HIGHWAYS SUBCOMMITTEE ON TRAFFIC ENGINEERING

Officers
- Chair     Del McOmie, Chief Engineer, Wyoming Department of Transportation
- Vice Chair Tom Hicks, Director, Traffic and Safety, Maryland State Highway Administration
- Secretary  Mark Kehrli, Director of Transportation Operations, FHWA
- AASHTO Liaison Ken Kobetsky, Program Director, Engineering

Proposed Schedule
Plans for 2010-2011 include continuing work with the NCUTCD, including the mid-year meeting in January, summer meeting in June, and proposed changes to the MUTCD.

The five Technical Committees have the following work plans:

Work Zone
The following items are those now being considered by the SCOTE Work Zone Technical Team for advancing safety and mobility in the work zone. It is expected that these items will be pursued by the Team working closely with other AASHTO Committees and Subcommittees, partner associations, and US DOT, particularly FHWA.

- Recognition of the role of planning, design, construction, operations, maintenance in work zone strategy development and execution.
- Determination of knowledge gaps through self-assessment, performance measurements, and consultation with others.
- Support of field testing of strategies and traffic control methods.
- Continue to develop listings of successful practices (Guidebook).
- Review and apply results from the 2010 Work Zone Domestic Scan.
- Continue to develop needed training initiatives with ATSSA and others.
- Develop follow-up comments to the recently published 2009 MUTCD.
- Explore opportunities for changing driver performance/behavior in the work zone.
- Review and consider the experience of states that have applied work zone automated enforcement strategies.
- Continue discussions on the application of the FHWA Final Rules on Work Zone development and deployment activities.
- Enhance the application of ITS technologies in the work zone.
- Discuss the role of law enforcement in the work zone.
- Discuss the role of public relations and community communications in the work zone.
- Review project contract documents for applicability in today’s highway transportation environment.
- Revisit short-term and mobile work zone operations – traffic control strategies and devices.
- Review compliance with SCOH Strategic Plan for meeting safety and mobility goals.
- Enhance communications and working relationships with other AASHTO Committees and Subcommittees.
- Enhance communications and working relationships with partner agencies and associations for work zone safety and mobility matters.

The following five areas of particular importance to the Work Zone Technical Team and to SCOTE:

- Identify and facilitate use of emerging research technologies, materials, processes, and program.
- Promote accountability through performance-based management.
- Significantly reduce crashes in work zones.
- Explore feasibility of demonstration projects using ITS technologies for work zone traffic management; adaptive/responsive systems.
- Work hand-in-hand with AASHTO committees/subcommittees, outside partners, and SCOTE Technical Teams.

Signing and Marking
The SCOTE Signing and Marking Technical Team met in Manchester, New Hampshire on June 16, 2009.

Accomplishments in 2009 and items discussed included:

- Completion of an informational pamphlet “Are Your Signs Working for You?”
- Airport Way finding.
- NPA items in the soon-to-be-issued MUTCD.
- Digital billboards as a driver distraction.
• Methods for meeting sign retro-reflectivity requirements.
• Use of colored pavements.
• Methods to address WRONG WAY crashes.
• Letter height on Changeable Message Signs (“blooming” – pixel LED’s versus physical measure).
• Update of “Guidelines for Installation of Supplemental Guide Signs Adjacent to the Interstate”.
• Combining real-time data with guide signs
• Ways to combine the efforts to address issues of SCOTE and SSOM

