



IMPLEMENTATION SUMMARY

Questions?

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Technical Liaison:

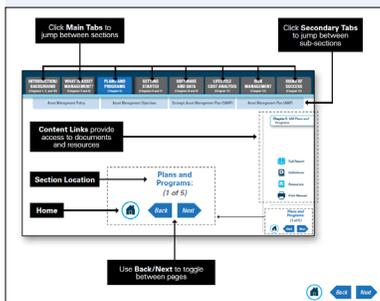
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Principal Investigator:

Michael Marti, SRF Consulting Group, Inc.

PROJECT COST:

\$67,128



An easy-to-navigate PDF guides users through the elements of content management.



Putting Research Into Practice: Asset Management Guide for Local Agencies

What Was the Need?

The Moving Ahead for Progress in the 21st Century Act ([MAP-21](#)), signed in 2012, mandated that state departments of transportation (DOTs) adopt transportation asset management (TAM) for pavement and bridges, encouraging its use in other areas. A transportation asset management plan (TAMP) is a systematic process for identifying infrastructure assets, such as roads, bridges and other facilities, and strategically tracking their performance and condition to make efficient and timely decisions about maintenance, upgrades, expansion or replacement. Required for some federal transportation funding, MAP-21's TAM mandate helped agencies justify the funding of projects to state and local officials and to the public.

Local agencies can also benefit by adopting TAM. These agencies often find themselves addressing roadway maintenance on a "worst is first" basis rather than through strategically monitoring conditions and using preventive (instead of reactive) maintenance. Adopting TAM, which closely tracks conditions and timely actions, can extend the life cycle of roadways and other assets.

The Local Road Research Board (LRRB) had previously funded a [research report](#) to investigate TAM, TAMPs and best practices implemented by local agencies in other states. That study's results were a foundation for this project, intended to meet LRRB's need for a guide to consolidated asset management for local agencies.

What Was Our Goal?

With an understanding that local agencies' needs differ from those of state DOTs, the project goal was to develop an asset management best practices guide for local agencies to track and manage highway and street infrastructure, facilities, vehicles and major equipment assets in a single management system.

What Did We Do?

Working with transportation professionals from MnDOT and local agencies along with others experts, consultants examined the previous report and researched other public documents about TAM.

The wide range of resources they investigated included the [Guide to Successful Asset Management System Development](#) from the American Public Works Association; the [AASHTO Transportation Asset Management Guide: A Focus on Implementation](#) from the American Association of State Highway and Transportation Officials (AASHTO); and TAM practices implemented in Michigan, Indiana, British Columbia and other areas. In addition, consultants investigated collaborations among several Minnesota local agencies.

Consultants worked to compile and develop a guide that would address the following needs:

- Provide a general overview of the concepts and benefits of asset management.

Consultants worked with a panel of transportation professionals to develop a guide to consolidated asset management for local agencies. The guide addresses the particular needs of smaller groups to effectively and optimally manage their roadways, buildings, vehicles, equipment and other assets.

“This project has produced a comprehensive guide that government agencies can use to clear the hurdle of getting started with asset management. The companion PDF allows users to interactively navigate report content to find information that they need.”

—Lyndon Robjent,
County Engineer,
Carver County

“Effective implementation of asset management requires buy-in from all levels and often requires a cultural change within the organization.”

—Michael Marti,
Principal, SRF Consulting
Group, Inc.

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This chart illustrates a typical asset management framework for sustainable service delivery. (Source: *Asset Management for Sustainable Service Delivery: A British Columbia Framework*)

- Set realistic expectations for agencies for creating and using asset management systems.
- Assist cities and counties in determining the assets they need to manage and set the best performance targets.
- Help agencies prioritize which assets to manage first and what their constituency wants.
- Develop simplified workflows for collecting condition and performance data and for managing assets.

What Was the Result?

The Asset Management Guide for Local Agencies presents TAM and its benefits. The guide includes the essential definition of TAM as “the right fix at the right time on the right road.” It is a strategic process to improve data-driven decisions that all agencies must make over every asset’s life cycle.

The guide also presents the particular concerns of local agencies, emphasizing the need for buy-in at all levels, from leadership to lower organizational levels, for TAM to work. The guide promotes the use of a project champion—someone to oversee the process. The need for open lines of communication throughout is emphasized. Some agencies may have to transform their work cultures to successfully implement TAM. The process only works if there is engagement and a will throughout the agency for it to work.

Other topics addressed in the guide include special software programs and agency needs. Asset management is a process, not a program. Agencies generally already have the basic tools, such as Excel spreadsheets, databases and geographic information system (GIS) that can be used for TAM. The guide offers an overview of software, from simple and inexpensive to advanced and costly. While the guide does not recommend software, it can assist agencies in determining their needs and abilities.

Benefits of life-cycle cost analysis are also discussed along with risk management. Finally, the guide lists the signs that implementation is successful, such as time savings, cost reductions and delayed capital expenditures.

What’s Next?

The Asset Management Guide for Local Agencies is available both as a written report and as a navigable PDF through the LRRB website.

This Implementation Summary pertains to Report 2019RIC06, “Asset Management Guide for Local Agencies,” published November 2019. The full report can be accessed at mndot.gov/research/reports/2019/2019RIC06.pdf.