ENGINEERING OPERATIONS COMMITTEE
MEETING MINUTES
SEPTEMBER 5, 2017 – 11:00 A.M.
MULTI-MODAL CONFERENCE ROOM

Present:	M. VanPortfleet	J. Gutting	M. Sweeney	M. Bott
	D. Juntunen	H. Zweng	B. Wieferich	M. Geib
	K. Avery	K. Schuster	J. Forster (FHWA)	
Absent:	S. Bower	R. Ranck		
Guests:	A. Kremer	T. Kline	C. Brookes	G. Losch
	E. Kind			G. Dawe

OLD BUSINESS

1. Approval of the July 6, 2017 meeting minutes

   ACTION: Approved (Email approval August 2017)

2. Fixed Price/Variable Scope (FPVS) Type 1 Delineator Installation Type 1 Superior Region – J. Junttila/D. Tarazi

   The goal of the FPVS project will be to maximize the amount of work that can be completed using a fixed dollar amount. We will be using a Type 1 contracting method where the contractor bids the units of work that can be completed for the given fixed price.

   The Superior Region currently plans to install or upgrade non-freeway delineators, using Standard Plan R-127 as a guiding document (delineators are not required per the standard plan), along with additional areas identified as having significant lane departure risks, along US-2 from Ironwood to St. Ignace, which includes Gogebic, Iron, Menominee, Delta, Schoolcraft, and Mackinac counties. Based on the available budget, it is anticipated that all the delineator upgrades will not be completed and using FPVS will allow the Region to maximize the amount of work within the established budget.

   Job Number: 200452
   Control Section: Various (21000)
   Project Cost: $180,000 (without PE and CE)
   Letting Date: November 2017

   The Innovative Contracting Committee (ICC) has approved the use of the FPVS contracting method for this project.

   How the Region/Transportation Service Center (TSC) intends to incorporate work that wasn't included in the contractor's bid into the five-year plan – only applies to Rehab/Recon

projects. Any work that is not completed with this project will be done by direct forces, by contract counties, or under contract within the next three (3) years.

The EOC is requested to approve the use of the FPVS Type 1 contracting method on delineator installation in the Superior Region.

ACTION: Approved (Email approval August 2017)

3. Fixed Price/Variable Scope Type 1 Delineator Installation Bay Region – J. Myers/D. Tarazi

The goal of the FPVS project will be to maximize the amount of work that can be completed using a fixed dollar amount. We will be using a Type 1 contracting method, where the contractor bids the units of work that can be completed for the given fixed price.

The Bay Region and Mt. Pleasant TSC currently plan to upgrade all the freeway delineators along US-127 & US-10 in Clare, Isabella, Gratiot, and Midland counties. Based on the available budget, it is anticipated that all delineator upgrades will not be completed and using FPVS will allow us to maximize the amount of work within the established budget.

Job Number: 200498
Control Section: Various (37000)
Project Cost: $170,500 (without PE and CE)
Letting Date: September 2017

The ICC has approved the use of the FPVS contracting method for this project.

How the Region/TSC intends to incorporate work that wasn't included in the contractor's bid into the five-year plan – only applies to Rehab/Recon projects.

Any work that is not completed with this project will be done by direct forces (Mt. Pleasant Maintenance Garage) within the next three (3) years.

The EOC is requested to approve the use of the FPVS Type 1 contracting method on delineator installation in the Bay Region.

ACTION: Approved (Email approval August 2017)

4. I-275 Value Engineering (VE) Exception Request - A. Penzenstadler

5.41 miles of milling three (3) inches of the existing hot mixed asphalt (HMA) material from the traveled lanes of I-275, concrete patching, correcting cross slope/super elevation with HMA leveling, placing a combined thickness of three and a half (3.5) inches of HMA, shoulder reconstruction, rehabilitation of the ramps for both the I-275/M-153 (Ford Road) interchange and the I-275/Ann Arbor Road Interchange, including signal modernization, pavement markings, and signing. Bridge work at 16 bridges include patching, epoxy overlay, steel repairs, joint repair, rail repair, substructure patching, pier cap replacement (2 structures), deck replacement (1 structure).

