

## TRAFFIC SIGNAL COMMITTEE

### Meeting Minutes

DATE 11-05-2003

This document is available online at <http://www.nc-ite.org/trafficsignal.htm>

#### ATTENDEES

Wayne Sandberg	Washington Co.
Nick Erpelding	RLK
Ben Osemenam	MN/DOT - OTSO
Bryant Ficek	Bonestroo
Marc Culver	City of Maple Grove
Ray Starr	MN/DOT - OTSO
Jerry Koztenmacher	MN/DOT - OTSO
Steve Manhart	Howard R. Green
Roger Plum	S.E.H.
Brian Sorenson	Scott County
Kristi Sebastian	Dakota Co.

#### WEB LINKS

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

#### LOCATION

MN/DOT – Golden Valley

#### MEETING MINUTE CORRECTIONS

None

#### HANDOUTS

Washington Co. note to Gopher One (see attachment)

#### ROUND ROBIN

Kristi S. – issue of mouse wire for the signal transformer base to the indications. Dakota county spec'ed out a cable for inside the signal pole that met Mn/DOT 12/c#12 spec except used 14-gage wire. The contractor said he could not find an Mn/DOT spec cable with 14-gage wire, which is probably correct. Ray felt that any IMSA signal control cable would be a suitable substitute. Mn/DOT (specifically Metro) is working on developing a spec. and finding cable that would work in the signal pole to address the current problem with the individual wires being susceptible to mice and damage from wear at the angle points. Ben will check on MN/DOT spec. Other issues of the toxic substance with the environment.

Mn/DOT has experimented with other rodent screens. The city of Rochester uses a wire mesh wrapped around the outside of the transformer base.

## NCITE Signal Committee Meeting Minutes

Page 2 of 3

Ben O. – Has met with pole manufacturers, MN/DOT Bridges and structures Office and U of M on the 2001 Spec for poles, mast arms and bases. Old spec ok for MN/DOT style mast arms up to 55', but any mast arm larger than 55' will need to meet 2001 spec. Ben will meet with U of M another time to review the 2001 spec.

Marc C. – Ped Ramp Standard...88' spec calls for contrasting colors in the ramp. Marc had a case where a contractor had spray painted on a color, not a color mix in the concrete.

Ray S. – EVP emitters are being found for sale on the Web. Concerns of non-emergency vehicles using the emitters were discussed. At times, EVP calls do appear to be controlling the signal with no emergencies vehicles seen or heard. In MN/DOT signal agreements, MN/DOT does reserve the right to turn off an EVP system if it is being abused.

Jerry K– MN/DOT sponsored Signal and Lighting courses will be given this winter and spring of 2004. MN/DOT's Web site will be updated as dates and locations are defined.

Go to: <http://www.dot.state.mn.us/trafficeng/> The site will not be updated until exact course dates are defined. Upcoming courses include Traffic Signal Timing and Coordination, Traffic Signals 101, Roadway Lighting Design and Signals & Lighting Inspection Certification/Re-certification. See web site for additional courses and course descriptions.

Steve M. – Steve is on a PTOE subcommittee and is working on establishing credit worthiness for the PTOE license. Often, there is no consideration for the PTOE on signal projects. He would like the PTOE to be worth something.

MN/DOT has pre-qualified list of consultants for work. Signal design may need Electrical Engineer on staff to sign off a signal plan. Ray clarified the requirement stating that this list was to streamline Mn/DOT TEA contracts and avoid RFPs. Ray also said that the EE and/or Master Electrician requirement would likely be removed.

Brian S. – Questioned when a signal problem requires service in non-working hours. Mn/DOT typically repairs all flash calls before the next rush hour. Mn/DOT has an on call tech available 24 hours. Smaller agencies may leave a flashing signal to the next working day depending on how critical of intersection.

Wayne S. – insurance on signal as a future topic. What events can cause problems?

### **TEO UPDATE**

Ray updated the committee on MN/DOT's TEO Signal committee meeting highlights. See attached TEO Signal Committee meeting minutes.

