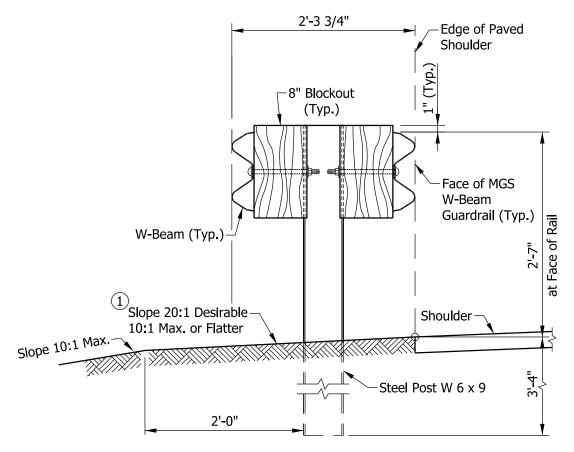


TYPICAL MGS W-BEAM INSTALLATION

- 1) Where the distance from back of post to shoulder slope break is less than 2 ft the working width should be adjusted.
- 2 Blockouts of 12 in. or 16 in. depth to increase the post offset may be utilized to avoid an underground obstruction. There is no limit to the number of posts that can have additional blockout width up to a 16 in. depth.
- 3 The post should not be encased with asphalt, concrete, or riprap.
- 4. Standard post length is 6 ft.

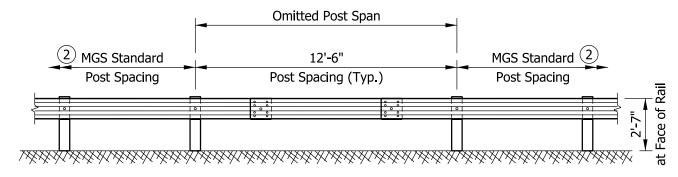
MIDWEST GUARDRAIL SYSTEM ASSEMBLY



TYPICAL DOUBLE-FACED MGS W-BEAM INSTALLATION

1 The post should not be encased with asphalt, concrete, or riprap.

MIDWEST GUARDRAIL SYSTEM ASSEMBLY

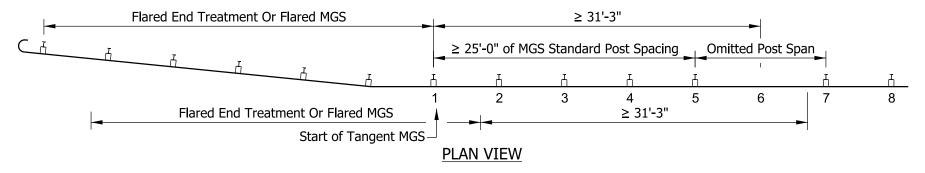


ELEVATION VIEW MGS OMITTED POST

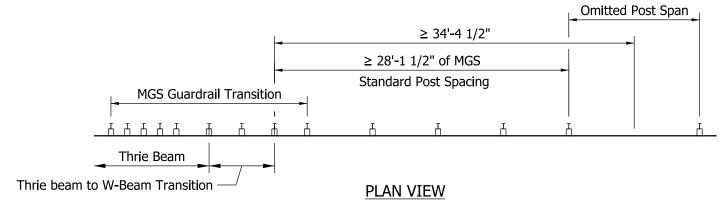
NOTES:

- 1. A single post may be omitted within an MGS w-beam run of guardrail.
- (2) Where a post is omitted a minimum length of MGS standard post spacing guardrail should be place as shown on the following pages of this Figure.
- 3. An MGS guardrail run containing an omitted post should not be placed adjacent vertical or sloping curb.

