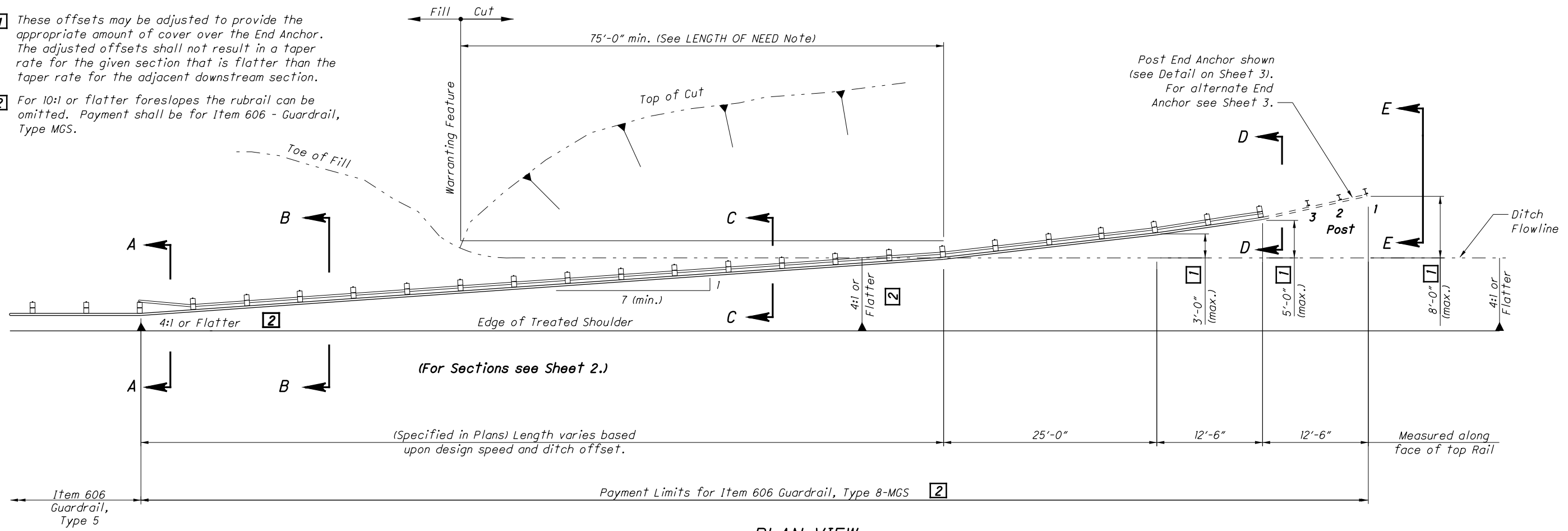
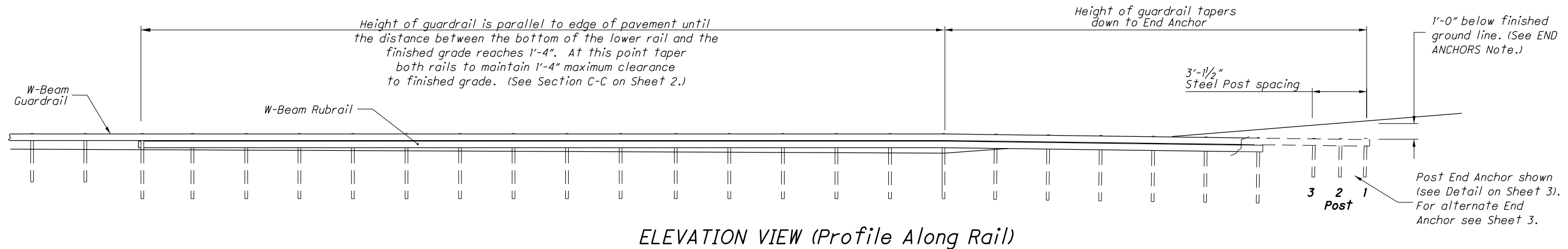


- 1 These offsets may be adjusted to provide the appropriate amount of cover over the End Anchor. The adjusted offsets shall not result in a taper rate for the given section that is flatter than the taper rate for the adjacent downstream section.
- 2 For 10:1 or flatter foreslopes the rubrail can be omitted. Payment shall be for Item 606 - Guardrail, Type MGS.



