

REFERENCES

NATIONAL DOCUMENTS
 AASHTO A POLICY ON GEOMETRIC DESIGN
 FHWA LONGITUDINAL BARRIERS
 (safety.fhwa.dot.gov)
 TASK FORCE 13 A GUIDE TO STANDARDIZED
 BARRIER HARDWARE (aashtof13.tamu.edu)
 AASHTO ROADSIDE DESIGN GUIDE 2006
 NCHRP REPORT 350
 AASHTO MANUAL FOR ASSESSING SAFETY
 HARDWARE 2009

SCDOT DOCUMENTS
 HIGHWAY DESIGN MANUAL 2003 (2009)
 QUALIFIED PRODUCT LIST 49

RELATED DRAWINGS & KEYWORDS
 805-305-00
 SEMI-RIGID GUARDRAIL

PRECONSTRUCTION
 SUPPORT ENGINEER



E. Earle
 SIGNATURE

MARCH 3, 2010
 DATE

6			
5			
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2			
1	1/2010	DSO	GENERAL REVISIONS
0	3/2008	DSO	GENERAL REVISIONS
#	DATE	CHK	DESCRIPTION



SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION
 DESIGN STANDARDS OFFICE
 955 PARK STREET
 ROOM 405
 COLUMBIA, SC 29201

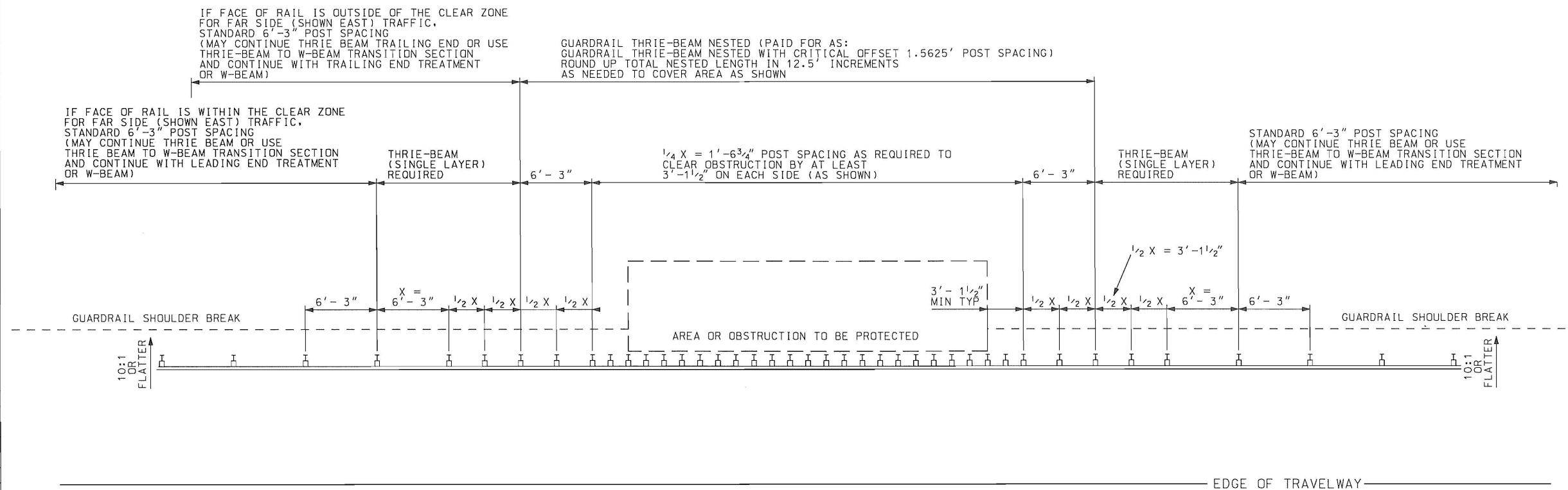
STANDARD DRAWING

GUARDRAIL
 CRITICAL OFFSET
 (POST SPACING)

805-015-00

EFFECTIVE LETTING DATE JAN, 2011

- NOTES:
- SEE 805-001-XX FOR GENERAL NOTES. WORK APPROPRIATE SEMI-RIGID GUARDRAIL SHEETS (805-000-00 THROUGH 805-799-XX) TOGETHER.
 - USE THRIE-BEAM NESTED WITH CRITICAL OFFSET 1.5625' POST SPACING IN AREAS WHERE THE DISTANCE BETWEEN THE BACK OF THE POST AND THE OBSTRUCTION IS LESS THAN 24". DO NOT USE CRITICAL OFFSET POSTS TO SHIELD DROP OFF UNLESS STRUCTURE (WALL, CULVERT, ETC.) IS STRUCTURALLY SUFFICIENT TO SUPPORT RAIL LOADING.
 - STANDARD INSTALLATION IS SHOWN WITH STANDARD GUARDRAIL POSTS AND PROPER GRADING TO THE GUARDRAIL SHOULDER BREAK. IN AREAS WHERE PROPER GRADING TO GUARDRAIL SHOULDER BREAK CANNOT BE ACHIEVED, USE ADDITIONAL LENGTH POSTS (805-505-XX) AND COMPRESSED GUARDRAIL SHOULDER BREAK.
 - CAST-IN-PLACE VERTICAL CONCRETE WALLS (805-825-XX) ARE AN APPROPRIATE ALTERNATIVE TO THRIE-BEAM NESTED WITH CRITICAL OFFSET. THRIE BEAM BRIDGE CONNECTORS (805-330-XX) ARE ALSO REQUIRED FOR THIS ALTERNATIVE.
 - SEE AASHTO "A POLICY ON GEOMETRIC DESIGN"--UNDERPASS ROADWAYS--LATERAL CLEARANCES FOR ADDITIONAL APPLICATIONS.
 - MEASURE THRIE-BEAM NESTED WITH CRITICAL OFFSET IN LINEAR FEET TO PROJECT AT LEAST (2) 1/4 X AND (2) 1/2 X POST SPACES (9'-4 1/2") BEYOND EACH END OF THE OBSTRUCTION. ROUND UP (IN 12.5' INCREMENTS) THRIE-BEAM NESTED WITH CRITICAL OFFSET MEASUREMENT TO ELIMINATE THE NEED FOR FIELD CUTTING.
 - PAYMENT INCLUDES ALL MATERIAL (INCLUDING ADDITIONAL LENGTH POSTS IF REQUIRED) AND WORK REQUIRED TO COMPLETE INSTALLATION, AS SHOWN.
- PAY ITEM:
 8050150 GR THRIE-BEAM NESTED W/CRITICAL OFFSET POST-----LF [8051450]