MIDWEST GUARDRAIL SYSTEM ASSEMBLY, OMITTED POST



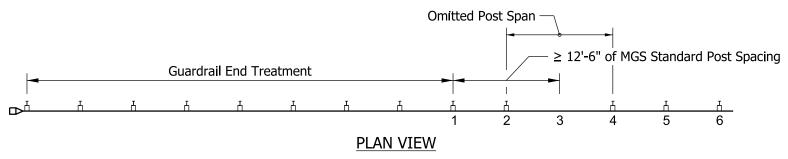
MINIMUM DISTANCE BETWEEN OMITTED POST AND FLARED MGS W-BEAM



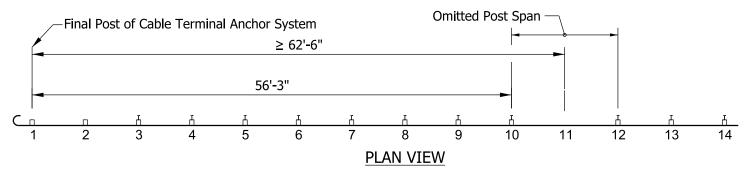
MINIMUM DISTANCE BETWEEN OMITTED POST AND MGS GUARDRAIL TRANSITION

MIDWEST GUARDRAIL SYSTEM ASSEMBLY, OMITTED POST

Page 2 of 4



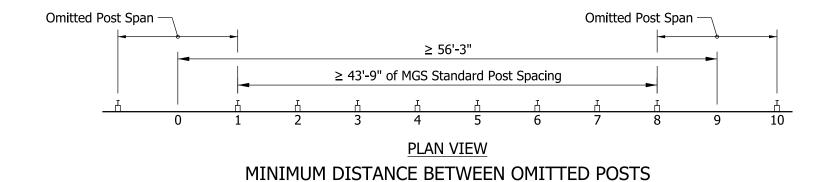
MINIMUM DISTANCE BETWEEN OMITTED POST AND GUARDRAIL END TREATMENT

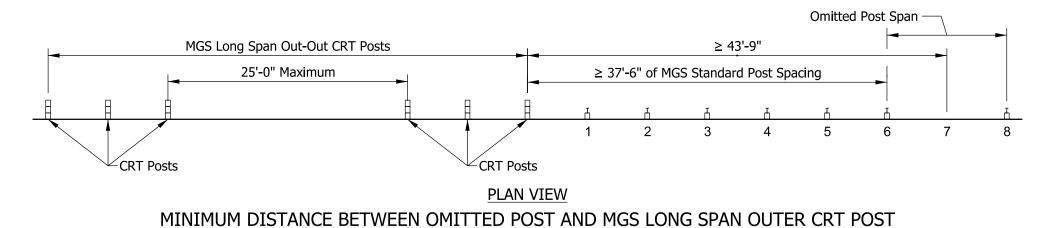


MINIMUM DISTANCE BETWEEN OMITTED POST AND MGS CABLE TERMINAL ANCHOR SYSTEM

MIDWEST GUARDRAIL SYSTEM ASSEMBLY, OMITTED POST

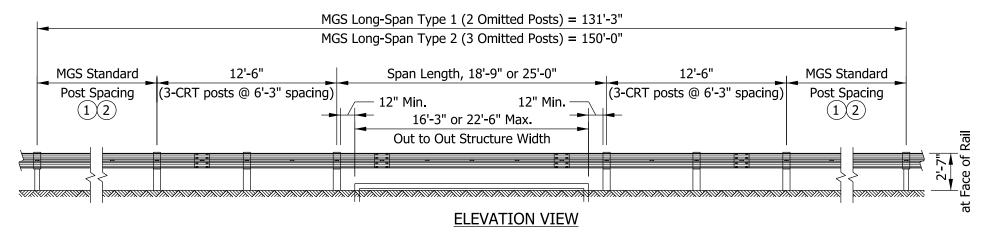
Page 3 of 4





MIDWEST GUARDRAIL SYSTEM ASSEMBLY, OMITTED POST

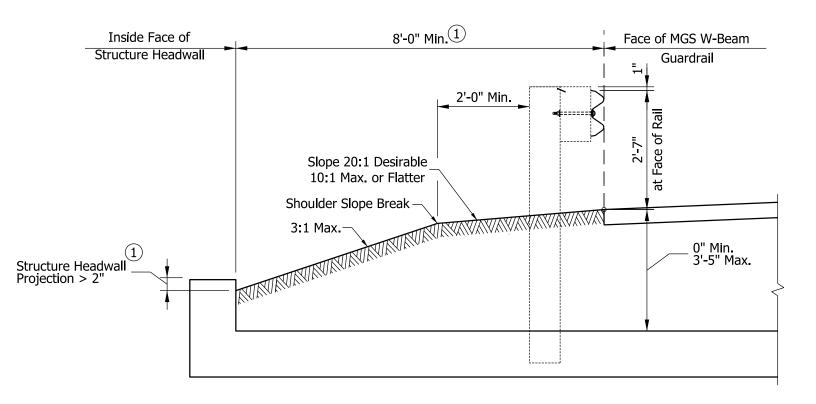
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MGS LONG-SPAN INSTALLATION (2 or 3 Posts Omitted)

