

JOINT TRANSPORTATION RESEARCH PROGRAM

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Case Studies Documenting Lessons Learned and Identifying Opportunities for Maintenance of Traffic (MOT) Improvements

From July 2023 to July 2025, the team performed several dozen after-action reviews of interstate work zones and the associated maintenance of traffic (MOT). These after-action reports generally contain the following information: Date, location, visual images, connected vehicle summary graphics, qualitative discussion of activity, and in some cases press releases or media posts. This report highlights a cross section of 13 after-action reports. In general, these themes emerged:

1. MOT plans in some cases do not accurately capture the geometry constraints placed by bridges, guardrail, and/or barrier wall. It is important that design reviews place careful focus on ensuring lane widths, shoulders, and shoulder treatments fit across the entire cross section of each phase or requests for design exceptions be initiated. In some cases, performing some type of LiDAR survey prior to design may assist MOT designers in effectively capturing more accurate location and

dimensions of existing geometrics, particularly edge of pavement, edge of bridge, guardrails, and embankments.

2. When lane shifts are initiated, the designers should examine the path of the vehicle at both the start and end of the transition. In some cases, the end of the transition occurs quite close to either a guardrail or narrow section of pavement. In some cases, either gentler transitions or additional horizontal clearance should be considered.
3. There is relatively little dialog between the temporary traffic control contractors and designers on what are the best practices and requirements for implementing a change in MOT. We recommend a near-term approach of incorporating some of the existing after-actions (I-65: Narrow shoulder, Lane shift taper length, Missing marking and inconsistent markings, and I-65 Variable work zone speed limit trailer in close proximity to speed limit sign)



Figure 1. ITS Camera Images Along I-65 Near MM 256.3 on June 20, 2025 Showing the Installation of Temporary Concrete Barriers Next to Live Traffic.

into one or more of the Indiana Department of Transportation (INDOT) Safety Summits to start that dialog.

4. To sustain this engagement between designers and MOT contractors, it is recommended that selected projects include MOT review with design engineers and contractors as part of the close-out process to document lessons learned.
5. Rolling slowdowns have a role in MOT, but there appears to be inconsistent use of rolling slowdowns for short-term closures. It is recommended that requirements for rolling slowdowns be identified in the MOT plans. If contractors are required to use rolling slowdowns not documented in MOT plans, they should be required to obtain approval from INDOT and notify the Traffic Management Center.

Barrier walls are an important tool for MOT. However, their set up can have significant impact on traffic capacity

and create queues. Project plans should define days/ time periods these are permitted to be installed and/or removed.

Recommended Citation for Report

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