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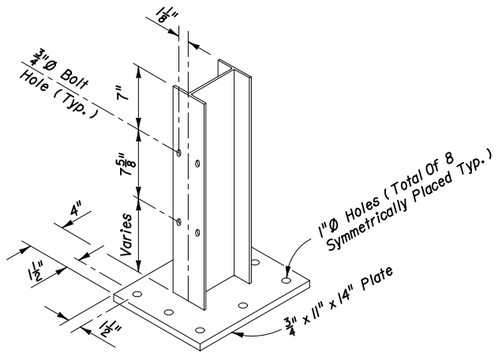


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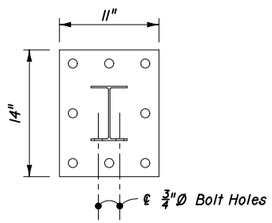
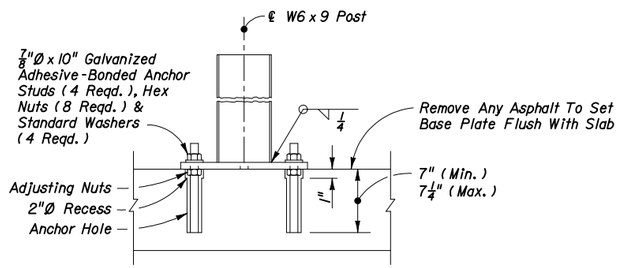
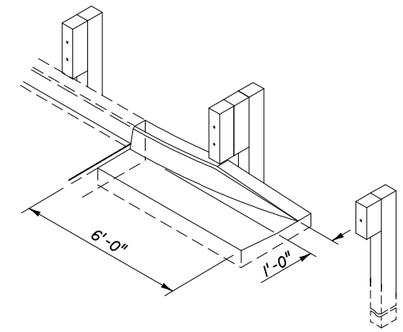



TOP VIEW




SIDE VIEW

# SPECIAL STEEL POST FOR ROADWAY THRIE-BEAM TRANSITIONS TO BRIDGE RETROFIT TRAFFIC RAILINGS




# CURB TYPE F FLARE WHEN END OF EXISTING APPROACH SLAB CURB EXPOSED

## NOTES FOR GUARDRAIL TRANSITIONS CONNECTING TO TRAFFIC RAILING RETROFITS ON EXISTING BRIDGES

1. This index is a supplement to 'DETAIL E', Index No. 400 (Sheet 13 of 32), 'Design Standards' booklet, January 2002.

2. This index provides thrie-beam guardrail transition details for Bridge Traffic Railing Retrofit schemes in Structures Index Nos. 771, 772 through 777, 781 and 782 through 785.

3. All transition schemes shown on this index have the same numerical identification as the schemes for the Structures indexes listed above.

4. The transition detail shown on this sheet shows (a) the standard post spacings within the typical thrie-beam approach transitions connecting to existing bridges with retrofit traffic railing barriers, and (b) depict the typical alignments of the approach transitions.

5. The curb and gutter flare shown on this sheet is typical of flares that are to be constructed when approach slab curbs extend to the beginning of the slab, and where other treatment to curb blunt ends are not in place.

6. The special steel post for roadway transitions detailed on this sheet is specific to all transition applications on this index that require one or more steel posts.

   The special steel post and base plate assembly shall be fabricated using ASTM A36 or ASTM A709 Grade 36 steel. Welding shall conform to ANSI/AASHTO/AWS D1.5. The assembly shall be hot-dip zinc coated in accordance with Section 536 of the Specifications.

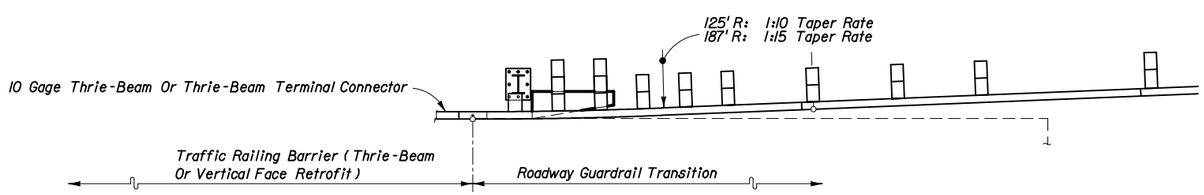
   Anchor studs shall be fully threaded rods in accordance with ASTM F1554 Grade 36 or ASTM A193 Grade B7. All nuts shall be heavy hex in accordance with ASTM A563 or ASTM A194. Anchor studs and nuts shall be hot-dip zinc coated in accordance with the Specifications. After the nuts have been snug tightened, the anchor stud threads shall be single punch distorted immediately above the top nuts to prevent loosening of the nuts. Distorted threads shall be coated with a galvanizing compound in accordance with the Specifications.

   Adhesive bonding material systems for anchors shall comply with Specification Section 937 and be installed in accordance with Specification Section 416.

