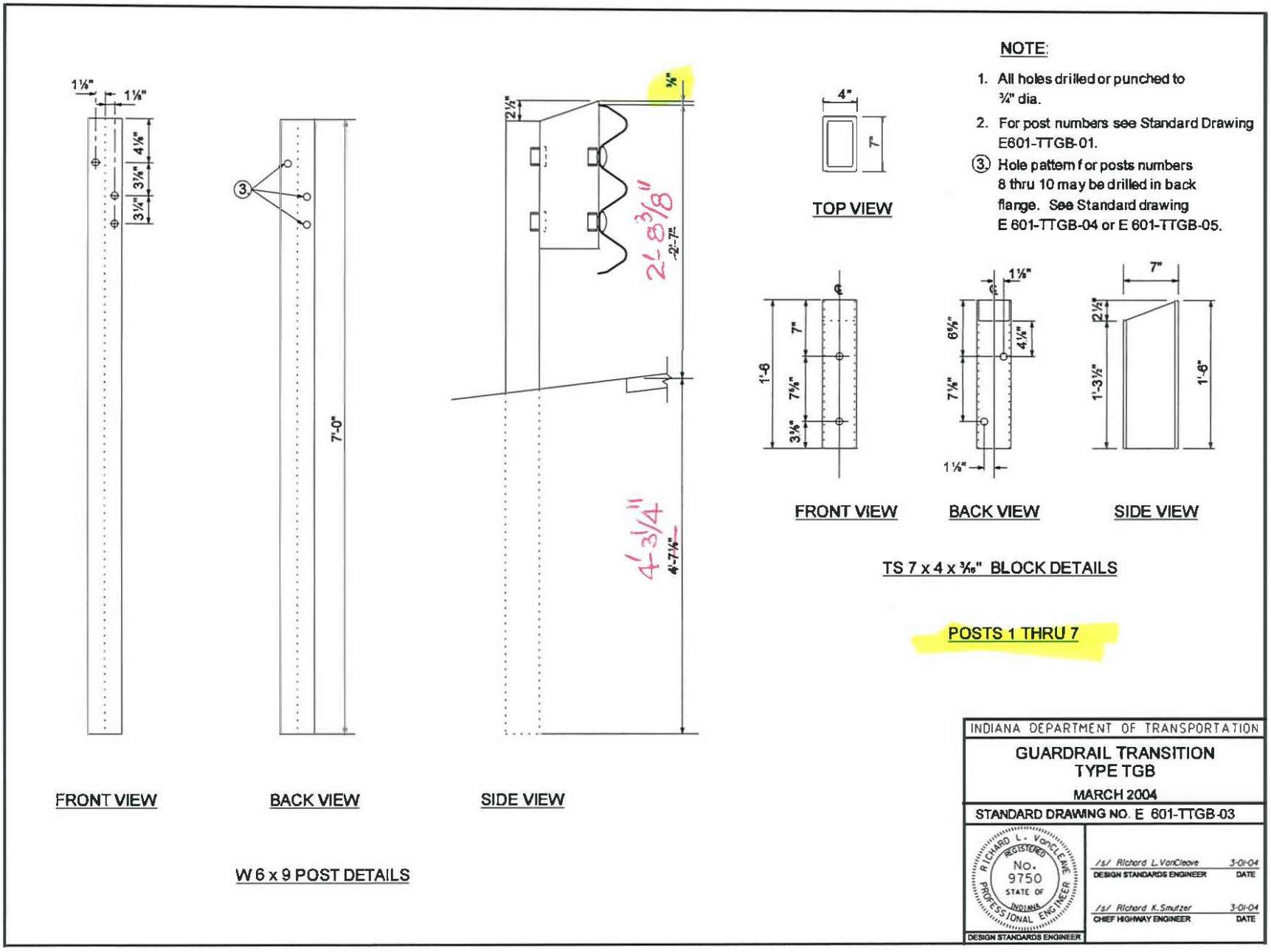
RICHARD L. VanCLEAVE REGISTERED No. 9750 STATE OF INDIANA PROFESSIONAL ENGINEER
DESIGN STANDARDS ENGINEER

