

## TEO TTC Committee – Quarterly Meeting Minutes

### February 7, 2012 - Arden Hills Training Center

| CO Members:   | Greater MN Members:   | Metro Members:   | Guests:  |
|---|---|--|--|
| X - Ken Johnson<br>X - Ted Ulven<br>X - Michelle Moser<br>X - Craig Mittelstadt<br>- Leigh Kriewall<br>X - Bob Vasek<br>X - Sue Lorentz | X - Jim Miles D1<br>X - David Mavec D1<br>- Todd Larson D2<br>- Jerilyn Swenson D3<br>- Oliver Kendal D4<br>X - Jeff Rieder D6<br>- Tom Miles D6<br>X - Scott Thompson D7<br>- Brad Bruegger D7<br>- Jeff Knofczynski D8<br>- Mike Lownsbury D8 | - Tiffany Dagon<br>X - Heather Gardner<br>X - Mike Eng<br>X - Kevin Farraher<br>X - Sheila Johnson<br>- Jeff Gibbons<br>X - John McClellan | X - Karla Rains<br>X - Jeanne Aamodt<br>X - Heather Lott |

**TEO TTC ISSUES (Major topics, of which the final product will be presented to the TEO Executive Committee for approval):**

**Issue #1, TPAR Guidance document:**

Other issues were so involved and generated much discussion so there was not time to review this document during the meeting. Please continue to review on your own and send comments to Ken or Ted. This will be a lead item at the next quarterly meeting.

**Issue #2, Safety and Mobility Policy incorporation into Chapter 8 of the TEM:**

Our Safety and Mobility Policy is a Technical Memorandum that expires this fall. It needs to be updated, rewritten, and merged into our Traffic Engineering Manual.

**Action Item:** Ted will meet with Ken Schroepfer to determine the process and format in which this is to be accomplished. A meeting will be held with those who volunteered for the Chapter 8 rewrite task force. Progress will be reported at the May TTC meeting.

**Issue #3, Guidance for the use of PPCB:**

Continuing this discussion from the previous meeting, two more questions regarding barrier use were submitted by Tiffany. Are statewide guidelines needed for PPCB use when divided traffic is converted to a 2L2W operation? Specifically, when should it be anchored to the ground and under what circumstances should it be considered for use when “head to head” traffic is in effect as a construction stage?

A further question which has come up on several recent projects is, are statewide guidelines needed for the linear length of and/or length of time that Cable Median Guardrail may be out of service due to construction activities? How long may a section be “down” and how should this be addressed in the TCP. Suggestions on factors to consider are traffic volumes, duration of the stage, and location considerations, such as in the proximity of an intersection or interchange. The committee agreed that they would like some guidelines to consider when encountering these questions.

**Action Item:** Ted will set up a meeting with the OTST safety section to discuss these concerns. Thanks to Jeff R., Tiffany, and Kevin F. for volunteering to be a part of this effort.

**Issue #4, Temporary Traffic Control for Roundabouts:**

Another ongoing issue, there is nothing new to add to at this time.

**Issue #5, Detour Manual:**

Another ongoing issue, there is nothing new to add at this time.

**DISCUSSION TOPICS (Updates, new business, and questions for the committee):**

**Member List Update:**

Heather Gardner moves from D3 representative to Metro Traffic. Sue Lorentz moves from Metro Maintenance to OM. Jerilyn Swenson will be the new D3 representative and Michelle Moser is the new OTST Traffic Device Engineer. The committee agreed to add representation from Safety and Permits.

**Action Item:** Ted will contact each office, determine an appropriate person, and invite them to attend our next meeting.

**Communication with Motorists:**

The discussion focused on the HARS product. While this is an old technology that had been used years ago with mixed success, a vendor has a new system with many promised improvements. The committee agreed that a demo, possibly at the vendor's location, would be the best way to determine the quality of the system and its range of effectiveness. Advantages of using HARS include it being an effective way to get construction information out to the motorist far in advance of the work zone so decisions about an alternate route may be made. Much more information may be communicated than by CMS or static signs.

Weaknesses discovered in the past include lack of message updates, ghosting, and generally poor performance on the AM band. AM does have limitations that need to be understood, is subject to static, and is not a protected band.

**Action item:** Ted will contact Mike Granger of Street Smart Rentals to arrange a time & place for a demo.

**New Product Update:**

- Michelle Moser was introduced as the new Traffic Device Engineer. She will be handling APL/QPL issues as well as looking at sign structures and PPCB guidelines.
- The IWZ provider APL will be phased out and the construction project special provisions will contain any qualification procedures or other requirements.
- IWZ performance measures were discussed. This seems to be an area we are still exploring and learning about. A suggestion of 95 % accuracy and 5 minute updates was stated and not disagreed upon. Feedback from the public as well as the latest technical capability may drive the constraints on this issue. Considerations include the 65 mile project the Duluth District has this summer verse the typical 10 mile distance the RTMC usually estimates. John M. added that RTMC sometimes uses the message "more than XX minutes" during times of rapid rate change which may also be applicable to IWZ setups.
- Highway Safety Zone indicated they have TPAR devices and are interested in joining the APL. The TPAR APL is still being developed.
- Provisional approval for Brightline and 3M Temporary Tape has expired, should these be extended or fully approved? Each member was asked for comments and there was no disagreement that the products all worked well last construction season. Assuming that product failures would have been readily apparent and become well known, the committee saw no reason not to fully approve both temporary tape products.

**Action item:** Ted will notify Mitch Bartelt, MnDOT Pavement Marking Engineer, that the TEO TTC recommends full approval of both products.

