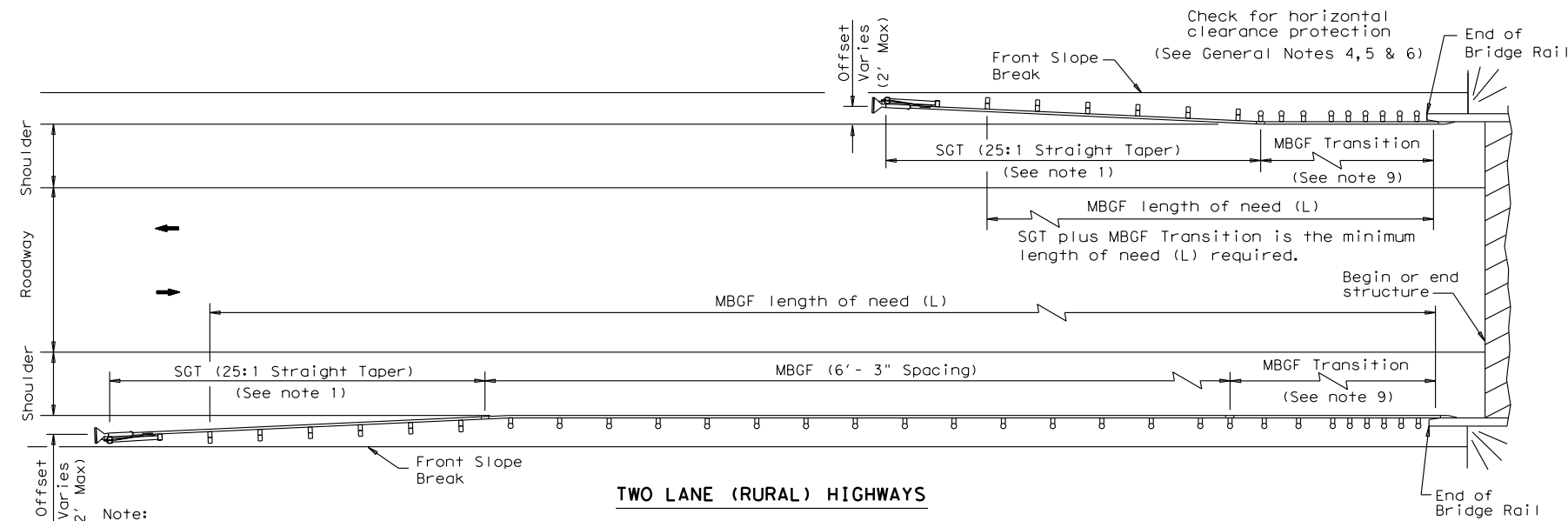


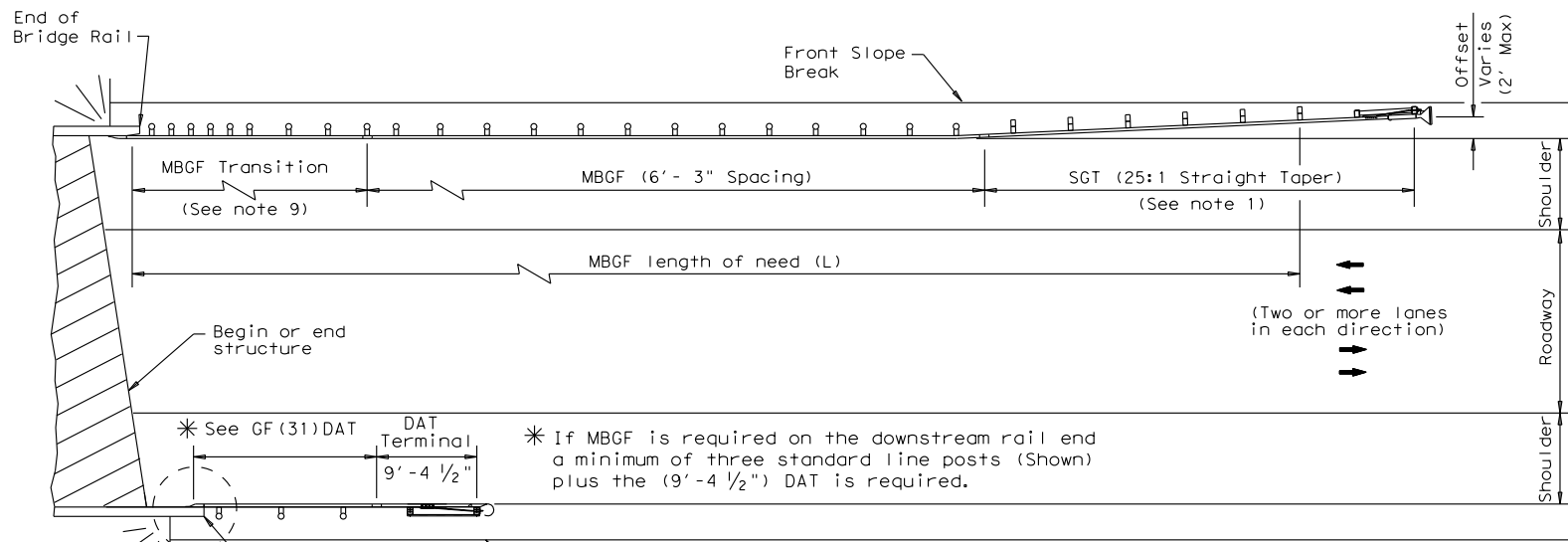
DISCLAIMER: The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

DATE: FILE:



**TWO LANE (RURAL) HIGHWAYS**

Note: SGT rail taper