- 1 A minimum length of MGS w-beam guardrail should be installed both upstream and downstream of the outermost CRT posts. Refer to the minimum MGS w-beam guardrail length tabulated according to the number of omitted posts. This length includes the length of any end treatment, end anchor, and transition.
- 2 A minimum of 62 ft -6 in. of tangent MGS w-beam guardrail should be installed between the outermost CRT post and the beginning of any flared guardrail section.
- 3. An MGS w-beam guardrail run containing a long-span should not be placed adjacent vertical or sloping curb.

MIDWEST GUARDRAIL SYSTEM ASSEMBLY, LONG-SPAN

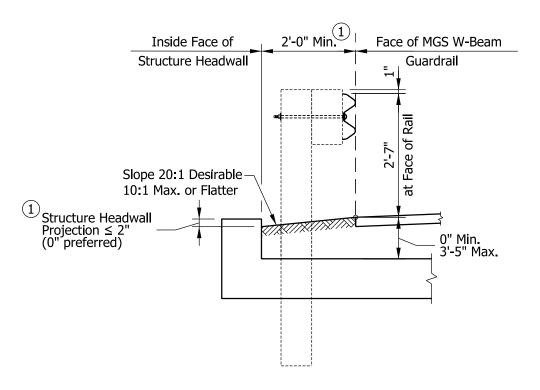


STRUCTURE HEADWALL PROJECTION > 2"

NOTES:

1) Where the structure headwall projection is greater than 2 in. above the grade, the inside face of the structure headwall should be 8 ft from the face of MGS w-beam guardrail.

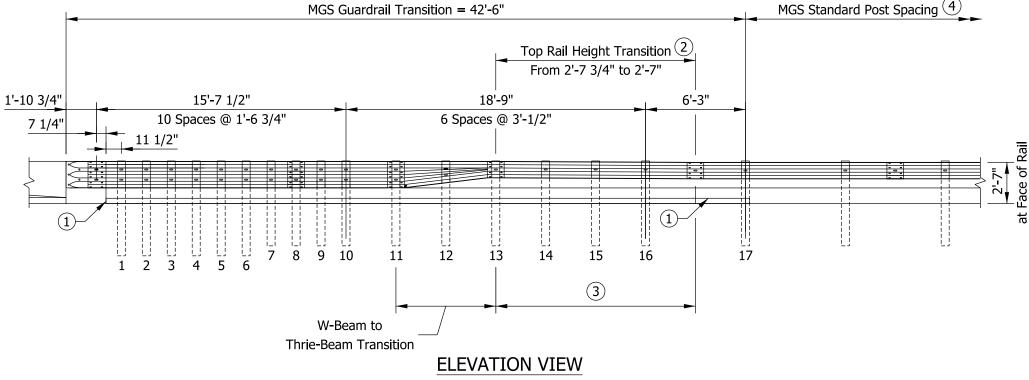
MIDWEST GUARDRAIL SYSTEM ASSEMBLY, LONG-SPAN



STRUCTURE HEADWALL PROJECTION ≤ 2"

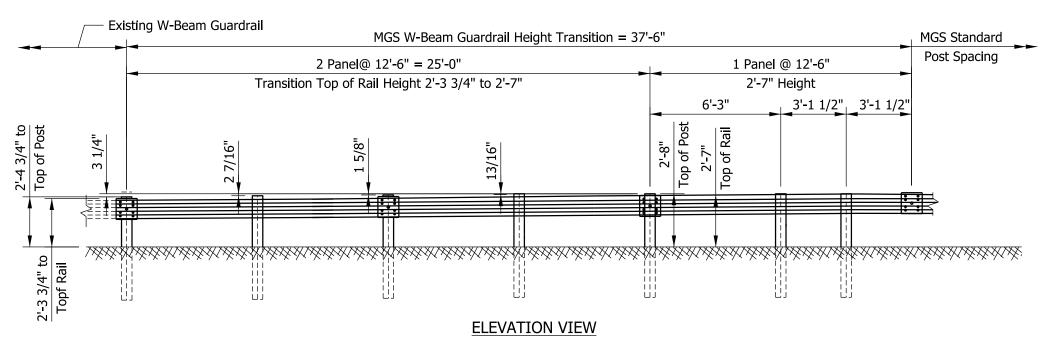
(1) Where the structure headwall projection is 2 in. or less above the grade, the inside face of the headwall should be 2 ft from the face of MGS w-beam.