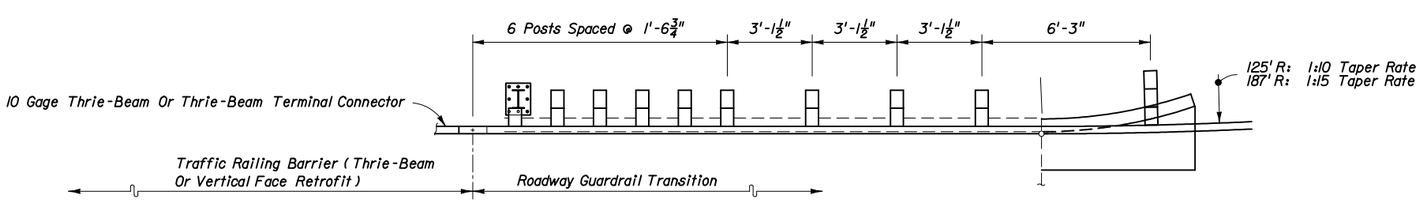
7. Trailing end guardrail connections to retrofit traffic railing barriers are shown on the last sheet of this index.

8. For vertical face retrofit barriers nested beam extensions and points for terminal connector attachments will vary. The plan views for the vertical face retrofit barriers show the primary configurations for each particular scheme. The associated pictorial views show the variations.

9. Payment for connections to vertical face retrofit traffic barriers are to be made under the contract unit price for Bridge Anchorage Assemblies, EA.




APPROACH SLAB WITHOUT CURB




APPROACH SLAB WITH CURB

Longitudinal Location Of Transition Blocks And Curb End Flares Will Vary With Scheme Type

PARTIAL PLAN VIEWS

# GUARDRAIL TRANSITION ALIGNMENTS FOR BRIDGE THRIE-BEAM AND VERTICAL FACE BARRIER RETROFIT

## DESIGN NOTES

1. For selection of an appropriate transition scheme, see Structures Instruction Index Nos. I-770 and I-780 for instructions to the Structures and Roadway engineers.

2. For projects with bridge traffic railing retrofits based on Structures Index Series 770 and 780, the plans can make reference to this index in part or in whole. Only the index sheets applicable to the selected scheme(s) for the project must be included in the plans, however, index sheets 1 and 25 of 25 must always be included.

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INTERIM STANDARD IN ENGLISH UNITS APPLICABLE TO DESIGN STANDARDS BOOKLET PUBLISHED IN ENGLISH UNITS.

# DETAIL E

Revised: 01-22-03

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

GUARDRAIL

INTERIM STANDARD

SHEET NOS. 1 - 25 OF 25 ARE A SUPPLEMENT TO INDEX NO. 400 (SHEET 13 OF 32) OF THE DESIGN STANDARDS, BOOKLET DATED JANUARY 2002.

APPROVED BY

Roadway Design Engineer

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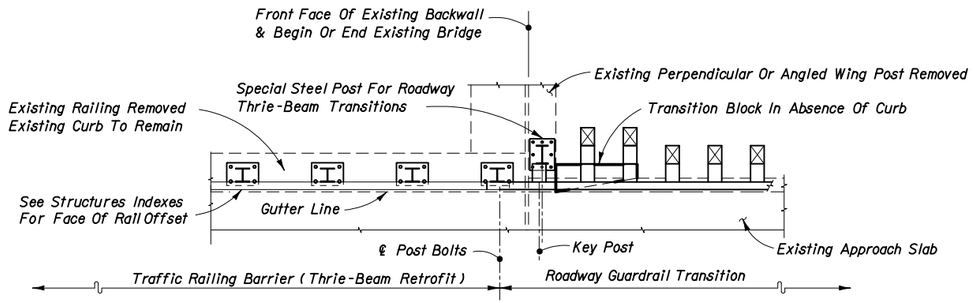
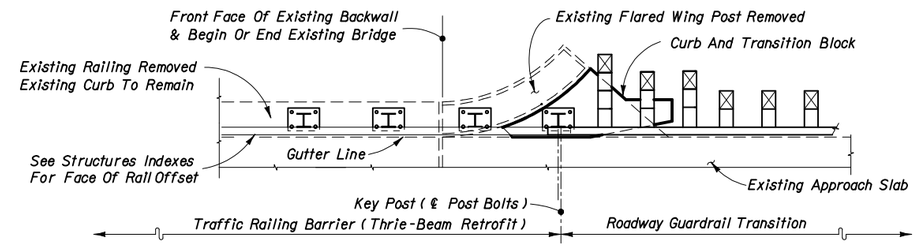



SEE STRUCTURES INDEX NO. 772 - SCHEME 1

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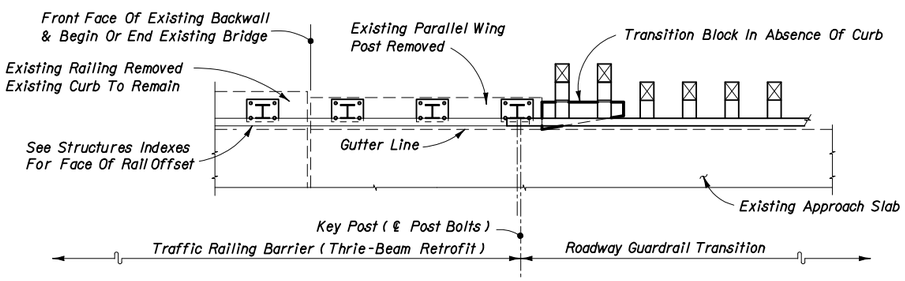


