

SAFETY MEGA ISSUE

**FOR
ITE INTERNATIONAL BOARD OF DIRECTION REVIEW
October 20, 2004**

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White Paper 1: FRAMING THE ISSUE: TRANSPORTATION SAFETY

INTRODUCTION

At the ITE Executive Committee/Senior Staff retreat in April 2004, a recommendation emerged that ITE should consider “Safety” as a Mega Issue. Defining safety as a mega-issue means that ITE will devote a significant element of our annual work program to safety issues. Many ITE members are “doing safety” as part of the job responsibilities. ITE International and the ITE Districts, Sections and Chapters have had programs, resources and publications with safety content since ITE was established in 1930. A large part of a Professional Traffic Operations Engineer’s (PTOE) job is to explicitly consider safety in the planning, engineering design, operation and maintenance of surface transportation facilities.

So what does it mean that ITE is prioritizing “Safety” as a Mega Issue? It means that our IBOD will select a number of priority areas within the Safety discipline where our resources will be targeted. Resources are defined here as staff, volunteer and dollars. In accordance with the Knowledge-Based approach for managing organizations, ITE cannot and should not be doing everything with regard to safety. Many organizations are “doing safety” activities. There is duplication and overlapping responsibilities within the transportation safety profession. ITE’s task is to find that niche, to find that slice of “safety” where we as a professional organization can contribute the most and have the most positive impact on our members and to society.

In addition to this White Paper, Framing the Issue: Transportation Safety, four additional White Papers are included in this information packet as follows:

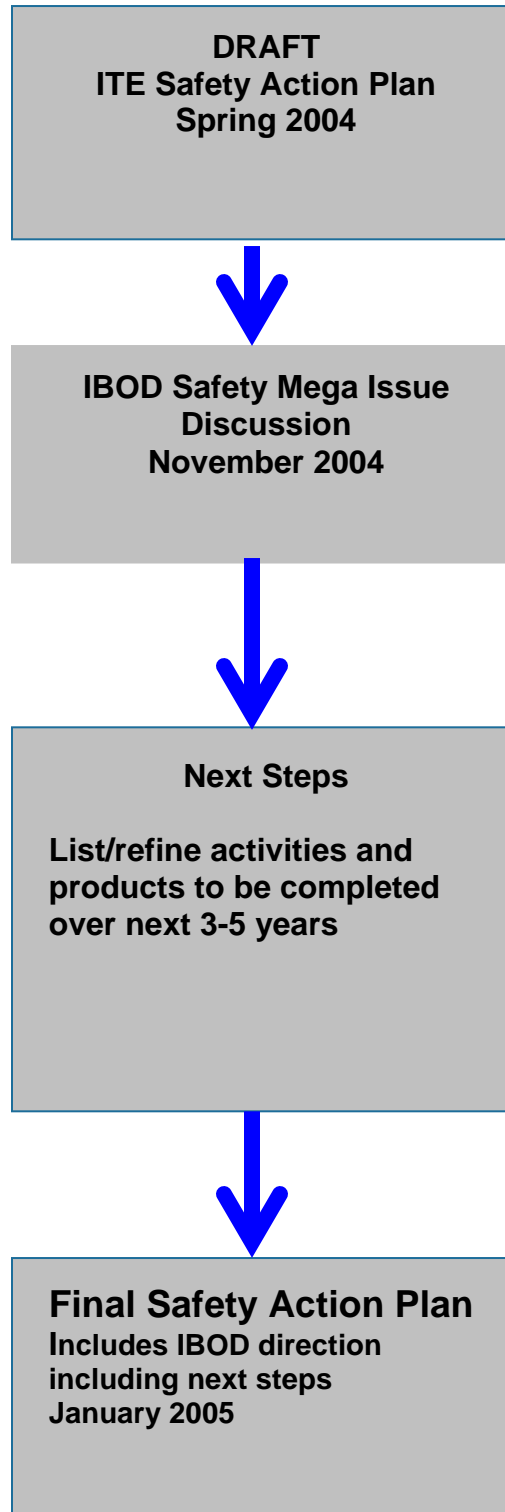
- White Paper 2: Intersection Safety
- White Paper 3: Pedestrian Bicycle Safety
- White Paper 4: Special User Safety
- White Paper 5: Speed Management

At the beginning of the IBOD Meeting, you will receive a notebook with supplemental information. Please place these White Papers in **Section 1** of the Notebook. The other sections of the Notebook will contain information germane to the Safety Mega Issue discussion.

SETTING THE COURSE

This White Paper is intended to provide a number of alternative directions for ITE to pursue within the safety discipline. **Figure 1, *Moving Ahead on the Safety Mega Issue***, shows the process and timeline of how ITE will develop and implement our Safety Action Plan (SAP). We are starting with a Draft SAP that was developed in Spring 2004 (included in **Section 2** of your Briefing Book). Today, the IBOD will consider and provide direction on the issues and opportunities embodied in the Safety Mega Issue. Once the IBOD provides ITE staff with the direction that we will pursue within the Safety discipline, we will include that direction in and make revisions to the Draft SAP. Once the SAP is completed, ITE staff and the TSC will jointly develop a three to five year “Roadmap”. The SAP then becomes the overarching document with regard to safety within ITE. It should not need to be updated frequently. Updates to the Roadmap would be completed annually and will have an annual work program element. The Roadmap will be all-inclusive: it will include ITE Headquarters activities, Council initiated activities, as well as efforts planned by our Districts, Sections and Chapters relative to Safety. Since ITE will be implementing the Knowledge-Based decision-making processes, we will always include (as an Appendix to the Roadmap) a table that identifies the efforts and products of other organizations.

**FIGURE 1
MOVING AHEAD ON THE SAFETY MEGA ISSUE**



IBOD Safety Policies

ITE has a series of safety-related IBOD policies. These policies are included in **Section 3** of your Briefing Book. As you review these policies, consider whether these policies represent the totality of safety-related policies that ITE needs to have and any revisions to existing policies might be required.

WHY SELECT SAFETY AS A MEGA ISSUE?

Global Traffic Safety

For the first time in the history of the World Health Organization, World Health Day was devoted to road safety. The slogan for the day was "Road Safety is No Accident." The global event was celebrated on 7 April 2004 in Paris, France. The event was hosted by President Jacques Chirac of France, who delivered a powerful keynote speech calling road traffic collisions an "evil, which strikes at the modern world". He stressed the need for political commitment to road safety at the highest level and called for action by all countries to address this crisis.

Road traffic injuries are a major but neglected public health challenge that requires concerted efforts for effective and sustainable prevention. Of all the systems with which people have to deal every day, road traffic systems are the most complex and the most dangerous. Worldwide, an estimated **1.2 million people** are killed in road crashes each year and as many as **50 million** are injured. Projections indicate that these figures will increase by about 65% over the next 20 years unless there is new commitment to prevention. Nevertheless, the tragedy behind these figures attracts less mass media attention than other, less frequent types of tragedy.

