



Michigan Infrastructure Council

COLLABORATE

Facilitate a coordinated, holistic approach that optimizes the engagement of all who manage and use Michigan's infrastructure

On any given day, the average Michigander encounters countless forms of infrastructure. From the first chime of the alarm clock (Utility – Electric), to the hum of the furnace (Utility – Gas), to the cup of morning joe (Water – Drinking Water) and a morning shower (Water – Wastewater), every day begins with infrastructure. Off to work on a network of roads (Transportation – Roads), crossing rivers and wetlands (Transportation – Bridges & Culverts) and safely skirting precipitation as it runs into storm drains (Water – Storm Water), the daily interface with Michigan's expansive system of infrastructure continues. Nearly 10 Million residents are serviced by over 3,350 infrastructure operators every day. While this web of interconnected infrastructure may appear seamless, opportunities to collaborate across infrastructure types has traditionally been limited. Purposeful sharing of construction timelines, funding mechanisms, and other resources allows infrastructure owners to save time, stretch dollars, and reduce citizen inconvenience.

The Role of Michigan Infrastructure Council (MIC)

- Conduct Regional Communication and Coordination Summits to promote information exchange, shared solutions, and cross-asset project synchronization
- Launch a cross-asset portal to encourage regional coordination across transportation, water, utility, and communications infrastructure asset management
- Serve as a trusted resource across all stakeholders who manage and use Michigan's infrastructure to facilitate collective activities

Michigan Impact

MIC is poised to facilitate the collaborative discussion across all who manage and use Michigan's complex network of infrastructure – public and private utility owners, local, regional, and state governments, finance and policy experts, not-for-profit and non-governmental organizations, and Michigan citizens. Working together, there is opportunity to coordinate projects and programs, promote sound investments, and minimize citizen impact during construction.



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Together We are Better

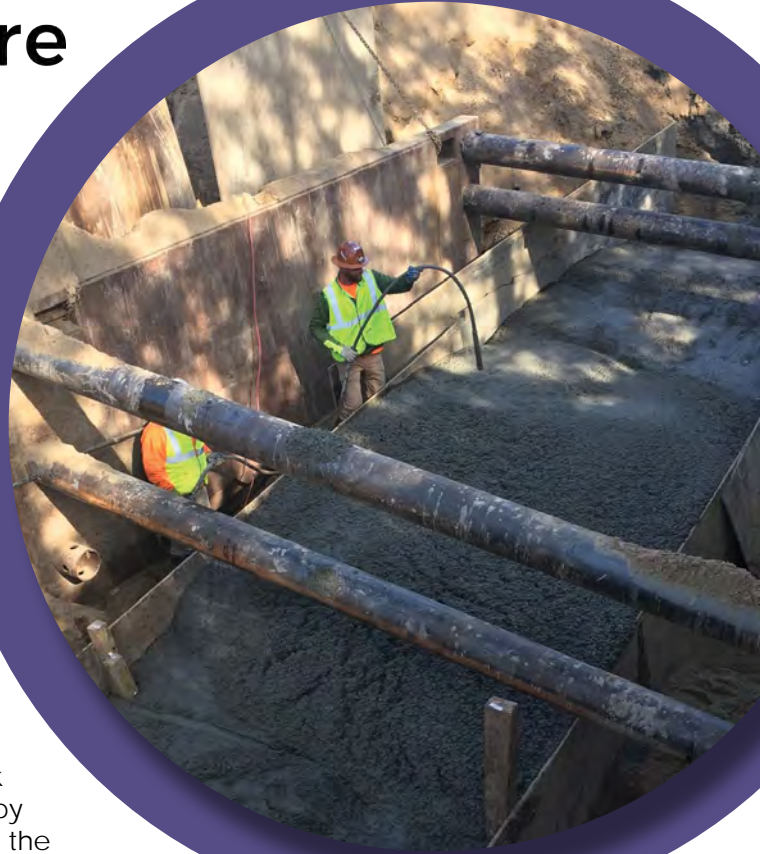




Michigan Infrastructure Council

COORDINATE

Align strategies for infrastructure management to ensure that Michigan's assets are effectively and efficiently constructed, operated, and maintained



When the Great Lakes Water Authority (GLWA) needed to install a new 42-inch water main along 24 Mile Road in Shelby Township, Michigan, local officials knew there was opportunity for coordination. The water main project would necessitate repaving one lane, but the entire road was in dire need of repair. Unfortunately, the Township lacked the necessary funding for the roadwork and GLWA funding was limited only to roadwork impacted by the water main project. In the spirit of creative coordination, the agencies worked with the county road commission to ease seasonal restrictions for roadwork, shortening a three-year project to a two-year project. This revised timeline resulted in over \$1 million in cost savings that could be reallocated to pave both sides of 24 Mile Road, ahead of schedule and with significantly less burden on Shelby Township residents.

