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Are We There Yet?

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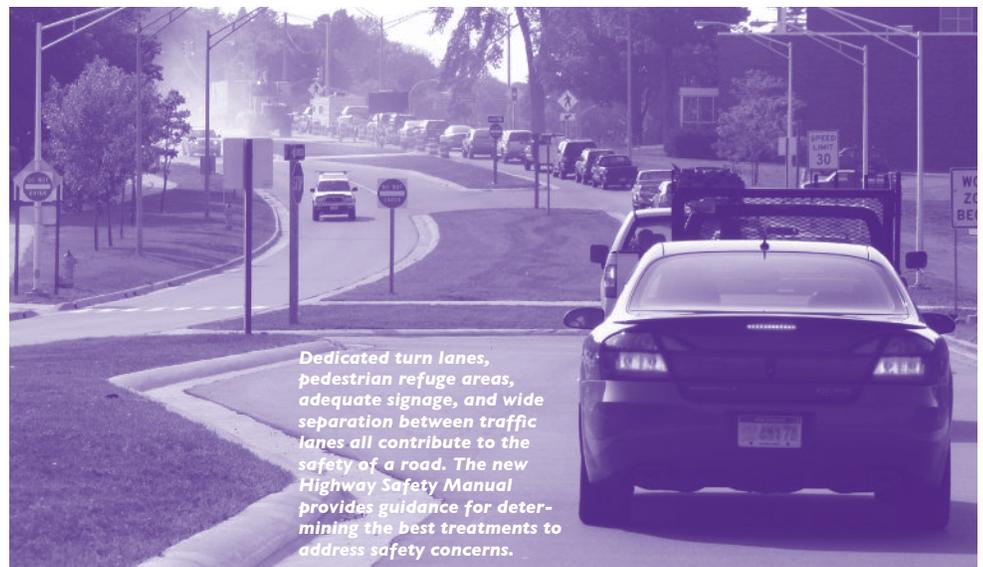
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The Science of Highway Safety — Highway Safety Manual is a Valuable Tool for Local Agencies

By John Ryyananen, Editor
Center for Technology & Training, Michigan Tech Transportation Institute

As a civil engineer (or one who works closely with civil engineers) you know that when you are designing an intersection and you have a question about sight distance, you can look in the American Association of State Highway Transportation Officials (AASHTO) A Policy on Geometric Design of Highways and Streets, also known as the AASHTO Green Book, for an answer. Similarly, when you have a question about signs, pavement markings and signals for the same intersection, you know you will find all the answers in your copy of the Manual on Uniform Traffic Control Devices, or MUTCD.

But where do you look when you have a question about traffic safety? For example, what is the safest method for handling left turn movements at a four-way signalized intersection? Until recently, you would have had to sift through multiple sources of information (including, probably, the AASHTO Green Book, the MUTCD, and published research reports) to find an answer to such a question. But there was no guarantee that you would find a definitive answer. The question about left turn movements exposes a dilemma that safety professionals have grappled with for years: What constitutes safety on a road? Must a road simply adhere to established design standards to be considered safe, or does it require something more?



Dedicated turn lanes, pedestrian refuge areas, adequate signage, and wide separation between traffic lanes all contribute to the safety of a road. The new Highway Safety Manual provides guidance for determining the best treatments to address safety concerns.



Standards not enough

Dr. Ezra Hauer, Professor Emeritus in the Department of Civil Engineering at the University of Toronto and internationally-recognized highway safety expert, introduced the adjectives “nominal” and “substantive” to help shed more light on the topic of roadway safety. In a 1999 paper titled *Safety in Geometric Design Standards*, Hauer wrote, “Nominal safety is judged by compliance with standards, warrants, policies and sanctioned procedures ... substantive safety is measured by expected crash frequency and severity.” (Hauer 1999a)

The problem with defining safety as a function of compliance with standards, Hauer asserted, is that “Limit standards do not tell the designer what the safest design is. Rather, they specify the limit of what is permissible.” (Hauer 1999b).

