Florida Technology Transfer Quarterly
Established 1984

Florida Technology Transfer Quarterly, published by the Florida Transportation Technology Transfer (T²) Center at the University of Florida, Department of Civil and Coastal Engineering, facilitates information exchange relating to roads, bridges, general surface transportation, and safety.

Our programs are sponsored through partnerships between the Florida Department of Transportation and the Federal Highway Administration and include the Local Technical Assistance Program (LTAP), the Product Demonstration Showcase Program (PDS), the Pedestrian/Bicycling Safety Resource Center, and the Center for Transportation Training (cTT) which offers Construction Training Qualification Program (CTQP) courses.

Interested parties may receive this publication at no cost by providing name, agency, address, city, state, zip code, phone and email address to t2@ce.ufl.edu. Newsletter content and accuracy is the exclusive responsibility of the Florida T² Center.

Circulation: 15,882
As part of an ongoing effort to reduce fatalities on local and rural roads, the Federal Highway Administration (FHWA) Office of Safety continues to develop tools and resources for these road owners. All local and rural highway practitioners must routinely integrate safety in their projects and programs. In 2009, 56 percent of the fatalities on our nation’s roadways occurred on rural roads and the fatality rate was 2.5 times higher than in urban areas. Local and rural road owners should have access to road safety information, knowledge, and resources needed to address safety issues.

Two new resources are available: the Local and Rural Roads Safety Peer-to-Peer Program and the Local Rural Road Owners Manuals.

The Local and Rural Roads Safety Peer to Peer Program (LRR P2P)

The Local and Rural Roads Safety Peer to Peer Program (LRR P2P) is open to public highway agencies seeking to adequately address safety problems on their local and rural road network. Short term assistance can be provided on a variety of topics, ranging from developing a safety program for the local road network to determining locations that need immediate attention and identifying low cost safety improvements that can be installed quickly. Technical assistance through the LRR P2P is provided primarily through expert peers with knowledge in various areas of local and rural road safety issues. Peer assistance can be provided in three formats: technical assistance, training, and peer exchanges.

Benefits an agency can expect through the LRR P2P program include:
- Free and convenient access to professionals experienced with local and rural road safety.
- Expert assistance to recognize local and rural road safety issues and identify solutions.
- Increased understanding of how to improve safety on local and rural roads.

Any public agency is eligible to apply for technical assistance through this program. Assistance requests must be coordinated with the FHWA Division Office before beginning the application process. Applications can be completed online, by fax, or over the phone. Detailed information on the LRR P2P program including eligibility requirements and an application is available online at safety.fhwa.dot.gov/local_rural/training/p2p/

Local Rural Road Owners Manuals

The three Local Rural Road Owners Manuals focus on the local rural transportation practitioner: Road Safety Information Analysis, Roadway Departure Safety, and Intersection Safety. These documents are not substitutes for other documents with similar content but provide concise methodologies in addressing each issue. Each manual provides the local practitioner with procedures and processes to improve local rural road safety and to reduce the potential for future crashes.

The Road Safety Information Analysis manual discusses data types, collection, and analysis and how to use this information to identify locations with safety issues, appropriate countermeasures, and perform proper implementation approaches. The information will acquaint local practitioners – regardless of background or experience level – with the sources, calculations, tools, and methods to make data-supported decisions regarding local rural road safety.

The Intersection and Roadway Departure Safety manual discusses safety issues on local rural roads and presents an understandable step-by-step approach to identifying and addressing intersection and roadway departure safety issues.

The manuals provide a framework for assessing the safety of specific locations and how to determine whether countermeasures should be installed. In each manual, proven countermeasures are presented and a process for the planning and implementation of safety improvements is provided.

The manuals are available for download at safety.fhwa.dot.gov/local_rural/training/. CD ROMs of the manuals are available at no charge from the Report Center at report.center@dot.gov

Please contact Rosemarie Anderson, Transportation Specialist, FHWA Office of Safety, with questions or requests for additional information at Rosemarie.Anderson@dot.gov or call 202.366.5007.

Go Green with Technology Transfer Quarterly

Start receiving your Technology Transfer Quarterly by email.

Just send an email to us at t2@ce.ufl.edu with your name, organization, and email address. As soon as the newsletter is available, you will receive an email at the address you provided with a link to our E-Newsletter. In the future, you will also be given the opportunity to opt-in to our monthly training updates. Thanks in advance for being green!

To view past issues of Florida’s Technology Transfer Quarterly newsletter, visit: t2ctt.ce.ufl.edu/nl-archive
Mower Operation Safety Training and Tips

Grass, weeds, and brush often limit a driver’s line of sight. Controlling roadside vegetation helps keep signs, guardrails, other safety devices, vehicles, bicyclists, and pedestrians visible to the driver in addition to beautifying the roadway. Mowing and other forms of vegetation control help provide good sight distance for drivers and other road users, especially as they approach intersections and interchanges and negotiate curves. Additional trimming may be needed where mowers cannot safely reach, such as around delineators and markers.

Roadside mowing is a year around operation in Florida. It is essential that mower operators know proper techniques and safety. Follow these personal safety and operating tips to help keep your mowing staff safe.

In these economic times, to save money, it is even more essential to time your mowing to growth cycles and weather. In Florida’s hot and wet summer weather, vegetation grows faster and requires more mowing than winter weather. However, cutting grasses too short and too often exposes roots and soil to direct sun, causing them to dry out. Mowing in boggy soils, especially after rains, can be hard on equipment and the tractor may bog down.

