Present: L. E. Tibbits  G. D. Taylor  J. D. Culp
C. Roberts  P. F. Miller  T. E. Davies
T. Fudaly  S. Bower

Guests: K. Kennedy  J. Grossklaus  T. Myers
B. Lower  M. VanPortFleet

OLD BUSINESS

1. Approval of the Minutes of the February 7, 2002, Meeting - L. E. Tibbits

Minutes of the February 7, 2002, meeting were approved.

2. Local Government Bituminous Selection Guidelines (See February 7, 2002, Minutes, New Business, Item 2) - M. Frankhouse

The revised guidelines were approved.

ACTION: The Design Division will distribute the guidelines through their Local Agency Programs Unit.

3. Request for Revision of the Pipe Specification Changes Approved at the September 6, 2001 (New Business, Item 2), EOC Meeting - M. VanPortFleet

It was recommended that for the approved pilot program for 12 to 24 inch storm sewer, using polymer coated corrugated steel pipe (16 gauge), installations would not be restricted to outside the influence area of the pavement.

ACTION: Approve recommendation to allow the installation for the pilot projects unrestricted as to location.

4. FHWA Approval of Specifications (See February 7, 2002, Minutes, Old Business, Item 3) - G. D. Taylor

Further discussions on FHWA’s requirements to review and approve specifications resulted in the following task groups to develop procedures:
A. Review of supplemental specifications, warranty specifications, and frequently used special provisions - Judy Ruszkowski (Chair), Ryan Rizzo, John Wiesner, and Region Rep (Thom Davies to name).

B. Review of the MDOT/FHWA Stewardship Agreement - Gary Taylor (Chair), Mark VanPortFleet, Thom Davies, and Tom Fudaly.

**ACTION:** These task groups will develop draft procedures and bring them back to EOC for approval.

5. Research Report, Guidelines for 4-Lane to 3-Lane Conversion (See February 7, 2002, Minutes, Old Business, Item 4) - T. Myers

The regions completed their review of the report and it is approved as edited.

**ACTION:** The Traffic and Safety Division will print and distribute the report to the regions.

**NEW BUSINESS**

1. Calibration of Snow Plow Vehicles - C. Roberts/B. Lower

The Maintenance Division proposed that snow plows with a closed-loop ground speed control system only need calibration once every five years, unless a major change is made to the system. (Currently calibration is required yearly on snow plows.)

**ACTION:** Approved. The Maintenance Division will issue a memorandum explaining the change in calibration requirements.

2. Pavement Selections - K. Kennedy

A. **US-23 Reconstruction: CS 58033/58034, JN 48611/Jointed Plain Concrete Pavement (JPCP) Selection - K. Kennedy**

The construction alternates considered were a hot mix asphalt pavement (Alternate 1 - EUAC $43,131/directional mile), and a jointed plain concrete pavement (Alternate 2 - EUAC $39,547/directional mile).

A life cycle cost analysis was performed and Alternate 2 was approved based on having the lowest Equivalent Uniform Annual Cost. The pavement design and cost analysis summary are as follows:
Alternate 2A (72.4 Percent of the Project) Reconstruct: JPCP (P1 Modified Concrete Mix, Mr=4200, No Grade Raise, Utilize Existing Sand)

11.5" .......... Jointed Plain Concrete Pavement (Mainline) (15' joint spacing)
Freeway Shoulder Option (Design According to R-110 Series)
4" ........................................... Open Graded Drainage Course
4" ........................................... Aggregate Base (21AA Separator Course)
12" ........................................... Existing Sand Subbase
6" ........................................... Open Graded Underdrains
31.5" ........................................... Total Thickness

Alternate 2B (27.6 Percent of the Project) Reconstruct: JPCP (P1 Modified Concrete Mix, Mr=3000, No Grade Raise, Can Not Utilize Existing Sand)

11.5" .......... Jointed Plain Concrete Pavement (Mainline) (15' joint spacing)
Freeway Shoulder Option (Design according to R-110 series)
4" ........................................... Open Graded Drainage Course
4" ........................................... Aggregate Base (21AA Separator Course)
12" ........................................... Proposed Sand Subbase
6" ........................................... Open Graded Underdrains
31.5" ........................................... Total Thickness

