

Meeting Minutes: Statewide Work Zone Safety Committee

Date: 5/30/17, 9:00 – 3:00
Minutes prepared by: Ken E. Johnson, MnDOT OTST
Location: MnDOT Shoreview Training and Conference Center, Shoreview, MN

Mission, Purpose, & Meeting Methods

- **Mission** – The SWWZSC will influence the actions of those involved with work zones through the information that is shared through the innovations and best practices that are identified so that we achieve safer work zones and fewer fatal and life changing crashes.
- **Purpose** to provide a forum for
 - Identifying work zone safety problems, safety areas, and help set priorities
 - Brainstorming ideas
 - Recommending direction to our functional offices and committees
- **Meeting Methods**
 - Committee, partner, and group reports with discussion. Representatives will give
 - Status report on Action Items (from previous meeting if assigned)
 - Update report on work zone safety issues
- **Committee Website**
 - Minutes, Presentations and Handouts for the Committee meetings may be found at the Committee website
 - <http://www.dot.state.mn.us/trafficeng/workzone/wzcommittee.html>

Attendance

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| • Duane Hill, MnDOT D1 | • Dave Meslow, NLCATSSA |
| • Jay Hietpas, MnDOT OTST | • Doug Swenson, AGC |
| • Steve Lund, MnDOT OM | • John Bear, Shafer |
| • Ted Schoenecker, SALT | • Mike Granger, TTC Services – Street Smart |
| • Ken Johnson, MnDOT OTST | • Eric Johnson, TTC Services – Salander |
| • Bob Vasek, MnDOT OM | • Reed Leidle, TTC Services – Safety Signs |
| • Ted Ulven, MnDOT OCIC | • Jon Jackels, Consultants – SRF |
| • Mark Vizecky, MnDOT SALT | • Jeff Hilden, Consultants – TKDA |
| • Jeff Morey, MnDOT OTST | • Mark Panek, MnDOT PCMG/CMG – D6 |
| • Will Stein, FHWA | • Trudy Kordosky, MnDOT Resident Engineers – D4 |
| • Ken Russell, NLCATSSA | • Sheila Johnson, MnDOT Metro Maintenance |
| • Lynn Berg, NLCATSSA | |

- Doug Theis, MnDOT Metro Safety
- Peter Buchen, MnDOT OTST
- Rashmi Brewer, MnDOT OTST
- Ethan Peterson, MnDOT OTST
- Ron Rauchle, MnDOT Metro Traffic
- Jeff Rieder, MnDOT D6 Traffic
- Dave Tody, MnDOT Metro Maintenance

Decisions Made

- No specific decisions made

Action items

- MnDOT OTST will work to make barrier delineator sheeting requirements more clear on TTC templates or typicals
- MnDOT should research and determine a consistent application of when PE Signatures are required on TTC plans
- Next Meeting Agenda – all Committee members will submit proposed agenda items to Ken E. Johnson

Next Meeting

Date: March 8, 2018

Time: 9:00-3:00

Location: MnDOT Shoreview Training and Conference Center, Shoreview, MN

Agenda items: Submit proposed agenda items to Ken E. Johnson

Agenda and Meeting Notes

Welcome/Introductions

- **Duane Hill – District 1 Engineer**
 - **Introductions**
 - **Reviewed Action Items from previous meeting and discussed status**
 - Guidance for Workers crossing live traffic lanes – Ken Johnson of MnDOT OTST will approach the MCUTCD to determine if the proposed language may be added to the upcoming update of the Field Manual.
 - Update: this has been accepted by the MCUTCD and will be part of the upcoming Field Manual update.

- Temporary Overhead Sign Structure – to be discussed later today in Executive Committee Update
- MnDOT TCS Training – the Liaison Committee and the TEO TTC Training Task Force will discuss if it would be worthwhile having a prerequisite for this class, NLCATSSA suggests the ATSSA Traffic Control Technician class. There is an overall effort looking at Temporary Traffic Control Training that will consider this.
- Work Zone Speed Limit Enforcement Saturation Effort – Ken Johnson will work with appropriate personnel at State Patrol and TZD to assess feasibility and to implement if so determined. Other priorities have caused this to not be pursued yet.
- Next Steps for Work Zone Challenges (IWZ related) – to be discussed later today
- MnDOT Vehicle Conspicuity Tape Standards – see Executive Committee Update