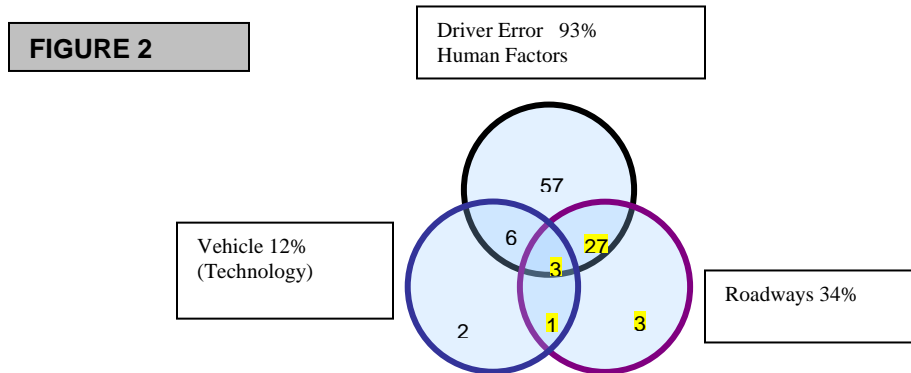
US Traffic Safety

In 2003, the fatality rate per 100 million vehicle miles of travel fell to a new historic low of 1.48. The 1993 rate was 1.75 per 100 million vehicle miles traveled. In 2003, 42,643 people were killed in an estimated 6.3 million police-reported crashes; almost 2.9 million people were injured and over 4.3 million crashes involved property damage only. In the year 2000, NHTSA calculated the economic cost alone of motor vehicle crashes of \$231 billion. Here are a few 2003 statistics:

- An average of 117 persons died each day in motor vehicle crashes—one every 12 minutes.
- Motor vehicle crashes are the leading cause of death for every age from 2 to 33 years old.
- Speeding is one of the most prevalent factors contributing to traffic crashes. Speeding was a contributing factor in 31 percent of all fatal crashes, and 13,380 lives were lost in speeding-related crashes.
- Older people made up 12 percent of all traffic fatalities and 16 percent of all pedestrian fatalities.
- 70,000 pedestrians were injured and 4,749 were killed in traffic crashes in the US, representing 2 percent of all of the people injured in traffic crashes and 11 percent of all fatalities.

The Transportation Engineering Profession

As shown in **Figure 2**, when vehicular crash causes are considered in combination with each other, we find that 93% of the crashes involve driver error, 34% involve roadway features, and 12% involve vehicle malfunctions. Vehicles are quite well designed and unlikely to fail in operation. Roadways are not perfect, but most are generally design-standard compliant or safe in design. Drivers make mistakes in making decisions every few blocks. Mistakes include: imprudent driving, illegal maneuvers, poor judgment and loss of control. Engineers can design and operate roadways taking into account the interface between the driver and the roadway and between the roadway and the vehicle (technology). The engineering profession can in some way impact about one-third of all vehicular crashes.



WHO IS DOING WHAT?

AASHTO Strategic Highway Safety Plan

In late 1996 and early 1997, the AASHTO Standing Committee for Highway Traffic Safety assembled a group of national safety experts on driver, vehicle, and highway issues. The purpose of the gathering was to develop a strategic plan for highway safety that would impact the nation's present and predicted statistics on vehicle-related deaths and injuries. The participants included a range of stakeholders representing both private and public sectors. The result of the meeting was a comprehensive Strategic Highway Safety Plan (SHSP) with a goal to reduce the annual number of highway deaths by 5,000 to 7,000 and to do so effectively and in a manner acceptable to the general public.

The top strategies are divided into 22 key goals or emphasis areas. The SHSP is further divided into six elements:

- Drivers
 - Goal 1: Instituting graduated licensing for young drivers
 - Goal 2: Ensuring drivers are fully licensed and competent
 - Goal 3: Sustaining proficiency in older drivers
 - Goal 4: Curbing aggressive driving
 - Goal 5: Reducing impaired driving
 - Goal 6: Keeping drivers alert
 - Goal 7: Increasing driver safety awareness
 - Goal 8: Increasing seatbelt usage and improving airbag awareness
- Special Users/Non-motorized
 - Goal 9: Making walking and street crossing safer
 - Goal 10: Ensuring safer bicycle travel
- Vehicles
 - Goal 11: Improving motorcycle safety and increasing motorcycle awareness
 - Goal 12: Making truck travel safer
 - Goal 13: Increasing safety enhancements in vehicles

- Highways
 - Goal 14: Reducing vehicle-train crashes
 - Goal 15: Keeping vehicles on the roadway
 - Goal 16: Minimizing the consequences of leaving the road
 - Goal 17: Improving the design and operation of highway intersections
 - Goal 18: Reducing head-on and across-median crashes
 - Goal 19: Designing safer work zones
- Emergency Medical Services
 - Goal 20: Enhancing emergency medical capabilities to increase survivability
- Management
 - Goal 21: Improving information and decision support systems
 - Goal 22: Creating more effective processes and safety management systems

Implementation of the SHSP involves a two-pronged effort: (1) Widespread, timely utilization of those strategies with a proven history of effectiveness and (2) Establishment of model development and demonstration efforts in emerging safety categories. The SHSP is being implemented through Federal funds, with some cost sharing by the states and private sector. Currently, a series of implementation guides are being developed to assist state and local agencies in reducing injuries and fatalities in targeted emphasis areas. **Table 1** identifies the guides that have been completed and those that are in preparation. The published guides are designated as specific volumes of NCHRP Report 500. Each guide corresponds to all or part of one of the emphasis areas in the SHSP. The 13 guides that have already been published are available through an AASHTO web site (<http://safety.transportation.org/about.aspx>). Additional guides will be published in the near future.

Table 1: Implementation Guides for the AASHTO Strategic Highway Safety Plan

Published guides	In preparation
<ul style="list-style-type: none"> • Aggressive Driving • Unlicensed Drivers/Suspended and Revoked Licenses • Trees in Hazardous Locations • Unsignalized Intersections • Head-on Accidents • Run-off-road Accidents • Older Drivers • Safety Belts • Heavy Trucks • Pedestrians • Horizontal Curves • Utility Poles • Signalized Intersections 	<ul style="list-style-type: none"> • Motorcyclists • Work Zones • Rural EMS • Distracted/Fatigued Drivers • Alcohol • Bicycles • Younger Drivers • Head-on Crashes on Freeways • Data Needs, Sources, and Analysis

NOTE: These guides constitute individual volumes of the NCHRP Report 500 series.

NCHRP Report 501, *Integrated Management Process to Reduce Highway Injuries and Fatalities Statewide*, has also been developed in conjunction with the SHSP. This document provides an overall framework for coordinating a safety program. The integrated management process comprises the necessary steps for advancing from crash data to integrated action plans. This report, together with the implementation guides, provides a comprehensive set of tools for managing a coordinated highway safety program.

An implementation process using the published guides is now underway. Lead states have been identified for the first six published guides listed in the table, with 2 to 16 states developing

implementation programs for each guide. In addition, a number of states are developing comprehensive highway safety plans using NCHRP Report 501 as a guide.