Operation Safety

• Read the operator’s manual thoroughly.
• Be sure the mower has a roll-over protection structure (ROPS).
• Place a Slow Moving Vehicle sign (reflective triangle) on the rear of mower/tractor.
• Use rotating yellow beacons and install yellow flashers on the roll bar or top of the tractor cab. Operate these at all times.
• Install an orange pennant on a whip to show the location of the tractor over the edge of slopes.
• Use the tractor’s headlights at all times.
• Keep spill kits/materials on hand in case of oil or fuel leaks.
• Refuel away from waterways.
• Shut off power before checking any mower unit.
• Check for leaks before leaving the shop.
• Before starting any mower, make sure it is completely lubricated, adjusted, and checked for loose nuts and bolts.
• Check that chain guards, v-belts, drive chains, power take-off shafts and other mower covers are properly installed. Replace broken or missing chain guards and debris guards immediately; do not operate a mower without them. A small rock or piece of a can or bottle becomes a dangerous projectile when launched by a mower. Using flail type mowers reduces the amount of debris thrown.
• Block the mower before changing or sharpening a blade. Before reinstalling blades, check for cracks or damage that will lead to failure.
• Be alert for signs that indicate areas where mowing and vegetation control are limited for preservation of plants and/or wildlife. Report any “no-mow” areas to your supervisor if you think they are becoming a safety hazard.
• Ballast or weight the tractor properly.
• Where the roadside permits, on slopes that rise or fall 1 foot or less in 2.5 feet of horizontal distance, consider mowing 15 feet beyond the pavement edge. Mow farther if the slope remains gentle enough for you to reach the fore slope and one pass on the back slope of a ditch. Also mow farther to blend the maintained roadside with natural or planted vegetation beyond, such as wildflower beds.
• On slopes that rise or fall more steeply, mow with a side-mounted mower or boom unit or one swath past the point where the slope becomes steeper than 1 foot in 2.5 feet.
• Keep the tractor unit on the gently sloped surface. Operate side-mounted or boom mower units on the uphill side of the tractor to limit the possibility of overturning the tractor.
• Strip grass in a circle around the tree to help avoid mower wounds that can kill trees. The radius of the circle should be 1 to 3 feet depending on the size of the tree. Remove low tree branches that can hit an eye or throw the operator off balance.
• Raise mowers when crossing driveways and roadways.
• Face oncoming traffic as much as possible when mowing to control vehicles. It also results in less impact if a missile is thrown out from underneath the mower.
• Refuel away from waterways.
• Keep spill kits/materials on hand in case of oil or fuel leaks in the field.

Personal Safety

• Use the canopy on the mower.
• Wear a safety vest.
• Wear hearing protection to protect yourself from noise, and a long sleeved shirt, hard hat, plus safety goggles/sun glasses to protect yourself from branches, flying debris, and the sun.
• Wear leather gloves, boots with hard toes and soles.

Adapted with permission from Mowing for Safety, Safely (Technical Information Sheet #134), Pennsylvania Local Technical Assistance Program. The original article was based on Vegetation Control for Safety, a Guide for Street and Highway Maintenance Personnel, FHWA-RT-90-003, Office of Highway Safety, prepared by the Technology Transfer Center, Iowa State University.
The Florida T² Center offers several classes in mower operation and safety training.

Module 5 of our Mobile Video Training (MVT) is titled Roadside Maintenance Operations and offers training on the following subjects: 5A: Mowing Safety (1 hr); 5B: Roadside Vegetation Control (4 hrs); and 5C: Shoulder & Roadside Ditch Maintenance (2 hrs). Call 352.273.1670 for MVT information.

In addition, we have two live, instructor-led classes: Roadside Maintenance Safety and Tractor Mower Operator Safety (TMOST).

**Green Infrastructure Models and Calculators**

The US Environmental Protection Agency’s Green Infrastructure web page features links to predictive models and calculators to assist in modeling stormwater runoff, water quality impacts from land use changes, benefits of urban tree coverage and pollutant load reductions from Low Impact Development (LID) techniques. The calculators can assist with quantifying costs and benefits of green infrastructure investments. These tools can be found at the following web link: cfpub.epa.gov/npdes/greeninfrastructure/modelsandcalculators.cfm

Source: US Environmental Protection Agency

**Local and Rural Road Safety Resources from FHWA**

The Federal Highway Administration (FHWA) has made the following local and rural road safety and street maintenance resources available both online and in hard copy:

- Noteworthy Practices: Addressing Safety on Locally-Owned and Maintained Roads - A Domestic Scan
- Implementing the High Risk Rural Roads Program
- Local Roads Safety Resource CD
- Local and Rural Safety Peer-to-Peer Program
- Safety Circuit Rider Best Practices Guide
- Road Safety Tools for Local Agencies
- Rural Highway Safety Clearinghouse
- Roadway Safety Guide
- Maintenance of Drainage Features for Safety
- Maintenance of Signs and Sign Supports
- W-Beam Guardrail Repair
- Vegetation Control for Safety

Find documents online at: safety.fhwa.dot.gov/local_rural/training/ or order from the FHWA Report Center: Report.Center@dot.gov or call 814.239.1160 or fax 814.239.2156.

**May is National Motorcycle Safety Awareness Month**

To help keep motorcyclists safe, all motorists are reminded to share the road safely with motorcycles and to stay alert while driving.

**June 20th is Ride Your Motorcycle to Work Day.**
# FACERS Annual Meeting Agenda

**June 22 – 24, 2011**

*in conjunction with 2011 FAC Annual Conference & Educational Exposition*

**Hilton Bonnet Creek**

**Orlando, FL**

## Wednesday

<table>
<thead>
<tr>
<th>Time</th>
<th>Event Description</th>
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<tbody>
<tr>
<td>7:30 AM – 8:00 AM</td>
<td>FAC Continental Breakfast***</td>
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<tr>
<td>9:00 AM – 10:00 AM</td>
<td>Railroad Agreements and Your Money (Doug Gable/Steve Logan, Polk County)</td>
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### Break