/s/ Richard L. VanCleave 3-03-03
DESIGN STANDARDS ENGINEER DATE

/s/ Richard K. Smutzer 3-03-03
CHIEF HIGHWAY ENGINEER DATE

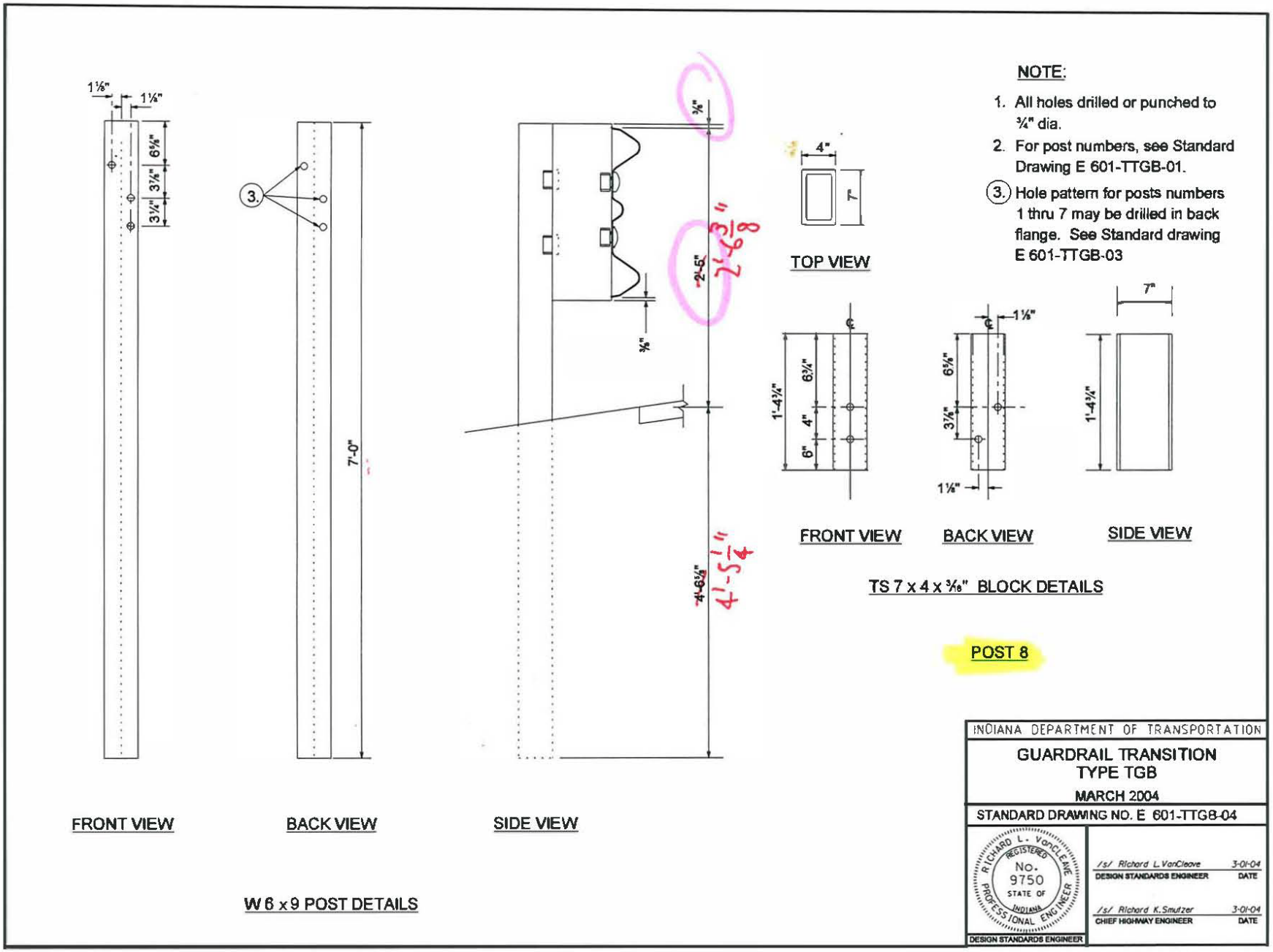
REVISION TO THE STANDARD DRAWINGS AND RECURRING PLAN DETAILS

REVISION TO 601-TTGB-03 GUARDRAIL TRANSITION TYPE TGB



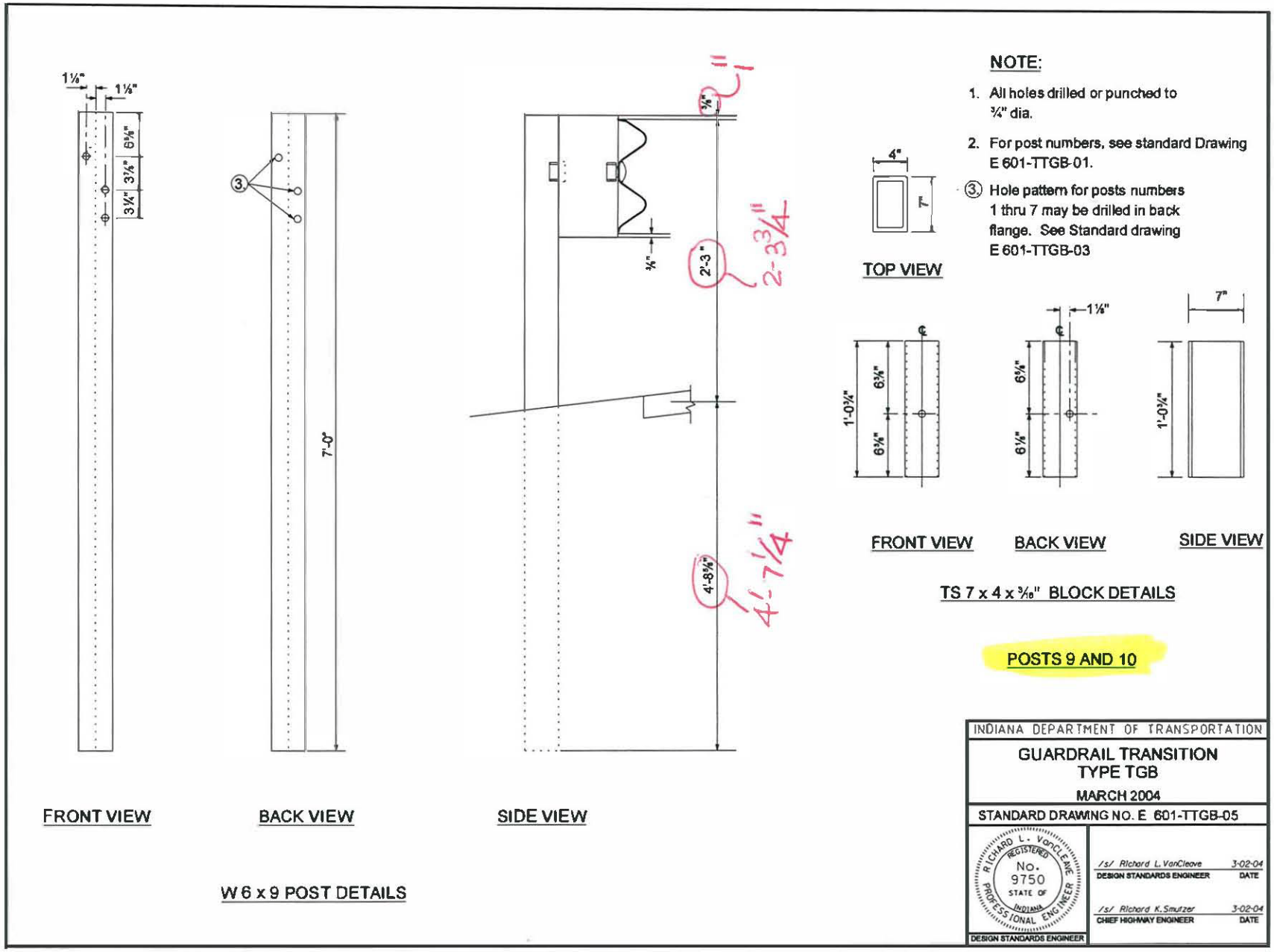
REVISION TO THE STANDARD DRAWINGS AND RECURRING PLAN DETAILS

REVISION TO 601-TTGB-04 GUARDRAIL TRANSITION TYPE TGB



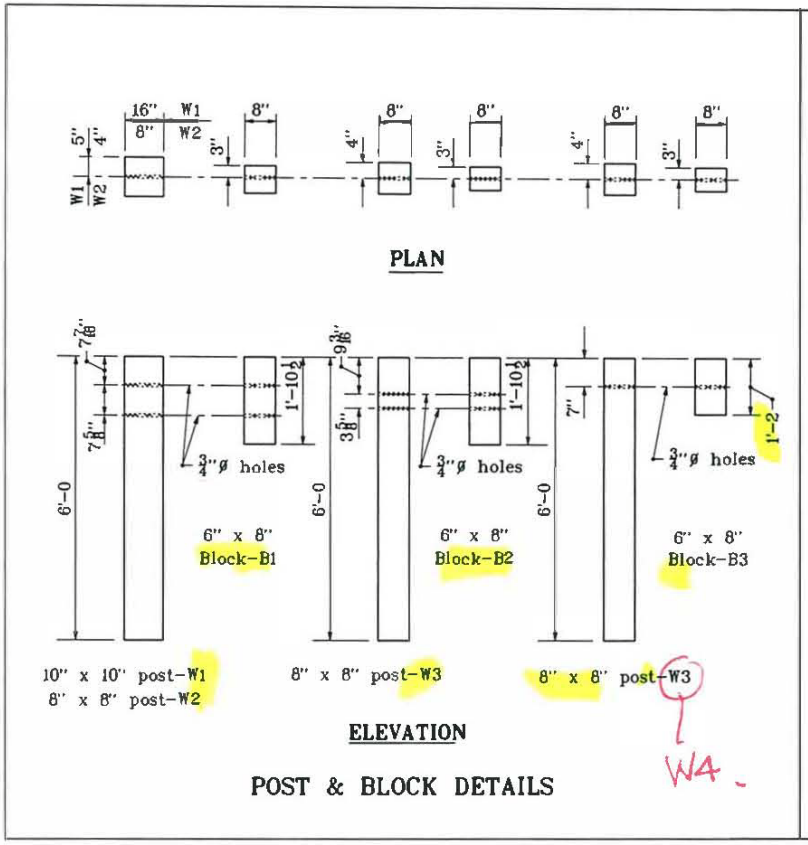
REVISION TO THE STANDARD DRAWINGS AND RECURRING PLAN DETAILS

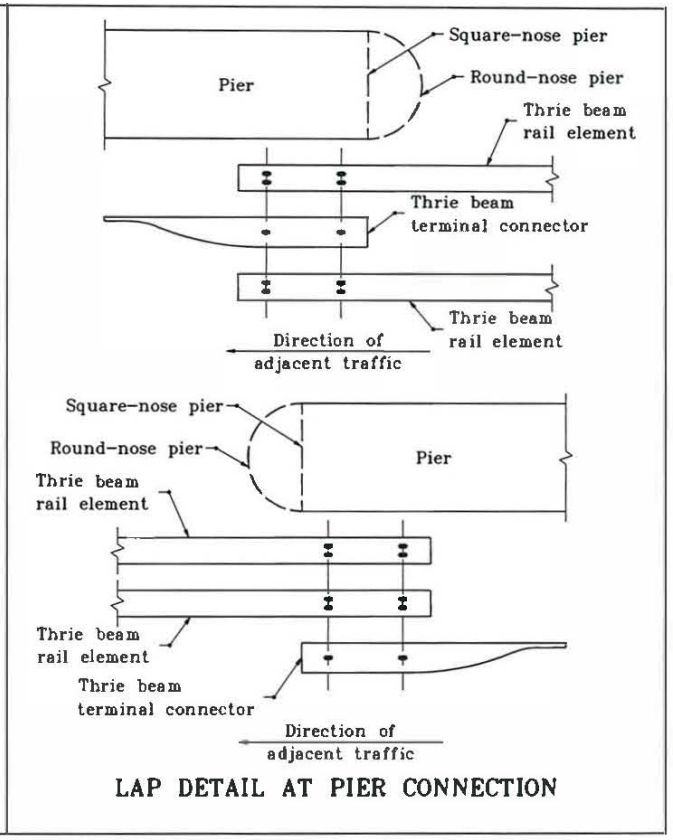
REVISION TO 601-TTGB-05 GUARDRAIL TRANSITION TYPE TGB



REVISION TO THE STANDARD DRAWINGS AND RECURRING PLAN DETAILS

REVISION TO 601-TTGP-01 GUARDRAIL TRANSITION TYPE GP





INDIANA DEPARTMENT OF TRANSPORTATION

GUARDRAIL TRANSITION TYPE GP

APRIL 1995

STANDARD DRAWING NO. E 601-TTGP-01

ANTHONY L. UREMOVICH REGISTERED No. 18095 STATE OF INDIANA PROFESSIONAL ENGINEER

DESIGN STANDARDS ENGINEER

DETAILS PLACED IN THIS FORMAT 11-15-99

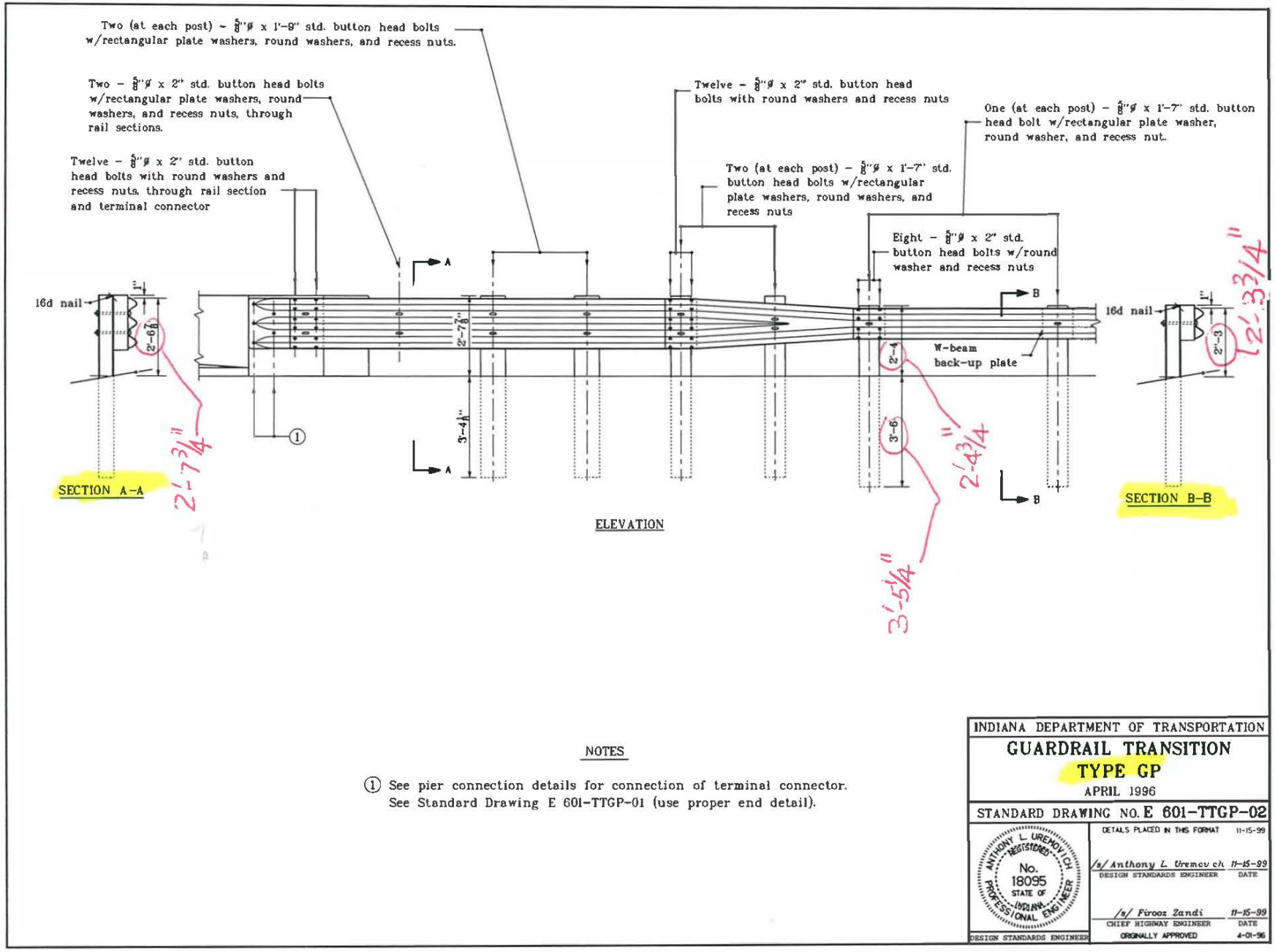
/s/ Anthony L. Uremovich 11-15-99
DESIGN STANDARDS ENGINEER DATE

/s/ Firooz Zandi 11-15-99
CHIEF HIGHWAY ENGINEER DATE

ORIGINALLY APPROVED 4-03-95

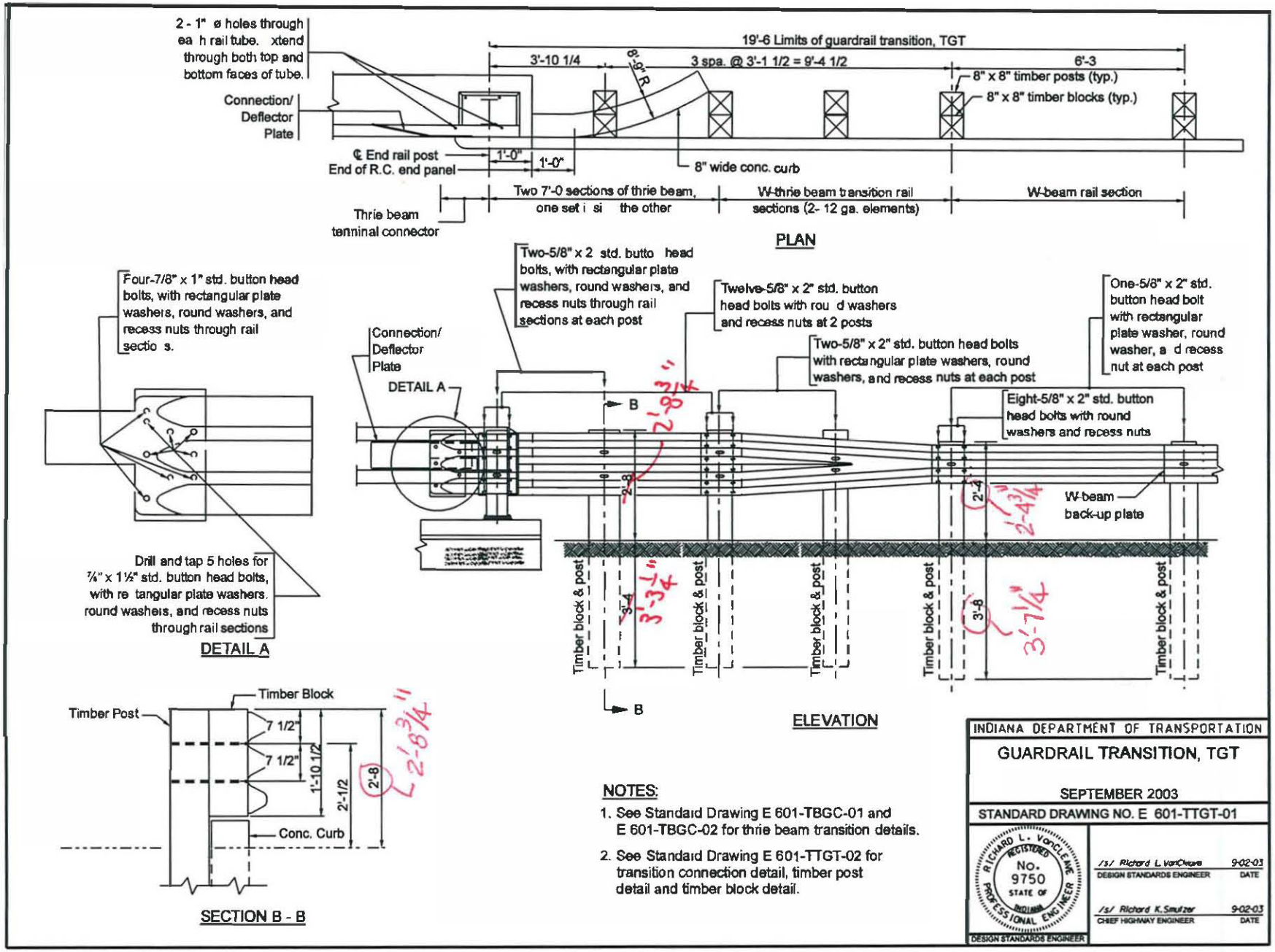
REVISION TO THE STANDARD DRAWINGS AND RECURRING PLAN DETAILS

REVISION TO 601-TTGP-02 GUARDRAIL TRANSITION TYPE GP



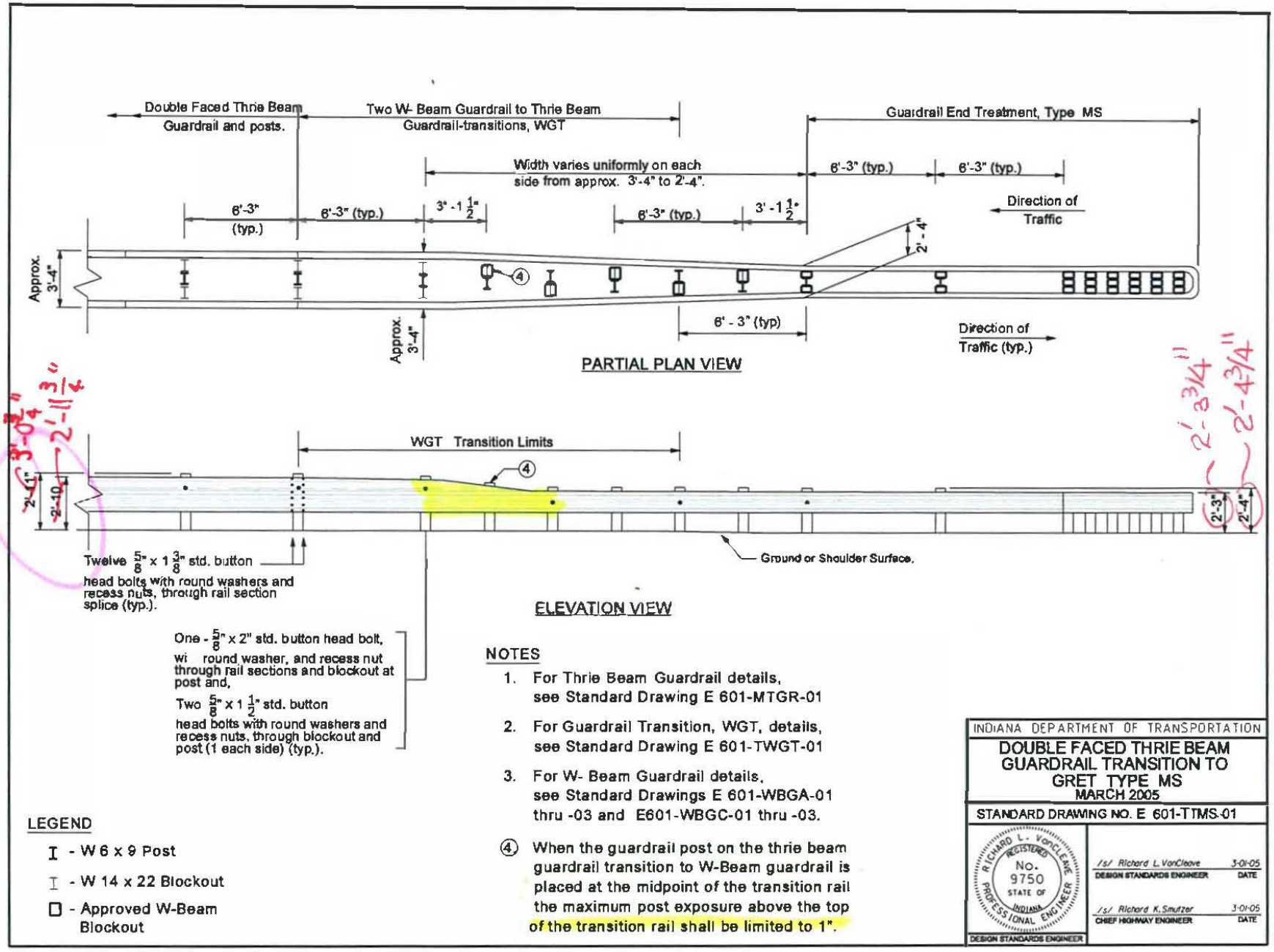
REVISION TO THE STANDARD DRAWINGS AND RECURRING PLAN DETAILS

REVISION TO 601-TTGT-01 GUARDRAIL TRANSITION, TGT



REVISION TO THE STANDARD DRAWINGS AND RECURRING PLAN DETAILS

REVISION TO 601-TTMS-01 DOUBLE FACED THRIE BEAM GUARDRAIL TRANSITION TO GRET TYPE MS

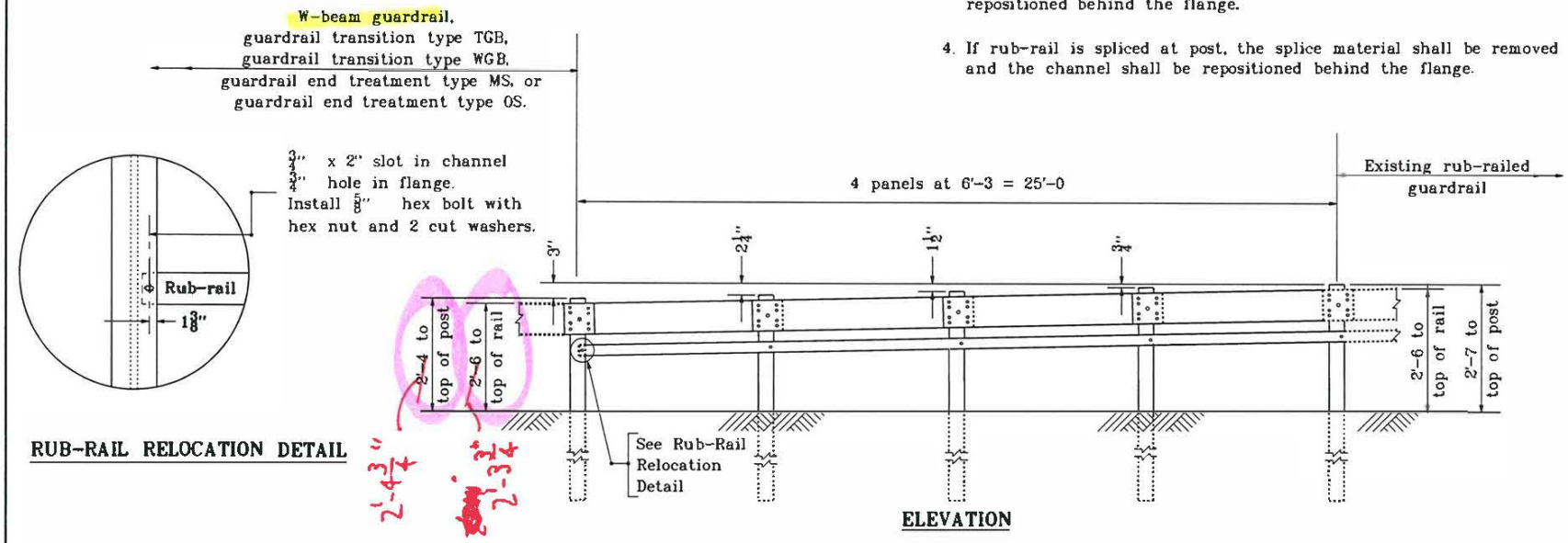


REVISION TO THE STANDARD DRAWINGS AND RECURRING PLAN DETAILS

REVISION TO 601-TTVH-01 GUARDRAIL TRANSITION TYPE VH

NOTES

1. This transition shall be used where new W-beam guardrail is being attached to existing rub-railed W-beam guardrail This transition shall also be used where a new lower height guardrail end treatment is being attached to existing rub-railed type guardrail.
2. These details are for the height adjustment of existing rub-railed type guardrail.
3. If rub-rail is not spliced at post, the channel shall be cut and repositioned behind the flange.
4. If rub-rail is spliced at post, the splice material shall be removed and the channel shall be repositioned behind the flange.



RUB-RAIL RELOCATION DETAIL

ELEVATION

GUARDRAIL TRANSITION TYPE VH AT 6'-3 POST SPACING

INDIANA DEPARTMENT OF TRANSPORTATION

GUARDRAIL TRANSITION TYPE VH

APRIL 1995

STANDARD DRAWING NO. E 601-TTVH-01

ANTHONY L. UREMOVICH REGISTERED No. 18095 STATE OF INDIANA PROFESSIONAL ENGINEER

DESIGN STANDARDS ENGINEER

DETAILS PLACED IN THIS FORMAT 11-15-99

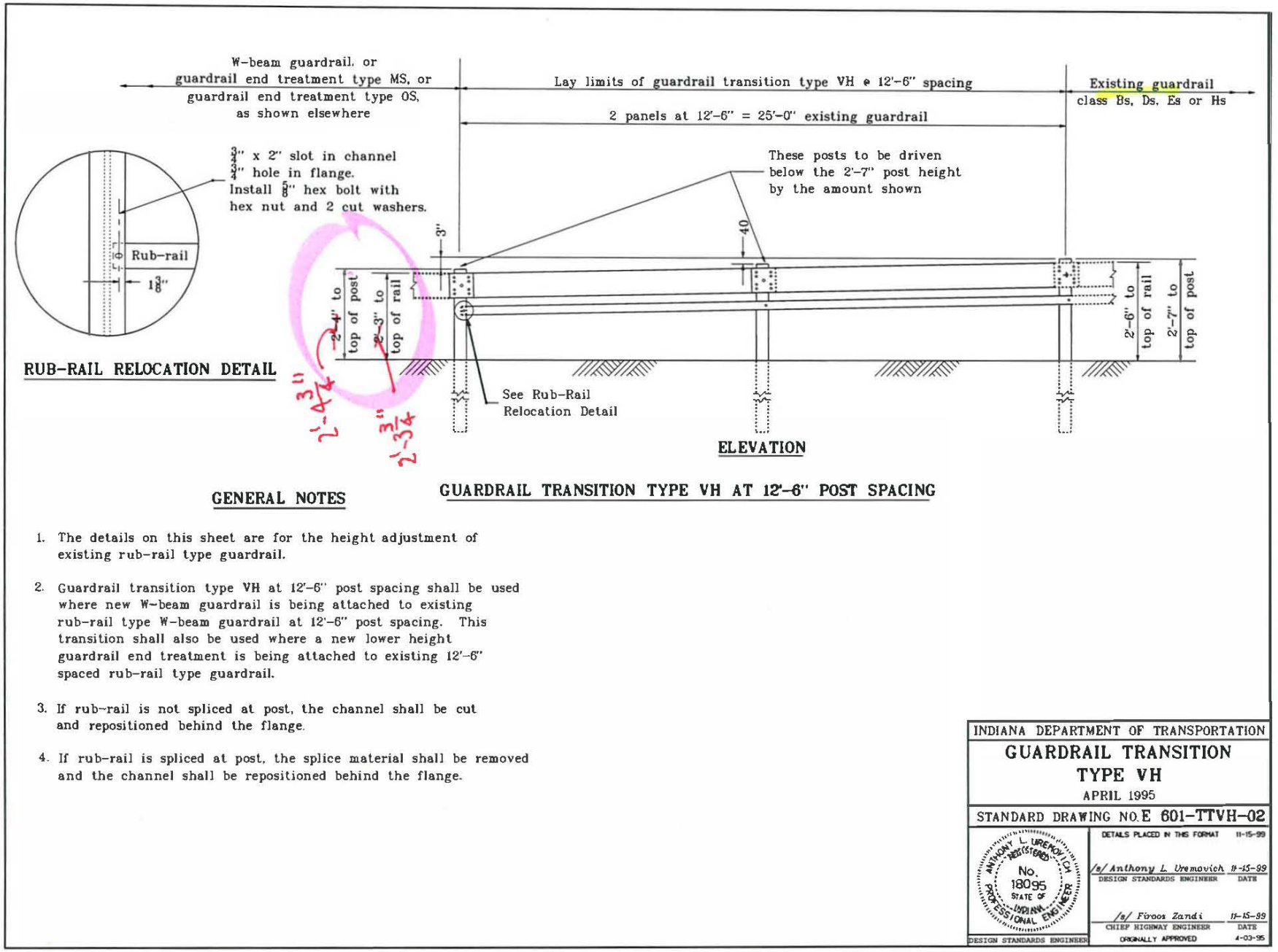
/s/ Anthony L. Uremovich 11-15-99
DESIGN STANDARDS ENGINEER DATE

/s/ Firooz Zandi 11-15-99
CHIEF HIGHWAY ENGINEER DATE

ORIGINALLY APPROVED 4-03-95

REVISION TO THE STANDARD DRAWINGS AND RECURRING PLAN DETAILS

REVISION TO 601-TTVH-02 GUARDRAIL TRANSITION TYPE VH



GUARDRAIL TRANSITION TYPE VH AT 12'-6" POST SPACING

GENERAL NOTES

1. The details on this sheet are for the height adjustment of existing rub-rail type guardrail.
2. Guardrail transition type VH at 12'-6" post spacing shall be used where new W-beam guardrail is being attached to existing rub-rail type W-beam guardrail at 12'-6" post spacing. This transition shall also be used where a new lower height guardrail end treatment is being attached to existing 12'-6" spaced rub-rail type guardrail.
3. If rub-rail is not spliced at post, the channel shall be cut and repositioned behind the flange.
4. If rub-rail is spliced at post, the splice material shall be removed and the channel shall be repositioned behind the flange.