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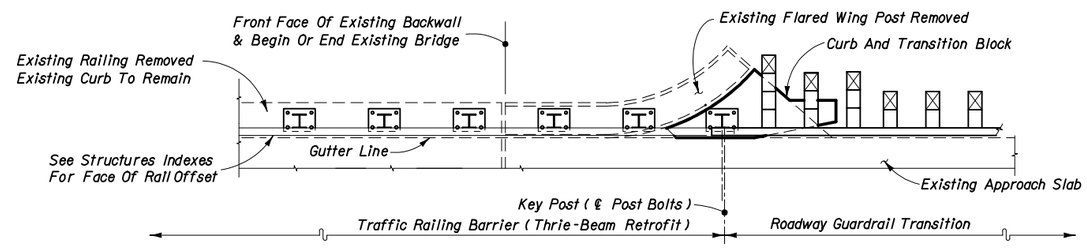


SEE STRUCTURES INDEX NO. 772 - SCHEME 3

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# PARTIAL PLAN VIEWS OF GUARDRAIL APPROACH TRANSITIONS AND CONNECTIONS FOR BRIDGE TRAFFIC RAILING BARRIER ( THRIE-BEAM RETROFIT )

# DETAIL E

Date: 12-31-02

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

GUARDRAIL

INTERIM STANDARD

SHEET NOS. 1 - 25 OF 25 ARE A SUPPLEMENT TO INDEX NO. 400 ( SHEET 13 OF 32 ) OF THE DESIGN STANDARDS, BOOKLET DATED JANUARY 2002.

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| REVISION NO. | SHEET NO. | INDEX NO. |
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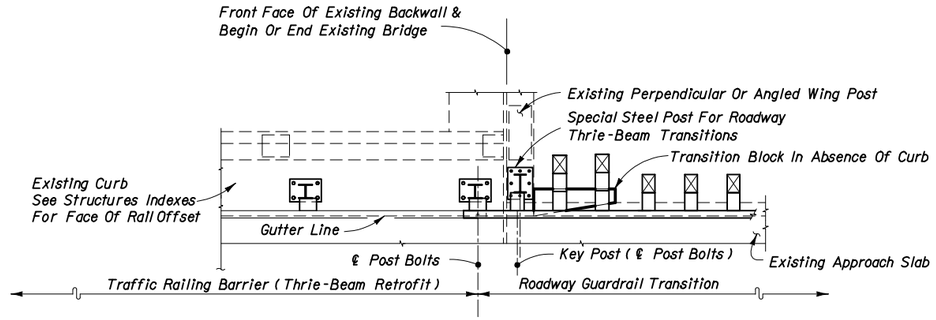


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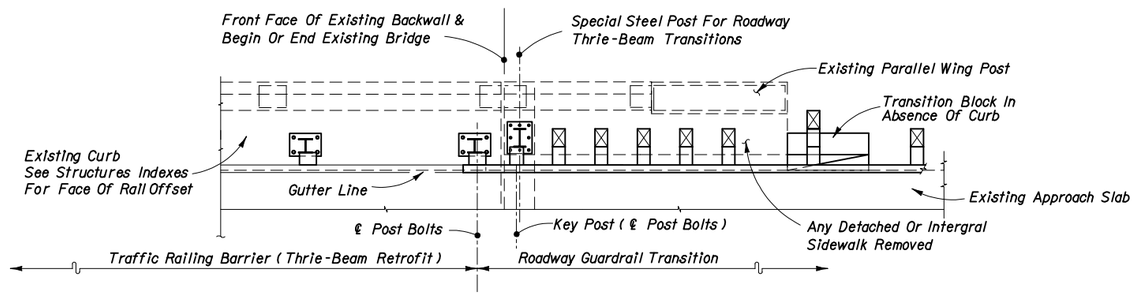


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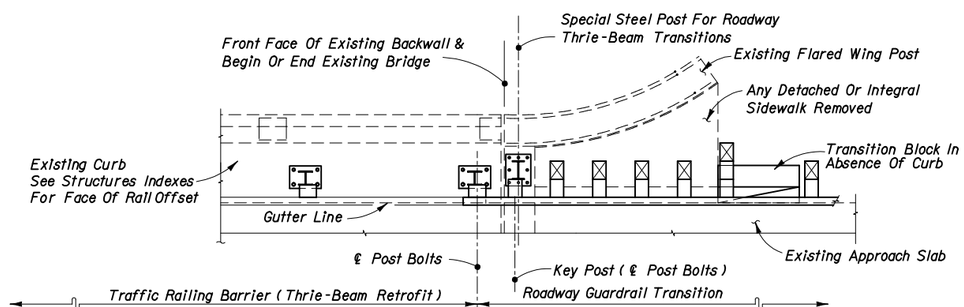


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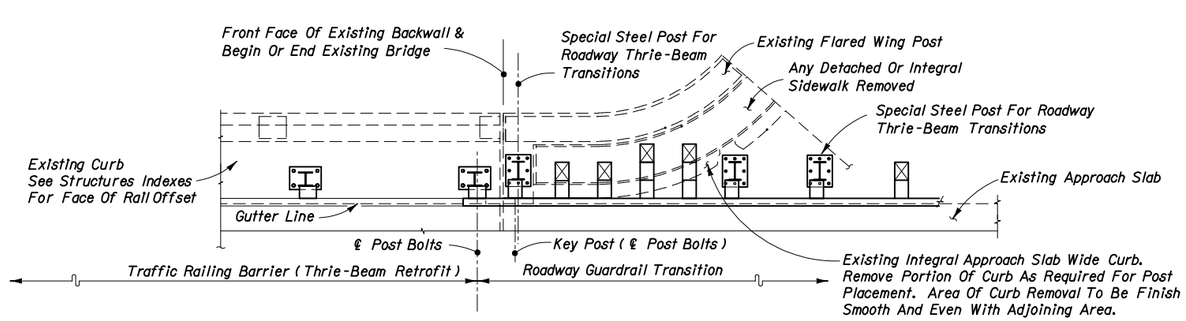


