Byron Poynter, Consultant - Construction Division

Bob Rusch, Bridge Engineer

Forming Bridge Deck Haunches for Prestressed Concrete Beams

Recently it has come to the attention of the Bridge Division that some of the haunches for prestressed beams have been formed using roofing paper and / or plastic sheets to prevent concrete leakage around the deck haunches. This practice must be STOPPED immediately. The horizontal shear design requires that the concrete on the top surface of the prestressed beam be in contact with the haunch over the full width of the top flange. The Bridge Division has noted the following problems:

- The stiff paper has caused rounding and narrowing of the haunch.
- A significant width of paper being left between the top of the prestressed concrete beam and bottom of the haunch. This breaks the bond between the beam and the deck, resulting in a reduction in the load-carrying capacity of the superstructure.
- When the paper or plastic is left in place, we are not able to inspect the haunch concrete.

When forming haunches, do not allow the use of roofing paper, plastic sheets, or any material that reduces either the specified haunch width or contact surfaces between the beam and the haunch concrete. Your cooperation in this manner is greatly appreciated.

If you have any questions, please give Mark Baker a call at (405) 521-6499.

Robert J. Rusch, P.E.
Bridge Engineer

Attachment

RJR/wp

cc: Chief Engineer
Assistant Director - Preconstruction
Assistant Director - Operations
Mark Baker
Bridge Deck

Reduced Contact Area

Roofing paper serves as bond breaker.