

MnDOT Statewide WZ Safety Committee Meeting Minutes

March 31, 2015 - - - SRF Consulting, One Carlson Pkwy North, Plymouth MN

- Meeting: 9:00 am to 3:00 pm -

Welcome and Introductions

Chair - Duane Hill, MnDOT District Engineer - D1

- Duane welcomed the group and introductions were made.

Committee Reports

Statewide Work Zone Safety Executive Committee – Sue Groth

- Sue Groth reported on activities of the Exec Committee
 - The committee met a couple of times - a debrief of the previous meeting and planning for this meeting. The committee created Liaison group.
 - Sue mentioned the Metro Traffic Impact Mitigation Guidance. Allows Metro Traffic to set aside dollars (during the Scoping phase of a project) for traffic mitigation based on the type of project and the cost to the driving public.

Traffic Engineering Organization Temporary Traffic Control (TEO TTC) Committee

- Co-Chairs: Ted Ulven & Ken Johnson

- Ted Ulven reported on activities and training:
 - Mentioned the availability of TTC templates on the MnDOT TTC website
 - The Traffic Engineering Manual is being updated - including chapter 8, Temporary Traffic Control.
 - Standard plate 8000 being worked on - was barricades, will now be channelizers (including barricades).
 - Concern over the Move Over Law and making sure the public is aware.
 - Training - brought in a couple classes subsidized by the FHWA Work Zone Safety Grant:
 - Traffic Impact Analysis
 - Minimizing Worker Exposure in Highway Work Zones Through the Use of Positive Protection and Other Strategies
 - MnDOT Temporary Traffic Control Peer Review - Metro District
 - MnDOT WZSM policy requires that we receive feedback on the work zone process to make better standards. It was Metro's turn. Large group - difficult to get feedback from all the functional areas in the district involved with TTC. Decided to use Peer Review as proxy. Also went to the Metro Construction Feedback Meeting.
 - ATV Operating Requirements - currently no guidelines, but MnDOT Traffic feels that guidelines are necessary. Concerns with ATV operation causing distractions with drivers. Balance efficiency gained against safety. A draft document has been started and Ken mentioned what the main contents of the document are. Some utilities use ATVs.

Presentation: 2015 Work Zone Safety Education Campaign

- Susan Roe, MnDOT Office of Communications, presented the content. The presentation, *2015 WZ Safety Education Campaign - Roe.pdf*, can be found at

<http://www.dot.state.mn.us/trafficeng/workzone/wzcommittees.html>. Some highlights are repeated below:

- The campaign is a repeat of last year's with some revisions. Advertising at Target Field last summer. Allowed advertising as MnDOT allowed Twins to have parking at 394 ABC ramps. Also did messaging at ABC ramps.
- Changing from 'Workers Lives at Stake' to 'Lives at Stake'.
- \$200K to \$300K per year is spent by MnDOT on public education for WZ safety.
- Construction kickoff is the upcoming Thursday, April 3rd.
- Thoughts generated by the presentation were conveyed:
 - If flagging legislation passes then add to the education campaign the new flagging law.
 - Tim Lewis asked about whether the overheads can be used. Sue Groth mentioned that the DMS signs can be used 30 days throughout the year for safety messages. She mentioned that she'd investigate using the DMSs for a WZ safety message at the same time as the Construction Kickoff.
 - Dave Mavec mentioned that Kansas recently had their Work Zone Safety Awareness Week.
 - Doug Swenson - AGC has a safety message. Last year - bumper stickers and hard hat decals. Given to members for free. Larger print for this year. Same info on hard hat decal - include in email signature blocks.
 - AGC will start their education kickoff in same time frame as MnDOT - same as the Construction Kickoff - this Thursday, April 3rd.
 - Larry Hanson - Egan. Egan has conducted a work zone safety awareness week. Also sent out hard hat decals to their field staff.
 - Duane Hill mentioned the Construction Kick Off. CO and regional construction kick off. Duluth's will be at the Duluth Zoo. Part of the focus is to give the projects and the WZ safety message.
 - Sue Lorentz mentioned Workers Memorial Day upcoming in late April.
 - Jeff Rieder brought up the Workers Memorial Day message on the DMSs. What do we want the driver to do - there should be a specific message, instead of Worker Memorial Day. Can't use as promotion or advertising. Actionable by the driver.