Committee Reports

- **Executive Committee**

- Jay Hietpas, OTST gave an update on the following considerations by the Exec Committee
- Drum tape modification – phase in schedule
 - Looked at I-94 project and investigated the wider tape on drums - the Executive Committee voted to implement the wider sheeting. Jay discussed the phase in schedule that was developed. The implementation schedule is as follows and will be placed into MnDOT's Time and Traffic Special Provisions:
 - For jobs being let in 2018 – Use on all Metro Projects and all multi-year projects being let throughout the state.
 - For jobs being let in 2019 – All District 6, 7 and 8 projects, and multi-year projects statewide.
 - For jobs being let in 2020 – All projects statewide.
- Temporary Overhead Sign Structure
 - The Executive Committee decided that these plan sheets would be helpful and that OTST staff should work with the Bridge office to determine a timeline
- Conspicuity tape – the requirement to place conspicuity tape on all work vehicles was discussed at MBMT. It was determined that this should be a district decision.

- **Traffic Engineering Organizations Temporary Traffic Control (TEO TTC) Committee**

- Co-chairs: Jeff Morey & Ken Johnson, both of OTST
- ATVs for work in work zones
 - The group was updated that OTST published the document [ATV Temporary Traffic Control Requirements for Work on Trunk Highway Right of Way](#). It can be found on

MnDOT's Work Zone – Manuals and Guidelines webpage. Any work conducted using ATVs on state right of way is required to follow the requirements in the memo.

- Temporary Barrier Guidance
 - MnDOT OTST conducted a synthesis through MnDOT Research and received a lot of good information from other states' about their practices.
 - Jeff Morey of OTST is chairing a Barrier Guidance Task Force to develop a Guidance document. Elements will be completed and published as questions are answered.
- Peds in WZs
 - Audible Message Devices (AMDs) are required in certain applications when pedestrians are detoured. As time allows, MnDOT OTST will be developing an APL for AMDs.
 - Industry is concerned that these won't be placed unless there is a pay item. MnDOT will look into the viability of creating a pay item for these devices.
 - Signs on sidewalks pose tripping hazards to pedestrians, especially those with visual disabilities. A detectable edge should be placed around any elements of a sign in a walkway that would pose a hazard to a pedestrian.
- Certified flaggers for work on state right-of-way. An issue was brought up during MnDOT's TTC Feedback Meetings with the districts – that there are quite a few flagging operations on state right of way in which it appears that the flaggers don't know what they are doing. The TEO TTC Committee feels that any flagger that does work on state right of way needs to be trained. This will be brought up to the TEO Executive Committee.
- **Report – Midwest Work Zone Roundtable**
 - Ted Ulven, OCIC & Jeff Morey, OTST
 - 9 or 10 DOTs and Tollroad Authorities meet twice a year (1 in person at the Quad cities in Iowa and 1 teleconference) to discuss common work zone issues, problems and possible solutions. MnDOT and FHWA started this roundtable idea years ago. In addition to Ted and Jeff, Steve Blaufuss of MnDOT Maintenance attended.
 - Issues discussed at the in person meeting this year:
 - Winter Traffic Control – a lot of projects continuing into winter and a discussion was held about how to handle the traffic control into and through winter. Some states have the contractor continue the work and some have maintenance maintain the devices left over the winter.
 - Distracted Driving
 - Missouri brought this up and the group talked about possible solutions
 - Channelizers as you approach a work zone
 - Some in maintenance feel that the greater exposure to set up and maintain can be worse
 - Temporary Rumble Strip is good for static flagging

