



**ENGINEERING OPERATIONS COMMITTEE  
MEETING MINUTES  
NOVEMBER 5, 2015 – 9:00 A.M.  
MULTI-MODAL CONFERENCE ROOM**

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Present: M. Van Port Fleet M. Bott M. Geib  
B. O'Brien R. VanPortfliet B. Wieferich  
S. Bower K. Schuster T. Marshall (FHWA)

Absent: R. Ranck, C. Rogers

Guests: B. Stonebrook L. Lynwood K. Wallace  
C. Torres B. Krom J. Forster (FHWA)  
D. Tarazi

OLD BUSINESS

1. Approval of the October 1st, Meeting Minutes – M. Van Port Fleet

*ACTION: Approved*

2. Interchange Lighting Guidance Document – B. Stonebrook

Changes have been made to the Guidance Document that was brought to the Engineering Operations Committee (EOC) on October 1<sup>st</sup> and we are submitting an updated document for EOC review. This document looks to establish the parameters and procedure as to when interchange lighting may be required for MDOT projects. MDOT staff will use this guidance to decide which projects may fall under the interchange lighting requirements and to set aside the necessary funding for this construction. New interchange lighting must be approved by the EOC. Interchange lighting may require a signed agreement between the Michigan Department of Transportation (MDOT) and the applicable local municipality, if certain conditions apply. Final buy in and adoption is needed to move forward in implementing this guidance.

Up to now, there has never been a written document that defines the parameters and process for determining when interchange lighting may be needed for MDOT projects. Implementation of this document will insure a consistent methodology utilized statewide. The document assigns responsibilities to MDOT and/or the local agency for different scenarios as it relates to the installation, operation, maintenance and funding for the interchange lighting. The guidance document also provides that a review for each interchange be performed so as to incorporate any other safety initiatives that may be needed in lieu of or in addition to lighting. In this way safety can be enhanced on future MDOT projects. The RBMT has reviewed and commented on the proposed guidance document.

*ACTION: Approved with edits.*

NEW BUSINESS

## 1. Gateway Designation Guidelines – L. Lynwood

This document looks to provide statewide guidance for permitting location-based community gateway elements to be installed within the right of way. Each Region will use this guidance to determine if gateway style development, including logos, signs and monuments can be located in conformance with both operational and regulatory requirements for highway rights of way.

Comments have been received, reviewed and discussed leading to the current state of the document. Final buy in and adoption is needed to move forward in implementing this guidance.

MAP-21 provided new opportunities for partner and sponsorship agreements that could introduce unique signing, landscaping and other site elements onto the right of way. FHWA Michigan Division Office requested MDOT develop clear, comprehensive guidance for these “gateway” type requests.

Gateway Designations are usually proposed in support community place making, regional identity or economic branding efforts and may or may not arise within the department’s Context Sensitive Solutions (CSS) process.

This document provides guidance regarding jurisdiction for Gateway Designations and the integration of Gateway elements, which are considered discretionary features within the transportation corridor. This document also provides guidance on the interaction and coordination among related guidance documents and programs, including: the MMUTCD, logo signs, highway advertising restrictions, acknowledgement signs, Adopt-A-Highway; Adopt-A-Landscape; Scenic Byways, Memorial Highways or other designations.

In alignment with the department’s CSS principles, this document is intended to outline roles and responsibilities to support the facilitation and coordination of Gateway Designations statewide.

*ACTION: Several edits were recommended to the guidelines. Lynne Lynwood will revise the document and resubmit to EOC at a future meeting.*

## 2. Proposed 2015 edition of the AASHTO Manual for Assessing Safety Hardware (MASH 2015 Update) – C. Torres

Updated crash testing standards, known as MASH 2015 Update, have been proposed by AASHTO and FHWA as part of a Joint Implementation Plan. If approved as expected, this would require all future roadside safety devices to be tested under MASH 2015 criteria instead of the current crash testing standards (MASH 2009).

In addition, some roadside safety devices that are currently MASH 2009 compliant may need to be retested under MASH 2015 criteria in order to remain eligible for federal aid reimbursement.

AASHTO and FHWA have also proposed implementing sunset dates for the entire range of NCHRP 350 compliant roadside safety devices. If this measure is approved, it is anticipated that MDOT and other state transportation agencies would need to install MASH compliant roadside safety devices after the sunset dates for the devices to be eligible for federal aid reimbursement. Sunset dates have been proposed for all roadside device types. With a few possible exceptions, it is anticipated that NCHRP 350 compliant roadside safety devices would not be eligible for federal aid reimbursement beyond the sunset dates. All current MDOT standards and approved roadside safety devices meet the requirements of NCHRP 350. Therefore, it is anticipated that MDOT would need to revise most, if not all, existing standards and design guides pertaining to roadside safety devices. Furthermore, MDOT and other state transportation agencies may encounter difficulties trying to meet the proposed sunset dates if suitable MASH compliant devices are not developed in a timely fashion. The department will need to examine each device category in detail and evaluate all feasible options to determine an appropriate course of action. The department may need to invest funds to conduct crash tests, either individually or as part of pooled fund groups. The need to sole source MASH compliant proprietary devices may become an issue of concern to the department, especially if suitable alternatives are not developed by roadside safety manufacturers or other institutions by the proposed sunset dates.