WEST ← DIRECTION OF TRAVEL

EAST → DIRECTION OF TRAVEL

DETAIL 1
 SCALE 3/32" = 1'
 GUARDRAIL THRIE-BEAM NESTED W/CRITICAL OFFSET POST SPACING

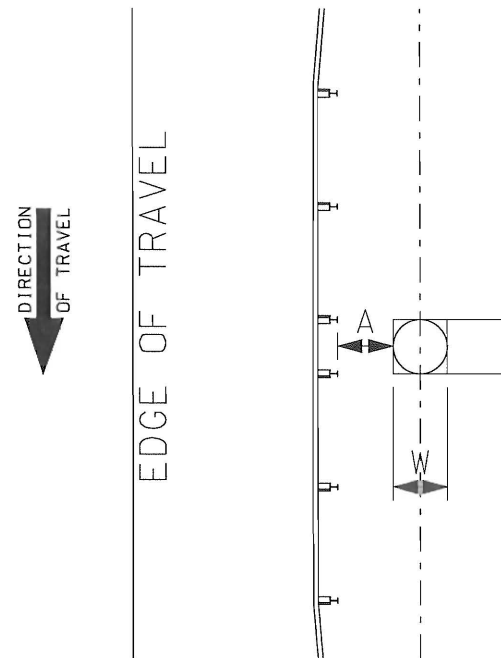
TABLE 805-025A LOCATION OF GUARDRAIL AT OBSTACLES

A LATERAL CLEARANCE FROM BACK OF POSTS	TYPE OF PROTECTION
36" OR GREATER	W-BEAM GUARDRAIL (805-1XX-XX)
24" TO 35"	THREE-BEAM GUARDRAIL (805-3XX-XX)
6" TO 24"	RIGID BARRIER (805-8XX-XX), CRITICAL OFFSET (805-015-00), OR CUSTOM DESIGN
LESS THAN 6"	BARRIER SHOULD BE DESIGNED INTEGRAL WITH THE OBSTRUCTION.

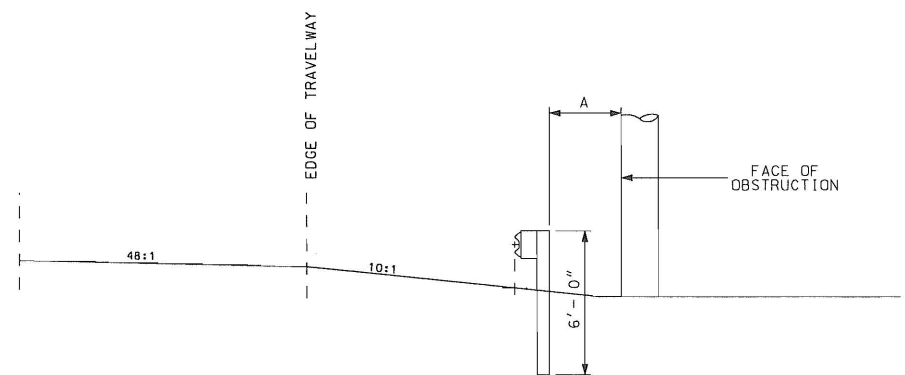
USE THIS TABLE WHEN ROADSIDE OBSTACLES REQUIRING GUARDRAIL PROTECTION ARE PRESENT.

NOTES:

- SEE 805-001-XX FOR GENERAL NOTES. WORK APPROPRIATE SEMI-RIGID GUARDRAIL SHEETS (805-000-00 THROUGH 805-799-XX) TOGETHER.
- WHEN BACK OF BARRIER IS WITHIN 6" OF FACE OF OBSTRUCTION, BARRIER SHOULD BE DESIGNED INTEGRAL WITH THE OBSTRUCTION.
- SEE CORRESPONDING STANDARD DRAWINGS INDICATED AS TYPE PROTECTION FOR APPROPRIATE DETAILS, MEASUREMENT, AND PAYMENT FOR SYSTEM INSTALLED.



DETAIL 1
SCALE 3/32" = 1'
GUARDRAIL CLEARANCE FROM MEDIAN OBSTACLES
IMPACT ATTENUATORS SHOWN. OTHER INSTALLATIONS MAY ALSO BE APPROPRIATE
55MPH, 3000 ADT, W=3'-0" SHOWN



DETAIL 2
SCALE 1/8" = 1'
LOCATION OF GUARDRAIL (W-BEAM SHOWN) AT OBSTACLE

REFERENCES

NATIONAL DOCUMENTS

SCDOT DOCUMENTS

RELATED DRAWINGS & KEYWORDS

PRECONSTRUCTION SUPPORT ENGINEER



Sylvester E. Argle
SIGNATURE

MARCH 3, 2010
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6			
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STANDARD DRAWING

GUARDRAIL
DISTANCE
TO
OBSTRUCTION

805-025-00

EFFECTIVE LETTING DATE | JAN, 2011