

# MnDOT Statewide Work Zone Safety Committee Meeting Minutes

October 8, 2014 - - - MnDOT Training and Conference Center, 1900 County Road I West, Shoreview MN  
- Meeting: 9:00 am to 3:00 pm -

## Welcome and Introductions

Tom Ravn (Director of MnDOT's Office of Construction and Innovative Contracting) welcomed the group and thanked everyone for attending. Each participant introduced themselves. A sign-up sheet was passed around, see roster at the end of these minutes.

The Action items of the April 2014 meeting were reviewed and the group was updated with progress:

- Action: Better understanding of the use of Traffic Control Supervisor - Craig Mittelstadt will come up with guideline for the project engineer to know when to use TCS.
  - Craig Mittelstadt notified the group that this will be discussed during the Annual Traffic Control Special Provisions Review Meeting to be held on October 16, 2014
- Action: Statewide Maintenance TTC Committee will work with RTMC to determine the appropriate level of project that should be submitted into 511
  - The Statewide Maintenance TTC Committee has been addressing this
    - Discussions have been had with the 511 people at the RTMC, but still working with greater MN maintenance to determine the appropriate type of project that should be called in.
- Action: The Statewide Work Zone Safety (SWWZS) Executive Committee will discuss ways to discuss ideas between ATSSA members and MnDOT Leadership
  - Related Action: The SWWZS Executive Committee will discuss how the AGC Work Zone Working Group relates to the SWWZSC.
  - Related Action: SWWZSC - discuss ways for interaction with ATSSA and leadership, as well as AGC
  - A SWWZSC Industry Liaison Group was created. An agenda item of this meeting covers this.
  - Theme - how do we take things from this group and work on them

## Committee Reports

### Statewide Work Zone Safety Executive Committee – Sue Groth

Sue Groth (Office of Traffic, Safety & Technology [OTST]) summarized the discussion of the last Executive Committee Meeting (held on May 30, 2014):

- The Executive Committee discussed how the last SWWZSC meeting went and followed up on Actions.
- There is a desire to have more interaction between the Executive Committee members (and SWWZSC Functional Advisors) and industry similar to the AGC efforts last year. This discussion led to the formation of the SWWZSC Industry Liaison Group.
  - This Group needs to meet to discuss priorities and determine what it should advocate for.
- Metro District Leadership was invited to the Executive Committee - Greg Coughlin, Operations & Maintenance Office Director

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## Traffic Engineering Organization Temporary Traffic Control (TEO TTC) Committee

- Co-Chairs: Ted Ulven & Ken Johnson

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Ken reported on some of the major activities that the Committee is working on:

- Discussions held on appropriate roll ahead and following distances for shadow and protection vehicles (with and without Truck/Trailer Mounted Attenuators [TMAs])
- Inspection and maintenance of Traffic Control Devices - how often is enough?; what language should be in Special Provisions?
- Work Zone Speed Reduction
  - Big changes in the law and in the MN MUTCD.
  - This will be discussed in a presentation later.
- Metro Maintenance received funding from MnDOT OTST for GoPro and Dashboard Cameras for the Traffic Services Group. They've captured video and will show segments on the screen during break.

### Discussion: Training- Debrief and Upcoming Opportunities

Leigh Kriewall, MnDOT Office of Construction and Innovative Contracting (OCIC), debriefed the group about training created and/or offered by OCIC:

- Training that is available is shown on the website: <http://www.dot.state.mn.us/const/wzs/training.html>; those that may be of specific interest to the group are:
  - 3 Traffic Control Supervisor (TCS) classes will be held in the spring of 2015. 2 at the MnDOT Training Center in Shoreview and 1 at the MnDOT Training Center in St. Cloud.
  - 2 TCS online recertification classes will be held in March of 2015.
- Leigh also has a summary of the Traffic Control training available to those interested - this includes the evaluations and what occurred last year. Contact her if more information is desired.
- Leigh summarized the Work Zone Safety Awareness Program (otherwise known as WZSAP) - formerly called the Speakers Bureau
  - The WZSAP program sends speakers (mostly maintenance workers) to give presentations to 55 alive or driver education classes. The speakers have access to presentations to show how to go through work zones - winter or construction season. Slides of additional new elements (roundabout, flashing yellow arrow) are also available to be added in case they'd like to add it to the presentation to make sure that the students see that.
  - The goal of this program is to get work zone safety messages out to young drivers and elder drivers
  - 66 presentations last year
  - 20 presenters to 36 different organizations
  - 4 districts were active, D8 held most presentations
  - There is a feeling amongst some that, though this program has important information, in some districts the effort is dropping off
    - Leigh has heard from the presenters that the elements that make this program successful are buy-in from the District management and involvement from the District PAC
    - It was discussed that this effort should be encouraged at the Operations Division meetings and to perhaps involve the TZD efforts.

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- **Action item for Exec Committee debrief:** The Committee should discuss where MnDOT should go with this program regarding the following elements:
  - Framing around with TZD
  - Discuss with operations division and district engineers
  - Look at creating YouTube video
  - Re-evaluate how to get the message out
  - Tie in Office of Communications
- Leigh demonstrated a portion of the online class of Flagger Train the Trainer recertification. The class should be completed in a couple of weeks.
  - Larry Hanson of Egan Co asked how notifications will go out to the users of the previous video.
  - **Action:** Notification of the new online class will be put on the OCIC Construction Training website. OCIC staff will email the YouTube link to the trainers in the OCIC database.
- Leigh left sheets of the webpage with the training that OCIC offers on the back page (includes hyperlink)

Ken also mentioned upcoming training opportunities sponsored by OTST:

- Work Zone Safety Grant (FHWA/ATSSA) Class - Minimizing Worker Exposure in Highway Work Zones Through the Use of Positive Protection and Other Strategies. To be held December 10 & 11, 2014 at the MnDOT Training Center in Shoreview.
- Albeck & Associates - Temporary Traffic Control Plan Development Class. To be held January 27 & 28, 2015 at the MnDOT Training Center in Shoreview.

## **Presentation: Speed Limits in Work Zones Presentation – Changes Due to New Legislation**

- Ken Johnson, MnDOT Office of Traffic, Safety & Technology, conducted a presentation on how to set speed limits in work zones based on legislation passed earlier in the year and upcoming changes to the MN Manual on Uniform Traffic Control Devices. This presentation, *MN Work Zone Speed Limit Law Change - October 2014.pdf*, is available at the following web address:  
<http://www.dot.state.mn.us/trafficeng/workzone/wzcommittees.html>

**Break** - during the break, video collected by Metro Maintenance using a GoPro was displayed. This footage showed how traffic behaved while a lane closure was being installed by Metro Maintenance staff.

## **Resident Engineers Work Zone Safety Advisory Committee – Co-chairs: Trudy Kordosky and Craig Mittelstadt**

Trudy and Craig brought the following to the group:

- The major issues discussed at the last meeting of the Resident Engineers Work Zone Safety Advisory Committee related to this Committee included:
  - Lump sum bid item for Temporary Pedestrian Access Routes
  - Reducing the speed limits in work zones

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- There is a Resident Engineers meeting planned in November - information from this meeting and the new guidelines will be brought to that group. There was also discussion brought up that the Workers Present Speed Limit update be discussed at the Construction Spring Meeting

Tim Lewis asked Trudy and Craig about the following:

- What projects need a Traffic Control Supervisor and what duties should the TCS have?
- Could better definition of what is needed for TPAR be in plans?
  - Craig responded that the TCS duties will be discussed further at the Traffic Control Special Provisions Update meeting (the following week).
  - Tiffany Dagon responded that more effort is going into plans for TPAR - at least for the Metro District. Ken Johnson responded that CO Traffic is encouraging districts to add more into plans of what is expected for TPAR.