Today the Highway Safety Manual (HSM), which is available through AASHTO, is the definitive source of substantive answers to roadway safety questions. The manual was developed and refined by a diverse team of roadway safety stakeholders over the past ten years to provide a single source for safety information and tools in a form that facilitates data-based decision-making.

Major effort

Creation of the HSM began in May 2000 under the direction of a group of volunteers from eight different subcommittees of the Transportation Research Board (TRB) in Washington DC. Research and development for the effort was funded in large part by the National Cooperative Highway Research Program (NCHRP). The Federal Highway Administration (FHWA) provided supplementary funding and research support.

In 2006, a decision was made to publish the HSM as an AASHTO document, at which point a Joint Task Force was formed with representatives from the AASHTO subcommittees on Design, Traffic Engineering and Safety Management. Over the next three years, the task force examined the HSM to ensure that it would meet the needs of State Departments of Transportation and local agencies. During that time, members of the task force also worked to promote the HSM within their respective subcommittees.

In 2009, after nine years of intensive development and careful refinement, the AASHTO board of directors approved the HSM for distribution.

Valuable resource, but not a standard

Priscilla Tobias, Bureau Chief of Safety Engineering for the Illinois Department of Transportation (IDOT) serves as Chair of the task force that oversees the maintenance and on-going development of the HSM. She is extremely pleased that such a powerful tool is available for road owning agencies. “This manual represents the best safety-related science of our day,” she said. “And it has been thoroughly vetted by safety experts and representatives from all groups involved with roadway safety to make sure it’s accurate and relevant for all stakeholders. This is the first time we have had such a resource.”

Tobias is careful to stress that the HSM is not a standard, like the MUTCD. “The manual is intended as a guide; nothing about it constitutes a legal standard, nor does it mandate responsibilities,” she said. “It’s simply a great tool for making informed decisions about how to allocate resources to address safety issues most effectively.”

New direction in highway safety

The key to the manual’s usefulness lies in its thorough, scientific approach to identifying, analyzing and solving safety problems. First, by accounting for the statistical phenomenon of regression to the mean, many methods of site selection in the HSM help road agencies zero in on the most relevant sites by eliminating from consideration sites that are at a randomly high or low fluctuation in crashes. After a site is identified, the HSM provides a means for analyzing the safety impact of decisions at all stages of the project development process, which enables practitioners to quantify the effectiveness of safety improvements along with other transportation performance measures. Finally, the HSM includes an extensive catalog of proven crash modification factors (CMFs) for a variety of geometric and operational treatment types. Using CMFs, practitioners can predict the safety impact that a potential treatment or design may have on their road system.

Highway safety expert Dr. Hauer is pleased that the manual is available. “Publication of the Highway Safety Manual indicates wide recognition of the need for approaching safety in some evidence-based manner. With procedures that examine safety quantitatively rather than subjectively, the document is an important first step in the right direction.”

Early adopters lead the way

At three volumes and nearly one thousand pages, the HSM contains a formidable amount of information, especially for

those who are not experienced in the practice of analyzing and improving roadway safety. To help disseminate new information in the manual and to encourage road-owning agencies to use it, the NCHRP is sponsoring an effort that involves showcasing different states' experiences with the HSM. The effort, officially titled the Lead States Initiative for Implementing the Highway Safety Manual, involves state and local transportation officials in thirteen states (see "Lead States Initiative" on page 4).

The project manager for the Lead States Initiative is Charles Niessner, senior program officer at NCHRP. To kick the project off, Niessner worked with Tobias' AASHTO task force on the HSM to solicit participants from among State Departments of Transportation (DOTs). He was encouraged by the response. "Thirty DOTs initially expressed interest," Niessner said. "That was encouraging. We didn't expect that kind of response from the states because launching something like this is not a simple thing – it's a major effort." Niessner thinks the willingness to get involved is thanks to the requirement in the transportation bill of 2005 (Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, or SAFETEA-LU), that required each state DOT to establish a strategic highway safety plan by October 1, 2007. "Requiring strategic highway safety plans really elevated the importance of roadway safety and helped everyone move more purposefully in that direction. I think the response to

effectiveness of improvements," Leix explained. "The HSM will be a great tool to support these efforts as we continue to work together with our local partners to improve the safety of Michigan roads."

