



STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION
DESIGN DIVISION
NASHVILLE, TENNESSEE 37243-0348

INSTRUCTIONAL BULLETIN NO. 07-16

Regarding Standard Drawing for Guardrail Attachment to Bridge Ends for Low-Volume (ADT ≤ 400) Local Roads

Effective immediately, standard drawing S-GR-23A is approved for use. The standard details the guardrail attachment at bridge ends and the minimum length of installation for low volume (current ADT ≤ 400) local roads with speeds of 40 mph or less. This standard is for use on low-volume local road bridge replacement projects. The use of the earth pad as shown on standard drawing S-GR-39 is not required for this installation.

Until the drawing is added to the standard drawings, it is to be printed with the plans. The drawings shall be identified on the lower left side of the index sheet “**To be printed with plans**”.

A copy of the drawing is attached. No metric standard drawing will be developed for this application

SAFETY APPURTENANCES AND FENCE – ENGLISH

<u>Drawing Number</u>	<u>Current Revision Date</u>	<u>Drawing Title</u>
S-GR-23A		GUARDRAIL ATTACHMENT TO BRIDGE END FOR LOW-VOLUME LOCAL ROADS (ADT≤ 400)

Original signed by Jeff C. Jones
Jeff C. Jones, Civil Engineering Director
Design Division

THIS DRAWING IS TO BE USED FOR LOW-VOLUME LOCAL ROADS (ADT < 100) ONLY

STAGE FITTINGS (SEE S-CR-28)

GENERAL NOTES

- (1) SEE STANDARD DRAWING R001-T5-A FOR DETAILS AND SPECIFICATIONS REGARDING STANDARDS FOR LOW-VOLUME LOCAL ROADS.

(2) THE POST OFFSET DIMENSIONS ARE GIVEN TO CENTER OF THE TRAFFIC FACE OF THE BLOCKOUTS, EXCEPT AT THE FIRST TWO POSTS, WHERE THE DIMENSION IS TO THE CENTER OF THE TRAFFIC FACE OF THE POST. THESE POINTS ARE TO BE LOCATED BY CHORD LINE. THE POSTS ARE TO BE LOCATED AS SHOWN IN THE DRAWINGS. THE POSTS ARE TO BE PLACED IN A LINE PARALLEL TO THE ROAD CENTER LINE. THE DISTANCE FROM THE CENTER LINE TO THE POSTS IS TO BE SEPARATELY INDICATED ON THE DRAWINGS. THE POSTS ARE TO BE PLACED IN A LINE PARALLEL TO THE ROAD CENTER LINE. THE DISTANCE FROM THE CENTER LINE TO THE POSTS IS TO BE SEPARATELY INDICATED ON THE DRAWINGS.

(3) OMIT THE RECTANGULAR WASHER BETWEEN BUTTON HEAD BOLT AND RAIL ON POST NO. 2 THROUGH 5.

THE JOURNAL OF CLIMATE

**3/8" X 10" BUTTON HEAD BOLTS,
NUTS, AND WASHERS
NEED 1 ROUND AND
SQUARE WASHER! 1**

**RECOMMENDED
ITEM NO.
5-CR-151**

**1/2" SLOTTED
AC PLATE**

**4" O.D. CABLE
W/SHAC
1-6-6-1
HEX
HEAD NUT AND
WASHER FOR 1"-
AC PLATE
10 (SEE 5-CR-28)**

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SECTION B-B
14- BUTTON HEAD BOD
D WASHERS TO BE INS
SERIALIZED AREA OF S
REINFORCED AREA OF S
SEE S-CR-281

ELEVATION VIEW AT POST NO. 1

SECTION ELEVATION AT POST NO. 2

SCB22A 120706Z DEC 1/1/2007 020000Z ELEVATION VIEW AT POST NO

1

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

**GUARDRAIL ATTACHMENT
TO BRIDGE END
FOR LOW • VOLUME
LOCAL ROADS
(ADT < 400)**

3-15-07 S-GR-23A