

COMMITTEE ON TRANSPORTATION AND INFRASTRUCTURE
SUMMARY OF THE AMENDMENT IN THE NATURE OF A SUBSTITUTE TO
H.R. 3999, THE NATIONAL HIGHWAY BRIDGE RECONSTRUCTION
AND INSPECTION ACT OF 2008

July 11, 2008

Section 1. Short Title

Section 1 denotes the short title of the bill as the “National Highway Bridge Reconstruction and Inspection Act of 2008.”

Section 2. Highway Bridge Program

Section 2 requires the Secretary of Transportation (“Secretary”) to develop a system to assign a risk-based priority to repair, rehabilitate, or replace each structurally deficient or functionally obsolete bridge, establishing a new level of accountability in bridge repair and replacement by ensuring that States are investing in upgrading those bridges that are most critical to safety, as well as freight and passenger mobility. This prioritization will allow States to target inspections and limited HBP resources on those bridges most in need of repair, rehabilitation, and reconstruction. In doing so, the overall safety and reliability of State bridge inventories will be increased.

Subsection (a)(1) of section 2 amends section 144(b) and (c) of title 23, United States Code, to direct the Secretary, in consultation with the States, to inventory all bridges, identify each bridge inventoried that is either structurally deficient or functionally obsolete, assign a risk-based priority for replacement or rehabilitation of each such bridge after consideration of safety, serviceability, and essentiality for public use, and determine the cost of replacing each such bridge with a comparable facility or of rehabilitating such bridge.

Subsection (a)(2) requires the Secretary to establish a process for assigning risk-based priorities not later than 18 months after the date of enactment of this Act. The Secretary must submit to the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Environment and Public Works of the Senate a report containing a description of the process for assigning risk-based priorities.

This subsection also requires the National Academy of Sciences to independently review the process for assigning risk-based priorities for repair, reconstruction, or replacement of structurally deficient and functionally obsolete bridges to ensure that investment and resource decisions are based on need.

Subsection (b) defines the term “deficient bridge” as a bridge that is structurally deficient or functionally obsolete.

Subsection (c) establishes the requirements for State participation in the Highway Bridge Program (“HBP”). This subsection requires States to inspect all highway bridges at least every 24 months. The inspections must be in accordance with bridge inspection standards established under section 151 of title 23, United States Code. After completing

bridge inspections, States must provide updated information on these bridges to Federal Highway Administration ("FHWA") for inclusion in the National Bridge Inventory ("NBI").

This subsection also requires States to calculate, within 24 months, the load rating for all bridges located within the State. The amendment further requires States, at least once every 24 months, to reevaluate, and, where appropriate, recalculate bridge load ratings based on most recent bridge inspections. Finally, this subsection requires States to ensure that the safe load-carrying capacities for such bridges are properly posted.

This subsection requires States to establish a five-year performance plan for the inspection of highway bridges and the rehabilitation and replacement of any structurally deficient or functionally obsolete bridges. The Secretary must develop criteria for approval of five-year performance plans not later than one year after enactment of this legislation. States must submit the performance plan to the Secretary and the Secretary must approve or disapprove each State's performance plan.

Finally, subsection (c) requires States to develop and implement bridge management systems to improve targeting and utilization of HBP funds.

Subsection (d) requires the Secretary to submit to the Committee on Transportation and Infrastructure of the House of Representatives and the Committee on Environment and Public Works of the Senate a report containing a description of the priority assigned, on a national basis and by State, for the replacement and rehabilitation of each structurally deficient or functionally obsolete bridge. The report also must contain a description of any project or activity carried out by a State that is inconsistent with the priorities assigned by the Secretary.

Subsection (e) authorizes a State to transfer HBP funds to another apportioned program only if the State is able to demonstrate to the satisfaction of the Secretary that the State has no bridges on the National Highway System that are eligible for replacement.

Subsection (f) defines "functionally obsolete", "structurally deficient", "rehabilitation", and "replacement" for purposes of the HBP.

Subsection (g) requires the Secretary to ensure that information in the NBI is more readily available to the public. This provision ensures that FHWA will provide data regarding each bridge in the inventory in a manner that is accessible and understandable to the general public. Section 2 authorizes \$2 million for fiscal year 2009 to carry out this subsection.

Section 3. National Bridge Inspection Program

Subsection (a) of section 3 provides that the standards established under this Act are to be designed to ensure uniformity among the States in the conduct of inspections and evaluations. Bridges are a key component of the national surface transportation network. As such, it is important that these facilities are inspected in a consistent fashion, and the information generated from the inspection is reliable and accurate.

The 2006 DOT IG's report found significant problems with FHWA's ability to oversee the greatly varied State bridge inspection programs. This subsection requires FHWA and the States to significantly improve their bridge inspection and evaluation processes and develop consistent, uniform processes and standards for the inspection of bridges and inspector training. These improved, uniform standards will ensure that the data collected during inspections and submitted to FHWA is accurate and consistent.

The Committee recognizes that there is not a single solution to this problem. Different States have different levels of need, and different bridges have varying requirements and weaknesses. These differences must be accounted for in the new system. However, it is the Committee's intent to end the piecemeal, patchwork approach to bridge inspection and data collection that currently exists.

