

Statewide Work Zone Safety Committee Meeting

March 15, 2009 – Fargo, North Dakota

Attendees:

The member attendance roster is listed at the end of these minutes. The list includes guests.

General Agenda Format:

Group Reports and New Business with Discussion (approx. 5 - 10 min. each)

Representatives from each group will give:

- **Status Report on assigned Action Items** (previous minutes are attached for more information).
- **Update Report** on the representative's committee and/or organization's current WZ Safety issues.

In addition, representatives may present:

- **New issues** may be presented to the committee for discussion and recommended actions.
- **Other items of interest** may be presented to the committee for informational purposes as time allows.

The following status reports were presented for Previous Action Items and Round-Robin Topics:

State Patrol:

- Al Smith reported that no major issues were encountered during the construction clean-up of the 2009 season. For the 2010 construction season, he warned that lead time is needed for extra enforcement on construction projects. Patrol will work with project engineers on scheduling troopers on the site, but advance coordination is necessary.
- Al wished to remind design & construction to attempt to provide periodic emergency pull-off areas whenever shoulders are restricted for stopping vehicles.
- Al reported that new legislation will allow private companies to provide escort services for oversized loads (such as windmill parts) travel across the state, rather than requiring law enforcement services. State Patrol will need to train and certify the companies before they may provide that service.
- Al asked whether we planned to use the Late Merge (zipper) strategy on any projects this year. It was heard that Duluth and Metro both expect to utilize the strategy on various projects. Al responded that the State Patrol likes the late merge concept, but last season they did see some confusion between drivers for the proper way to use the procedure. The Patrol would like to see more statewide publicity on what the late merge concept and more explanation that "using both lanes" is legal and is safer during backups. The Patrol is willing to work with Mn/DOT on a publicity campaign to educate the public. Truckers appear to be the major offender of the strategy, which causes the major problems, but the general public needs to understand the concept.

ACTION ITEM: Kent Barnard will work with the Office of Public Affairs to investigate the various options to communicate with the truckers and other motorists and inform them of the proper and legal late merge etiquette. Concepts will be discussed with industry and the communications partners. Public education should be timed to correspond with the Late Merge deployments. Although dynamic late merge deployments are generally easier for drivers to understand since the PCMSs only light up when "BOTH LANES" usage is required, the drivers must be able to recognize and follow a "Zipper" situation regardless of whether it is a "Dynamic" or "Static" Late Merge deployment. Marv Sohlo will provide technical assistance to Kent or the OPA as necessary.

TTC Services - Northland ATSSA:

- Jay Blanchard reported that Northland Chapter of ATSSA will be working with Mn/DOT and National ATSSA to conduct a Workshop for Disabled Pedestrians. More regarding this topic is listed under the Traffic Engineering topics.
- Northland ATSSA has become a member of TERRA (Transportation Engineering & Road Research Alliance). TERRA works closely with government, industry and academia to advance innovations in road engineering. TERRA conducts a process to develop research proposals on pavement, materials and other related challenges into funded research projects.
- Several brochure samples were distributed to the committee members. These brochures are printed by National ATSSA in partnership with FHWA and cover a variety of subjects. Typical topics included Safety Apparel requirements, Work Zone layouts for Maintenance Operations, Pedestrians in Work Zones, Positive Protection for Workers and Mobility in Work Zones. These brochures are free from ATSSA. Please check out their website and order what you need: <http://www.atssa.com/cs/Federal-Highway-Administration-work-zone-safety> (look under Area 2 Products)
- Jay reported that ATSSA provides TTC Supervisor training. The courses are low cost due to the federal funding. Safety Signs has sent several employees to the classes and Jay has found that these courses supplement Mn/DOT Certification course very well. Currently two more classes are planned for the Minnesota area and more will be scheduled before the Federal Grant ends in September.

NATIONAL ATSSA Conference:

Several people from the SWZSC attended the national conference in San Antonio Texas in February. Among those who attended, Ken Johnson, Sue Groth, and Jay Blanchard reported to the committee on a few of the sessions they attended at the conference. Sue reported that the State Engineers discussed the new MUTCD and primarily the definition of a “standard” was a hot debate. She also attended a New Products press conference where many new innovative products were showcased. She passed a few of the brochures around the committee. Ken attended sessions which discussed new Pavement Marking retro-reflectivity standards, and he noted that ATSSA has low cost courses for TTC designers which include impact analysis. Jay reported that a new session was introduced called the “Circle of Innovation” which allowed government attendees to list their work zone, signing, or pavement marking issues and discuss possible solutions. Jay announced that Northland will be considering introducing a similar session into next year’s How-To Conference on our local level. The National ATSSA Conference will be in Phoenix Arizona in February of 2011.

