



ENGINEERING OPERATIONS COMMITTEE
MEETING MINUTES
November 6, 2014 – 9:00 A.M.
MULTI-MODAL CONFERENCE ROOM

Present: G. Johnson R. Van PortFliet M. Bott
B. Wieferich K. Schuster M. Geib
P. Ajegba M. Chynoweth

Absent: S. Bower M. VanPortFleet B. O'Brien
T. Marshall (FHWA)

Guests: C. Youngs B. Krom C. Bleech
M. DeLong M. Eacker

OLD BUSINESS

1. Approval of the October 2nd, Meeting Minutes – G. Johnson

ACTION: Approved

NEW BUSINESS

1. The use of Design-Build project on the US-31/I-94 Interchange in the Southwest Region – C. Youngs

Project Cost: \$62,000,000

Letting Date: Nov. 2019*

Job Number: 49719

Control Section: 11112

Project Location: US-31(rel) at I-94 Interchange, Berrien County

* Note: The ICC recommended looking at an earlier date for the letting in 2019. This will be discussed with the Region.

The project will reconstruct the US-31/I-94 interchange. This is a large (for SWR) interchange project to be constructed over and adjacent to existing I-94 while maintain traffic. There are existing bridges to be removed, some ramps to be realigned and new roadway to be constructed. Additional incentive/disincentive clauses, by stages are likely. MOT is still in development.

ACTION: Approved. It was suggested that the letting date be moved up one to four months. Once the spec packet is put together, Dave Juntunen and Matt Chenoweth will be notified due to previous issues with drill shafts caused by the geology in Michigan, methane pockets have been hit, non-cohesive soil and most recent, hit an artesian, causing additional time and expense.. Working on notifying regions through the Bridge Design Manual and will create an advisory. Once they have approved, they will sit down with the Region and Environmental.

2. The use of Alternate Technical Concepts (ATCs) for Maintaining Traffic and Staging on a reconstruction project on I-75 in the University Region – C.

Project Cost: \$96,000,000
Letting Date: April, 2015*
Job Number: 110616, 113109, 115834
Control Section: 58151, 58152

The project is on I-75 from Dixie Hwy to I-275. The project includes the reconstruction the existing freeway, replacement of 2 bridges and superstructure replacement with widening of 3 bridges in each bound. The project is currently scheduled to be constructed in 2015 and 2016. A+B contract provisions will also be used on the project.

The use of ATCs are being proposed to see what innovations could be proposed by contractors that could expedite construction and minimize impacts to the public through changes in staging or maintaining traffic.

The use of ATCs will also need to be approved by the FHWA.

The Innovative Contracting Committee approves the concept of ATCs. However, there are risks associated and other items that should be considered before determining to implement ATCs on the project. These items include:

- a) Development of ATC Special Provision: The ATC process used on past projects provides preliminary information to Industry approximately a month before the project is advertised. While many items can be draft, the Maintaining Traffic Special Provision that includes the ATC process should be close to final. MDOT has not started to develop this document, and it may take significant time to develop solid contract language in the limited time available. This project is more complex than past ATC projects, and the special provision will be more complex, and may need additional time to develop. The development of the special provision may move the letting past April, 2015.
- b) Construction Schedule: The ATC process is expected to move the letting at least one month further into 2015, which shortens the available construction time in 2015. This limits the ability for contractors to propose solutions that could take the projects from 2 construction seasons to 1.
- c) Railroad Impacts: It is unknown at this time if any ATCs will need to be approved by the railroads. If railroad approval is needed, the ATCs may take more time to be evaluated than is available, or the contract will preclude ATCs that impact the work at the railroad that would require additional railroad approvals.
- d) Environmental Permits: Due to the agreement and negotiations that have taken place and are ongoing, the provisions contained within the environmental permit(s) may limit what can be proposed by contractors.
- e) Schedule Constraints: The project is using steel beams for the bridges. The delivery of steel limits the contractor's ability to reduce the construction schedule from 2 seasons.

Innovative Contracting Project Submission Form

Date: 10/3/15
Contact Person: Lynne Kirby
Region/TSC: University/Brighton
Control Section: 58151, 58152
Job Number: 110616, 113109, 115834
Route: I-75
Project Location: Dixie Highway to I-275

Work Description: Reconstruct the existing freeway, and have a complete replacement of 2 bridges and superstructure replacement with widening of 3 bridges in each bound.

Est. Const. Cost: \$96 million

Key Dates: OEC: early Nov
Turn in to Specs & Estimates: 1/9/15
Let Date: 3/6/15

Procurement and Payment Technique(s): Alternate Technical Concepts for Maintaining Traffic

Delivery Method(s): Design, Bid, Build

Funding Source (Design and Construction phases): Fed/State

Recommendation Summary:

Identification of Risk

Permits: Wetland & MDEQ Permits DNR Permit-minimize impacts to wetlands Endangered Plants.

Environmental Risks: See above

Utilities: Coordination with RR for relocation of signal line. No response from the RR to date.

Maintaining Traffic: Agreement with local agencies to keep interchange ramps open during construction.

Third Party Involvement: Railroad Coordination: May not have RR Coordination completed to turn in for a 9 week ad

Right of Way: None

Other:

ACTION: A motion was made to NOT consider ATC for this project and proceed as an A+B with a March letting date. Motion was supported and EOC approved.

3. LCCA on Upcoming Shelf Jobs - B. Krom

With the recent influx of Design-Build and Design-Bid-Build shelf jobs, several Regions have asked for official LCCA's to be performed on those projects.

The 2012 edition of the Pavement Design & Selection Manual states that official LCCA's will only be performed within two years of letting. These shelf jobs have uncertain letting dates, generally greater than two years from now. Several Regions are cautious to move forward with design/consultant contracts without a final approved LCCA, and without knowing if any of those projects meet all the alternate pavement bidding criteria.

In discussion with Greg Johnson, it was recommended that we assemble a complete list of shelf jobs that require an LCCA (please see the attached list). It is proposed that official LCCA's would be completed for these projects, and the results would have a shelf life of two years from their approval date. If any of these projects have not been let after two years, an informal review of the LCCA would be made to check if the low cost alternative has changed. Any projects where the outcome changed would move back through the review/approval process.

Another issue is which pavement design method to use to specify the cross-section that will be used in the LCCA. We are currently very close to beginning to use Mechanistic-Empirical (ME) pavement design for new/reconstruct projects that require an LCCA. However, the actual starting date for this is still unclear. ME pavement designs for major rehabilitation projects aren't planned to begin until mid-2015.

Prior to the 2012 edition of the Pavement Design & Selection Manual, LCCA's could be done at any time, and had an indefinite shelf life. The 2012 edition of the Manual established that official/approved LCCA's could only be done 24 months prior to letting, and that after approval, the letting could get pushed up to an additional 24 months without having to re-do the analysis. The LCCA Law doesn't specify time frames or the shelf life of LCCA's, so in this case, we can legally modify our own rules to perform LCCA on these projects.

ACTION: Approved. Life cycle requests received prior to January 1, 2015 will be designed under AASHTO 1993 Design Method and after January 1, pavement will be designed using the new design method (Pavement ME).

Steve Bower, Secretary
Engineering Operations Committee

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
T. Phillips
J. Murner (MRPA)

R. Jorgenson (FHWA)
R. Brenke (ACEC)
G. Bukoski (MITA)
D. DeGraaf (MCA)
D. Hollingsworth (MCA)
J. Becsey (APAM)
M. Newman (MAA)