Route/Location: I-275 from Ford Road to 5 Mile Road
Job Number: 111073 road – 200446 bridge – 200992 bridge – 130003 bridge
Control Section: 82293/82102
Letting Date: 1/11/19
Issue(s) – Request for VE exception

This 5.41-mile project is a mill and resurface with concrete patches, shoulder reconstruction, ramp rehabilitation, and bridge work.

The road project was scoped to remove existing HMA, perform concrete patches, reconstruct shoulders, place 3.5 inch HMA, and rehabilitate ramps. We are requesting the design consultant to provide two (2) alternate fix options (3R and Reconstruct) for analysis. If there is any change in scope with our project work that could potentially benefit from a Value Engineering, we will reinitiate a request.

The current programmed road estimate:
Construction - $21.5 million
CE - $3.4 million
PE - $3.2 million

The bridge project was scoped for 16 bridges for patching, epoxy overlay, steel repairs, joint repair, rail repair, substructure patching, pier cap replacement at two (2) structures, and a deck replacement at one (1) structure.

The current programmed bridge estimate:
Construction - $9 million
CE - $1.4 million
PE - $1.5 million

On September 6, 2012, the EOC approved continuing the current policy of requiring VE studies on all Federal Aid Projects with an estimated total project (corridor) cost greater than $25 million for a road project or $20 million total cost for a bridge project. EOC also stated that future projects (corridors) that have a cost between $25 million and $50 million or stand-alone bridge projects with a cost between $20 million and $40 million may be exempt from VE on a project by project basis if approved by EOC. The scope of this project does not appear to have value added by performing a VE study, therefore the Taylor TSC is requesting that the EOC approve an exemption so a VE study is not required.

The ICC Unit Manager/Value Engineering Coordinator recommends that a VE study not be required on the project.

EOC is requested to waive a VE study on the project.

ACTION: Approved (Email approval August 2017)

5. Pavement Selection M-59 – B. Krom

Route/Location: M-59 EB, from the Oakland County Line to Milford Road, Oakland County
Job Number: 111374
Control Section: 63041
Letting Date: 1/12/2018

Department policy requires that a Life Cycle Cost Analysis (LCCA) be used to determine the most cost effective pavement design. Alternative following the procedures outlined in the MDOT Pavement Design and Selection Manual. Final pavement selection requires approval by the EOC.

The paving industries had no comments on this LCCA. Please note that the Equivalent Uniform Annual Cost (EUAC) difference is 6.62%. The project manager compared the project against the current Alternate Pavement Bid (APB) criteria and found that it doesn't meet the first criteria; only freeway projects will be eligible. This stretch of M-59 is a divided boulevard, but it is a non-freeway. In consultation with MDOT's APB Coordinator, she concurred that this project did not meet the required APB criteria.

Pavement selection was determined using the procedures outlined in the MDOT Pavement Selection Manual. Department Policy requires that the pavement alternate with the lowest EUAC be selected. Final pavement selection requires approval by the Engineering Operations Committee.

Approve the pavement alternate with the lowest EUAC.

ACTION: Approved (Email approval August 2017)

NEW BUSINESS

1. US-131 Maintaining Traffic Scheme, Grand Region – E. Kind

The Grand Region in requesting a variance to the Work Zone Safety and Mobility Manual (WZSMM) to allow the use of drums, pavement marking and signs in lieu of temporary concrete barrier to separate traffic on the final stage (~ 4 days) of their current US-131 freeway project between M-57 (14 Mile Rd) and M-46 (17 Mile Rd). The construction zone speed limit during this stage will be 45 mph.

Further information on the project is as follows:

Project Description: 3.64 miles of reconstruction of US-131
Route/Location: US-131 from M-57 to north of M-46
Job Number: 119012A
Control Section: 41133
Letting Date: 3/3/2017
Posted Speed Limit: 70 mph & 75 mph
Current ADT: 37,150 8% Commercial (Note: ~22,000 during the proposed work period of 9a to 9p)

The WZSMM reads, in part, "Temporary longitudinal barrier shall be used when dividing bi-directional traffic on roadways where the posted speed limit prior to construction is 50 mph or higher.

The EOC is requested to approve a variance to the WZSMM and to allow the use of drums, pavement marking and signs in lieu of temporary concrete barrier to separate traffic during this stage of the project.

