



# Iowa Department of Transportation

800 Lincoln Way, Ames, Iowa 50010

515-239-1124

FAX: 515-239-1120

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Dr. David White, Associate Professor  
Civil, Construction and Environmental Engineering  
Center for Transportation Research and Education  
2711 S. Loop Drive, Suite 4700  
Ames, Iowa 50010-8664

Dear Dr. White:

I am pleased to offer support for the initiative underway at Iowa State University's Center for Transportation Research and Education to establish an Earthworks Engineering Research Center. As I understand it, the focus of the program will be to establish both academic and research programs in partnership with industry and public sector stakeholders for the purpose of providing the engineering knowledge necessary for the successful construction of embankments, subgrades and bases that support long-life pavement systems. These are significant aspects associated with good roadway performance and they require a focused effort to advance the state of professional practice.

For a number of reasons, including minimizing disruption to the traveling public, reducing the cost of roadway ownership and maintenance, and improving safety, many states are looking at approaches that will extend the traditional life of roadways from the 20 to 30 year time frame to current objectives of 50 or even 100 years. AASHTO is just completing an \$8 million effort to develop new pavement design procedures which will allow pavement designers to design pavements that are to be more reliable and cost effective. The important contribution being proposed at CTRE is that of defining the pavement foundation and underlying support needs that will allow the "roadway" to function as intended by the design.

Proper foundation preparation is critical to the long term performance of any type of pavement. It is a well known and understood fact that inadequate compaction of the subgrade, subbase and/or base layers can lead to early pavement distresses such as cracking, rough riding and dips resulting from settlement. In the wet-freeze climate of the Midwest, proper compaction is critical in order to minimize the negative impacts of moisture on pavement performance.

Please keep me informed as your plans develop. We certainly support the initiative your center is undertaking on this long overdue effort. I am sure there are several areas where we can partner with you in the future. The technologies and solutions anticipated to be developed through this effort should provide high value in improving the performance of not only Iowa's but all of our nation's highways.

Very truly yours,

Kevin M. Mahoney, P.E.  
Highway Division Director

KMM/bas

CC: E. Tom Cackler