



ENGINEERING OPERATIONS COMMITTEE
MEETING MINUTES
OCTOBER 11, 2007 – 9:00 A.M.
MULTI-MODAL CONFERENCE ROOM

Present: L. Tibbits J. Friend J. Polasek
B. O'Brien J. W. Reincke M. Van Port Fleet
J. D. Culp T. Anderson C. Roberts
T. Fudaly E. Burns

Absent: C. Bleech

Guests: R. Till

OLD BUSINESS

1. Approval of the September 6, 2007, Meeting Minutes – L. Tibbits

The September 6, 2007, meeting minutes are approved.

NEW BUSINESS

1. Use of Adhesive Anchors in Sustained Tensile-Load Overhead Applications – R. Till

The National Transportation Safety Board (NTSB) recommends prohibiting the use of adhesive anchors in sustained tensile-load overhead applications, and implementing an inspection/repair program of sites where failure of the adhesive could result in a risk to the public. These recommendations were made in a letter from the NTSB to Director Steudle, dated August 3, 2007.

The department uses adhesive anchors for many different applications, from retrofitting barrier wall to adding signs to structures. For the most part, the use of adhesive anchors in sustained tensile-load overhead applications is avoided. However, there are many applications where adhesive anchors have been used for this application. There have been no documented problems with this application in Michigan.

ACTION: Department personnel are currently reviewing this issue and will report the results to EOC when available. The department will respond to the August 3, 2007, NTSB letter after the review is complete.

2. Pavement Selections – B. Krom

a. I-94 Reconstruction: CS 77111, JN 76906

The reconstruction alternates considered were a hot mix asphalt (HMA) pavement (Alternate 1 – equivalent uniform annual cost [EUAC] \$71,007/directional mile) and a jointed plain concrete pavement (Alternate 2 - EUAC \$64,364/directional mile). A life

cycle cost analysis was performed and Alternate 2 was approved based on having the lowest EUAC. The pavement design and cost analysis are as follows:

11"	Jointed Plain Concrete Pavement w/14' jt spacing
16"	Open Graded Drainage Course
	Geotextile Separator
6" dia.	Open-Graded Underdrain System
27"	Total Thickness
Present Value Initial Construction Cost.....	\$811,653/directional mile
Present Value Initial User Cost.....	\$264,224/directional mile
Present Value Maintenance Cost	\$74,745/directional mile
Equivalent Uniform Annual Cost	\$64,364/directional mile

b. I-94 BL Reconstruction: CS 11013 & 11081, JN 86206

The reconstruction alternates considered were a hot mix asphalt (HMA) pavement (Alternate 1 – EUAC \$45,612/directional mile) and a jointed plain concrete pavement (Alternate 2 - EUAC \$60,437/directional mile). A life cycle cost analysis was performed and Alternate 1 was approved based on having the lowest EUAC. The pavement design and cost analysis are as follows:

1.5"	HMA, 5E3, Top Course
2"	HMA, 4E3, Leveling Course
3"	HMA, 3E3, Base Course
6"	Aggregate Base
18"	Sand Subbase
6" dia.	Subbase Underdrain System
30.5"	Total Section Thickness
Present Value Initial Construction Cost.....	\$671,345/directional mile
Present Value Initial User Cost.....	\$46,948/directional mile
Present Value Maintenance Cost	\$175,717/directional mile
Equivalent Uniform Annual Cost	\$45,612/directional mile

(Signed Copy on File at C&T)

 Brenda J. O'Brien, Secretary
 Engineering Operations Committee

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|-----|-------------------------|--------------------|------------------------|
| cc: | K. Steudle | S. Mortel | J. Steele (FHWA) |
| | J. Shinn | D. Jackson | R. Brenke (ACEC) |
| | L. Hank | W. Tansil | G. Bukoski (MITA) |
| | EOC Members | D. Wresinski | D. DeGraaf (MCPA) |
| | Region Engineers | C. Libiran | D. Hollingsworth (MCA) |
| | TSC Managers | R. J. Lippert, Jr. | J. Becsey (APAM) |
| | Assoc. Region Engineers | T. L. Nelson | M. Newman (MAA) |
| | T. Kratofil | T. Phillips | J. Murner (MRPA) |
| | M. DeLong | K. Peters | G. Naeyaert (ATSSA) |
| | B. Shreck | J. Ingle | C&T Staff |