FOCUS AREAS WITHIN THE SAFETY MEGA ISSUE

ITE staff recommends that ITE IBOD consider adopting the following subtopic areas within the Safety Mega Issue:

1. Intersection Safety

- a. Traffic Control
 - i. Signalized
 - 1. Red Light Running/Automated Enforcement
 - ii. Unsignalized
 - iii. Roundabouts
 - iv. Highway-Rail Grade Crossings
- b. Data
 - i. Accident Prediction
 - ii. Countermeasures
- c. Access Management
- d. Geometric Design
- e. Safety Audits
- f. Technology/ITS/Intersection Collision Avoidance Systems

2. Pedestrian Bicycle Safety

3. Special User Safety

- a. Older Drivers/Pedestrians
- b. ADA/Accessibility/Safety
- c. Schools

4. Speed Management

- a. All levels, Arterials
- b. Aggressive Driving
- c. Residential Traffic Calming

Think about the above focus areas. Are these the core focus areas within the realm of surface transportation safety that ITE should be targeting?

WHAT DOES IT MEAN WHEN THE IBOD ADOPTS THE ABOVE FOCUS AREAS?

Adoption of the focus areas provides direction on the future focus for ITE's technical activities. Equally important is the absence of specific activities on this list. The non-inclusion of a topic on our list does not mean that ITE will eliminate issues from discussions, publications, newsletters, meeting and conference sessions and DSC activities. The ITE members themselves will continue to shape, define and refine the list of target issues. The Knowledge-Based approach allows ITE to set an Agenda and to establish a rational plan for the utilization of staff, volunteers and dollars.

WHAT ROLE DOES ITE TAKE WITHIN EACH FOCUS AREA?

Once we have identified the focus areas within the Safety Mega Issue, our next task is to define the role that ITE should play vis-à-vis the totality of organizations that are working on surface transportation safety. Think about the following possible roles that ITE might play within each focus area: (1) Preferred content provider; (2) Training and professional development; (3) Convener; (4) Advocate; and (5) Clearinghouse. Are there additional roles that ITE might play for various technical activities?

Within each focus area of the Safety Mega Issue, ITE staff will propose the role(s) that our organization might play. IBOD members should consider ITE staff's proposed role(s) and modify them based on your knowledge of our membership's needs and the extent to which ITE wants to take a leadership role within a particular issue.

WHAT DO WE KNOW ABOUT THE CAPACITY AND STRATEGIC POSITION OF ITE AS RELATED TO PB SAFETY?

Capacity Assessment

ITE's organizational structure incorporates the following:

1. A Pedestrian-Bicycle Council (PBC). The PBC has an Executive Committee committed to producing products for the Institute. Lisa Fontana is the staff liaison to the PBC.
2. A Transportation Safety Council (TSC). The TSC has an Executive Committee committed to producing products for the Institute. Ed Stollof is the staff liaison to the TSC.
3. An Accessible Intersection Committee (AIC). Ed Stollof is the staff liaison to the AIC.
4. ITE's Public Agency Council members many of whom have pedestrian-bicycle safety objectives to meet and capital and operating projects to implement.
5. ITE distribution channels (e.g., ITEJ, Web, Districts, Sections and Chapters, Newsletters, Conference Sessions, List Serves)

WHAT CAN ITE **MEMBERS** BE BEST AT, GIVEN OUR CAPACITY OF KNOWLEDGE AND RESOURCES?

- 1 Training. Many of ITE's members are both educators and practitioners. This combination of education and experience can provide a real world orientation to professional development activities such as seminars and workshops.
- 2 Members volunteer their time to critique ITE initiatives (e.g. serve as a reviewer either on an Informational Report or Recommended Practice panel or in a working group for other ITE products.
- 3 Members to serve as a conference participant, presenter, moderator and/or writer of articles and papers.
- 4 Representation on NCHRP Panels.
- 5 Gain results in the field and implement projects.
- 6 Advocate and gain funding support for tools, technologies and countermeasures to reduce fatalities, injuries and property damage only crashes.

WHAT CAN *ITE HQ* BE BEST AT, GIVEN OUR CAPACITY OF KNOWLEDGE AND RESOURCES?

1. Host workshops, seminars and Webinars. Sponsor joint workshops with other organizations.
2. Provider of training and professional development.
3. Serve as a convener.
4. Facilitate the development of information briefing sheets, informational reports and recommended practices.
5. Represent ITE on NCHRP Panels.
6. Disseminate Information.
7. Motivate members to take certain actions; we can provide materials for implementation support.

SAFETY MEGA ISSUE SUB-TOPIC WHITE PAPERS

White Papers have been completed for the following topics:

- Intersection Safety
- Pedestrian Bicycle Safety
- Special User Safety
- Speed Management

These white papers are provided on the following pages.

White Paper 2

INTERSECTION SAFETY

MAGNITUDE OF THE ISSUE

1. The entire set of Intersection Safety Briefing Sheets are included in **Section 4** of your Briefing Book.
2. See NHTSA's Traffic Safety Facts 2003- Overview in **Section 5** of your Briefing Book.
3. Selected pages of the *National Agenda for Intersection Safety* are included in **Section 6** of your Briefing Book.

CONTINUING AND EMERGING ISSUES

Within the Intersection Safety topic area, the following target issues have been identified as having a high importance for ITE.

- Traffic Control (e.g. signalized, unsignalized, roundabouts)
- Enforcement (red light running/automated enforcement)
- Highway-Rail Grade Crossings
- Work Zones
- Data
- Analysis (countermeasures and accident prediction)
- Geometric Design
- Access Management
- Safety Audits
- Implementation (technology/intersection collision avoidance systems)

CURRENT REALITIES AND EVOLVING DYNAMICS

Emerging Issues and Industry Trends

Who is doing what?

The Knowledge-Based resource allocation process requires that an inventory of available activities within a discipline be conducted. We must first know what is happening within our universe. Once we know this information, we can assess any gaps and attempt to align ITE's strategic priorities and resources with future needs. A table that lists "who is doing what" has been completed and is included in **Appendix 1**. For each product, the lead roles of key organizations are highlighted.

Section 7 of your Safety Briefing Book includes the table of contents and summaries of the following pertinent SHSP Guidance Documents: *Volume 5: A Guide for Addressing Unsignalized Intersection Collisions* and *Volume 12: A Guide for Reducing Collisions at Signalized Intersections*.

WHAT DO WE KNOW ABOUT OUR MEMBERS' NEEDS, WANTS AND PREFERENCES?

- In one way or another (either as a public agency employee or as a consultant), many ITE members must respond to city councils, mayors, county boards of commissioners, governors and other elected and appointed officials relative to major crashes, injuries and loss of lives at intersections.