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<tr>
<th>Time</th>
<th>Event Description</th>
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<tbody>
<tr>
<td>10:15 AM – 11:15 AM</td>
<td>Problem Road Projects (Subsurface and Drainage) and Litigation Experience (Devo Seereeram, DEVO)</td>
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<tr>
<td>11:15 AM – 12:00 PM</td>
<td>Exhibit Hall/Networking Opportunities***</td>
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<tr>
<td>12:00 PM – 1:30 PM</td>
<td>Lunch (on your own)</td>
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<tr>
<td>1:30 PM – 2:30 PM</td>
<td>ITS Adaptive Signal Control and Funding Sources (Eddie Curtis, FHWA, and Fred H. Heery, Sr, FDOT)</td>
</tr>
<tr>
<td>2:30 PM – 3:30 PM</td>
<td>Geosynthetic Reinforced Soil Integrated Bridge System (Derek Soden, FHWA, and Larry Jones, FDOT)</td>
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### Break

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<th>Time</th>
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<tr>
<td>3:45 PM – 4:30 PM</td>
<td>LAP Group Discussion, LAP Community of Practice (Duane Brautigam, FDOT)</td>
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<tr>
<td>4:30 PM – 5:30 PM</td>
<td>Maintenance &amp; Operations: The Business Approach (John Newton, Hillsborough County)</td>
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## Thursday

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<tr>
<th>Time</th>
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<tbody>
<tr>
<td>7:30 AM – 8:00 AM</td>
<td>FAC Continental Breakfast***</td>
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<tr>
<td>8:15 AM – 9:15 AM</td>
<td>Green Thinking for Black Roads (Matthew LaChance, VHB)</td>
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<tr>
<td>10:30 AM – 11:30 AM</td>
<td>ADA: &quot;Dos and Don’ts&quot;, What to Avoid, Awareness, Pitfalls (Richard Londono, ADAAG Consulting Services)</td>
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<tr>
<td>11:30 AM – 1:00 PM</td>
<td>FAC Luncheon or Lunch on your own</td>
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<tr>
<td>1:00 PM – 2:00 PM</td>
<td>A Traffic Calming Stalemate: Finding Common Ground (Wilson Lorenz, IBI Group)</td>
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<tr>
<td>2:00 PM – 3:00 PM</td>
<td>NPDES MS4, New EPA Policies Making It Tougher on Local Agencies (Tim Kelley, BCI Engineers &amp; Scientists)</td>
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<tr>
<td>3:15 PM – 5:00 PM</td>
<td>Round Table Discussion</td>
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<tr>
<td>6:00 PM – 10:00 PM</td>
<td>FACERS Social</td>
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## Friday

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<th>Time</th>
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<tr>
<td>8:00 AM – 8:30AM</td>
<td>FAC Continental Breakfast***</td>
</tr>
<tr>
<td>8:30 AM – 11:00 AM</td>
<td>FACERS Board of Directors &amp; General Membership Meeting</td>
</tr>
<tr>
<td>11:00 AM – 11:30 AM</td>
<td>FACERS Annual Awards Presentation</td>
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***Note – FACERS does not charge a registration fee for its activities; however attendance at any FAC events requires that you are a registered FAC participant.***

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**Attend in person for free or tune in for free!**

Did you know that it is free to attend the Florida Association of County Engineers and Road Superintendents (FACERS) meetings? Can’t attend in person? Then attend from your office. The FACERS technical sessions will be broadcast free of charge.

Questions? Email t2@ce.ufl.edu to receive information on how to register (for free).
Materials Available from the Florida Pedestrian and Bicycling Safety Resource Center

Are you looking for pedestrian and bicycling materials to provide at your organization's ped/bike events and educational activities? We have a lot to choose from so your group can help teach safe walking and bicycling practices. Materials are free to qualifying organizations.

Visit www.pedbikesrc.ce.ufl.edu for a list of new items, descriptions, illustrations, and ordering information. Our current inventory includes the following:

**Stickers:**
- Use Your Head (Dog)
- Use Your Head (Moose)
- Walk Safely!
- Walking School Bus

**Passive Reflectors:**
- Safe Routes To School (SRTS) Lanyards
- Safe Routes To School (SRTS) Wristbands
- Be Safe, Be Seen Reflective Wristlet
- Reflective Zipper Pull

**Crayons and Pencils:**
- Safe Routes To School (SRTS) Pencils
- Crayon 4 Pack

**Posters:**
- Hispanic Pedestrian Poster: Crosswalks and Signals
- Hispanic Pedestrian Poster: Sidewalks
- Hispanic Pedestrian Poster: Intoxicated
- Hispanic Pedestrian Poster: Caution
- Hispanic Bicyclist Poster

**CDs:**
- Bicycle Safer Journey
- Safer Journey
- Walk Smart & Bike Smart

**DVDs:**
- I'm Safe - On Wheels
- I'm Safe - Walk With Me
- Pedestrian Law Enforcement Training
- Step to Safety with ASIMO

**Publications:**
- Bikeability Checklist
- Bicycle Safety: What Every Parent Should Know (English)
- Bicycle Safety: What Every Parent Should Know (Spanish)
- Crosswalk Safety (English)
- Crosswalk Safety (Spanish)
- Easy Steps to Properly Fit a Bicycle Helmet
- Florida Bicycle/Pedestrian Law Enforcement Guide
- How To Fit & Wear Your Bicycle Helmet (English)
- How To Fit & Wear Your Bicycle Helmet (Spanish)
- I'm Safe! Paint Sheet - Bike (English)
- I'm Safe! Paint Sheet - Bike (Spanish)
- I'm Safe! Paint Sheet - Pedestrian (English)
- I'm Safe! Paint Sheet - Pedestrian (Spanish)
- Kids Physical Activity (English)
- Kids Physical Activity (Spanish)
- Know the Rules - Going To & From School (English)
- Know the Rules - Going To & From School (Spanish)
- Neighborhood Safety (English)
- Neighborhood Safety (Spanish)
- Paul’s A-Maze-ing Trip
- Peligro en el Camino (Spanish)
- Road Riders Are Drivers
- Safety Fun Activity Book (English)
- Safety Fun Activity Book (Spanish)
- Sprocket Man Comic Book
- Tips for Parents and Other Adults For Teaching Pedestrian Safety to Children (English)
- Tips for Parents and Other Adults For Teaching Pedestrian Safety to Children (Spanish)
- Tips for Walking Safely to School (English)
- Tips for Walking Safely to School (Spanish)
- The Top Ten Rules of Bicycle Safety
- Walk 'n' Roll Punch Cards

