MEETING SUMMARY

Thursday, December 08, 2005
9:00 AM – 3:30 PM
Conference Room HF 701 (Kitty Hawk)
Wisconsin Department of Transportation
4802 Sheboygan Avenue
Madison, Wisconsin

ATTENDANCE ROSTER

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MEETING DISCUSSION

1. Meeting Opening

Dr. Qin welcomed everyone to the last Traffic Safety Engineering Workgroup meeting of the year and thanked everyone for their tremendous support to the TSEWG and hard work in improving Wisconsin highway safety.

2. Centerline Rumble Strip (CLRS) Effectiveness Evaluation & Next Steps

Mr. Tim Gates of the UW TOPS Laboratory provided a detailed presentation of a recently completed centerline rumble strip evaluation study on STH 142 in Kenosha County. The study was overseen by SE region traffic engineers Tom Heydel and Chris
Quesnell. The study evaluated two types of CLRS patterns: CLRS straddling the centerline and CLRS directly on the centerline. Components of the study included an analysis of before-and-after speed data and a survey of road users, residents, and business owners. The before-and-after speed data indicated the CLRS seemed to have the greatest effect on motorcycles (2 mph lower after CLRS installation) and some minor effects on passenger cars at night (1.3 mph lower after CLRS installation). All other observed changes in mean speeds were less than 1 mph. The survey concluded the majority of drivers/residents had favorable opinions. However, three primary issues deserve more consideration in the future implementation of similar safety treatments:

1. Noise (Audible from nearly every residence/business, but the nuisance-level of this noise is debatable)
2. Possible discomfort or handling problems for motorcyclists
3. Possible winter maintenance issues (e.g., holding water/ice, durability, etc.).

The survey results interested many of the group members. Ron, Pat, Dennis, etc. all expressed their opinions towards the survey questions, samples and the responses.

The study provides the following overall conclusions:

- Except for motorcycles, CLRS did not have a consistent, significant impact on vehicular speeds (2.0 mph reductions for motorcycles)
- No substantial driving problems upon contacting the CLRS
- Noise was an issue for some residents
- No substantial safety issues so far

The discussion within the TSEWG suggests further study is necessary to assist engineers to better understand the CLRS overall safety benefits as well as the impact on driver behavior. For example, the new tasks may include monitoring retroreflectivity of the CLRS, especially during the wet night conditions; a measure of vehicular lateral placement to observe the driver behavior and follow up before-and-after crash analysis.

3. SAFETEA-LU, Key Safety Provisions

The passage of the new transportation bill: Safety, Accountable, Flexible, Efficient Transportation Equity Act: a Legacy for Users (SAFETY-LU) highlights the importance of the highway safety and provides significant opportunities and financial support to implement highway safety improvement projects. Bill Bremer from FHWA gave a presentation of the new transportation bill with the emphasis on some key safety provisions. For example, the Highway Safety Improvement Program (HSIP) is positioned the same level as CMAQ, STP and TIP instead of a program in the STP. SAFETEA-LU almost doubles TEA-21 safety apportionment. A Strategic Highway Safety Plan is required in order to apply for federal safety improvement funds. New HSIP reporting requirements will result in data-driven and quantitative funding decisions. More flexibility is available in spending the safety funds. Some specific programs such as Railway Highway Crossings, High Risk Rural Roads and Safe Routes to School have “Set Aside” funding. The details of the presentation are available at http://www.topslab.wisc.edu/workgroups/trafficsafety.htm

4. Strategic Highway Safety Plan Peer Exchange Workshop & 05-07 WisDOT Strategic Highway Safety Plan Engineering Components Update
Phil DeCabooter (DTSD) reported on a National Strategic Highway Safety Plan Peer Exchange Workshop in Phoenix which he attended with other Wisconsin representatives: Dennis Hughes (DSP), Mike Schumacher (DTIM) and Bill Bremer (FHWA). Five working sessions were held at the workshop:

- Overview/Fed Perspective
- SHSP Leadership and Management
- Data Elements and Analysis
- Planning and Funding
- Implementation and Institutionalization

The closeout comments regarding the five sessions included:

- Need top level support
- Set up a core safety group to keep issues visible
- Everything should be data driven
- Leverage resources
- Streamline processes
- Think outside the box (but the money’s inside the box)
- Top management needs patience
- Creative funding
- Performance measures
- Stress importance of good data to everyone
- Planning and funding partnerships
- Need Federal guidance

In response to the federal requirement of developing a statewide Strategic Highway Safety Plan (SHSP), Phil suggested to form a DTSD SHSP working group to draft the engineering elements in the plan and it was approved by the TSEWG. The SHSP working group members includes Phil, Dick, Pat, Graham, Tom, Peter, Xiao and other voluntary regional traffic engineers.

5. Roles & Resources in Developing Regional Intersection Safety Plans

As a follow-up to the last TSEWG agenda item, Graham Heitz of BHO facilitated the discussion regarding development of a regional intersection safety countermeasures plan. The discussion focused on roles, responsibilities and available resources, staffing in the plan development and implementation at the regional level. The meeting attendees reached the consensus the UW TOPS Laboratory will serve as an important support resource. Also, the regional traffic engineers are interested in testing the Intersection Safety Evaluation Tool (ISET) which will assist engineers in identifying the intersections with potential traffic safety problems by comparing crash statistics with the state average. Jack expressed his concern of preparing for the input dataset. Dick indicated the UW TOPS Laboratory would investigate convenient methods to format the intersection crash data.