PLAN VIEW



ELEVATION VIEW (Profile Along Rail)

NOTES

**POSTS & BLOCKOUTS:** Shall comply with MGS Guardrail (See SCD MGS-2.1) except posts shall be 8'-0" long unless otherwise specified.

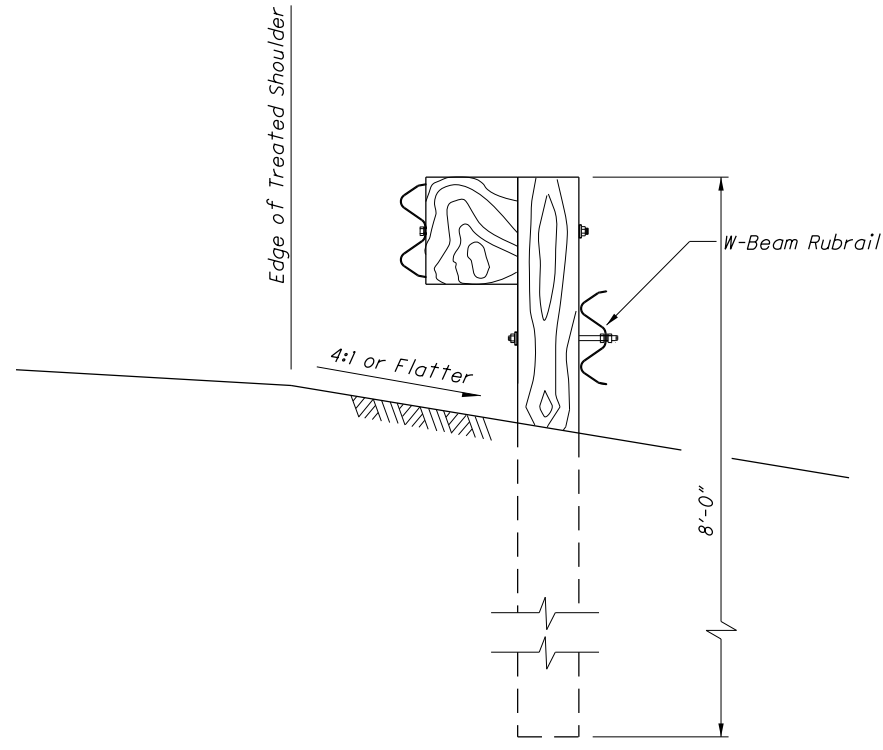
**LENGTH OF NEED:** Where backslopes along the length of the terminal to the warranting feature are 2:1 or flatter, at least 75'-0" of guardrail must be provided upstream from the warranting feature before the guardrail crosses the ditch line. (The warranting feature is often the intersection of the Fill/Cut slopes as shown, but may be at some other point.) Where Backslopes are steeper than 2:1, this minimum distance is not applicable.

**PAYMENT:** Item 606 - MGS Guardrail, Type 8, shall be in Feet for the length specified in the plans and shall include rails, 8'-0" posts, grading, excavation, embankment and all other hardware, materials and labor required to construct the guardrail as shown except for the End Anchor. Payment for Item 606 - Post End Anchor (or Concrete Block End Anchor), Each, shall include the extra cost of concrete blocks or steel posts and all other hardware, materials and labor required to construct the End Anchor.

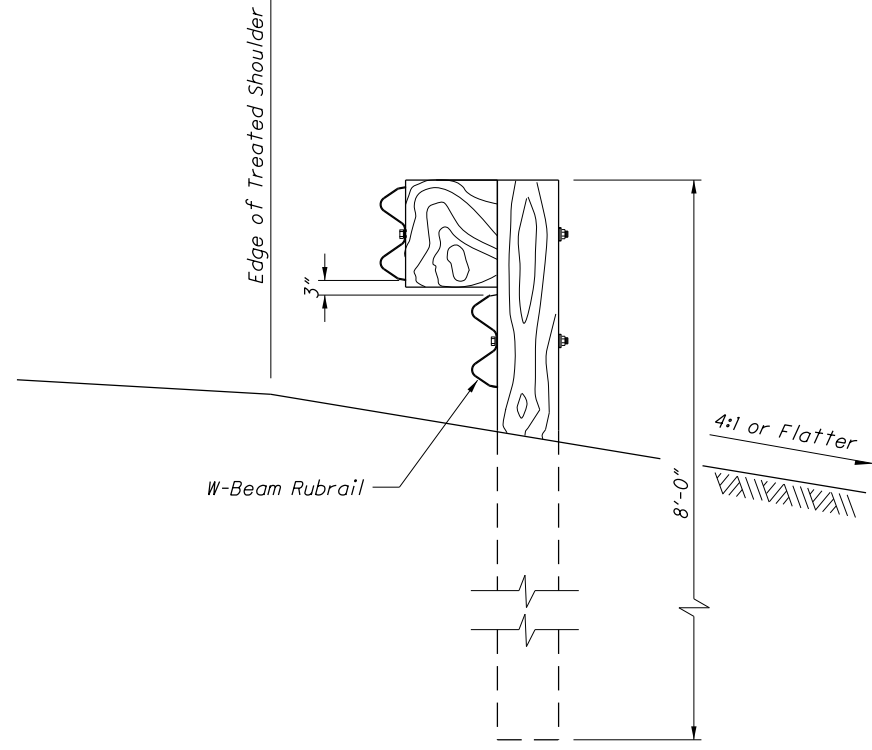
**MISCELLANEOUS:** For details not shown see SCD MGS-2.1.