**Books:**
- The Guide to Bicycle Rodeos
- How to Develop a Pedestrian Safety Action Plan
- I’m Safe! Walk with Me Activity Sticker Book (English)
- I’m Safe! Walk with Me Activity Sticker Book (Spanish)
- I’m Safe! On My Bike Activity Sticker Book (Spanish)
- Pedestrian Safety Guide for Transit Agencies
- PedsSAFE: Pedestrian Safety Guide and Countermeasure Selection System
- A Resident’s Guide for Creating Safe and Walkable Communities
- Walk ‘N Roll

May is National Bike Month

Find more at www.bikeleague.org/programs/bikemonth/pdf/national_bike_month_guide.pdf
Rumble Strips and Bicyclist Safety

On March 11, 2010, Secretary LaHood signed the USDOT Policy Statement on Bicycle and Pedestrian Accommodation (www.dot.gov/affairs/2010/bicycle-ped.html), encouraging states, local agencies, and others to provide safe and accessible facilities for walking and bicycling. Unfortunately, concerns continue to be heard from the bicycle community regarding the placement and location of rumble strips.

The Federal Highway Administration (FHWA) Office of Safety’s Guidance Memorandum on Consideration and Implementation of Proven Safety Countermeasures (safety.fhwa.dot.gov/policy/memo071008/) recommends that when shoulder rumble strips are placed on rural two-lane highways, the remaining shoulder width beyond the rumble strip should be four feet or greater, and that this area be paved. Following these recommendations ensures that bicycle traffic is properly accommodated. The FHWA Office of Safety website safety.fhwa.dot.gov/roadway_dept/pavement/rumble_strips/concerns_bike.cfm contains additional information on accommodating bicyclists’ concerns with rumble strips. While Technical Advisory (TA) T5040.35, Roadway Shoulder Rumble Strips, contains advice on accommodating bicyclists, this 2001 TA is being updated to reflect current proven practices. The new TA will be released soon.

Steps that can be taken now to address bicyclists’ concerns include:

• the use of narrower rumble strips or rumble stripes where shoulders are narrow
• the provision of longitudinal gaps to allow bicyclists to safely traverse the rumble strips
• the use of lower profile rumble strips

Perhaps most important is the early involvement of the state’s bicycle coordinator when rumble strips are being considered on new roadways that have frequent bicycle use. This partnership can help assure that safety solutions are designed and implemented in ways that are compatible with the needs of that state’s vulnerable bicyclist user group.

For more information about bicyclist concerns, contact Dick Schaffer in the FHWA Office of Safety at dick.schaffer@dot.gov or 202-366-2176.

AARP Workforce Development Resources

AARP has developed two free modules of materials (PowerPoint presentations and handouts) intended to help agencies improve training for a multi-generational workforce and retain talented employees. Visit the website for additional information: www.aarp.org/work/employee-benefits/info-10-2010/management-training-modules.html

The AARP Workforce Management Training Modules are designed to be studied independently or to be led by a facilitator. The modules will increase your management team’s competency in addressing the many sides of recruiting, managing, and retaining a multi-generational workforce. The two modules, available as downloadable curricula, can be customized for your workplace training needs and modified to incorporate specific information for your organization or industry.

“Managing the Generations at Work” focuses on the implications of the new workforce that spans four generations. If organizations can manage this rich mix of generations successfully, they can build a more creative, collaborative, and productive workforce.

“Recruiting Experienced Talent: Strategies for Changing Economic Times” examines new business realities emerging because of the uncertain economy. Change is happening at an extraordinary rate as demographic realities lead to labor shortages and skill gaps emerge; therefore, finding and keeping top talent is a real challenge that can be met with only a fresh perspective on experienced workers.

Uncertain times push the economy to center stage. New business realities are emerging. Change happens almost overnight. Simply put, if mature workers retire en masse, there are not enough young skilled workers to replace them. In addition, companies now employ a multi-generational workforce that is creating new challenges and rewards.

Smart employers realize the impact of a multi-generational workforce on employee engagement, recruitment, and retention, as well as customer satisfaction and, ultimately, the organization’s bottom line.

AARP’s Workforce Management Training Modules will help you learn how to attract the best talent, fill critical skills shortages, strengthen your employment brand, and create a workplace that engages all workers.

Source: AARP

Does Your Agency Qualify for Recognition? Walk Friendly Communities

Walk Friendly Communities (WFC) is a national recognition program developed to encourage towns and cities across the U.S. to establish or recommit to a high standard for the support of safer walking environments. The WFC program recognizes communities that are working to improve a wide range of conditions related to pedestrian safety, mobility, access, and comfort. Applications open on May 1 and close on June 15, 2011. Visit www.walkfriendly.org to access a printable application and to learn more about the program.
10th International Conference on Low-Volume Roads
Low-Volume Roads: Our Connection to the World
July 24-27, 2011  Hilton at Lake Buena Vista Resort Orlando, Florida

Plan to Attend
To register or access more information, visit: www.trb.org/LowVolumeRoadsConference/LVR10.aspx

Pre Conference Workshops
• Low-Volume Roads and Earthquakes: the Experience in Chile, Haiti, and New Zealand
• Simple, Low Cost Soil Testing: How to Do It and How to Use the Results
• Low-Volume Roads: Best Practices and Gravel Management
• Road Safety Audits: Working Together to Make Your Roads Safer

