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Are We There Yet?

South Carolina Transportation Technology Transfer Service

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SCDOT

CLEMSON
UNIVERSITY

SCDOT Receives National Safety Award

For "Outstanding Highway Program" SCDOT's Cable Barriers, Lower Speed Limits Cited in Saving Lives

The South Carolina Department of Transportation (SCDOT) has received a National Highway Safety Award for installing cable barriers and using other practices to reduce interstate fatalities by nearly one-third.

SCDOT is one of six state transportation departments that received National Highway Safety Awards from the Federal Highway Administration (FHWA) and the Roadway Safety Foundation (RSF) in Washington on Wednesday, November 19, 2003.

According to Roadway Safety Foundation Executive Director Diane Steed, "This year's award winners have demonstrated a commitment to saving lives and making a difference." The award ceremony honors initiatives that save lives by improving roadway design, operations and overall planning.

Award winners include six state transportation departments, a regional transportation consortium, two counties, two cities and a state police agency. The winners were selected from over 130 entries.

SCDOT won for its outstanding safety practices program. Four significant interstate safety initiatives were undertaken to reduce fatal cross-over crashes: installation of 315 miles of cable barriers, speed limit reduction in urban areas, truck lane restrictions, and interchange ramp upgrades. Interstate fatalities were reduced by 31 percent, saving an estimated 148 lives in two years.

"At SCDOT, highway safety is a top priority," SCDOT Executive Director Elizabeth S. Mabry said. "Our mission is to provide a safe and efficient transportation system in South Carolina, and we are always looking for innovative ways to do that. We consider one highway fatality one too many."

Mabry thanked the Federal Highway Administration and the Roadway Safety Foundation for the award. In particular, she thanked FHWA South Carolina Division Administrator Bob Lee, who nominated SCDOT for the award.

"We have a great partnership with FHWA in South Carolina and are fortunate to have such an excellent, day-to-day working relationship," Mabry said. "The public benefits greatly from such teamwork." Lee said, "I am very proud SCDOT has won this award. There is much hard work and determination from SCDOT and (cont. on page 5)



The LTAP Center for South Carolina

The Concrete of the Future

Reprinted from the Federal Highway Administration's FOCUS newsletter.

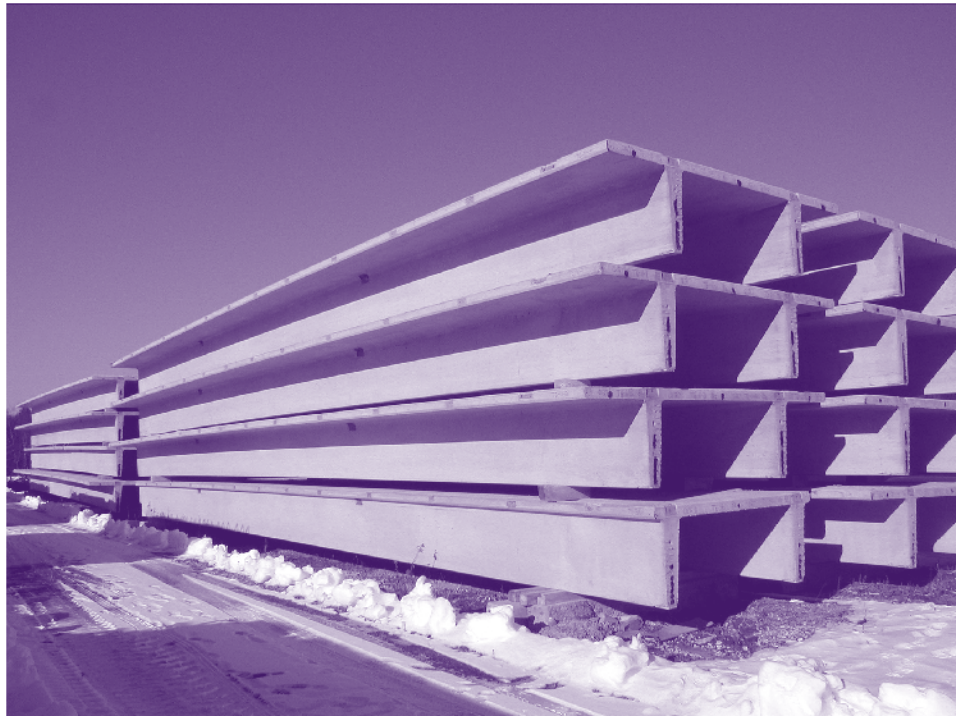
Less construction noise and better workability. Improved quality and durability. Faster construction and higher strength. The use of self-consolidating concrete (SCC) in highway construction offers these benefits and more, with the potential for broad structural applications in the United States.