The Role of Michigan Infrastructure Council (MIC)

- Champion policy that incentivizes integrated asset management and alignment between funding mechanisms
- Work with the Water Asset Management Council (WAMC), the Transportation Asset Management Council (TAMC), state agencies, and other organizations to streamline and standardize regulatory requirements
- Leverage subject matter expertise across peer institutions, the international community, and academia to establish and work toward the implementation of infrastructure asset management best practices

Michigan Impact

Coordination across assets, as illustrated in the 24 Mile Road example, can result in cost savings of up to 30-40% for large projects, reduced burden to residents, and greater efficiencies throughout the construction and maintenance of the infrastructure.



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Plan Better. Dig Once. Achieve More.



Michigan Infrastructure Council

EDUCATE

Provide accurate and trusted information to support effective infrastructure decisions

Infrastructure Asset Management is a broad and complicated topic forcing local infrastructure owners and managers, policy makers, and residents to consider a myriad of competing decisions. In addition to constraints such as funding resources and construction timelines, decision makers must also assess Service Life and Level of Service options. **Service Life** is the measurable length of time a particular asset is considered to be in good, safe, and reliable condition – usage beyond this timeline increases risk of failure and expensive emergency repairs. **Level of Service** is the perceived acceptable performance of a particular asset – qualitative in nature, each community must decide the reasonable impact of an asset’s failure or degradation of function. Effectively navigating these complex decisions requires accurate and trusted information.



The Role of Michigan Infrastructure Council (MIC)

- Create a common “glossary” of terminology across transportation, water, utility, and communications infrastructure to enable cross-asset coordination, strategies, and analytics
- Quantify and communicate the value of infrastructure lifecycle management
- Build and maintain an infrastructure dashboard to illustrate target metrics, monitor status, and measure improvements

Michigan Impact

While each community must individually balance risk and opportunity, MIC is poised to provide standardized terminology and metrics, strategies, and analytics that can be leveraged across political boundaries. Delivering tools and information to conduct peer-to-peer comparisons across service life and level of service options empowers data-driven decisions.



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Trusted Information.
Common Strategy. Effective Decisions.



Michigan Infrastructure Council

INVEST

Determine, recommend, and advocate for adequate funding for Michigan's infrastructure and promote effective and efficient investments to achieve maximum benefit

Allocating limited taxpayer funds among the competing demands of municipal needs is the most significant task of any government official. Reallocation of existing monies necessarily impacts other budget items, while asking citizens to increase investment can be unpopular. When the City of East Grand Rapids realized that greater than 60% of its water main infrastructure was at its end-of-life, with fewer than 15 years of service remaining, they knew they would be tackling an expensive investment challenge. Using the principles of asset management to properly identify, plan, prioritize, and manage aging infrastructure, coupled with a systematic approach to mapping, assessing condition, and evaluating rates, the city was able to make a compelling, data-driven case for increased funding. A dedicated water and sewer rate increase created fee stability for its users and approximately \$400,000 annually for capital projects. Additionally, targeted coordination with road projects allowed for cost-sharing, thereby stretching the investment further.

The Role of Michigan Infrastructure Council (MIC)

- Affirm bold and creative investments that encourage integrated infrastructure asset management
- Champion policies that incentivize long-term, coordinated investment in Michigan's infrastructure
- Develop budget and funding recommendations for decision-makers across federal, state, regional, and local governments and the private sector

Michigan Impact

Governor Whitmer stated, "no one will invest in a state that doesn't invest in itself." (Michigan State of the State Address, 2019). Leveraging the tools of asset management to maximize the effects of limited funds will ensure all Michiganders have access to safe, effective, and affordable infrastructure.



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Invest in good infrastructure
because it's good for Michiganders.



Michigan Infrastructure Council

PRIORITIZE

Establish and document the condition of Michigan's infrastructure to identify the needs of greatest priority

Every car owner knows that routine and relatively inexpensive oil changes are an important part of vehicle maintenance, saving costly repairs and increasing the overall lifespan of the vehicle. The same holds true for Michigan's complex network of transportation, water, communications, and utilities infrastructure. Significant cost savings and improved longevity can be realized when principles of Asset Management are employed throughout design, development, maintenance, and eventual planned replacement of infrastructure.

The Role of Michigan Infrastructure Council (MIC)

- Work with asset owners and operators to create common definitions, inventories, and assessments of Michigan's infrastructure and its condition
- Evaluate regional variations in climate and soils, asset materials and age, risks of asset failure, and funding constraints to understand their impacts on lifecycle asset management
- Develop decision guides for local leaders that allow for lifecycle asset management and the prioritization of infrastructure maintenance and replacement

Michigan Impact

Using conventional wisdom of "worst first," whereby the infrastructure in poorest condition receives the most immediate attention, is a costly solution. Just like the missed oil change, this shortsighted approach allows countless assets in good condition to fall into disrepair, requiring substantially more funds to fix in the long-term. Through lifecycle infrastructure asset management and proper prioritization, we can maximize limited resources to realize the greatest benefit.



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Fix it. Fix it right. Fix it at the right time.