University of Manitoba
Institute of Transportation Engineers
Student Chapter

TRAFFIC SIGNALS WORKSHOP PART II

This will be the second in a series of workshops on "Traffic Signal Control" hosted by the University of Manitoba Student Chapter. The first workshop, held in 2008, presented concepts and terms used in setting up and understanding simple traffic control strategies at signalized intersections. This second half-day workshop will develop further on some of the basics covered in the 2008 workshop, and will include discussions on the following topics*:

- Assessing the personality of a signalized intersection
- Determining the appropriate level of traffic signal control at an intersection
- Signal operation (fixed time vs. semi-actuated vs. fully-actuated and coordinated vs. non-coordinated)
- Methods used to sense traffic (vehicular and non-vehicular) at signalized intersections
- Accommodating pedestrians at signal controlled intersections
- Factors considered when re-developing timing and phasing plans for an existing arterial based traffic signal system
- Assigning traffic signal phases to control traffic
- Using SYNCHRO and SimTraffic as a development tool
- Using Time Space Diagrams as a design tool
- Assessing bi-directional traffic performance
- Optimizing traffic signal operation – Synchro vs. City of Winnipeg methodology
- When and where to use protected leading or lagging left-turn phasing
- Long term problems associated with fully protecting turn movements
- Overlap phasing – what it means and how it can be used
- Railroad pre-emption strategies, emergency vehicle pre-emption strategies and transit priority strategies used in Winnipeg

In-session exercises are planned to help reinforce concepts discussed.*

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Intended Audience: The topics presented in this workshop will be of interest to transportation professionals involved in traffic engineering work including traffic impact studies and projects for developers and municipalities. Attendance to the 2008 workshop is not required, but a good understanding of traffic control terms and concepts is recommended. There will be a short review of concepts presented in the first session in 2008.

The Presenter : "Jody" Morgan is the Traffic Signals Maintenance Analyst for the City of Winnipeg Traffic Signals Branch of the Public Works Department. He has over thirty years of hands-on experience with various styles of traffic signal equipment and software tools used to develop signal control strategies at intersections. During his years at the traffic signals branch, he has developed some hardware and performance specifications for traffic signal control equipment used in Winnipeg. He has reviewed many software traffic models developed by engineering consulting firms for traffic impact assessment studies. In recent years, "Jody" has been a guest lecturer at some University of Manitoba Transportation Engineering classes and is the current IMSA's Director for Manitoba.

The details of the workshop are below:

Date:	Thursday, March 4
Time:	1:00 – 4:30 p.m.
Location:	Engineering and Information Technology Complex, University of Manitoba Room E2-270 (across from the Tim Hortons)
Parking:	University of Manitoba public parking building in University Centre.
Fee:	$250 for industry members and $100 for full time students
Registration:	Registration forms can be found on our website at www.iteumanitoba.ca. e-mail completed registration form to Mathew Baranowski at umbarano@cc.umanitoba.ca by **Wednesday, February 24**

Note that space for this workshop is limited to 20 people

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