

2011 Professional Training Portfolio



the florida transportation **technology transfer** center
with the center for transportation training

The Florida T² Center and the Center for Transportation Training (CTT) are your partners who provide your professional training needs. Our comprehensive portfolio features the vast training opportunities we offer. You and your employees will benefit from the technical and managerial knowledge presented in these courses. We can tailor or develop training to meet your specific needs. We are happy to announce lower fees in many of our CTQP courses, outlined on page 3.

Both centers, the Florida T² Center and CTT, conduct required and elective training, to improve and strengthen the skills of your entire organization. Courses can be presented to participants live or broadcast. Call us today at 352.273.1685 for a T² Center representative and 352.846.3593 for a CTT representative.

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* CTT Contact 352.846.3593

Sponsors/Partnerships and Training Locations

Florida T² Center training opportunities are supported in part through grants and partnerships with various offices of the Florida Department of Transportation and the Federal Highway Administration. Classes are offered as part of the Local Technical Assistance Program (LTAP) and Product Demonstration Showcase (PDS) Program. Many of the Center for Transportation Training (CTT) courses can lead to qualifications through FDOT's Construction Training Qualification Program (CTQP). The Florida T² Center and CTT classes are conducted at convenient locations throughout the state. Most Florida T² Center and CTT training can also be arranged exclusively for your organization at your location to save time and money. In addition, selected classes can be broadcast to accommodate a wider audience. Our T² Mobile Video Training (MVT) sessions are held at the requesting agency. See Page 20 for MVT scheduling details and information. Check our website t2ctt.ce.ufl.edu for current training schedules and locations.

Looking for a way to save money on your CTQP Training?

CTT has **big news** effective October 4, 2010:

New Prices All Written Exams are now \$175 and all Proficiency Exams are now \$200.

Special Discount Individual Written Exams taken in our Gainesville Business Office are now just \$150 per exam!

Reduced Fees Asphalt Mix Design, Asphalt Paving Level 2, Asphalt Plant Level 1, Asphalt Plant Level 2, Concrete Field Inspector Specifications, Drilled Shaft Inspection, Earthwork Construction Inspection Level 2, Limerock Bearing Ratio, Quality Control Manager, and our Asphalt Paving Combo.

Call or visit our website today to schedule your training and save money! 352.273.1669 or t2ctt.ce.ufl.edu

Training Notifications

Sign up for email announcements about our course schedule. Contact David Page at dkpage@ufl.edu to have your name added.

Free Training from NHI and TCCC!

Dozens of free, web-based courses are available from the National Highway Institute (NHI) in partnership with the Transportation Curriculum Coordination Council (TCCC). Please visit www.nhi.fhwa.dot.gov/Home.aspx to view the entire list.

Also, Highways for LIFE has partnered with NHI to present you NHI Innovations which is a monthly web conference series that is also free to participants. Go to www.nhi.fhwa.dot.gov/about/innovationseries.aspx to see upcoming conference listings or to listen to or download previous presentations. NHI offers Real Solutions, a free monthly series featuring speakers presenting problems or issues they have faced in the field and what steps were taken to solve the problem. Participants can ask questions and receive answers. Visit www.nhi.fhwa.dot.gov/about/realsolutions.aspx to view recorded presentations, titles, and dates of upcoming events; or to sign up for email notifications.

ADA

ADA/Accessibility Requirements for Highway Design and Pedestrians

Target Audience: Designers, ADA coordinators, safety inspectors, project managers, technicians, and consultants

Learn the Americans with Disabilities Act (ADA) requirements for public agencies to comply with design, construction, operation, and maintenance of pedestrian facilities within public right-of-way. Includes extensive technical and regulatory grounds, ranging from ADA/accessibility requirements and design, standards, good practices, ADA self evaluations and transition plans.