- Loss of life at an intersection (and for all roadways) is usually a big press event. The media reports on intersections and their associated traffic and safety problems and many times there is a public outcry to “fix the problem”.
- Intersection improvements must be cost-effective. They must reduce or solve crash problems with the least amount of resources and concomitantly, have the greatest benefit. If a “fix” is within the engineering domain, then our members need to do something about it. If a “fix” is not within the engineering domain, then our members need to work with representatives of other disciplines to collectively solve the problems.
- Our members have limited resources both from staffing and dollars standpoints.
- Many times competing objectives with providing safety at an intersection must be considered including operational capacity (level of service), economic development or historic and environmental objectives.

OPTIONS

What do we want to have the most influence on?

1. Saving lives. Reducing intersection injuries, fatalities and property damage only crashes.
2. Making communities sustainable and livable. Intersection safety is one part of providing a livable community.
3. Design, construction, operation and maintenance of intersections FOR SAFETY for all user groups.

What do we NOT want to do?

1. We should have a secondary focus on non-junction/non intersection safety. Let other sister organizations (e.g. AASHTO, APWA and NACE for example) take the primary lead on safety related to run-off-the road crashes, safety on interstate highways, deer crashes, etc.
2. Do not conduct basic research similar to NCHRP/TCRP projects. However, ITE wants to be on the panels and the working groups established to guide the direction and outcomes of these projects. Being on the panels will help us understand the content of the research and the extent to which concomitant training and workshops would be beneficial to our members.

What are the most critical choices and roles for ITE to focus on, with respect to Intersection Safety?

1. Develop specific crash reduction goals.
2. Consider the needs of all users.
3. Disseminate information and best practices.
4. Conduct training and professional development. Use TRB/NCHRP and other content provided by others in the public domain to provide training subsequent to a publication's release.
5. Function as a convener; an organization that can get all of the parties together in the development of partnerships that span the 5 E's: Engineering, Education, Enforcement, Emergency Management, and Environment.
6. Conduct continuous joint outreach activities with our safety partners.

7. Assist our members to implement actions to effect reductions in crashes, injuries and fatalities. In two words, to save lives.
8. Recognize jurisdictions that have achieved fatality and injury reduction goals.

WHAT ARE THE ETHICAL IMPLICATIONS OF OUR CHOICES?

ITE primary focus will be on intersections with a secondary focus on road segments. *What part of our constituency will be affected by this direction?*

White Paper 3: Pedestrian-Bicycle Safety

CURRENT REALITIES AND EVOLVING DYNAMICS

United States Pedestrian Safety Trends

The goal of the Federal Highway Administration (FHWA) is to continually improve highway safety by reducing pedestrian crashes, fatalities and injuries by 10 percent by the year 2008, saving 465 lives. Doing so helps us achieve our overall goal of reducing roadway related fatalities from 1.5 per 100 million vehicle miles traveled (MVMT) to 1.0 per 100 MVMT by the year 2008. Pedestrian fatalities account for about 11 percent of all traffic fatalities and is one of the "Vital Few" focus areas of the FHWA's Safety Office. It is not acceptable that close to 5,000 pedestrians are killed in traffic every year, that people with disabilities cannot travel without encountering barriers, and that a desirable and efficient mode of travel has been made difficult and uncomfortable. The need to reduce pedestrian deaths and injuries and concurrent efforts to increase levels of walking, continues to be an important goal for the engineering profession. Specific groups that do not or cannot drive primarily depend on walking for transportation, including children, the elderly and low-income populations. These groups are particularly in need of a safe walking environment.

Emerging Issues and Industry Trends

US Department of Transportation

1. The Federal Government (FHWA, Office of Safety; Turner Fairbanks Highway Research Center; and NHTSA) is a key sponsor of pedestrian and bicycle safety projects (PBSP). The federal government not only funds pedestrian and bicycle safety projects, they also have dedicated staff to implement national programs and to conduct research on pedestrian and bicycle issues.
2. FHWA has a pedestrian forum quarterly newsletter. The FHWA *Pedestrian Forum* is also on the web at <http://safety.fhwa.dot.gov/fourthlevel/pedforum.htm>.
3. See NHTSA Safety Facts 2003, Pedestrians in **Section 8** of your Briefing Book.
4. See **Issue Brief Number 9**, in **Section 4** of the Intersection Safety Briefing Sheet Package.

Highway Safety Research Center [HSRC] at the University of North Carolina, Chapel Hill

The Pedestrian-Bicycle Information Center (PBIC) is a Center within the UNC Highway Safety Research Center [HSRC]. The mission of the PBIC is to improve the quality of life in communities through the increase of safe walking and bicycling as means of transportation and physical activity. Funded primarily by the US Department of Transportation (USDOT), the PBIC serves as an information clearinghouse for increasing accessibility to pedestrian and bicycle facilities and promoting their safe use. The Center's work in 2002-2003 included the continuing development of the AASHTO Pedestrian Safety Guide and Countermeasure Selection System. HSRC is also researching the modification of the Accessible Pedestrian Signals (APS) guidance and developing training materials.

Florida Department of Transportation

The Florida Department of Transportation sponsors a significant amount of research including before and after studies. FDOT predominantly contracts with the UNC's HSRC and CUTR.

TRB-NCHRP-AASHTO Initiatives

The AASHTO Strategic Highway Safety Plan incorporates has recently released the following publication: Guidance for Implementation of the AASHTO Strategic Highway Safety Plan, Volume 10: A Guide for Reducing Collisions Involving Pedestrians. The product can be downloaded online by going to the following web address:

http://gulliver.trb.org/publications/nchrp/nchrp_rpt_500v10.pdf.

Advocacy Groups for Pedestrians and Bicycles

The New York Bicycling Coalition, for example, has developed materials (e.g., CD, training materials, photographs and posters) that can be downloaded and used for community meetings, meetings with elected officials, and in schools. The materials are in the public domain.

Association of Pedestrian and Bicycle Professionals

This group has ITE members who are active in our pedestrian-bicycle efforts including Kevin R. St. Jacques, P.E., P.T.O.E., Michael Moule, and others.

Texas Transportation Institute (TTI)

TTI has a pedestrian simulator used for the purposes of (1) studying pedestrian behavior in controlled environments (e.g., roundabouts, unsignalized pedestrian crossings, pedestrian preferences in high traffic volume environments, etc); (2) studying pedestrian preferences and/or perceptions; and (3) studying accessibility of design features.

Other Organizations

Products within the pedestrian safety domain are provided from the AAA Foundation for Traffic Safety, Insurance Institute for Highway Safety, the Robert Wood Johnson Foundation, the Center for Disease Control (concerns include both the rate of crashes in the US from a medical standpoint and epidemic of obesity and the correlation of the amount of walking by citizens. .

CONTINUING AND EMERGING ISSUES

Key pedestrian and bicycle safety issues include the following:

1. Pedestrian-Bicycle control at signalized and unsignalized intersections
2. Countermeasures, countermeasure effectiveness and innovative treatments
3. Treatments/MUTCD issues (including signs and pavement markings)
4. Special Users [Older and younger pedestrians and bicyclists, blind and physically challenged.
Note: This issue intersects with our Special Users subtopic under Safety.
5. Geometric Design
6. Technology and
7. International and national pedestrian-bicycle safety best practices

WHAT DO WE KNOW ABOUT OUR MEMBERS' NEEDS, WANTS AND PREFERENCES?