SCC, which does not require vibration to achieve full compaction, was first developed and used in Japan in the early 1990s for bridge building and tunnel construction. An SCC mix has a high degree of workability and remains stable both during and after placement. SCC uses common ingredients, plus superplasticizers and viscosity modifiers. The mix must meet three key property requirements:

- ▶ Ability to flow into and completely fill intricate and complex forms under its own weight.
- ▶ Ability to pass through and bond to reinforcement material under its own weight.
- ▶ High resistance to aggregate segregation.

Eliminating vibration cuts down on the labor needed and speeds up construction, resulting in cost savings and less traffic disruption. It also reduces the noise level in concrete plants and at construction sites and reduces aggregate segregation, honey combing, and voids in the concrete. The overall concrete quality is improved, as problems associated with vibration, such as under vibration, over vibration, or damage to the air void structure, are eliminated. Also improved is the concrete's resistance to chloride intrusion and ability to withstand freeze thaw damages.

Several European countries formed



a consortium in 1996 to develop SCC for practical applications in Europe. Over the past five years, SCC bridges and structures have been constructed in such countries as the Netherlands, Sweden, and the United Kingdom. For example, SCC has been used on the Sodra Lanken project in Stockholm, which is the largest ongoing infrastructure project in Sweden. The project will provide a 6-km (3.7-mi) four-lane link from west to east in the southern part of the city. It includes seven major junctions, with bridges, earth retention walls, tunnel entrances, and concrete box tunnels. Begun in 1998, the project is slated to wrap up in 2004.

SCC has primarily been used for parts of the Sodra Lanken construction that are difficult to compact by the normal vibration method, including rock tunnel entrances, retention walls, and underground installation structures. For example, two of the project's parallel tunnels did not have a full rock cover. To stabilize the tunnels and achieve a strong and solid structure, concrete arches were constructed with SCC.

The wall sections of the arches were 5-m (16-ft) high, 9- to 16-m (29- to 52-ft) long, and 0.8-m (2.6-ft) thick. The concrete was pumped through a 12.7-cm (5-in) steel pipe from a mobile concrete pump. To ensure an almost continuous flow of concrete into the formwork, two agitating trucks standing side by side to each other discharged the SCC mix. In comparison with other arches cast using conventional techniques, the SCC arches were judged to be of better quality, with good surface evenness and finish that did not require any repairs for rock pockets or other surface defects.

Lessons learned from SCC projects in Japan and Europe include the understanding that the production of SCC requires more experience and care than that of conventional vibrated concrete. Although most common concrete ingredients and mixers can be used for producing SCC, mixes must be properly designed and tested to assure compliance with the project specifications. All commonly used formwork materials are suitable for SCC; however, during cold weather

placement of the concrete, it may be necessary to insulate the formwork to maintain the temperature and normal setting time. SCC is more sensitive to temperature during the hardening process than vibrated concrete. SCC also tends to dry faster than conventional vibrated concrete, as there is little or no water near the concrete surface. The concrete should be cured as soon as practical after placement to prevent surface shrinkage cracking.

The initial cost of SCC may be higher than that of conventional concrete because of the admixtures used. However, when used in Japan and Europe, material cost increases of about four percent were offset by labor cost decreases of 33 percent, for a total cost decrease of about seven percent per project.

“SCC has high potential for greater acceptance and wider applications in highway bridge construction,” says M. Myint Lwin, Director of the Office of Bridge Technology at the Federal Highway Administration (FHWA). A new National Cooperative Highway Research Program project will focus on developing design and construction specifications for SCC to supplement the American Association of State Highway and Transportation Officials’ Load and Resistance Factor Design specifications. The South Carolina Department of Transportation, meanwhile, has received an Innovative Bridge Research and Construction (IBRC) grant from FHWA to study the use of SCC in drilled shafts. The Kansas Department of Transportation (KSDOT) has also received an IBRC grant to study the use of SCC in prestressed concrete bridge girders. KSDOT will build a three-span bridge, using SCC in all of the prestressed concrete girders for one of the spans, with the other spans being constructed



using Kansas’s standard concrete mixes. The bridge’s performance will then be monitored for five years.

More information on SCC is available in the paper, “Applications of SCC in Japan, Europe, and the U.S.,” by Masahiro Ouchi, Sada-aki Nakamura, Thomas Osterberg, Sven-Erik Hallberg, and M. Myint Lwin.

To obtain a copy or for additional information on SCC and how it is being implemented, contact M. Myint Lwin at 202-366-4589 (email: myint.lwin@fhwa.dot.gov). ▼

ASCE Update

by Alice Geiger, ASCE Northwest Branch Director

ASCE's mission is to provide essential value to our members, their careers, our partners and the public by developing leadership, advancing technology, advocating lifelong learning and promoting the profession.