- Long Range Acoustic Device. This is a directional speaker that Missouri DOT researched and it had a lot of benefits. There was controversy as this device is related to some military acoustic weapons and it was dropped as a possible solution. Distracted driving has not gone away and the state may experiment with this again.
 - Wrong way drivers - some states have big problems with this. Minnesota not as much, but possible solutions were discussed. Some states are using ITS solutions. Some mount the DO NOT ENTER signs lower as it was felt that impaired drivers can see this better
 - MASH testing - not a lot of detail was shared by the FHWA at this meeting; however, its coming and states as well as industry should be getting prepared.
 - Vehicle lighting in mobile operations – some state feel that too much light at night can be a problem for approaching drivers. MnDOT maintenance is using supervisor discretion to determine which lights should be operating. One good suggestion is to not run the Arrow Message and Vehicle Warning Lights at the same time.
- **Resident Engineers Work Zone Safety Advisory Committee**
 - Chair: Trudy Kordosky, District 4 Construction
 - Met in April 2017, at MnDOT Virginia facility
 - Folks very interested in temporary overhead sign structure
 - Safety Culture was discussed and will likely be a big deal
 - Extraordinary Enforcement is appreciated and will continue to be requested
 - Workers Present Speed Limit - contracts not set up to easily set up and take down
 - Will meet again this fall so Trudy can take issues from the SWWZSC to the resident engineers. Let her know.
- **Statewide Maintenance Temporary Traffic Control Committee**
 - Chair: Steve Blaufuss, OM (Bob Vasek of OM is covering)
 - This committee has maintenance representation from all MnDOT districts. The committee meets face to face once and Skype twice more per year.
 - The Committee is encouraging the testing of a WZ intrusion warning device (not the AWARE system)
 - Steve is working with Mindy Heinkel to update the mobile lighting APL
 - Videoing at night to make sure they aren't too bright
 - AFAD on remote chassis is working and has been deployed in MnDOT D3
- **SWWZSC Industry Liaison Group**
 - Reed Liedle, Safety Signs

- Northland Chapter of ATSSA is continuing to meet with consultants to discuss Temporary Traffic Control Plans and discussing ways to improve the quality of plans.
- MnDOT has stated that some TPAR devices have pay items and would like to try a couple of projects with bigger pedestrian impacts
- Temporary Traffic Control Training
 - There is some good training out there, but may not be what is needed for some to perform their jobs related to traffic control
 - Get appropriate stakeholders together and determine what training is needed for specific positions
 - What is the training, where to get it, what would be required
- Sheila Johnson of Metro Maintenance mentioned a challenge with new employees - new employees get trained in Temporary Traffic Control, but then get assigned to nights with fewer experienced employees. Perhaps more hands on training would be worthwhile.
- **Presentation – MASH Update**
 - Ethan Peterson, OTST gave a presentation updating the group on the upcoming MASH crashworthy requirements. The presentation, ***MASH Update Presentation – May 2017***, can be found on the Committee website.
 - Ken Russell, NLCATSSA, let the committee know about an open letter that the FHWA just sent out to all in the highway safety hardware and roadside design committee – see the handout, ***FHWA Crashworthiness Open Letter – May 2017***, on the Committee website.
- **Presentation/Discussion – Speed Limits in Work Zones**
 - Ken Johnson, OTST gave a presentation about the effectiveness of speed limits in work zones and which types are available. The presentation, ***Speed Limits in WZs Presentation - May 2017***, can be found on the Committee website.
 - MnDOT OTST has been getting a lot of requests to place 24/7 Construction speed limits from both contractors and State Patrol. OTST has had concerns that the requested for speed limits won't be effective due to the expected traffic pattern. MnDOT District 6 Traffic staff mentioned that they resist reducing speed limits unnecessarily as their experience (as echoed in the presentation) is that an unreasonably low speed limit does not reduce the speed of traffic.
 - One element that would help is removing the Workers Present Speed Limit sign when workers are not there.
 - A large challenge with this is that when the Traffic Control Contractor is not on site, no one else takes on the responsibility.

Update: Work Zone Related Research Efforts

- **Presentation - In-vehicle Work Zone Messages**
 - Curtis Craig, University of MN gave a presentation on the research effort for In-Vehicle Work Zone Messages. The presentation, *In-Vehicle WZ Messages Presentation - May 2017*, can be found on the Committee website.
- **District 3 AFAD Research**
 - Bob Vasek, OM
 - As mentioned earlier, the AFAD on remote chassis is currently in use in D3. Maintenance staff will run the device through it's paces.
- **Work Zone Intrusion Report Interface Design**
 - Todd Haglin, MnDOT Admin
 - Bob Vasek and Ken Johnson mentioned that the interface design research project is ongoing and the U of Mn is working on coming up with an easier method of documenting intrusions.