Work Plan for 2010-2011

• Distribute the “Are Your Signs Working For You?” to practitioners by working with AASHTO Headquarters.
  o **Note:** This activity also fits the AASHTO Strategic Plan (AASHTO-SP) goal to communicate standards.
• Explore Project 20-7(11) “Use of Colored Pavements for Special Use and/or Users.” This will require the team to work closely with the Markings Committee of the NCUTCD, and will begin in June 2010.
  o **Note:** This item applied to AASHTO-SP goal to reduce congestion through improvements to multi-modal transportation systems.
• Work with FHWA and NCUTCD Technical Committees on Airport Way finding uniformity efforts.
  o **Note:** This activity also addresses communication of standards.
• Continue to investigate the various aspects of driver distraction including digital billboards and other graphic displays.
• Examine and report on how states are addressing wrong-way maneuvers on freeways.
  o **Note:** These efforts are related to the overriding goal to reduce fatalities and injuries on our highways.
• Collect the information and report on how states are complying with the retro-reflectivity requirements for signing.
• Explore the use of travel time data on dynamic guide signs.
  o **Note:** This applies to AASHTO-SP goals of utilizing technology and addressing congestion through its use.
• Continue to work closely with the NCUTCD on issues related to both signs and markings in the 2009 edition of the MUTCD.

Traffic Design, Regulation and Management

• **Automated Enforcement.** The technical team will continue discussions concerning the issues of automated enforcement. The team identified the need for a guideline or a best practices report to specify standards that should be used in red light running applications. An NCHRP synthesis is presently underway that may provide the information necessary to accomplish this need. The team will monitor the progress of this synthesis and will evaluate it when completed.
• **Bicycle Guideline.** The technical team will monitor the development of the Bicycle guideline and will report any issues to SCOTE - and a recommendation for subcommittee approval.
• **Speed Operational Issues.** A technical team member will review the latest research on the issue of design versus operational speed and will report to the team at the next annual meeting. Distribution of information to the SCOTE committee on this subject will be made when appropriate.
• **Driver’s Handbook.** The team will review the material developed for State Driver’s Manuals on the subjects of Older Drivers, Trucks, Work Zones, Bicycles, and ITS as part of NCHRP 20-07 Task 212. The final write-ups will be presented to the SCOTE committee.
• **Roundabout Design Issues.** A review of existing state programs regarding the criteria used for selecting a roundabout over a traffic signal will be conducted along with a review of the revised guideline to be issued by FHWA. A report of the findings will be presented to the SCOTEC committee.
• **Congestion Mitigation Strategies.** A review of the use of adaptive signal systems to improve congestion on traffic arteries will be conducted. The use of these systems appears to have great potential to improve congestion and to reduce gas consumption. There is an NCHRP synthesis beginning on this subject and could provide the information desired. Ed Fisher (Oregon) will represent the technical team on the panel for this synthesis. Information from this synthesis will be discussed by the task force and information will be distributed to the SCOTE committee.

Traffic Signals and Roadway Lighting

**Status and Work Plan**

• The SCOTEC Traffic Signal Technical Team has two active NCHRP 20-7 projects that we are providing oversight and guidance on:
  o NCHRP 20-7/Task 271 – Graphic Traffic Signal Design Aid based on the MUTCD. The contractor (University of Idaho) has developed templates and is currently incorporating materials from the 2009 MUTCD. We hope
to have a prototype prior to the June meeting.

- **NHRP 20-7/Task 283 – Evaluation of Flashing Yellow (FYA) Permissive Left Turn in Shared Left Turn in Shared Yellow Signal Sections.** The Contractor (University of Wisconsin) has sent in responses to questions from the technical team. The contract is being finalized and work is anticipated to begin around June 2010.

- The Traffic Signal Team will continue for the next one-two years to provide input, guidance, and oversight on these two projects to bring them to completion.

  - Our work plan for the June 2010 meeting will be to evaluate the status, discuss, and provide input as needed. We will also update the SCOTE members as to the status and progress.

**Safety and Security**

- Perform literature search, survey of states on emerging safety treatments including rumble stripes and strips, median barrier, special curve warning treatments, recovery area methods and advance warning for *end of green* (flashing indication).

- Continue to liaison with leadership of the Highway Safety Subcommittee to determine roles and possible joint meeting.

**Upcoming Meetings**

June 2010, Chicago, IL
June 2011, Boise, ID