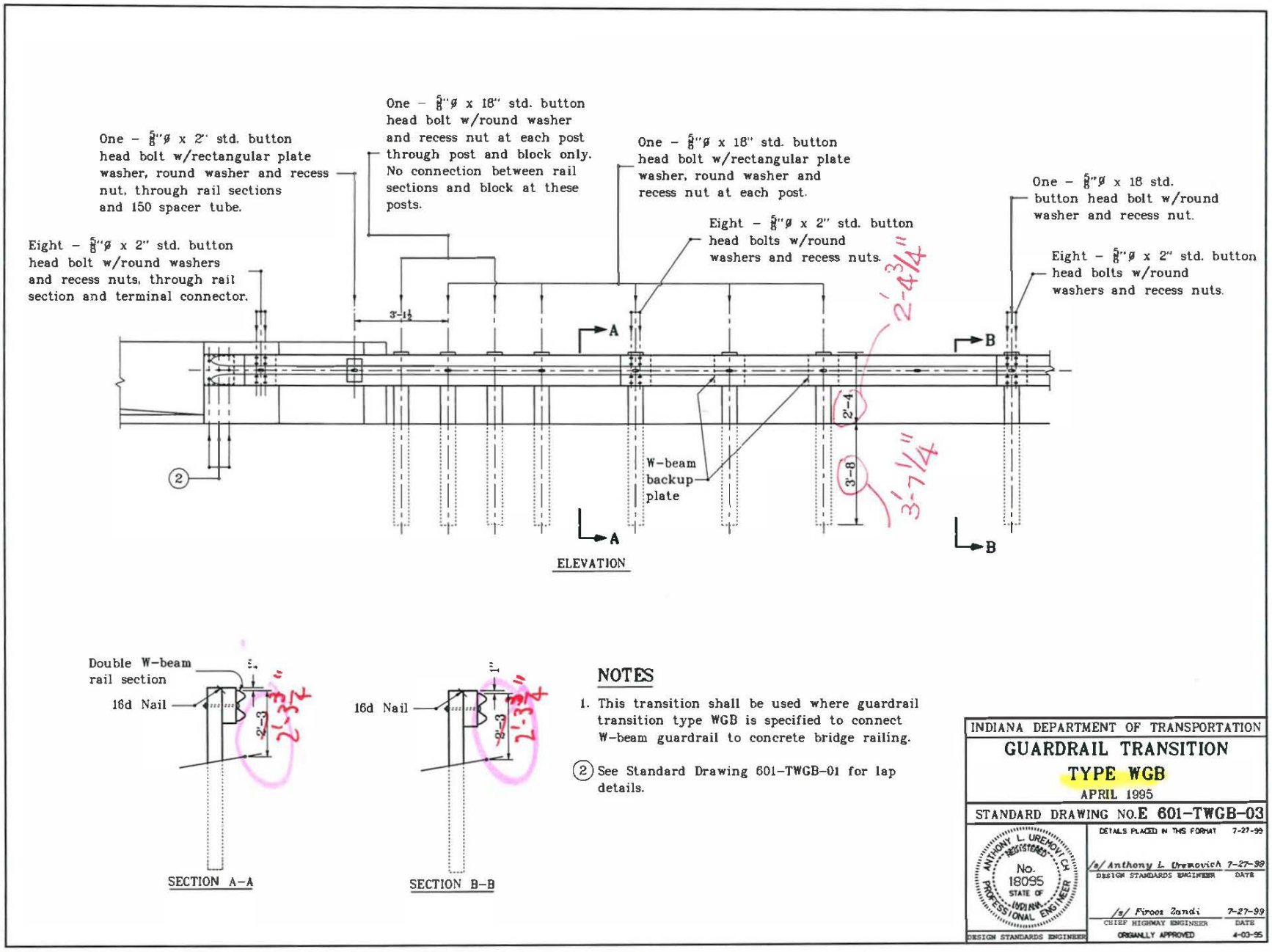
INDIANA DEPARTMENT OF TRANSPORTATION
GUARDRAIL TRANSITION TYPE VH
APRIL 1995
STANDARD DRAWING NO. E 601-TTVH-02

ANTHONY L. UREMOVICH REGISTERED No. 18095 STATE OF INDIANA PROFESSIONAL ENGINEER

DETAILS PLACED IN THIS FORMAT 11-15-99
/s/ Anthony L. Uremovich 11-15-99
DESIGN STANDARDS ENGINEER DATE
/s/ Firooz Zandi 11-15-99
CHIEF HIGHWAY ENGINEER DATE
DESIGN STANDARDS ENGINEER ORIGINALLY APPROVED 4-03-95

REVISION TO THE STANDARD DRAWINGS AND RECURRING PLAN DETAILS

REVISION TO 601-TWGB-03 GUARDRAIL TRANSITION TYPE WGB



NOTES

1. This transition shall be used where guardrail transition type WGB is specified to connect W-beam guardrail to concrete bridge railing.

(2) See Standard Drawing 601-TWGB-01 for lap details.

INDIANA DEPARTMENT OF TRANSPORTATION

GUARDRAIL TRANSITION TYPE WGB

APRIL 1995

STANDARD DRAWING NO. E 601-TWGB-03

ANTHONY L. UREMOVICH REGISTERED No. 18095 STATE OF INDIANA PROFESSIONAL ENGINEER

DESIGN STANDARDS ENGINEER

DETAILS PLACED IN THIS FORMAT 7-27-99

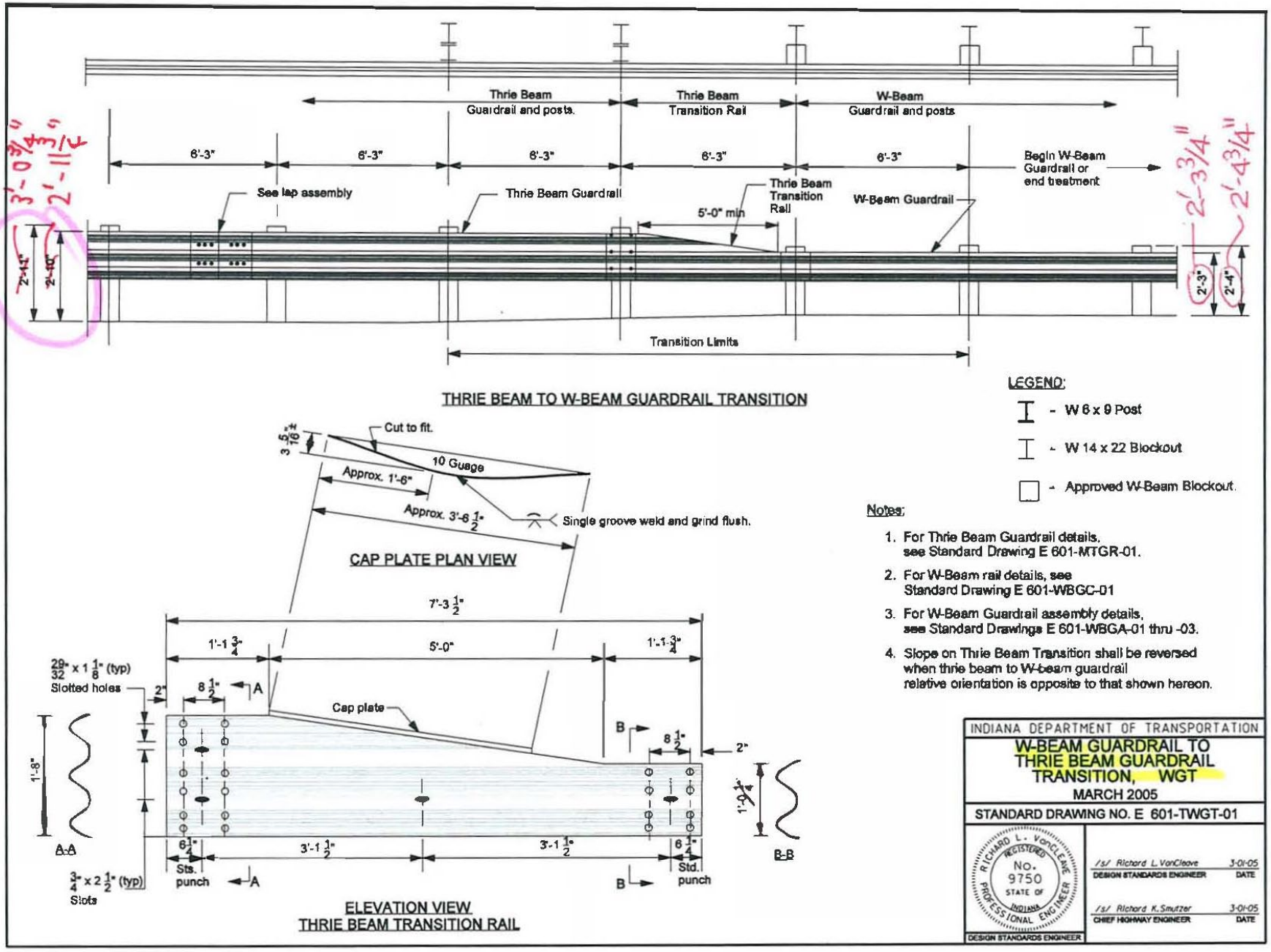
/s/ Anthony L. Uremovich 7-27-99
DESIGN STANDARDS ENGINEER DATE

/s/ Firooz Zandi 7-27-99
CHIEF HIGHWAY ENGINEER DATE

ORIGINALLY APPROVED 4-03-95

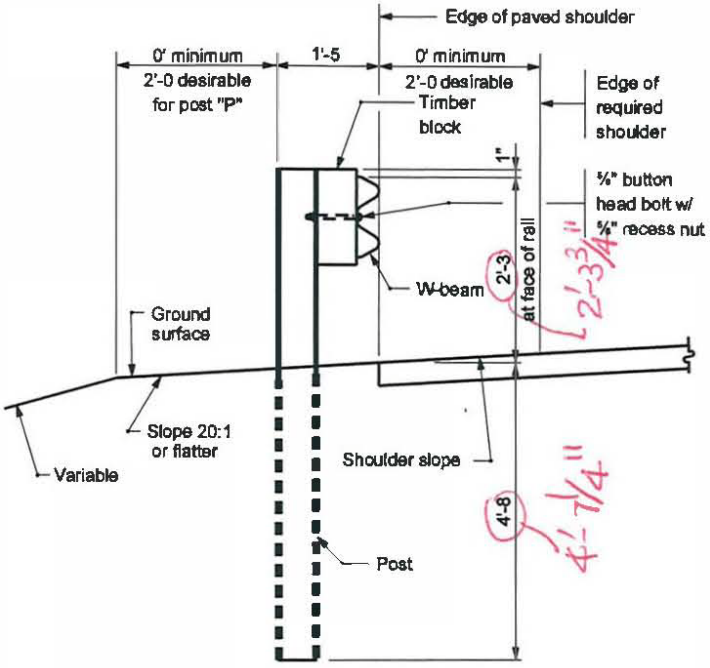
REVISION TO THE STANDARD DRAWINGS AND RECURRING PLAN DETAILS

REVISION TO 601-TWGT-01 W-BEAM GUARDRAIL TO THRIE BEAM GUARDRAIL TRANSITION, WGT

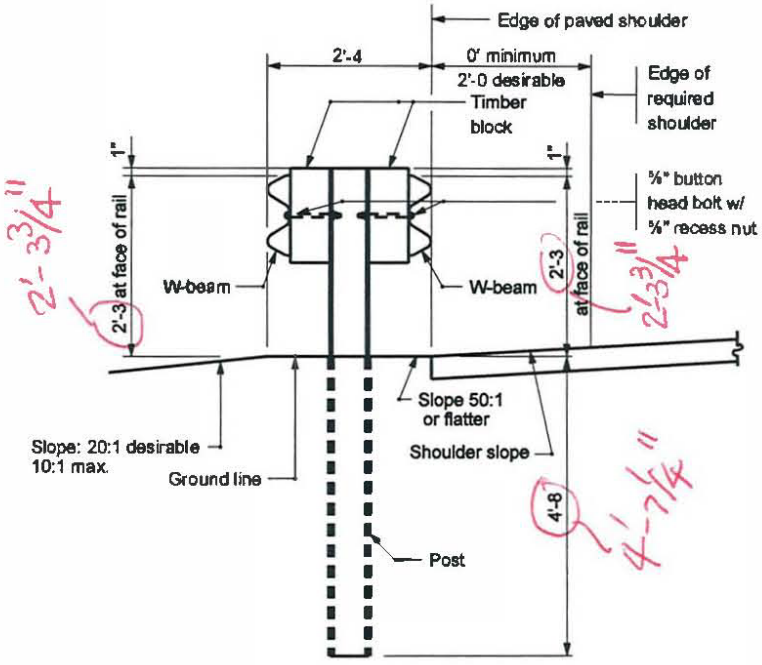


REVISION TO THE STANDARD DRAWINGS AND RECURRING PLAN DETAILS

REVISION TO 601-WBGA-01 W-BEAM GUARDRAIL ASSEMBLIES



TYPICAL W-BEAM INSTALLATION



TYPICAL DOUBLE FACED W-BEAM INSTALLATION

INDIANA DEPARTMENT OF TRANSPORTATION

W-BEAM GUARDRAIL ASSEMBLIES

MARCH 2004

STANDARD DRAWING NO. E 601-WBGA-01

RICHARD L. VANCLEAVE REGISTERED NO. 9750 STATE OF INDIANA PROFESSIONAL ENGINEER

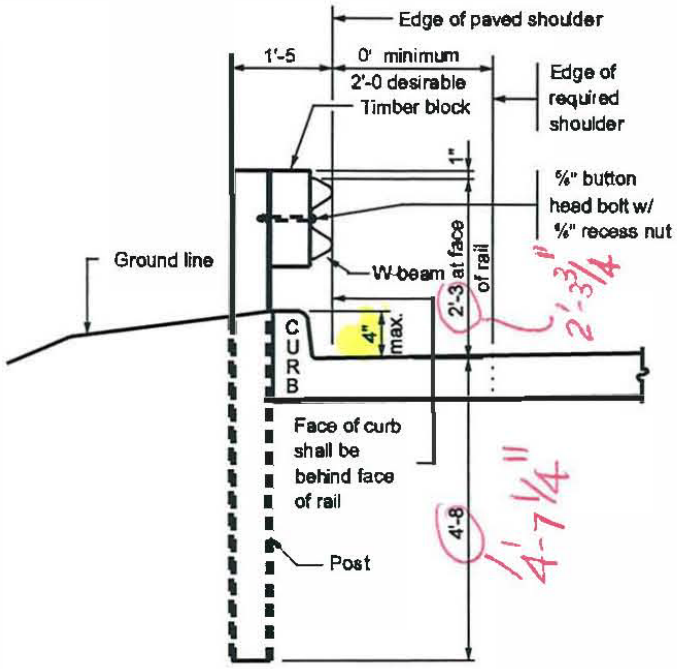
DESIGN STANDARDS ENGINEER

/s/ Richard L. VanCleave 3-01-04
DESIGN STANDARDS ENGINEER DATE

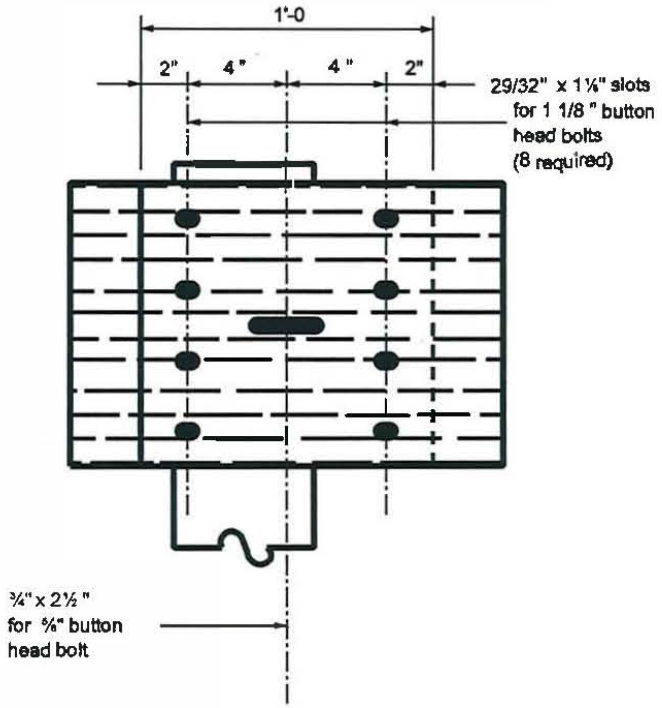
/s/ Richard K. Snyder 3-01-04
CHIEF HIGHWAY ENGINEER DATE