**END ANCHORS:** A Post End Anchor is the preferred end treatment. A Concrete Block End Anchor may be installed in any location that does not permit the installation of posts. Concrete Blocks may be either pre-cast or cast-in-place and shall meet the requirements of CMS 606.02. The guardrail panel in the end anchors shall be pre-drilled and then galvanized per CMS 606.02. The finished ground line over the end anchor should be smooth and consistent with the surrounding topography, i.e. embankment shall not be mounded over the end anchor to achieve the proper amount of cover.

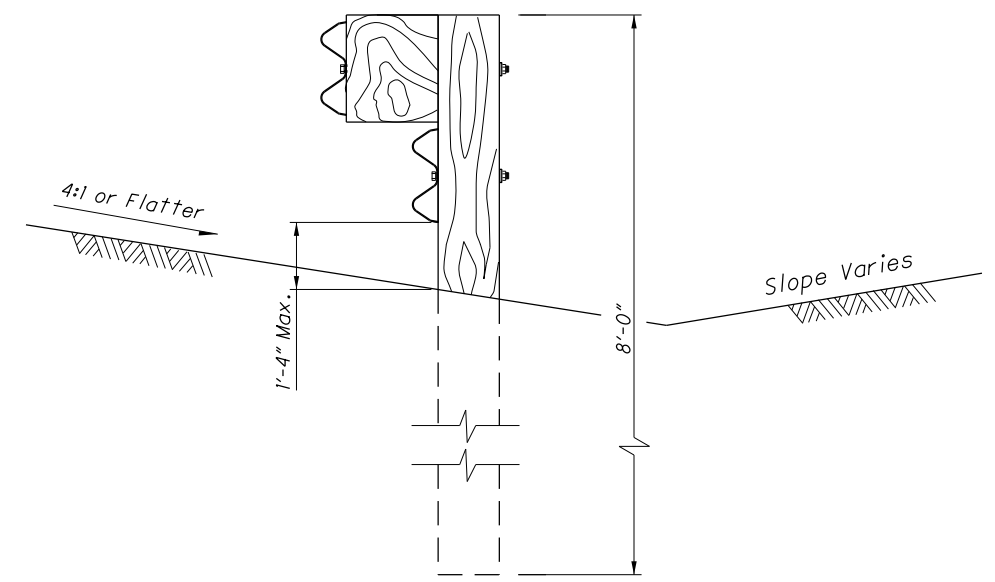
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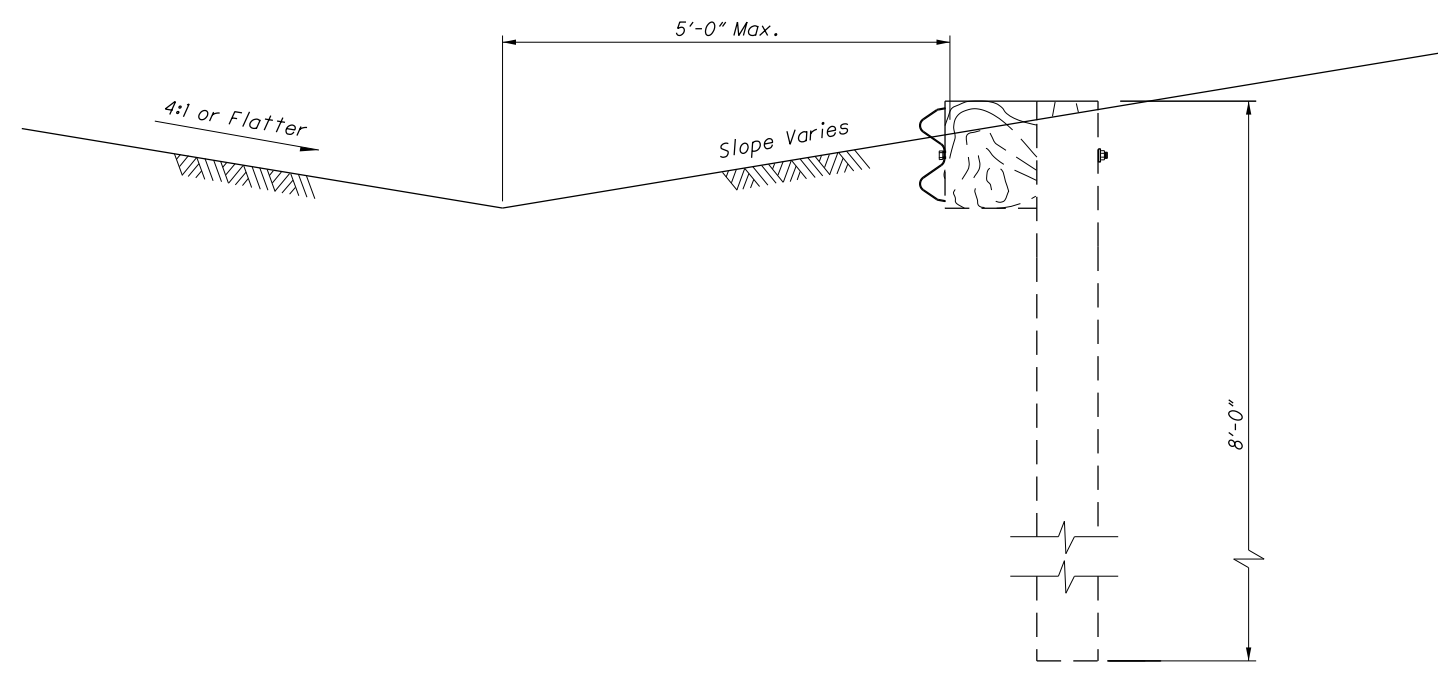
**SECTION A-A**  
(See Sheet 1)