To help local agencies understand and use the HSM in Michigan, Leix and a Local Agency HSM Implementation Team are working with Michigan's Local Technical Assistance Program (LTAP) to produce training materials for various groups of stakeholders that are involved in making roadway safety decisions. "Among our local agency partners, we have metro, urban, and rural agencies. And within each agency we have people dedicated to design, development, safety, and other focus areas," Leix said. "No matter where someone fits in the process of improving roadway safety, certain aspects of the manual apply to them. We're working to make sure the training is relevant to each groups' needs."

Not just for State DOTs

Tony Giancola, Executive Director of the National Association of County Engineers (NACE) is also excited about the availability and relevance of the HSM for road-owning agencies across the country. "This is a very useful tool," he said. "It will be a big help for road agencies at state and local levels as they evaluate, design, plan for and implement safety improvements in their respective communities."

"The problem with defining safety as a function of compliance with standards is that limit standards do not tell the designer what the safest design is. Rather, they specify the limit of what is permissible." Dr. Ezra Hauer – Professor Emeritus, University of Toronto

our invitation shows that our State DOTs see the HSM as another great tool to help refine our collective approach to improving the safety of our roads."

Michigan is a lead state

Tracie Leix, supervising engineer for the Michigan Department of Transportation (MDOT) Safety Programs Unit, is managing MDOT's participation in the Lead States Initiative. Leix is especially excited about the HSM because she expects it to enhance her group's already healthy relationships with local road agencies. She and her team have seen first-hand how engaging with local partners on safety projects can produce great results. In 2004, Leix's group, at the time under the leadership of Dale Lighthizer (retired 2010), established the Local Safety Initiative to help local road agencies in Michigan implement safety improvements (see "MDOT Local Safety Initiative," below) "Through the local safety initiative, we stress the importance of measuring safety and quantifying the

Everyone familiar with the HSM agrees that it will be a great tool for improving roadway safety, but some are expecting more—especially those who have experience with implementing safety improvements at the local level. Wayne Schoonover, P.E., County Highway Engineer for Ionia County Road Commission in Michigan, says the HSM could help local road agencies pay for road projects. He has been an enthusiastic participant in the Michigan Department of Transportation's (MDOT) Local Safety Initiative program (see "MDOT Local Safety Initiative," on page 5) since it was created in 2004. "The success we've had in securing federal safety funding for Ionia County road improvements is a great example of the value of a data-driven approach to safety," Schoonover said. "If not for the quantifiable solutions that MDOT's Local Safety Initiative group helped us define, we would not have qualified. The Highway Safety Manual can help any agency define quantifiable solutions to their safety problems, which could help them secure similar funding."



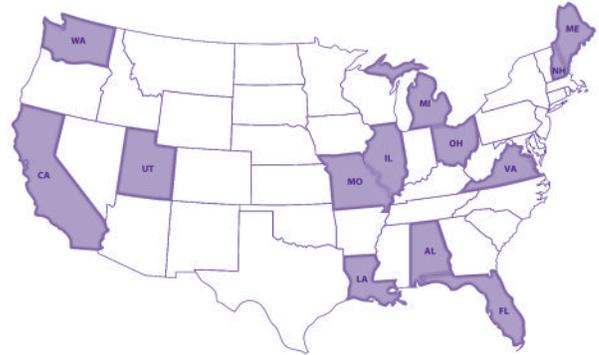
Michigan Department of Transportation Local Safety Initiative

The MDOT Local Safety Initiative provides tools and services that help local road agencies improve the safety of their roads. The LSI is available to local agencies free of charge, on a first-come, first served basis. Available services include:

- Traffic engineering services including crash analysis, field reviews and suggestions for countermeasures;
- Safety training to local agencies for the RoadSoft® safety module and safety analysis features;
- Continuous enhancement of the RoadSoft safety module for local agency use.