REVISION TO THE STANDARD DRAWINGS AND RECURRING PLAN DETAILS

REVISION TO 601-WBGA-02 W-BEAM GUARDRAIL ASSEMBLIES



TYPICAL W-BEAM INSTALLATION AT CURB



STEEL W-BEAM SPLICE DETAIL

INDIANA DEPARTMENT OF TRANSPORTATION

W-BEAM GUARDRAIL ASSEMBLIES

SEPTEMBER 2002

STANDARD DRAWING NO. E 601-WBGA-02

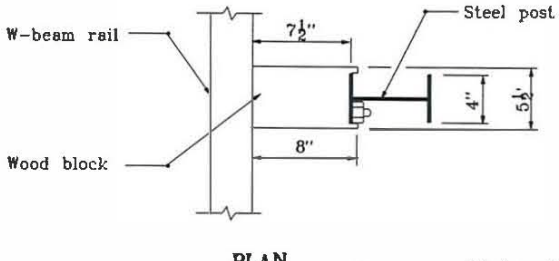
RICHARD L. VanCLEAVE REGISTERED No. 9750 STATE OF INDIANA PROFESSIONAL ENGINEER
DESIGN STANDARDS ENGINEER

/s/ Richard L. VanCleave 9-03-02
DESIGN STANDARDS ENGINEER DATE

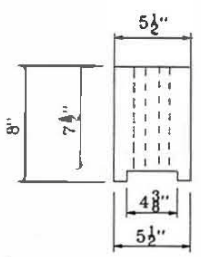
/s/ Richard K. Smutzer 9-03-02
CHIEF HIGHWAY ENGINEER DATE

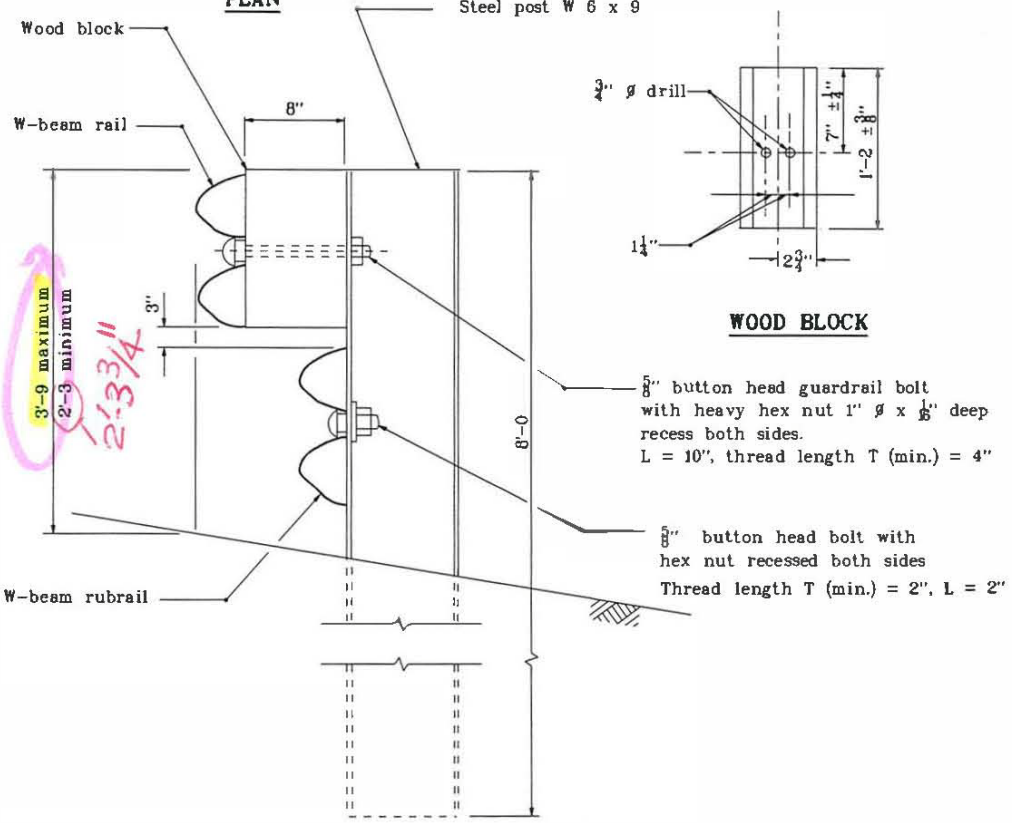
REVISION TO THE STANDARD DRAWINGS AND RECURRING PLAN DETAILS

REVISION TO 601-WBGA-06 WR-BEAM GUARDRAIL



PLAN

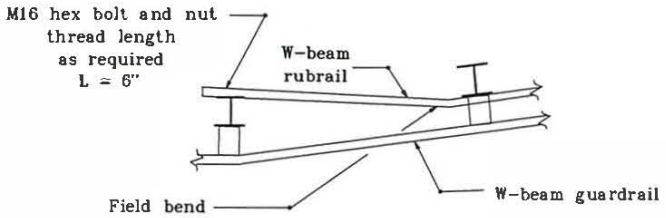




ELEVATION

STEEL POST AND WOOD BLOCK DETAIL
FOR WR-BEAM GUARDRAIL

WOOD BLOCK



RUBRAIL TERMINATION DETAIL

NOTES:

1. All posts shall be 8'-0 long and spaced at 6'-3.

INDIANA DEPARTMENT OF TRANSPORTATION

WR-BEAM GUARDRAIL

SEPTEMBER 2000

STANDARD DRAWING NO. E 601-WBGA-06

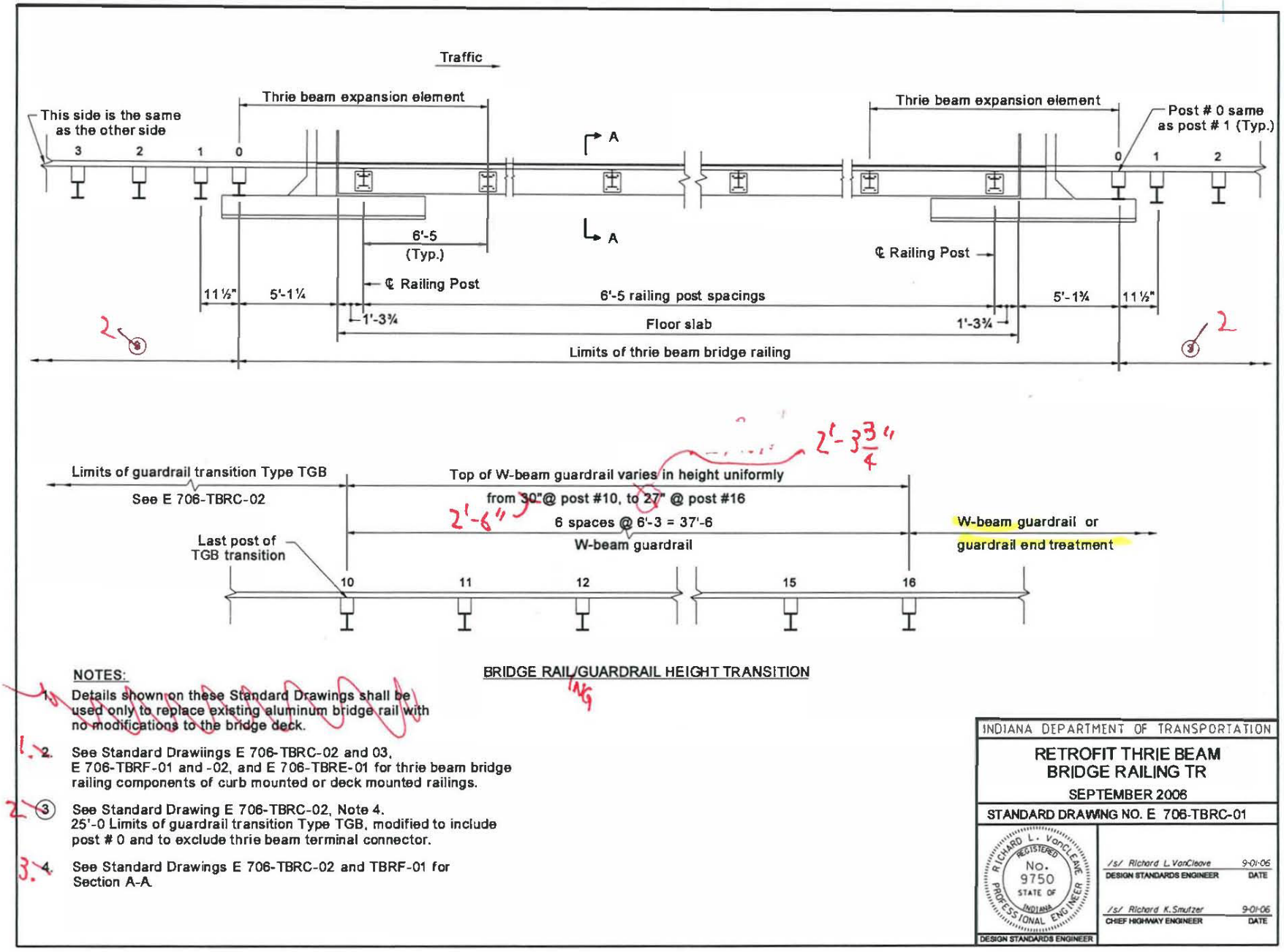
ANTHONY L. UREMOVICH REGISTERED No. 18095 STATE OF INDIANA PROFESSIONAL ENGINEER
DESIGN STANDARDS ENGINEER

/s/ Anthony L. Uremovich 9-01-00
DESIGN STANDARDS ENGINEER DATE

/s/ Firooz Zandi 9-01-00
CHIEF HIGHWAY ENGINEER DATE

REVISION TO THE STANDARD DRAWINGS AND RECURRING PLAN DETAILS

REVISION TO 706-TBRC-01 RETROFIT THRIE BEAM BRIDGE RAILING TR



BRIDGE RAIL/GUARDRAIL HEIGHT TRANSITION

NOTES:

1. Details shown on these Standard Drawings shall be used only to replace existing aluminum bridge rail with no modifications to the bridge deck.
2. See Standard Drawiings E 706-TBRC-02 and 03, E 706-TBRF-01 and -02, and E 706-TBRE-01 for thrie beam bridge railing components of curb mounted or deck mounted railings.
3. See Standard Drawing E 706-TBRC-02, Note 4. 25'-0 Limits of guardrail transition Type TGB, modified to include post # 0 and to exclude thrie beam terminal connector.
4. See Standard Drawings E 706-TBRC-02 and TBRF-01 for Section A-A.

INDIANA DEPARTMENT OF TRANSPORTATION

RETROFIT THRIE BEAM BRIDGE RAILING TR

SEPTEMBER 2006

STANDARD DRAWING NO. E 706-TBRC-01

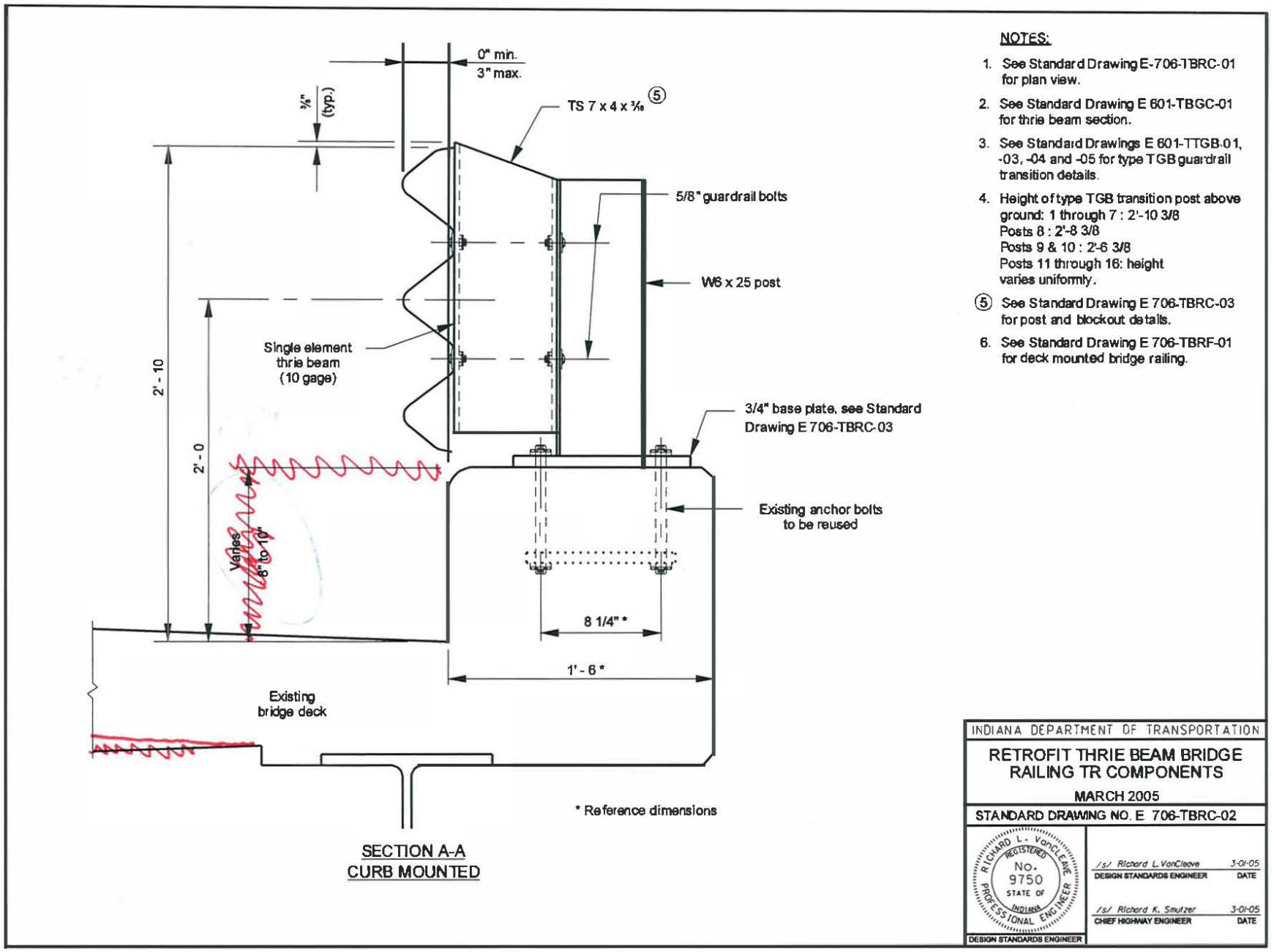
RICHARD L. VanCLEAVE REGISTERED No. 9750 STATE OF INDIANA PROFESSIONAL ENGINEER
DESIGN STANDARDS ENGINEER

