

NOCoe 2019 Maintenance & Operations Peer Exchange
Montgomery, AL
June 2019
Michigan DOT TSMO (Operations)

At MDOT TSMO, or **Transportation Systems Management and Operations**, is an integrated program to optimize the performance of existing multimodal infrastructure by implementing systems, services, and projects to maximize capacity and improve the security, safety, and reliability of the transportation system. TSMO focuses on **operational improvements**, which MDOT defines as: any improvement which results in restoring or optimizing theoretical capacity and/or improves travel reliability and safe flow of traffic on the existing number of permanent through travel lanes within the corridor. Operational improvements complement or provide alternatives to capacity improvement. TSMO is a vital complement to capacity expansion because it focuses on other sources of congestion, such as car crashes, work zones, weather, and special events — reducing the impact of these sources with better technology, better information, and better collaboration between MDOT and its partners. Finally, in an era of limited funding and growing populations, TSMO strategies often offer cost-effective and quick to implement solutions to many pressing safety, mobility, and reliability issues.

MDOT Umbrella of TSMO deployment strategies:

Intelligent Transportation Systems (ITS), Traffic Incident Management (TIM), Road weather management, work zone management, Traffic signal coordination and performance, Transportation Operations Centers (TOCs), Special event management, Traveler information, Ramp metering/management, Safety programs, Active Traffic Management (ATM), Integrated Corridor Management (ICM), data usage and applications, truck parking, transit management, freight management, improved bicycle and pedestrian crossings, Connected and Automated Vehicle (CAV) infrastructure investments, Outreach, awareness, and education activities.

Examples of Operations (TSMO) at MDOT:

FlexRoute23. The Flex Route on US-23 combines TSMO strategies such as Active Traffic Management (ATM), variable advisory speed limits, dynamic shoulder use, Dynamic Message Signs (DMS), and Traffic Incident Management (TIM).

Mi-TIME. The Michigan Traffic Incident Management Effort (Mi-TIME) is a partnership of Michigan agencies, first responders, and local partners to safely and efficiently clear crashes.

Connected and Automated Vehicle (CAV) programs. MDOT's TSMO work supports and connects to Michigan's many CAV programs, including PlanetM, Mcity, and the American Center for Mobility.

MDOT TSMO Implementation and Strategic Plan

The **MDOT TSMO Implementation and Strategic Plan** was originally published in February 2018 and is continually being updated, with new versions being published periodically. The latest version is available on MDOT's website at michigan.gov/tsmo. The Plan details MDOT's TSMO mission and vision, describes MDOT's TSMO progress to-date including the significant outreach that informed the Plan, and lays out MDOT's approach to advancing TSMO. These key Plan components are summarized below.

MDOT TSMO Mission: Operate and manage an optimized, integrated transportation network by delivering high quality services for safe and reliable mobility for all users.

MDOT TSMO Vision: Integrate Operations as a core MDOT program united with the execution of MDOT's overall mission. Inspire public confidence as a progressive and innovative national leader in the management and operations of our transportation system. Collaborate across program areas, leveraging

technology and resources to achieve the best possible results. Maintain a sustainable and engaged operations workforce with exceptional knowledge, skills, and abilities.

MDOT TSMO Resources:

- **MDOT Trunkline Program Operations Funding Template and Operations Steering Committee.** This template and committee provide information on the Operations Funding Template annual TSMO call-for-projects prioritization, purpose, focus areas, and key program processes.
- **TSMO Business Cases.** Five TSMO “Business Cases” that describe the benefits of TSMO, tailored to five key audiences: the public, legislators, MDOT senior staff, MDOT technical staff, and transportation partners. Available at michigan.gov/tsmo.
- **MDOT ProjectWise TSMO Folders.** ProjectWise houses the latest versions of the TSMO Plan action matrices, in addition to PowerPoints from internal MDOT TSMO workshops.