- 1 ITE members need to have a comprehensive understanding of the effectiveness of Pedestrian and Bicycle Safety countermeasures. They need to know which countermeasures will give them the "biggest bang for the buck." They need to have an

understanding of the situations behind the reduction factors so they can intelligibly understand if they are comparing “apples and apples.”

- 2 ITE members need to understand the operational impacts to roadways and intersections for providing a greater level of service for pedestrians and cyclists (e.g. by having longer walk times for pedestrians to cross the street, longer queues and reduced vehicular levels of service might result).
- 3 ITE members need to be kept current on national and international pedestrian-bicycle best practices regarding the relationship between geometric design, operations, technology and safety at intersections.
- 4 ITE members need timely dissemination of research, synthesis reports and “briefing sheets” on the efficacy of new technologies and approaches related to pedestrian and bicycle safety.
- 5 ITE members need to be the leaders and champions of potential changes in the MUTCD as related to pedestrian-bicycle safety.
- 6 ITE members need to be leaders and advocates in their communities for multi-modal transportation choices, including pedestrian and bicycle improvements. This is a cultural change for most traditional traffic engineers. The provision of safe and accessible pedestrian and bicycle infrastructure will lead to the societal goal of livable and sustainable communities.
- 7 ITE members need training and professional development for:
 - Accessible pedestrian improvements in the public right-of-way (PROW)
 - New and emerging technologies
 - Roundabout safety for the blind and visually impaired
 - Pedestrian bicycle safety innovations
 - Design and operation of school transportation facilities (e.g. roads, pathways, signals, signing and pavement markings, parking lots, others) for safety.

OPTIONS

What do we want to have the most influence on?

- Saving lives. Reducing pedestrian and cyclist crashes, injuries and fatalities.
- Making Communities sustainable and livable. Pedestrian and bicycle safety is one part of providing a livable community.
- Our members are active during the site plan and zoning review process for new developments. This is the time when our members can be instrumental for the inclusion of accommodations for pedestrian facilities.

What do we NOT want to do?

- Develop and maintain a clearinghouse on Pedestrian Bicycle issues. There is already a clearinghouse in place at the HSRC. We need to enhance our relationship with UNC to take materials that are in the public domain and provide them on the ITE pedestrian-bicycle website, or alert our members through email and the *ITEJ* that materials are available on the PBIC website. Tom Brahm is on the advisory board for the *Partnership of a Walkable America*.

- Conduct basic research. This is already done by NCHRP, TRB and TFHRC.

WHAT ARE THE MOST CRITICAL CHOICES AND ROLES FOR ITE TO FOCUS ON, WITH RESPECT TO PEDESTRIAN-BICYCLE SAFETY?

- Content Provider. Use members to develop and disseminate leading edge technical content through the development of informational reports and recommended practices.
- Convener. Bring together pedestrian-bicycle stakeholders across disciplines.
- Advocate. Become champions, leaders and advocates of safe roads and intersections through the provision of pedestrian and bicycle improvements. Create high visibility on pedestrian-bicycle safety issues. Get on national panels. Use press conferences and announcements to state policy positions.
- Member-to-Member, peer-to-peer interaction on topics such as geometric design, operations and safety as related to the provision of pedestrian-bicycle facilities within the larger transportation environment.
- Pedestrian-Bicycle Council acts as a facilitator to get pedestrian and bicycle safety issues considered throughout the discussions and products in other councils.

WHAT ARE THE ETHICAL IMPLICATIONS OF OUR CHOICES?

By selecting the above activities, we will not duplicate what other organizations are doing.

Pedestrian and Bicycle safety issues are part of the quality of life and livability objectives of the cities, towns and communities of our members. If we do not include pedestrian-bicycle safety as an integral element of our safety discussion, ITE would be abdicating our responsibilities to our members.

Through the continued development of tools, best practices and case studies, ITE members will continually “raise the bar” and implement multi-modal solutions for all users of the transportation system.

White Paper 4: Special User Safety

Within the context of safety, ITE will focus on the following special users:

1. Older Drivers
2. Older Pedestrians
3. Younger Drivers [*Option: Do we have a primary focus on younger drivers?*]
4. Younger Pedestrians
5. Accessibility within the Public Right-of-Way
6. Vehicular and Pedestrian Safety in the vicinity of schools

WHAT DO WE WANT TO HAVE THE MOST INFLUENCE ON WITH RESPECT TO SPECIAL USER SAFETY?

- Accommodating older drivers and pedestrians at intersections.
- Reduced number and severity of crashes and SAVING LIVES.
- For students (young drivers) increase the recognition of the traffic engineer as a major player in the design and operation of the roadway system. We need to introduce the theme that “traffic engineers do x, y and z...and we are part of the education and enforcement team.
- Better quality of life. ITE will have the most influence on making communities livable for all people. As an example, when ITE members design curb ramps—number—orientation—component parts—in the right away, older persons, physically disabled individuals using power and manual wheelchairs, the blind and visually impaired and parents pushing strollers and baby carriages will all benefit.

1. Older Drivers

CONTINUING AND EMERGING ISSUES

- See “Older Drivers at Intersections” issue brief in **Section 4, Briefing Sheet 10** of your Briefing Book.
- The demographic shape of the U.S. population will shift dramatically in the next 20 years, and transportation agencies will find themselves with a very different customer base. In 2002, 12 percent of the U.S. Population was 65 or older. By 2025, the number of seniors will increase by 79 percent with an estimated 18 percent of the population being 65 or older.
- Older drivers have substantial involvement in left turn crashes.
- Traffic engineers have an opportunity to create a comprehensive program of improvements to help older drivers in each capital, operational or reconstruction improvement project that they implement. We have been using the term “substantive safety.” If we do—just a little bit more, we will not only help older drivers, we will create a roadway environment that will work better for all populations.

CURRENT REALITIES AND EVOLVING DYNAMICS

Who is doing what?

- *Aging Americans: Stranded Without Options*. Surface Transportation Policy Project. April 2004.
- *Older Driver Highway Design Handbook*, FHWA, 1998.
- *Older Driver Involvement in Injury Crashes in Texas: 1995 to 1999*, Griffin, Lindsay, for AAA Foundation for Traffic Safety.
- *NCHRP 500 Volume 9: A Guide for Reducing Collisions with Older Drivers*

WHAT DO WE KNOW ABOUT OUR MEMBERS' NEEDS, WANTS AND PREFERENCES?

- Need training and professional development with regard to older driver issues including impaired vision and reduced perception-reaction time.

OPTIONS

What do we NOT want to do?

- ITE members need to work with human factors experts regarding the physical and other limitations of older adults; however, human factors issues will not be a primary element of ITE services and products.

What are the most critical choices and roles for ITE to focus on, with respect to Older Driver issues?