### **ADVANCED SYNCHRO TRAINING UPDATE**

The SYNCHRO sub Committee met last month. The Advanced SYNCHRO class is an established class given by consultants Albeck/Gerkin and will be sponsored by the NCITE Signal Committee. It was originally proposed to have this class in conjunction with the MN/DOT controller training class. It was decided that these two classes had separate issues and will not be tied together. NCITE Signal Committee will partially fund this training. Look for the training to be held in April or May of 2004.

### **OTHER ISSUES**

Gopher One Call – Wayne S. was looking for support from other agencies at the upcoming November 19<sup>th</sup> board meeting. Gopher One will bill differently in 2004 under their new policy. This new policy will significantly increase the billable tickets Counties and MN/DOT will receive. Wayne also handed out a letter addressed to Gopher One from Donald Theisen, Washington County Engineer. (see attachment)  
Contact Wayne if you would like to participate in the board meeting.

In a letter to Ray, Gopher One did suggest they might not charge as the new 2004 policy states. They may also give a credit each month. It was also suggested that Gopher One needs to better-defined requests thus eliminating locate tickets that are more than 300' away from an excavating site.

### **NEXT MEETING**

MN/DOT – Waters Edge  
Conference Room

DATE

Wednesday December 3rd, 2003

8:00 – 10:00

### **ATTACHMENTS**



**WASHINGTON COUNTY**  
**DEPARTMENT OF TRANSPORTATION**  
**& PHYSICAL DEVELOPMENT**

11660 MYERON ROAD NORTH · STILLWATER, MINNESOTA 55082-9573  
651-430-4300 Facsimile Machine 651-430-4350

Donald C. Wlaniewski, P.E.  
Director

Donald J. Theisen, P.E.  
County Engineer/Deputy Director

James D. Luger, RLA  
Parks Director

Virginia S. Chace  
Administrative Services Division Manager

Michael J. Welling, PLS  
County Surveyor

Marvin Erickson  
Facilities Manager

November 3, 2003

Mr. Adam Kramer, Chair  
Gopher State One Call Board  
2020 Centre Point Blvd.  
Mendota Heights, MN 55120

**New Billing Policy**

Dear Mr. Kramer:

We want to communicate to you and the Gopher State One Call Board (GSOC) our concerns with the new billing policy to go into effect January 1, 2004. We have had discussion of our concerns with GSOC staff, but feel we need to formally send these comments.

We are frustrated that the new billing policy was put in place with no input from Counties. The State law that created GSOC states that "in establishing operating procedures and technology for the statewide notification center, the board of directors or the commissioner must work in cooperation with the league of Minnesota cities, the association of Minnesota counties, ...". Not only was work not done in cooperation with us in development of the new billing policy, we were never even asked to comment on proposed changes. All we received was a letter telling us here is the new policy. That's not the way to build a working relationship with agencies who should be your partner.

Our primary concern is that GSOC has now adopted a policy that significantly increases our annual costs with no commensurate increase in benefit to us. We expect our costs to increase from \$150 per year to \$7,000 per year. This large of increase with no input, transition period, or adequate efforts to reduce the impacts make it difficult to support the efforts of GSOC. This is especially exacerbating in these times of budget reductions.

We do not oppose elimination of NLR's provided GSOC improved locate request requirements, mapping, and use of technology to reduce over-notifications. Counties are a different utility operator than cities or utility companies. We do not have facilities outside of our right of way. There is no need or value for Washington County to get a locate request for any area outside of our right of way.

We adequately protected our utilities from damage before GSOC with our permit system. Any work in our right of way still requires a permit. As an operator, we receive little to no value from the GSOC system.

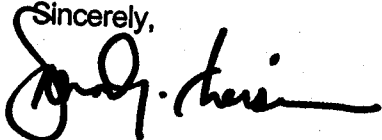
We are working with GSOC to update our database. It is frustrating that this change to NLR's is taking place before we know if the database improvement will reduce the number of locate tickets. We believe a significant reduction will not happen if Fax A Locate (FAL) with ¼ section areas and even up to full section locates are continued. Also, our ability to update the database through iMap will not be available until 2004. The cart seems to be in front of the horse.