CEU/PDH 0.7/7

Public \$145/Private \$240

7 hrs

ADA – Facilities Access

Target Audience: Facility designers, ADA coordinators, safety inspectors, project managers, technicians, consultants

This is an overview of the Americans with Disabilities Act (ADA), the Florida Accessibility Code and revisions. Discussions include regulation impact on agency personnel and project staff responsibilities, building/roadway accessibility design standards/procedures, and Titles II and III ADAAG requirements.

CEU/PDH 0.7/7.0

Public \$145/Private \$240

7 hrs

Aggregates

Aggregate Base Testing Technician – ACI

Target Audience: Government employees who perform acceptance tests to verify aggregate material quality

This American Concrete Institute (ACI) course includes knowledge of and demonstrates how to properly perform, record, and report the results of basic field and laboratory procedures for aggregates and soils used in road base construction.

Course with written and proficiency exams:

Call 352.273.1661 for pricing

24 hrs

Aggregate Testing Technician Level 1 – ACI

Target Audience: Government employees who perform acceptance tests to verify aggregate material quality

This ACI course includes information about and demonstrations of how to properly perform, record, and report the results of basic field and laboratory procedures for aggregates and soils used for the production of hot-mix asphalt and ready-mix concrete.

Course with written and proficiency exams:

Call 352.273.1661 for pricing

24 hrs

Aggregate Testing Technician Level 2 – ACI

Target Audience: Government employees who perform acceptance tests to verify aggregate material quality and who currently hold the ACI Aggregate Testing Technician Level 1 certification

This ACI course includes additional methods and procedures on how to properly perform, record, and report the results of field and laboratory procedures for aggregates and soils used for the production of hot-mix asphalt and ready-mix concrete.

Course with written and proficiency exams:

Call 352.273.1661 for pricing

24 hrs

Limerock Bearing Ratio (LBR) Technician — CTQP

Target Audience: FDOT and contractor technicians who perform acceptance tests to verify aggregate material quality

Become more knowledgeable and proficient in testing and inspecting materials used for embankment, subgrade, and road base construction.

Course with written and proficiency exams:

PDH 8

\$450 Reduced

16 hrs

Qualified Aggregate Sampler — CTQP

Target Audience: All employees responsible for sampling aggregates for acceptance testing

This course presents everything technicians need to know to correctly sample aggregates for laboratory testing.

Course with written and proficiency exams:

PDH 6

\$350

8 hrs

Asphalt

Asphalt Combo – Inspection and Maintenance

Target Audience: Design, construction, and maintenance engineers and technicians involved with pavement preservation and rehabilitation techniques

This workshop teaches pavement distress evaluation techniques to determine materials, equipment and procedures needed for effective crack sealing, asphalt patching and utility repair for quality/cost-effective asphalt surface treatments. Ample time is allowed for maintenance issues questions.

CEU/PDH 0.6/6.0

Public \$175/Private \$250

6 hrs

Asphalt Inspection

Target Audience: Inspectors, contractors, technicians, personnel with construction inspection job duties

Discussion includes basic concepts of asphalt materials and inspection techniques and keys to obtaining high quality work on new construction and resurfacing projects. Common problem areas and how to properly correct them are presented. This course does not lead to qualification associated with the Construction Training Qualification Program (CTQP).

CEU/PDH 0.6/6

Public \$125/Private \$210

6 hrs

Asphalt Mix Design — CTQP

Target Audience: Technicians responsible for designing hot-mix asphalt

This course provides engineers, technicians, and inspectors an understanding of how asphalt mixes are developed in accordance with Superpave specifications.

Course with written exam:

PDH 24

\$600 Reduced

28 hrs

Asphalt Pavement Maintenance

Target Audience: Inspectors, contractors, road crew supervisors, and personnel with construction inspection job duties

This workshop focuses on materials, construction details, and maintenance practices that help extend asphalt pavement service life. Videos and illustrations demonstrate proper maintenance techniques while citing common mistakes arising on the jobsite. Ample time is allowed for maintenance issue questions.