For more information, contact:
Tracie Leix, P.E., Engineer-Manager.
LeixT@michigan.gov
Phone: 517-373-8950

Lead States Initiative for implementing the Highway Safety Manual



Thirteen states are participating in the Lead States Initiative, which is sponsored by the National Cooperative Highway Research Program (NCHRP). Objectives of the project are to:

- Provide the participating states with access to experts who are familiar with HSM development and implementation
- Facilitate the exchange of HSM implementation experiences among the lead states
- Develop an HSM user guide to assist other state and local road agencies in implementing the HSM.

For more information on the Web, go to:

For a direct link, go to www.MichiganLTAP.org/pubs, and then select “NCHRP Lead States Initiative” from the list.

For more information about the Highway Safety Manual, including how to order it, please visit:
www.highwaysafetymanual.org.

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- Hauer, E. (1999a). Safety in Geometric Design Standards, p19. Retrieved December 9, 2010, From https://ceprofs.civil.tamu.edu/dlord/CVEN_635_Course_Material/Safety_in_Geometric_Design_Standards.pdf.
- Hauer, E. (1999b). Safety in Geometric Design Standards, p2. Retrieved December 9, 2010, From https://ceprofs.civil.tamu.edu/dlord/CVEN_635_Course_Material/Safety_in_Geometric_Design_Standards.pdf. ▼

Technical Writing for Transportation Professionals, #2

Define Your Purpose, Gather Background Information, and Organize Your Thoughts

By Richard Kronick, freelance technical writer and writing trainer

My first article in this series showed how to quickly size up your readers and their needs (see the spring 2011 *Are We There Yet*). Once you have done that, the next logical step is to define your purpose. It is “logical” because your purpose should literally grow from what you know about your readers and your relationships to them.

Define your purpose

You can define your purpose for any business document by answering three questions:

- What is in it for me?
- What is in it for my readers?
- What do I want my readers to do?

Taking a few minutes to actually write out the answers to these three questions will help you stay on track as you write. You will be more likely to choose words and sentences that contribute to your stated purposes—and less likely to wander off to topics that don’t contribute. In other words, writing out your purposes should make you a more powerful and efficient writer.

The answer to the first question—What is in it for you?—will help you decide how much time and effort to put into writing the document. It is worth spending a lot of time to produce a great proposal if it will get you a big project. On the other end of the scale, let us say you are writing a one-line e-mail, and all it says is: “We changed the meeting from 2 p.m. to 3 p.m.” You might think there is absolutely nothing in this document for you. But we all judge the people who write to us partly based on the quality of their spelling, grammar, punctuation, and clarity. So at the very least, your professional image as a business person is on the line with literally every document you write—even a one-line e-mail.

Though all three of these questions are important, the third one stands a bit above the other two like an Olympic gold medalist on the reviewing stand. The fact is, we write all business documents to convince someone to do something. This means, in a real sense, no matter

if you call it a proposal, report, letter, memo, or e-mail, all business documents function as proposals. If all that happens after people read your report is that they think but do not act, your document has failed. That means you should always answer the third question in behavioral terms: Name the *action* you want readers to take. This is another good thought to keep in mind as you write.

Gather background information

After getting to know your readers and defining your purpose, the next step is to gather background information. I have just one tip for you at this point: Before you start gathering background information, make a shopping list of all your sources of information—the documents you need to gather, download, or purchase, and the people you need to call, e-mail, or see. I call it a “shopping list” because it has the same value as your supermarket shopping list: It makes you more comprehensive and more efficient. It tends to prevent those “V-8 moments” when you slap your forehead and say, “Nuts! I cannot write this because I forgot to get [fill in the blank]!”