- ITE needs to take a lead role with respect to incorporating safety into the design of roadway facilities for older drivers.

WHAT ARE THE ETHICAL IMPLICATIONS OF OUR CHOICES?

- This is "right" for ITE to take on.

2. Older Pedestrians

CONTINUING AND EMERGING ISSUES

- Elderly pedestrians are over represented in traffic fatalities. The magnitude of older pedestrian fatalities as compared to the percentage of elderly in the population is over two to one.
- There needs to be a holistic rather than a piecemeal approach to accommodating elderly pedestrians.
- The profession needs to identify and provide adequate walk times for older adults and vulnerable users.

CURRENT REALITIES AND EVOLVING DYNAMICS

Who is doing what?

- ITE-BMISG-AAAFST current project: "*Pedestrian Signal Safety for Older Persons*"
- ITE Information Report: *Design and Safety of Pedestrian Facilities*
- ITE Information Report: *Alternative Treatments for At-Grade Pedestrian Crossings*
- FHWA *Older Driver Handbook* and associated training

WHAT DO WE KNOW ABOUT OUR MEMBERS' NEEDS, WANTS AND PREFERENCES?

- We need to have an understanding of the countermeasures (and associated countermeasure effectiveness) that can be used to reduce older pedestrian crashes, injuries and fatalities.

OPTIONS

What are the most critical choices and roles for ITE to focus on, with respect to Older Driver issues?

- ITE is in a position to take the lead on this topic area given our member's expertise in designing and operating intersections.

WHAT ARE THE ETHICAL IMPLICATIONS OF OUR CHOICES?

- This is "right" for ITE to take on.

3. Younger Drivers

CONTINUING AND EMERGING ISSUES

- Drivers under the age of 25 have the highest rate of involvement in fatal crashes of any age group.
- Fatality and injuries to young adult drivers are due primarily to immaturity, lack of driving experience, risk taking, and less use of seatbelts. This is a different case with older drivers where engineering can help to reduce crashes, injuries and fatalities.
- See NHTSA's Traffic Safety Facts 2003- Overview, **Section 4** in your Briefing Book.

CURRENT REALITIES AND EVOLVING DYNAMICS

Who is doing what?

- ITEJ September 2003 article on Graduated Licensing
- AASHTO SHSP Guidance on Younger Drivers (being completed)

WHAT DO WE KNOW ABOUT OUR MEMBERS' NEEDS, WANTS AND PREFERENCES?

Our membership is primarily focused on planning design, engineering and operations. We have a small number of people dealing with the human factors issues associated with younger driver crashes.

OPTIONS

What do we NOT want to do?

- ITE should not take the lead role in this topic area given our capacity and strategic position. Organizations such as the Advocates for Highway Safety, NHTSA, GHSA and others should take the lead role with respect to younger drivers.
- There is a need for a National Young Drivers Handbook (ITE DSAP); however, other organizations may be better suited to lead this effort.

What are the most critical choices and roles for ITE to focus on, with respect to Younger Driver issues?

- ITE should provide an advocacy and support role. ITE members should make presentations at schools with enforcement and education personnel. This will raise the visibility of the traffic engineer with students. Don't go once, but make this an annual event at your community schools.
- ITE needs to develop partnerships with users of Young Drivers Handbook (ITE DSAP)
- ITE needs to continue to advocate for graduated driver licensing laws.

WHAT ARE THE ETHICAL IMPLICATIONS OF OUR CHOICES?

By being in a partner and advocate role with respect to younger driver issues, ITE will fulfill our obligations to our membership and society.

4. Younger Pedestrians

CONTINUING AND EMERGING ISSUES

- See NHTSA's Traffic Safety Facts 2003, Pedestrians, **Section 7**, in your Briefing Book.
- 22 percent of all children between the ages of 5 and 9 who were killed in traffic crashes were pedestrians.
- 17 percent of all traffic fatalities under age 16 were pedestrians.

WHAT DO WE KNOW ABOUT OUR MEMBERS' NEEDS, WANTS AND PREFERENCES?

- Need to have an understanding of the countermeasures (and associated effectiveness) that can be used to reduce pedestrian crashes, injuries and fatalities for children and young adults.

OPTIONS

What do we NOT want to do?

- *Discussion.* Should ITE members take a primary role with respect to younger pedestrian safety since this issue is largely an educational issue?

What are the most critical choices and roles for ITE to focus on, with respect to Younger Pedestrian issues?

- ITE should provide an advocacy and support role. ITE members should make presentations at schools with enforcement and education personnel. This will raise the visibility of the traffic engineer with students. Don't go once, but make this an annual event at your community schools.

5. Accessibility within the Public Right of Way [PROW]

CONTINUING AND EMERGING ISSUES

- See "Pedestrian Design for Accessibility Within the Public Right-of-Way in **Section 4, Briefing Sheet 11** of your Briefing Book.
- US Access Boards imminent "Notice of Proposed Rulemaking" regarding Accessibility within the public right-of-way.

CURRENT REALITIES AND EVOLVING DYNAMICS

- ITE-Easter Seals Project Action: Online Course entitled "Alteration of Pedestrian Facilities within the Public Right-of-Way". Four modules: (1) Pedestrian Accessibility; (2) Planning, Engineering and Design within PROW; (3) Accessible Sidewalks and Pedestrian Access Routes: Application of Best Practice Design Solutions; and (4) Accessible Pedestrian Crossings including the Design of Accessible Pedestrian Signals.

WHAT DO WE KNOW ABOUT OUR MEMBERS' NEEDS, WANTS AND PREFERENCES?

- Our members need to understand the choices that they have in the design and operation of facilities within the PROW. They need to understand the requirements both from a regulatory and legal standpoint. More and more communities are requiring that traffic engineers de-emphasize automobile service with an emphasis more towards designing for all users especially users that have physical, auditory or visual challenges.
- Our members need training and professional development within this topic area. Unfortunately the design possibilities must be considered on a case-by-case basis. There is not one size fits all. There is no "cook book". The depth of understanding and implementation of good design and accommodations will come from the repetitive nature of considering all users in every project.

OPTIONS

What are the most critical choices and roles for ITE to focus on, with respect to Accessibility issues?

- ITE must take the lead on this effort. We must communicate that the accommodations need to be included early on in the planning and engineering and design processes.

WHAT ARE THE ETHICAL IMPLICATIONS OF OUR CHOICES?

- ITE has a responsibility to safely design for ALL USERS—users of all ages and abilities.

6. School Transportation Safety

CONTINUING AND EMERGING ISSUES

- See *Traffic Safety Facts 2003- School Transportation-Related Crashes* in your Briefing Book, **Section 9**.
- Many existing school sites have vicinal congestion and a lack of parking and drop off areas that can contribute to unsafe practices by parents and students' as people are late for their jobs, appointments and extracurricular activities. National crash statistics reveal that approximately one of five pedestrian fatalities and injuries involved children under the age of 16.