The Northwest Branch of the South Carolina Section typically meets the fourth Monday of each month. Our next meeting will be hosted by the Clemson student chapter on March 29, 2004. The newsletter is sent by Secretary Jennifer Newton. Contact information to receive our monthly newsletter is jnewton@brittpeters.com

The Northwest Branch is hosting a half-day seminar on the morning of Friday, May 21, 2004. The seminar will be held at the Palmetto Expo Center in Greenville, SC. The agenda has not been finalized, but the date and location have been confirmed. Seminar details will be provided through our email mailing list.

Please contact Northwest Branch Director Alice Walter Geiger at geiger_l@ecslimited.com to be included as a speaker in the topics of geotechnical, environmental, structures, transportation, and management. ▼



24th Annual Summer Conference and Equipment Show

The South Carolina Chapter of the American Public Works Association presents the 24th Annual Summer Conference and Equipment Show. The show will be held at the Ocean Dunes/Sand Dunes Hotel in Myrtle Beach, SC, July 14-17, 2004.

The general business sessions, technical sessions, and exhibit area will be at the Ocean Dunes Conference Center adjacent to the hotel. Other activities include the annual golf tournament planned for July 14, 2004 at the Legends Golf Resort and the Backhoe Rodeo and family cookout for all registrants and their families at the Legends Golf Course on Wednesday evening, the 14th at 5:30PM. The conference registration fee includes a continental breakfast, lunch with the vendors on Thursday, the family cookout on Wednesday, and the Friday night banquet.



The registration fee for the conference and equipment show is \$100.00. There is also a fee for spouse/guest and children. To request more information or to be added to the APWA mailing list, to receive a brochure please contact:

Robert Anderson
City of Columbia
2910 Colonial Drive
Columbia SC 29203
Phone: 803-545-3830
Fax: 803-733-8648

You must make your own reservations with the conference hotel. Be sure to ask for the APWA reserved area at the Ocean Dunes/Sand Dunes Hotel, 76th Ave., North Myrtle Beach, SC. The Ocean Dunes reservation line is 888-999-8920. The Sand Dunes reservation line is 866-845-1011. ▼

SCDOT Launches New Press Release Web Page

The South Carolina Department of Transportation (SCDOT) has redesigned its press release web page to better provide the media and public with the latest SCDOT news concerning topics of interest.

The site is accessed from the SCDOT Home Page, www.scdot.org, by clicking on "Press Releases." Users will find news releases and advisories concerning upcoming public meetings, construction and maintenance, weather-related news and general information releases.

The site has several convenient features:

- ▶ Press releases are now listed under easy to find categories: "General,"

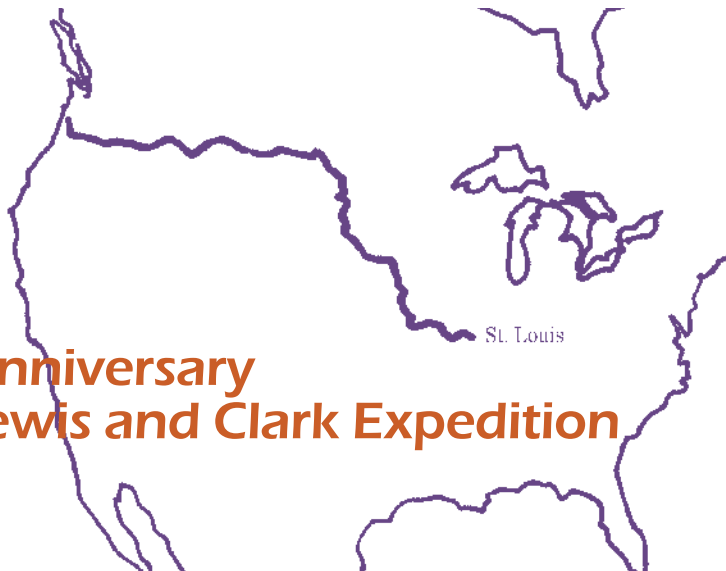
"Construction and Maintenance," "Weather Related" and "Public Meetings."

- ▶ A search engine is available for both keyword and advanced searching.
- ▶ Summaries of recent news releases and advisories are visible on the Press Release home page.

"We hope this new page will better suit the needs of the media and public in accessing information from SCDOT," said Director of Communications Pete Poore. "We want to thank our ITS (Information Technology Systems) staff for its efforts in creating this page." ▼

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200th Anniversary of the Lewis and Clark Expedition



On May 14, 1804, Meriwether Lewis and William Clark set sail from Wood River near St. Louis, Mo., beginning a more than two-year, 8,000-mile expedition. President Thomas Jefferson commissioned the trip to explore the land (and its natural resources and peoples) of the Louisiana Purchase bought in 1803.