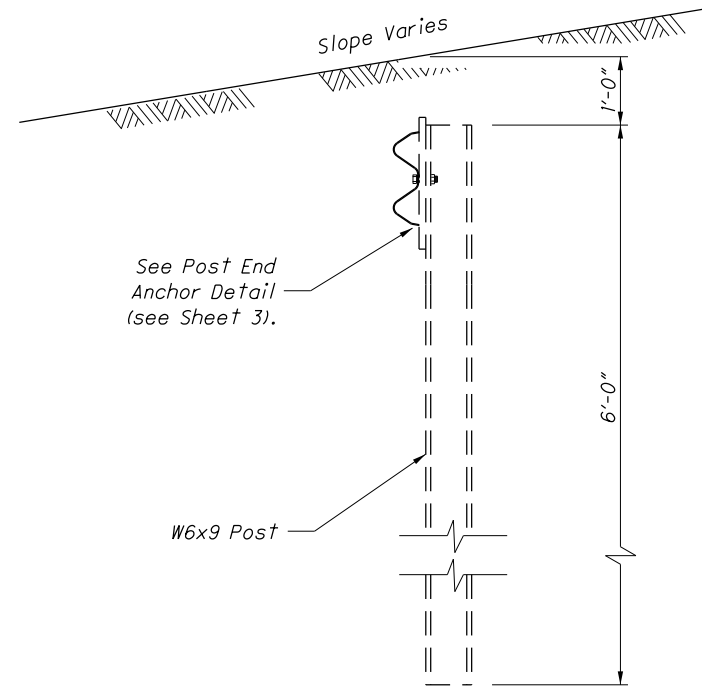
**SECTION B-B**  
(See Sheet 1)