Committee Reports (continued)

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

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

- Craig Mittelstadt reported on the activities of both committees
 - Craig uses the Resident Engineers WZ Safety Advisory Committee to determine changes for the Traffic Control Special Provisions.
 - Every October the Traffic Control Special Provisions Committee meets to determine the issues with Time and Traffic Special Provisions. Various groups are involved - MnDOT offices and districts, State Aid, General Contractors, Traffic Control Contractors, etc.
 - This year a pretty significant rewrite of 1404 was conducted. Not too much change in content, but made more in line with other special provision formats.
 - Traffic Control Inspection logs - changed disincentive from per hour to per day.
 - Changed special provision from Work Zone Speed Limit to Workers Present Speed Limit.

- Changed design of queue detection IWZ system sign with flashers - Stopped or Slow Traffic Ahead system
 - 7 fatalities out of 12 over the past couple of years have been rear end crashes at the end of the queue
 - Reed Liedle and Tim Lewis have only seen one or two projects with the Queue Detection system for this year
 - Craig will encourage the Resident Engineers to use this system more often.
- Traffic Control Supervisor boilerplate - the shorter version will be the standard write-up and extra duties will be added. The previous boilerplate was derived from the Crosstown project which included many duties that would not necessarily be needed on most projects.
- MnDOT Legal Counsel has told OCIC that the official term is Flagger. Synonyms such as Flagperson will be removed from the special provisions.
- Craig has seen roll-up signs that have been flopping in the wind - not easy to see. Special provisions have started not allowing roll-up signs on construction jobs.
- Sue Lorentz mentioned that she noticed on a couple of field reviews that a roll up sign was ripped. Perhaps on windy days should use rigid signs. Signs supports might be the issue. They also fatigue.
 - Sue will be bringing this up to the Statewide Maintenance Work Zone Committee. This is an Action for her committee.

Statewide Maintenance Temporary Traffic Control Committee – Chair: Sue Lorentz

- Sue Lorentz reported on this committee's activities:
 - The committee has been meeting quarterly. Moving to Face to Face every 4 months. The members vary widely from Superintendents, Engineers, TGSs, TOSs. Each time they meet there is a theme to the meeting. One theme was TMAs.
 - Speaking of TMAs, MnDOT Maintenance has been experiencing a lot of issues with TMAs - learning how to use and keep in good service. Dave Tody of Metro Traffic Services has a presentation on the subject.
 - The next theme will be Devices - in which they will cover the roll-up sign supports. Supports that have been used are NCHRP tested, but should there be other criteria. Sign needs to be legible.
 - Duane Hill mentioned that maintenance workers have ownership and are concerned by their safety. Perhaps more guidance for what will make the signs stay better.
- Sue has been encouraging reviews and audits to be done by the districts. Sue and Bob have been going out for reviews as well (required by the MnDOT WZSM policy).
- Talk about new research (AFADs) etc.
- Action item from last meeting. What should be reported to 511 by maintenance?
 - Some work zones are mobile or moving enough that there is question about the length of their impact to the driving public. Office of Maintenance has been working with Metro RTMC and it has been determined that the following needs to be considered: stationary, longer term moving (generally same road), visibility issues, traffic impact. The front line supervisor will be the determiner of the impact to traffic and will determine when to send notification in to the dispatchers. Don't want to overwhelm 511 system. Document with guidance will be given to Kelly Braunig of RTMC soon.
 - Sue Groth thinks that there should be consistency on what gets reported. Also has been brought up in ITS.

