

Meeting Minutes: Statewide Work Zone Safety Committee

Date: 12/21/16, 9:00 – 3:00

Minutes prepared by: Ken E. Johnson, State Work Zone, Pavement Marking & Traffic Devices Engineer

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

- | | |
|----------------------------|---|
| • Duane Hill, MnDOT D1 | • Lynn Berg, NLCATSSA |
| • Jay Hietpas, MnDOT OTST | • Dave Meslow, NLCATSSA |
| • Steve Lund, MnDOT OM | • Doug Swenson, AGC |
| • 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 |
| • Steve Blaufuss, MnDOT OM | • Trudy Kordosky, MnDOT Resident Engineers – D4 |
| • Will Stein, FHWA | |

- Leigh Kriewall, MnDOT OCIC
- Sue Lodahl, MnDOT OM
- Sheila Johnson, MnDOT Metro Maintenance
- Kelvin Howieson, MnDOT SALT D3
- Rashmi Brewer, MnDOT OTST
- Tiffany Kautz, MnDOT Metro Traffic
- Scott Meier, MnDOT Metro Traffic
- Jeff Rieder, MnDOT D6 Traffic
- Dave Mavec, MnDOT D1 Traffic
- Andrea Klingelhoets, Utilities – Century Link
- Tim Parkos, Washington County
- Dave Tody, MnDOT Metro Maintenance
- Matt Krengel, TTC Services – Street Smart Rental
- Steve Anderson, TTC Services – Street Smart Rental
- JP Story, TTC Services - Salander

Decisions Made

- The Committee approved the proposed language for Guidance for Workers to cross live traffic lanes

Action items

- 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
- Temporary Overhead Sign Structure – the Executive Committee will discuss if it would be worthwhile to create engineering documents to fabricate additional signs, perhaps as part of construction projects.
- 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.
- 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.
- Next Steps for Work Zone Challenges (IWZ related) – Jon Jackels will develop a one pager and send out to Committee members.
- MnDOT Vehicle Conspicuity Tape Standards – Executive Committee will determine who should work on this
- Next Meeting Agenda – all Committee members will submit proposed agenda items to Ken E. Johnson

Next Meeting

Date: May 30, 2017

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

- Jay Hietpas, MnDOT State Traffic Engineer welcomed the group and everyone introduced themselves.
- Ken Johnson shared a video that shows why temporary traffic control standards and guidelines are so important - <https://youtu.be/sCEzEVJkO1U>

Committee Reports

- **Traffic Engineering Organizations Temporary Traffic Control (TEO TTC) Committee**
 - Co-chairs: Jeff Morey & Ken Johnson, both of MnDOT OTST
 - The TEO TTC Committee has been active with the following initiatives:
 - Field Manual Update
 - The TEO TTC Committee has formed a Field Manual Update Task Force that includes stakeholders from MnDOT Central Offices and Districts, Counties, Cities, TTC Providers, and TTC educators. The intent is to update the Field Manual for a January 2018 effective date.
 - The TEO TTC Committee has developed the following proposed language to provide guidance for workers to cross live lanes of traffic:
 - “Personnel may cross live traffic lanes only if it is safe to do so utilizing a walking pace taking into consideration roadway geometry, traffic volume, and other appropriate factors.”
 - The Committee discussed and was ok with the proposed language.
 - **Action: The Minnesota Committee on Uniform Traffic Control Devices will be approached with the proposed language to see if it is appropriate to be placed into the Field Manual which is a part of the MN MUTCD.**
 - Temporary Barrier Manual Guidance Development
 - A Task Force has been formed with stakeholders from MnDOT Traffic, Technical Support, Bridge, and Construction to develop guidance for the application of temporary barrier. Work is continuing.
 - Temporary Traffic Control Plan Development Course
 - MnDOT OTST is offering the course to be held February 6-7, 2017
 - Watch for notices
 - Second class may be offered in April if needed
 - ATV Operation for Work in Trunk Highway Right of Way
 - The TEO TTC Committee initiated a Task Force to develop requirements for the appropriate use of ATVs for Work in Trunk Highway Right of Way. The language has been developed, and MnDOT is determining the appropriate way to disseminate and enforce.
 - Pre-Qualification Program – Proposed changes to Temporary Traffic Control Plan Design and Special Provisions Work Type