may be decreased or eliminated. (See SGT standard sheets)

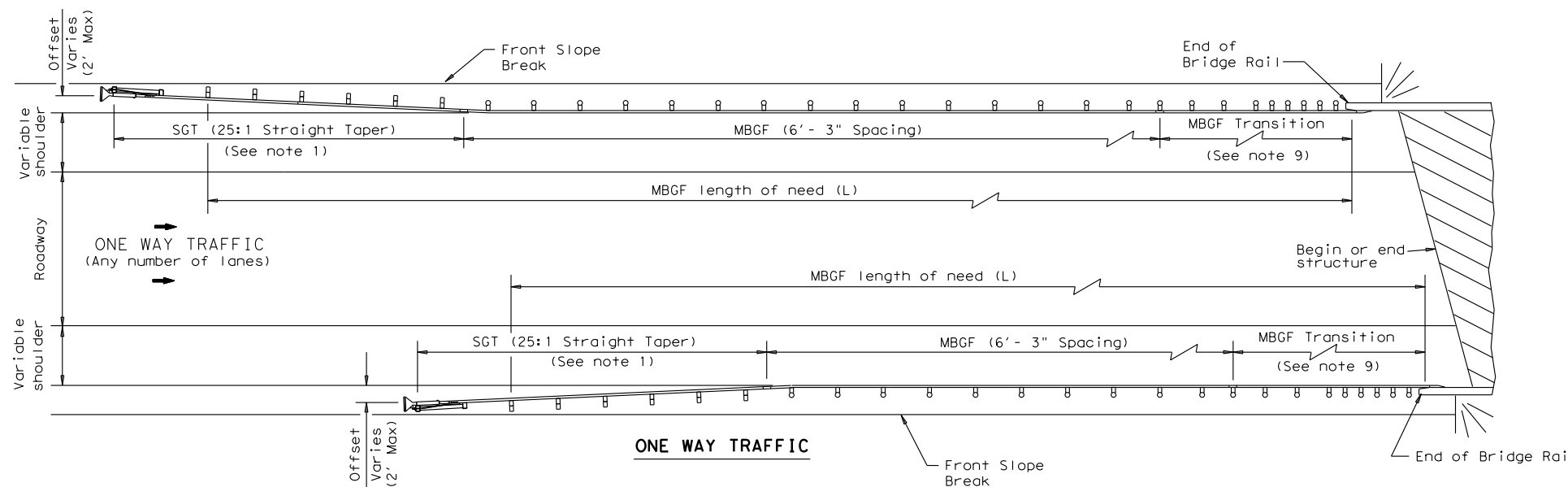


**MULTILANE UNDIVIDED (RURAL) HIGHWAYS**

Check for horizontal clearance protection (See General Notes 4, 5 & 6)