CURRENT REALITIES AND EVOLVING DYNAMICS

- There are a number of excellent resources available including *Safe Routes to School*, work by *A Partnership for a Walkable America* and the *Institute for Transportation Research and Education*, at North Carolina State University, the *National Safety Council*, NHTSA and others. However, the resources are fragmented.
- There is a need for a comprehensive document and subsequent training that can be used by transportation practitioners, policymakers and elected officials, school transportation and community planners, school boards and local community groups to understand the unique transportation safety needs of school zones.

WHAT DO WE KNOW ABOUT OUR MEMBERS' NEEDS, WANTS AND PREFERENCES?

- ITE members deal with school traffic safety and congestion problems as a routine part of their work.
- ITE needs to find a better way to become part of the disparate elements of the school transportation team.

OPTIONS

What are the most critical choices and roles for ITE to focus on, with respect to School Transportation Safety?

- ITE needs to be deeply involved in school safety issues at both a technical level and an advocacy/community education level. We have not recently been part of the education and enforcement team that go and speak with school students (and their parents) about critical transportation issues. ITE members should take a greater advocacy and community education role.

WHAT ARE THE ETHICAL IMPLICATIONS OF OUR CHOICES?

- It's our communities, we need to "be there" and be a part of solving our community quality of life issues such as school transportation safety.
- We need to raise the profile of the traffic engineer in the community in which they serve.

White Paper 5: SPEED MANAGEMENT

OVERALL GOAL: Reduce Vehicle Crashes And SAVING LIVES.

CURRENT REALITIES AND EVOLVING DYNAMICS

- See *Traffic Safety Facts 2003- Speeding* in your Briefing Book, **Section 10**.
- Speeding--exceeding the posted speed limit or driving too fast for conditions—is a contributory factor in approximately 30 percent of all fatal traffic crashes. In 2003, 39 percent of male drivers 15 to 20 years old involved in fatal crashes were speeding.
- Speeding is an issue on all classes of roads, from local roads to the Interstate System. We know that effective speed management and reducing the speed differential within the traffic stream will lead to fewer crashes.
- ITE is currently working on a project for the FHWA and EPA on a publication entitled, "*Context Sensitive Design for Major Urban Arterials*". This will be a document similar to a previous document completed by FHWA entitled, "*Flexibility in Highway Design*." "Taming" traffic along arterials including speed reductions will be part of this document.
- Setting speed limits is a traffic engineering function. Our members use various speed parameters such as design speed, and operating speed, 85th percentile speed in speed zone setting, determination of sight distances and other basic traffic engineering functions.
- The speed management umbrella is a crosscutting issue. It includes safety, operations, design land use and other public policy considerations. Speed needs to be explicitly considered in every facet of our profession.

CONTINUING AND EMERGING ISSUES

Within the speed management topic area, the following target issues have been identified as having a high importance for ITE members:

- 1 Speed Zoning: residential/traffic Calming, school zones and work zones. Increasing public education about the meaning and use of enforcement in work zones.
- 2 Technology/ITS
- 3 Aggressive Driving
- 4 Designing roadways with adequate infrastructure to accommodate law enforcement operations (space for safely observing and stopping vehicles)
- 5 Monitoring speeds on roadways more effectively and studying the effect of speed limit changes.
- 6 Enforcement.
 - a. Automated Enforcement: Photo Radar
 - b. Encouraging equal and consistent application of speed limits, enforcement, and adjudication across jurisdictional boundaries.
 - c. Educating the public, politicians, and policy makers about how aggressive enforcement improves traffic safety and quality of life.

- 7 Public Information and Education
 - a. Organizing to raise public awareness of speeding and driving safely to help establish realistic goals and support coordination.
 - b. Educating elected officials on the benefits and uses of enforcement technologies – how they work and how they will be used.
- 8 Political/Institutional. Involve political officials early in the process of setting speed limits.

WHO IS DOING WHAT WITH RESPECT TO SPEED MANAGEMENT?

See Appendix 2.

WHAT DO WE KNOW ABOUT OUR MEMBERS' NEEDS, WANTS AND PREFERENCES RELATED TO SPEED MANAGEMENT?

- City Councils and other elected and appointed officials request speed reductions in residential and other areas. ITE members respond to those requests. In the event that the traffic professional does not agree that a speed reduction should be effected, solid technical information should be available.
- A significant number of our cities, counties, towns and townships no longer believe that the “automobile is king”. In fact, our members are not only being asked to tame traffic on residential streets, but along arterial streets as well.
- The traffic engineer must work jointly with enforcement personnel in the development and sustainability of the “right speed limit” for the right conditions.
- When working with elected and appointed officials, ITE members need to have the right tools to explain the benefits and opportunities of automated enforcement and other technologies to solve speeding problems.
- ITE members deal with speed issues within school and work zones on a daily basis. In accordance with this work, our members require information, data and case studies on approaches to speed management that work well in school and work zone areas.

WHAT DO WE NOT WANT TO DO?

- ITE should not take a for/against position on automated enforcement; rather, our role is to provide the opportunities, benefits and issues associated with this and other technologies.
- We should not be conducting basic research.
- We do not want to have a primary role in solving the aggressive driving issue. This is more of a human factors issue that should be left to other organizations.

WHAT ARE THE MOST CRITICAL CHOICES AND ROLES FOR ITE TO FOCUS ON, WITH RESPECT TO SPEED MANAGEMENT?

- Restore credibility and public confidence (If the road “feels like you can drive 50 MPH” but the speed limit is 25 MPH we loose credibility with the public.) ITE members need to set reasonable speed limits for the design of the road with respect to adjacent land uses.

- Increase voluntary compliance through community education and public awareness and concomitantly, reduce the need for enforcement.

WHAT ARE THE ETHICAL IMPLICATIONS OF OUR CHOICES?

Our traditional focus is engineering, designing and operating roadways for an appropriate speed. By taking a support role concerning public awareness and enforcement, ITE members will fulfill our societal obligation to develop and sustain the 5 “E” partnerships necessary to reduce fatalities related to speed crashes.

