

IOWA HOT MIX ASPHALT (HMA) GYRATORY MIX DESIGN FOR URBAN SYSTEMS

IMPLEMENTATION BULLETIN #2
SEPTEMBER 2003

This is the second in a series of bulletins to be issued by the Urban Gyratory Mix Implementation Team. It is the intent of the Implementation Plan to successfully apply Gyratory Mix Design Technology for all future asphalt paving in Iowa. This Implementation Plan will allow urban systems to continue to utilize their existing aggregates under Gyratory Mix Design criteria. Minor adjustments to mixtures may be necessary; however, it is the intent of the implementation evaluation to NOT have a significant impact on the current urban system asphalt programs.

The full implementation of designs using gyratory compaction criteria for the entire state of Iowa is still targeted for construction season 2004. The DOT materials labs have indicated that we are not receiving enough urban data to be able to encompass the broad representation of mixtures statewide that we know exist. Therefore, again, we encourage you to submit your materials to your DOT district materials lab or asphalt project contractor for testing. If your local agency has no asphalt construction scheduled for this season, but you want to make sure that your area is represented, mix design materials from 1993 to the present can be evaluated. Work with your district materials lab for instruction and assistance in obtaining representative samples of the aggregates to be evaluated. The intent of the Implementation Team is to provide bid items to encompass adequately performing mix designs that are currently being incorporated in urban systems and are specific for urban applications.

The committee is now accepting gyratory test data from 2003 city Marshall projects that are performing satisfactorily. These mixes may be either Marshall or Gyratory and may be from either federal-aid or local projects. Please refer to the instructions attached to Bulletin #1 for the data requirements for this mixture evaluation. The gyratory evaluation of currently used (satisfactorily performing) mixtures is the key component of the Implementation Plan. Industry and agency attention and effort to this activity is essential for a successful implementation of gyratory technology for urban systems. If you have any questions about this process, contact Dan Redmond, DOT Central Materials at (515) 239-1604

It is our goal to ensure that the technology can be implemented with minimal impact to the urban systems' asphalt programs. We would like to be able to test samples from as wide a range of project types and traffic patterns as possible. After testing and evaluation has been completed, we will determine whether additional bid items will be required. A large amount of testing has been done for higher volume roadways with a constant traffic flow, but the traffic patterns for urban areas vary in many aspects, including volume, type of traffic (ranging from semis to skateboards), and traffic patterns (turning, stopping, lane changing, etc.). For this reason, it is imperative that you submit your information so that your desired mix type can be represented in the test data that is evaluated!

If you desire more information about this Implementation Plan please contact Brenda Boell, DOT Local Systems at (515) 239-1437.

The following is a link to an article that appeared in the July 2003 issue of *Better Roads* magazine entitled "Does Superpave Have a Local Future?"

www.betterroads.com/articles/jul03b.htm

The state of Iowa has taken the lead in the nation on this subject, making modification to the product to ensure that local agencies feel a minimal impact on utilization of their local mixes currently in use that are performing satisfactorily. So, even though this article is aimed at the nationwide implementation of the traditional "Superpave" mixes, it drives home the fact that Gyrotory technology is the wave of the future.

See the following link to Bulletin #1 for contact information for the Urban Gyrotory Mix Implementation Team and the DOT District Materials Engineers.

www.dot.state.ia.us/local_systems/publications/uigmd_bulletin_1.pdf