Worker Safety:

Todd Haglin and Doug Thies discussed several current safety issues with the committee including:

- They are looking at cone setting procedures to determine whether improvements in Mn/DOT’s procedures may be made.
- Several sets of a “rear-view” mirror for hard hats were purchased for testing and review. They would allow wider peripheral vision and may prevent accidents due to objects striking from behind the employee or their blind-spot. The new standard, ANSI A10.47 regarding Runover/Backover Protection of workers, mentions these types of devices as a viable option for this type of safety protection.

- A metro maintenance worker had an on-the-job injury recently and Doug spoke about the various dangers we must be aware of in our normal jobs.

Public Affairs:

- Kent Bernard reported the Metro District in partnership with the State Patrol developed a PSA regarding the MOVE OVER law and how it has been expanded to include maintenance vehicles on the shoulder of the highway. A new billboard with the Move Over message was designed and starting to be placed around the state through Clearchannel. The committee was also able to view the PSA video for the message, but the video has not been released for use on television at this time.
- Kent informed the committee that “pre-approved” news releases for the spring flood have been developed. Receiving pre-approval from the Governor’s Office is a major hurdle is providing timely and accurate news releases for road closures or hazardous conditions.

ACTION ITEM: See the State Patrol’s Action Item

Permits:

- Ed Barrett from Metro Permits has been delegated as the SWZSC contact person for the Permit Committee (PERCOM).
- Ed Barrett relayed a PERCOM question to the Patrol regarding flagging procedures for a short duration road closure. It appears that procedures need clarification in the Bemidji District and PERCOM will work with Patrol to clarify the issues. Layout 75 in the Field Manual should be followed, but extremely low volume roads & fast closures appear to be conditions which may modify the layout standards.

ACTION ITEM: The TEO WZSC will be reviewing this layout during the routine MnMUTCD update. Marv Sohlo will present the problem to the committee for discussion and possible Layout modifications.

- Ed highlighted an ongoing issue regarding non-compliance of TTC standards during permit work on state highways. This issue appears routinely with smaller utility companies which fail to set up the proper TTC. John Story mentioned that other states require a TTC plan for permit operations and have penalties when the plans are not followed. The SWZSC discussed a few suggestions for enforcement of standards including a requirement that the permit-holder submits photo documentation of their setup, but many issues could prevent this from being a viable real-time solution. Random checks by the permit staff and other knowledgeable employees (on TTC) may be the best enforcement if the penalties may include rejection of future permits until standards are improved.

ACTION ITEM: OTST will work with PERCOM and CO Utilities to determine a course of action on this issue, and report its progress to the SWZSC.

Maintenance:

- **Truck/Trailer Mounted Attenuators (TMA):**
Sue Lodahl distributed a draft of a Maintenance Bulletin for “Truck and or Trailer Mounted Attenuators (TMAs)”. In summary, the draft bulletin reads as follows:
Guidance: The districts are directed to start a program to reduce the number of TL-2 TMAs in its fleet and increase the utilization of TL-3 TMAs on freeways and expressways. The goal to upgrade Mn/DOT’s fleet of TMAs to TL-3 or higher before December 31, 2016. In order to accomplish this goal the districts shall adopt the following course of action:
 - All TMAs damaged beyond repair shall be replaced with a TL-3 TMA.
 - TL-2 TMAs currently in the fleet may continue to be utilized until replaced through attrition.