/s/ Richard L. VanCleave 9-01-06
DESIGN STANDARDS ENGINEER DATE

/s/ Richard K. Smutzer 9-01-06
CHIEF HIGHWAY ENGINEER DATE

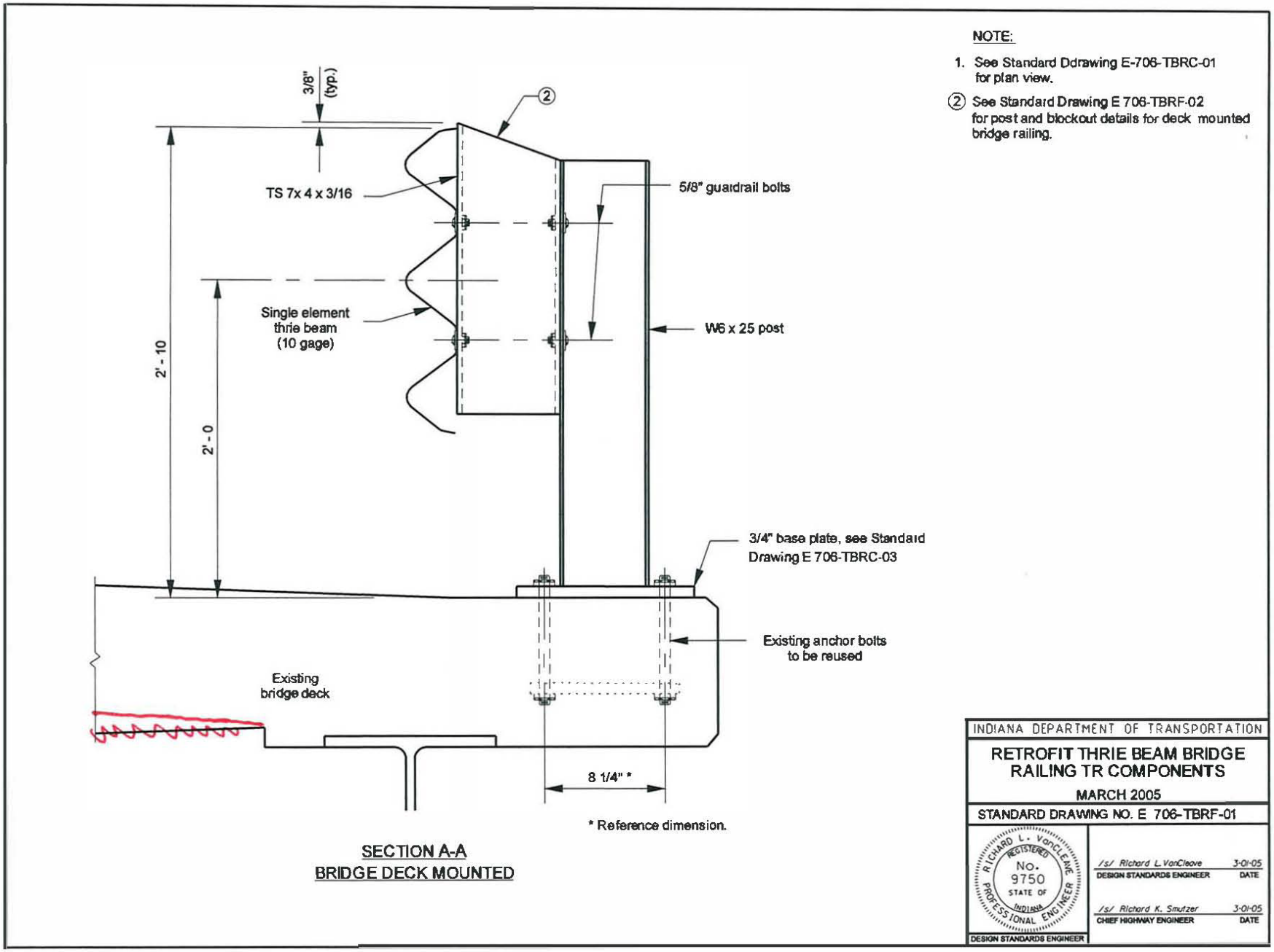
REVISION TO THE STANDARD DRAWINGS AND RECURRING PLAN DETAILS

REVISION TO 706-TBRC-02 RETROFIT THRIE BEAM BRIDGE RAILING TR COMPONENTS



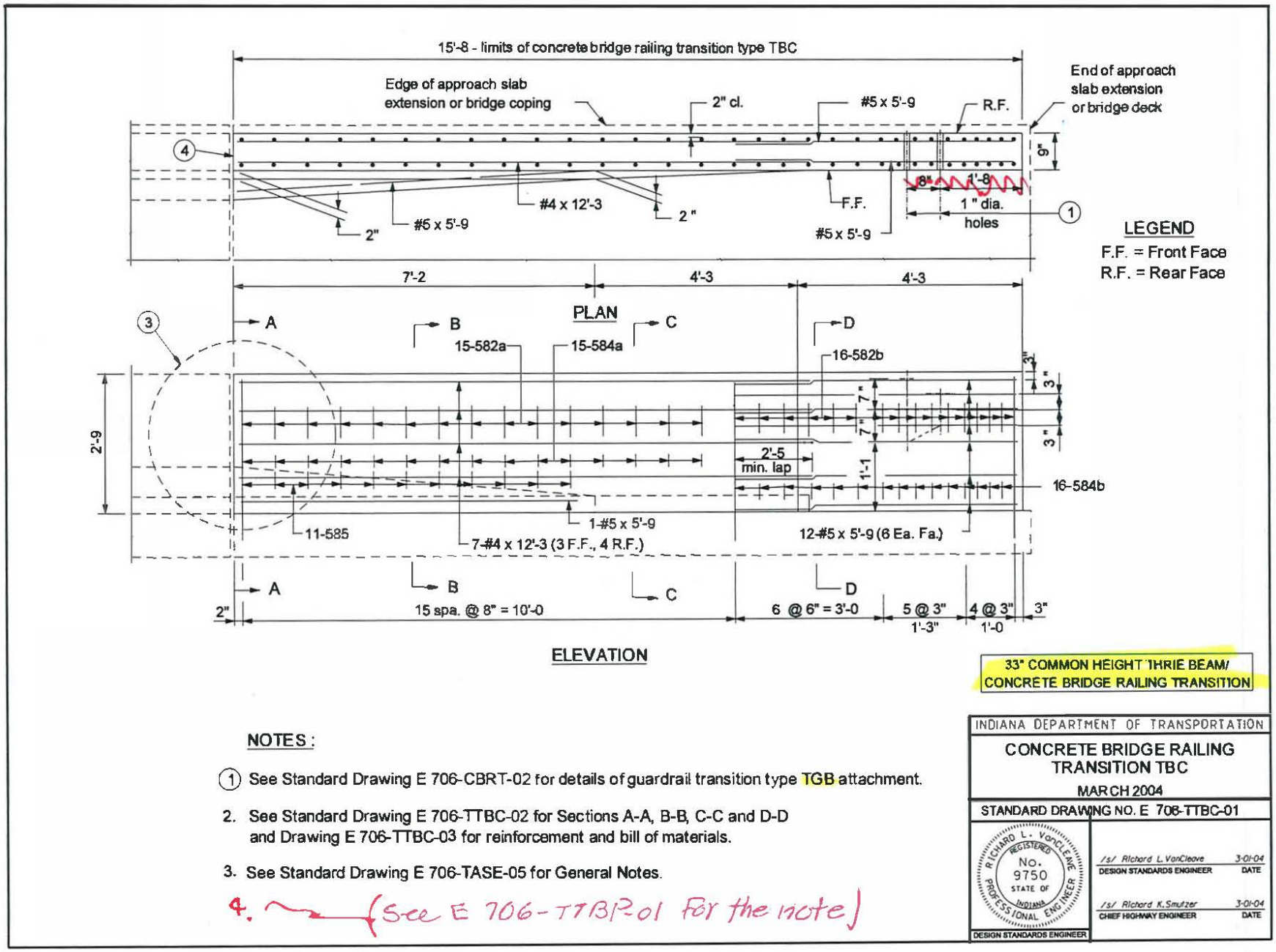
REVISION TO THE STANDARD DRAWINGS AND RECURRING PLAN DETAILS

REVISION TO 706-TBRF-01 RETROFIT THRIE BEAM BRIDGE RAILING TR COMPONENTS



REVISION TO THE STANDARD DRAWINGS AND RECURRING PLAN DETAILS

REVISION TO 706-TTBC-01 CONCRETE BRIDGE RAILING TRANSITION TBC



NOTES :

(1) See Standard Drawing E 706-CBRT-02 for details of guardrail transition type TGB attachment.

2. See Standard Drawing E 706-TTBC-02 for Sections A-A, B-B, C-C and D-D and Drawing E 706-TTBC-03 for reinforcement and bill of materials.

3. See Standard Drawing E 706-TASE-05 for General Notes.

4. (See E 706-TTBP-01 for the note)

INDIANA DEPARTMENT OF TRANSPORTATION

CONCRETE BRIDGE RAILING TRANSITION TBC

MARCH 2004

STANDARD DRAWING NO. E 706-TTBC-01

RICHARD L. VanCLEAVE REGISTERED No. 9750 STATE OF INDIANA PROFESSIONAL ENGINEER

DESIGN STANDARDS ENGINEER

/s/ Richard L VanCleave 3-01-04
DESIGN STANDARDS ENGINEER DATE

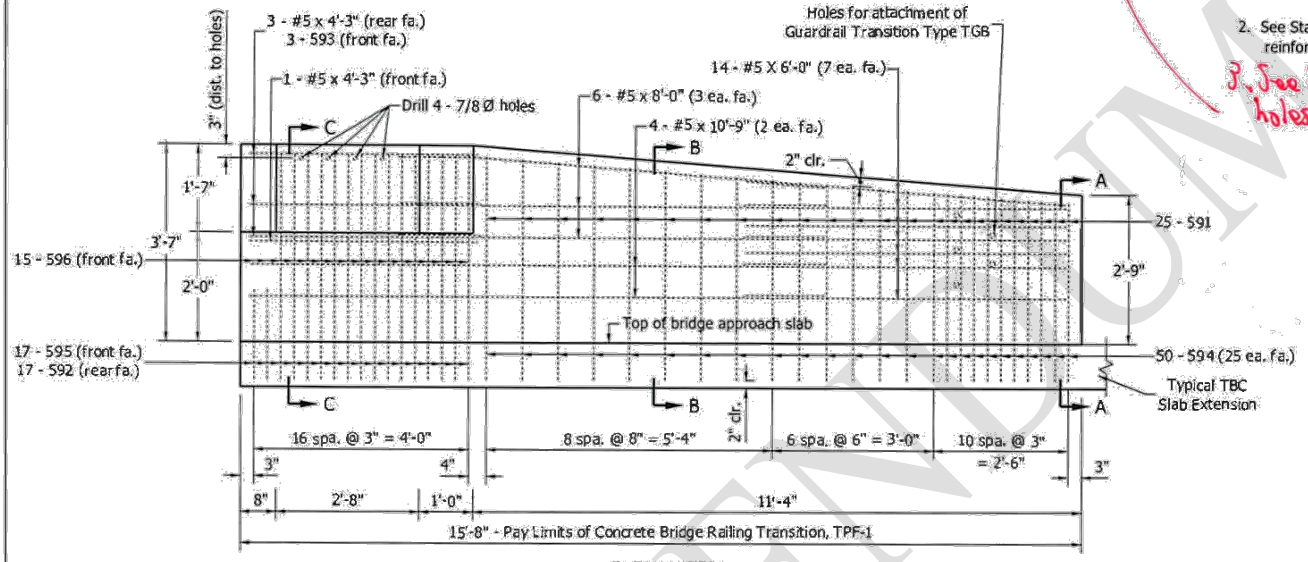
/s/ Richard K. Smutzer 3-01-04
CHIEF HIGHWAY ENGINEER DATE

REVISION TO THE STANDARD DRAWINGS AND RECURRING PLAN DETAILS

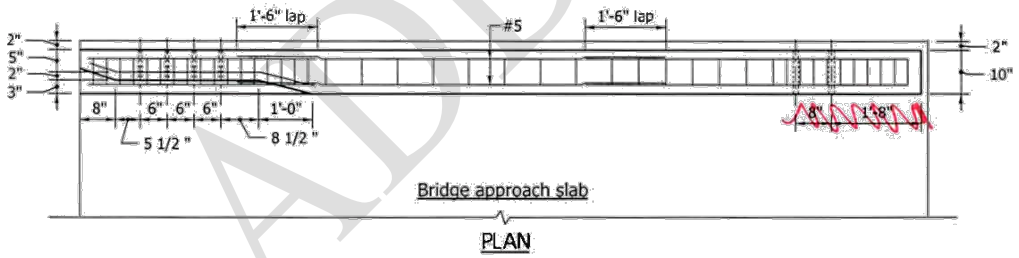
REVISION TO 706-TTBP-01 CONCRETE BRIDGE RAILING TRANSITION, TPF-1

POSS GEN NOTE?

NOTE:
1. See Standard Drawing E 706-TTBP-09 for general notes.
2. See Standard Drawing E 706-TTBP-02 for sections and reinforcing-bar digrams.
3. See Standard Drawing E 706-TTCA-01 for holes placement for terminal connector attachment



ELEVATION



PLAN

BILL OF MATERIALS, TPF-1
EPOXY-COATED REINFORCING STEEL

Mark / Size	No. of Bars	Total Length	Weight
591 x 5'-4"	25	133'-4"	
592 x 4'-8"	17	79'-4"	
593 x 4'-3"	3	12'-9"	
594 x 3'-7"	50	179'-2"	
595 x 3'-1"	17	52'-5"	
596 x 3'-0"	15	43'-0"	
#5 x 10'-9"	4	43'-0"	
#5 x 8'-0"	6	48'-0"	
#5 x 6'-0"	14	84'-0"	
#5 x 4'-3"	4	17'-0"	
Total Epoxy-Coated Reinforcing Steel		694'-2"	724 lb
MISCELLANEOUS			
Concrete, Class C			1.5 cys
Surface Seal			121 sft

INDIANA DEPARTMENT OF TRANSPORTATION

CONCRETE BRIDGE RAILING TRANSITION, TPF-1

SEPTEMBER 2009

STANDARD DRAWING NO. E 706-TTBP-01

RICHARD L. VanCLEAVE REGISTERED No. 9750 STATE OF INDIANA PROFESSIONAL ENGINEER

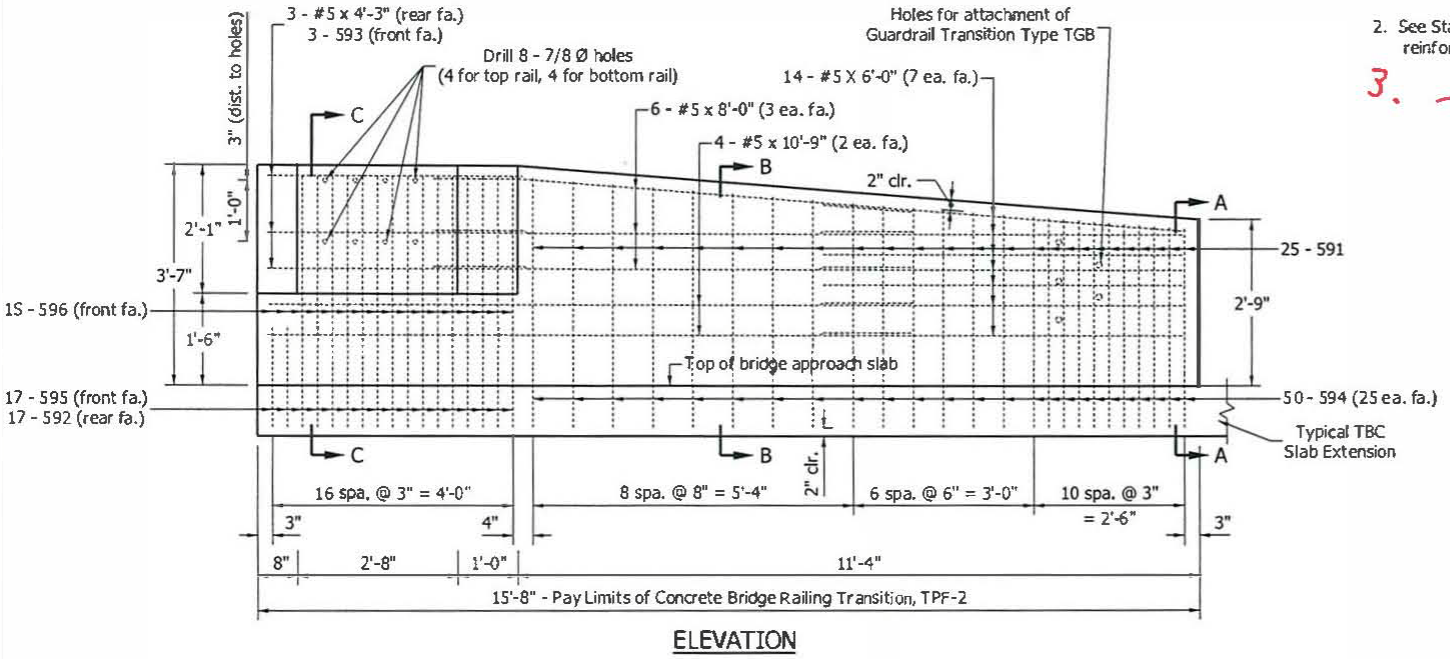
DESIGN STANDARDS ENGINEER

/s/ Richard L. VanCleave 09/01/09
DESIGN STANDARDS ENGINEER DATE

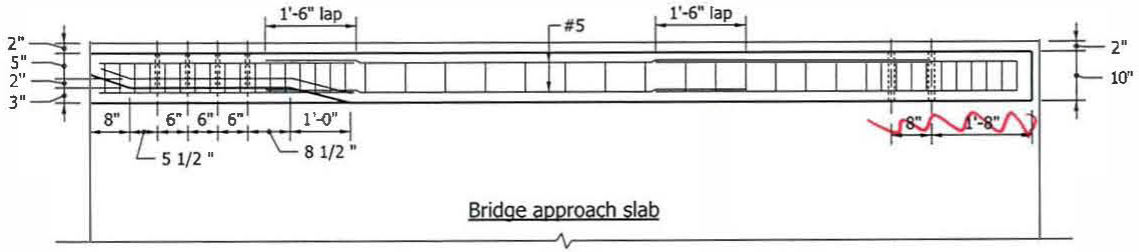
/s/ Mark A. Miller 09/01/09
CHIEF HIGHWAY ENGINEER DATE

REVISION TO THE STANDARD DRAWINGS AND RECURRING PLAN DETAILS

REVISION TO 706-TTBO-03 CONCRETE BRIDGE RAILING TRANSITION, TPF-2



ELEVATION



PLAN

Notes:

1. See Standard Drawing E 706-TTBP-09 for general notes.
2. See Standard Drawing E 706-TTBP-04 for sections and reinforcing-bar diagrams.
3. (See E 706-TTBP-01 for the note)

BILL OF MATERIALS, TPF-2
EPOXY-COATED REINFORCING STEEL

Mark / Size	No. of Bars	Total Length	Weight
591 x 5'-4"	25	133'-4"	
592 x 4'-8"	17	79'-4"	
593 x 4'-3"	3	12'-9"	
594 x 3'-7"	50	179'-2"	
595 x 2'-7"	17	43'-11"	
596 x 3'-0"	15	43'-0"	
#5 x 10'-9"	4	43'-0"	
#5 x 8'-0"	6	48'-0"	
#5 x 6'-0"	14	84'-0"	
#5 x 4'-3"	3	12'-9"	
Total Epoxy-Coated Reinforcing Steel		679'-3"	711lb
MISCELLANEOUS			
Concrete, Class C			1.5 cys
Surface Seal			121 sft