Lewis and Clark were former Army officers. They assembled a crew of 45 to assist with their journey. The "Corps of Discovery" consisted mostly of military personnel and local boat men, but also included York, Clark's black slave, as well as a Newfoundland dog. On the way, they met a French Canadian and his Shoshoni wife, Sacagawea, who proved to be a valuable Indian guide and translator. They used three boats to facilitate river travel, but often had to barter with Indians for horses when land travel was necessary. To avoid starvation, they sometimes had to kill the horses for meat.

By November, they had traveled more than 1,500 miles to North Dakota, where they set up camp for the winter. By the following November, they reached the Pacific Ocean. They arrived back in St. Louis on September 23, 1806. Many historians believe their single most important discovery was that the Rocky Mountains prevented the connection of the Missouri and Columbia Rivers. ♡

(cont. from page 1)

FHWA to improve highway safety and reduce fatalities. It's a job we all take very seriously."

Mary Peters, Administrator, Federal Highway Administration, and Diane Steed, Executive Director, Roadway Safety Foundation, presented the award to SCDOT at the ceremony. Accepting on SCDOT's behalf was Safety and Systems Engineer Dick Jenkins.

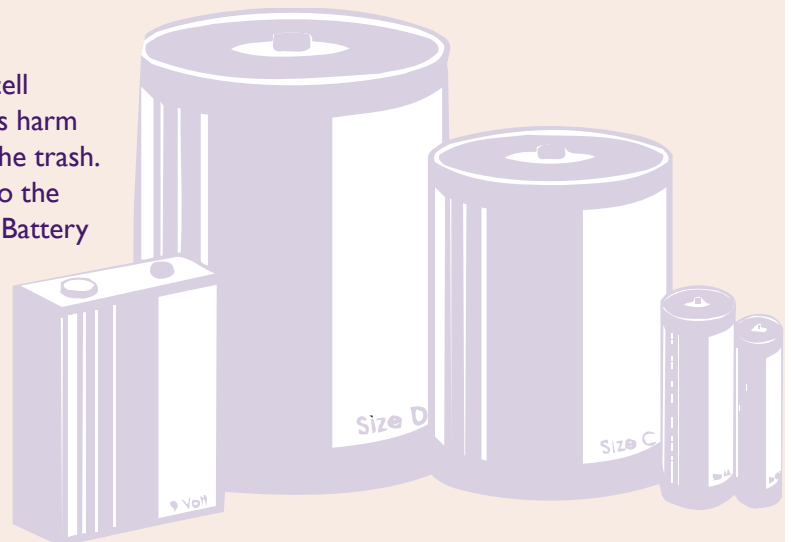
"I am overjoyed to accept this award on behalf of the SCDOT team and for the citizens of our state," Jenkins said. "We will continue to pursue innovative measures on our roads to further reduce collisions, injuries and fatalities."

One of the ways SCDOT has reduced fatal crashes is the installation of cable guardrails along stretches of interstate highways. ♡

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Recycling Batteries

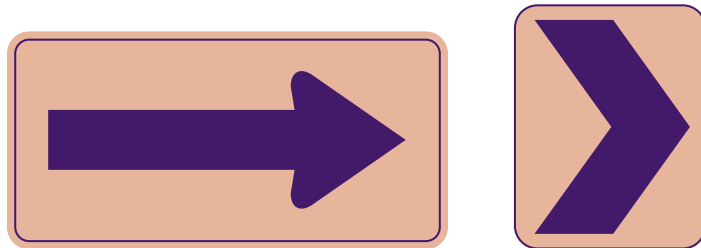
Rechargeable batteries from cameras, cordless tools, cell phones, and other electronic devices can cause serious harm to the environment if you simply toss them out with the trash. Batteries contain toxic heavy metals that can leach into the earth. To dispose of them safely, call the Rechargeable Battery Recycling Corp., a nonprofit public service group, at 1-800-8-BATTERY (1-800-822-8837), or visit www.rbrc.com for a list of battery drop-off sites in your neighborhood. ♡



Guiding Motorists Through Turns and Curves

By Kathy DesRoches, Assistant Director
UNH Technology Transfer Center

Warning signs are principally for drivers unfamiliar with the road. The Manual of Uniform Traffic Control Devices (MUTCD) governs which signs to use, and how to place them. For turns and curves, it describes the W1 series. This



**SHARP CURVE
TO RIGHT
(W1-6)**

**SHARP CURVE
TO RIGHT
(W1-8)**

article describes use and placement of two W1 series signs: the Large Single Arrow (W1-6) and the Chevron Alignment (W1-8) signs.

Where to Use W1-6 and W1-8 Signs

W1-6 and W1-8 signs alert drivers, and guide them to the safe path through severe alignment changes. Road managers must install them based on engineering judgment. They should consider them for these situations:

- ▶ Where accident records show “run off the road”, “hit fixed object” or other turn or curve related crashes.
- ▶ Where accident evidence exists, such as shoulder damage, scars on trees, or other marks on shoulders.
- ▶ Where day or night inspection suggests drivers need warning of alignment changes.