### **Advance Sign takedown:**

How do you pick up advance construction signs? Are trucks backed up or worked from the opposite side of the road and cross traffic? There was not a standout best practice for this procedure that every district practices. Set up and take down are risky times for work crews. It seemed like backing up was more common but many factors should be considered. On 2L2W roadways speed, volume, shoulder width, and turn around locations affect the decision. Many (all?) of the new TL3's are trailer units and backing up will not be practical. There was not any interest in pursuing this issue further.

### **WZ Temporary Rumble Strips:**

We went over some findings by Katie Fleming, of the OTST Safety unit, about the use of TRS's in Work Zones. Most of the studies in the literature search focused on speed reduction but some had observable reductions in injury crashes. Discussion points are as follows:

- On MnDOT projects thus far, TRS's appear very effective for stop situations such as a newly installed all-way stop or approaching a flagger.
- There has been some pressure from construction and contractors to use these as a method of reducing speed. Traffic is generally against this and recommends speed trailers and increased enforcement instead.
- There is also a danger of increased rear end crashes from placing TRS's in other than stop condition areas.
- Noise is also an important consideration in residential areas.

**Action item:** We will reopen this issue and continue to look at speed limits vs. inattentive driving. Extraordinary enforcement, use of advisory speed limits, and an enforcement speed van such as that used in Chicago, will be topics for continued discussion.

### **ATSSA training course:**

Is there interest in bringing the ATSSA "Urban Work Zone Design" course to Minnesota for MnDOT, County, and City personnel? Although MnDOT has gone away from ATSSA training for Traffic Control so we could operate our own training with MnDOT standards, the committee felt this Traffic Design course would be of benefit to us by learning of other states approaches. There are so many considerations in the urban environment that include pedestrians, parking, motorcyclists, and bicycles.

**Action item:** Ted will contact ATSSA and arrange for the course to be brought to Minnesota.

### **TMP training course:**

The FHWA is bringing their TMP training course to our Arden Hills Training Center again this year. The dates are proposed to be April 11 & 12. This class will be targeted to Designers, Project managers, or whoever is responsible for creating the TMP. It will be more rigorous, focusing on exactly what the FHWA wants, and include real examples from the Metro district. Watch for a course announcement.

### **Construction Information Signing:**

Karla Rains did a presentation proposing additional Construction information signs in work zones. She is also working with the TEO Signing committee to develop an appropriate sign design. Karla explained how MnDOT can increase its transparency and satisfy the motorist's desire for information by installing construction information signs and "Completed" plates. Missouri has done this for years to notify the public of upcoming road improvements. When improvements are needed, but projects are not scheduled until future years, this is thought to reduce complaints and inquiries to the DOT.

This generated a good discussion of the pros and cons. Some veterans of the committee recalled similar efforts in the past that seemed to generate as much cynicism as good will. Recently the ARRA signs were used with many problems such as a lack of legibility. Other suggestions included adding additional information to the G-20 signs that many projects already use, using a HARS system to communicate project information, and better utilizing 511 and other web site resources. It was also

very strongly felt that the required construction signing at the proper spacing uses up almost all of the available space in and preceding a work zone. If this is going to be done the committee felt it should be tested on a smaller project outside the metro area so any unintended consequences could be discovered. To conclude, the committee was not in favor of installing additional signing that did not have to do with work zone safety.

Post meeting update: There continues to be much interest in this proposal from MnDOT management and the state legislature. It is important that this committee stay involved in the piloting of it to insure that the signs are legible, follow our standards, and the placement is in an appropriate location. From a later meeting on the topic, it appears that Metro and D1 will be testing these signs during the 2012 season on at least one project. Feedback from motorists and (after establishing some way of measuring) the impact of the signs will be collected to determine whether to continue the strategy in 2013.

### **Round Robin:**

- There was limited time for round robin comments. This will possibly be a lead item at the next meeting so we are sure to hear from each district and office on topics of concern.
- Craig told us of an upcoming ATSSA webinar on February 29<sup>th</sup>. He arranged a meeting room at the HIWAY CU and has invited contractors, consultants, as well as MnDOT personnel. Following the webinar there will be a discussion/brain storming of ideas to improve work zone safety.
- Shelia says Metro Maintenance will be trying a new marker for guardrail ends. It is a tall fiberglass pole with Telespar anchor that will replace the small yellow & black markers used currently.
- Sue L. discussed a cone-setting cage and harness that attaches to a class 33 truck. It is expected to make the cone setting and pickup process safer for the work crews. She will present this at the next Statewide Work Zone Safety meeting. Sue also mentioned that the department would like more reviews of maintenance and construction work zones. Also called peer reviews, with possibly several reviewers from different offices and districts, they would address some complaints of inconsistency and sloppiness in work zones.
- Dave M. mentioned he does work zone reviews with a maintenance superintendent.
- Jeff R. would like to see some guidance on where to use the active (dynamic) verse passive (static) zipper (late) merge. Ken mentioned that there is a Traffic Topics presentation on the Zipper Merge and he might find some ideas in there. An hourly volume of 1500 (Metro uses 1800) might be a good threshold to use. Craig is in favor of doing more active setups since he hasn't seen a lot of people doing the zipper merge when only static signs were used citing TH 52 as an example.
- Bob met that morning with the executive committee. Some of the topics discussed were training, work zone coordination, gaps in the Safety & Mobility policy, work zone reviews, and crash investigations. We will learn more of these in the future.
- Michelle presented a brochure of a TAPCO blinky sign that has applied to be on the APL. This one is a flagger ahead symbol and is trailer mounted.
- Ken J. stressed the importance of training, especially for developing an online session for permit applicants. He solicited volunteers to help with this so Sue L. volunteered and Leigh was volunteered in absentia.
- Scott gave an update of Brad's condition and thanked D6 personnel for visiting Brad at St Mary's.

**Next Regular Meeting:** May 1, 2012 at Arden Hill Training Center Rm 2.