INDIANA DEPARTMENT OF TRANSPORTATION

CONCRETE BRIDGE RAILING TRANSITION, TPF-2

SEPTEMBER 2009

STANDARD DRAWING NO. E 706-TTBP-03

RICHARD L. VanCLEAVE REGISTERED No. 9750 STATE OF INDIANA PROFESSIONAL ENGINEER

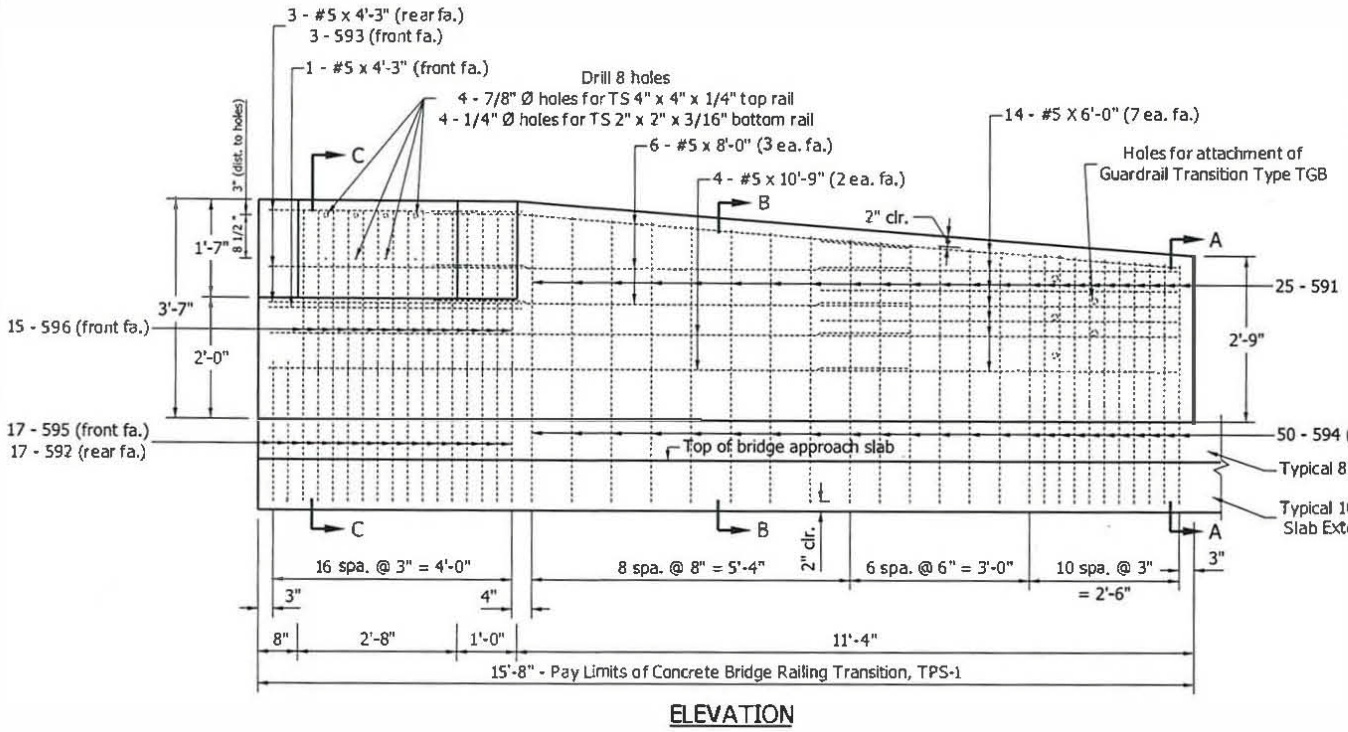
DESIGN STANDARDS ENGINEER

/s/ Richard L. VanCleave 09/01/09
DESIGN STANDARDS ENGINEER DATE

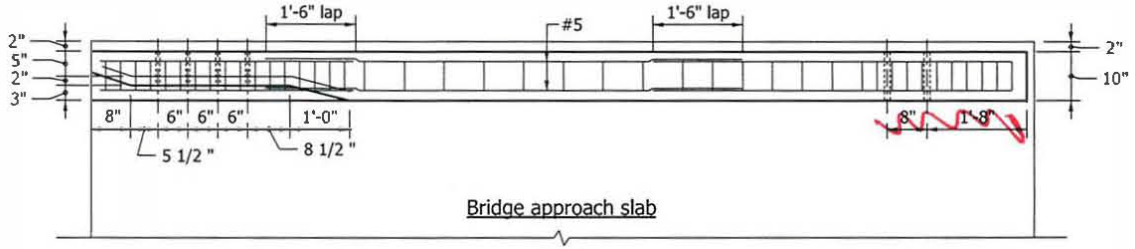
/s/ Mark R. Miller 09/01/09
CHIEF HIGHWAY ENGINEER DATE

REVISION TO THE STANDARD DRAWINGS AND RECURRING PLAN DETAILS

REVISION TO 706-TTBP-05 CONCRETE BRIDGE RAILING TRANSITION, TPS-1



ELEVATION



PLAN

Notes:

1. See Standard Drawing E 706-TTBP-09 for general notes.
2. See Standard Drawing E 706-TTBP-06 for sections and reinforcing-bar diagrams.
3. (See E-706-TTBP-01 for the note.)

BILL OF MATERIALS, TPS-1
EPOXY-COATED REINFORCING STEEL

Mark / Size	No. of Bars	Total Length	Weight
591 x 5'-4"	25	133'-4"	
592 x 5'-4"	17	90'-8"	
593 x 4'-3"	3	12'-9"	
594 x 4'-3"	50	212'-6"	
595 x 3'-9"	17	63'-9"	
596 x 3'-0"	15	45'-0"	
#5 x 10'-9"	4	43'-0"	
#5 x 8'-0"	6	48'-0"	
#5 x 6'-0"	14	84'-0"	
#5 x 4'-3"	4	17'-0"	
Total Epoxy-Coated Reinforcing Steel		750'-0"	783 lb
MISCELLANEOUS			
Concrete, Class C			1.5 cys
Surface Seal			121 sft

INDIANA DEPARTMENT OF TRANSPORTATION

CONCRETE BRIDGE RAILING TRANSITION, TPS-1

SEPTEMBER 2009

STANDARD DRAWING NO. E 706-TTBP-05

RICHARD L. VanCLEAVE REGISTERED No. 9750 STATE OF INDIANA PROFESSIONAL ENGINEER

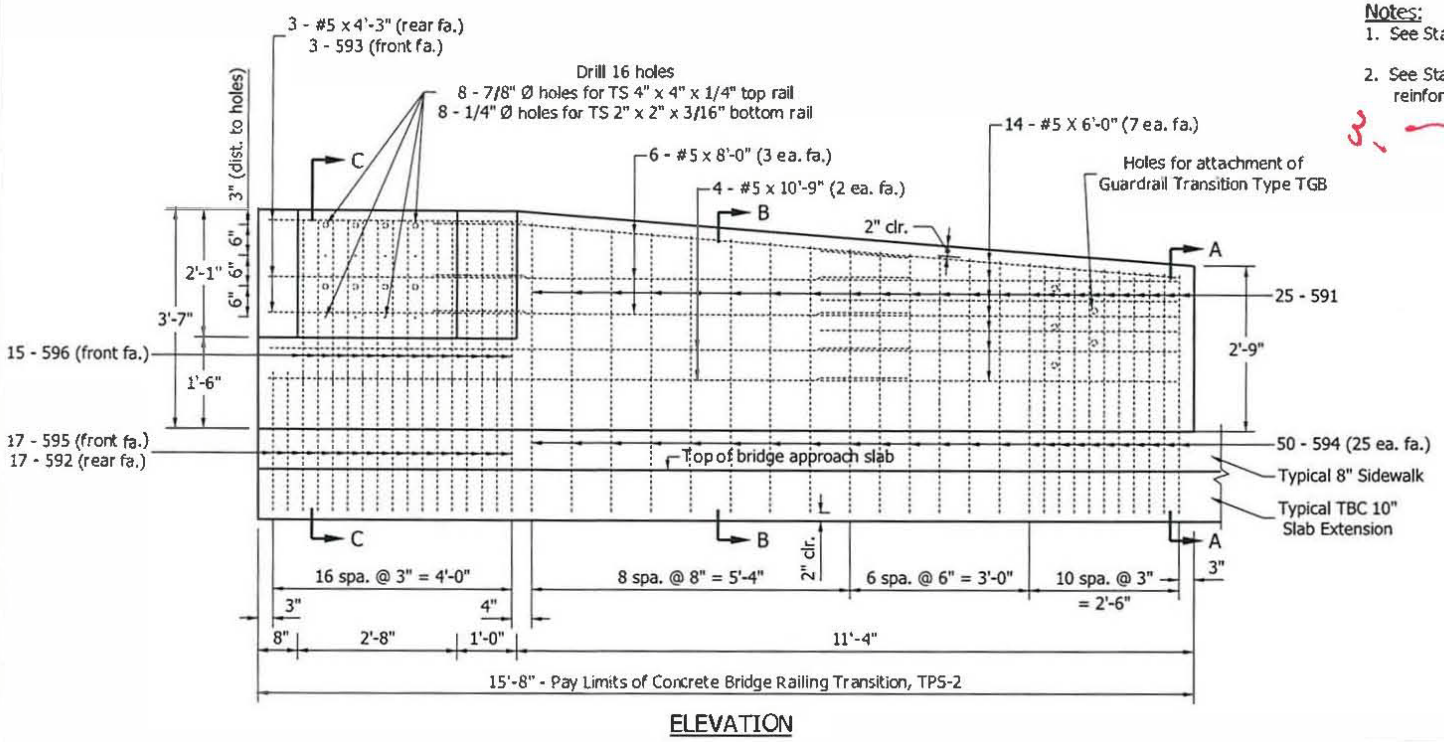
DESIGN STANDARDS ENGINEER

/s/ Richard L. VanCleave 09/01/09
DESIGN STANDARDS ENGINEER DATE

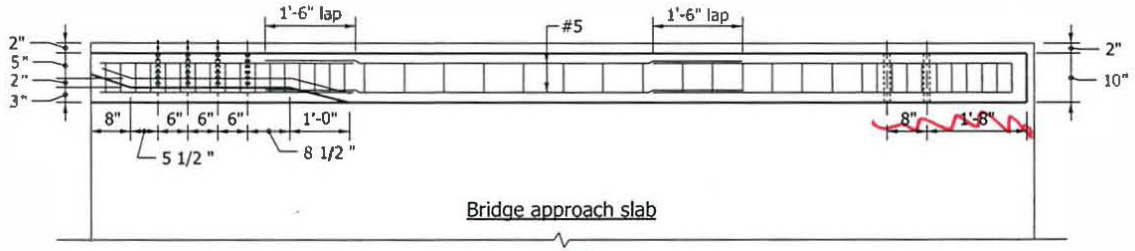
/s/ Mark A. Miller 09/01/09
CHIEF HIGHWAY ENGINEER DATE

REVISION TO THE STANDARD DRAWINGS AND RECURRING PLAN DETAILS

REVISION TO 706-TTBP-07 CONCRETE BRIDGE RAILING TRANSITION, TPS-2



ELEVATION



PLAN

Notes:
1. See Standard Drawing E 706-TTBP-09 for general notes.
2. See Standard Drawing E 706-TTBP-08 for sections and reinforcing-bar diagrams.
3. (See E-706-TTBP-01 For the note.)

BILL OF MATERIALS, TPF-2
EPOXY-COATED REINFORCING STEEL

Mark / Size	No. of Bars	Total Length	Weight
591 x 5'-4"	25	133'-4"	
592 x 5'-4"	17	90'-8"	
593 x 4'-3"	3	12'-9"	
594 x 4'-3"	50	212'-6"	
595 x 3'-3"	17	55'-3"	
596 x 3'-0"	15	45'-0"	
#5 x 10'-9"	4	43'-0"	
#5 x 8'-0"	6	48'-0"	
#5 x 6'-0"	14	84'-0"	
#5 x 4'-3"	3	12'-9"	
Total Epoxy-Coated Reinforcing Steel		737'-3"	769 lb
MISCELLANEOUS			
Concrete, Class C			1.5 cys
Surface Seal			121 sft

INDIANA DEPARTMENT OF TRANSPORTATION

CONCRETE BRIDGE RAILING TRANSITION, TPS-2

SEPTEMBER 2009

STANDARD DRAWING NO. E 706-TTBP-07

RICHARD L. VanCLEAVE REGISTERED No. 9750 STATE OF INDIANA PROFESSIONAL ENGINEER

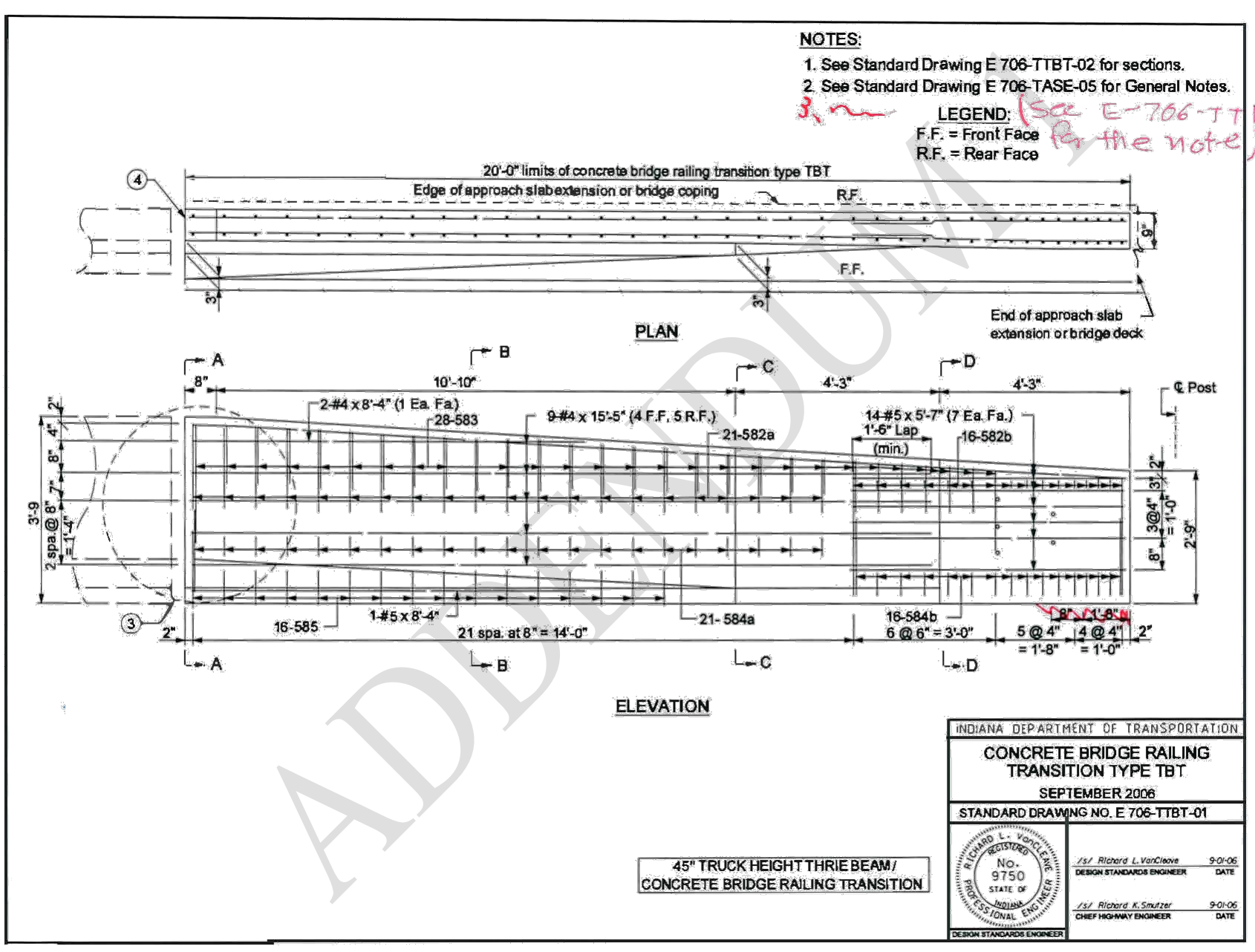
DESIGN STANDARDS ENGINEER

/s/ Richard L. VanCleave 09/01/09
DESIGN STANDARDS ENGINEER DATE

/s/ Mark A. Miller 09/01/09
CHIEF HIGHWAY ENGINEER DATE

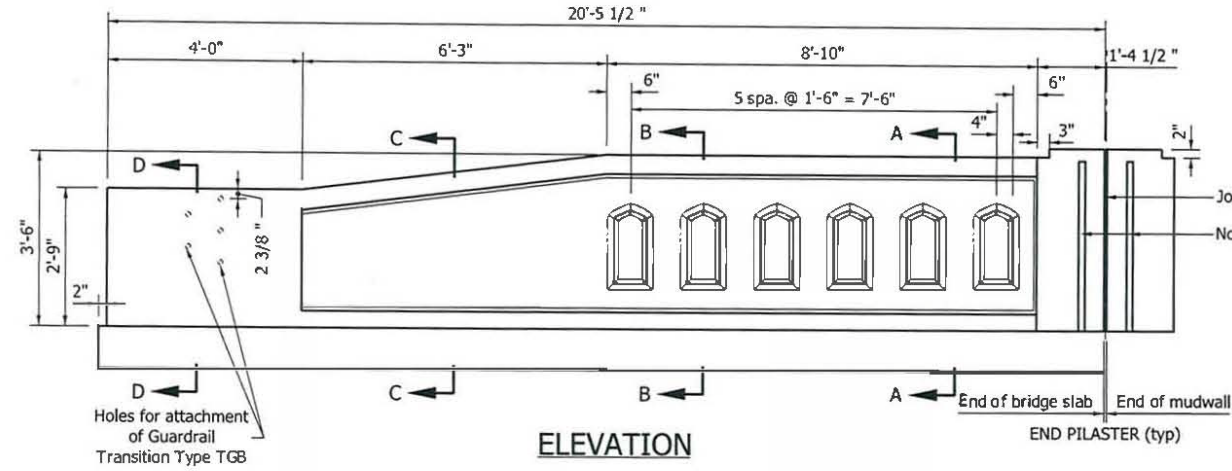
REVISION TO THE STANDARD DRAWINGS AND RECURRING PLAN DETAILS

REVISION TO 706-TTBT-01 CONCRETE BRIDGE RAILING TRANSITION TYPE TBT

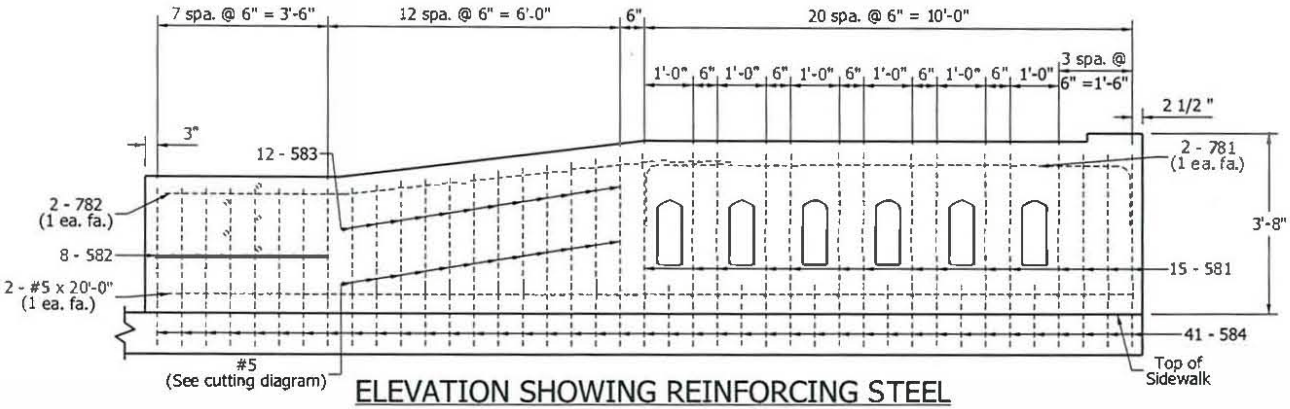


REVISION TO THE STANDARD DRAWINGS AND RECURRING PLAN DETAILS

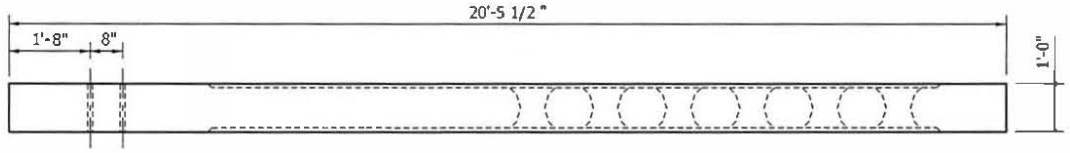
REVISION TO 706-TTTX-01 CONCRETE BRIDGE RAILING TRANSITION, TTX



ELEVATION



ELEVATION SHOWING REINFORCING STEEL



PLAN

Notes:

