



Massachusetts Municipal Association

MMA BEST PRACTICES SERIES

Recommendations for Effective Local Government Administration and Management from MMA Policy Committees

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MMA Policy Committee on Transportation, Public Works and Public Utilities **Best Practice Recommendation: Transportation Infrastructure Asset Management**

BEST PRACTICE: Take a comprehensive approach to transportation infrastructure asset management, including the use of a comprehensive inventory database, life-cycle management systems for all asset categories, and GIS mapping and other applications.

Keeping an inventory of transportation infrastructure assets is an effective planning tool for municipalities and is essential for effectively maintaining and replacing these assets. Transportation infrastructure asset management gives municipalities a way to ensure public safety and comply with federal, state and local laws.

The Subcommittee on Asset Management of the American Association of State Highway and Transportation Officials describes transportation asset management as “a strategic and systematic process of operating, maintaining, upgrading, and expanding physical assets effectively through their life cycle.” It is important to track and consider the state of transportation infrastructure assets such as traffic signs, traffic signals, pavement and sidewalks, drainage systems, parking meters, handicap ramps, crosswalks, curb cuts, bicycle accommodations, or other related transportation infrastructure assets.

A transportation infrastructure asset management database can assist municipalities in the development of capital plans for maintenance, repairs or replacement. Many communities use pavement management systems to keep track of road conditions and determine which roads are most in need of repaving and reconstruction. Pavement management systems can assist in the planning of preventative maintenance activities that can extend the useful life of roadways. Regular maintenance of municipal roads can be performed at lower cost than full reconstruction, and pavement management programs save money in the long term by extending the pavement life cycle. When roads are not adequately maintained, they are more expensive to repair. Effective pavement management programs should integrate and coordinate with utility repairs and replacement when feasible.

Municipalities can use GIS mapping or other software programs and applications to track transportation infrastructure assets, including location, quantity, condition and other attribute information. Asset management systems and mapping are useful tools for tracking and reporting the condition of assets, capital planning, and the development of maintenance, repair or replacement strategies. Many programs are targeted for municipal DPW use, while others allow municipalities to engage residents in the process through citizen submissions of repair needs via municipal social media.

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Transportation asset management programs are necessary in order to forecast long-term investment needs and develop a framework that facilitates project prioritization, repair schedules, and capital funding requirements.

Resources:

Federal Highway Administration Asset Management Division: www.fhwa.dot.gov/asset

FHA Pavement Management Primer: www.fhwa.dot.gov/infrastructure/asstmgmt/pmprimer.pdf

Performance and Asset Management Advisory Council report:
www.massdot.state.ma.us/Portals/8/docs/triennial/PAMAC_HwyTam011516.pdf

American Association of State Highway and Transportation Officials: www.transportation.org

American Public Works Association: www.apwa.net