- Eric Johnson is advocating more information as vehicles will eventually receive information from more databases in the future.

PERCOM – Rod Clark

- Rod from PERCOM feels that a full presence on the SWWZSC is necessary.
- Action - Ken will talk with OMG or Land Mgmt to determine how Permits should be incorporated into this committee.

Update: Work Zone Related Research Efforts

- District 3 AFAD Research - Bob Vasek
 - Research is continuing for the use of AFADs in static and moving flagging operations. The researcher is working with industry to develop an AFAD that can be on a remote controlled moveable cart.
- Flagger Conspicuity Research - Bob Vasek
 - This research is looking at methods to gain drivers' attention as they approach a flagging operation. Transverse portable rumble strips, signs, and audible warning systems are being evaluated. Human factors work has been done using simulators and work will continue to see if the simulator results translate into the field.
- Effect of Automated Speed Enforcement on Drivers - Ken Johnson
 - This research is looking into what happens with driver's attention in a work zone with known automated speed enforcement. The simulator work with test subjects will occur later this spring.
- Bluetooth Low Energy Devices to Trigger In-vehicle Messages in Work Zones - Ken Johnson
 - This research will look into developing messages (visible and audible) from smartphones to give drivers appropriate warnings as they approach and travel through a work zone. It will also evaluate the ability of BLE (Bluetooth Low Energy) devices to communicate with a smartphone at highway speeds.
- Here I Am - DSRC Warning System for WZ Safety - Sue Lorentz
 - 75% of the initial task. Still at the beginning.
- Intrusion Synthesis - Todd Haglin
 - MnDOT leadership has asked to develop a method for reporting WZ intrusions. Todd has been working with the Office of Research Services to conduct a synthesis of existing practices for WZ Intrusion methodologies. Should be done by July 2015.
- LRRB - TTC for Low Volume Roads - Mark Vizecky
 - Based on the number of layouts in the field manual, some may have a difficult time choosing a layout. Trying to identify a matrix-based approach on work type selection and then pick out a layout. SRF is working on this.

Presentation: Work Zone Diversion Rates and Capacity Reduction

- Tiffany Dagon, MnDOT Metro Traffic conducted a presentation, *WZ Diversion Rate and Lane Capacity Research - Dagon.pdf*. The presentation can be found at <http://www.dot.state.mn.us/trafficeng/workzone/wzcommittees.html>. Some highlights are repeated below:
 - This presentation summarized the research project and contained some preliminary results. The State Work Zone Safety and Mobility Policy expects that you know what the traffic impacts of a significant project will be. Two big inputs into this understanding are

diversion rates and lane capacity. This research is looking into ways to predict the above parameters.

- Eil Kwon is principal investigator
- Table included the lane closure configuration
- Goal is to create a matrix with inputs so you can determine diversion rates
- Ramps can have a huge impact. This can help you know if you should close a ramp.

External Partner Reports

Law Enforcement – Captain Michael Hanson for Major Cheri Frandrup (State Patrol)

- Captain Hanson discussed traffic laws that apply in WZs. The entire traffic code still applies in a WZ. Some specific things that apply in WZs:
 - Speed enforcement - advisory speed or regulatory speed limit (Hanson likes the regulatory)
 - Move over law - easier for folks to comply in Greater MN, can be tougher in Metro
 - Intrusions. Civilian drivers are like sheep and may just follow construction vehicles into the WZ. He noted the barricade statute - MN Statute 160.275. Should apply to temporary closure and lane closures with channelizers as well as full closure. He feels that the channelizing devices count at the “obstruction” in the statute. So drivers could be charged with a misdemeanor when they enter the WZ.
 - Drivers can become conditioned - so if the trooper is in the same location all the time, drivers can start to ignore the presence. The idea would be to move to different locations if a long term WZ.
 - Potential legislation for flaggers. Won't be end all/be all.
 - Standardizing report form for the flagger training. Discuss with Patrol.
- Craig Mittelstadt mentioned that his office is developing a checklist/guidance for project engineers to determine locations and plans for what the trooper should do.
- Reed Liedle is asking if a trooper can be just showing up at certain times. Contract can be written in many different ways. Craig says that each project is different. Lafayette had 4 all summer long.
 - Captain Hanson suggests that Extraordinary Enforcement plan be discussed ahead of time. Even during design phase of the project.
- Tim Lewis asks if you're on a corridor that would be too much for state patrol to handle, can you use local law enforcement. Captain Hanson says that he usually doesn't have a difficult time filling shifts. There might be areas of limited staffing. So he may work with local law enforcement partners. Craig says that Extraordinary Enforcement can utilize local law enforcement.