CEU/PDH 0.6/6

Public \$125/Private \$210

6 hrs

Asphalt Paving Basics for Florida Cities and Counties

Target Audience: Maintenance field technicians, maintenance supervisors, construction workers, inspectors, designers, and pavement management technicians

This course is patterned after the Asphalt Paving Level 1 course and can be customized to fit your needs. The class includes random sampling at the plant and roadway; hands-on demonstration of rolling straight edge, cross slope and temperature measurement; core sampling; tack coat spread rate and hot-mix asphalt yield calculations; and nuclear density determination, if required. A simplified, alternate exam is also available upon request.

Call 352.273.1661 for pricing

8 hrs

Asphalt Paving Level 1 — CTQP

Target Audience: FDOT and contractor Quality Control personnel responsible for verifying roadway characteristics

Learn to use a rolling straight edge, measure cross slope, perform core sampling, calculate yields, lay out core locations, and take temperatures.

Course with written and proficiency exams:

PDH 6

\$350

8 hrs

Asphalt Paving Level 2 — CTQP

Target Audience: FDOT and contractor Quality Control personnel, Quality Control managers, roadway technicians, equipment operators, and paving supervisors

Review good construction practices and equipment operation techniques necessary to place and compact a Superpave mixture that meets requirements for smoothness, texture, density, cross slope, and thickness. Topics also include project administration; surface preparation; specification requirements; hot-mix asphalt delivery, placement, and compaction; balancing production rates; and field testing and inspection.

Course with written exam:

CEU/PDH 1.6/16

\$525 Reduced

24 hrs



Asphalt Plant Level 1 — CTQP

Target Audience: FDOT and contractor Quality Control personnel responsible for verifying asphalt material quality characteristics

Learn to perform the tests required for quality control, verification, resolution, and acceptance of asphalt mix in accordance with standard test methods.

Course with written and proficiency exams:

PDH 16

\$645 Reduced

24 hrs

Asphalt Plant Level 2 — CTQP

Target Audience: FDOT and contractor Quality Control personnel, Quality Control managers, plant technicians, and plant operators

Covers materials management, specification requirements, plant calibration, and equipment operation necessary to produce a Superpave mixture that meets design criteria and mix production requirements.

Course with written exam:

PDH 16

\$600 Reduced

24 hrs

Hot-Mix Asphalt Pavement Evaluation, Preservation and Rehabilitation

Target Audience: Design, construction, and maintenance engineers and technicians involved with pavement preservation and rehabilitation techniques

This course presents techniques to identify the causes and patterns of hot-mix asphalt (HMA) pavement distress, as well as evaluation components and preservation and rehabilitation techniques.

CEU/PDH 1.2/12.0

Public \$150/Private \$250

12 hrs

Integrating Pavement Preservation Practices and Pavement Management

Target Audience: Engineers, road agency supervisors, and others involved in pavement management, maintenance, and evaluation

Condensing the National Highway Institute (NHI) version, this course provides information needed for successful use of pavement management activities to support a pavement preservation program.

CEU/PDH 0.7/7

Public \$150/Private \$250

7 hrs

Long-Term Pavement Performance (LTPP) — Pavement Distress Identification

Target Audience: Engineers, road agency supervisors, and those who evaluate pavement for maintenance and/or repair

Distress definitions, as used by LTPP for each pavement type, and best approaches for performing test section measurements are discussed. Classroom and field reviews are incorporated. Two asphalt and two concrete locations are visited. Distresses that are observed in the field at the first location are discussed and rated by participants. The second site is used as a test with no group discussion prior to having the participants perform the ratings.

CEU/PDH 1.75/17.5

Public \$295/Private \$395

17.5 hrs

Superpave for Local Agencies

Target Audience: Engineers, supervisors, managers, roadway personnel and crews

Since July 1, 2003, the Florida Department of Transportation (FDOT) only uses Superpave for all asphalt paving jobs. FDOT no longer verifies, processes, or supports any Marshall mix designs. Orient your workforce on Superpave. This workshop will also cover FDOT Design Standards and is specifically designed for county and municipal roadway professionals.