- MnDOT has a Pre-Qualification Program for Professional Technical Consultant Services that includes Temporary Traffic Control Design
- The current system approves consultants without considering the different levels of complexity of temporary traffic control that may be needed. MnDOT OTST staff will be working with the Pre-Qualification Program staff to modify the application process to include levels of complexity.
- TEO TTC Training Task Force
 - Working on matrix of required & recommended training
 - YouTube Videos
 - MnDOT Office of Maintenance Channel – Taking the Left Lane
 - List of additional proposed videos was shared with the Committee
- Training Update
 - Leigh Kriewall let the group know that there were over 2500 students for OCIC and OM sponsored classes
 - A summary of the courses and attendance, *Traffic Control Course Summary July 2015-June2016*, is provided on the Committee website.
- **Presentation – Temporary Overhead Sign Structure**
 - Jeff Rieder, D6 Traffic, gave a presentation of how MnDOT District 6 worked with MnDOT Bridge to design and fabricate a temporary overhead sign structure. It was then used on a District 6 project. The presentation, *Temp Overhead Sign Structure in District 6*, can be found on the Committee website.
 - Doug Swenson has a comment about the use of the crane. He suggested using kickers at the bends as the system is being placed - then you could remove it. Or use the right size spreader beam.
 - Jon Jackels asked if there is any thought to create engineering documents to fabricate another sign. Possibly hire a consultant.
 - **Action: Discuss at the Executive Committee**
- **Resident Engineers Work Zone Safety Advisory Committee**
 - Chair: Trudy Kordosky, District 4 Construction
 - Resident Engineers met in November. Summer construction went well. Ted did his presentation of his WZ reviews.
 - Resident Engineers really appreciate the help of State Patrol.
- **Traffic Control Special Provisions Annual Update Committee**
 - Chair: Ted Ulven, OCIC
 - The Update Committee met in October 2016. Ted pulled up a document onscreen that included the proposed modifications to the 1404 and 2563 modifications to SP 2016. The document, *SWWZSC 1404 and 2563 revisions for SP 2016*, is provided on the Committee website.
 - Elements of specific notice:
 - Conspicuity tape
 - Specifications for vehicle lighting. Pulled reference for the Vehicle Lights APL.

- Lane closure requirements - updated to allow RTMC to be called to place messages on permanent CMSs.
 - Flashing arrow boards - remove incidental as a pay item option.
 - PCMS - remove incidental as a pay item option.
 - Modified TMA language
 - Flagger training had language allowing the Engineer to waive training - removed.
 - Flagger delay was blank - 10 minutes is now the default, still can be modified.
 - Police officer - removed the option of a non-paid pay item.
 - Updated pre-determined price of Table 253-1 Additional Traffic Control Devices, Flaggers, & Police Officers
-
- **Report – ARTBA National Work Zone Management Conference**
 - Ted Ulven, OCIC & Mike Granger, Street Smart Rental
 - Ted gave a presentation on his attendance at the Conference. The presentation, **ARTBA conference for SWWZSC**, can be found on the Committee website. Some key items of interest that Ted conveyed:
 - Internal WZ Traffic Control
 - Haul truck circulation
 - Improve efficiency by reducing conflicts
 - Work zone signing on narrow left shoulders
 - Quality of WZ Devices
 - ATSSA has a new document available
 - ADA, Ped & Bike Guidance
 - Flagger safety and assistance devices
 - FHWA Stakeholder Meeting with DOTs
-
- **Statewide Maintenance Temporary Traffic Control Committee**
 - Chair: Steve Blaufuss, OM
 - Steve took over for Sue Lorentz and this is his first meeting in this role.
 - About 30 members are on the committee – Steve would like to add additional District maintenance staff. Healthy committee.
 - Best practices discussed
 - Devices used
 - TMA training needed. Current training is TL-2. Need to create TL-3 TMA training
 - Flagger umbrella system use. TEO TTC Committee decided not to allow.
 - Vermac message boards. Some are having problem (D7) with windy conditions - seem to move. Telescoping mast may get hung up so you can't lower. Metro Maintenance is not having an issue. Sometimes when the mast arm is extended too far, it's impacting the seals so that they are degrading quickly. The touch screen control panel has had to be replaced in D7 quite a few times. New challenge with updating the libraries. Encryption on computers causes problems when connecting to message boards.
 - Vertical panel channelizers were discussed. Generally, Maintenance will use these for shoulder closures when a PCMS or Arrow Board is placed on the shoulder. They are still assessing if they will be used for lane closures when staff feels that cones aren't enough.

