## INTERSECTION TRAFFIC CONTROL COMMITTEE

**Meeting Minutes**

April 1st, 2015

### ATTENDEES

<table>
<thead>
<tr>
<th>Name</th>
<th>Agency</th>
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<tbody>
<tr>
<td>Dean Chamberlain (Chair)</td>
<td>WSB</td>
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<tr>
<td>Mark Wagner (Co-Chair)</td>
<td>SEH</td>
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<td>Jerry Kotzenmacher</td>
<td>MnDOT</td>
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<td>Matt Allwood (Presenter)</td>
<td>Traffic Control Corp.</td>
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<tr>
<td>Jon Krieg</td>
<td>Hennepin County</td>
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<td>Tyler Krage</td>
<td>Alliant Engineering</td>
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<td>Tom Switzer</td>
<td>Hennepin County</td>
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<td>Nick Erpelding</td>
<td>SRF</td>
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<td>Luke James</td>
<td>SRF</td>
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<td>Roger Plum</td>
<td>SEH</td>
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<td>Mike Callahan</td>
<td>Scott County</td>
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<td>Allen Bradford</td>
<td>Scott County</td>
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<td>Sean Jenkins</td>
<td>City of Bloomington</td>
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<td>Scott Poska</td>
<td>SRF</td>
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<tr>
<td>Paul Jung</td>
<td>MnDOT</td>
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<td>Sonja Piper</td>
<td>City of Saint Paul</td>
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<td>Allen Eisinger</td>
<td>Traffic Control Corp.</td>
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<td>Joe Gustafson</td>
<td>Washington County</td>
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<td>Nicole Flint</td>
<td>MnDOT</td>
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<tr>
<td>Mike Martin</td>
<td>Hennepin County</td>
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<td>Ray Voss</td>
<td>Hennepin County</td>
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<tr>
<td>Kevin Schwartz</td>
<td>MnDOT</td>
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<tr>
<td>Sue Zarling</td>
<td>MnDOT</td>
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I. **Remaining meeting times/locations for 2015**

May 6, 2015: (8:00-10:00am): City of Bloomington Public Works
June-August: No meetings
September 2, 2015 (8:00-10:00am): MnDOT Water’s Edge, Room 403
October 7, 2015 (8:00-10:00am): SRF – Plymouth
November 4, 2015 (8:00-10:00am): HDR – Golden Valley
December 2, 2015: **Time and location to be determined**

II. **Flashing Yellow Arrow Presentation – Matt Allwood**

The following is a summary of Matt’s presentation.

1. FYA Programming
2. Time-of-Day Operations
3. System Control Options
4. Pre-Emption
5. Detection Considerations
6. Cabinet Wiring
7. MMU Setup
8. Jerry K. commented that MnDOT does not allow a green arrow and an opposing flashing yellow arrow, and asked if any other agencies did this.
   a. Joe G. – Detector cross-switching used to keep vehicles waiting on FYA from triggering protected arrow if it’s just one vehicle.
   b. Jerry K. asked where this was covered in the programming.
   c. Kevin S. asked if there were recommendations for standard programming.
   d. Matt/Jerry/Kevin determined that cross-switching and backup protection could be used to prevent one vehicle from triggering a protected arrow.
9. Jerry K. – different FYA programming practices throughout the State. Preference within MnDOT for standard programming
10. Jerry K. also noted complaints have been received from the public regarding a head showing flashing yellow arrow with adjacent heads showing red balls.
11. Matt A. noted that no clients he knew of were using flashing yellow arrows by traffic responsive plans
12. Centracs Status Displays
    a. Can display FYA on phase arrows
    b. Displays special function disables in Map and Alarm views
13. FYA & Pre-Emption
    a. 3 Ways/Scenarios
       i. Dwell in Phases 2+6 Green and Phases 1+5 FYA

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ii. Terminate Phases (all red), Dwell in Phases 1+6, no FYA Phase 5
iii. Dwell in Phases 1+6, with FYA on Phase 5

14. Pre-Emption by TOD
a. ASC3 and Cobalt allow for rerouting preemters
b. Kevin S. – Does everyone in the region program pre-emption by TOD by remapping inputs?
c. TOD Setup – Action Plans
   i. Turn logic statements on by action plan
d. Remapping PMT Actives (Beacon)

15. Detector Considerations
a. Backup Protection by TOD
   i. Advantage – No Yellow Trap
ii. Kevin S. – Other option is to not run lagging lefts by TOD
b. Using Cross-Switching to Control Backup in Sequence
   i. Shut-off for Protected Operations by Action Plan
c. Detector Call Multiple Phases
   i. Can fix low volume traffic issues
   ii. Simplify TOD programming
d. Jerry K. – Do those in the room prefer cross-switching or call multiple phases?
e. Nick E. – If using lead/lag lefts by TOD, then you’d never get lagging lefts (under cross-switching or call multiple phases)
f. Matt A. – Fixing that requires a detailed situation/problem statement for signal techs. Once agencies get enough experience programming FYA, they can develop scripts to solve problems.