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

- Tim Lewis reported on the group. The purpose of the group is 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
- It will do this through the following methods:
 - Direct dialogue between MnDOT offices and representative industry groups
 - Identify large problem areas of safety in work zones and discuss possible solutions
 - Identify new methods and devices with temporary traffic control
 - Identify roadblocks
 - Advocacy of statutory changes

- The group has met a couple of times and it is anticipated that this will be a regularly scheduled meeting.

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

Presentation/Discussion: IWZ Efforts in Iowa and Next Steps in MN

- Jon Jackels, SRF; Ken E. Johnson, MnDOT Office of Traffic, Safety & Technology, conducted presentations on IWZ efforts in Iowa and future steps in MN. The presentations, *IWZ Deployments in Iowa - Jackels.pdf* and *ITS in Work Zones Next Steps in MN.pdf*, can be found at <http://www.dot.state.mn.us/trafficeng/workzone/wzscommittees.html>.

Presentation: ATSSA Expo Report

- Vic Lund, St. Louis County and Ken E. Johnson, MnDOT Office of Traffic, Safety & Technology conducted presentations on their experiences at the ATSSA Expo in Tampa in February. The presentations, *2015 ATSSA Traffic Expo Report - Vic Lund.pdf* and *ATSSA Expo 2015 - Johnson - SWWWZSC.pdf*, are available at <http://www.dot.state.mn.us/trafficeng/workzone/wzscommittees.html>.

External Partner Reports (Continued)

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

- Report on Activities
- Reed Liedle - How To at Fargo was at maximum capacity - vendors and participants. 230 attendees at pre-conference - field folks, cities and counties.
 - Summer planning meeting - July 20-21 in Ottertail, MN.

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

- Doug Swenson reported on AGC activities - most of their work is on transportation funding. AGC is pleased to see the flagger legislation. Would like to be made aware of legislative efforts. Make sure that we communicate more - likely through the Liaison Committee. Vertical contractors are having challenges with traffic control.
 - Todd Haglin mentioned that Kathy Schaefer will participate in an upcoming training seminar with OSHA - she will help conduct training.

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

- Reed Liedle and Tim Lewis conveyed some thoughts.
- Reed mentioned that he likes the new Traffic Control Supervisor specification - in fact, he said it was awesome. Tim Lewis also likes.
 - Alternate Pedestrian Routes are still an issue.
 - Reed has been noticing PCMSs and trailers being left on the shoulders without delineation when not being used.

Federal - Will Stein (FHWA)

- Will conveyed his regrets that he was unable to attend.

County - Wayne Sandberg & Adam Bruening (Wash.Co.) and Vic Lund (St. Louis County)

- Adam Bruening reported that Tim Parko of Washington County is conducting some Field Manual training for cities within Washington County

Municipal - Jay Koslucher (Fridley)

- Jay Koslucher was unable to make it and conveyed his regrets.

Local Agency Education - Kathy Schaefer (LTAP)

- Kathy reported that she is busy with training. Booked until the end of April.