Large Single Arrow signs mark sharp turns and short curves. On conventional roads, the sign size is 48 by 24 inches. The MUTCD allows 36 x 18 inch W1-6 signs on low-speed roadways, where the reduced legend size would be adequate.

Chevron Alignment signs mark curves and less than sharp turns. Chevron signs 18 by 24 inches are the standard for

conventional roads. The MUTCD allows 12 x 18 inch W1-6 signs on low-speed roadways. They should not have the border shown in the picture.

Sign Placement

The MUTCD requires locating W1-6 and W1-8 signs on the outside of turns and curves at right angles to approaching traffic. The point of the Arrow or Chevron must indicate the direction of travel. They should be visible for at least 500 feet. The minimum lateral offset is 6 feet. Sign supports shall be breakaway or yielding. Crews may place the signs on existing supports, such as utility poles. Crews should install W1-8 signs in a series along the length of the turn or curve. They should space signs so drivers can always see two signs.

Note: Compare the visibility of the supplemental panel for advisory speed with the advisory speed built into the sign. Also, note that drivers can see two Chevrons.

Where Not to Use These Signs

Cities and towns should not use these warning signs when the curvature and its severity are apparent to drivers. Excessive use tends to breed disrespect for signs. Municipalities should not use Chevron Alignment signs:

- 1) On winding roads where drivers might see the last in a series of signs where the road begins to turn in the reverse direction, or
- 2) Where a turn or curve within the segment has inadequate length for proper sign spacing.

Further Information

The MUTCD rules for Large Single Arrow and Chevron Alignment signs are in the Traffic Sign Handbook for New Hampshire Local Roads. It is available from the UNHT2 Center.

Source:

Street Wise. Spring 2003, Nevada Transportation Center, Volume III, #1

Manual of Uniform Traffic Control Devices (MUTCD).

Federal Highway Administration.

<http://mutcd.fhwa.dot.gov/> ▼

When Wipers Go On, Lights Should Go On

According to the Insurance Institute for Highway Safety, the simple act of turning on your lights when you turn on your windshield wipers greatly reduces the risk of multiple vehicle crashes. Many states have laws that require this additional step when snow, rain, sleet, or fog necessitate turning on the wipers. “Daytime running lights are especially effective in preventing head-on and front-corner collisions by increasing vehicle conspicuity and making it easier to detect approaching vehicles from farther away,” the Institute said. ▼

Highway Users Alliance Launches New Web Site & Announces the SmartRoads Challenge

Traffic congestion, roadway safety, and highway funding affect everyone. We know that people are concerned about the policies governing the billions of dollars in funding for our national highway system. So to keep you informed, the American Highway Users Alliance is launching a far-reaching resource to ensure that the latest developments in transportation are just a mouse-click away.

We invite you to bookmark the American Highway Users Alliance's new website www.highways.org. This site is a cutting-edge, informative resource that we believe will serve as the source of information and insight on America's highways. Complete with the latest news, legislative updates, and challenges effecting our highway safety and mobility, this new site is a helpful tool that will introduce you to the Highway Users and keep you up-to-date on important transportation news.

Learn about why we need highways. Discover the hot issues facing the transportation community today, and be sure to sign up for our weekly e-mail news update. All of these features are geared toward providing you with a strong knowledge of today's transportation issues, as well as equipping you with the tools you need to participate in the debate. ▼

How To Control Your Car After a Blown Tire

Originally Printed in the Nevada Milepost

A common cause of accidents is a blown tire at high speeds. The following steps explain how to get your car safely to the other side of the road:

1. Step off the accelerator. Allow the car to come to a complete stop. You risk rolling your car over if you step on the brake and try to stop abruptly.
2. Drive in a straight line. Jerking the steering wheel while you try to stop the car also can cause it to roll. Try to steer straight. If you start to skid, steer in the direction of the skid until you get control.
3. Turn away from oncoming traffic. If you are headed for a collision, aim for something that will give way or try to steer toward something that you can swipe to slow the car down. ▼

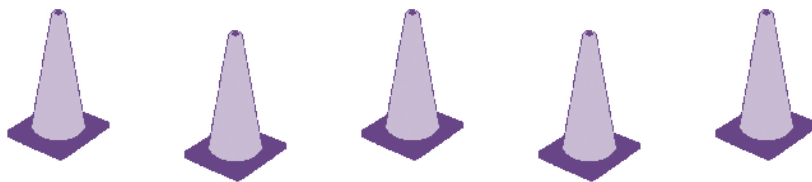


Road Safety is the Theme of This Year's Annual World Health Day celebration.

On April 7, events will be held worldwide to raise awareness about road traffic injuries and public health approaches to prevention.