SEE STRUCTURES INDEX NOS. 773 & 776 - SCHEME 2

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# PARTIAL PLAN VIEWS OF GUARDRAIL APPROACH TRANSITIONS AND CONNECTIONS FOR BRIDGE TRAFFIC RAILING BARRIER ( THRIE-BEAM RETROFIT )

# DETAIL E

Date: 12-31-02

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

GUARDRAIL

INTERIM STANDARD

SHEET NOS. 1 - 25 OF 25 ARE A SUPPLEMENT TO INDEX NO. 400 ( SHEET 13 OF 32 ) OF THE DESIGN STANDARDS, BOOKLET DATED JANUARY 2002.

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V Roadway Design Engineer

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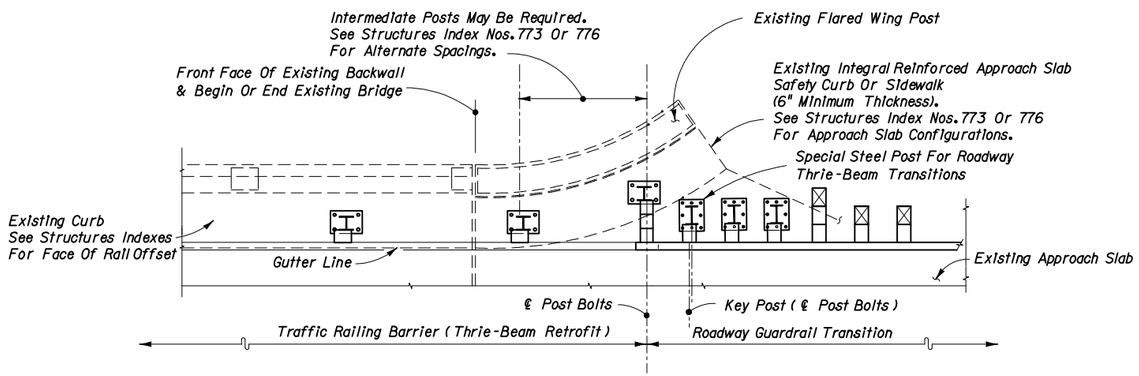


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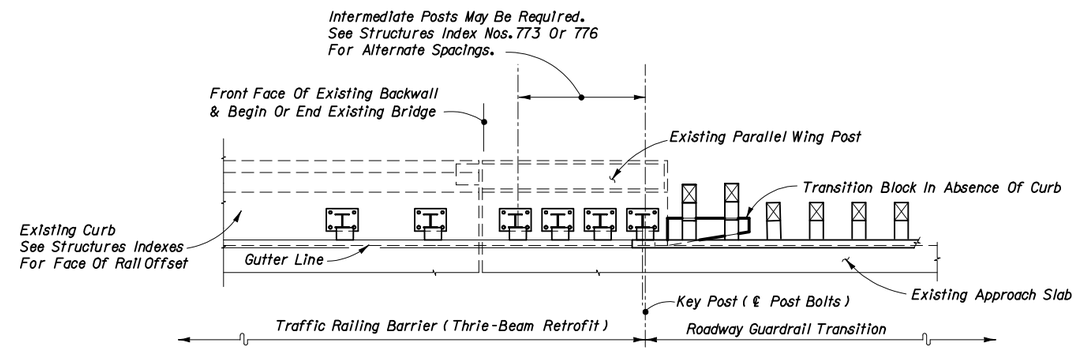


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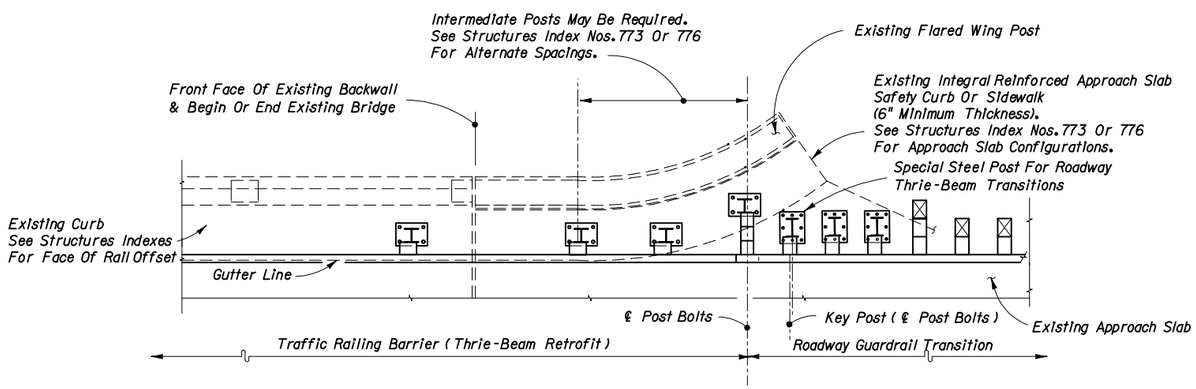