- **SWWZSC Industry Liaison Group**
 - Reed Liedle, Safety Signs
 - Temporary Traffic Control Training – after hearing the previous discussions about TTC Training, Reed wonders if there should be a prerequisite to the MnDOT TCS class. This is anticipated to be discussed at the Liaison Committee.
 - **Action: Discuss this at the Liaison Committee and the TEO TTC Training Task Force.**
 - Workers Present Speed Limit enforcement saturation effort
 - Involve TZD, Patrol PIO, and media to highlight the importance of following the speed limits
 - Ken Johnson mentioned that he intends to contact State Patrol Public Affairs and TZD Staff to determine feasibility.
 - **Action: Ken will meet with appropriate staff with State Patrol and TZD to pursue this effort.**

Update: Work Zone Related Research Efforts

- **District 3 AFAD Research**
 - Bob Vasek, OM
- **Bluetooth Low Energy Devices to Trigger In-vehicle Messages in Work Zones & In-vehicle Work Zone Messages**
 - Ken Johnson, OTST
- **Work Zone Intrusion Report Interface Design**
 - Todd Haglin, MnDOT Admin
 - Started in July
 - Researcher has been meeting with people that would fill out the forms
 - Researcher is on schedule

External Partner Reports

- **Law Enforcement**
 - No report given
- **Engineering Consultants**
 - John Crawford, Kimley Horn; Jon Jackels, SRF; Jeff Hilden, TKDA
 - Jeff Hilden's first meeting. Has met with a contractor in Louisville that used a method that may have promise for work zone safety. The primary method was including early finish incentives. If the contractor finished elements early, they'd want to go on to the next stage as soon as possible. They were trying to stitch different stages together in order to get the work done quickly. Lessons learned - was reactive, not proactive. This was a DB contract.

- Jon Jackels - consultants are happy that they are at the table as they are a piece of the solution. How to share the information with other consultants and to bring their thoughts to the table. Some problems are starting to be solved - really like the IWZ flavor.

- **Report – Next Steps for Work Zone Challenges (IWZ related)**
 - Jon Jackels, SRF
 - MnDOT put out a proposal to start include IWZ in projects so that they are much easier to implement on projects.
 - Start a system to include in the agency process to include IWZ into projects by default.
 - Find a few projects to deploy IWZ on - key issues
 - End of queue warning system - bread and butter
 - Intrusion alarm system - some exist, but specific requirements needed
 - Distracted driver warning system - higher risk to develop, but needed
 - Once deployed, then need to evaluate the system to make sure that they are working continuously and to determine if effective. Determine if it's worth the money.
 - **Action: Jon will develop one pager to send out to the committee members.**

- **Northland Chapter of ATSSA**
 - Rick Shomion, Jay Blanchard, Ken Russell, Lynn Berg
 - Reed Leidle – Northland Chapter of ATSSA is really excited about the upcoming How-To. He read off a list of sessions planned. This can also be found at the following link: <http://northlandatssa.com/Howto.html>
 - ATSSA is continuing to offer the TCT and TCS training each year in the state of MN.
 - Northland ATSSA has created a new committee to discuss improvements to Temporary Traffic Control - Northland ATSSA TTC Committee
 - Met at MnDOT to discuss issues. More meetings to come.
 - Dave Meslow - Northland ATSSA is trying to be more visible and is attending more conferences related to work zone safety. They were at the MN TZD Conference earlier this year.
 - Reed - National ATSSA Conference coming up in February
 - A lot of consternation about the new crashworthy standard of MASH
 - Hot topic is autonomous vehicles.

- **Presentation – Northland ATSSA Meets with TTC Design Consultants**
 - Reed Leidle
 - In order to work on improving work zone safety with TTC plans that are designed well and are biddable, the Northland ATSSA TTC Committee met with consultants that design TTC in projects. The presentation, ***NLATSSA TTC Committee Mtg Summary with Consultants***, can be found on the Committee website.

- **Contractors**
 - Doug Swenson, AGC; Woody Bear, Shafer; Brad Drews, Egan

- AGC worked with others to get the Workers Present Speed Limit law passed. AGC will now pursue the No-Cell Phones in Work Zones legislation for the upcoming session.
 - Wisconsin Law – No Cell Phones in Work Zones passed in 2015. Doug provided a handout that contains the language of the law passed. This handout, ***Wis No Cell Phones in WZs***, can be found on the Committee website. There are 14 states with laws that restrict cell phone use in work zones currently.
 - AGC has been touting no cell phones in work zones with their members and have conducted public awareness campaigns.
 - AGC has been meeting with MN legislators to discuss this issue.
 - They will be drafting language to introduce.
 - Abbey Bryduck is meeting with legislators.
- AGC is very pleased with Liaison Committee. Great way to meet and discuss issues.

- **TTC Providers**
 - Mike Granger, Street Smart Rental; Eric Johnson, Salander Tech; Reed Leidle, Safety Signs; Tim Lewis, Warning Lites of MN
 - Issues have already been covered.