## Traffic Control Special Provisions Annual Update Committee – Chair: Craig Mittelstadt

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Craig gave a brief precursor to the upcoming Traffic Control Special Provisions Update meeting (and he is open to agenda items - please forward them to him):

- There are some proposed changes to the special provisions for *Prepare to Stop when Flashing Intelligent Work Zones*
  - Different sign message and design
  - Raising the height of the beacons
- There are proposed changes to the 1404 pre-determined prices
  - These were determined by independent consultant
- The speed limits in work zones legislation will impact special provisions
- There will be a discussion of the duties of the Traffic Control Supervisor

## Statewide Maintenance Temporary Traffic Control Committee – Chair: Sue Lorentz

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Sue Lorentz reported:

- This committee was formed under the direction of the SWWZSC
- Randy Reznicek, former co-chair of this committee, has retired and Sue has asked for co-chairs - no one has volunteered yet. The request is still out there, so if there are any suggestions, please let Sue know.
- This committee meets 4 times a year - next meeting is October 22nd.
- Previous agenda items have included:
  - Attenuators (Test Level 2 and Test Level 3)
    - There have been issues maintaining the attenuators and some challenges with implementations
    - The maintenance issues have turned out to be nationwide
    - Each of the committee members has been asked to show their district's plan for implementation of TMAs

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- There is an e-learning module for the TL-2 TMAs
- Sue Lorentz would like funding to update the TL-2 TMA module up to include TL-3s, especially due to the maintenance and implementation issues up to this point
  - Sue L has given a needs statement for the classroom and/or e-learning training
  - Sue Groth mentioned that there may be a possibility that OTST could provide some funding
  - Reed Liedle mentioned that there will be a session about TMAs at the 2015 ATSSA How-To and also stated that the Northland Chapter of ATSSA may be willing to partner in training development. TMA maintenance and implementation may be of interest of other agencies and contractors
  
- Next agenda will include a discussion of PCMS and Arrow Boards

## PERCOM – Rod Clark

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No report today

### **Discussion:      Transportation Management Plans (TMPs) in Greater MN**

Dave Mavec, MnDOT District 1, mentioned what his district is doing with Transportation Management Plans:

- In the past, TMPs had been done only for more significant projects, but a change was made in the plan submission process to require that TMPs be submitted for any project that impacts Traffic. This has helped in making TMPs more visible throughout the design process - as required by the State Work Zone Safety and Mobility Policy. The TMP level is based on the complexity of the plan. Dave mentioned that a template TMP was developed by his predecessor in the district (Sarah Sondag) and Tiffany Dagon of Metro. This template helps the Project Manager know what elements to look at that may impact traffic during construction. Dave always includes a narrative with his TMP to help the reader understand the overall traffic impacts of the project. Dave is the responsible party to develop the TMP in the district. He has asked to attend all scoping meetings in the district so that he is involved from the beginning of each project.
- Dave provided a couple of TMPs from his district and an example was shown. These and the TMP template are available on the website: <http://www.dot.state.mn.us/trafficeng/workzone/wzscommittees.html>
- Tom Ravn is pleased with the progress that is being made in districts with the TMP development and implementation. This is what the FHWA intended with the Work Zone Safety and Mobility Rule. Traffic impacts need to be looked at throughout the design process.
- Tiffany Dagon mentioned that the Project Managers are responsible for the development of TMPs in Metro District and the process is going well. The TMP is looked at during all phases - scoping, preliminary design, and final design.
- Will Stein mentioned that Metro is doing a much better job of traffic analysis as part of the TMP development. He asked if other districts are aware that Metro can provide assistance with traffic analysis for other districts. Ken mentioned that the other districts have been told during the TEO TTC Committee meetings.

