

# ENGINEERING OPERATIONS COMMITTEE MEETING MINUTES OCTOBER 4, 2018, 9:00 A.M. – 11:00 A.M. MULTI-MODAL CONFERENCE ROOMS

Present: Tony Kratofil

Carol Aldrich Kim Avery Mark Bott Matt Chynoweth

Mark Geib Jason Gutting Kristin Schuster

Hal Zweng Greg Losch

Absent: Ted Burch

Dee Parker

Brandy Solak Brad Wieferich Gorette Yung

Guests: Keith Brown

Dick Endres

Chris Johnecheck Dave Marina

#### **OLD BUSINESS**

1. Approval of the September 14, 2018, Meeting Minutes

ACTION: Approved

- 2. I-196 WB Alternate Pavement Bid Dina Tarazi (Expedited September email approval)
- 3. Exemption of Alternate Pavement Bid (APB) US-131 Project Greg Losch/Michael Eacker

Issue Statement – Replacement of exempted APB US-131 project.

Background/History – See previous Engineering Operations Committee (EOC) meeting minutes item 3 from 9/14/18.

Recommendation – For discussion/approval.

ACTION: Approved eastbound US-2 between Gladstone and Rapid River replacement APB project.

#### **NEW BUSINESS**

1. Updated Environmental Committee Guidance Document – Hal Zweng

Issue Statement – Updated Environmental Committee Guidance Document

Major Issue(s) - The Guidance Document that governs the Environmental Committee has been updated to reflect current department alignment and eliminate inactive subcommittees.

Background/History – A review of this document began in early 2018.

Recommendation – For discussion/approval.

ACTION: Approved with minor revision to add subcommittee

2. MDOT New Materials and Products – Jason Gutting

Issue Statement - MDOT receives numerous submittals of new materials and products. This process is meant to streamline the procedure and provide a review of submittals by the appropriate subject matter experts. Previous management suggestions are part of this draft procedure.

Background/History - In 2012, a new materials process and steering team were created, but not implemented. The submitted procedure streamlines submittals into specific focus areas that will review and provide recommendations on new material submittals.

Construction Field Services (CFS) has begun to share a new materials status report at each EOC meeting. This listing will provide the status of each new material submittal in a two-year rolling report.

Recommendation - Review, provide feedback, and eventual approval of the submitted new product evaluation procedure Guidance Document. Review and discussion of the new materials status report and formatting. This report will be provided to EOC members one week prior to all EOC meetings.

ACTION: Continuing discussion on process and procedure for new materials

3. Geotechnical Manual – Christopher Johnecheck/Dick Endres

Subject/Issue – New Geotechnical Manual

Issue Statement - Replace the 1970 Field Manual of Soil Engineering with a new Geotechnical Manual.

Background/History – The current Field Manual of Soil Engineering has gone through five editions dating back to 1940. The time between these editions ranged from six (6) to 10 years apart. This new manual will replace the latest 1970 edition in whole and update some of the other existing guidance documents for structure investigation requirements and classification of soils into one document. Design methodology (LRFD), equipment and instrumentation modernization, lab testing standards, and new products are a few items which have changed and are addressed in a thorough manner within this document.

Recommendation(s) – Implement the new Manual as MDOT's geotechnical guidance and contract document latter portion of 2018.

Status – The draft Geotechnical Manual is complete. It has been reviewed by internal MDOT staff and external partners such as ACEC and MITA. Pending approval by EOC.

ACTION: Approved

4. Dort Highway (M-54) Proposed Roundabout – Mark Bott/Keith Brown

Subject/Issue - Proposed Roundabout at I-75/Dort Highway (M-54) Interchange

Route/Location - I-75 at Dort Highway (M-54)

Job Number - N/A – Locally Funded 100%

Control Section - 25131 & 25074

Letting Date - N/A – Locally Let

Issue(s) – Committee Approval required for proposed roundabout.

