INDIANA DEPARTMENT OF TRANSPORTATION
Driving Indiana's Economic Growth

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Mitchell E. Daniels, Jr., Governor
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November 15, 2010

CONSTRUCTION MEMORANDUM
10-10

TO: District Deputy Commissioners
District Construction Directors
District Testing Engineers
District Area Engineers
District LPA Coordinators
Field Engineers
Technical Services Directors
Project Engineers/Supervisors
Office of Materials Management

FROM: Mark A. Miller, Director
Division of Construction Management

SUBJECT: Curing of Bridge Deck Concrete

It has been brought to the Department's attention that there is some confusion regarding the curing period for concrete used in a bridge deck. INDOT *Standard Specifications* section 702.22 requires 168 hours of continuous cure time. Beam tests or beam breaks do not control the curing time of bridge decks per 702.22. Thus the test beam minimum flexural strengths given in 702.13(h) are not applicable. The 168 hour cure time controls the curing of bridge decks.

At times, the contractor desires to place a bridge deck during colder temperature months of the year. When this occurs, section 702.11 describes provisions for cold weather concrete. A protective enclosure is required to be constructed completely around the bridge deck and the specified minimum temperature inside the enclosure must be maintained for at least 144 hours. If the specified minimum temperature is not maintained for at least 144 hours inside the enclosure, the heating period is extended.

In summary, regardless of the time of year or test beam results, the bridge deck concrete must cure for 168 hours and the temperature during the first 144 hours of the curing period must be maintained at or above the specified minimum temperature contained in 702.11. If the specified 50° F minimum temperature is not maintained, the heating period is extended.

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