- TL-2 TMAs that are damaged beyond repair and assigned to a two-lane roadway shall be replaced with an existing TL-2 from a freeway or expressway. Therefore providing an opportunity to replace a TL-2 originally assigned to the freeway or expressway with a TL-3 TMA.
 - TL-2 TMAs shall not be used on Mn/DOT's freeways and expressways beyond December 31, 2016, except where TL-2 TMAs have been approved for special purpose assignments.
 - All TL-2 and TL-3 TMAs shall be installed as designed and operating properly.
 - Periodic inspection of TMAs is necessary to assure they are in working order.
- **Statewide Vehicle Lighting Committee:**
At the October 2009 meeting, Metro District maintenance raised a question regarding the standards for vehicle lighting packages statewide: Is there any group or committee assigned the responsibility to determine standards for Mn/DOT's fleet? It is assumed that this group would set Mn/DOT minimum standards or policy on vehicle lighting packages to provide uniformity between districts. The SWZSC could not identify a specific responsible group and asked the Office of Maintenance to determine whether a need exists. Sue Lodahl reported at this meeting that the Maintenance Office determined that the committee no longer exists, but there is a need to explore how to resurrect the committee. The committee should determine minimum standards for Mn/DOT vehicle lighting packages statewide. Vehicles delivered from Central Shop to the Districts would be equipped with these minimum packages. Districts may elect to enhance the vehicle lighting based upon their own lighting standards / policies which have be add, but not reduce the vehicle's lighting quality.
ACTION ITEM: The Office of Maintenance will continue to resurrect the Statewide Vehicle Lighting Committee, and the committee will work with the Office to determine its scope of duties.
- **Arrowboard Inspections:**
At the October 2009 meeting, John Benson reported that they reviewed a sampling of models that represent the majority of units. It was assumed that they would find particular models that would fail and some models may be approved to be included on the APL. However, they found that the actual make/model of many FAPs could not be identified, which makes blanket recommendations for particular makes/models nearly impossible. They also found that even for makes/models that could be identified; there was no consistency on whether the device performed satisfactorily or not. Example: a WANCO model found in D-6 was judged as failing with very poor bulb brightness, while the same model found in Metro performed extremely well and would pass any inspection. The review team identified several maintenance and operational factors that may contribute the performance levels and prepared a report on their findings. The APL will not be modified for these older makes/models, but the "inspection" should be recorded for each unit's approval.
ACTION ITEM: Maintenance will develop an Arrowboard Inspection Checklist based upon the report, and will issue a Maintenance Bulletin requesting that each District utilize the checklist to conduct an inspection of our arrowboard fleet. OTST and Maint will continue to work on this issue and will report progress at future meetings.
- **Work Zone Inspections:**
At the October 2009 meeting, it was reported that Maintenance wished to begin a routine

maintenance work zone review process. D-1 Work Zone Safety Coordinator, Sarah Sondag, which explained a WZ review process that D-1 has begun. The process included the district's work zone safety coordinator randomly visiting work zones around the district. It was proposed that the work zones would be both maintenance and construction work zones. Ken Nelson reported that after further review, it was determined that construction and maintenance (represented by the Resident Engineers and the Area Maintenance Engineers) would prefer that the reviews be conducted by a representative of the District Traffic Section.

ACTION ITEM: The Office of Maintenance (Ken Nelson) should present the "Work Zone Inspection" concept to the District Traffic Engineers. The DTEs should determine who would be assigned the responsibilities within their district. Both Metro and Duluth Districts currently have Work Zone Safety Coordinators who are conducting these inspections. Over the years, Metro's position has grown within the maintenance section, with personnel having high TTC experience. Duluth's position is within the Traffic Section, but Duluth's traffic section is a part of maintenance operations.

Maintenance WZS Committee:

- **Temporary Rumble Strips:**

Randy Reznicek reported that D-3 has received a set of six portable rumble strips developed by PSS Inc. called "RoadQuake". District 3 will work with OTST to study various deployment scenarios and determine the optimum layout for the rumble strip usage. Randy reported that they did test the strips at Mn/ROAD during the winter to determine whether the strips could be deployed in cold temperatures. The first test was at near zero degrees and the plastic strip fractured when the test truck drove over it (ending testing that day). Testing again near 32 degrees, the strips performed good with little or no movement under repeated loading. The low temperature failure has been reported to PSS Inc. and they will be investigating their plastic formulation and making improvements. The broken strip will be replaced by PSS Inc. The first practical usage of the strips will happen during the spring floods, when the strips will be utilized by the Bemidji District to warn of temporary stop conditions on TH 2.

ACTION ITEM: Randy will continue to work with Marv on testing procedures. Randy will give the SWZSC updates on the plan/study/results at future meetings.

State Aid:

- Mark Vizecky has contacted Jim Koslucher, City Engineer for Fridley, who will be the new contact the cities for a municipal representative on the committee. Jim will join the group at our next meeting in October. He replaces Gary Shannon from Rochester.
- Thomas Behm, State Aid Engineer from Mankato retired. Tom was our district representative for the SWZSC and worked with the review of the applications for the County Work Zone Safety Enhancement Award.

ACTION ITEM: Mark Vizecky will contact the districts for a replacement representative on the committee.

Construction – OCIC:

PREVIOUS ACTION ITEM: Craig Mittelstadt will contact the Resident Engineers Group for the name of the representative on the SWZSC for the Metro area.

- Inexperienced TTC Service Personnel on Construction Projects:

Background: Craig reported that during the summer of 2009, he has witnessed several cases where the contractor has rented the TTC devices for the project and attempted to provide the TTC without the aid of an experienced TTC service contractor. In most, if not all, cases the TTC quality was below acceptable standards and in at least one case, the contractor needed to hire a TTC service contractor to get the operation into acceptable condition to continue with the project.