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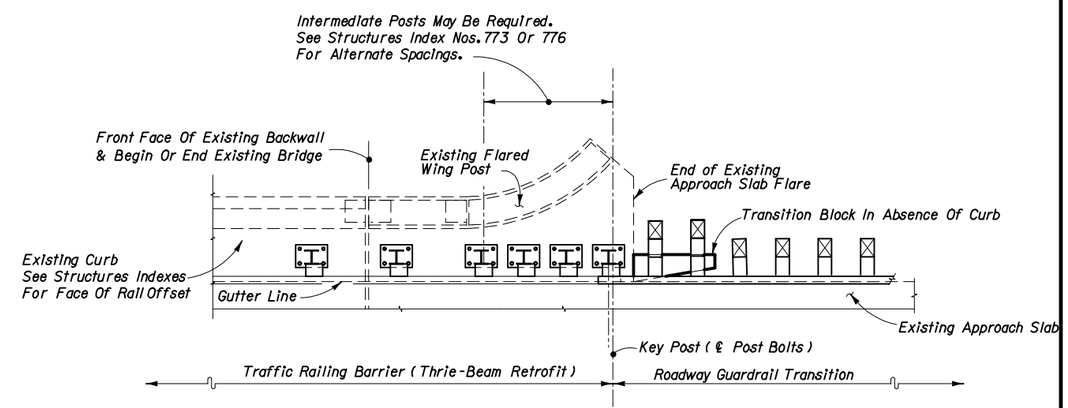


SEE STRUCTURES INDEX NOS. 773 & 776 - SCHEME 5 & 6

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# PARTIAL PLAN VIEWS OF GUARDRAIL APPROACH TRANSITIONS AND CONNECTIONS FOR BRIDGE TRAFFIC RAILING BARRIER ( THRIE-BEAM RETROFIT )

# DETAIL E

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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

GUARDRAIL

INTERIM STANDARD

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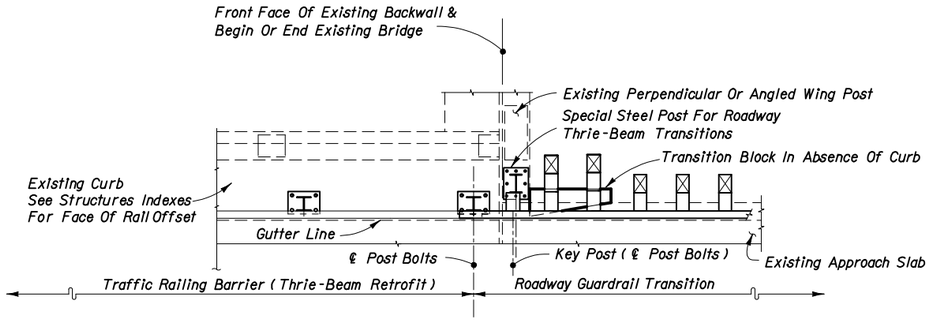


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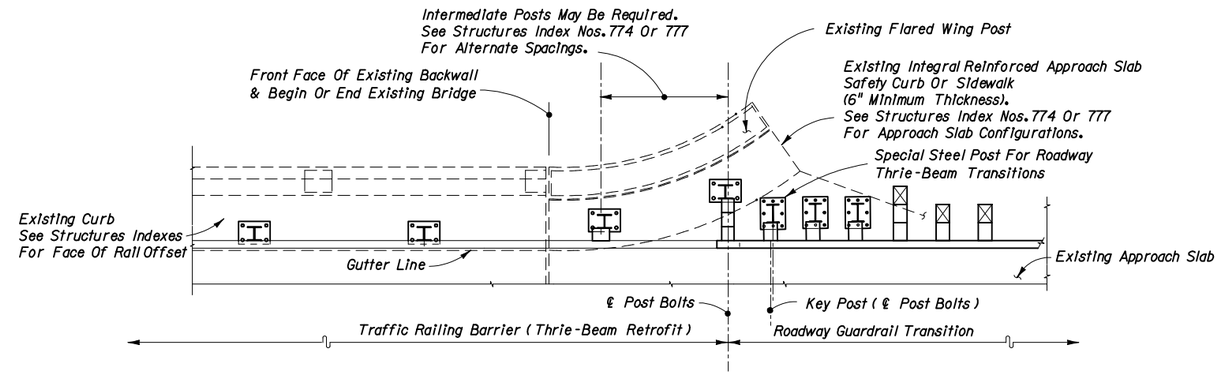


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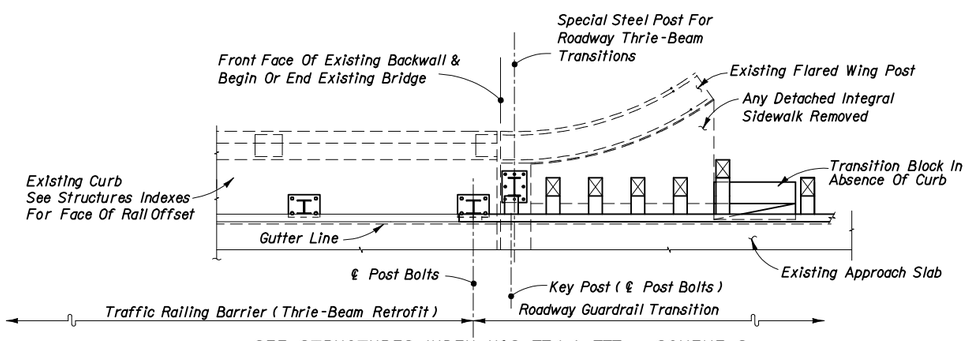