Organize your thoughts

After you have come to terms with your audience, your purpose, and your background information, you are ready to organize your thoughts. But this is one of the most common stumbling blocks in business writing. At the beginning of my writing seminars when I ask the attendees what their business writing problems are, someone always says, “I know what I want to say, but it gets all mixed up when I try to write it.”

The solution to this problem is to create an outline before you start writing so you know where you are going before you take the first step. Now I know that many of you, after reading the previous sentence, are rolling your eyes and thinking, “Outlines! I hated outlines in school!” Well, I sympathize with you because I know that, while everyone is told to create outlines in school, few teachers actually show kids *how* to outline. Sure, your teachers showed you to use Roman numerals for your main topics

and A's, B's, and C's for your sub-topics. But that's just the superficial mechanics. You arrive at a good outline by taking two steps:

- Create a pile of ideas by mind-mapping.
- Apply logic to the pile of ideas.

Mind-mapping

A mind-map is a one-person brainstorm on paper. It is easy: In the center of a blank sheet of paper, jot down some shorthand for the main idea of the document you are planning. Circle it. Then, in Tinker-Toy fashion, make a short connecting line extending from your circle in any direction. At the end of that line, write the next relevant thought that comes to mind and circle it too. Now just keep going! In a few minutes, you will have branches, sub-branches, and sub-sub-branches. For complex documents, I start with an 11 x 17 sheet because I know there will be dozens of nodes in my mind-map.

Why mind-map? Because at this point in the planning process, you have lots of ideas bumping around in your head, but they're probably not well organized. This is the natural result of the previous steps I have suggested. So the goal of mind-mapping is not so much to organize (though you will do some of that too), but just to get your thoughts down on paper before you forget them.

The four kinds of logic

Now go to step 2 above: Apply logic to the pile of ideas you generated by mind-mapping. What kind of logic, you ask? Good question! Here's a wonderful thing: There are only four kinds of logic—that is, four reasonable ways to organize any information:

- Order of importance
- Time order
- Pro vs. con
- Cause and effect

That is it! In the entire history of humankind, no one has ever come up with any other ways to organize information. They are the four tools in your logic toolbox.

Order of importance is also called “top-down” reasoning. You start with the most important idea and go in order of lesser and lesser importance. In a proposal, it means you start with whatever is most important

to your primary audience—the decision makers. Why? Because decision makers are always people at the tops of organizations. And those people are so busy that they are only willing to give your proposal a few minutes to grab their attention and make sense. So you simply must hit them with the most important idea right away or they quickly lose interest and stop reading. Remember: It is most important as defined by the primary audience.

Time order is the order of meeting minutes, procedures, trip reports, and many other business documents. For example, I am using it as the overall logical structure of this series of articles.

Pro vs. con is the logic of every good sales pitch. First you tell people all the positives about whatever you are selling. Marketing professionals call them “features and benefits.” If you do a good job of explaining the positives, your readers will then be willing to accept the negative part of your message, which is that there is no free lunch. Reasonable people know there is a cost for every good thing—and it is not always just money.

Cause and effect logic has another name: The Scientific Method. It is what Sherlock Holmes used to solve every case—and it is what every engineer uses to solve engineering problems:

- 1 Make observations and gather data.
- 2 Analyze and synthesize the data.
- 3 Arrive at a solution. That's science, right?

So to create an outline, start by picking one of these four kinds of logic as your overall organizing principle. You will then find that you need to again pick one of the four at each subordinate level of your outline. When you are finished, you will have layers of logic within logic within logic—but it will all be the same four kinds! This process makes outlining roughly one million times easier than it was in school because your teachers did not show you how to do it.

Now you're ready to write. ♥

The Large Role of Public Works in Emergencies

Kathryn Myers, UNHT² Program Manager & Road Business Editor

Since disasters are considered rare events in New Hampshire, public works officials may not receive the emergency response training or resources they need to properly respond in a disaster. The fact is, public works officials are busy completing their main jobs - the daily maintenance of municipal infrastructure. I know road managers take pride in being first responders, and I know they accept this duty as part of their job. We saw many public works employees become engaged during the infamous tornado in July 2008 and the relentless ice storm in December 2008. This article will discuss some tools for road managers to use and implement to serve their community to the best of their ability as emergency first responders.