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## Update: Work Zone Related Research Efforts

- District 3 AFAD Research
  - Sue Lorentz and Ken Johnson updated the group that the Automated Flagger Assistance Device research is underway and that District 3 staff like using it. The next step is to see how to more effectively use as part of a moving operation - putting the AFAD on a trailer so that the AFAD is easier to move. A draft layout has been developed that will be implemented and evaluated - what should the signing be for an AFAD moving operation
  - Reed Liedle mentioned that there is at least 1 prime contractor that uses an AFAD
  - Street Smart has owned a few in the past and then dropped them due to lack of interest in their use. They've found that portable signals are more desired by their customers.
  - District 6 has had an AFAD for over a decade and as a result it doesn't meet the latest specs. Portable signals are used much more often in District 6.
- Flagger Conspicuity Research
  - This project is looking at a variety of options to help drivers know that flaggers are ahead - Dynamic Speed Display Signs, horns, and portable rumbles are all being looked at for effectiveness.
  - The simulator work has been completed and the results have been implemented in the field to validate the results. The field research is ongoing at this point.
  - Sheila Johnson asked about the portable rumbles as there have been reports of the rumbles moving due to traffic. There are two portable rumble options on MnDOT's Approved Product List. Reed Liedle mentioned that the vendors of both products suggest field checks to fix if traffic has moved them. Dave Mavec mentioned that District 1 staff haven't seen a problem; however, maintenance personnel have seen some movement.
    - This may be a moot point for flagging operations; however, portable rumbles are a good option for traffic control change notification at intersection approaches. Movement of the portable rumbles is problematic at these locations.
    - **Action: OTST staff will discuss with vendors to see if there is a way to more solidly place rumbles for longer term applications.**
- Work Zone Diversion Rates and Capacity Reduction
  - Tiffany Dagon updated the group about the progress. UMD is working on this research and Tiffany will be meeting with them next week.
  - Jon Jackels mentioned that SRF is working with InTrans (Neil Hawkins) to determine capacities of lanes.
  - Jeff Rieder of District 6 mentioned that this is a concern for the Greater MN districts.
  - The research should be done by September 2015
- Effect of Automated Speed Enforcement on Drivers
  - Ken Johnson updated the group. The University of MN Human Factors Lab is working on this research and drivers will be evaluated in a simulator (with eye tracking devices) to determine where the drivers attention will go depending on various speed control methods (including Automated Speed Enforcement) in work zones. The simulator software is under development.
- Others
  - Distracted Driving.
    - Tom Ravn mentioned that Utah did a study on distracted driving and determined that a hands free device is not as safe as people think. Sue Groth mentioned that this finding is supported by other studies.
  - Here I Am - worker and equipment location aware system
    - Sue Lorentz mentioned that there is a system under development that keeps track of workers and equipment. Cory Johnson and Sue Lorentz have more information.

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## External Partners

### • **Law Enforcement - Major Jeff Huettl (State Patrol)**

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- There is a question regarding when the State Patrol will assess the \$300 fine in work zones for speed limit violations. The law seems to indicate that the \$300 fine applies at all times in a work zone, but the intent may have been that it should be levied only when workers are present. State Patrol will try to determine a clarification of when to assess the \$300 fine.
- Move over law seems to be working well in greater MN, but not as well in Metro.
  - State Patrol is looking at "light discipline" about not always having the lights on. They are aware of the impact of the move over law and its impact to traffic.
  - Major Huettl is encouraging others with lights on their vehicles to also be aware of this.

### **Industry Liaison Group – Tim Lewis (Warning Lites of MN)**

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Tim Lewis discussed this new sub-group to the Statewide Work Zone Safety Committee. This group is intended to:

- Discuss industry suggestions for efforts to improve work zone safety
- Identify industry thoughts with existing state guidelines, standards, and procedures
- Determine actions that industry can implement or pursue to improve work zone safety

The first meeting was held to determine the overall mission and direction of the group. Some initial pressing issues for the group were identified and will be prioritized in the future. Examples of the issues follow:

- Distracted Driving
  - Banning cell phones in WZs
- Intrusions
  - Shadow vehicles/TMSs
- Advance Warning Area Modifications
  - Speed variability in the Advance Warning Area
- Enforcement by local entities

This group intends to meet once every 2 months (at least initially).