Conference Technical Presentations
• Cementitious Stabilization
• Hot-Mix Asphalt
• Pavement Management Systems
• What’s New in Low-Volume Road Pavement Design and Performance?
• Geogrids
• Pavement Management Case Histories
• Potpourri of New Tools for Enhancing Low-Volume Road Design
• Erosion and Sediment Control for Native and Aggregate Surfaced Roads Hot-Mix Asphalt, Warm-Mix Asphalt, and Chip Seals
• Planning, Financing, and Economics of Low-Volume Roads
• Developments in Non-Traditional Stabilizers
• Effects of Roadway Geometry on Low-Volume Road Safety Materials
• Current Issues Facing Low-Volume Road Managers
• Full-Depth Reclamation and Recycled Pavement Materials
• Speed Characteristics and Management on Low-Volume Roads
• Geotechnical Engineering
• Rural Roads Maintenance and Management
• Safety Assessment Tools for Low-Volume Roads
• Pavement Assessment
• Pavement Design
• Pavement Materials
• Use of Chip Seals and Thin Pavement for Low-Volume Roads

Conference Field Trip Options
• Hubbard Construction Company Asphalt Plant
• Stormwater Management Academy at the University of Central Florida
• Road Safety Audit Site Visit

Post Conference Field Trip
• Florida Department of Transportation (FDOT)
• State Materials Office (SMO), Gainesville, Florida

Committee Meetings
• Low-Volume Roads Committee (AFB30)
• Rural Roads Safety Policy, Programming, and Implementation
• Joint Subcommittee (ANB10-AFB30)

Hosts
Transportation Research Board (TRB)
Florida Transportation Technology Transfer (T²) Center, University of Florida
Florida Association of County Engineers and Road Superintendents (FACERS)
International Union of Forest Research Organizations
University of Naples Federico II Italy

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Federal Highway Administration, U.S. Department of Transportation
Fish and Wildlife Service, U.S. Department of the Interior
Forest Service, U.S. Department of Agriculture
U.S. Army Corps of Engineers, Engineer Research and Development Center
U.S. Environmental Protection Agency

Exhibitors
Midwest Industrial Supply, Inc.
Pavemetrics Systems, Inc.
Reinforced Aggregates Company
Tensar International Corp.
New at the T² Media Center

Fax to 352.392.3224

Our Media Center offers more than 7,000 publications, 1,000 videos, and 175 CDs for loan. To request any of the items below, please mark the items you want to borrow, fill out the form below, and fax to 352.392.3224. Descriptions can be found on our website: t2ctt.ce.ufl.edu and browse the electronic catalog. Call 352.392.9537 EXT. 1544 for assistance.

New Publications

- Traffic Incident Management Handbook
  - P8456.01
- Modeled Dynamic Dilemma Zones and its Applications: A Paper Submitted to Ohio Transportation Consortium for 2009 OTC Student Paper Competition
  - P8457.01
- Getting Students Active through Safe Routes to School
  - P8458.01
- Implementing Safe Routes to School in Low-Income Schools and Communities
  - P8459.01
- Curbing Distracted Driving: 2010 Survey of State Safety Programs
  - P8460.01
- The National Bicycling and Walking Study: 15-Year Report
  - P8461.01
- Innovation in Vertical and Horizontal Construction
  - P8462.01
- Traffic Analysis Toolbox Volume X
  - P8463.01
- Guide for Review and Assessment of Local Mobility Plans
  - P8464.01
- Restructuring the Commercial Strip
  - P8465.01
- The ACS Statistical Analyzer
  - P8466.01
- Handbook of Emergency Management for State-Level Transportation Agencies
  - P8467.01

- Implementable Strategies for Shifting to Direct Usage-Based Charges for Transportation Funding
  - P8468.01
- Evaluating Safety and Operations of High Speed Signalized Intersections
  - P8469.01
- Asset Management and Management of Highway Performance
  - P8470.01
- Research Results Digest 345 - Alternate Strategies for Safety Improvement Investments
  - P8471.01
- Cost Benefit Analysis of Including Microsurfacing in Pavement Treatment Strategies and Cycle Maintenance
  - P8472.01
- Trailing Pedestrian Countdown Timers at Traffic Signals
  - P8473.01
- Solutions: Reducing Greenhouse Gas Emissions from U.S. Transportation
  - P8474.01
- Efficient Use of Highway Capacity Summary
  - P8475.01
- GAO Report to Congressional Committees: Rail Safety
  - P8476.01
- Impacts of Low-Speed Vehicles on Transportation Infrastructure and Safety
  - P8477.01
- Safer Vulnerable Road Users: Pedestrians, Bicyclists, Motorcyclists, and Older Users
  - P8478.01
- Advanced LED Warning Signs for Rural Intersections Powered by Renewable Energy
  - P8479.01
- Development and Field Demonstration of DSRC-Based V2I Traffic Information System for the Work Zone
  - P8480.01
- Older Driver Program Five-Year Strategic Plan 2012-2017
  - P8481.01
- Bridge Approach Slabs for Missouri DOT: Looking at Alternative and Cost Efficient Approaches
  - P8482.01
- Promoting Centerline Rumble Strips to Increase Rural, Two-Lane Highway Safety
  - P8483.01
- Pavement Markings and Safety
  - P8484.01
  - P8485.01
- Walkable Communities Program: Borough of Waynesboro, Franklin County, PA
  - P8486.01
- Spacial Orientation and Navigation in Elderly Drivers
  - P8487.01
- 2010 Traffic Safety Culture Index
  - P8488.01
- Effectiveness of Chip Sealing and Micro Surfacing on Pavement Serviceability and Life
  - P8489.01
- Measuring What Matters: Access to Destinations (Research Summary #2)
  - P8490.01

Contact Information

Name ___________________________ Agency ___________________________

Address ___________________________ State _______________ Zip _______________

City ___________________________ State _______________ Zip _______________

Please check your affiliation below:

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☐ County ☐ University ☐ Email ___________________________
☐ State ☐ Other ___________________________
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Giveaways - CDs

- Safety Benefits of Walkways, Sidewalks, and Paved Shoulders
- Safety Benefits of Raised Medians and Pedestrian Refuge Areas
- A Residents’ Guide for Creating Safe and Walkable Communities
FDOT Summary of Final Reports—New Topics Available

Access the FDOT website www.dot.state.fl.us/research-center/ for these summaries. Go to the Research Center Topics dropdown menu in the lower left corner of the page and click on Completed Research. Summaries are listed by category.