Road traffic injuries pose a global public health crisis. Each year, road traffic injuries kill more than a million men, women and children around the world. Tens of millions more are injured, some of whom become permanently disabled. In the United States, road traffic injuries are the leading cause of death for persons one to 34 years of age, and they represent the greatest health threat to American citizens traveling or living abroad. Each year, more than 40,000 U.S. citizens are killed in motor vehicle crashes, with more than 4 million suffering injuries severe enough to require treatment in an emergency department. ▼

Safety Zone



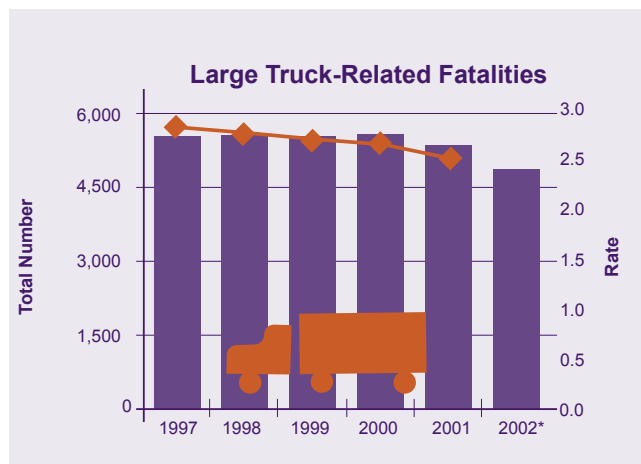
Recent Highway Safety Data: Traffic Related Fatalities and Injuries



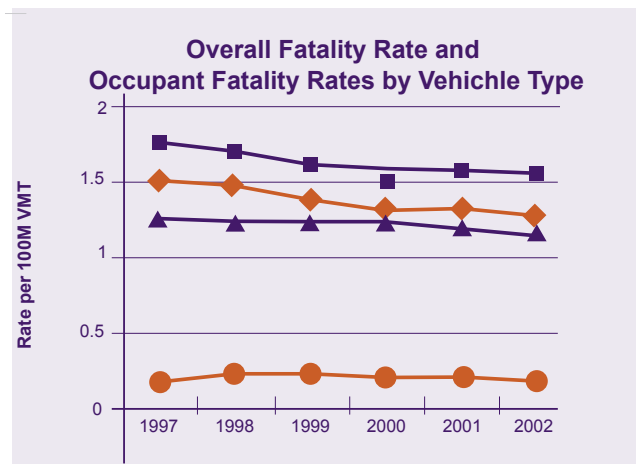
Pedestrian Fatalities
 Percentage of Total Fatalities



Speeding Related Fatalities
 Percentage of Total Fatalities



Large Truck-Related Fatalities
 Rate Per 100M Commercial
 *2002 rate not available



Overall Fatality rate
 Passenger car
 Pickup trucks, vans, SUVs
 Large Trucks

Data sources for the graphs shown:

Fatality data: Fatality Analysis Reporting System (FARS), 1996-2000 File, 2001 Annual Report File, 2002 Early Assessment File

Injury data: National Automotive Sampling System (NASS) General Estimates System (GES) 1996-2001. 2002 Early Assessment File

The Most Hazardous Occupation

Reprinted with permission from the Virginia Transportation Technology Transfer Center

Over the last few years, highway construction has been the most hazardous occupation in the United States. However, most of the people killed or injured in work zones are motorists, not workers. Since 1994, there have been over 4,400 crashes in Virginia work zones, resulting in 83 fatalities and 2,700 injuries.

On the national level, the year 2000 saw 1,093 persons killed in highway work zone accidents. This was an increase of 225 (26%) over 1999 and an all-time record according to the National Highway Traffic Safety Administration's Fatality Analysis Reporting System database. Road construction workers probably accounted for 163 of the victims. ▼

Danger Within Work Zones

Reprinted with permission from the Virginia Transportation Technology Transfer Center

Although the greatest danger to workers in a highway work zone comes from fast-moving traffic in the lanes adjacent to the work area, especially if there is no physical divider such as a concrete barrier, this is not the only source of danger. A study completed by several labor union safety organizations and Johns Hopkins University focused on accidents within work areas that are not caused by intrusion from the highway traffic stream.

Good traffic control in the vicinity of work zones is clearly important; however, the findings of the study reveal that more attention should be paid to the movements of equipment within work zones. This study shows that more than half of the accidental deaths that occurred within the work area during the study resulted from dump-truck accidents. The study showed how internal traffic-control plans need to be developed and followed to minimize the need for backing and other hazardous movements, and/or to make them as safe as possible.