### **Engineering Consultants – John Crawford (Kimley-Horn) and/or Jon Jackels (SRF)**

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Jon Jackels mentioned that he is pleased to be able to contribute to this group again after his hiatus and would like to determine ways to increase consultant involvement. SRF (and other consultants) have had the advantage of working in other states and could share this type of information.

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## Northland Chapter ATSSA – Rick Shomion, Jay Blanchard, Ken Russell, Lynn Berg

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Reed Liedle reported:

- Attendance at the 2014 How-To was at an all time high - attendees and vendors.
- Next meeting is March 17-18, 2015
- Some of the sessions that will be held include:
  - Bike and pedestrian safety
  - Portable signals and AFADs
  - Speed limits in work zones
  - Impact attenuation
  - Distracted driving
  - Overview of MASH
  - NTPEP
  - And many others
  - There will be Pavement Marking and Permanent Signing Workshops on the day prior
- Really appreciates MnDOT's involvement in the chapter
- Tom Ravn mentioned that from MnDOT's perspective - plan on continuing support. It's win-win. Sue Groth agrees.

Ken Johnson mentioned that MnDOT benefits from this relationship as well.

### **Demonstration: Georilla**

Tiffany Dagon, MnDOT Metro District Traffic, conducted a demonstration of Georilla - an internal GIS tool that queries MnDOT (and other) databases to help decision making. A couple examples of use included:

- Show crashes and other incidents reported to State Patrol
- Review expected and existing projects to determine conflicts

Eric Johnson mentioned that an enhancement could be to set up intelligent alerts to notify instead of querying the vast amounts of data.

## **Contractors –Doug Swenson (AGC), Woody Bear (Shafer), Larry Hanson (Egan)**

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Doug Swenson reported the following:

- On July 28, news conferences in all districts were held to highlight worker safety and notify the public about the new fines for violating speed limits in work zones. He feels that this was highly successful and that Kristin Kammulleur of MnDOT CO Communications deserves a lot of credit
- AGC continued the orange cones, no phones message starting on August 1
  - Created and handed out bumper stickers and hard hat decals, hat decals graphic is on emails
  - Also ran on their website
- He encourages the group to not let this effort die.
- AGC has received a grant to produce a work zone training for heavy equipment
- From a legislative perspective, it's too early to say what AGC is going to work on
  - perhaps may get cell phone back on the agenda

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Larry Hanson stated that he is happy with what's been done this year. He feels that we've made an impact with all the efforts that been done.

## Temporary Traffic Control Providers – Mike Granger (Street Smart Rental), Tim Lewis (Warning Lites of MN), Reed Liedle (Safety Signs) & Eric Johnson (uGOvia)

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Mike, Tim, Reed and Eric have provided comments throughout the meeting.

## Federal - Will Stein (FHWA)

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Will Stein reported:

- TMPs are still a priority of the Feds. Regarding the Cayuga and MnPASS projects - he is impressed with the traffic analysis that was done. Liked the decisions made due to the traffic analysis based on the TMP. Good example on how TMPs serve the public better.
- He'd like to encourage that other MnDOT districts adopt Metro's TMP traffic mitigation policy - perhaps it could be added to the State WZSM Policy
  - This policy sets delay thresholds
  - Provides for mitigation funding that may be set aside for the project
- FHWA is providing funding through the Every Day Counts initiative - MnDOT has been selected to be involved with smarter work zones

## County - Wayne Sandberg & Adam Bruening (Wash.Co.)

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Adam Bruening reported:

- Washington County has a full time person to inspect and enforce work zone safety, this person also acts as the ADA compliance person in the off season
- In the county's construction projects, they include a line item for flaggers - per hour, per flagger. This used to be incidental, but they had a hard time getting enough flaggers out there. This change has made it much easier for inspectors to get flaggers on the job when needed.

## Municipal - Jay Koslucher (Fridley)

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No report at this meeting.

## Local Agency Education – Kathy Schaefer (LTAP)

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Nothing additional to report.