Maintenance
BDK83 977-01 Enhancement of the FDOT’s Project Level and Network Level Bridge Management Analysis Tool

Planning
BDK84 977-02 Guide for Review and Assessment of Local Mobility Plans: A Proposed Practice

Public Transportation
BDK85 977-04 A Guidebook for Using Automatic Passenger Counter Data for National Transit Database (NTD) Reporting

Roadway Design
PR-4575974 Development of Methods for Improving Levels I and II MET/Ocean Parameter Predictions

Safety
BDK84 977-01 Development of an Interface between FDOT’s Crash Analysis Reporting System and the Safety Analyst

Structures
BDK83 977-03 Investigation of Impact Factors for FDOT Bridges

FHWA Resource Center Offers Free Highway Safety Manual Webinar Series

The Federal Highway Administration (FHWA) has recorded their Highway Safety Manual (HSM) webinar series. Session titles are:

- HSM Introduction and Overview
- Application to Two-Lane Rural Roads
- Application to Urban/Suburban Intersections
- Project Identification
- Application to Rural Two-Lane Intersections
- Application to Rural Multilane Highways
- Applications to Urban/Suburban Roads
- Applications to Rural Multilane Intersections
- HSM and Pedestrians
- Applications to Horizontal Curves
- HSM Relationship to Roadway Departure Crashes
- Applications to High Safety Improvement Program (HSIP)

To gain direct access to these titles, go to www.highwaysafety-manual.org/Pages/FHWAResourceCenterHSMWebinarSeries.aspx

Looking for Roadway Safety Information?
Here are some Federal Highway Administration (FHWA) websites that will help.

- FHWA Safety Office: safety.fhwa.dot.gov
- Road Safety Audits: safety.fhwa.dot.gov/rsa
- Intersection Safety: safety.fhwa.dot.gov/intersection
- Older Road Users: safety.fhwa.dot.gov/older_users
- Work Zone Safety Clearinghouse: www.workzonesafety.org
- Pedestrian and Bicycle Safety: safety.fhwa.dot.gov/ped_bike
- Retroreflectivity: safety.fhwa.dot.gov/roadway_dept/night_visib/policy_guide/fhwas08001

Free Professional Organization Membership with FACERS

The Florida Association of County Engineers and Road Superintendents (FACERS) is offering a one-year free membership to new members. Categories include both county and city public works and transportation professionals. Experience the benefits of a FACERS membership. Visit facers.org to apply today!
Upcoming Workshops through December 2011

For a list of all courses or to register, visit our website at t2ctt.ce.ufl.edu or for T² workshops, email t2workshops@ce.ufl.edu or call 352.273.1670 and for CTT and CTQP courses, email ctt@ce.ufl.edu or call 352.273.1669. We look forward to serving you.

Advanced Maintenance of Traffic

June 8–10, 2011 Pompano Beach
June 11–12, 2011 Clearwater
June 15–17, 2011 Gainesville
June 21–23, 2011 Tallahassee
June 21–23, 2011 Tampa
June 22–24, 2011 Cape Coral
July 20–22, 2011 Orlando
August 3–5, 2011 Tampa
August 17–19, 2011 Cape Coral
August 24–26, 2011 Orlando
September 14–16, 2011 Gainesville
September 21–23, 2011 Pompano Beach
October 19–21, 2011 Tampa
October 25–27, 2011 Cape Coral
October 26–28, 2011 Gainesville
November 16–18, 2011 Orlando
November 16–18, 2011 Pompano Beach
December 7–9, 2011 Tampa
December 14–16, 2011 Orlando
December 17–18, 2011

Asphalt Combo - Inspection and Maintenance

May 25, 2011 Pompano Beach

Asphalt Mix Design REDUCED FEE!

June 27–30, 2011 Gainesville
October 18–21, 2011 Gainesville

Asphalt Paving Level 1

May 23, 2011 Fort Myers
July 5, 2011 Orlando
August 2, 2011 Miami
August 30, 2011 Tampa
October 4, 2011 Davie
October 25, 2011 Chipley
November 1, 2011 DeLand
November 7, 2011 Gainesville

Asphalt Paving Level 2 REDUCED FEE!

May 24–26, 2011 Fort Myers
July 6–8, 2011 Orlando
August 3–5, 2011 Miami
August 31 – September 2, 2011 Tampa
October 5–7, 2011 Davie
October 26–28, 2011 Chipley
November 2–4, 2011 DeLand
November 8–10, 2011 Gainesville

Asphalt Plant Level 1 REDUCED FEE!

May 18–20, 2011 Gainesville
June 15–17, 2011 Gainesville
July 19–21, 2011 Miami
August 3–5, 2011 Gainesville
September 7–9, 2011 Gainesville
October 4–6, 2011 Miami
November 8–10, 2011 Gainesville

Asphalt Plant Level 2 REDUCED FEE!

