

## **7156 Paved Shoulder at Guardrail (Granular Shoulder Adjacent to Mainline)**

(This section last updated 11-17-21)

The primary purpose of paved shoulder at guardrail is to provide a smooth, stable surface in front of guardrail for errant vehicles. However, it provides additional benefits:

- Reducing rock washout,
- Reducing mowing around guardrail installations, and
- Providing a strong enough pavement to eliminate the need for future shoulder strengthening.

This typical is not intended for use on bridge approaches for granular surface secondary roads passing over Primary or Interstate roadways.

The notes are set up for bidding alternate shoulders. If bidding PCC, remove the notes pertaining to the HMA alternative. Similarly, if bidding HMA, remove the notes pertaining to the PCC alternative.

**Note:** Blockouts for VT and VF sections are 12 inches. Blockouts for the [BA-205](#) and [BA-225](#) end terminals are 8 inches. Designers will need to account for this when determining P<sub>SG</sub>.

### **At Bridge Ends ([BA-250](#))**

#### **New Construction**

For new construction, 6 inches of special backfill is placed under the pavement. Include [2 P Guard](#) for two lane roadways and [4 P Guard](#) for four lane roadways.

#### **Existing Shoulder**

For existing shoulder, pavement is placed on the existing surface unless the shoulder will need to carry traffic. If the shoulder will need to carry traffic, 6 inches of Special Backfill will be required beneath the pavement.

#### **Pavement Thickness**

The general note states to use 9 inch HMA Paved Shoulder (8 inch PCC may be substituted). For Interstates, modify the note in the typical to increase these to 11 inches HMA Paved Shoulder (9 inches PCC may be substituted).

If the shoulder pavement will need to carry traffic at some point in the future (e.g. traffic shifted for a bridge repair), the pavement may need to be thicker. Contact the [Pavement Design Engineer](#) for pavement thickness if the shoulder needs to carry traffic for 3 months or more and/or truck volume is greater than 1000/day (Primary) or 6000/day (Interstate).

Enter pavement thickness into Tab [112-9](#).

### **At Side Obstacles ([BA-251](#) or [BA-252](#))**

#### **New Construction**

For new construction, 6 inches of special backfill is placed under the pavement. Include [2 P Guard](#) for two lane roadways and [4 P Guard](#) for four lane roadways.

#### **Existing Shoulder**

For existing shoulder, pavement is placed on the existing surface unless the shoulder will need to carry traffic. If the shoulder will need to carry traffic, 6 inches of Special Backfill will be required beneath the pavement.

#### **Pavement Thickness**

The general note states to use 9 inch HMA Paved Shoulder (8 inch PCC may be substituted). For protecting side obstacles, modify the note in the typical to decrease these to 7 inches HMA Paved Shoulder (6 inches PCC may be substituted).

If the shoulder pavement will need to carry traffic at some point in the future (e.g. traffic shifted for a bridge repair), the pavement may need to be thicker. Contact the [Pavement Design Engineer](#) for pavement thickness if the shoulder needs to carry traffic for 3 months or more and/or truck volume is greater than 1000/day (Primary) or 6000/day (Interstate).

Enter pavement thickness into Tab [112-9](#).