The SWZSC discussed the issue and debated what could be done to discourage contractors from attempting to provide TTC services without qualified personnel or how the state could ensure that qualified personnel are responsible for the TTC. Possible solutions could include training certification of TTC personnel, certification for the contracting company, requiring a TTC Service Contractor provide the service, or other possibilities.

ACTION ITEM: OCIC will work with other offices and interested partners to develop a workable solution to the low-quality TTC issue. OCIC should review our state practices for quality assurance of TTC. After discussion, a combination of training, experience, record keeping, and enforcement on some form of certification appears to be the most viable solution to be phased in over 1-3 years. Updates will be provided to the SWZSC.

TTC Training:

- Regarding training conducted through the Office of Maintenance and LTAP, Ken Nelson reported that so far this calendar year, more than 600 people have been given Field Manual training. This includes Mn/DOT maintenance workers, cities & county workers and utility workers.
- Leigh Kriewall reported that OCIC has already conducted many of the classes for 2010:
 - Temporary Traffic Control Overview (one day course in February)
 - TTC Supervisor Certification (3 day course in March)
 - Inspector Academy (5 day course in March – approx. half will be about TTC)

Management Groups:

- DE , OMG, CMP, and PCMG – no reports

Traffic Engineering:

- **TEO WZS Committee Topics:**
 - Ken Johnson reported that the committee finalized the draft of new TEM language for Temporary Business Signing (Chapter 8-5.02.03). The new language has been approved by the TEO Exec Committee. The document provides new options for business signs including types of signs and sizes, but the over-all number of business names per sign assembly has not increased substantially. The document provides guidance on developing trail-blazing and the types of signs that may be used to direct motorists to the businesses. The document is currently being reviewed by staff and will be incorporated into the TEM soon.
 - Marv Sohlo reported that the committee is currently reviewing the MnMUTCD Part 6 for compliance to the new 2009 Federal MUTCD. The committee will be updating various sections of the Part 6, Field Manual and Long-Term layouts. The meetings have been conducted via webinar on a 2-3 week schedule. The updated Part 6 sections are published online as they are developed.
<http://www.dot.state.mn.us/trafficeng/mutcdreview/part6/>

- **ConeZone Software Review:**

The OTST Work Zone Unit has been working with SignCAD to review the ConeZone Software for Minnesota MUTCD standards. ConeZone is developed by SignCAD and automates the drawing of a TTC plan layout. The software will draft the location of required TTC devices and tabulate the quantities of devices.

ACTION ITEM: OTST will continue reviewing the ConeZone software and will set up a software demo/class for ConeZone. Representatives from Mn/DOT and the county will be invited.

- **ADA in Work Zones:**

As witnessed by the SWZSC during the course of this meeting, ADA requirements for pedestrians within work zones has become a major topic among many forums. Ken Johnson and Marv Sohlo reported that OTST will be conducting a workshop to review currently available TTC devices designed to assist pedestrians through work zones. The workshop will concentrate on the needs of disabled pedestrians using these devices. The workshop will be conducted in partnership with ATSSA, who will help provide contacts with vendors & manufacturers of TTC devices. It is anticipated that representatives from federal, state, local agencies, disabled organizations, contractors and the manufacturers will gather to determine criteria for various attributes of these devices which will enable Mn/DOT to develop specifications for ADA compliant devices. Northland ATSSA reported that they are willing to help in the organization and funding of the event. The tentative date for the event is late May to mid-June if possible. Several locations have been discussed around the St. Paul area including within the State Fair grounds, at the Earle Brown Center, or at the Arden Hills Training Center.

ACTION ITEM: OTST will report the findings from this event at a future SWZSC meeting.

Next SWZSC Meeting at the Arden Hills Training Center

Thursday, October 21, 2010

A meeting notice will be sent out in the near future.

ACTION ITEM: The SWZSC Coordinator, Ken Johnson, will be following up with each action item and providing a monthly status report to the Executive Committee for review.

Refer to the following link for all current Work Zone information, standards, and documents, including the SWZSC information, such as previous meeting minutes and announcements.