One of the safety devices suggested by the study was prompted by the

fact that 17% of dump-truck fatalities were the result of hitting high-power lines with the truck bed up. The device is simply a sleeve to be placed over a standard traffic cone to call attention to overhead power lines. The sleeve is a strong, yellow-green plastic covering with wording and electrical symbols pointing upwards. Cones with this covering can then be placed under power lines so that drivers and spotters can continually be reminded of the overhead danger.

A significant number of backing accidents involving dump trucks occurred when someone was watching but was unable to communicate with the driver quickly enough to stop the truck. To address this problem, the study proposed a sounding unit that hangs on the window of a dump truck. A spotter carries a handheld transmitter that can activate the sounding unit in the truck, alerting the driver to stop. The unit plugs into the cigarette lighter and can be left on during construction operations. Both units are portable and can be moved from one vehicle to another in minutes. The more sophisticated devices of this sort allow the spotter to apply the truck's brakes when danger occurs. This device, which is known as a SPOT Alarm, has a range of about 50 to 60 feet. ▼

Top 10 Problems in Highway Work Zones

Virginia Department of Transportation

- ▶ **Signs Left Up:** When signs are left up with no work going on, drivers lose respect for warning signs.
- ▶ **Improper Sign Stands:** Self-erecting sign stands with a spring system should be used on all roadways (except in special cases).
- ▶ **Improper Transitions:** When a lane is closed, the transition should be visible from the last warning sign. The beginning of a transition should not be in a curved section of the road.
- ▶ **Improper Spacing of Cones and Barrels:** In a transition, cones and barrels should be spaced a maximum of 20 feet for speeds up to 35 mph and a maximum of 40 feet for speeds above 35 mph.
- ▶ **Short Transitions:** Short transitions can cause improper merging or stopping by motorists.
- ▶ **The Placement of Truck-Mounted Attenuators:** The truck-mounted attenuators must be placed 50-100 feet in front of the first hazard closest to the transition.
- ▶ **The Use of Nonreflective Devices:** Signs, cones, and other devices must be retro-reflective and be visible at night.
- ▶ **Lack of Buffer Space:** The space between the transition and the work area should be 500 feet when the speed is more than 45 mph and 200 feet when the speed is less than 45 mph.
- ▶ **Improper Flagging:** Flaggers must flag from the shoulder of the roadway, be properly attired, and use hand signals along with a Stop/Slow paddle.
- ▶ **Lack of Termination Signs:** All lane closures require "End Road Work" signs. ▼

Getting Heard By Your Boss

By Robert Bacal, M.A.

No matter where you sit in your organization, you probably have a boss. Part of the satisfaction of any job is seeing your ideas and suggestions successfully implemented. And one of the most frustrating things (and a morale buster) is dealing with a boss who seems uninterested in your contributions, or just plain doesn't listen. I'm going to help you get heard by your boss and have a better chance of having your ideas used.

Like landing a plane, getting heard is all in the approach. Set it up properly, and the landing is smooth. Mess up the approach and it doesn't work very well. First, some general principles to help you get heard.

Your ideas are much more likely to be accepted if they are:

- ▶ seen as solutions to problems your boss considers important to solve.
- ▶ well reasoned, in terms of both the pros and cons of your idea.
- ▶ beneficial to the boss, the organization and perhaps you (in that order).
- ▶ matched to the "style" of your boss.
- ▶ delivered with good timing (when the need is felt, and when the time is available).

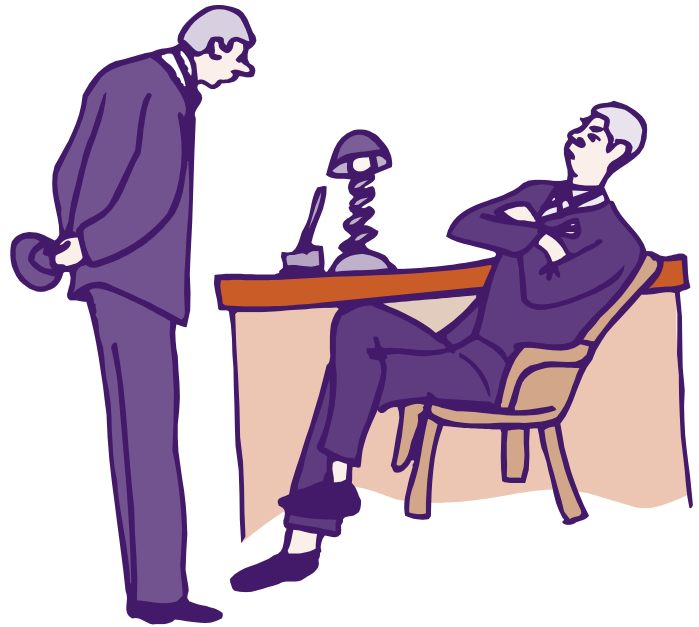
Your ideas are more likely to be accepted if your boss perceives you as:

- ▶ interested in the good of the organization rather than your own self-centered reasons.
- ▶ knowledgeable, and someone who consistently gets your job done when it needs to be done.
- ▶ unbiased and open to other people's ideas.