CEU/PDH 0.6/6

Public \$125/Private \$210

6 hrs

Bicycle and Pedestrian

Community Bicycle and Pedestrian Safety Programs

Target Audience: Local safety officials, school resource officers

This course covers "Earn a bike" community programs, design and implementation of bicycle safety rodeos, strategies for bicycle enforcement, walk audits and bicycle-friendly community assessments. This is a safety council-approved alternative transportation safety class for DUI offenders. The course duration varies with content and audience.

CEU/PDH 0.6-0.8/6.0-8.0/7.0

Public \$125/Private \$210

16 hrs

League Cycling Instructor (LCI) Training (League of American Cyclists)

Target Audience: Community safety officials, law enforcement officers, school resource officers, physical education/health teachers, bike/ped coordinators, bike/ped advisory board members and community volunteers

Offers national certification for teachers, law enforcement officers, community officials in bicycling skills and education following the national curriculum. This is a rigorous “on bike” course. You must provide your own bicycle (road) and helmet.

Prerequisite: 9 hour “Road 1” course (available on request)

CEU/PDH 1.6/16.0

Call 352.273.1685 for pricing

16 hrs

Bridges

Bridge Maintenance

Target Audience: All personnel responsible for bridge maintenance and repair— ranging from crews to engineers

This National Highway Institute (NHI) course covers bridge maintenance management and safety, as well as maintenance and repair for the bridge deck, superstructure, and structure.

CEU/PDH 2.8/28

Public \$800/Private \$950

28 hrs

Chainsaw

Chainsaw Safety

Target Audience: Chainsaw operators — all skill levels

How safe are you when you operate a chainsaw? Why does your chainsaw pull to the right when cutting a tree? How do you cut this tree safely? Need answers? This class is for you! Topics include operator safety, chainsaw maintenance, and safe use. The safety training duration varies with skill level.

Public \$75/Private \$150

length varies

Chainsaw Safety/Hands-on

Target Audience: Chainsaw operators — all skill levels

Includes the Chainsaw Safety course listed previously. In addition, learn correct techniques for felling trees, use of protective gear, and safe use of wedges/angles. Participants will fell a tree using proper equipment and techniques. Topics include operator safety, chainsaw maintenance and safe use, and how to fell trees using OSHA-recommended methods. The safety and hands-on training duration varies with skill level.

Public \$195/Private \$295

length varies

Chainsaw Safety in Disaster Recovery

Target Audience: Chainsaw operators — all skill levels

This informative, hands-on, safety-oriented class is open to all skill levels. A limited number of hands-on slots are available. Learn the correct way to safely remove and clean up fallen trees and proper use of all safety equipment. Bring your chainsaw and have it examined for any potential problems. Workshop emphasizes OSHA procedures and personal protection equipment (PPE). The safety and hands-on training duration varies with skill level.

Public \$195/Private \$295

length varies



Concrete and Cement

Associate Concrete Transportation Construction Inspector – ACI

Target Audience: Government employees who perform ready-mix concrete structural inspections and hold the ACI Concrete Field Testing Technician Grade I certification

This ACI program includes knowledge of concrete construction, including plans reading, formwork installation and removal, reinforcements, embedments, sampling and testing freshly mixed concrete, conveying, placing, consolidating, finishing, jointing, curing, and protecting concrete.

Course with written exam:

Call 352.273.1661 for pricing 20 hrs

Cement Base Applications for Pavement

Target Audience: Engineers, public works officials, inspectors, managers, and roadway designers

Learn how Portland cement improves subgrade soils, strengthens pavement bases, serves as an effective material for backfill, and can be used to recycle worn out, flexible pavements to create environmentally friendly pavements. Information is presented on cement-modified soil, cement-treated base, soil-cement base, full-depth reclamation, and roller-compacted concrete pavements, applications, design, materials engineering, construction, testing, and performance of pavements.