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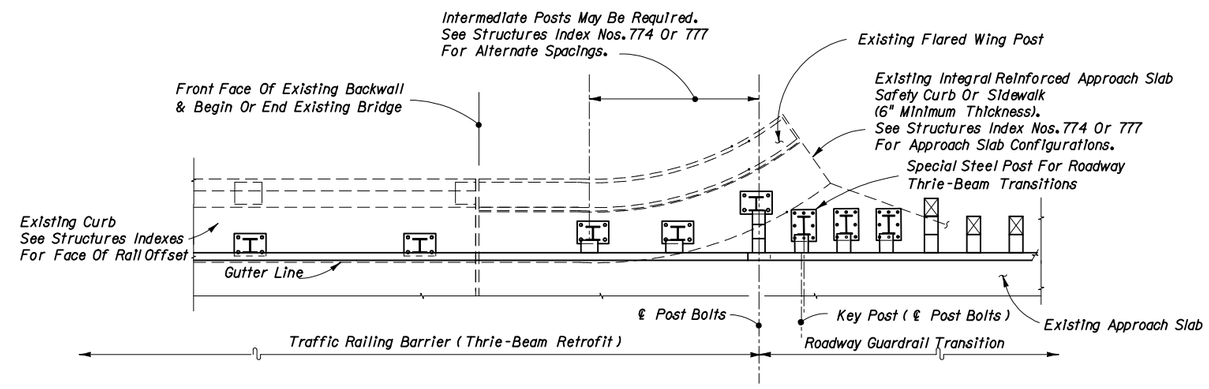


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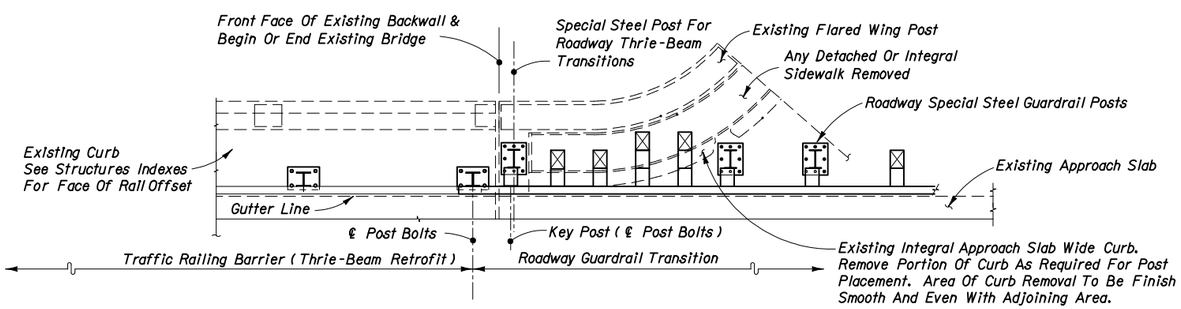


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# PARTIAL PLAN VIEWS OF GUARDRAIL APPROACH TRANSITIONS AND CONNECTIONS FOR BRIDGE TRAFFIC RAILING BARRIER ( THRIE-BEAM RETROFIT )

# DETAIL E

Date: 12-31-02

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

GUARDRAIL

INTERIM STANDARD

SHEET NOS. 1 - 25 OF 25 ARE A SUPPLEMENT TO INDEX NO. 400 ( SHEET 13 OF 32 ) OF THE DESIGN STANDARDS, BOOKLET DATED JANUARY 2002.

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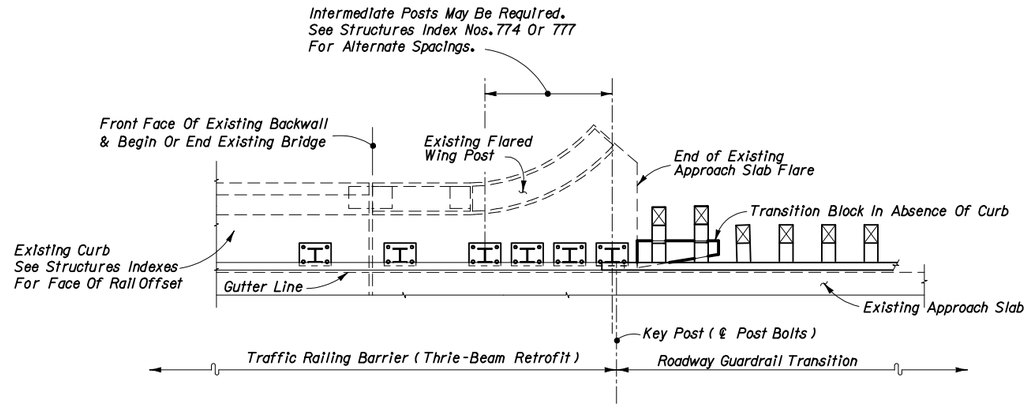


