

New Jersey Department of Transportation  
Bureau of Research

## Technical Brief



### Local Pavement Management Systems

*This research identifies a path toward the advancement and standardization of the management of subregional (primarily county) pavement investments in New Jersey. The research is comprised of three primary elements: 1) research on the state of the practice in local pavement management (literature review), 2) direct outreach to subregional pavement managers to better understand current practices and needs, and 3) formulation of a framework for subregional pavement management in New Jersey and a corresponding pathway for implementation.*

### Background

New Jersey Department of Transportation (NJDOT) Local Aid, which interfaces with county and local entities to fund roadway resurfacing and reconstruction projects, among other duties, commissioned this research to help identify a path toward the advancement and standardization of subregional pavement management in New Jersey. The long term goal is to achieve more consistency in the condition and performance of pavements across the state, and to help subregional entities stretch limited funding by promoting strategic investment decision-making for pavements and other roadway assets.

### Research Objectives and Approach

The research was comprised of the following broad work steps, which are presented in detail in the body and appendices of this report.

- **Literature review.** This step consisted of a literature review of state-sponsored local pavement management programs and tools, and a review of pavement distress measures.
- **Local pavement management practices and needs in New Jersey.** This step incorporated a survey of 18 of 21 New Jersey counties, conducted with the assistance of the applicable metropolitan planning organization (MPO). Subsequently, local pavement management workshops were convened (to which every NJ county was invited) in order to develop a more robust understanding of their current practices, needs, challenges, and goals.
- **Develop recommendations for advancing local pavement management in New Jersey.** This step involved the development of several iterations of hypothetical frameworks for discussion within a Working Group, comprised of NJDOT staff and representatives from each of New Jersey's three MPOs. The framework was also used to engage county pavement management staff at the workshops. Findings

from the workshops were tempered with results from all prior research activities to develop high level recommendations for the phased implementation of a local pavement management program in New Jersey over the short-, medium-, and long-terms.

## Findings

The research team suggests pursuing a three pronged approach, combining the short and intermediate term actions of 1) building capacity and communication and 2) implementing a collection and rating program for a portion of county roadways with the longer term goal of 3) active, policy driven, county level pavement management.

- **Now and Ongoing: Training and Capacity Building.** The workshops identified the need for training and capacity building activities and venues for communication among county engineers and between counties and NJDOT. Suggested program elements include asset management training and ongoing research and knowledge exchange.
- **Early and Intermediate: Program Implementation.** The Working Group should work together to identify low hanging fruit that show promise for short term implementation. Suggested program elements include reporting, collection and tracking, and developing an approach for development and implementation of a pavement management program and, if applicable, an accompanying tool.
- **Medium and Long Term: Building toward a Full Lifecycle Approach.** This research resulting in development of a potential implementation pathway, which builds toward full program deployment through a decade-long, time-stepped sequence of implementation concepts, although the specific parameters of these actions are left for later determination.

## For More Information Contact:

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A final report is available online at: <http://www.state.nj.us/transportation/refdata/research/>. If you would like a copy of the full report, send an e-mail to: [Research.Bureau@dot.nj.gov](mailto:Research.Bureau@dot.nj.gov).

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