Here's what you do

First, learn what drives your boss nuts. If you can answer the question: What problems does my boss take home at night—the things that weigh on his or her mind, then link your ideas to help the boss solve those problems, you're halfway there to getting heard. Help your boss stay sane (or retrieve some sanity), and you can become a trusted and valued employee.

Learn what kinds of information your boss wants and when. Make sure it's there when needed, preferably beforehand. Anticipating needs is a great way to open the door when you have ideas you want heard, because you



have shown a sensitivity to the needs and requirements of your boss's job.

Learn what kinds of communication approaches work with your boss. Some people like a whole detailed explanation. Some want information and ideas in a concise short format. Some prefer things in writing, while others hate having to wade through paper. If you want to get heard, don't "pitch ideas" the way you would like, but pitch them the way the boss likes it.

Present both pros and cons of your idea. If you oversell by presenting only the good points related to your suggestion, you can lose credibility. The boss needs to see you as thoughtful, reflective and unbiased, so present both sides of your argument. That's how you build credibility.

Indicate your willingness to pitch in. You know one thing that drives bosses nuts? When someone comes up with ideas and suggestions for OTHERS to do—things that increase the workload of others. If you have a great suggestion, offer to play a major role in implementing it. Don't just dump the idea on the boss without offering to pitch in.

Summary

No matter how good your ideas are, if you present them badly, you aren't going to get heard. And, of course, there are some bosses out there who just aren't going to listen, no matter what you do. Still, if you follow these simple tips, you'll find that you get a better hearing most of the time. And that is a great step towards promotion. ♡

Information Request and Address Change Form

To order any of the publications, videos, or other materials listed in this or other issues of *Are We There Yet?*, complete this form and mail it or fax it to Sandi Priddy at the address or phone number shown below. You can also order videos and publications online at <http://www.ces.clemson.edu/t3s>.

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Transportation Technology Transfer Service

Civil Engineering Department	Phone: 864.656.1456
Clemson University, Box 340911	Toll free: 888.414.3069
Clemson, SC 29634-0911	Fax: 864.656.2670

Name: _____

Title: _____

Address: _____

Phone: _____ Fax: _____

☐ This is a new address

☐ Please add my name to your mailing list

Publications

- ☐ *Emergency Management, Field Manual for Public Works*—APWA. This book was designed to strengthen the understanding of public works' vital emergency management roles and responsibilities.
- ☐ *Introducing the Peer to Peer Program on Traffic Control Devices* (brochure)—FHWA.
- ☐ *Road Symbol Guide* (brochure)—FHWA.
- ☐ *Accessible Rights-of-way, A Design Guide, The Access Board*—TRB. Available on line at <http://access-board.gov/publications/PROW%20Guide?PROWGuide.htm>. Covers regulatory requirements for accessible public rights-of-way and includes best practices.
- ☐ *Community Impact Assessment* (CD)—FHWA. Includes: history and overview of CIA; assessing the social and economic effects of transportation projects, a guide to understanding a sense of place (US Environmental Protection Agency), etc.
- ☐ *Best Practices for Road Weather Management* (CD)—FHWA. Contains resources to help traffic, emergency, and maintenance managers improve roadway operations under inclement weather conditions.
- ☐ *General Development Process for In-vehicle Icons*—FHWA-RD-03-061. Describes a general process for developing in-vehicle icons that provide several advantages over text only.
- ☐ *Meeting 21st Century Challenges of System Performance Through Better Operations*—FHWA-PL-03-012. A Study of Germany, France, England and the Netherlands to investigate current and planned strategies for sustaining good system performance and operations across all transportation modes.
- ☐ *NCHRP Report 500, A Guide for Addressing Driving Collisions*—TRB. Provides strategies that can be employed to reduce the number of crashes due to aggressive driving behavior on our roads and highways.

Videos

- ☐ *Accessible Sidewalks* (40 min)—US Access Board. Covers design issues for pedestrians who use wheel chairs, who have ambulatory impairments, with low vision and who are blind.
- ☐ *Avoiding Collisions*, (20 min)—ARTBA. Safe Practices for Avoiding Collisions
- ☐ *On Again, Off Again: A Guide to Mounting and Dismounting Heavy Equipment* (18 min)—Association of County Commissioners of Oklahoma. Provides a training tool for counties to address the increasing injuries from mounting and dismounting heavy equipment.
- ☐ *Getting Across: Aquatic Organisms and Road-Stream Crossings* (22 min)—USDA Forest Service. Provides a general overview of aquatic organism passage at road stream crossings.

Other _____

SPEED BUMP

Dave Coverly



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