



# Iowa Department of Transportation

800 Lincoln Way, Ames, Iowa 50010

Phone: 515-239-1206

Fax: 515-239-1978

## Reporting element level bridge data for non-NHS bridges Comments

### Benefits

An effective bridge management system requires the collection of detailed condition assessments of the structures to forecast deterioration and incorporate benefit cost ratios into the decision making process. Element level inspection will generate that required level of detail to:

- a. Develop a more objective analysis of the needs
- b. Create a more equitable allocation of resources
- c. Allow a more comprehensive competition, with other assets, for limited resources.

### Benefits to:

FHWA – Provide a more in-depth understanding of the condition and unmet funding for all bridges in the country.

State – The potential to apply asset management principles throughout the State for a more accurate condition assessment and efficient distribution of resources.

Local Public Agencies (LPAs) – Provide a more comprehensive view of bridge conditions in their jurisdiction.

### Cost effectiveness

It is estimated it would cost the LPAs an additional \$2.5 million for each of the first 2 years, after implementation, to create the elements and inspect the bridges. After the initial implementation an additional \$500,000 each year would be expended, in the State of Iowa, to collect and record the additional details.

Additionally, the Iowa Department of Transportation may require 2 additional Full Time Equivalent (FTEs) for element level training; managing, collecting and analyzing the data for the additional 20,000 locally owned bridges.

The total additional expenditure for the LPAs is estimated at \$250 per bridge for the first 2 years and an additional expense of \$50 per inspection after the process is implemented.

The total additional expenditure for the first two years, including the DOT's participation, is estimated at \$5.5 million.

The intent of requiring element level inspection for LPAs is the implementation of an asset management system. However, the economies of scale achieved with an asset management system have a diminished value when dealing with a local agency that has significantly fewer assets and resources. The benefit cost ratio, of requiring this additional detail, would most likely be less than one. The resources may be more effectively used repairing local bridges rather than inspecting them.

#### Feasibility

The ability to add element level data, to the bridge inspections required by the National Bridge Inspection Standards (NBIS), will be available as an option for all LPAs later this year; through the States Structure Inventory and Inspection Management System (SIIMS).

Acquiring resources to analyze an additional 20,000 LPA bridges for an Asset Management Program will be problematic. A formal asset management system suitable for the nation or a state has minimal value when applied to a local jurisdiction; the diversity of assets, varying priorities and political realities are not conducive to a single asset management system for the entire State.

#### **Information Collection Comments**

1. Whether the proposed collection is necessary for the FHWA's performance.  
Yes, the FHWA needs to be aware of the unique issues facing the various jurisdictions in the nation.
2. The accuracy of the estimated burdens.  
Yes, a total of 2 hours to develop a response is reasonable.
3. Ways for the FHWA to enhance the quality, usefulness, and clarity of the collected information.  
A few standardized questions, either Yes/No or a, b, c... would help with clarity and usefulness of the data.
4. Ways that the burden could be minimized, including the use of electronic technology, without reducing the quality of the collected information.  
An on-line response to questions would expedite the collection and analysis of the data.