Public Works Deemed First Responders

The horrific events of September 11, 2001 and Hurricane Katrina in August 2005, have taught many of us (the hard way) that municipal and county officials have a primary responsibility, and burden, of managing emergency events. In fact, the Department of Homeland Security (DHS) Presidential Directive 8 (HSPD-8) established the National Response Framework (NRF) as a guide for preparing for emergencies. The NRF emphasizes that local agencies must manage disasters on their own entirely or in some cases, without state or federal assistance for at least the first 24 to 72 hours.

Part of this preparation involves engaging public works in the planning and response of emergencies. HSPD-8 officially recognizes public works officials as first responders (see www.dhs.gov/xabout/laws/gc_1215444247124.shtm). In addition,

a National Advisory Council (NAC) to the Federal Emergency Management Agency (FEMA) was established by Congress in 2007 and includes representatives from the American Public Works Association.

The New Role of Public Works in Emergency Management

Public works departments have the primary responsibility and authority for snow removal and they take great pride in delivering the best service they can. Snow removal is one example where public works officials in NH are well prepared. However, planning for other emergencies may be new to some public works officials in NH, due to the fortunate lack of catastrophic events our state has seen. In other areas, like Los Angeles, California, where earthquakes are common, the public works agencies have been more involved in planning, prevention, mitigation, preparation and response. They have developed detailed plans and participated in regular training with other responder groups.

Emergencies in NH that would likely involve public works could include flooding, tornadoes, hurricanes, snow and ice storms, heat waves, oil, water, or gas pipeline ruptures, electrical system black-outs, explosions, hazmat spills, or acts of terrorism. Public works officials can play a role in all of these emergencies by providing traffic control and planning evacuation routes, administering first aid, helping with fire suppression, rescue, or evacuation, transporting supplies or equipment, providing site security and control, or removing debris and clean-up.

Another emergency category that usually does involve public works is Traffic Incident Management (TIM). A traffic incident could be a collision, a

breakdown, a spill of material, flooding or icing on the road, heavy fog, animals on the roadway, pavement damage, or a bridge failure. Traffic incidents can cause property losses, deaths and injuries, and delays can result in costing businesses billions of dollars annually. Road managers can aide in TIM by providing scene management, sand for absorbing spills, information to motorists, or equipment to clear debris. Road managers can also establish alternate routes for traffic, repair transportation infrastructure, and set-up TTC (Temporary Traffic Control) devices.

Develop a Plan

Public works officials must develop a proactive plan to aide them during emergencies when time is limited and quick organized procedures are critical. Long-term planning and preparation for disasters can easily be postponed due to the daily maintenance activities public works are responsible for. However, road managers have been deemed, by law, a first responder so the community will depend on you. Start developing your plan now. Delaying will only cause more frustration and cost more in the long-term. The goal is to change from a reactive mode to a proactive mode about managing emergencies.

Plan Essentials

The four essential elements in a disaster response and recovery plan are Prevention and Mitigation, Preparedness, Response, and Recovery. Prevention and mitigation include a detailed inventory of assets that may be affected by a disaster and what steps can be taken to reduce that damage or loss. Preparedness includes planning, training, and evaluating. Response is determined

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Safety Zone



Decade of Action

Most of us know someone who has been affected by a road crash, either by being injured themselves, or through suffering a bereavement or injury to a family member or friend.

Every day, around the world, 3,500 people leave home and never return because they have been suddenly, violently, killed in a road crash.



These tragic deaths and the misery and grief they cause are not inevitable. They can be prevented, if measures are taken by governments, police, health practitioners and all road users to improve safety.