MASH 2009 is an update to and supersedes NCHRP 350 for the purposes of evaluating new roadside safety devices. MASH 2009 does not, however, supersede any guidelines for the design of roadside safety hardware, which are contained within the AASHTO Roadside Design Guide. MASH 2009 provides updates to NCHRP 350 to account for the increased size of several test vehicles to better match the current vehicle fleet, changes to impact conditions of the test matrices, and more objective, quantitative valuation criteria.

While MASH 2009 was needed to address vehicles that were more representative of the current vehicle fleet, there was general consensus within the public, private, and academic circles that hardware tested under NCHRP 350 criteria was working satisfactorily and, as a result, technical experts from AASHTO and FHWA agreed not to sunset NCHRP 350 hardware in 2009, allowing it to remain in place and continue to be manufactured and installed without having to re-test to MASH 2009.

However, new safety hardware manufactured after the adoption of MASH 2009 needed to be evaluated using MASH 2009 criteria. The slow development of higher-performing roadside safety hardware accounting for the greater number of larger fleet vehicles under MASH since 2009 has led the TCRS and FHWA to reassess the Joint Implementation Agreement allowing for unconditional use of NCHRP 350 systems. TCRS and FHWA feel a reasonable timeline needs to be established to sunset NCHRP 350 systems and promote use of the MASH systems. This will result in improved performance and, ultimately, reduced risks to the motoring public.

MASH 2015 is recommended as a result of updated real-world information received in recent years, changes in the vehicle fleet, and improvements in crash testing methods. Most notably, MASH 2015 contains test matrices for cable barrier systems placed on sloped medians.

The new implementation agreement is intended to establish sunset dates for installation of roadside hardware that meets NCHRP 350 or MASH 2009 crash test criteria, but does not meet the criteria as established in the updated MASH 2015.

*ACTION: Informational Item. No Action.*

3. Turf Technical Agenda (TA) – K. Schuster

Turf TA Report was approved at the December 4, 2013 EOC meeting with follow up actions to prioritize recommendations. These prioritized recommendations in the attached document have been reviewed and discussed with Team Sponsors.

The Turf Establishment Technical Agenda Team has developed a report that includes recommendations based on the original requirements of the technical agenda. The team believes that two recommendations should be reviewed for immediate incorporation into Department procedures and processes. The team recommends the selection of several pilot projects across the state, including urban/rural, incentive/non-incentive, expedited/non-expedited to ensure a cross section of implementation feedback. After pilot project approval the team will develop a project implementation feedback questionnaire to capture lessons learned, things to improve, and general feedback from construction staff. The results will be summarized to better determine feasibility of the recommendations and how to proceed with optimal implementation.

*ACTION: The follow-up recommendations are approved. Pilot project implementation of the recommendations will occur on a minimum of one project per region. All regions will pilot the new requirements.*

4. Consideration of Bay Region I-75 reconstruct project for Alternate Pavement Bidding (APB) – C. Youngs/B. Krom

Route Location: I-75 from north junction with I-675 to north of Crane Rd.

Control Section: 73112

Job Number: 100014

Letting Date: Currently February 2016, it will be moved to at least June 2016 to accommodate the APB if approved

This reconstruct project involves 0.83 miles of 6 and 8-lane divided freeway with an expected construction cost of \$24.2 million. It also involves improvements to the ramps to/from I-675. The preliminary LCCA indicated an HMA pavement by 1.3% less than the concrete option.

Both alternatives are expected to have similar environmental, right of way, drainage, and utility impacts along with similar maintaining traffic concepts. Paving is the controlling operation for the construction schedule.

The original let date of February 2016 will be pushed back to June 2016 to accommodate the additional plan requirements if the APB is approved. The project plans are being produced by a consultant.

*ACTION: Approved*

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Steven Bower, Secretary  
Engineering Operations Committee

RA:SB:lsf

cc: K. Steudle  
L. Mester  
EOC Members  
Region Engineers  
TSC Managers  
Assoc. Region Engineers  
D. Parker  
M. DeLong

D. Jackson  
W. Tansil  
D. Wresinski  
C. Libiran  
R. Lippert  
B. Shreck  
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D. Hollingsworth (MCA)  
J. Becsey (APAM)  
M. Newman (MAA)  
J. Murner (MRPA)