External Partner Reports

- **Law Enforcement**
 - Major Cheri Frandrup (State Patrol) - no update at this time.
- **Engineering Consultants**
 - John Crawford, Kimley Horn; Jon Jackels, SRF; Jeff Hilden, TKDA
 - Jon likes to be here and hear similar conversations over the past many years. He feels that communication channels should remain open
- **Report – Next Steps for Work Zone Challenges (IWZ related)**
 - Jon Jackels, SRF gave a short presentation on efforts to more fully utilize IWZ in MN Temporary Traffic Control Zones. The presentation, *Next Steps to Address WZ Challenges Presentation - May 2017*, and the handout, *Next Steps to Address WZ Challenges Handout*, can be found on the Committee website.
 - MnDOT is also very interested in standard procurement packages. These should make it easier to include IWZ systems in work zones.
- **Northland Chapter of ATSSA**
 - Rick Shomion, Jay Blanchard, Ken Russell, Lynn Berg
 - Reed Leidle – wants to convey appreciation to MnDOT for their help with the How-To
 - This meeting was focused more on pavement marking installers, but sessions were available in Signing, Temporary Traffic Control, Pavement Markings, and overall Traffic Safety. South Dakota had more attendance this year, but North Dakota had fewer due to budget issues.

- NCITE had a meeting right after this years How-To - many common goals were identified
 - Jon Jackels agrees that the NCITE meeting was very helpful – an NCITE chapter in North Dakota may be formed due to this meeting
 - Summer How-To Planning Meeting will be held July 17&18 at Thumper Pond. Reed would like to solicit ideas for agenda topics and sessions. Please let him know about any ideas for future How-Tos
 - How-To next year will be March 20-21, 2018. There will be a pre-conference workshop on the upcoming Field Manual update.
 - Dave Meslo, NLCATSSA mentioned that there was a good diverse group of exhibitors. This allows attendees to see what is available for them to make their job easier and safer.
 - Sheila Johnson, MnDOT Metro Maintenance, had heard that Juan Morales was thinking about putting together a certification program for TMAs. She asked if Reed heard anything about it. Reed recalls something and will look into it.
- **Presentation – ATSSA Expo 2017**
 - Ken Johnson, OTST attended the ATSSA Expo in Phoenix and gave a presentation about elements seen that may help with Temporary Traffic Control. The presentation, ***ATSSA Expo 2017 Presentation***, can be found on the Committee website.
- **Contractors**
 - Doug Swenson, AGC; Woody Bear, Shafer; Brad Drews, Egan
 - Doug Swenson reported that AGC went into the legislative session to try to get the following bills passed:
 - No cell phones in WZs
 - Flagger citation before 4 hours
 - Neither got passed
 - Doug also reported that the heavy contractor organization was surveyed by AGC
 - In Minnesota, 11 contractors responded to the survey. The MN and US survey results handouts, ***AGC 2017 WZ Awareness Survey - MN Results & AGC 2017 WZ Awareness Survey - US Results***, can be found on the Committee website.
 - Doug also mentioned that they have a Highway Worker Safety Program - built for contractors internally within the work zone. The intent is to protect workers inside from work zone operations. Interactive modules. Many new people have 0 experience in construction.
 - AGC is also actively involved with OSHA in a program called *CHASE - Construction Health and Safety Excellence Partnership*. This program incentivizes contractors to more fully incorporate safety into their culture. Penalties may be reduces depending on the level awarded. See the brochure handout, ***CHASE Incentives***, on the Committee website. This program is perhaps a way to have contractors work with OSHA in a positive light – not just there to give citations.

Many highway heavy contractors don't have a positive experience with OSHA. Can really add value to the safety of a project.

- There is a Level 3 highway project. OSHA goes to job site once per month. Greater MN on TH 61 in Bigam, MN. Mathewitz Construction.
- Doug also mentioned that there is a 30 second radio ad ready for publication. Doug would like to coordinate with MnDOT Communications. He would like to not duplicate efforts. His radio ad was heard and the group liked it.

