



DEPARTMENT OF PUBLIC WORKS

Quality, Excellence, Innovation

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DIRECTOR

May 5, 2015

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Acting Administrator Gregory G. Nadeau
c/o Docket Operations
U.S. Department of Transportation
M-30, West Building Ground Floor, Room W12-140
1200 New Jersey Avenue SE.,
Washington, DC 20590

RE: FHWA Docket Number FHWA-2013-0053, National Performance Management Measures; Assessing Pavement Condition for the National Highway Performance Program and Bridge Condition for the National Highway Performance Program

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Dear Acting Administrator Nadeau:

Marin County appreciates the opportunity to comment on Federal Highway Administration (FHWA)'s proposed rule on National Performance Management Measures for Pavement and Bridge Conditions.

Marin County maintains approximately 420 miles of roadway including approximately 100 miles of arterials and 65 miles of collector roads. The County annually monitors and measures the pavement conditions of our roadways and develops and implements an annual resurfacing program. This program includes applications to extend the life of the pavement as well as major pavement rehabilitation projects. Over the last 8 years, the County has invested over \$50 million dollars to improve pavement conditions and safety.

Pavement Condition:

Marin County is part of the Metropolitan Transportation Commission (MTC) region in the San Francisco Bay Area. In the MTC region, all the jurisdictions have adopted the same pavement condition metric, the Pavement Condition Index (PCI). The MTC region has been practicing pavement management for over 30 years, and local jurisdictions in the Bay Area must have a certified pavement management program in place in order to be eligible to receive regionally

allocated funds for local street and road maintenance and rehabilitation. In California, local jurisdictions own and maintain most of the arterials and collector roadways in addition to the residential streets. The state is generally responsible for the higher speed facilities (namely highways and interstates).

There are important local implications of the federal proposed rule. We respect FHWA's struggles and careful consideration in proposing a single performance measurement for pavement; however the adoption of the International Roughness Index (IRI) is a measure that results in inaccurate performance assessments for local facilities. We are concerned that the benefit of having a single nationwide standard, comes at the expense of local jurisdictions. IRI is not an appropriate measure for local roadways and the introduction of an additional layer of performance measurement on top of local jurisdictions' existing methods, injects unnecessary expense and creates confusion that can only hinder asset management efforts at the local level. With federal transportation legislation over the years, there has been a devolution of responsibilities where there is an accepted premise that one size doesn't fit all and that decisions are best made at the local level with broad guidance from the Federal government. It is in this context that we submit our comments.

Our comments are broadly centered around 3 main points:

- 1) IRI is appropriate for highway facilities but is not appropriate for arterials, which make a sizable share (approximately 36%) of the NHS in California under MAP-21. We have outlined a number of reasons why using IRI as a key component of MAP-21 pavement condition performance measures raises concerns for local jurisdictions:
 - o The selected measure should be applicable to the facility for an accurate measurement of performance; adoption of the IRI appears to be based on data availability and less on appropriateness to facility. IRI measures the functional property of a pavement, whereas the measure we are currently using, PCI, is primarily a structural condition measurement. The measurement of functionality, or ride quality, is important for facilities with high speed travel; however, not very significant for the lower speeds that typically occur on arterial roadways.
 - o An outcome of applying IRI to local roads is that it would encourage a shift away from preventive preservation treatments to costlier rehabilitation and reconstruction projects. Marin County has implemented slurry seal and bond wearing course applications to extend pavement life by ten or more years. IRI, however, which measures and uses criteria based upon smoothness measures, is a reactive measure when applied to local streets and if used as an asset management tool, may lead to "worst first" maintenance strategies that are not as cost-effective. Pavement condition index (PCI) which allows a visual inspection

is a more proactive measure as it identifies pavement distresses before they affect ride quality.

- Marin County currently uses PCI for measuring road conditions and does not collect IRI data. In order to meet the federal requirements, we would either need to collect IRI data or convert PCI scores to IRI using questionable methodologies. Furthermore, less than 5% of the roads in California are part of the NHS and collection strategies on less than 5% of the roads should not drive the asset management approach for the rest of the system.

To address this issue, we suggest adopting a select list of certified and widely-used alternative pavement condition measures with an accompanying standardized definition of the scoring equivalency to good, fair, and poor that would be accepted, in addition to the IRI. This would enable States to make accurate and comparable assessments of the pavement system.

- 2) The formula for calculating performance is based on IRI, cracking, and rutting/faulting. As with IRI, the performance assessment formulas for highway-type facilities and arterials should also be varied based on appropriateness to the facility. The pattern of roadway deterioration and wear and tear is different for highway and arterials. On arterials, cracking can be derived from factors such as utility trenches and may be very different from the cracking that occurs on highways.
- 3) Funding for data collection is left to the states and regions. Caltrans has been collecting IRI data for California's NHS. However, without a clear requirement for data collection, this responsibility will likely fall to local agencies in the future. This would create many issues for the local jurisdictions since we have an established process for using PCI for all roads. Collecting IRI data for a subset of the roads in the region would be an added cost, added effort and duplicative of existing data collection for a measurement that is not appropriate or meaningful for local roadways.

Sincerely,



Robert Goralka
Principal Civil Engineer