Present Value Initial Construction Costs .......... $597,239/directional kilometer
Present Value Maintenance Costs .................. $110,627/directional kilometer
Equivalent Uniform Annual Cost .................. $39,547/directional kilometer

B. M-59 Reconstruction: CS 47082, JN 48762/Hot Mix Asphalt (HMA) Selection - K. Kennedy

The construction alternates considered were a HMA pavement (Alternate 1 - EUAC $33,826/mile), and a jointed plain concrete pavement (Alternate 2 - EUAC $44,023/mile).

A life cycle cost analysis was performed and Alternate 1 was approved based on having the lowest Equivalent Uniform Annual Cost. The pavement design and cost analysis summary are as follows:
Alternate 1A (88.6 Percent of the Project) Reconstruct: HMA (Divided Highway Section)

2" ..................... HMA 5E3, Top Course (Mainline & Inside Shoulder)
2.5" .................... HMA 4E3, Leveling Course (Mainline & Inside Shoulder)
3.4" ..................... HMA 3E3, Base Course (Mainline & Inside Shoulder)
7.9" ........................ HMA 13A (Outside Shoulder)
6" ........................ Aggregate Base (Mainline & Shoulders)
18" ........................ Subbase (Mainline & Shoulders)
4" .......................... Subbase Underdrains
31.9" ............................ Total Thickness

Alternate 1B (11.4 Percent of the Project) Reconstruct: HMA (5 Lane Section)

2" .......................... HMA 5E3, Top Course (Mainline)
2.5" .......................... HMA 4E3, Leveling Course (Mainline)
3.4" .......................... HMA 3E3, Base Course (Mainline)
7.9" .......................... HMA 13A (Shoulders)
6" ........................ Aggregate Base (Mainline & Shoulders)
18" ........................ Subbase (Mainline & Shoulders)
4" .......................... Subbase Underdrains
31.9" ............................ Total Thickness

Present Value Initial Construction Costs ..................... $487,179/mile
Present Value Maintenance Costs ............................. $103,840/mile
Equivalent Uniform Annual Cost .............................. $33,826/mile

3. Approval of the 2002 edition of the Maintenance Guidelines for Work Zone Traffic Control - B. Lower

A draft of the 2002 edition of the Maintenance Guidelines for Work Zone Traffic Control was distributed and discussed.

ACTION: Approval was deferred to the April 4, 2002, EOC meeting to allow a review by the members. (A summary is to be developed showing how this manual differs from the MMUTCD.)

4. Temporary Traffic Control Device Change/Compliance With NCHRP 350 for Type III Barricades - J. Grossklaus and T. Myers

The 12' Type III barrier with lights failed the NCHRP crash test and will no longer be the department’s standard.
The Traffic Recommendations Committee proposes the following:

A. Phase out the use of existing 8' and 12' versions of Type III barrier with lights by October 1, 2004.

B. Adopt as the new standard an 8' Type III barrier design, with lights, that has been approved by crash testing.

**ACTION:** Defer decision until the April 4, 2002, EOC meeting to allow time to review recommendation.

(Signed Copy on File at C&T)

Jon W. Reincke, Secretary
Engineering Operations Committee

JWR:JDC:kat

cc: EOC Members
Region Engineers
G. J. Rosine  R. J. Risser, Jr. (MCPA)  L. Stornant  T. L. Nelson
C. T. Maki  A. C. Milo (MRBA)  J. Ruszkowski  R. D. Till
R. J. Lippert, Jr.  J. Becsey (MAPA)  C. Libiran  M. Frierson
M. Nystrom (AUC)  D. Hollingsworth (MCA)  G. J. Bukoski  C. W. Whiteside
M. Newman (MAA)  J. Steele (FHWA)  K. Rothwell  T. E. Myers
J. Murner (MRPA)  K. Peters  T. Phillips  D. L. Smiley