

New drawing

Post by Administrator on 5/16/05 at 14:02

Updated drawing/specification at <http://users.wpi.edu/~skwirl/HardwareGuide/New/Ready/Systems/sgm11a-b.pdf>

Re: New drawing

Post by cheimbecker on 5/18/05 at 11:51

Sheet 2 of 2, Intended Use, Sentence #2:

Typo: "SGR-11a is a test level 4 barrier, and SGR-11b is a test level 5 barrier"

should read:

"SGM-11a is a Test Level 4 barrier, and SGM-11b is a Test Level 5 barrier"

Re: New drawing

Post by cheimbecker on 5/18/05 at 11:52

Also - the printed page size and fonts on the text sheets (Sheets 2 and 4) are different than on the drawings pages (Sheets 1 and 3)

Re: New drawing

Post by Terry Hale on 5/23/05 at 17:38

I am suspicious of the Anchorage Detail shown for the Safety-Shape Median Barrier as sheet 3 of 4. The footing is shown as being 10 inches deep below a 1 inch face. I believe the detail was drawn without the 3 inches of exposed toe shown on sheet 1 of 4. Shouldn't the 10 inch foundation be shown as being below a toe that include BOTH a 3 inch exposed face and a 1 inch buried face? The detail as presented shows the Bar A extending down into the footing, yet note 2 implies that the pours could be made monolithically or independently.

Without the 3 inches of exposed toe face, it would be pretty hard to fit the Bar A into the barrier if independent pours are used. This concern applies to the details shown for the F-shape median barrier as well.

Re: New drawing

Post by Greg Speier on 5/23/05 at 17:44

1. For both sets of drawings the heading on page 2 of 4 is "Intended Use". I do not see any intended use on this page and suggest that you use another term.
 2. For both sets of drawings it would be helpful to show a minimum H based on FHWA testing. I remember that one test showed that the safety shapes worked down to a height of about 690 mm. This will help prevent a legal situation should an overlay be placed next to the barrier.
 3. I would also suggest that the 3 inch or 75mm dimension at the toe of the barrier be shown as a "Maximum". The barrier will work fine with anything less than 75mm but begins to show problems should that dimension be increased for any reason including construction inaccuracies. I worked on a very special case in Argentina where a famous person died after crashing his Ford BRONCO with Firestone tires at 150 km/h. The contention was that the New Jersey shape that he hit did not have the required 75 mm height at the toe due to an overlay and as a result the accident was much more severe that what it would have been had the barrier been raised after the overlay. We testified that all the overlay did was to convert the New Jersey into an "F" shape system.
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Re: New drawing

Post by NPCA on 6/9/05 at 10:40

I have a few questions that I am hoping some of the DOT representatives may be able to provide answers to.

I represent the National Precast Concrete Association and am staff liaison for our Barrier Committee. The committee is in the process of reviewing the drawings and will be submitting comments shortly. The initial feed back I have received thus far is that in general the drawings look fine; they are of the standard shape and size.

The main concern is that every state specifies a different reinforcing detail, anchoring system and connection detail.

1. Does every state crash test their altered designs?
 2. Should the manual include every state's revised drawings?
 3. More importantly, are states interested in considering a standardized design?
- After all, standardization is the focus of Task Force 13

The NPCA Barrier Committee is meeting on June 20-21 in Indianapolis to discuss the topic of standardization further. I would appreciate it if any State DOT representative that has read this posting sends me copies of their standard drawings and crash test reports for precast concrete barriers to assist in our review and effort.

Thank you in advance,
Adam D. Neuwald

Re: New drawing

Post by Administrator on 7/12/05 at 12:52

5/23/05 at 17:38, Terry Hale wrote:

I am suspicious of the Anchorage Detail shown for the Safety-Shape Median Barrier as sheet 3 of 4. The footing is shown as being 10 inches deep below a 1 inch face. I believe the detail was drawn without the 3 inches of exposed toe shown on sheet 1 of 4. Shouldn't the 10 inch foundation be shown as being below a toe that include BOTH a 3 inch exposed face and a 1 inch buried face? The detail as presented shows the Bar A extending down into the footing, yet note 2 implies that the pours could be made monolithically or independently. Without the 3 inches of exposed toe face, it would be pretty hard to fit the Bar A into the barrier if independent pours are used. This concern applies to the details shown for the F-shape median barrier as well.

I think I've fixed this in the latest drawing.

Re: New drawing

Post by Administrator on 9/8/05 at 14:07

5/23/05 at 17:44, Greg Speier wrote:

2. For both sets of drawings it would be helpful to show a minimum H based on FHWA testing. I remember that one test showed that the safety shapes worked down to a height of about 690 mm. This will help prevent a legal situation should an overlay be placed next to the barrier.

3. I would also suggest that the 3 inch or 75mm dimension at the toe of the barrier be shown as a "Maximum". The barrier will work fine with anything less than 75mm but begins to show problems should that dimension be increased for any reason including construction inaccuracies....

The vertical reveal and height to the upper breakpoint are fixed. I am not sure about ranges of values for other dimensions.

Old comment

Post by Administrator on 5/9/05 at 12:02

(submitted 5/23/1996)

The cross-section view on Sheet 3 of this drawing is unclear. The last 3000 mm of the barrier is supported by a 250-mm deep footing. The dimension 250 in the cross-section refers to the depth of the footing. There is an incorrect object line in the cross-section and the dimension line should go all the way to the bottom of the shape. Also the top of the footing should be 25-mm below the surface which is not shown.

Re: Old comment

Post by Administrator on 7/12/05 at 12:53

The updated drawing should be clearer.