Appendices

APPENDIX 1: INTERSECTION SAFETY PRODUCTS

	TYPE	AAA	AASHTO	AMPO	ATS	FHWA	GHSA	IACP	IIHS	ITE	NHI	NHTSA	TRB	TTI
GENERAL														
AASHTO Strategic Highway Safety Plan	OP		■										■	
Intersection Safety Clearinghouse Website	OP					■				■				
Intersection Safety Domestic Scan	BP					■								
Intersection Safety Toolbox, 2004	BP					■				■				
Intersection Safety Training Course, Development	ET					■				■	■			
Low Cost Safety Improvement Workshop	ET					■					■			
Managing and Organizing Comprehensive Highway Safety in Europe (April 2003)	BP		■			■								
National Agenda for Intersection Safety	OP					■				■				
NCHRP 500. <i>Volume 5. Guidance of the Implementation of the ASHSP. Unsignalized Intersection Collisions</i>	BP		■										■	
NCHRP 500. <i>Volume 5. Guidance of the Implementation of the ASHSP. Unsignalized Intersection Collisions: Volume 12: A Guide for Reducing Collisions at Signalized Intersections</i>	BP		■										■	
Safety Analysis of Signalized Intersections (On line course)	ET									■				
The Traffic Safety Toolbox (1999)	IR									■				
Red Light Running														
Automated Enforcement in Transportation	IR									■				
Bonneson, Zimmerman. Engineering Countermeasures to Reduce Red Light Running TXDOT 4027-2	R													■

	TYPE	AAA	AASHTO	AMPO	ATS	FHWA	GHSA	IACP	IIHS	ITE	NHI	NHTSA	TRB	TTI
Effects of Red Light Cameras on Violations and Crashes: A Review of the International Literature (July 2002)	IR								■					
<i>Engineering Countermeasures to Reduce Red Light Running</i>	BP					■				■				
Guidance for Using Red Light Cameras, March 2003 (Currently being updated)	IR					■						■		
National Campaign to Stop Red Light Running	OA				■		■	■	■					
Review and Evaluation of Enforcement Issues and Safety Statistics Related to Red Light Running Research 4196-1	R													■
Traffic Control Devices														
03-57: Recommended Traffic Control Devices for RXR-HGWY GX (NCHRP 470, 2001, MUTCD)	R												■	
17-28. Determination of Safety Impact and Cost Effectiveness of Pavement Marking Materials and Markers.	RIP												■	
Changes to Crash Risk Following Re-Timing of Traffic Signal Change Intervals (September 2000)	IR								■					
Highway-Rail Pre-Signal, Grade Crossing Report	IR					■				■				
NCHRP 491: Crash Experience Warrant for Traffic Signals. Original NCHRP 17-16. Accident Warrants for Traffic Signals (2003)	R												■	
Geometric Design														
Access Management Manual. <i>Incorporated Impacts of Access Management Techniques</i>	BP												■	

	TYPE	AAA	AASHTO	AMPO	ATS	FHWA	GHSA	IACP	IIHS	ITE	NHI	NHTSA	TRB	TTI
NCHRP 420 (1998)														
15-14 (01). Intersection Sight Distance NCHRP 383. (1996)	R													
17-14 (02). Improved Guidelines for Median Safety (2004)	RIP													
TXDOT Design Guidelines for at grade intersections Near Highway Rail Grade Crossings.	R													
Geometric Design Criteria for Highway- Rail Intersections ITE Publication IR-110, 2001	IR													
The Case For Roundabouts`														
03-42. Determination of Stopping Site Distance NCHRP 400 (1994)	R													
03-65. Applying Roundabouts in the US (2005, RIP)	RIP													
03-72. Lane Widths, Channelized Right turns and Right Turn deceleration lanes in Urban and Suburban Areas (2005, RIP)	RIP													
03-78. Crossing Treatments at Roundabouts and Channelized Turn Lanes for Pedestrians with Vision Disabilities.	RIP													
Data and Analysis Tools														
17-25. Crash Reduction Factors for Traffic Engineering and ITS Improvements (2005)	RIP													
17-26. Development of Models for Prediction of Expected Safety Performance for Urban and Suburban Arterials (2005)	RIP													
FARS (Fatality Accident Reporting System)	DS													
Highway Safety Manual (Under	AT													

	TYPE	AAA	AASHTO	AMPO	ATS	FHWA	GHSA	IACP	IIHS	ITE	NHI	NHTSA	TRB	TTI
Development)														
IHSDM	AT													
National Model: Statewide Application of Data Collection and Management Technology to Improve Highway Safety	AT													
Safety Analyst	AT													
SEMCOG Traffic Safety Manual *	AT													
Traffic Safety Facts (Annually)	DS													
Safety Audits														
Safety Audit Brochure	OA													
Road Safety Audit Training (NHI)	ET													
Road Safety Audit Website	OA													
ITS														
Intelligent Detection Control System for Rural Signalized Intersections. TXDOT 4022.2	R													
03-76B. Low Cost Active Warning Systems for Highway-Rail-Grade Crossings	RIP													
IMPLEMENTATION														
Evaluation Studies for the AAA Road Improvement Demonstration Program in Michigan, Interim Report (October 2002)														

Product Type Codes:

- AT Analysis Tools
- BP Best Practices
- ET Education and Training
- I Implementation
- IR Informational Report
- OA Outreach and Awareness
- OE Outreach and Education
- OP Overarching Product
- R Research

RIP Research in Progress

Organization Codes Not Typically Used:

- AAA AAA Foundation for Traffic Safety
- AMPO Association for Metropolitan Planning Organizations
- ATS American Trauma Society
- GHSA: Governors Highway Safety Association
- IACP: International Association of Chiefs of Police
- IIHS: Insurance Institute for Highway Safety

LEAD ORGANIZATION
SUPPORT

APPENDIX 2

Who is doing 'What' With Respect to Speed Management?

- *NCHRP 03-74: Guidelines for Selection of Speed Reduction Techniques at High Speed Intersections* (2004, RIP).
- *NCHRP 15-18: Design Speeds and Operating Speeds*.
- *17-23. Safety Profile and Other Implications of Changed Speed Limits on High Speed Roadways* (2004, RIP)
- *NCHRP 15-17: Geometric Design Consistency on Higher-Speed, Non-Urban Two Lane Roads NCHRP 502, (2003)*
- TRB Special Report #254, "Managing Speed: Review of Current Practice for Setting and Enforcing Speed Limits".
- *FHWA RD "&" T: Synthesis of Safety Research Related to Speed Management*. Synthesis of research on the safety effects of speed, speed limits, enforcement, and engineering measures to manage speed. FHWA-RD-98-154, July 1998.
- *Examples of Variable Speed Limit Applications, Speed Management Workshop, January 6, 2000, TRB.79th Annual Meeting*.
- *Speed Zone Guidelines - A Proposed Recommended Practice. ITE*. This report addresses what criteria should be used to establish the need and potential effectiveness of speed zones, and the appropriate speed limit if a speed zone is established.
Date/RP#
- *Survey of Speed Zoning Practices - An Informational Report. ITE*.
- *Traffic Calming: State-of-the-Practice. ITE*.
- *Literature Reviewed On Vehicle Travel Speeds and Pedestrian Injuries. Technology Transfer Series. Traftech. March 2000*. Effect of vehicle speed on pedestrian crash severity. <http://www.nhtsa.dot.gov/people/outreach/traftech/pub/tt215.html>
- *Restoring Credibility to Speed Setting: Engineering, Enforcement & Educational Issues* is now available on the FHWA Speed Management Safety Website. <http://safety.fhwa.dot.gov/programs/speedmgnt.htm>. The report summarizes the findings of workshops that brought together critical engineering, enforcement, and judiciary personnel to discuss the multi-disciplinary aspects of managing speed.
- Traffic Calming Website. The Federal Highway Administration has financially supported the Institute of Transportation Engineers to develop a Traffic Calming website in the interest of information exchange.
- Variable Speed Limits (VSL) in Work Zones Demonstration Project