Utilities - Dale Anderson (CenterPoint Energy) & Davie Haedtke (CenturyLink)

- Nothing to report

Presentation: Choosing the Correct Barrier for the Work Zone (12:30)

- Steve Draginis of Hill and Smith presented *Choosing the Correct Barrier for the Workzone.pdf*. This presentation can be found at <http://www.dot.state.mn.us/trafficeng/workzone/wzcommittees.html>. MN has commonly used portable concrete barrier for temporary barrier, though there are other options available - water filled, steel and movable. See the presentation for advantages and disadvantages for each type.

MnDOT Internal Partners

Management Teams

- PCMG Nothing reported from PCMG
- CMG Mark Panek - nothing to report from CMG
- OMG Bob Vasek reported that Maintenance is continuing the deployment of the TL-3 TMAs. Also looking at TMAs and repairs that are necessary. Desire to transition to all TL-3s by 2016.

Dave Tody mentioned that the TL-3s are substantially different from the TL-2 and the existing electronic training is for the TL-2. Dave said that he'd be working with Sue Lorentz & Doug Theis to update the training.

Maintenance

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

All issues have been previously discussed.

Traffic Engineering

- OTST Sue Groth, Peter Buchen, Ken Johnson

Busy with Work Zone education and legislative efforts.

- Districts Dave Mavec, Jeff Rieder, Tiffany Dagon, Scott Meier
 - Tiffany Dagon mentioned that they are using more Dynamic Speed Display signs with Workers Present Speed Limits. Let her know if you aren’t seeing the signs in Metro. Trying to encourage drivers to be aware of their speeds and to slow down.
 - Tiffany also reported that there have been issues with pavement markings over the winter. A couple of projects where the early winter didn’t allow striping. 3M put down polyurea as a test along I-35E.
 - Tim Lewis has a thought. Suggested the idea of the late season specification being required after a certain date. Ken Johnson told the group that OTST is developing a special provision for the use of late season pavement markings.
 - Reed Leidle asked about the ET-2000 end treatment. It turns out that the ET-2000 has passed all of the crashworthy tests.
 - Jeff Rieder - there are going to be 6 projects with Workers Present Speed Limits in D6. One job is specified to be Electronic. All other 5 will allow the contractor to use either the Static or Electronic. Jeff mentioned that their Traffic office will inspect the Workers Present Speed Limit. More communication will be necessary between Primes and TTC Contractor.

Construction

- OCIC Tom Ravn, Craig Mittelstadt
 - Tom is pleased that we’re looking at Intelligent Work Zones in greater MN. Also looking forward to seeing the Peer Review report.
 - Craig is working on Portable Concrete Barrier guidance with Steve Kordosky and Steve Barrett of Metro Construction. Craig would like to see more TMAs in construction work zones. Dave Mavec has included a TMA pay item on a project in D1 - unit day pay item.
- Training/Speaker Bureau Leigh Kriewall
 - Busy season so far. TCS 2 class so far (66 students), 1 in class recert (13), 1 online recert (18) Flagger training, multiple others
 - Speakers Bureau - individuals go out to speak to drivers education and 55 Alive. Committee formed to make youtube videos - will be 3 - snow and ice, summer construction and other innovations. Have a script writer on board.
- Resident Engineers Trudy Kordosky

- Construction Project Supervisor's meeting - March 11-12. Asked for people interested in IWZ. Will bring issues learned here to the next Resident Engineers Committee.

Communications

- Statewide Kevin Gutknecht
- Metro Kent Barnard
- Sue Roe had previously reported on Communication activities.

Worker Safety

- Statewide Todd Haglin
- High-visibility apparel - challenges with contract. One of the vendors couldn't get material. MNCorr is providing most of the vests and hats.
- District Doug Thies
- Safety group has been working on E-learning for Construction Site Safety. Will be required for Construction employees and others that will visit work zones.

State Aid

- SALT Mark Vizecky - nothing to add
- Districts Kelvin Howieson