Page two  
Letter to Mr. Adam Kramer, Chair  
Gopher State One Call Board  
November 3, 2003

I appreciate your consideration of our comments. I would much rather have a working relationship with GSOC where we felt like our input was not only welcomed but needed to improve the system. Right now we feel our only option is to find ways to minimize our involvement with the GSOC system.

I'd be glad to discuss this letter with you and the Board at your December 18 meeting.

Sincerely,



Donald J. Theisen, P.E.  
County Engineer

- c: Jim Schug, Washington County Administrator  
Don Wisniewski, Director, Transportation & Physical Development  
Carol Lovro, AMC  
Dave Scwharting, MCEA President

**TEO Signal Committee Meeting Minutes**  
**Waters Edge Conf. Room C**  
**October 15, 2003**

**Attendees:**

Jerry Kotzenmacher  
Ray Star  
Ben Osemenam  
Rachel Guan  
Mike Wolf  
Al Esponzoza  
Marlin Reinardy  
Tom Dumant  
Steve Misgen  
Tim Bangsund  
Sean Delmore  
Greg Gruber  
John Tackman  
Roger Sowder  
John Bieniek  
John Hoivik  
Tod Becker

**Old Business –**

**Function 3 Number** – The issue is no number for charge I.D. for ESS when a cabinet is to be built. Mike W. will set up a meeting October 27 with Dick Pientka . Will include Tackman and Roy Christianson from ESS and reps from the offices of Finance, Agreements and State Aid. Most problems are on State Aid projects.

**New Controller** – Rochester district will officially use the Eagle controller. ESS is gearing up to accommodate the service needs for this controller. It was decided that only D6 will have the option to use the Eagle controller at this time. Issues with the new controller and the city of Rochester are the cabinet wiring is not standard MN/DOT cabinet wiring.

**Transformer base** – Ben will meet with Valmount for issues on the new pole spec.

**Battery Backup cabinet** – Marlin has been working with States Electric on a battery backup cabinet prototype. The cabinet is a converted lighting cabinet and will be able to accommodate up to four batteries. It will also have a plug in socket for a generator. Cabinet should be finalized in a couple of months.

## **New Business**

**Power Failures** – Ray outlined past MN/DOT efforts in regards to dark signals.

### EFFORTS RELATED TO DARK SIGNALS

1. Y2K. The districts provided plans for what to do in case there were long term power failures as a result to the Y2K computer issue. Dayue Zhang issued a report to the State Traffic Engineer on 8/5/1999.
2. Catastrophic Power (Generator) Committee. - Metro and ESS met to brainstorm about what should be done during long term power outages, defined as a loss of power for most of a day or multiple days. The committee may have been formed in response to a multi-day power outage in Newport that caused big problems. The committee focused on traffic flow and discussed generators. Apparently there were subsequent meeting(s), but I do not have any documentation from them.
3. Dark Signal Legislation. There was an effort to determine if there was a need for dark signal legislation defining what drivers should do at a dark signal. Information was gathered from other states. The result was that no legislation was proposed.
4. Uninterruptible Power Supply. A UPS group was trying to address the short term power outages and figuring out what locations should have a UPS. Minutes from a 12/3/1999 TEO Signal Committee say the Generator and UPS committees were no longer active and that they decided not to pursue a generator or UPS except in special circumstances.

It was a general consensus of the committee that power outages of two hours or longer at a signal should be considered for signage. Metro Districts current policy is to not put up stop signs. Districts do have issues when municipalities put out stop signs without setting the police panel switch to flash. The power eventually returns, leaving an operating signal with stop signs. Other issues with signs include stop signs that are too small and stop ahead signs on high speed roadways. The committee concluded that agencies that place stop signs at a black signals should put the signal to police panel flash. Issues then arise that how will MN/DOT know when the power has returned to return the signal to normal operation? Will municipalities know how to turn a signal to flash? OTSO will look into what educational initiatives were possible to help the locals understand the problem and make sure they put the signal in flash and promptly remove the stop signs.

See attached Dark Signals report by OTE.