6. Signalized Intersection Safety Report

Dick Lange gave a quick update of the latest status of the Intersection Safety Evaluation Tool (ISET). A draft version of ISET was submitted to Dick Lange for review in October, and a meeting was held in early November to discuss suggested improvements. During November the UW TOPS Laboratory worked on addressing the improvements suggested by Dick Lange. On November 16, a demonstration was held on the UW campus. On November 28, 2005 the updated version of ISET (responding to the
comments from the demo) was resubmitted to Dick Lange for limited DOT distribution and appropriate beta testing for debugging and comments. After a reasonable time period (e.g., one month), TOPS staff will then update ISET (early in 2006) for final distribution to those individuals and/or groups identified by DOT.

7. WisDOT Traffic Safety Engineering Program Concept

John Corbin proposed a traffic safety engineering annual program concept to the TSEWG. The annual cycle connects a series of activities, ranging from data collection, engineering analysis, performance measures, reporting, programming and planning. The schema of the concept is provided below.

8. Statewide Speed Zone & Management Guide Development and Speed Data Collection

Dr Qin presented a proposal for a “Statewide Speed Zone & Management and Speed Data Collection Guide Development” project. He also provided a review of the existing speed data collection practices in a matrix format with different speed data collection technologies, pros and cons, available market products and vendors. The matrix helps WisDOT engineers identify what speed data collection technologies and products may be of interest for further evaluation by WisDOT and what staffing considerations limit effective speed data collection, and what alternate approaches might be feasible. By talking to the regional traffic engineers, the TSEWG realized most regions use laser radar to collect the speed data. Some collect speed data regularly and some rarely collect information.

The scope of the proposal included the following main components:

- Review Existing Wisconsin Speed Zone Documents
- Speed Zoning Alternatives Analysis
- Develop Wisconsin Speed Zone Guidelines
Training and Outreach

9. NHI Safety Training “New Approaches to Highway Safety Analysis”

FHWA offers a free NHI safety training course to Wisconsin as an opportunity state. The meeting attendees discussed the possible training materials, contents, case studies of Wisconsin crash facts, training time, location and participation.

10. TSEWG Survey Results

To celebrate the TSEWG one-year birthday, an online survey was conducted to the group members regarding their opinions and suggestions for improvement. General comments were very positive; an average of 4 out of 5 was given to the group in the past year. Members also promised to participate regularly and more in group meetings and discussion. Several valuable recommendations have been taken to improve the efficiency and effectiveness of the work group operation.

11. TSEWG Action Plan Status

At the TSEWG formative meeting one year ago, the group members developed a TSEWG Year-one Action Plan where near-term action issues are listed. Under the effort of the group members, great achievements have been made over the past year. Dr. Qin reviewed the progress of the TSEWG Action Plan with the whole group. The status of the plan was updated as follows.

Intersection Safety Countermeasures
- Complete the intersection data collection from all the districts (Completed)
- Complete the 2001-2003 crash data updates (Completed)
- Complete the filters in the format of queries and report tables (Beta Testing Stage)
- Develop the Regional Intersection Safety Countermeasures Plan (To be developed)
- AAA RIDP Media & Project kickoff (Completed)

Run-Off-The-Road (ROR) Crash Countermeasures
- Complete SOW / HES Application for ROR Crash Countermeasure Work Order (Under Development)

Traffic Safety Engineering Data Management
- Local crash location mapping pilot project (On-going)
- Discussion with DTD Viewer developer to find out more information (TBD)

Work Zone Management and Safety
- Hold Spring 2005 WZMS Promotional Event in conjunction with Work Zone Safety Week (completed)
- Site selection (completed)
- The completion of the draft Wisconsin Work Zone Safety Strategic Plan (completed)
- WZMS Speed Monitoring and Evaluation Project (On-going)
- Develop processes for consistently engaging work zone community (TBD)

Road Weather Safety
- Report research results to the group (On-going)
- Share the study with either TSEWG or RWSTF (On-going)
- Develop array of countermeasures that could be tested on a pilot basis (On-going)
12. Peer Exchange and Information Sharing
The new peer exchange and information sharing agenda item has been added recently to meet the needs of the TSEWG members. Several topics where shared with the group:

- Graham Heitz shared his opinion of the Iowa 4-lane to 3-lane conversion. Other traffic engineers mentioned a couple of similar studies such as one in Colby conducted by Professor Keith Knapp.
- A newly published report by Mn/DOT regarding the safety effectiveness of high speed expressway signals raised concern from Graham and other traffic signal engineers. These practices could be beneficial to Wisconsin if applied appropriately.
- The Median Crossovee Crash Study remains to be a hot topic and a series of follow up discussions and actions were shared by Pat Fleming and Jerry Zogg.
- Scott Nelson brought up two concerns. One was actually highlighted by the a local media as “Bybass danger driving home more concerns”. Scott expressed the SE Region’s safety concerns with newly opened bypasses with just two lane highways. He also questioned typical 4 legged (2-way stop) intersections - Safety benefits/concerns of aligning left turn lanes vs. typical Type A or B intersections.

14. Next Meeting
The next TSEWG meeting is tentatively scheduled for Thursday, March 23, 9am-3pm, Location, TBD.

Addional information on meetings and other safety engineering issues is located at the TSEWG website: http://www.topslab.wisc.edu/resources/trafficsafety.htm