OLD BUSINESS
1. Approval of the February 6, 2017 Meeting Minutes – M. Van Port Fleet

   ACTION: Approved with minor edits.

NEW BUSINESS
1. Contractor Manager General Contractor (CMGC) – C. Stein

   Route/Location: US-31/M-72/M-37, Murchie Bridge to east/Garfield Avenue, Traverse City
   Job Number: 131655
   Control Section: 28013
   Project Cost: $9,960,000
   Letting Date: December 2021

   Approval is being requested to utilize a Construction Manager/General Contractor (CMGC) procurement method for the referenced project. A CMGC contracting method is being requested to allow for the Contractor’s input on potential MOT options, staging, and production schedules to incorporate into the Proposal/Estimate.

   This corridor has one of the highest ADTs in North Region. A previous contract successfully utilized CMGC on this corridor in 2015. The collaboration between Design and Contractor helped determine potential MOT options, staging, and production schedules to minimize user impact and expedite construction.

   The Innovative Contracting Committee (ICC) has approved the use of the CMGC contracting method for this project.
2. Alternate Pavement Bid (APB) – C. Stein

Route/Location: M-6, Jackson Street to Wilson Avenue, Ottawa & Kent Counties
Job Number: 128123
Control Section: 70025
Project Cost: $10,210,000
Letting Date: June 2017

Approval is being requested to utilize an Alternate Pavement Bidding (APB) contracting method for the referenced project. This project meets all the required APB selection criteria. The life cycle costs of the two pavement designs are within 3.74%. 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 APB Coordinator and the Innovative Contracting Committee recommend this project be approved for the APB contracting method.

ACTION: Approved

3. Pavement Selection – B. Krom

Route/Location: I-75, Springwells Street to Clark Avenue, City of Detroit
Job Number: 130783
Control Section: 82194
Letting Date: June 2017

Department policy requires that Life Cycle Cost Analysis (LCCA) be used to determine the lowest cost pavement design alternative following the procedures outlined in the MDOT Pavement Design and Selection Manual. Final pavement selection requires approval by the Engineering Operations Committee.

Alternative #1: Reconstruct with Hot Mix Asphalt Pavement

<table>
<thead>
<tr>
<th>Course</th>
<th>Thickness</th>
</tr>
</thead>
<tbody>
<tr>
<td>2” HMA, 4E50, Top Course</td>
<td>2”</td>
</tr>
<tr>
<td>3.75” HMA, 3E50, Leveling</td>
<td>3.75”</td>
</tr>
<tr>
<td>7.5” HMA, 3E50, Base Course</td>
<td>7.5”</td>
</tr>
<tr>
<td>6” Aggregate Base Course</td>
<td>6”</td>
</tr>
<tr>
<td>18” Sand Subbase</td>
<td>18”</td>
</tr>
<tr>
<td>6” dia. Subbase Underdrain System</td>
<td>6” dia.</td>
</tr>
<tr>
<td>37.25” Total Section Thickness</td>
<td>37.25”</td>
</tr>
</tbody>
</table>

Present Value Initial Construction Cost $1,897,515/directional mile
Present Value Initial User Cost $193,901/directional mile
Present Value Maintenance Cost $539,705/directional mile
Equivalent Uniform Annual Cost (EUAC) $89,572/directional mile

**Alternative #2: Reconstruct with Jointed Plain Concrete Pavement**

12.5” Non-Reinforced Concrete Pavement, P1 Modified, w/ 16’ joint spacing
4” Existing Open Graded Drainage Course
10” Existing Sand Subbase
26.5” Total Thickness

Equivalent Uniform Annual Cost (EUAC) $74,613/directional mile


The Equivalent Uniform Annual Cost calculation is based on the pavement selection process as approved by the EOC on June 3, 1999. Construction costs are derived from historical averages on similar projects while user costs are calculated using the MDOT Construction Congestion Cost model.

**ACTION: EOC approves the selection of Alternative #2, Reconstruct with Jointed Plain Concrete Pavement, which has the lowest life cycle cost.**

4. **Plastic Pipe Qualification Procedure – T. Kline**

The AASHTO LRFD Bridge Design Guide, Section 12 Thermoplastic Pipe, has recently been updated from the previous 2010 version. This requires that the MDOT design procedure for plastic pipe design be revised. The updated procedure maintains historical design factors of safety for plastic pipe design while meeting the requirements of the updated LRFD guidelines.

The Joint Pipe Operations Committee recommends approval of the updated MDOT plastic pipe design procedure.

**ACTION: Approved**

5. **MASH Compliant Permanent Concrete Barriers (PCB) – C. Torres**

The FHWA-AASHTO joint implementation agreement requires that all projects let after December 2017 specify MASH 2016 compliant PCB designs. A new single slope PCB
design has been developed that meets these new requirements. Special details required to update the Standard Plan R-49 series have been developed to reflect these changes.

The Barrier Advisory Committee (BAC) has approved these changes and recommends that MDOT submit this new PCB design to FHWA utilizing the Self Certification process. In addition, the BAC recommends that all projects let after December 31, 2017 utilize this new PCB design.

ACTION: Approved

Steven Bower, Secretary
Engineering Operations Committee
RA:SB

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