

### Proper Inspection of Guardrail Sections

In the standard section of a guardrail, inspection of and repairs to each part of the guardrail is critical. Below is a checklist to help you examine each section.

Note that some specifications described in the following content may not be the same as the specifications followed by your agency. Always check with your State agency's standards and specifications when using these guidelines.

#### Sections

- **W-beam and Thrie Beam Barrier Rail**
- **W-beam and Thrie Beam Barrier Posts and Blockouts**
- **W-beam and Thrie Beam Barrier In-depth Inspection**

#### W-beam and Thrie Beam Barrier Rail

- Is the barrier generally in shape, with no significant corrosion, accident damage, or other misalignment?**
- Are all splice bolts and post attachment bolts in place and tight?**
- Is the direction of the splice correct to ensure that the guardrail overlaps in the direction of travel?**
- Are the rails properly attached to terminals and transitions?**
- Have any fixed objects such as small trees, poles, or other objects intruded within the deflection space?**
- Is the required rail height maintained?**
- Is there anything in front of the barrier that can cause a vehicle to vault, such as rough ground, erosion, vegetation, debris?**
- Is the barrier face smooth?**
- Is the barrier height correct?**

### W-beam and Thrie Beam Barrier Posts and Blockouts

- Are any posts missing or severely misaligned?
- Are any blockouts missing or rotated out of the vertical position?
- Do the posts appear firmly embedded, with no tilting or soil erosion around the posts? A minimum of 2 ft. of soil on a 1V:10H slope is required behind the back of post. If a longer post is used, a steeper slope may be considered.

### W-beam and Thrie Beam Barrier In-depth Inspection

- Rail height should be checked throughout the proposed project to ensure it will be within tolerance after completion of the road work. If necessary, height adjustment should be included in the project.
- Are all existing barriers needed to meet the existing standards? Can the hazard be removed or modified to eliminate the need for a barrier?
- Does the existing barrier meet length of need (LON) criteria, or are length adjustments required?
- Do curb or embankment slopes in front of the barrier pose a risk of vehicle vaulting over the barrier?
- Are flat slopes provided in front of terminals and transitions and traversable and clear areas behind “gating” terminals?
- Is this type of barrier appropriate considering current highway and traffic parameters, or would another barrier type provide a significant safety upgrade?
- Is the post spacing appropriate for the available deflection distance?
- Are terminals and transitions consistent with current standards, including proper flares and offsets?