MIDWEST GUARDRAIL SYSTEM ASSEMBLY, LONG-SPAN

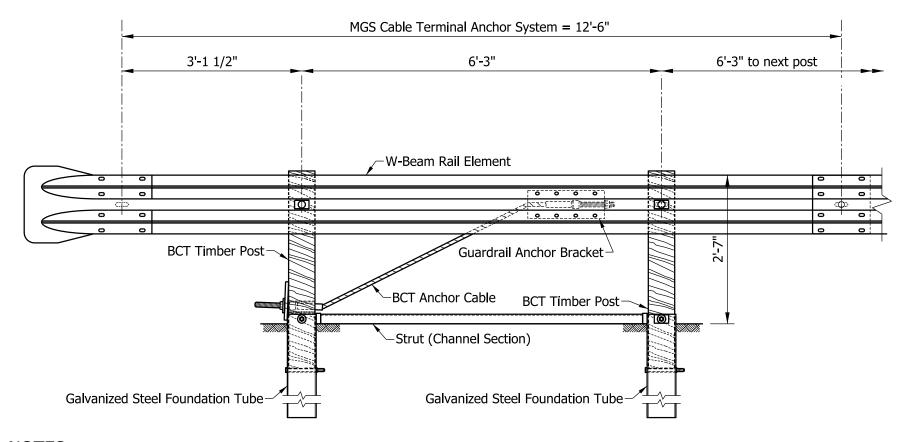


- 1 Optional 4 in. sloping curb. The toe of the sloping curb should be placed flush with the backside face of the guardrail and extended at least the length of the transition, to post 17.
- 2 Guardrail mounting height at bridge railing transition is 2 ft-7 3/4 in. Transition guardrail mounting height down to 2 ft-7 in.
- (3) The 12 ft-6 in. of MGS w-beam guardrail half post spacing beyond the w-beam to thrie-beam transition should be placed for all installations.
- 4) 12 ft- 6 in. of tangent MGS w-beam guardrail should be placed beyond the MGS guardrail transition limits.

MIDWEST GUARDRAIL SYSTEM ASSEMBLY, GUARDRAIL TRANSITION WITH OR WITHOUT CURB



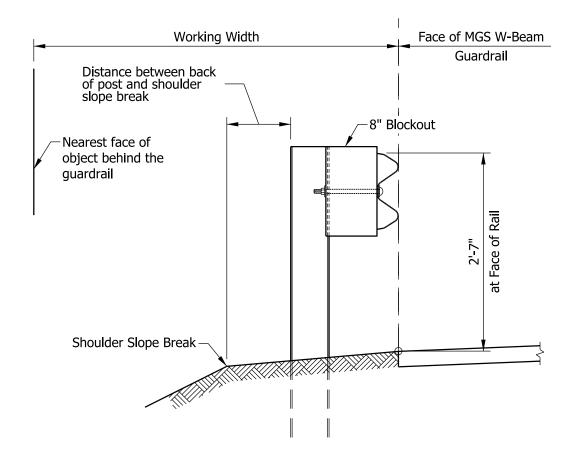
MGS W-BEAM GUARDRAIL HEIGHT TRANSITION



ELEVATION VIEW

1. The MGS cable terminal anchor system should only be used at the outgoing end of an MGS w-beam guardrail run not exposed to oncoming traffic.

MIDWEST GUARDRAIL SYSTEM ASSEMBLY, CABLE TERMINAL ANCHOR SYSTEM



- 1. Guardrail placement should consider working width.
- 2. Working width assumes an 8-in. blockout. Where a deeper blockout is used, the working width should be adjusted to include the additional depth.

MIDWEST GUARDRAIL SYSTEM ASSEMBLY, WORKING WIDTH