



Montana Department of Transportation
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Memorandum

To: Distribution

From: Paul Ferry, P.E.
Highways Engineer

Date: October 21, 2013

Subject: Guardrail Post Information

The intent of this memo is to clarify the use of guardrail posts when we cannot achieve the two feet of widening behind the rail. First, the two feet of widening should always be provided unless it is not feasible to do so. It should not be used just to eliminate the need for guardrail widening.

W-beam

If two feet of widening cannot be provided behind the rail, the following options are available:

1. 9-foot steel posts at the standard 6'-3" spacing
2. 7.5-foot wood posts at the standard 6'-3" spacing
3. 7-foot steel posts at 3'-1½" spacing
4. 7-foot wood posts at 3'-1½" spacing

Since the 9-foot steel and the 7.5-foot wood posts are equivalent, the 9-foot post will be noted in the column heading for metal guardrail in the guardrail summary, and a note will be added indicating that the 7.5-foot wood post can be substituted for the steel post. When the 7-foot posts are used, the 3'-1½" spacing as well as the 7-foot post must be noted in the column heading for metal guardrail in the guardrail summary.

The inslope (generally the fill slope) should be a maximum of 2:1 from the centerline of the post regardless of the option that is used.

Box Beam

If two feet of widening cannot be provided behind box beam rail, the following modified post arrangement may be used:

1. 8-foot steel posts at the standard 6'-0" spacing

Since the box beam rail with 8-foot posts has not been crash tested, it should only be used as the last practicable resort. In these situations, the use of other types of rail should be considered before using the 8-foot posts. The decision to use the 8-foot posts must be documented in an appropriate report or a separate memo.

As with w-beam, the inslope should be a maximum of 2:1 from the centerline of the post.

If you have questions concerning this information, please contact Paul Ferry.

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