



**ENGINEERING OPERATIONS COMMITTEE  
MEETING MINUTES  
APRIL 5, 2018, 9:00 A.M. – 11:00 A.M.  
MULTI-MODAL CONFERENCE ROOMS**

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Present:	Mark Van Port Fleet	Mark Geib	Kristin Schuster
	Mark Bott	Jason Gutting	Mark Sweeney
	Matt Chynoweth	Dee Parker	Hal Zweng
Absent:	Carol Aldrich	Theodore Burch	Greg Losch
	Kim Avery	Jeff Forster	Brad Wieferich
Guests:	Matt Bellgowan	Dawn Gustafson (phone)	David Morena
	Lisa Branch	Therese Kline	Brandy Solak
	Chris Brookes	Annjanette Kremer	
	Andre' Clover	Mike Lusk (phone)	

**OLD BUSINESS**

1. Approval of the March 1, 2018, Meeting Minutes

*ACTION: Approved*

**NEW BUSINESS**

1. Work Zone Safety Manual Revisions – Chris Brookes/Angie Kremer

Project Information (if applicable): Approval of the revision of Work Zone Safety and Mobility Manual (WZSMM).

Route/Location: N/A

Job Number: N/A

Control Section: N/A

Letting Date: N/A

Issue(s) - Request the Engineering Operations Committee (EOC) to review and approve the WZSMM. Content in the current WZSMM has been moved, modified and rearranged. In addition, Chapter 5 has been added to meet Federal Highway Administration (FHWA) requirements for Americans with Disabilities Act (ADA) compliance. These improvements and others have enhanced the manual to improve its functionality and usefulness.

Background - The last revision to the WZSMM took place in January of 2010. During the 2014 Work Zone Safety and Mobility Process Review a revision to the manual was suggested. Based on the findings and feedback received it was determined a revision was needed.

Summary of changes –

- Reformatted to follow the layout and design of the Michigan Department of Transportation's (MDOT's) manuals. The changes make it easier to navigate the document.
- The WZSMM will no longer be a contract document, currently it is listed in the 2012 Standard Specifications for Construction. This is based on the Attorney General's recommendation and will be removed with an Errata update.
- The Road Design Manual will be updated to remove duplicated information.

Recommended changes can be found in the supporting documentation.

Below is a list of the high-level items that have been added changed or modified:

- Updated Barrier Wall requirements - Section 6.01.07
- Updated Recommend use of Mobile Attenuators – Section 6.01.07.D
- Added content from new documents and policy changes to ensure relevant information is located in one location. (SOA's, BoHIMs & CA's will be turned off)
- Chapter 5 was developed to provide detailed information regarding pedestrians in work zones. This includes detailed ADA compliance information.
- Updated the method for calculating work zone capacity for statewide consistency. - Chapter 3
- Pictures and details of commonly used work zone devices. Chapter 6
- Created a crash reduction table to provide mitigation measures for design and construction staff to prevent or diminish a crash trend. - Chapter 4, Tables 4-1, 4-2, 4-3, and 4-4
- Added detour sign requirements, detailing type and sign requirements based on the duration of the closure. Section 6.04
- Edge Line Guidance Section 6.1.13.F
- Guidance for existing rumble strips in work zones – 6.01.20
- Added acronym list

Recommendation(s) – EOC approval of the 2018 revised Work Zone Safety and Mobility Manual.

*ACTION: Approved*

*Members discussed implementation logistics for establishing an effective start date for the new manual. Decided on the October letting for actual statewide implementation.*

*Mark Van Port Fleet noted the importance of a consistent statewide practice in complying with the manual. Reference was made to the preamble for direction when future manual updates would require EOC action.*

## 2. Transit Signal Priority for the Laker Line Bus Rapid Transit – Jason Cole & Kristin Schuster

Project Information (if applicable): Transit Signal Priority (TSP) for The Rapid's Laker Line Bus Rapid Transit (BRT)

Route/Location: M-45

Job Number: N/A – Permit Application

Control Section: 41081/70041

Letting Date: N/A – Tentative Construction 2018

Issue(s) – TSP has been requested by The Rapid for the Laker Line BRT.