16. Permissive-Only FYA
a. Uncommon in Minnesota
b. More common in Wisconsin
c. Three-section head with Red-Yellow-FYA/Green arrow heads
d. Oregon has interim approval for Red/FYA-Yellow-Green heads
e. Jerry K. noted that back in 2006, this Committee’s recommendation was the four-section FYA head
f. Joe G. noted that he was surprised somewhat by FHWA approval of the three-section FYA head

17. Another Option – Ped Omits FYA
a. Logic statements required in controller
b. Ped call during non-green interval of PED phase causes FYA to be omitted.
c. Not installed anywhere in Minnesota. Was investigated by the City of Bloomington.
2015 Executive Committee

Katie Schmidt, P.E.
President
Alliant Engineering, Inc.
233 Park Avenue S, Suite 300
Minneapolis, MN 55415
kschmidt@alliant-inc.com

Joe Gustafson, P.E., PTOE
Vice President
Washington County
11660 Myeron Road N
Stillwater, MN 55082
joe.gustafson@co.washington.mn.us

Mike Martinez, P.E.
Secretary
HDR, Inc.
701 Xenia Avenue S, Suite 600
Minneapolis, MN 55416
michael.martinez@hdrinc.com

Scott Poska, P.E., PTOE
Treasurer
SRF Consulting Group
1 Carlson Parkway N, Suite 150
Minneapolis, MN 55447
pmorris@srfconsulting.com

Derek Nieveen, P.E.
Director
Iteris
15 South 5th St, #700
Minneapolis, MN 55402
dsn@iteris.com

Kate Miner, P.E.
Director
Carver County
11360 Hwy 212, Suite 1
Cologne, MN 55322
kminer@co.carver.mn.us

Kevin Peterson, P.E.
Director
SEH, Inc.
3535 Vadnais Center Drive
Saint Paul, MN 55110
kpeterson@sehinc.com

Mike Anderson, P.E., PTOE
Past President
Alliant Engineering, Inc.
233 Park Avenue S, Suite 300
Minneapolis, MN 55415
manderson@alliant-inc.com

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III. Round Robin
1. Jon K. – Opening for signal timing engineer at Hennepin County
2. Nick E. – Follow-up from last month: Polara makes push button with DC power.
3. Jerry K. – MnDOT Signal Timing and Coordination class June 2nd-4th
4. Kevin S. – Update on U of M study on statistical information for FYA phasing decisions.
   a. Important to remember, the study will never tell you exactly when to run protected only.
   b. Gray area depending on approach
   c. MnDOT is leaning conservatively as to when to use protected phasing.
   d. Sue Z. – That was always the intent of the study.
   e. Mike C. – A signal near the Casino in Scott County developed a crash problem after FYA installation. Now only runs FYA overnight.
   f. Kevin S. – Some traffic safety people are against FYA.
5. Joe G. – Question for group – Millerbernd used to be sole-source for signal mast arms, but now there are 2 potential suppliers in MN. Now harder to get early orders in. More effective ways to get early orders in?
   a. Scott P. – Getting bids from Valmont and Millerbernd as soon as possible has helped.
6. No further comments from group. End of round robin.
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Katie Schmidt, P.E.
President
Alliant Engineering, Inc.
233 Park Avenue S, Suite 300
Minneapolis, MN 55415
kschmidt@alliant-inc.com

Joe Gustafson, P.E., PTOE
Vice President
Washington County
11660 Myeron Road N
Stillwater, MN 55082
joe.gustafson@co.washington.mn.us

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Secretary
HDR, Inc.
701 Xenia Avenue S, Suite 600
Minneapolis, MN 55416
michael.martinez@hdrinc.com

Scott Poska, P.E., PTOE
Treasurer
SRF Consulting Group
1 Carlson Parkway N, Suite 150
Minneapolis, MN 55447
pmorris@srfconsulting.com

Derek Nieveen, P.E.
Director
Iteris
15 South 5th St, #700
Minneapolis, MN 55402
dsn@iteris.com

Kate Miner, P.E.
Director
Carver County
11360 Hwy 212, Suite 1
Cologne, MN 55322
kminer@co.carver.mn.us

Kevin Peterson, P.E.
Director
SEH, Inc.
3535 Vadnais Center Drive
Saint Paul, MN 55110
kpetersen@sehinc.com

Mike Anderson, P.E., PTOE
Past President
Alliant Engineering, Inc.
233 Park Avenue S, Suite 300
Minneapolis, MN 55415
manderson@alliant-inc.com

NEXT MEETING:

Date: Wednesday, May 6th (8:00-10:00am)

Location: City of Bloomington
Public Works Building
1700 West 98th Street
Bloomington, MN 55431

Topics: St. Paul Central Corridor Retiming Project

Presenting: JoNette Kuhnau of Kimley Horn
Brian Vitek of City of St Paul

Minutes Submitted By: Mark Wagner