SHOWN: SGR34a
2x STANDARD POST SPACE OF: 6' 3" = 75" [1905]

TYPICAL SPLICE LAP IN DIRECTION OF TRAFFIC

RWM02a-b, RWM04a-b, RWM06a-b, or RWM08a-b

PLAN

12' 6" = 150" [3810] W-BEAM GUARDRAIL (TYP)

GROUND LINE

POST LENGTH
72" [1829]

DIR OF TRAFFIC

ELEVATION

SHOWN:
SGR34a 2x STANDARD POST SPACE OF: 6' 3" = 75" [1905]

SGR34 POST SPACING OPTIONS a-d:

SGR34a 2x STANDARD POST SPACE OF: 6' 3" = 75" [1905]

NOT SHOWN:
SGR34b 1x STANDARD POST SPACE: USE RWM01a-b, RWM02a-b, RWM04a-b, RWM06a-b, or RWM08a-b
SGR34c 1/2x STANDARD POST SPACE: USE RWM04a-b. or RWM08a-b
SGR34d 1/4x STANDARD POST SPACE: USE RWM08a-b

PWE01 (shown), PDE02, or PDE13

MINI SPACER RELEASABLE FASTENER
(SEE DETAIL A)

RELEASABLE FASTENER

DOME WASHER

ROUND WASHER

MINI SPACER EXPLODED VIEW

DETAIL A

HEAVY HEX NUT

NOTE: MINI SPACER RELEASABLE FASTENER SUPPLIED BY GREGORY HIGHWAY SAFETY PRODUCTS- NO SEPARATE DESIGNATOR.

SECTION A-A

7" [178]

8-FBB01 EACH SPlice

21 5/8" [550] RAIL MOUNTING HT.

GROUND LINE

GMS GUARDRAIL: 27" ROADSIDE W-BEAM

SGR34a-d

2011
INTENDED USE
The Gregory Mini Spacer (GMS) Guardrail System is intended for roadside and median applications at NCHRP Report 350 and MASH Test Level 3. All GMS components are standard—only the Mini Spacer fastener component is proprietary. GMS does not require mid-span splices, blocks or backup plates. GMS does not rely upon a post bolt head pulling through and deforming a rail slot to release rail from a post during a vehicle impact. GMS instead incorporates the scientifically engineered Mini Spacer releasable mounting fastener that includes a separate deformable release element to provide an optimized release load magnitude in field installations. The same Mini Spacer fastener accommodates a range of top of rail heights of 27” [686] - 31” [787], a range of post types and spacing, and a range of rail types and gages. GMS W-beam accommodates 12’6” [3810] 2x standard post spacing, 6’3” [1905] 1x standard post spacing, narrower 3’1 ½” [953] ½ x standard post spacing, and 1’ 6 ¾ “ [476] ¼ x standard post spacing; with respective roadside “working width” deflections of 66”[1680], 49” [1250], 44” [1120], and 35” [900]. GMS W-beam post spacing may be gradually varied in a single installation to accommodate local terrain and ADT. GMS enables cost-effective and efficient W-beam repair and upgrade retrofit. GMS Thrie-beam has 39” [991] top of rail height.

COMPONENTS
Unit Length = 12’6” = 150” [3810]

<table>
<thead>
<tr>
<th>Designator</th>
<th>Component</th>
<th>SGR34 System</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>RWM01a-b</td>
<td>W-beam rail</td>
<td>b</td>
<td>2</td>
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<tr>
<td>or RWM02a-b</td>
<td>alternate: W-beam rail</td>
<td>a,b</td>
<td>1</td>
</tr>
<tr>
<td>or RWM04a-b</td>
<td>alternate: W-beam rail</td>
<td>a,b,c</td>
<td>1</td>
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<tr>
<td>or RWM06a-b</td>
<td>alternate: W-beam rail</td>
<td>a,b</td>
<td>1</td>
</tr>
<tr>
<td>or RWM08a-b</td>
<td>alternate: W-beam rail</td>
<td>a-d</td>
<td>1</td>
</tr>
<tr>
<td>FBB01</td>
<td>Guardrail splice bolts and nuts</td>
<td>a-d</td>
<td>8*</td>
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<tr>
<td>PWE01</td>
<td>Wide-flange guardrail post</td>
<td>a,b,c,d</td>
<td>1,2,4,8</td>
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<tr>
<td>or PDE02</td>
<td>alternate: Timber guardrail post- rectangular 6”x8”</td>
<td>a,b,c,d</td>
<td>1,2,4,8</td>
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<tr>
<td>or PDE13</td>
<td>alternate: Timber guardrail post- round 7” dia.</td>
<td>a,b,c,d</td>
<td>1,2,4,8</td>
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* 16 for RWM01a-b

APPROVALS

<table>
<thead>
<tr>
<th>Acceptance</th>
<th>Date</th>
<th>Notes</th>
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<tr>
<td>HSA-10/B-150</td>
<td>10/27/2006</td>
<td>GMS W-beam for roadside and median use.</td>
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<tr>
<td>HSSD/B-156</td>
<td>03/21/2007</td>
<td>GMS Thrie-beam- roadside and median use.</td>
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<tr>
<td>HSSD/CC-96</td>
<td>12/21/2007</td>
<td>Use of approved End Terminals with GMS W-beam at equal top of rail height</td>
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<tr>
<td>HSSD/B-150A</td>
<td>03/26/2008</td>
<td>GMS W-beam “working width” deflections for: 1x, 1/2x,1/4x standard 6’3” spacing</td>
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<td>HSSD/B-150B</td>
<td>07/16/2008</td>
<td>GMS W-beam at 2x std. post spacing, ht. 27” - 31”, for roadside or median use</td>
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<tr>
<td>HSSI/ B-150C</td>
<td>11/19/2010</td>
<td>GMS W-beam &amp; Thrie-beam: Dual NCHRP Rept. 350 and MASH acceptance</td>
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</tbody>
</table>

REFERENCES

CONTACT INFORMATION
Gregory Highway Safety Products
4100 13th Street, SW • Canton, OH 44710 • Phone 330-477-4800
http://www.gregorycorp.com/highway.cfm

GMS GUARDRAIL: 27” ROADSIDE W-BEAM

SGR34a-d

<table>
<thead>
<tr>
<th>SHEET NO.</th>
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