Subsection (b) provides that the minimum requirements for inspection standards shall include: (1) procedures for conducting annual compliance reviews of State inspections, quality control and quality assurance procedures, load ratings, and weight limit postings of bridges; (2) procedures for States to report to the Secretary any "critical findings" of safety or structural deficiencies of highway bridges, and monitoring activities and corrective actions taken in response to any such critical findings; and (3) testing of steel bridges exhibiting fatigue damage or bridges with fatigue susceptible members with state-of-the-art non-destructive technology that can detect crack growth as small as 0.01 inches.

Subsection (c) requires the Secretary to issue regulations, not later than two years after the date of enactment of this Act, establishing procedures to be used by States in reporting critical findings of bridge deficiencies and subsequent monitoring activities and corrective actions. Such regulations shall include a uniform definition of "critical finding", establish deadlines for State reporting of critical findings to the Secretary, establish requirements for monitoring and follow-up actions and reporting such actions, and provide for enhanced training of bridge inspectors relating to critical findings.

Subsection (d) requires the Secretary to expand the scope of the bridge inspector training program to ensure that all persons conducting highway bridge inspections receive appropriate training and certification under the program.

Subsection (e) requires annual inspections of structurally deficient highway bridges using the best practicable technologies and methods, annual in-depth inspections of fracture critical members, and biennial inspections of highway bridges that have not been determined to be structurally deficient. Upon the request of a State, the Secretary may extend the time between required bridge inspections for non-structurally deficient bridges to a maximum period of 48 months if the Secretary determines that the extension is appropriate based on the age, design, traffic characteristics, and any known deficiency of the bridge, the extension is consistent with the five-year performance plan, and granting the extension will increase the overall safety of the State's bridge inventory.

Subsection (f) requires the Secretary to revise regulations relating to the qualifications of State highway bridge inspection personnel to require that anyone serving as a program manager be a professional engineer licensed under the laws of that State, and that an individual serving as a team leader for the inspection of complex bridges or the follow-up

inspections of bridges for which there has been a critical finding be a licensed professional engineer. This subsection also requires team leaders for the inspection of all other bridges be a licensed professional engineer or have at least 10 years of bridge inspection experience. The subsection provides that the requirements in this subsection only apply to an individual selected by a State to serve as a program manager or a team leader after the date of issuance of revised regulations.

Subsection (g) requires the Secretary, within one year after the date of enactment of this Act, to modify national bridge inspection standards and the training program for bridge inspectors in accordance with this section.

Section 4. Surface Transportation Research

Section 4 expands the activities eligible to receive funding under the highway research program to include research into non-destructive inspection technologies.

Section 5. Authorization of Appropriations

Subsection (a) of section 5 authorizes to be appropriated from the General Fund \$1 billion in FY 2009 to repair, reconstruct, and replace structurally deficient bridges on the National Highway System.

Subsection (b) distributes the funds authorized by this legislation by formula pursuant to Federal-aid highway apportionments for Federal-aid highway bridges under the HBP. This subsection also provides that funds distributed under this program shall be used for the replacement or rehabilitation of structurally deficient National Highway System bridges. This provision prohibits the transfer of funds provided under this Act to other Federal-Aid Highway programs.

Subsection(c) prohibits any Congressional or Administration earmarks of funding provided under this program.

Section 6. Bridge Advanced Condition Assessment Pilot Program

Subsection (a) of Section 6 authorizes the Secretary to establish and implement a pilot program to evaluate the effectiveness, accuracy, and reliability of the use of advanced condition assessment inspection processes and technologies in monitoring and evaluating the structural health of a highway bridge.

Subsection (b) authorizes the Secretary to make grants to States to conduct projects under the pilot program. A State seeking a grant under the pilot program must submit an application to the Secretary in such form and containing such information as the Secretary may require by regulation.

Subsection (c) establishes eligibility for participations in the pilot. The subsection authorizes the Secretary to select not more than 15 highway bridges in not more than 5 States to participate in the program. Highway bridges selected under the pilot must be

classified as structurally deficient; a nonredundant, fractural critical structure; and greater than 200 feet in length.

This subsection also requires that the pilot utilize no fewer than two types of real-time, in-service, sensor-based, commercially-available, advanced-condition assessment technologies. It further establishes the duration of real-time data collection from each highway bridge selected for participation in the pilot program to be not less than one year. Finally, this subsection requires that at least one-half of the highway bridges selected for participation in the pilot program be evaluated using a calibrated finite element analysis model of the bridge, based upon data from the advanced condition assessment technologies.

Subsection (d) establishes the Federal share for the pilot program 80 percent of the total project cost.

Subsection (e) limits the pilot program to a period of two fiscal years.

Subsection (f) requires the Secretary to submit to the Committee on Transportation and Infrastructure and the Committee on Environment and Public Works a report describing the effectiveness and benefits of the pilot program.

Subsection (g) authorizes to be appropriated from the General Fund \$5 million to carry out the pilot program.

Subsection (h) requires that the amounts appropriated to carry out the pilot program be made available for obligation in the same manner as funds apportioned under chapter 1 of title 23, United States Code. Finally, the subsection prohibits the transfer of funds provided under this Act to other Federal-Aid Highway programs.