1. See Standard Drwaing E 706-TTBP-09 for general notes.
2. See Standard Drwaing E 706-TTTX-02 for sections reinforceing-bar diagrams, and cutting diagrams.
3. The quantities listed in the Bill of Materials are for one transition.
4. (See E-706-TTBP for the note)

BILL OF MATERIALS, TX
EPOXY-COATED REINFORCING STEEL

Mark / Size	No. of Bars	Total Length	Weight
781 x 12'-4"	2	24'-8"	
782 x 11'-9"	2	23'-6"	
Total #7		48'-4"	99lb
581 x 8'-6"	15	127'-6"	
582 x 7'-0"	8	56'-0"	
583 x 3'-8"	12	44'-0"	
584 x 3'-0"	41	123'-0"	
#5 x 20'-0"	2	40'-0"	
#5 x 5'-0"	6	30'-0"	
Total #5		420'-6"	439 lb
Total Epoxy-Coated Reinforcing Steel			538lb
MISCELLANEOUS			
Concrete, Class C			2.0 cys
Surface Seal			149 sft

INDIANA DEPARTMENT OF TRANSPORTATION

CONCRETE BRIDGE RAILING TRANSITION, TTX

SEPTEMBER 2009

STANDARD DRAWING NO. E 706-TTTX-01

RICHARD L. VanCLEAVE REGISTERED No. 9750 STATE OF INDIANA PROFESSIONAL ENGINEER

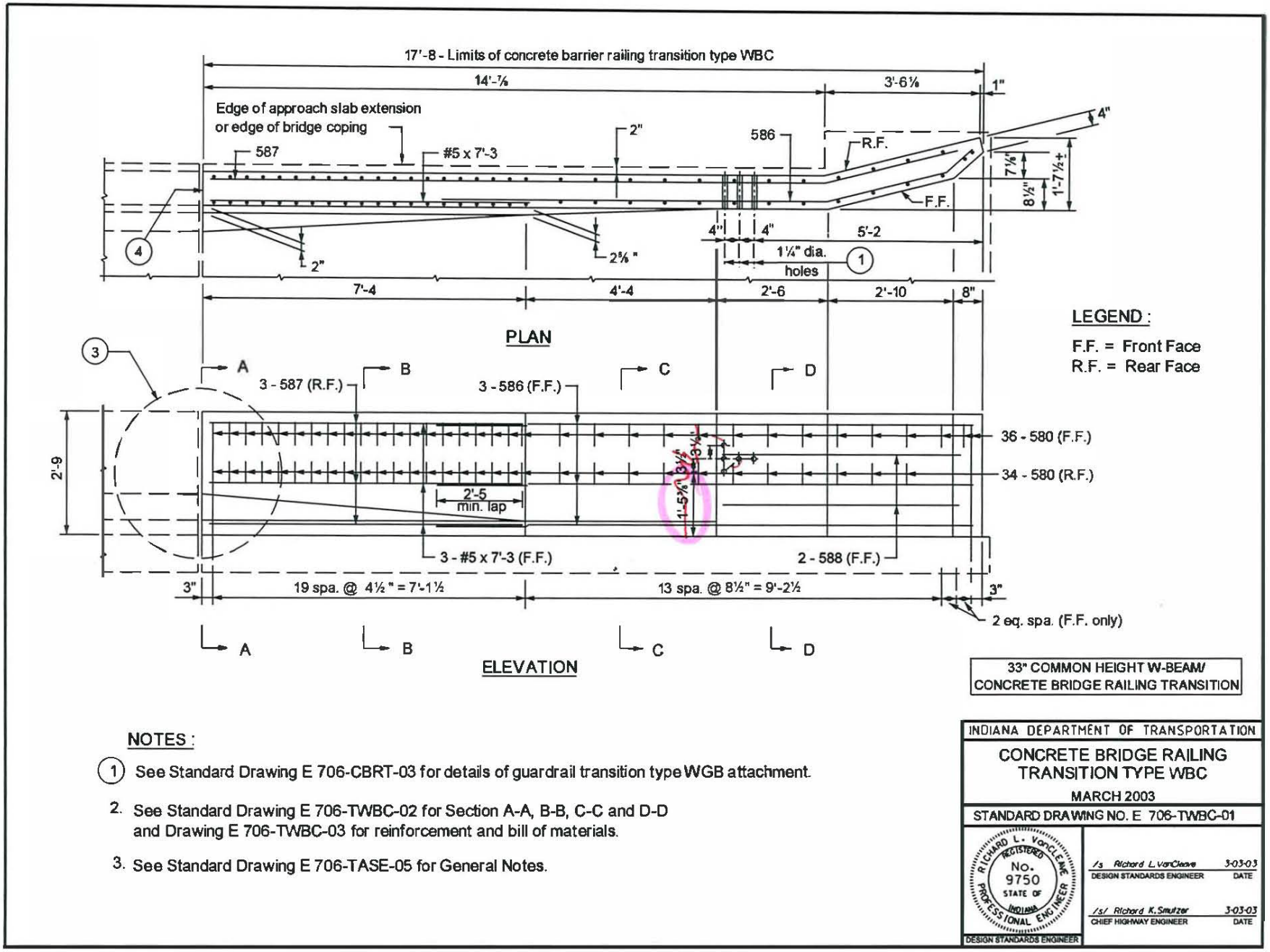
DESIGN STANDARDS ENGINEER

/s/ Richard L. VanCleave 09/01/09
DESIGN STANDARDS ENGINEER DATE

/s/ Mark A. Miller 09/01/09
CHIEF HIGHWAY ENGINEER DATE

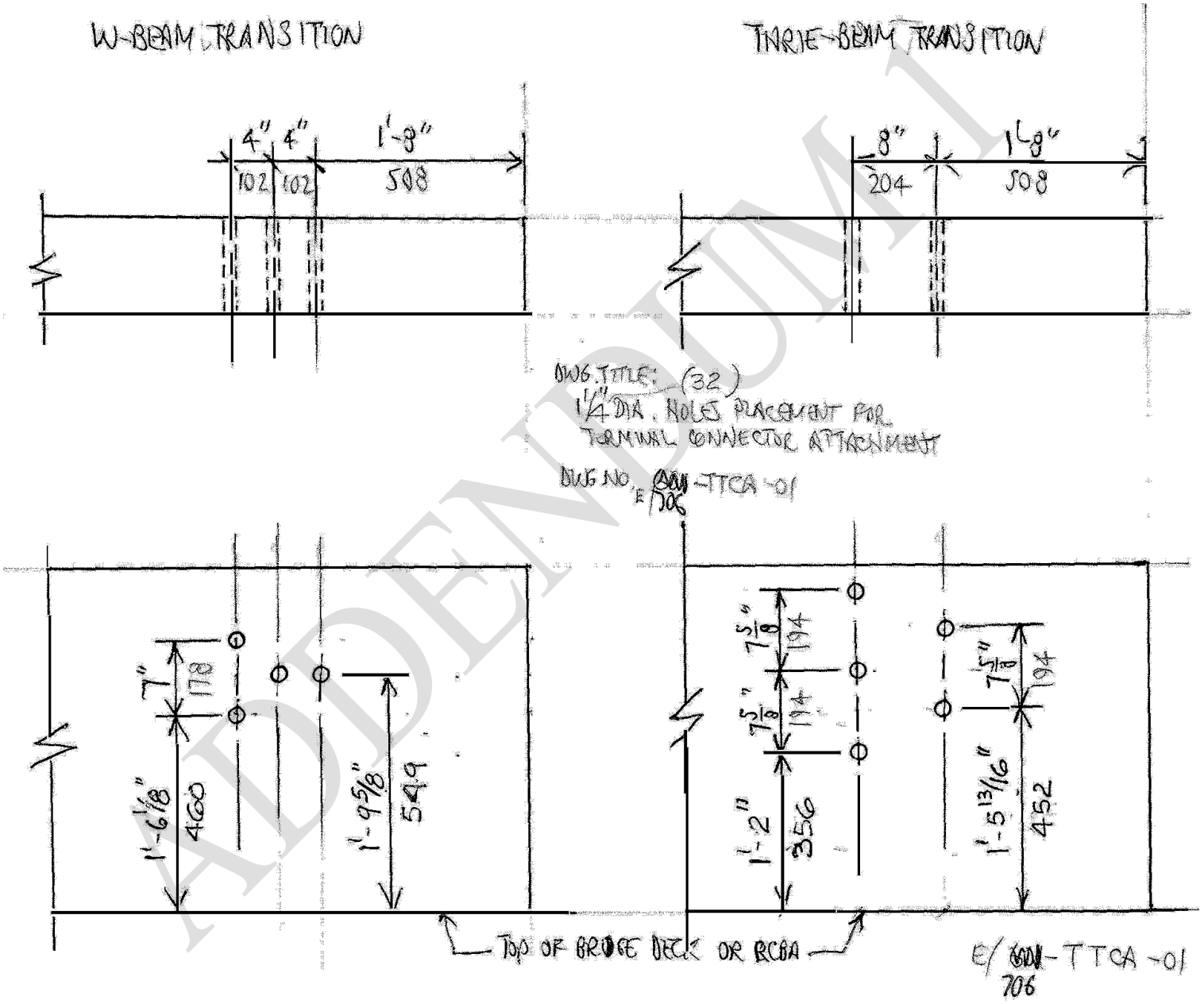
REVISION TO THE STANDARD DRAWINGS AND RECURRING PLAN DETAILS

REVISION TO 706-TWBC-01 CONCRETE BRIDGE RAILING TRANSITION TYPE WBC



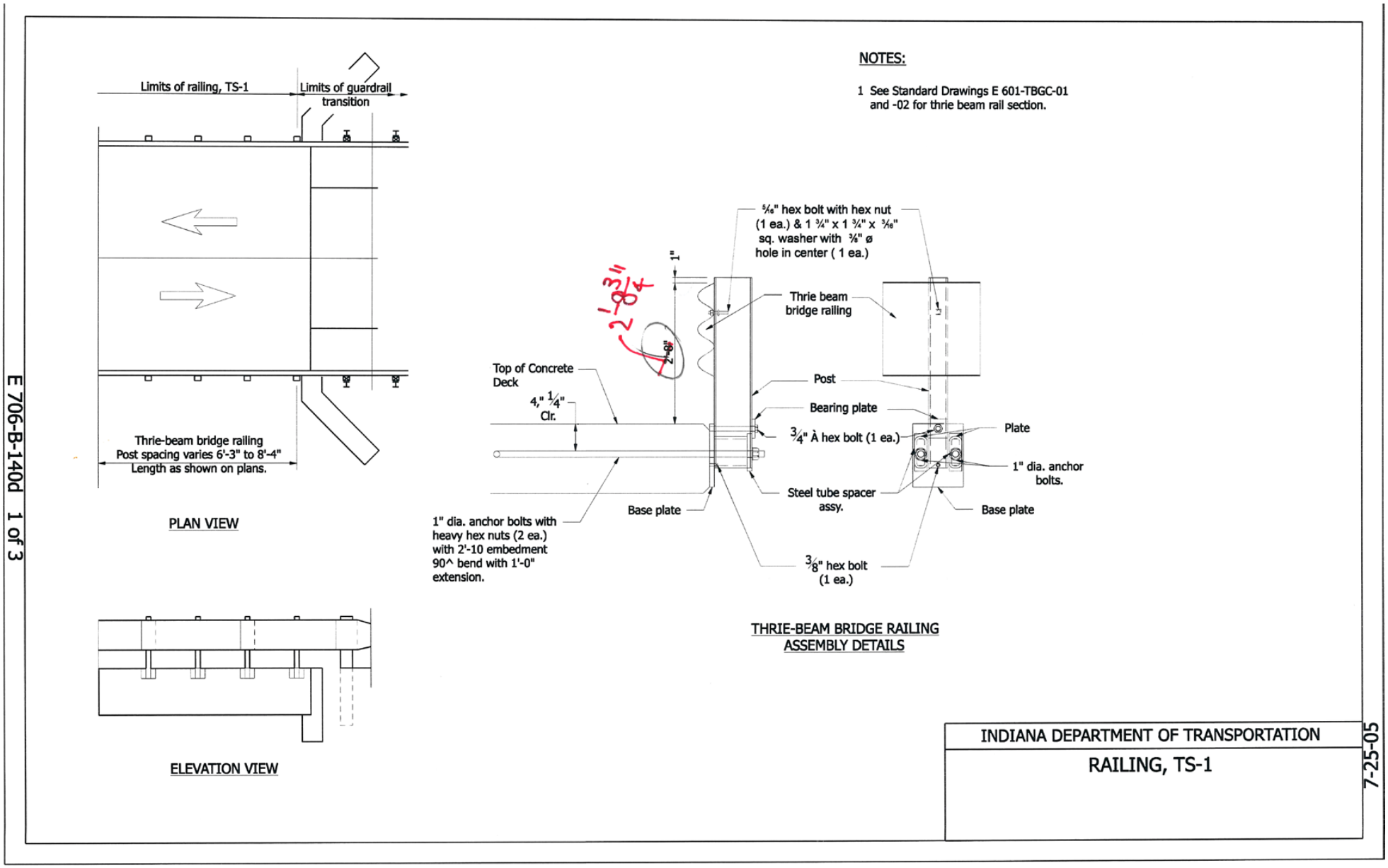
REVISION TO THE STANDARD DRAWINGS AND RECURRING PLAN DETAILS

PROPOSED NEW DRAWING 706-TTCA-01 1 1/4" DIAMETER HOLES PLACEMENT FOR TERMINAL CONNECTOR ATTACHMENT(DRAFT)



REVISION TO THE STANDARD DRAWINGS AND RECURRING PLAN DETAILS

REVISION TO RECURRING PLAN DETAILS 706-B-140d BRIDGE RAILING TYPE TS-1 & GUARDRAIL TRANSITION TYPE TGS-1 (PAGE 1 OF 3)



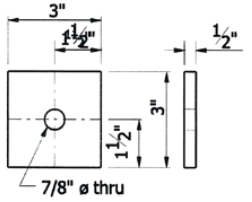
REVISION TO THE STANDARD DRAWINGS AND RECURRING PLAN DETAILS

REVISION TO RECURRING PLAN DETAILS 706-B-140d BRIDGE RAILING TYPE TS-1 & GUARDRAIL TRANSITION TYPE TGS-1 (PAGE 2 OF 3)

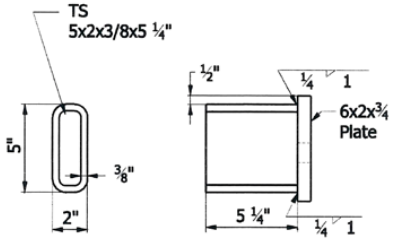
E 706-B-140d 2 of 3

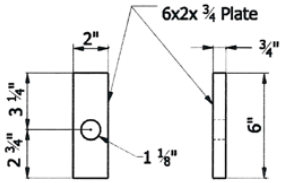
NOTES:

① Post length may vary. If the 1" ø anchor bolts in the deck must be lowered to accommodate the deck reinforcing steel, the steel base plate shall be lowered and the post length increased.