August 10–12, 2011 Lakeland
October 5–7, 2011 Gainesville

Bucket Truck Safety/Hands-on

May 25, 2011 Naples
November 9, 2011 Pompano Beach

Chainsaw Safety in Disaster Recovery

June 15, 2011 Pompano Beach
July 20, 2011 Port Charlotte

Chainsaw Safety/Hands-on

June 8, 2011 Gainesville

Concrete Batch Plant Operator

July 8, 2011 Chipley
September 6, 2011 Gainesville

Concrete Transportation Construction Inspection (ACI)

June 1–3, 2011 Orlando

CTQP Proficiency Exam Only (No books provided)

June 3, 2011 Gainesville

Advanced Maintenance of Traffic - Refresher

June 7, 2011 Pompano Beach
June 14, 2011 Gainesville
June 20, 2011 Tallahassee
June 20, 2011 Tampa
June 21, 2011 Cape Coral
July 19, 2011 Orlando
August 2, 2011 Tampa
August 16, 2011 Pompano Beach
August 23, 2011 Cape Coral
September 13, 2011 Orlando
September 20, 2011 Gainesville
October 18, 2011 Pompano Beach
October 24, 2011 Tampa
October 25, 2011 Cape Coral
November 15, 2011 Gainesville
November 15, 2011 Orlando
December 6, 2011 Pompano Beach
December 13, 2011 Tampa

Asphalt Mix Design REDUCED FEE!

June 27–30, 2011 Gainesville
October 18–21, 2011 Gainesville

Asphalt Paving Level 1

May 23, 2011 Fort Myers
July 5, 2011 Orlando
August 2, 2011 Miami
August 30, 2011 Tampa
October 4, 2011 Davie
October 25, 2011 Chipley
November 1, 2011 DeLand
November 7, 2011 Gainesville

Asphalt Paving Level 2 REDUCED FEE!

May 24–26, 2011 Fort Myers
July 6–8, 2011 Orlando
August 3–5, 2011 Miami
August 31 – September 2, 2011 Tampa
October 5–7, 2011 Davie
October 26–28, 2011 Chipley
November 2–4, 2011 DeLand
November 8–10, 2011 Gainesville

Asphalt Plant Level 1 REDUCED FEE!

May 18–20, 2011 Gainesville
June 15–17, 2011 Gainesville
July 19–21, 2011 Miami
August 3–5, 2011 Gainesville
September 7–9, 2011 Gainesville
October 4–6, 2011 Miami
November 8–10, 2011 Gainesville

Asphalt Plant Level 2 REDUCED FEE!

August 10–12, 2011 Lakeland
October 5–7, 2011 Gainesville

Bucket Truck Safety/Hands-on

May 25, 2011 Naples
November 9, 2011 Pompano Beach

Continued on page 14
Upcoming Workshops continued

CTQP Written Exam Only (No books provided) REDUCED FEES!

CTQP Written Exam Only (No books provided) REDUCED FEES!

May 18, 2011 Sarasota
May 23, 2011 Fort Myers
May 26, 2011 Fort Myers
June 1, 2011 Chipley
June 1, 2011 Jacksonville
June 5, 2011 Pompano Beach
June 6, 2011 Tampa
June 8, 2011 Orlando
June 10, 2011 Orlando
June 11, 2011 Davie
June 22, 2011 Davie
June 23, 2011 Orlando
July 5, 2011 Orlando
July 6, 2011 Chipley
July 6, 2011 Jacksonville
July 6, 2011 Pompano Beach
July 6, 2011 Tampa
July 8, 2011 Chipley
July 8, 2011 Davie
July 8, 2011 Orlando
July 8, 2011 Miami
July 9, 2011 Miami
July 10, 2011 Miami
July 11, 2011 Chipley
July 11, 2011 Jacksonville
July 11, 2011 Pompano Beach
July 11, 2011 Tampa
July 12, 2011 November 1, 2011
July 13, 2011 November 2, 2011
July 13, 2011 November 2, 2011
July 14, 2011 November 2, 2011
July 14, 2011 November 4, 2011
July 14, 2011 November 4, 2011
July 15, 2011 November 8, 2011
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July 16, 2011 December 2, 2011
July 16, 2011 December 2, 2011
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December 7, 2011
December 7, 2011
December 7, 2011
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December 7, 2011
Drilled Shaft Inspection

Drilled Shaft Inspection REDUCED FEE!

May 16–18, 2011 Sarasota
July 6–8, 2011 Tampa
August 24–26, 2011 Orlando
November 2–4, 2011 Jacksonville

Drilled Shaft Inspection REDUCED FEE!

Earthwork Construction Inspection Level 1

Earthwork Construction Inspection Level 1

June 7–8, 2011 Jacksonville
July 5–6, 2011 Naples
July 6–7, 2011 Miami
July 26–27, 2011 Jacksonville
September 13–14, 2011 Orlando
October 11–12, 2011 Gainesville
November 15–16, 2011 Tampa
December 6–7, 2011 Jacksonville

Earthwork Construction Inspection Level 2

Earthwork Construction Inspection Level 2 REDUCED FEE!

June 9–10, 2011 Orlando
July 7–8, 2011 Gainesville
July 28–29, 2011 Miami
September 15–16, 2011 Jacksonville
October 13–14, 2011 Tampa
November 17–18, 2011 Gainesville
December 8–9, 2011 Gainesville

FDOT Concrete Field Inspector Specification REDUCED FEE!

FDOT Concrete Field Inspector Specification REDUCED FEE!

June 21–22, 2011 Davie
July 25–27, 2011 Gainesville
August 22–24, 2011 Jacksonville
September 14–16, 2011 Chipley
September 19–21, 2011 Fort Myers
October 17–19, 2011 Orlando
November 15–17, 2011 Gainesville

Final Estimates Level 1

Final Estimates Level 1

July 6, 2011 Davie
September 14, 2011 Gainesville
September 28, 2011 Tampa
November 8, 2011 Davie
November 14, 2011 Gainesville

Final Estimates Level 2

Final Estimates Level 2

July 7–8, 2011 Davie
September 15–16, 2011 Gainesville
September 29–30, 2011 Tampa
November 9–10, 2011 Davie
November 15–16, 2011 Gainesville