- **Presentation – Video Capture Tool for Work Zone Drivethroughs**
 - JP Story of Salander Tech gave a presentation, ***Video Capture Tool for WZ Drivethroughs***, that can be found on the Committee website.
 - Reed Leidle mentioned that he feels that in the past there were inspectors that would make sure changes would be made. He feels that the quality has been going down.
 - Doug Swenson mentioned that there are some electronic audit monitoring packages - example: iAuditor
 - If MnDOT were to do this, it would likely be placed in the special provisions

- **FHWA**
 - Will Stein, FHWA
 - Will brought up the FHWA Safety Hardware webpage - http://safety.fhwa.dot.gov/roadway_dept/policy_guide/road_hardware/ There is a new link specifically for highlighting MASH approved hardware. There is also an FAQ hyperlink.
 - Ken Wood is retiring at the end of December. He will be missed. Instrumental in the Midwest Work Zone Roundtable that was initiated in 1991. Very useful forum.

- **Counties**
 - Tim Parkos gave an update of activities that Washington County is pursuing:
 - The County established a Work Zone Focus Group that contains staff from Traffic and Maintenance.
 - They are checking compliance more often with permitted work.
 - In 2017 they are going to try to use more law enforcement in county work zones.

- **Municipal**
 - No report

- **Utilities**
 - Nothing to add

MnDOT Internal Partners (2:00-2:45)

- **Management Teams**
 - PCMG & CMG – Mark Panek
 - New Chairs for upcoming year - Michael Beer and Adam Josephson
 - Mark mentioned that he also remembers that TTC was paid closer attention to in the past. It appears to him as well that the quality of TTC setups has been dropping. A lot of new people and they often don't have the Traffic person to make the argument to the prime that something needs to be done. It feels like it's more lax these days.
 - Dave Mavec mentioned that it used to be the case that the Project Inspector would document in the diary that TTC was reviewed. This isn't being done as much.
 - Reed suggests that a little bit of consistent enforcement would go a long way.
 - OMG – Sue Lodahl
 - Mark Panek reported for Sue - OMG Chair will be Todd Stevens.

- **Maintenance**
 - OM – Bob Vasek
 - Bob introduced Steve Blaufuss. A lot of turnover in the office. Ryan Otte has resigned - Mindy Heinkel has taken over his position. Metro Maintenance Training group has come into CO Maintenance - they are working on the Maintenance Training overall effort. Currently focusing on introductory level of classes. Mindy will be working in the vehicle lighting APL.
 - Training – Kathy Schaefer
 - Districts – Sheila Johnson
 - Been 3 years since they've been using electronic lane closure forms and over 3000 forms have been completed. Metro PACs really like them and have been tweeting using information from these forms.
 - Dave Tody - Metro is working on developing standards for conspicuity tape on work vehicles.

- **Traffic Engineering**
 - OTST – Jay Hietpas, Peter Buchen, Rashmi Brewer, Ken Johnson
 - Trying to do better on notifying about upcoming training classes. Want to do better with notification.
 - Hiring someone to keep a handle on research projects.

- Automated Vehicles/Connected Vehicles - gearing up own internal group to get a handle on this. ITS folks are already involved in this. MN Guidestar will likely be the key group to foster this effort. Submitted a proposal with a public/private partnership with 3M to invite AV/CV efforts to experience MN weather.
- TZD workshops – good venues. He encourages people to attend these.
- Districts – Tiffany Kautz, Adam Wellner, Dave Mavec, Jeff Rieder, Scott Meier
 - Tiffany Kautz - Ron Rauchle will be taking over the position.
 - Ken thanked Tiffany for her input to this committee and to work zones in general. She has challenged us and work zones will be better due to her input.
 - Dave Mavec - In D1, all maintenance people will need to take Field Manual Training
- **Construction**
 - OCIC – Tom Ravn
 - Kevin Kosobud - some of the challenges with TTC that have been seen - make sure to talk with the project people that are running it. He feels that overall MnDOT is doing a pretty good job, better than a lot of states he's gone through.
 - Training/WZSAP – Leigh Kriewall
 - Districts – Trudy Kordosky
- **Communications**
 - Statewide – Kevin Gutknecht
 - Metro – Chris Krueger
- **Worker Safety**
 - Statewide – Todd Haglin
 - District – Doug Thies
 - Most common crash they've been seeing are backup crashes. They've been installing back up sensors on some vehicles - if good results, more will be installed.
- **State Aid**
 - Nothing to add

Brainstorming Session

- **Raising the quality of work zones**
 - Doug Swenson - if looking at troublesome zones, anytime you have an avenue to contact a safety director - that'll make a difference. If you don't tell the safety director that there's an issue, they can't do anything. Make training available so people understand the issues.