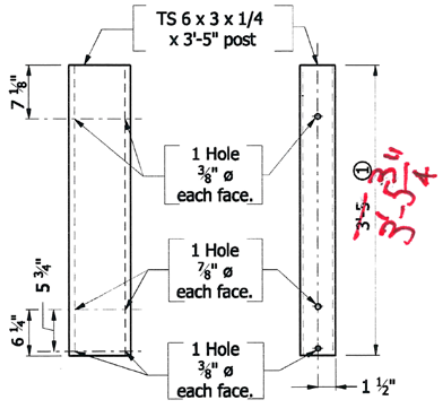


BEARING PLATE

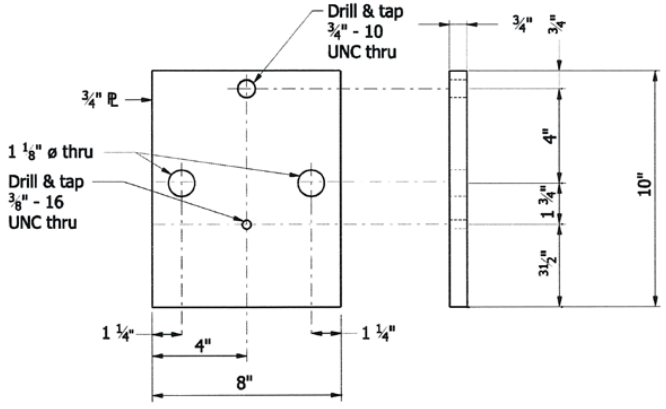




STEEL TUBE SPACER ASSEMBLY



SECTION REAR VIEW



BASE PLATE

BRIDGE STEEL POST DETAIL

INDIANA DEPARTMENT OF TRANSPORTATION

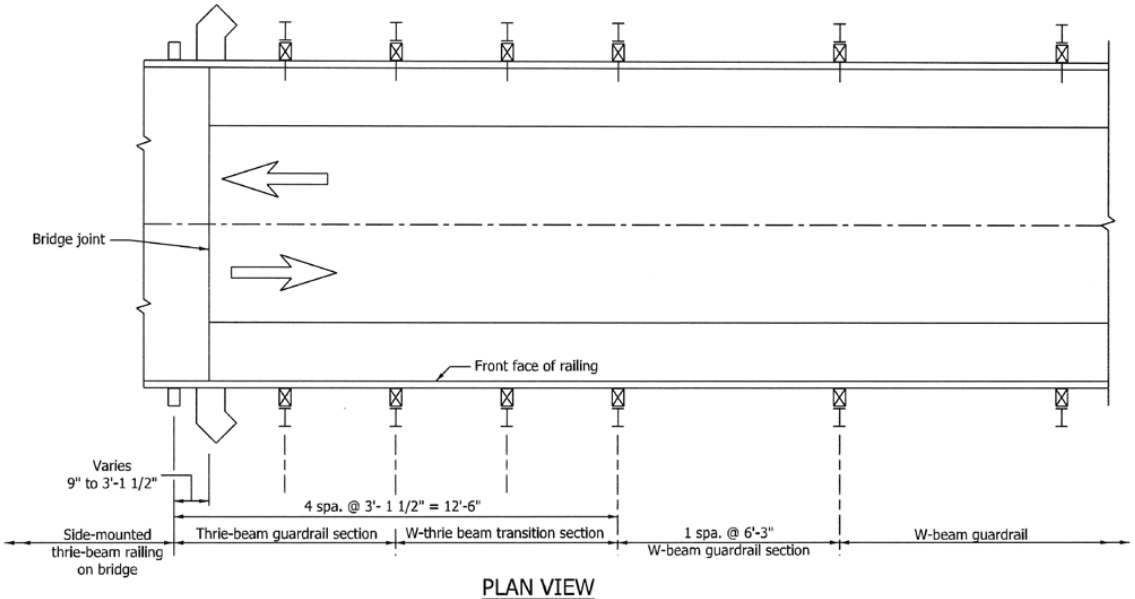
RAILING, TS-1

7-25-05

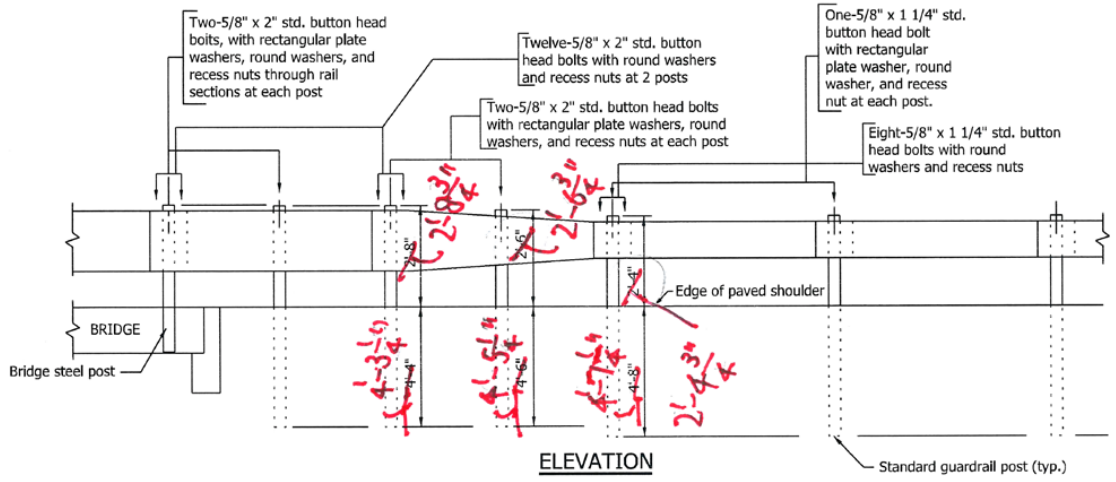
REVISION TO THE STANDARD DRAWINGS AND RECURRING PLAN DETAILS

REVISION TO RECURRING PLAN DETAILS 706-B-140d BRIDGE RAILING TYPE TS-1 & GUARDRAIL TRANSITION TYPE TGS-1 (PAGE 3 OF 3)

E 706-B-140d 3 of 3



PLAN VIEW



ELEVATION

NOTES:

1. See Reccurring Plan Detail E 706-B-140d 1 of 3, for bridge Steel Post Detail.
2. See Standard Drawings E 601-TBGC-01 and E 601-TBGC-02 for thrie-beam guardrail components.
3. See Standard Drawings E 601-WBGC-01, E 601-WBGC-02 and E 601-WBGC-03 for W-beam guardrail components.

INDIANA DEPARTMENT OF TRANSPORTATION

GUARDRAIL TRANSITION, TGS-1

9-1-10

REVISION TO THE STANDARD DRAWINGS AND RECURRING PLAN DETAILS

REVISION TO RECURRING PLAN DETAILS 706-B-140d BRIDGE RAILING TYPE TS-1 & GUARDRAIL TRANSITION TYPE TGS-1 (PAGE 3 OF 3)

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COMMENTS AND ACTION

REVISION TO THE STANDARD DRAWINGS AS LISTED ON A PROPOSAL SHEET
REVISION TO RECURRING PLAN DETAILS 706-B-140d BRIDGE RAILING TYPE TS-1 & GUARDRAIL TRANSITION TYPE TGS-1

Motion: Second: Ayes: Nays:	Action: ____ Passed as Submitted ____ Passed as Revised ____ Withdrawn
Standard Specifications Sections affected: NONE Recurring Plan Details affected: 706-B-140d Standard Sheets affected: AS LISTED ON PROPOSAL SHEET Design Manual Sections affected: None GIFE Sections cross-references: NONE	____ 20__ Standard Specifications Book ____ Create RSP (No.____) Effective ____Letting RSP Sunset Date: ____ ____ Revise RSP (No.____) Effective ____Letting RSP Sunset Date: ____ Standard Drawing Effective ____ ____ Create RPD (No. ____) Effective ____Letting ____ Technical Advisory GIFE Update Req'd.? Y ___ N ___ By ____ Addition or ____ Revision Frequency Manual Update Req'd? Y__N__ By ____ Addition or ____ Revision Received FHWA Approval? ____

ADDENDUM 1
Mr. Walker
Date: 09/16/10

SPECIFICATION REVISIONS

REVISION TO THE STANDARD SPECIFICATIONS

PROPOSAL TO STANDARDS COMMITTEE

PROBLEM(S) ENCOUNTERED: Section 906.02(a)1 requires that Hot Poured Joint Sealants (Type II) be tested by Materials Management and pre-approved if passing tests are obtained. Section 906.02(a)4 requires that Asphalt Rubber Sealants (Type I) be accepted by a Type A Certification. PG binders are selected for low temperature performance in our climate at -22C. Type II sealants are tested at -29C and Type I sealants are tested at -18C. There is no specification or design guidance on which materials are to be used and Materials Management would prefer to pre-test these materials and not allow Type I sealants that do not span our low temperature requirements.

PROPOSED SOLUTION: A revision to 906.02 is required to delete the section allowing Asphalt Rubber Sealants (Type I).

APPLICABLE STANDARD SPECIFICATIONS: 906.02

APPLICABLE STANDARD DRAWINGS: None

APPLICABLE DESIGN MANUAL SECTION: None

APPLICABLE SECTION OF GIFE: Section 13

APPLICABLE RECURRING SPECIAL PROVISIONS: None

Submitted By: Ron Walker

Title: Manager, Office of Materials Management

Organization: INDOT

Phone Number: 317-610-7251x204

Date: September 1, 2010

APPLICABLE SUB-COMMITTEE ENDORSEMENT?
Revisions recommended by the Office of Materials Management and the Pavement Preservation Committee.

REVISION TO THE STANDARD SPECIFICATIONS

SECTION 906 – JOINT MATERIALS
REVISION TO 906.02(a)4 ASPHALT RUBBER SEALANT
REVISION TO 906.02(a)5 POLYCHLOROPRENE JOINT MEMBRANE AND ADHESIVE

The Standards Specifications are revised as follows:

SECTION 906, BEGIN LINE 78, DELETE AND INSERT AS FOLLOWS:

~~**4. Asphalt Rubber Sealant**~~

~~**a. Requirements**~~

~~The asphalt rubber sealant shall be a single component asphalt sealant that contains a minimum of 18% recycled rubber by weight of asphaltic components. Seventy percent of the rubber shall be ground reclaimed rubber. The asphalt rubber sealant shall be in accordance with ASTM D 6690, type I.~~

~~**b. Packaging**~~

~~The asphalt rubber sealant shall be delivered in the manufacturer's original sealed packaging. Each container shall be marked legibly with the manufacturer's name, name of material, the batch or lot number, the expiration date, the recommended pouring temperature, and the safe heating temperature.~~

~~**c. Installation**~~

~~The rubber asphalt sealant shall be installed in accordance with manufacturer's recommendations. The backer rod shall be in accordance with manufacturer's specifications and 906.02(b) if a backer rod is required.~~

~~**d. Certification**~~

~~The Contractor shall supply a type A certification in accordance with 916 for each batch or lot of material furnished.~~

~~5~~*4*. Polychloroprene Joint Membrane and Adhesive

Polychloropr*e*ne joint membrane shall be general purpose, heavy duty polychloropr*e*ne sheeting with nylon fabric reinforcement. The sheeting shall be in accordance with the following:

COMMENTS AND ACTION

REVISION TO 906.02(a)4 ASPHALT RUBBER SEALANT
REVISION TO 906.02(a)5 POLYCHLOROPRENE JOINT MEMBRANE AND ADHESIVE

Motion: Second: Ayes: Nays:	Action: ____ Passed as Submitted ____ Passed as Revised ____ Withdrawn
Standard Specifications Sections affected: 408.05 pg 270; 507.03 pg 337; 507.04 pg 338; 906 pg 785, 786. Recurring Special Provision affected: 408-R-564 SEALING CRACKS AND JOINTS Standard Sheets affected: NONE Design Manual Sections affected: None GIFE Sections cross-references: SECTION 13	____ 20__ Standard Specifications Book ____ Create RSP (No.____) Effective ____Letting RSP Sunset Date: ____ ____ Revise RSP (No.____) Effective ____Letting RSP Sunset Date: ____ Standard Drawing Effective ____ ____ Create RPD (No. ____) Effective ____Letting ____ Technical Advisory GIFE Update Req'd.? Y ___ N ___ By ____ Addition or ____ Revision Frequency Manual Update Req'd? Y__N__ By ____ Addition or ____ Revision Received FHWA Approval? ____

ADDENDUM 1
Mr. Walker
Date: 09/16/10

SPECIFICATION REVISIONS

REVISION TO THE STANDARD SPECIFICATIONS

PROPOSAL TO STANDARDS COMMITTEE

PROBLEM(S) ENCOUNTERED: Longitudinal joint performance has been a problem with HMA pavements by allowing water to penetrate the joint and eventually cause stripping of the underlying HMA layers, and deterioration of the joint. Also, low density of the HMA adjacent to the joint may allow water to penetrate this area resulting in the same problems. Sealing the joint to prevent this water intrusion and requiring a minimum density within a designated distance from the joint would improve the joint performance.

PROPOSED SOLUTION: A Special Provision to require a joint adhesive and obtain informational cores for determination of the joint density is required as follows:

1. A joint adhesive material would be required for longitudinal joints constructed in the top course of dense graded intermediate mixtures and all surface mixture courses. This would include joints within the traveled way as well as as between the traveled way and an auxiliary lane, traveled way and a paved shoulder, and an auxiliary lane and a paved shoulder.

2. Two additional informational cores would be obtained at the same station as the density acceptance cores. The center of 1 core shall be located 6 in. from the left edge of the course being laced and the center of the other core shall be located 6 in. from the right edge of the course being placed. These cores will not be used to determine the density pay factor.

APPLICABLE STANDARD SPECIFICATIONS: 401

APPLICABLE STANDARD DRAWINGS: None

APPLICABLE DESIGN MANUAL SECTION: None

APPLICABLE SECTION OF GIFE: Section 13

APPLICABLE RECURRING SPECIAL PROVISIONS: None

Submitted By: Ron Walker

Title: Manager, Office of Materials Management

Organization: INDOT

Phone Number: 317-610-7251x204

Date: September 1, 2010

APPLICABLE SUB-COMMITTEE ENDORSEMENT?
Revisions recommended by the INDOT/APAI Longitudinal Joint Density Committee.

REVISION TO THE SPECIAL PROVISION

PROPOSED RECURRING SPECIAL PROVISION 401-R-XXX JOINT ADHESIVE AND INFORMATIONAL CORES

401-R-XXX JOINT ADHESIVE AND INFORMATIONAL CORES

(Adopted XX-XX-XX)

SECTION 401, AFTER LINE 8, INSERT AS FOLLOWS:

Joint adhesive is a hot applied asphalt material that is used to seal the construction joint formed between the adjacent HMA pavement courses.

SECTION 401, AFTER LINE 31, INSERT AS FOLLOWS:

Joint adhesive shall meet the following material requirements.

Test	*Method*	*Test Results*
Softening Point, ^{o}F (^{o}C)	*AASHTO T 51*	*170 (77) minimum*
Ductility @ 77 ^{o}F (25 ^{o}C) (5 cm/min)	*AASHTO T 51*	*> 30*
Ductility @ 39 ^{o}F (4 ^{o}C) (5 cm/min)	*AASHTO T 51*	*> 30*
Apparent Viscosity, cp, @ 400 ^{o}F (230°C)	*ASTM D 2669*	*4,000 – 10,000*
Asphalt Compatibility	*AASHTO M 301*	*Pass*
Cone Penetration, mm	*AASHTO M 301*	*60.0 – 100.0*
Flow, mm	*AASHTO M 301*	*< 5*
Resilience @ 77 ^{o}F (25 ^{o}C), %	*AASHTO M 301*	*> 30*
Tensile Adhesion @ 77 ^{o}F (25 ^{o}C)	*AASHTO M 301*	*> 500*
Flexibility @ 0 ^{o}F (-18 ^{o}C)	*ASTM D 3111*	*Pass*
Flash Point, ^{o}F (^{o}C)	*AASHTO T 48*	*> 410 (210)*

The adhesive will be accepted by type A certification in accordance with 916 for each batch or lot of material furnished.

SECTION 401, AFTER LINE 342, INSERT AS FOLLOWS:

Joint adhesive shall be applied to longitudinal joints constructed in the top course of dense graded intermediate mixtures and all surface mixture courses. This includes joints within the traveled way as well as between any of the following: traveled way and an auxiliary lane, traveled way and a paved shoulder, and auxiliary lane and a paved shoulder.

The material shall be heated in a jacketed, double boiler melting kettle. The kettle shall have an attached pressure feed wand system with applicator shoe.

The joint adhesive shall be applied to the face of the previously constructed edge at the joint using a wand applicator. Prior to application of the joint adhesive, the joint face shall be dry and free of loose material and foreign objects. The adhesive shall be applied on the joint face 1/8 in. (3 mm) thick at the temperature recommended by the manufacturer. Excess joint adhesive shall not be allowed to pool on the top of the previously constructed pavement course or the pavement to be overlaid. The application of the adhesive shall be made within the same day, but at least 15 min prior to construction of the longitudinal joint.

REVISION TO THE SPECIAL PROVISION

PROPOSED RECURRING SPECIAL PROVISION 401-R-XXX JOINT ADHESIVE AND INFORMATIONAL CORES (CONTINUED)

SECTION 401, BEGIN LINE 362, DELETE AND INSERT AS FOLLOWS:

Density acceptance by cores will be based on samples obtained from ~~two~~ *2* random locations selected by the Engineer within each sublot in accordance with ITM 802. One core shall be cut at each random location in accordance with ITM 580. The transverse core location will be located so that the edge of the core will be no closer than ~~3~~ *12* in. (~~75~~ *300* mm) from ~~a confined edge or 6 in. (150 mm) from a non-confined~~ *the* edge of the course being placed. The maximum specific gravity will be determined from the samples obtained in 401.09.

In addition, 2 informational cores shall be obtained at the same station as the density acceptance cores. The center of 1 core shall be located 6 in. (150 mm) from the left edge of the course being placed and the center of the other core shall be located 6 in. (150 mm) from the right edge of the course being placed. These informational cores will not be used in the density pay factor determination.

SECTION 401, AFTER LINE 667, INSERT AS FOLLOWS:

Joint adhesive will be measured by the linear foot in accordance with 109.01(a).

SECTION 401, AFTER LINE 681, INSERT AS FOLLOWS:

Joint adhesive will be paid for by the linear foot, complete in place.

SECTION 401, AFTER LINE 685, INSERT AS FOLLOWS:

Joint Adhesive .....LFT

COMMENTS AND ACTION

RECURRING SPECIAL PROVISION 401-R-XXX JOINT ADHESIVE AND INFORMATIONAL CORES

Motion: Second: Ayes: Nays:	Action: ____ Passed as Submitted ____ Passed as Revised ____ Withdrawn
Standard Specifications Sections affected: SECTION 401 Recurring Special Provision affected: NONE Standard Sheets affected: NONE Design Manual Sections affected: None GIFE Sections cross-references: SECTION 13	____ 20__ Standard Specifications Book ____ Create RSP (No.____) Effective ____Letting RSP Sunset Date: ____ ____ Revise RSP (No.____) Effective ____Letting RSP Sunset Date: ____ Standard Drawing Effective ____ ____ Create RPD (No. ____) Effective ____Letting ____ Technical Advisory GIFE Update Req'd.? Y ___ N ___ By ____ Addition or ____ Revision Frequency Manual Update Req'd? Y__N__ By ____ Addition or ____ Revision Received FHWA Approval? ____