Background – The Rapid has been planning and designing a new BRT line (the Laker Line) on M-45 (Lake Michigan Dr. and Fulton St.) from N. Campus Dr. in Allendale Twp. to US-131 in the City of Grand Rapids. The Laker Line will serve mostly as a commuter bus for Grand Valley State University (GVSU) students traveling from Grand Rapids to the GVSU campus and back. TSP is an integral part of any BRT system, as it allows the busses to maintain progression through a signalized corridor. It is also a recognized Active Traffic Management strategy. Stakeholder meetings have been held throughout the planning and design process, and included The Rapid, MDOT, GVSU, the City of Walker, and the City of Grand Rapids.

Recommendation(s) – The Grand Rapids Transportation Service Center (TSC), the Muskegon TSC, the Grand Region Office, and the Signals Operations Unit have been involved with reviewing plans for the Laker Line, including evaluating the request for TSP on M-45. Based on traffic projections and modeling of the corridor, it was determined that TSP (within the parameters proposed) will not significantly impact traffic operations. Therefore, it is recommended that the Laker Line be allowed to install TSP on the M-45 corridor.

*ACTION: Approved request to install TSP (within the parameters proposed) on the M-45 corridor for the Rapid's Laker Line Bus Rapid Transit.*

*FUTURE ACTION: Provide the EOC with an operational update after one year of operation.*

## 3. Qualification Procedure for Plastic Pipe – Therese Kline

Project Information (if applicable): Qualification Procedure for Plastic Pipe

Route/Location: N/A

Job Number: N/A

Control Section: N/A

Letting Date: N/A

Issue(s) – Upgrade to Qualification Procedure for Plastic Pipe:

- Change in diameters from maximum of 24-inch to 48-inch

- Requirement for virgin materials to be used for acceptable pipe
- Remove requirement for water tight joints to be listed on the Qualified Product List (QPL) for pipe to be approved for use.

Background - Change in diameters from maximum of 24-inch to 48-inch. Language upgrade to compliment previous EOC vote to allow larger diameter plastic pipe up to 48-inches. With maturity of use of plastic pipe products engineers are more confident of the use of larger diameter plastic pipe. Test sites have been provided in the past nine (9) years and these installations are functioning as other pipe products would over time.

Requirement for virgin materials – The American Association of State Highway and Transportation Officials (AASHTO) M 294 has moved to allow recycled materials to be used in plastic pipe production. The efforts are applauded with the ‘greening’ of infrastructure but there are engineering concerns that not all recycled plastic matter is the same in strength properties and chemical cleanliness. It is hypothesized that this change in formulation is actually a new hybrid type pipe product that will not test the same in strength as virgin materials. MDOT Qualifying Procedures state: “A product may also be removed due to specification changes made by either MDOT or the product manufacturer.” Approval letters to manufacturer’s state: “If your product or material changes please notify the Michigan Department of Transportation.” Chemically a change from virgin material to recycled material constitutes a formula change and therefore a material change. To note, only one test was held by one known proponent of the product for their PhD thesis. At such a time as the recycled formula becomes mature, and with other test sites developed, confidence in the strength parameters can be had.

Remove requirement for water tight joints (WTJ) to be listed on the QPL for pipe to be approved for use: There is a time differential between a products approval for WTJ and its subsequent listing on the QPL. Approval letters are written, and continuation of the approval process may commence with the issuance of the WTJ passing tests.

Recommendation(s) –

- Approve sizing language changes to the Qualifying Procedure to compliment previous EOC vote to allow up to 48-inch diameter plastic pipe use.
- Approve language change thereby requiring virgin material use in the language of the Qualifying Procedure until such a time that current assumptions that engineering strength parameters are equal to virgin material prove to be robust assumptions.
- Approve the change in language in the Qualifying Procedure to more accurately reflect the way the current approval process performed: with the approval letter for water tight joints the calculation check may immediately proceed.