Florida Greenbook

Florida Greenbook

July 27–28, 2011 Largo

Forklift-Powered Industrial Truck - Safety/Hands-on

Forklift-Powered Industrial Truck - Safety/Hands-on

July 13, 2011 Pompano Beach

Inspecting Municipal Properties

Inspecting Municipal Properties

August 24, 2011 Naples

Integrating Pavement Preservation Practices and Pavement Management

Integrating Pavement Preservation Practices and Pavement Management

May 24, 2011 Gainesville
Intermediate Maintenance of Traffic
May 18–19, 2011 Cape Coral
May 18–19, 2011 Gainesville
May 18–19, 2011 Orlando
July 7–8, 2011 Tampa
July 12–13, 2011 Naples
July 20–21, 2011 Gainesville
July 27–28, 2011 Port Charlotte
August 16–17, 2011 Naples
August 24–25, 2011 Orlando
August 30–31, 2011 September 20–21, 2011 Tallahassee
October 19–20, 2011 Naples
November 2–3, 2011 October 11–13, 2011 Gainesville
November 15–16, 2011 November 30 – December 2, 2011 Orlando
November 16–17, 2011 December 6, 2011 Cape Coral
December 7–8, 2011 Orlando

Intermediate Maintenance of Traffic - Refresher
May 17, 2011 Cape Coral
May 17, 2011 Gainesville
May 17, 2011 Orlando
June 17, 2011 Bradenton
July 6, 2011 Tampa
July 11, 2011 Naples
July 19, 2011 Gainesville
July 26, 2011 Port Charlotte
August 15, 2011 Naples
August 23, 2011 Orlando
August 29, 2011 Cape Coral
September 19, 2011 Tallahassee
September 27, 2011 Tampa
October 18, 2011 Gainesville
October 18, 2011 Orlando
November 1, 2011 Tampa
November 14, 2011 Naples
November 15, 2011 Cape Coral
December 6, 2011 Orlando

Long Term Pavement Performance (LTPP) - Pavement Distress Identification
October 5–7, 2011 Pompano Beach

Mobile Equipment and Internal Work Zone Safety
November 30, 2011 Port Charlotte

Nuclear Density Gauge Safety and HazMat
September 12, 2011 Jacksonville
December 5, 2011 Gainesville

Pile Driving Inspection
June 6–8, 2011 Gainesville
August 2–4, 2011 Orlando
October 11–13, 2011 Gainesville
November 30 – December 2, 2011 Orlando

Pilot/Escort Flagging
May 24, 2011 Fort Myers
June 17, 2011 Tallahassee
June 21, 2011 Orlando
July 7, 2011 Gainesville
July 18, 2011 Saint Petersburg
August 9, 2011 Gainesville
August 16, 2011 Fort Myers
September 13, 2011 Orlando
November 1, 2011 Gainesville
November 15, 2011 Fort Myers
December 6, 2011 Orlando

Pilot/Escort Flagging Refresher
May 17, 2011 Gainesville
June 14, 2011 Gainesville
July 12, 2011 Gainesville
August 16, 2011 Gainesville
September 13, 2011 Gainesville
October 18, 2011 Gainesville
November 15, 2011 Gainesville
December 13, 2011 Gainesville

Plans Reading Fundamentals
September 14, 2011 Pompano Beach

Quality Control Manager
REDUCED FEE!
July 28–29, 2011 Gainesville
August 25–26, 2011 Jacksonville
September 22–23, 2011 Fort Myers
October 20–21, 2011 Orlando

Retroreflectivity - Conducting Traffic Sign Inspections
May 16, 2011 Lake City

Roadside Maintenance Safety
September 28, 2011 Port Charlotte

Safety Edge
June 6, 2011 Ocala

Successful Supervision in Public Works
August 12, 2011 Pompano Beach

Limerock Bearing Ratio (LBR) Technician
REDUCED FEE!
June 23–24, 2011 Gainesville
July 21–22, 2011 Gainesville

Qualified Aggregate Sampler
June 23, 2011 Davie
August 8, 2011 DeLand
October 24, 2011 Gainesville
Upcoming Workshops

For the dates and locations of these upcoming workshops, see page 13–15.

Advanced Maintenance of Traffic
Advanced Maintenance of Traffic - Refresher
Asphalt Combo - Inspection and Maintenance
Asphalt Mix Design REDUCED FEE!
Asphalt Paving Level 1
Asphalt Paving Level 2 REDUCED FEE!
Asphalt Plant Level 1 REDUCED FEE!
Asphalt Plant Level 2 REDUCED FEE!
Bucket Truck Safety/Hands-on
Chainsaw Safety in Disaster Recovery
Chainsaw Safety/Hands-on
Concrete Batch Plant Operator
Concrete Transportation Construction Inspection (ACI)
CTQP Proficiency Exam Only (No books provided)
CTQP Written Exam Only (No books provided) REDUCED FEES!
Drilled Shaft Inspection REDUCED FEE!
Earthwork Construction Inspection Level 1
Earthwork Construction Inspection Level 2 REDUCED FEE!
FDOT Concrete Field Inspector Specification REDUCED FEE!
Final Estimates Level 1
Final Estimates Level 2
Florida Greenbook
Forklift-Powered Industrial Truck - Safety/Hands-on
Inspecting Municipal Properties
Integrating Pavement Preservation Practices and Pavement Management
Intermediate Maintenance of Traffic
Intermediate Maintenance of Traffic - Refresher
Limerock Bearing Ratio (LBR) Technician REDUCED FEE!
Long Term Pavement Performance (LTPP) - Pavement Distress Identification
Mobile Equipment and Internal Work Zone Safety
Nuclear Density Gauge Safety and HazMat
Pile Driving Inspection
Pilot/Escort Flagging
Pilot/Escort Flagging Refresher
Plans Reading Fundamentals
Qualified Aggregate Sampler
Quality Control Manager REDUCED FEE!
Retroreflectivity - Conducting Traffic Sign Inspections
Roadside Maintenance Safety
Safety Edge
Successful Supervision in Public Works