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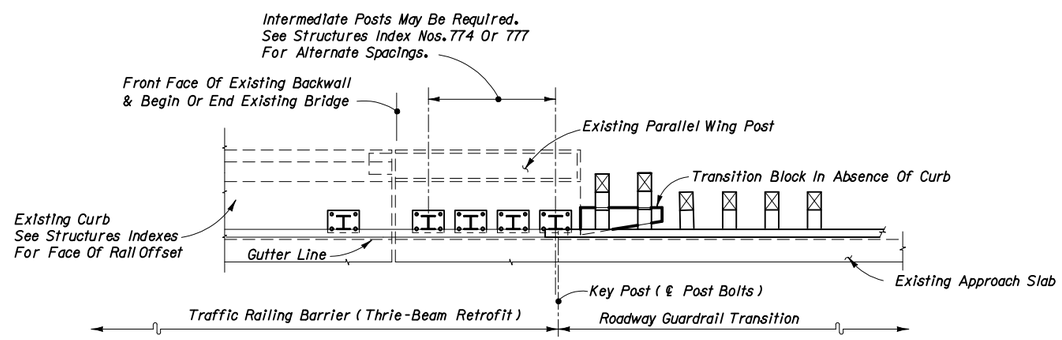


SEE STRUCTURES INDEX NOS. 774 & 777 - SCHEME 5 & 6

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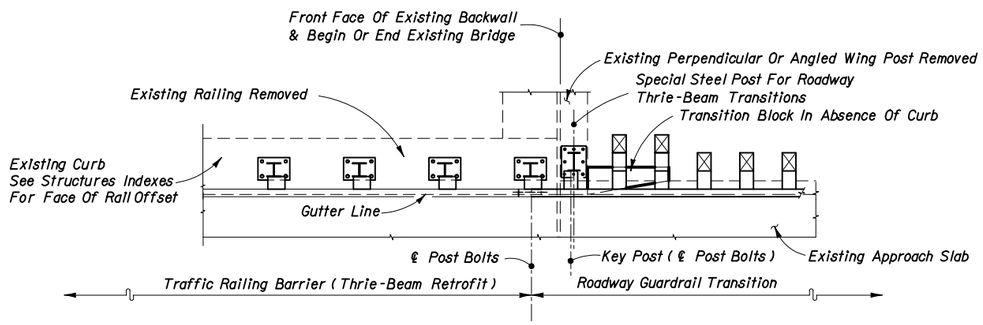


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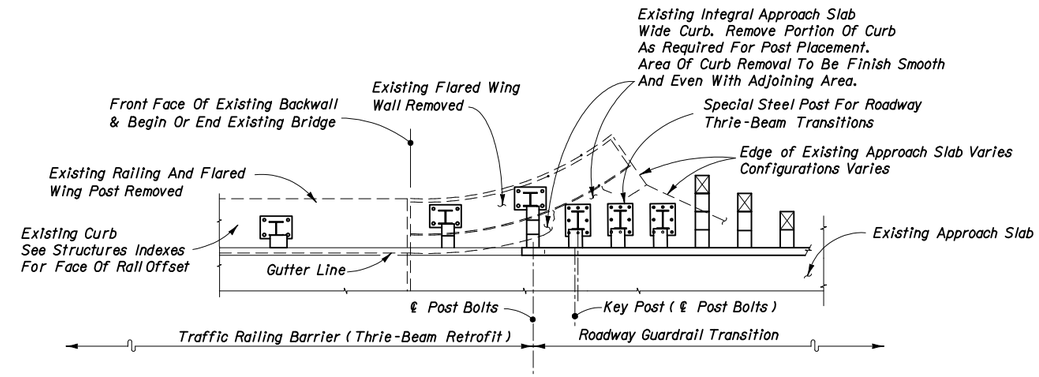


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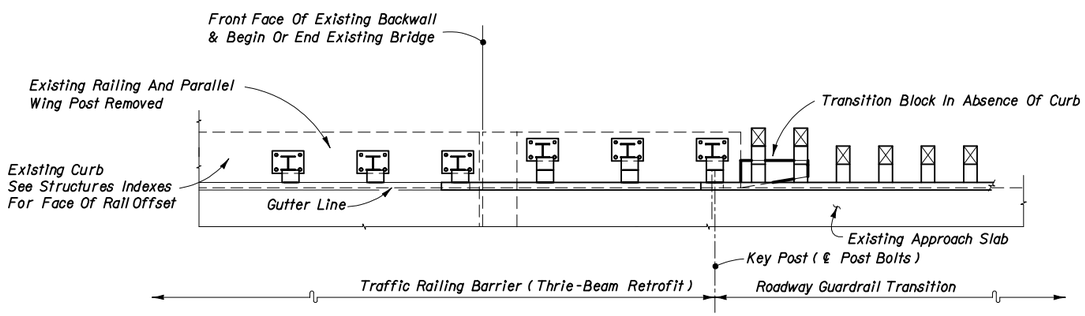


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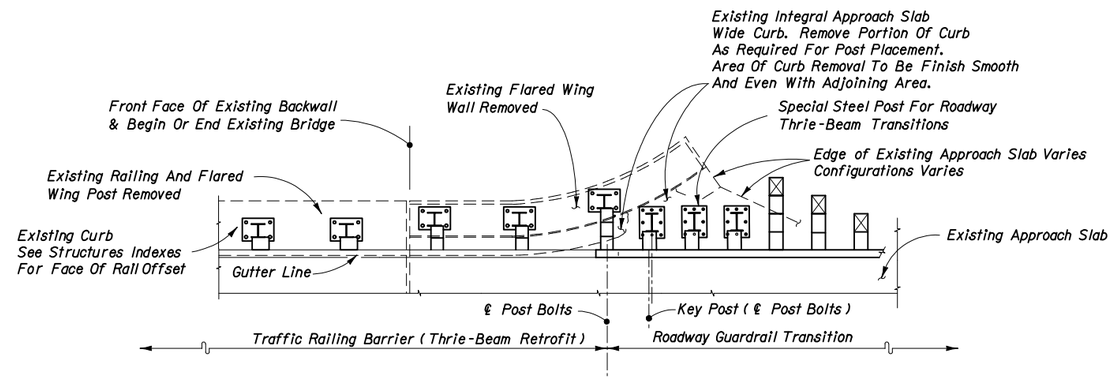