<http://www.dot.state.mn.us/trafficeng/workzone/index.html>

Statewide Work Zone Safety Committee Attendance – March 15, 2010

present:

Co-CHAIRS:	Mike Robinson (Duluth - Director)	218-725-2704	<input type="checkbox"/>
	Sue Groth (OTST - Director)	651-234-7004	X
EXEC. COMM.:	Bernie Arseneau (Division Director)	651-366-4838	<input type="checkbox"/>
	Mike Barnes (Division Director)	651-366-4825	<input type="checkbox"/>
	Sue Mulvihill (Division Director)	651-366-4814	<input type="checkbox"/>
	Tom Ravn (OCIC - Director)	651-366-4228	<input type="checkbox"/>
	Steve Lund (Maint - Director)	651-366-3566	<input type="checkbox"/>
	Cassandra Isackson (OTST – Asst Director)	651-234-7010	X
	Rick Kjonaas (SALT - Asst Director)	651-366-3802	<input type="checkbox"/>
Committee Coordinator:	Ken Johnson (Mn/DOT/OTSO/WZ)	651-234-7386	X
EXTERNAL PARTNERS:			
Enforcement:	Major Al Smith (DPS – State Patrol)	651-201-7109	X
FHWA:	William Stein (FHWA)	651-	<input type="checkbox"/>
County:	Wayne Sandberg (Washington County)	651-	<input type="checkbox"/>
	Adam Bruening (Washington County)	651-430-4398	<input type="checkbox"/>
Municipal:	Jim Koslucher (Fridley)	612-	<input type="checkbox"/>
NCATSSA:	Jay Blanchard (NCATSSA - Safety Signs)	952-469-6700	X
	Ken Russell (NCATSSA - 3D Specialties)	701-293-8599	X
	Gary Clark (NCATSSA - 3M)	651-592-2062	<input type="checkbox"/>
TTC / IWZ Services:	Eric Johnson (Traffic Technologies)	612-363-7475	X
	John Story (Traffic Technologies)	612-770-9151	X
	Tim Lewis (Highway Technologies)	612-521-4200	<input type="checkbox"/>
	Lynn Berg (SignCAD)	952-544-9559	<input type="checkbox"/>
	Mike Granger (Street Smart Rental)	651-653-4648	X
LTAP:	Jim Grothaus (LTAP)	612-625-8373	<input type="checkbox"/>
Consultants:	Larry McKenzie (URS)	612-373-6315	X
	Gary Thompson (URS)	612-345-2643	X
AGC:	Frank Weiss (Shafer Contracting)	651-257-5019	<input type="checkbox"/>
Utilities:	VACANT		<input type="checkbox"/>
INTERNAL PARTNERS:			
Construction:	Craig Mittelstadt (OCIC/Spec. Provisions Comm.)	651-366-4222	X
Speaker Bureau	Leigh Kriewall (OCIC/Training)	651-366-4217	X
Resident Eng	VACANT (Const/Metro)		<input type="checkbox"/>
Resident Eng	Trudy Kordosky (Const/Outstate)	218-846-3624	<input type="checkbox"/>
Maintenance:	Sue Lodahl (Maint – Asst Director)	651-366-3549	X
Maint Office	Ken Nelson (Mn/DOT/Maint Training)	651-366-3568	X
Metro Maint	Sue Lorentz (Maint/Metro WZ Safety Comm.)	651-775-0309	X
Outstate Maint	Randy Reznicek (Maint/State WZ Safety Comm.)	320-223-6568	X
Metro Permits	Ed Barrett (PERCOM)	651-234-7912	X
Public Affairs:	Kevin Gutknecht (OPA)	651-366-4264	<input type="checkbox"/>
District	Kent Bernard (Communications/Metro)	651-234-7504	X
PCMG	Mark Waisanen (Design/D4)	218-846-3606	<input type="checkbox"/>
CMG	Mark Panek (CMG/D6)	507-446-5603	<input type="checkbox"/>
OMG	John Howard (AME/Metro)	651-234-7904	X
SALT:	Mark Vizecky (Mn/DOT/SALT)	651-366-3839	X
District	VACANT (SALT/D8)		<input type="checkbox"/>
Worker Safety:	Todd Haglin (OMCS)	651-366-3079	X
District	Doug Thies (Safety/Metro)	651-366-5199	X
Traffic Engineering:	Marv Sohlo (OTST/TEO WZ Safety Comm.)	651-234-7380	X
OTST	John Benson (OTST/Approved Products)	651-234-7371	X
OTST	Ted Ulven (OTST/WZ & PM Standards)	651-234-7058	<input type="checkbox"/>
District	Mike Engh (Traffic/Metro)	651-234-7870	X
District	Kevin Schmidt (Traffic/D3)	218-828-5771	X
District	Jeff Rieder (Traffic/D6)	507-285-7381	X
GUESTS:	ATSSA	Laura Perrotta	Ottertail County Rick West (for Wayne Sandberg)
	Safety Signs	Reed Leidle	Street Smart Mike Granger Jr.
	Maint Office	Ryan Otte	Street Smart Steve Anderson
	State Aid	Justin Perry	SignCAD Emily Fischer (for Lynn Berg)