

Coordinated Work Zone Management Program

I-94, Michigan

TSM&O: Work Zone Management

Project Team: MDOT: 3 Regions, 8 Transportation Service Centers, Operations Field Services Division

Problem: Non-recurrent work zone congestion caused by construction/maintenance during peak travel hours, traffic incidents, and bad weather results in reduced travel time reliability. In addition:

- Work zones were not managed on a corridor level.
- Work zones lacked standardized implementation.
- Greater communication needed between DOT, contractors, and emergency responders.

Solution: Measuring and reducing user delay costs creates the motivation to improve work zone congestion thereby increasing travel time reliability.

Project Description: Michigan DOT formed an I-94 partnership to implement the following:

- Set travel-time goals, measures, and strategies to account for work zone performance.
- Increase collaborative effort with contractors and emergency responders.
- Use traffic data and performance management software to measure program results.
- Increase communication clarity, consistency, and frequency to public.

Results:

- User delay costs incurred from work zones, incidents, and weather events reduced 25% between 2010 and 2011 for the first segment under study.
- Bi-weekly meetings corridor construction meetings and communication efforts have increased collaboration among partners.
- Work zones in corridor are coordinated and procedures have been standardized.
- Travel time and other performance metrics are measured and analyzed using accountability and reporting software.

Cost: Traffic data, performance management software, and staff time are the primary costs of this program. The measured savings in user delay costs far exceeds the capital and labor outlays.

What's in it for me?

- Public experiences less unexpected delay and smoother travel through work zones and increase support for programs that produce results
- Another state DOT used automated speed detectors and message signs to shift traffic to an alternate road. This reduced ADT 16-19% and delay by 50% in the work zone.

Contact: Jason Firman, Congestion and Mobility Engineer, Michigan DOT, firmanJ@michigan.gov

Keywords: work zone management, performance measures, delay, safety, emergency responders, corridors

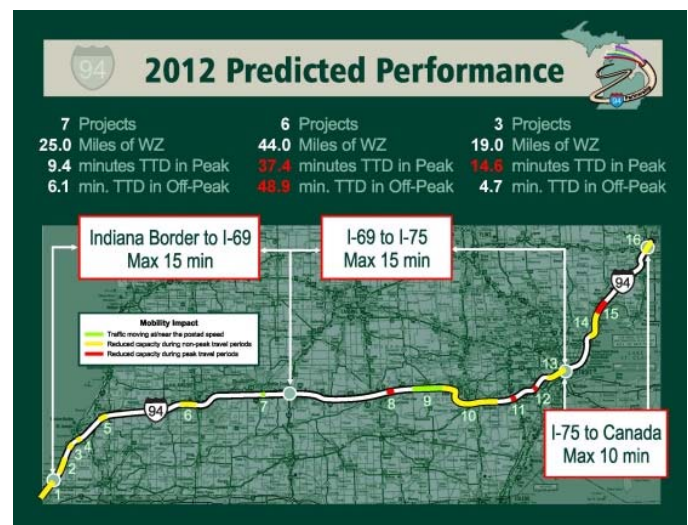
Quote: "Coordination across work zones, increased communication and collaboration between partners and investments in performance management tools have reduced unexpected delay.

Jason Firman - Congestion and Mobility Engineer

Multimedia

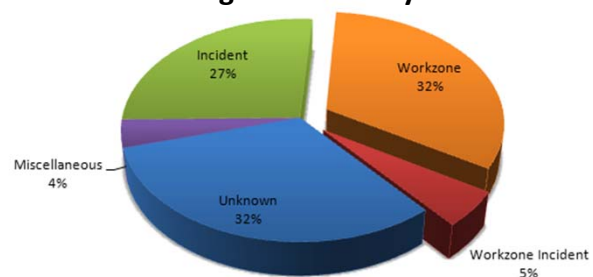
- [MDOT's Work Zone Safety Message - \(MP3 Audio File\)](#)
- [Mi Drive](#)

I-94 Corridor



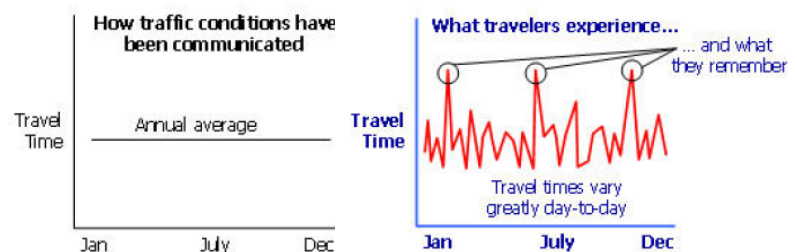
Source: Michigan Department of Transportation

2011 Causes of Significant Delay



Source: Michigan Department of Transportation

Travel Condition Communication vs. Traveler Experience



Source: Federal Highway Administration