Background – The existing interchange configuration allows for only northbound Dort Highway traffic. The Genesee County Road Commission is building an extension of Dort Highway south to Baldwin Road, requiring traffic exiting I-75 be able to travel both north and south. Several options for connecting the Dort Highway extension to the existing Dort Highway/I-75 ramps have been evaluated, and roundabouts have been found to be the most efficient solution.

Recommendation(s) – Roundabouts at both NB and SB I-75 and Dort Highway (M-54) will allow for efficient flow of traffic, low delays and fewer conflict points for motorists. The proposed lane configuration has been evaluated and is adequate for a 20-year design life, anticipating future build-out of adjacent and nearby developments.

ACTION: Approved

#### 5. Performance Based Practical Design – Kristin Schuster

Subject/Issue - Performance Based Practical Design (PBPD)

Issue Statement – MDOT needs to provide guidance and tools to evaluate the performance aspects for decision making on projects to apply aspects of PBPD.

Major Issue(s) – Some projects are considering PBPD elements beyond the traditional design exception for spot locations. MDOT needs to agree on the direction on the use of PBPD to determine a process and tools. Concerns to address are:

Does PBPD apply at the spot level, project level or system level? Reducing a roadway feature because standards allow it (design expectation not required)? How do we maintain consistency?

Background/History - PBPD is a decision-making approach that uses quantitative analyses to guide decision-making through the project development process. PBPD is the combination of Practical Design and Performance-Based Design encompassing the what (economic efficiency) and the how (performance-based, data-driven methodology), either of which is incomplete without the other.

Analysis is a key component of PBPD. Emerging growth of analysis tools using relevant, objective data enables agencies to better evaluate projects within important program areas. The use of appropriate analysis methods, such as the Highway Safety Manual and the Highway Capacity Manual and their associated tools, will allow agencies to effectively evaluate and compare the performance of various alternatives.

With PBPD a roadway agency can address and achieve various transportation system goals including but not limited to:

- Minimizing fatalities and serious injuries
- Providing reasonable travel times
- Providing for the economical, efficient, and safe movement of goods to and from markets
- Maximizing the long-term benefits received for each state transportation investment, and
- Minimizing impact on the environment

Design Division plans to work with Regions, OFS and FHWA to address questions related to process, timing, tools, contract language for consultants, and corridor considerations among other issues.

Recommendation(s) – For information only at this time.

ACTION: For information only.

## 6. Lateral Safety Buffer – Jason Gutting/Kim Avery

Issue Statement – The Bureau of Field Services (BFS) has reviewed the lateral safety buffer as identified in the Pavement Selection Manual on page C-1. BFS is proposing the removal of hot mixed asphalt rubblized (HMA) language for lower traffic volume projects where the safety buffer can be reduced to 1 foot in width. This would allow both industries to have a reduced lateral safety buffer when lower traffic volumes are present.

Major Issue(s) – The Michigan Concrete Association has requested that concrete projects in lower traffic volume areas also be allowed to reduce the lateral safety buffer to one (1) foot in width. They claim that movement of plastic drums is occurring on all projects during construction operations and reducing the lateral safety buffer.

Background/History – The lateral safety buffer was developed numerous years ago to address a no work area in our work zones. Regions base their project specific maintaining traffic plans on existing conditions and dimensions and in many cases the lateral safety buffer is not available to implement. The Pavement Management Unit in CFS is using the maintaining traffic criteria as listed in the Pavement Selection Manual. The removal of the HMA rubblized allowance will create a more level playing field for both industries.

Recommendation(s) – Remove language on page C-2 and C-4 as noted in the provided attachments.

Status – New submittal.

ACTION: Tabled until future coordination with Work Zone Safety team.

Carol Aldrich, Secretary Engineering Operations Committee

### RA:lrb

cc:EOC MembersM. DeLongD. DeGraaf (MCA)Meeting GuestsD. JonesJ. Becsey (APAM)K. SteudleC. LibiranD. 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