**SECTION C-C**  
(See Sheet 1)



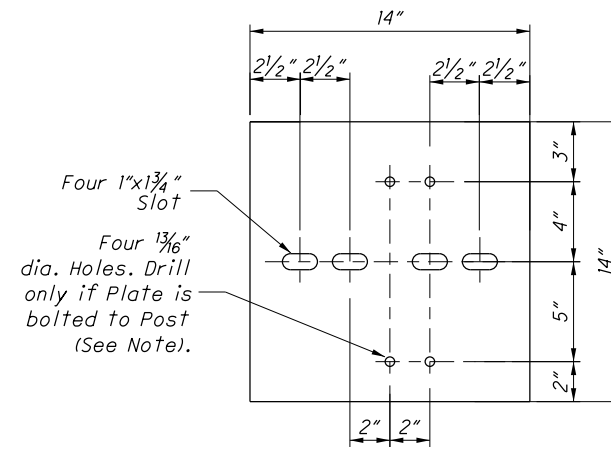
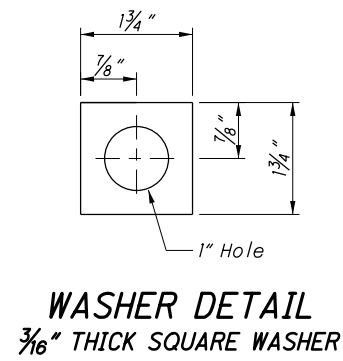
**SECTION D-D**  
(See Sheet 1)