Public \$125/Private \$210 7 hrs

Concrete Batch Plant Operator — CTQP

Target Audience: All concrete batch plant operators

Participants learn to prepare concrete design mixes in accordance with standard test methods. The course focuses on performing calculations required for batching concrete for an FDOT-approved ready-mix concrete plant.

Course with written exam:

CEU/PDH 0.8/8

\$325 10 hrs

Concrete Field Testing Technician Grade 1 – ACI

Target Audience: Government employees who perform acceptance tests to verify ready-mix concrete

This ACI course includes knowledge of and demonstrates how to properly perform and record the results of seven basic field tests on freshly mixed concrete.

Course with written and proficiency exams:

Call 352.273.1661 for pricing 16 hrs

Concrete Laboratory Testing Technician Level 1 – ACI

Target Audience: Government employees who perform, record, and report the results of basic laboratory procedures for aggregates and concrete

ACI Concrete Laboratory Testing Technician Level 1 certification is automatically awarded to those who successfully complete the following courses:

ACI Concrete Strength Testing Technician and ACI Aggregate Testing Technician Level 1 certification. Both courses are offered by CTT and are described in this portfolio.

Call 352.273.1661 for pricing.

Concrete Laboratory Testing Technician Level 2 – ACI

Target Audience: Government employees having at least one year (2000 hours) of approved work experience or a combination of work experience and education and hold a current ACI Concrete Laboratory Testing Technician Level 1 certification

This ACI course includes knowledge of and demonstrates how to properly perform, record, and report the results of advanced laboratory procedures for aggregates and concrete.

Course with written and proficiency exams:

Call 352.273.1661 for pricing 24 hrs

Concrete Strength Testing Technician – ACI

Target Audience: Government employees who perform laboratory acceptance tests to verify concrete strength

This ACI course includes knowledge of and demonstrates how to properly perform, record, and report the results of four basic ASTM laboratory procedures related to the determination of concrete compressive and flexural strength.

Course with written and proficiency exams:

Call 352.273.1661 for pricing 12 hrs

Concrete Transportation Construction Inspector – ACI

Target Audience: Government employees who perform ready-mix concrete structural inspections and hold the ACI Concrete Field Testing Technician Grade I certification

This ACI program includes knowledge of concrete construction, including plans reading, soil-cement, piling installations, formwork installation and removal, reinforcements, embedments, sampling and testing freshly mixed concrete, conveying, placing, consolidating, finishing, jointing, curing, and protecting concrete.

Course with written exam:

Call 352.273.1661 for pricing 24 hrs

FDOT Concrete Field Inspector Specification — CTQP

Target Audience: FDOT and contractor Quality Control technicians who perform job site acceptance tests and inspections

Improve your understanding of FDOT's Standard Specification Sections 346, 347, 400, 415, and other sections relevant to placement and field testing of ready-mix concrete.

Course with written exam:

CEU/PDH 1.2/12

\$450

14 hrs

FDOT Concrete Laboratory Technician Specification — CTQP

Target Audience: FDOT and contractor Quality Control technicians who perform laboratory tests required for ready-mix concrete acceptance

Covers FDOT's SSRBC Sections 346, 347, and other sections relevant to laboratory tests for concrete.

Course with written exam:

CEU/PDH 0.6/6

\$375

8 hrs

Design

Advanced Roadway Signs

Target Audience: Sign maintenance/installation personnel, supervisors, contractors, consultants, other individuals needing in-depth training on roadway sign installation, inspection, and maintenance

This course offers in-depth training to identify proper sign usage and installation procedures, assessing correct sign types, construction, and application. Learn about sign placement, multi-sign location, and proper sign orientation. Needs assessments, how and when to inspect, remove, or replace signs is addressed. Tips on managing an inspection crew, and creating schedules and accurate records are covered. Participants receive a workbook, relevant Florida Design Standard Indexes, and Part 2 of the Manual on Uniform Traffic Control Devices (MUTCD).