**Signal Head Placement** – With the new left turn phasing criteria, high speed roads can now have protected/permissive turns when certain criteria is met. In our design manual, a speed of 45MPH and higher called for heads over the center of all lanes. MN/DOTs current practice is when a 5 section protected/permissive head is used; it should be placed on the solid line between the left and thru lanes. The issue is should we design our head

placement as a high-speed scenario with all heads (including the 5 section) in the center of the lane or use the low speed scenario of the 5 section on the solid white line?  
MN/DOT does not have a design figure for high-speed protected permissive turns. OTSO will develop a high-speed protected/permissive figure for MN/DOTs design manual and have comments within the figure to whether the low or high-speed scenario should be used. As MN/DOT signal design criteria has changed over the years, both scenarios are currently used throughout the state. For future projects, engineering judgment should be used when considering either scenario.

**Safety Project** – Sean is on a committee for the ASHTO strategic safety plan. The committee is looking at safety at traffic signals. Feds are developing a manual and web site for this project. Contact Sean with any ideas or suggestions for this project. Committee members will give update at the next TEO Signal Committee meeting.

**Aries Software** – OTSO received a price quote for upgrading the Econolite Zone Monitor to Aries for the 3 districts that have Econolite controllers. The price for a statewide license was \$5000 and an additional \$1000 for each district. The statewide license covers one district. The three district will look into funding 1/3 of the total cost of \$7000 and get back to Jerry.

**AWF** – public concern over the removal of some Metros AWF systems has initiated a review of our policy on AWFs. Are the guidelines too restrictive?  
Metro has been removing AWF systems on TH 65 while D3 has been installing them on the same highway. OTSO will send a note out on the guidelines looking for comments.

**Screw in base** – Screw in base should not be used when concrete surrounds the base. Access to the anchor bolts (under mounting plate) has been extremely difficult when the anchor rods/bolts are damaged.

**Frey Signal Indication Mount** – A signal system at TH 52 at Cahill/Concord has the Frey mount with aluminum heads installed. Comments back are that it “looks cleaner”. District can use this type of mount if desired. At this time, OTSO recommends not using plastic heads with this type of mount. Be aware that Millerburn Manufacturing calls this a “B” type mount that is not the same as MN/DOTs “type B” pole mount.

**Pole notes need to be changed when using this mount for MN/DOT plans.** Contact Mike Wolf for pole note information. For details on the Frey mount, go to OTSO web site. (Signal/Details)

**Countdown Pedestrian Indications** – Rachel handed out a draft specification for countdown peds. Please get comments back to her. The new Federal MUTCD should have a guideline on countdown indications. OTSO will look into guidelines once the feds have approved the use.

**ADA Pedestrian Push Button** – Mike handed out a spec for ped buttons. Get comments back to Mike. There is no official approved list of buttons at this time. OTSO does have a procedure in place for approving products. Vendors should be using the new procedure located on OTSO web site. There are no ADA Pedestrian push button requirements at this time.

**Foundation Height Max** – Issue of when a roadway has a curve, the super of the highway may require the concrete foundation to be exposed several feet above the ditch grade. Fill may be used to bury the foundation better but is not required. The 17' minimum height over the roadway must met. There is no restriction on how high the concrete base can be above ground. It is possible to mount the pushbutton on the foundation with conduit running to it if the foundation is very high. It is not necessary to install a separate pushbutton station.

**Gruber** – has a consultant who requested the State to pay for a special crosswalk. It was suggested to look into ITS funds. Tom D. has a project was funded in this manner.

**Signal Operations Check** – Districts are not consistent with signal operations checks. Some districts don't do operations checks while others have a semiannual check. OTSO recommends a semiannual check. A checklist for a standard operations check is on the OTSO web site: <http://www.dot.state.mn.us/trafficeng/standards/signalworksheets.html> ESS also does a maintenance check on all state signals on a 18-month bases.

**Pole Maintenance (repaint)** – D6 has issues of how to get cities to keep up the agreement to repaint MN/DOT signal systems. Districts agree that it's a low priority for cities. Greg has sent out letters requesting cities to comply with the signal agreement.. Custom paint colors appear to be better maintained. Suggested to look at the specific signal agreement to see if a charge back could be applied if signal is severely neglected.

### **Next Meeting**

1-14-2004

10:00am – 2:00pm

Waters Edge Conference Room C

Send agenda items to Jerry Kotzenmacher