\* See GF(31) DAT Terminal 9'-4 1/2"

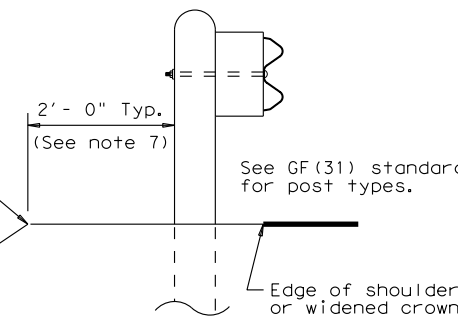
\* If MBGF is required on the downstream rail end a minimum of three standard line posts (Shown) plus the (9'-4 1/2") DAT is required.



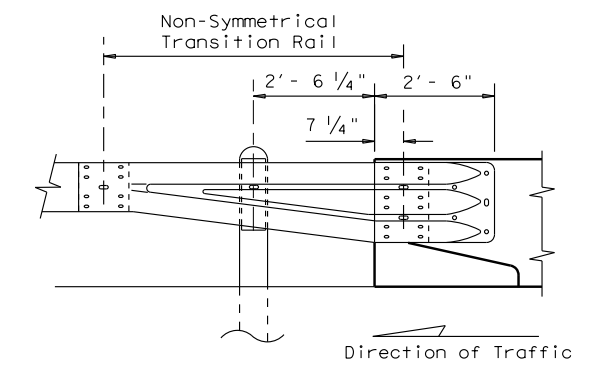
**ONE WAY TRAFFIC**

**GENERAL NOTES**

- For more detail: See GF(31), SGT( )31, GF(31)TR, and GF(31)TL2 standard sheets.
- Quantities of metal beam guard fence (MBGF) at individual bridge ends are as shown in the plans.
- Use average daily traffic (ADT) for the current year to determine MBGF length of need in accordance with the Roadway Design Manual unless otherwise specified. Where significant traffic volume growth is anticipated on low volume (0-750 ADT) highways, use length determinations for the higher volume category.
- MBGF may not be required to shield departure end of bridge unless other obstacles within the horizontal clearance limits or opposing traffic indicate a MBGF consideration.
- Downstream anchor terminals (DAT) are only for downstream end anchorage use, outside the horizontal clearance area of opposing traffic.
- Direct connection of MBGF to concrete rails are only for downstream rail connections outside the horizontal clearance area of opposing traffic. (This requires a minimum of three standard line posts plus the DAT terminal, See Detail A)
- The crown shall be widened to accommodate MBGF. Typically the "front slope" break should be 2'- 0" from the back of the MBGF post. This applies to new construction on new alignment or where existing roadway cross section is to be widened to increase roadway width. This does not apply to rehabilitation work where existing roadway crown width is to be retained (See Typical Cross Section at MBGF).
- For restrictive bridge widths: The MBGF should be properly transitioned from the existing bridge rail to the adjoining MBGF (See MBGF Transition Standards). Metal beam guard fence at these bridge location(s) shall be flared at the rate of 25:1 or flatter, and be of the length necessary to locate the terminal end at the 2 ft. "maximum" offset from the shoulder edge in the approach direction.
- Transition length and post spacing will vary depending on the transition type. Transition type will be shown elsewhere in the plans.



**TYPICAL CROSS SECTION AT MBGF**



Note: All rail elements shall be lapped in the direction of adjacent traffic.

**DETAIL A**

Showing Downstream Rail Attachment

				<b>Design Division Standard</b>	
<h2>BRIDGE END DETAILS</h2> <p>(Metal Beam Guard Fence Applications to Rigid Rails)</p> <h3>BED-11</h3>					
FILE:	bed11.dgn	DN: TxDOT	CK: AM	DW: BD	CK:
© TxDOT	December 2011	CONT	SECT	JOB	HIGHWAY
REVISIONS		DIST	COUNTY	SHEET NO.	