*ACTION: Conditional approval. The Committee requested the language requiring virgin material be amended to allow for recycled material use in areas outside the influence of the pavement, such as drive culverts. After revised language has been reviewed/accepted by the Joint Pipe Operations Committee, bring back to the EOC for final approval.*

#### 4. City of St. Ignace Lane Configuration Changes Road Diet – Mike Lusk

Project Information (if applicable): As part of MDOT contract ID 49026-132025, a 2018 construction project, the City of St. Ignace and the Newberry TSC are proposing to change the lane configuration on the I-75 BL from Marquette Street northerly 0.7 miles to Antoine Street from four (4) to three (3) lanes. This would only involve lateral relocation of the lane lines to reflect one through lane in each direction with a two-way center left turn lane. No curb lines will be modified, no parking areas will be added. There are no signals along this corridor and no major traffic generating intersections. Traffic volumes are under 10k vpd. As this project has already been let, we are proposing to do the change in paint and add signs thru Contract Modification.

Route/Location: I-75 BL, Saint Ignace

Job Number: 132025A

Control Section: 49026

Letting Date: 03/02/18

Issue(s) – Proposing a Road Diet on the I-75 BL in St. Ignace from Marquette Street to Antoine Street.

Background – Existing four (4) lane section w/curb and gutter. The City of St. Ignace would like to convert to three (3) lanes. There is a high amount of seasonal pedestrian traffic along the I-75 BL. As a result of a four to three lane conversion, the shoulder would go from essentially 0'/curbed to 5.5' wide.

Recommendation(s) – For EOC informational purposes only.

*ACTION: NONE*

*Mike gave a brief update on what's been going on. As required, a public meeting was held, and a St. Ignace City Council Resolution was signed by the Clerk. Everyone is on board with the proposed Road Diet.*

#### 5. Construction of Federally Funded Trunkline Projects By Non-Competitively Bid – Kristin Schuster/Mark Bott

Project Information (if applicable): Construction of Federally Funded Trunkline Projects by Non-Competitively Bid Contract Guidance Document 10226

Route/Location: N/A

Job Number: N/A

Control Section: N/A

Letting Date: N/A

Issue(s) – Revisions to the guidance document are the result of the Control Account Plan (CAP) findings and the commitment to revise the document after a period of use. The

proposed changes can be categorized as editorial, revisions to match changes in the organizational structure and documents, and a refined cost effectiveness analysis example.

In addition, approval is sought for the annual targets for Safety Programs, Traffic Signals and each Region. The limit statewide is \$5 million per fiscal year. Each MDOT Region is limited to force account authorizations totaling \$200,000 for safety improvements and \$400,000 for construction work per fiscal year. Traffic signal force account authorization is distributed statewide and is limited to \$750,000 per fiscal year.

Background - The Guidance Document was initially developed in 2013 to define a process to ensure consistency in the use of federal funds by non-competitively bid contracts on state trunkline.

Recommendation(s) – Approve the changes to the document and the annual targets.

*ACTION: Approval pending.*

- *Clean up Appendix II relating to the bullet statement about estimated cost savings and the reference to the sample calculation; not getting a clear message out.*
- *Submit document to the FHWA for an approved period of use without updates.*
- *Any changes in target limits in the guidance document require EOC approval.*

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Carol Aldrich, Secretary  
Engineering Operations Committee

RA:

cc: EOC Members	M. DeLong	D. DeGraaf (MCA)
Meeting Guests	D. Jones	J. Becsey (APAM)
K. Steudle	C. Libiran	D. Needham (MAA)
L. Mester	R. Jorgenson (FHWA)	Monica Ackerson Ware (MRPA)
D. Wresinski	R. Brenke (ACEC Michigan)	
Region Engineers	G. Bukoski (MITA)	
Assoc. Region Engineers		
TSC Managers		