The United Nations General Assembly has set the goal for the decade: “to stabilize and then reduce the forecast level of road traffic fatalities around the world” by 2020. Millions of deaths could potentially be prevented as a result.

The United Nations’ Decade of Action for Road Safety 2011-2020 is our opportunity to make our communities and streets safer wherever we live.

Ten reasons to act on road deaths

- Nearly 1.3 million people are killed on the world’s roads each year.
- Up to 50 million people are injured, and many remain disabled for life.
- 90% of casualties from road deaths occur in developing countries.
- Annual road traffic deaths are forecast to rise to 1.9 million people by 2020.
- Road traffic injuries are the number one cause of death for young people worldwide.
- By 2015 road traffic injuries will be the leading health burden for children over the age of five years in developing countries.
- The economic cost to developing countries is at least \$100 billion a year.
- Road traffic injuries place an immense burden on hospitals and health systems generally.
- Road crashes are preventable.
- A global Action Plan includes practical measures which, if implemented, could save millions of lives.

The Road Safety Tag is the global symbol of the movement to improve safety on the roads.

It has been adopted as the official symbol for the United Nations’ Decade of Action for Road Safety 2011-2020, which aims to reduce road deaths and injuries across the world. Nearly 1.3 million people die every year on the world’s roads, and up to 50 million are injured.



STANDUP ACT

The **Safe Teen and Novice Driver Uniform Protection Act** (also called the STANDUP Act) was introduced in the U.S. Senate on March 9, 2011 by Senator Kirsten Gillibrand (D-NY). The bill will soon be introduced in the U.S. House of Representatives by Representative Tim Bishop (D-NY).

This legislation would establish minimum federal requirements for state GDL laws and encourage all states to adopt GDL laws that meet those minimum requirements within three years.

For three years following enactment of the STANDUP Act, states with the minimum GDL requirements would receive grants to help them with GDL education and enforcement.

For states that don't comply with the STANDUP Act minimum requirements within three years, the Secretary of Transportation would withhold a percentage of certain federal highway construction program funds. Funds that are withheld would be returned to states that comply within three fiscal years following the fiscal year for which funds were withheld. Withheld funds that are not recovered by a state within the three-year period would be forfeited and returned to the U.S. Treasury.

Here is an overview of the STANDUP Act:

- States must meet the following requirements under the STANDUP Act:
- Three stages of licensing – learner's permit, intermediate stage, and full licensure – should be used
- Age 16 should be the earliest age for entry into the learner's permit process
- Nighttime driving while unsupervised should be restricted during the learner's permit and intermediate stages, until full licensure at age 18
- Driving while using communication devices (cell phone calls, texting) should be prohibited at least until full licensure at age 18
- Unrestricted, full licensure should occur no earlier than age 18
- Passengers should be restricted – no more than one non-familial passenger under age 21 unless a licensed driver over age 21 is in the vehicle – until full licensure at age 18
- Any other requirement adopted by the Secretary of Transportation, such as a minimum duration of 6 months and a minimum of 30 hours of supervised driving for a learner's permit, may be included
- Compliance with the requirements within the first three years after enactment will make states eligible for incentive grants
- Three years are provided for states to meet the requirements, after which sanctions are imposed to encourage states to meet the requirements ▼



Continued from page 7

by the disaster and would change with each incident. Recovery includes final actions to restore the area to the pre-disaster state and any after-action reports and changes to be implemented for next time.

Join NH Public Works Mutual Aid

Once your plan is complete and weaknesses are identified in your system - such as lack of staff to handle tasks in an emergency - a mutual aid agreement can be enacted with other counties or municipalities.

Get the Proper Training

Emergency response training is critical to save valuable time and energy and to minimize duplication of effort. All employees need formal and on-the-job training in operation and safety of any equipment they will be responsible for. Employees will also need training concerning what specific tasks they will need to complete during an emergency. Routine exercises and drills are crucial to allow simulation of the event and reinforce learning. In particular, public works employees should be regularly retrained on the basics of the National Incident Management System (NIMS) as NIMS

will apply until the situation has been officially declared over.