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## Utilities – Dale Anderson (CenterPoint Energy) & Davie Haedtke (CenturyLink)

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Nothing additional to report.

## MnDOT Internal Partners

### Management Teams

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- PCMG                      Mark Waisanen
- CMG                        Mark Panek
- OMG                        Sue Lodahl

It was reported that District 4 is trying out a new front mounted cone setter.

### Maintenance

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- OM                         Tom O’Keefe, Bob Vasek (Sue Lorentz)
- Training (Maint/Locals) Sue Lorentz, Kathy Schaefer
- Districts                 Sheila Johnson

Sheila Johnson reported that 2 Metro Maintenance employees were injured in a cone setting operation on June 22, 2014. Both are back to work, but 1 worker had head and back injuries and wasn’t back for 3 months. She understands that the driver received a very minimum penalty and wonders if greater penalties would improve worker safety.

Sheila also reported that Metro Maintenance has a form that is filled out for all lane closures - it was just implemented this year, but over 500 forms have been submitted up to now. These forms were intended to go to 511 staff, but PACs in Metro have been using these as well.

### Traffic Engineering

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- OTST                      Sue Groth, Peter Buchen, Ken Johnson
- Districts                 Dave Mavec, Jeff Rieder, Jerilyn Swenson, Tiffany Dagon, Scott Meier

Peter Buchen asked that AGC give MnDOT a heads up if AGC decides to bring anything to the legislature.

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Jeff Rieder of District 6 mentioned a crash that occurred earlier in the year - state epoxy truck got rear ended by car going 70 mph. The vehicle ran into the TMA, but it did the job. The driver that hit the epoxy truck was sent to hospital but it wasn't a serious injury. This was a driver that fell asleep.

Tiffany Dagon of Metro stated that Metro has a newer mesoscopic model of the west metro due to upcoming projects. This will allow better traffic analysis. The model doesn't get into the level of signal timing. A consultant will be performing the work as MnDOT doesn't have a tool that looks at this level. Peter Buchen asked about the data source. The model will receive information from sensors and intersection information near the model.

Tiffany also reported that Metro is doing a lot of monitoring of construction projects to determine how accurate the initial traffic analysis was. Jon's position has been reposted.

Jerilyn Swenson of District 3 mentioned a district management push to visit projects in the field. Traffic got out to 80-90% this year. They have a form which gets submitted to construction staff and the construction staff has worked with the traffic control contractor to make needed changes. This has been a good effort and a big commitment. It helps to open up communication between functional areas. Tim Janski is the District Work Zone Safety Coordinator.

## Construction

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- OCIC Tom Ravn, Craig Mittelstadt
- Training/Speaker Bur. Leigh Kriewall
- Resident Engineers Trudy Kordosky

Craig Mittelstadt asked that work zone safety award applicants be submitted to OCIC soon. He's seen a lot of good work zones this year - a lot more proactive. Construction personnel take this serious. Submittals will be allowed until the end of the month.

Trudy Kordosky mentioned that Resident Engineers would like to have better Portable Concrete Barrier guidance. Craig reported that there is current guidance that is used for construction and that he can provide this to the Resident Engineers to see if they want more strict guidance. Will Stein mentioned that some states use the steel barrier and that this is an option in MN.

## Communications

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- Statewide Kevin Gutknecht
- Metro Kent Barnard

## Worker Safety

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- Statewide Todd Haglin
- District Doug Thies

Todd Haglin reported:

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- District 4 has a cone setter and -a crew used it over the summer. He's looking forward to hearing about it.
- He called MN OSHA to find out what they're doing with work zones. He found out that they're inspecting work zones if they happen to come upon them. It doesn't sound like a targeted effort.
- District 6 is getting a drum cone setter using NUTREC funds

## State Aid

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- SALT                      Mark Vizecky
- Districts                 Kelvin Howieson

Mark Vizecky reported that there is a LRRB study that is looking at creating a document to optimize the existing guidance in the Field Manual to fit local roads.

Adjourn