- **TTC Providers**
 - Mike Granger, Street Smart Rental; Eric Johnson, Salander Tech; Reed Leidle, Safety Signs; Tim Lewis, Warning Lites of MN
 - Barrier delineator sheeting - Reed was wondering if higher level sheeting is required on barrier delineators. Ken Johnson, MnDOT OTST, said that Type IX or Type XI sheeting is required on delineators, but it's kind of buried in MnDOT Specification **3352 SIGNS, DELINEATORS, AND MARKERS**. MnDOT OTST will try to make this more clear on the TTC Templates.
 - **Action: MnDOT OTST will work to make barrier delineator sheeting requirements more clear on TTC templates or typicals.**
 - TMA usage - Reed feels that these should be used more, but the specs in some cases haven't been clear.
 - PE Signature on TTC plans - industry would like resolution on this issue
 - **Action: MnDOT should research and determine a consistent application of when PE Signatures are required on TTC plans.**

- **FHWA**
 - Will Stein, FHWA reported on the following:
 - Crash testing has its limitations as it's a crash for an expected worst case. There are 2 areas of emphasis that the FHWA would like to bring up.
 - Headquarters would like more in service evaluation after the crash testing - and then sharing the information between states.
 - Proper installation and maintenance of devices. This varies between manufacturers
 - Metro Traffic is doing good traffic modeling and it's resulting in good TTC - though there are often impacts on the local system, for which mitigation should be considered. Will also mentioned that local system mitigation is also eligible for federal aid.

- **Counties**
 - Wayne Sandberg, Washington County; Adam Bruening, Washington County; Vic Lund, St. Louis County – nothing to report

- **Municipal**
 - James Koslucher, Fridley – nothing to report
- **Local Agency Education**
 - Kathy Shaefer, LTAP – nothing to report
- **Utilities**
 - Dale Anderson, Center Point Energy; David Haedtke, Century Link – nothing to report

MnDOT Internal Partner Reports

- **Management Teams**
 - PCMG & CMG – Mark Panek
 - Ken Johnson, OTST, volunteered to talk at PCMG about adding TTC into Scoping. Rashmi Brewer is also working on an IWZ Scoping Worksheet.
 - OMG – Sue Lodahl – report to be given during OM update.
- **Maintenance**
 - OM – Bob Vasek
 - Training – Kathy Schaefer
 - Districts – Sheila Johnson
 - Moving forward with a safety culture tool in Maintenance called the Redbook. This effort is just starting up. It's broader than Work Zone safety – the intent is to change the overall culture of MnDOT related to Safety.
 - WZ Intrusion Reporting Interface - Todd Haglin is leading this effort with the U of Mn's Nicole Morris. A demo will be provided in a couple of weeks.
 - Crashworthiness (MASH) of portable sign stands. MnDOT has non-proprietary design standards of Type III barricades and portable sign stands on the Traffic Engineering website. District maintenance staff are going to be asked which devices should be tested if MnDOT decides to pursue MASH crash testing.
 - TMAs on Snow Plows may be looked into
- **Traffic Engineering**
 - OTST – Jay Hietpas, Peter Buchen, Rashmi Brewer, Ken Johnson
 - Districts – Ron Rauchle, Adam Wellner, Dave Mavec, Jeff Rieder, Scott Meier
 - Jeff Rieder showed some pictures of roundabout flagging. It was a challenging operation.

- **Construction**

- OCIC – Tom Ravn
- Training/WZSAP – Leigh Kriewall
- Districts – Trudy Kordosky
 - Tom Ravn reported that training has become very important. People coming in very green and training is sorely needed.
 - Ted Ulven reported on projects that he's visited. He's visited Metro construction projects. The I-94 job in St. Paul has been going well and quickly. The movable barrier is being used and is working well for the contraflow operation.
 - Trudy Kordosky reported that there have been some interesting issues and initiatives in Greater MN.
 - D4 has been constructing a roundabout with road closed signs, but they are having a lot of challenges with violations of the road closed signs.
 - Safety Culture - Trudy has been asked to pilot the Red Book with a construction project.
 - Very large TZD stickers are being placed on vehicles. Enough of the public have been asking about TZD that one pager are being kept in the vehicles to be handed out.

- **Communications**

- Statewide – Kevin Gutknecht
- Metro – Chris Krueger

- **Worker Safety**

- Statewide – Todd Haglin
- District – Doug Thies
 - Doug Thies reported on the Safety Culture and Red Book. Red Book will be tested in 4 locations in Metro. He mentioned that the Red Book is used to help users determine how to do their work safely.

- **State Aid**

- SALT – Mark Vizecky
- Districts – Kelvin Howieson
 - Mark Vizecky met with LTAP Training Committee. Move forward with a scope and a budget for a one stop shop for all TTC training. This may help address the overall concerns related to TTC training.
 - Requirement for PE signature – Mark has additional input to share when we meet again.

Adjourned