Some training available in NH for public works:

1. National Incident Management System (NIMS) **IS-100 & 2: are both required for nearly all employees of public works agencies in order for those entities to be eligible to receive federal disaster reimbursement.** Watch for this training offered by the New Hampshire Public Works Mutual Aid Program (see www.t2.unh.edu/training).
2. NIMS IS-700.A - An Introduction: can be taken online for free at <http://training.fema.gov/EMIWeb/IS/IS700a.asp>
3. USDOT FHWA offers online training in emergency transportation operations (see http://ops.fhwa.dot.gov/eto_tim_pse/training/index.htm).

Summary

Public works employees are officially regarded as first responders as they have a pivotal role in planning, preparing and responding to disasters. It can be overwhelming to stay abreast of new laws, receive the proper training, and develop the

necessary protocols needed for emergency management, especially for smaller agencies. However, most disasters occur at the local level. Therefore, response will depend on municipal governments to plan accordingly. The unique and diverse wealth of knowledge among public works officials will certainly aid in the flexible response needed to keep citizens safe and orderly.

Locate these additional resources on our website:

http://www.t2.unh.edu/video_pub/publist.html

1. *Emergency Response Guidebook*
2. *Roadway Safety and Disaster Response CD*
3. *The Role of Public Works in Emergency Response*
4. *Emergency Management Assistance Compact for Water Sector*
5. *Best Practices of Road Weather Management CD*
6. *Guide for Preparing Hazardous Materials Incidents Reports*
7. *Incident Sign Installation Guide*

Reference: Bergner, David L. *Public Works Superintendent, City of Overland Park, Kansas. Member, APWA Winter Maintenance Subcommittee, APWA Reporter, January 2010.* ♥

Balancing Act

A photograph of a bridge inspector on the new Mike O'Callaghan-Pat Tillman Memorial Bridge has won national awards.

The photo, titled "Balancing Act," shows bridge inspector Aleksander Nelson nearly 900 feet above the Colorado River on the Hoover Dam bypass bridge. The photo was taken by Nevada Department of Transportation photographer Julie Duewel.

The photo won both the grand prize and the People's Choice Award in the "Faces of Transportation" contest held by the American Association of State Highway and Transportation Officials.

The association said transportation departments in 14 states submitted 87 photos for the contest. Twenty of the photos were put on Facebook for public voting for the People's Choice Award.

"These photographs offer a reminder of the important role transportation plays in American life," said Lloyd Brown, the association's director of communications. "Duewel's photograph exemplifies the very important work being done to maintain transportation infrastructure across the country." ♥



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Publications

- 2011 Traffic Sign Retroreflector Sheeting Identification Guide (Laminated Sheet) FHWA — Intended to help identify sign sheeting materials for rigid signs and their common specification designations.
- Intersection Safety (FHWA) —Provides information on effectively identifying intersection safety issues in local areas, choosing the countermeasures that address them and evaluating the benefits of those treatments.
- Maintenance of Drainage Features for Safety (FHWA)—To assist local road agency maintenance workers understand the importance of maintaining and upgrading drainage features on their road system.
- Maintenance of Signs and Sign Supports (FHWA)—This publication is to help local agency maintenance workers ensure their agency’s signs are maintained to meet the needs of the road user.
- Median Barriers—A Solution to Cross-Median Crashes (FHWA) An introduction to the various options that are available to help mitigate cross-median collisions.
- Roadway Departure Safety (FHWA)—Provides information on effectively identifying roadway departure safety issues in local areas, choosing the countermeasures that address them and evaluating the benefits of those treatments.
- Road Safety Information Analysis (FHWA)—Provides data collection and analysis techniques as well as other processes applicable to the local practitioner to help improve the safety of local rural roads.
- Safety Evaluation of the Safety Edge Treatment (FHWA)—Publication Report on a multiyear evaluation of the safety edge treatment implemented to three states.



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