Available late 2011

Basic Roadway Markings

Target Audience: Employees, contractors, consultants, utility/maintenance personnel, and others new to installing, inspecting, or performing maintenance on roadway markings

The classification of markings on streets and highways, installation, inspection and maintenance procedures for each type and impact of climate and traffic conditions are included. Participants receive a workbook, relevant Florida Design Standard Indexes, and Part 3 of the MUTCD.

Available late Spring 2011

Basic Roadway Signs

Target Audience: Contractors, consultants, utility personnel, maintenance personnel, and others new to installing, inspecting, or performing maintenance on signs

This course covers key manuals and terms, sign classification and retroreflectivity, basic sign installation, inspection, maintenance and repair. A session is devoted to recognizing and preventing sign vandalism. Participants receive a course workbook, relevant Florida Design Standard Indexes, and Part 2 of the Manual on Uniform Traffic Control Devices (MUTCD).

Available late summer 2011

Basics of a Good Road

Target Audience: Inspectors, contractors, road crews, and supervisors seeking basic road construction information

Materials, design features, compaction, paving mixes, traffic considerations, soils, road geometry, and drainage of a good road are featured. Videos and illustrations demonstrate proper maintenance techniques while citing common mistakes arising on the jobsite. Ample time is allowed for questions on specific maintenance issues.

CEU/PDH 0.6/6

Public \$125/Private \$210

6 hrs

Designing Facilities for Bicyclists and Pedestrians as Part of Multimodal Planning

Target Audience: Transportation planners, engineers, roadway designers, consultant firms, FDOT district/local project managers, bike/ped advisory board members, engineering and planning faculty and graduate students

This training provides current design standards (AASHTO) for bicycle/pedestrian facility planning, innovative safety and design research, FDOT updated multimodal planning level of service tools, and a practical approach to implement/fund bike/ped facilities. Includes best practices case studies from U.S. and Europe. Field experience on local facilities is incorporated as time allows.

CEU/PDH 0.7/7.0

Public \$150/Private \$250

8 hrs

Highway Design for Older Drivers and Pedestrians

Target Audience: Highway designers, traffic engineers, and highway safety specialists

The class provides practical information linking older road user characteristics to highway design and operational/traffic engineering recommendations by addressing specific roadway features. Supplements existing standards and guidelines for highway geometry, operations, and traffic control devices.

CEU/PDH 0.6/6

Public \$125/Private \$210

6 hrs

Human Factors for Transportation Engineers

Target Audience: Roadway designers, traffic engineers, and safety personnel who plan and design roadways for vehicles and pedestrians

Includes interactive modules on information perception, decision making, driver responses, and human factors principles. The relationship between specific highway standards and human needs is emphasized. Human skills and capabilities are discussed and demonstrated and micro case studies emphasize skills gained.

CEU/PDH 0.7/7

Public \$125/Private \$210

7 hrs

Introduction to the Florida Greenbook

Target Audience: Both technical and non-technical city/county personnel needing knowledge of basic design requirements and minimum standards for city/county-maintained roadways

The Florida Greenbook (Florida Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways) provides basic design requirements and minimum standards for city and county-maintained roadways in the state. This class is appropriate for both technical and non-technical personnel. Topics also include sidewalks, curbs and curb ramps, crosswalks (where feasible), bicycle facilities, under- and overpasses for vehicular and pedestrian traffic.

CEU/PDH 1.2/12.0

Call 352.273.1685 for pricing

12 hrs

Traffic Engineering Fundamentals

Target Audience: Non-traffic engineers or technicians, engineering and planning professionals who regularly interface with traffic engineering or are new to the discipline

Covers signal systems and operations, analysis of roadway capacity and level of service, intelligent transportation systems, traffic control devices, roundabouts and traffic incident management. Three length options: three days, day one and two, or day three. Visit t2ctt.ce.ufl.edu for more information.

