

IOWA DEPARTMENT OF TRANSPORTATION

To Office Bridges and Structures **Date** January 26, 2005
Attention All Employees **Ref No.** 521.1
From Gary Novey
Office Bridges and Structures
Subject MM No. 110 (Concrete Placement of Concrete Barrier Rail)

Currently the majority of concrete bridge rail is placed using a slipforming operation. The specifications require the use of a "BR" concrete mix design (Article 2513.03B1-5) for cast-in-place and slipform concrete barrier rail. It also allows substitution of a Class D concrete in lieu of the "BR" mix design when the Class BR concrete mix is not available. Based on some quality issues associated with the slipforming operation the bridge office in conjunction with the Office of Materials and the Office of Construction proposes to have bridge plans specify the intent to use the "BR" concrete mix if slipforming of the concrete barrier rail is the selected placement option by the Contractor. In addition, the use of Class D concrete will still be allowed when placing concrete barrier rail, however the cast-in-place method (fixed forms) will be required in lieu of slipforming.

To accomplish this action, bridge plans will include the following information:

- 1.) In the General Notes place the following:
"Concrete barrier rails placed using the slipform method will require the use of a Class BR concrete in accordance with Article 2513.03B of the Standard Specification. Class D concrete is not permitted for concrete barrier rails placed using the slipform method.
- 2.) In the bid item reference information add the following:
"If placement of concrete is done by the slipforming method, Class BR concrete is required. When Class D concrete is used for concrete barrier rails, the cast-in-place (fixed form) method of placement will be required. Price bid for this item shall include the cost of cast-in-place forms if required for placement of the concrete."

This process will be effective starting with the May 2005 letting. Incorporate the above notes into appropriate bridge plans.

GAN/bj