SEE STRUCTURES INDEX NO. 775 - SCHEME 3

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# PARTIAL PLAN VIEWS OF GUARDRAIL APPROACH TRANSITIONS AND CONNECTIONS FOR BRIDGE TRAFFIC RAILING BARRIER ( THRIE-BEAM RETROFIT )

# DETAIL E

Date: 12-31-02

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

GUARDRAIL

INTERIM STANDARD

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APPROVED BY

Roadway Design Engineer

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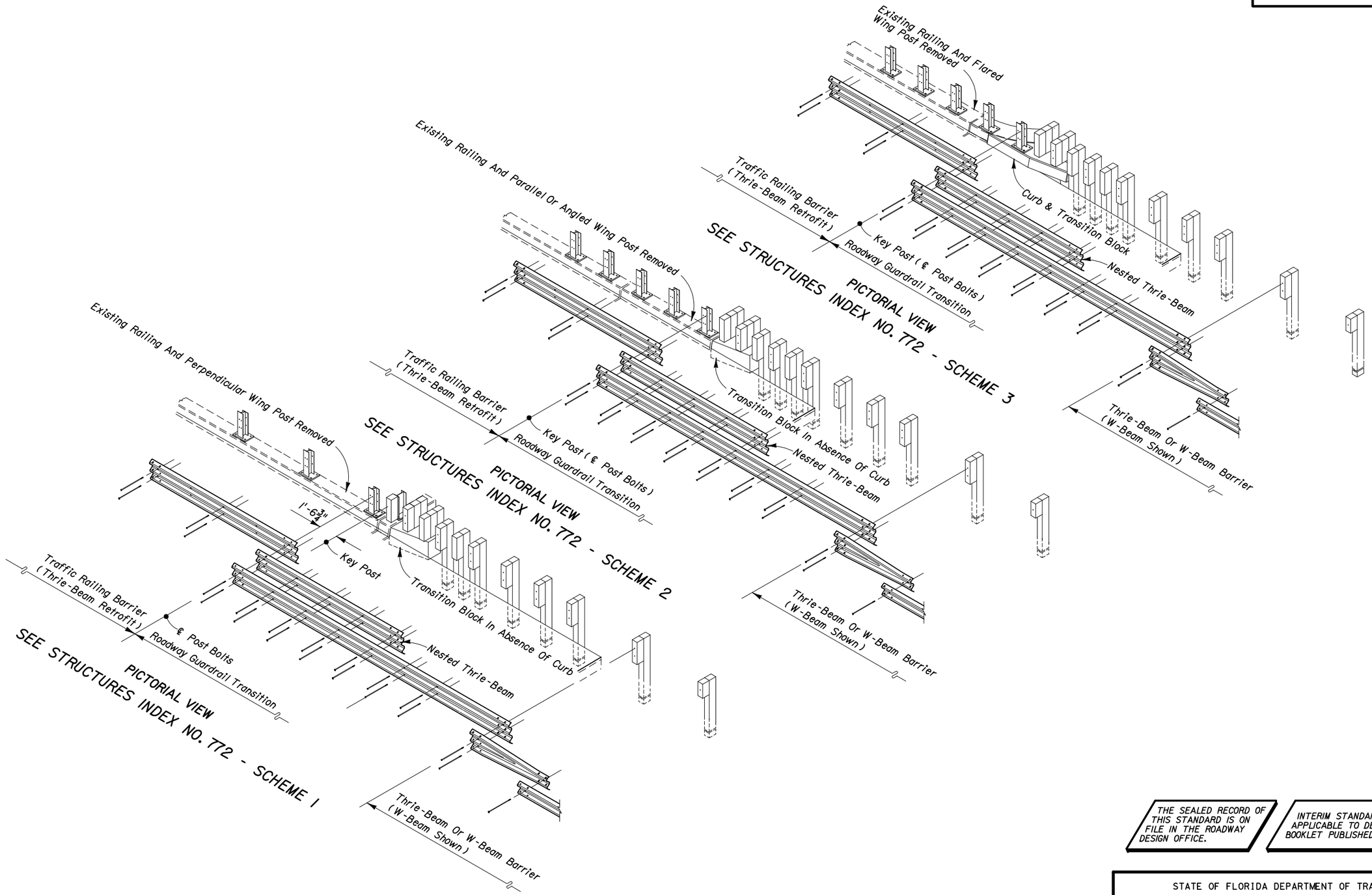


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# PICTORIAL VIEWS OF GUARDRAIL APPROACH TRANSITIONS AND CONNECTIONS FOR BRIDGE TRAFFIC RAILING BARRIER (THRIE-BEAM RETROFIT)

## DETAIL E

Date: 12-31-02

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

GUARDRAIL

INTERIM STANDARD

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Roadway Design Engineer

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