ACTION: Approved. Approval is contingent upon use of several mitigation measure for this short duration exception. Mitigations measures include the use of static 45 mph work zone speed restrictions instead of standard 45 mph when worker present signs, operation will be limited to daylight hours and non-weekend periods, dedicated contractor/construction personnel patrolling of the work zone to ensure drums remain in place, double weighting of the drums, truck mounted attenuators onsite for deployment drum adjustment, decreased spacing of work zone speed limit signing, and use of the digital speed limit signs showing current speed.

2. Road Diet M-89, City of Allegan, Southwest Region – J. Cole, M. Bott

Route/Location: M-89, M-40 to Oak Court, City of Allegan, Southwest Region
Location: City of Allegan, Allegan Co
Job Number: N/A Control Section: 03023
Letting Date: 7/25/2017

MDOT was approached by the City of Allegan late 2016/early 2017 to convert M-89 from its current 4 lane section to a 3-lane section with center left turn lane to address safety concerns of residents. There are a number of crashes due to vehicles pulling into and out of driveways. Traffic volume and crash data were collected, and Synchro modeling was performed to evaluate the conversion. A three-lane configuration will mitigate for the referenced crash pattern.

The proposed project meets the requirements of the Road Diet Checklist.

ACTION: No Action. Informational Item.

3. Special Provision for Corrugated Polyethylene Pipe for Culverts and Sewers, Modified-12C401(A660) – T. Kline/K. Schuster

Special Provision Updates Division 4, Section 401 and 402 of the Standard Specifications for Construction to include up to 48-inch diameter Corrugated Polyethylene Pipe.

Allow the use of larger diameter, up to 48-inch, approved polyethylene pipe in Class A and Class B installations as defined in Tables 401-1 and 402-1 in the Standard Specification for Construction in locations crossing roads with an "M" designation with ADT of 10,000 or less; or adjacent to but outside the 1:1 influence of other roadways within MDOT right of way.

Industry has provided three test sites (2002, 2003 and 2007) with larger diameter pipe that have functioned well for the previous 10 to 15 years in similar conditions to the requirements stated above (M-31, M-32, business route 127).

The EOC is requested to approve a Special Provision for Corrugated Polyethylene Pipe for Culverts and Sewers, Modified.

ACTION: EOC members provided several comments and directed that the Joint Pipe Operations Committee discuss the EOC recommended changes.

4. Traffic Signal Modification, Traverse City Area, North Region – G. Losch, G. Dawe
   Job Number: 129391
   Control Section: 28012 / 28013 / 28041
   Project Cost: $2,923,000
   Letting Date: December 2018

   The EOC approved a two-step process to select a design consultant for the design of new traffic signals at 21 locations utilizing Adaptive Signal Control Technology (ASCT) at the February 2017 meeting. The first step would utilize a Qualification Based Selection (QBS) approach to evaluate and select the ASCT vendor and associated technology that would be used in the signal design. The second step would utilize a QBS based process to select the design consultant after the ASCT vendor and associated ASCT technology had been selected. The ASCT vendor would ultimately be part of the design team as a sub-consultant.

   A status report was presented. It is proposed to slightly modify the process to have to separate direct contracts with MDOT. The EOC is asked to approve this process change.

   ACTION: Approved.

5. Annual Special Experimental Project (SEP) 14 Reporting - Programmatic Use of Type 1, Type 2 & Type 3 Fixed Price Variable Scope Contracting Approaches on Capital Preventive Maintenance Projects – G. Losch, J. Forster

   The report was presented to the EOC for information only. The report will be posted on the FHWA website in the near future

   ACTION: No Action. Informational Item.

Steven C. Bower, P.E.

Digitally signed by Steven C. Bower, P.E.
DN: cn=Steven C. Bower, P.E., o=Research Administration, ou=Engineer of Research, email=bowers@michigan.gov, c=US
Date: 2017.09.28 09:11:24 -04'00'

Steven Bower, Secretary
Engineering Operations Committee

RA:SB

cc: EOC Members
Meeting Guests
K. Steudle
L. Mester
D. Wresinski
Region Engineers
Assoc. Region Engineers
TSC Managers
M. DeLong
D. Jones
C. Libiran
R. Jorgenson (FHWA)
R. Brenke (ACEC Michigan)
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