**SECTION E-E**  
(See Sheet 1)

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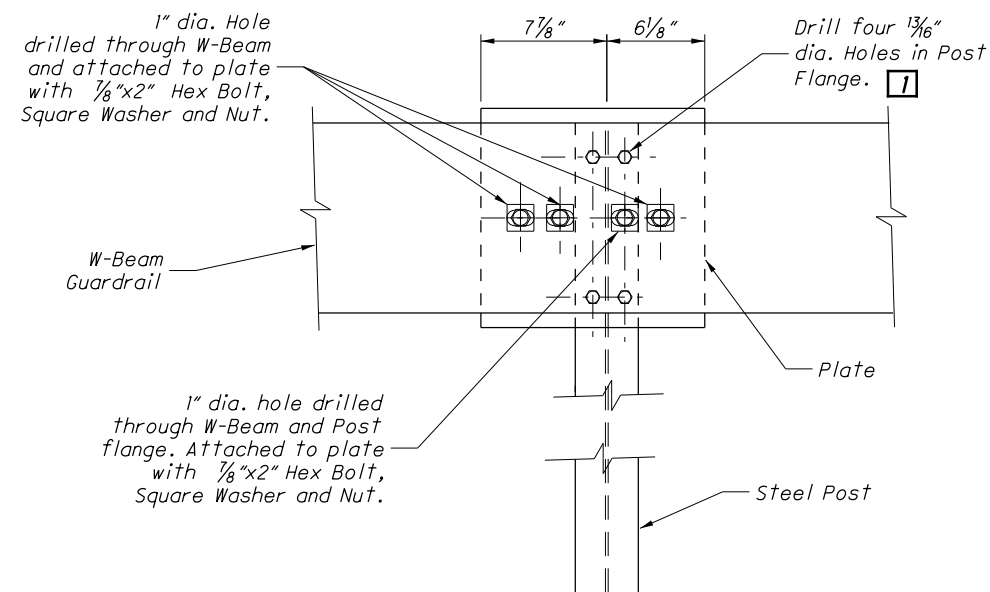
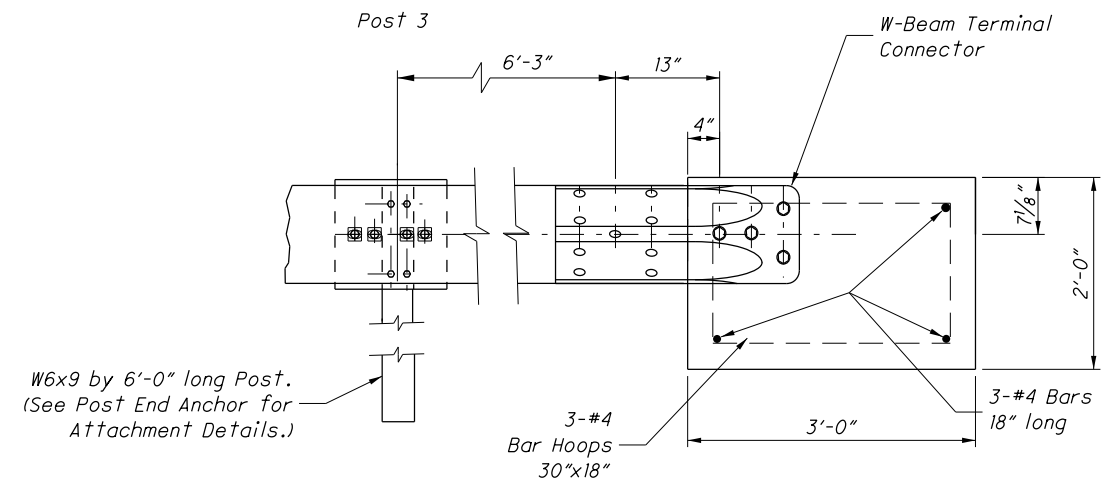
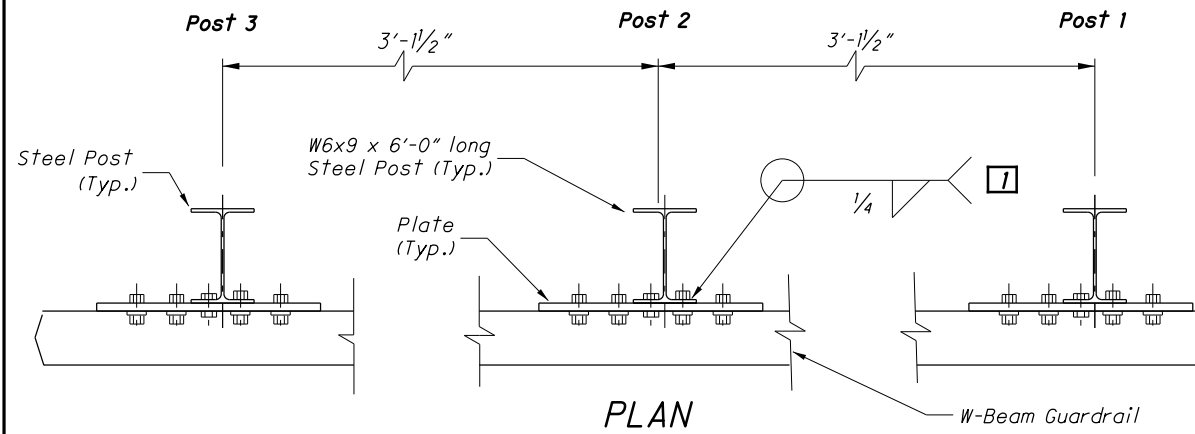
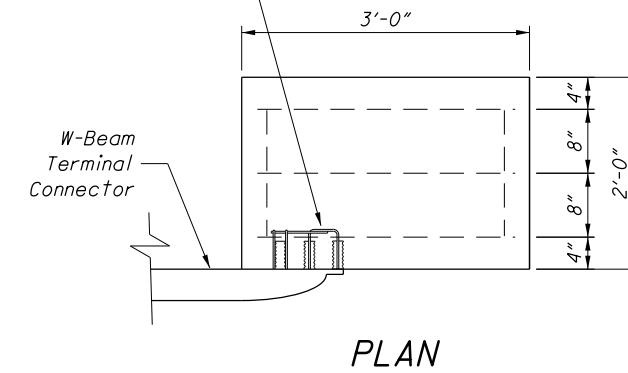
MGS-4.5 SED NUMBER	MIDWEST GUARDRAIL SYSTEM MGS GUARDRAIL TYPE 8 BURIED IN BACKSLOPE	OFFICE OF ROADWAY ENGINEERING	STAS ENGINEER M. Ruppe	STATE OF OHIO DEPARTMENT OF TRANSPORTATION Michael Blune ADMINISTRATOR	1-18-2013 DATE
		2 / 3			



**PLATE DETAIL**  
 $\frac{1}{2}$ " THICK STEEL PLATE

Use either: 1) Concrete Insert Anchor Assembly (See Detail on (SCD MGS-4.1), or 2) four  $\frac{7}{8}$ " Anchor Bolts with washers

Bolts shall be either mechanical or set in epoxy adhesive per CMS 705.20. Length of bolt and size of hole to be determined by manufacturer's recommendation.



**ELEVATION**  
**POST END ANCHOR**

[1] The  $\frac{1}{2}$ " Steel Plate may be welded or bolted to the Post. If the Plate is bolted to the Post use four  $\frac{7}{8}$ "x $\frac{1}{2}$ " long Hex Head Bolts with Hex Nuts. If the Plate is welded to the Post do not drill  $1\frac{1}{16}$ " Holes in the Plate or the Post flanges.

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