All three days:

CEU/PDH 2.1 / 21

Public \$545/Private \$625

21 hrs

Days one and two:

CEU/PDH 1.4 / 14

Public \$425/Private \$550

14 hrs

Day three:

CEU/PDH 0.7 / 7

Public \$250/Private \$350

7 hrs

Transportation Site Impact and Trip Generation

Target Audience: City, county and state engineers and planners, consultants and others involved in the design and approval of new land developments and modification of existing facilities

This workshop presents the methodology, techniques, and procedures used in traffic analyses for proposed land developments, the determination of off-site and on-site transportation requirements, and an approach to the preparation of reports and findings. Institute of Transportation Engineers (ITE) methodologies and recommended practices will be used as a basis for the workshop. A discussion of trip generation anomalies and cautions and case studies will be presented. Participants work in teams to analyze illustrative problems. Participants receive ITE's publication, Transportation Impact Analyses for Site Development – an ITE Proposed Recommended Practice, and presentation materials.

CEU/PDH 1.4/14.0

Public \$275/Private \$375

14 hrs

Wildflowers and Noxious Weeds in Florida

Target Audience: Maintenance workers, supervisors, engineers, and employees in charge of vegetation design and care

Learn wildflower landscape design and maintenance for roadways, intersections, and bridges. The importance of maintaining designed areas using local wildflower species is emphasized along with noxious weed control methods.

CEU/PDH 0.6/6

Public \$125/Private \$210

6 hrs

Earthwork

Earthwork Construction Inspection Level 1 — CTQP

Target Audience: FDOT and contractor Quality Control technicians who perform field testing of soils used for roadway construction

Trainees will learn to safely and effectively sample soil materials from the roadway, take earthwork density readings, and record those findings in a density log book. Topics include nuclear gauge use and maintenance, determination of moisture levels in the soil, and utilization of the FDOT Earthwork Records System. Nuclear Safety Certification is required for qualification.

Course with written and proficiency exams:

CEU/PDH 0.8/8

\$400

14 hrs

Earthwork Construction Inspection Level 2 — CTQP

Target Audience: FDOT and contractor Quality Control technicians who verify that earthwork test results meet acceptance criteria and comply with standards, specifications and contract documents

Improve your skills in applying standards and specifications associated with earthwork sampling, testing, recording, and inspecting earthwork construction on FDOT projects.

Course with written exam:

CEU/PDH 0.8/8

\$475 Reduced

10 hrs

Geotech

Drilled Shaft Inspection — CTQP

Target Audience: FDOT and contractor Quality Control technicians responsible for inspecting drilled shaft foundations

Recognize and become familiar with the drilled shaft construction process, equipment, nomenclature, and FDOT Standard Specifications for Road and Bridge Construction (SSRBC) Section 455.

Course with written exam:

CEU/PDH 1.6/16

\$600 Reduced

24 hrs

Geotechnical Engineering for Non-Geotechnical Engineers — The Basics

Target Audience: Non-soils engineers, technicians and inspectors, project engineers and managers, architects, landscape architects, geologists, earth scientists, civil and other engineers, construction personnel, industry tech/sales representatives, public works professionals, and engineers-in-training (no formal geotechnical education is needed.)

Develop your understanding of the basics with this straightforward, practical, entry-level course which describes and analyzes each important element of soil engineering: soil classifications and behavior, field investigations and soils reports, water effects on soils and dewatering, earth pressures and stresses, soil strength and settlement, compaction of sands and clays, construction procedures and stability of cuts and fills, and geosynthetics and earthwork.

Public \$125/Private \$210

6 hrs

Pile Driving Inspection — CTQP

Target Audience: FDOT and contractor Quality Control technicians responsible for inspecting driven pile foundations and retaining wall installations

Recognize and become more familiar with recording and documenting activities related to pile driving projects. Learn more about pile driving equipment, processes, terminology, and

FDOT's Standard Specifications for Road and Bridge Construction (SSRBC) Section 455. This course also teaches you how to accurately and efficiently handle the FDOT pile driving software. Learn how to set up a structure file, understand bent/pier models, enter pile driving data, and print reports.

Course with written and proficiency exams:

CEU/PDH 1.6/16

\$975

24 hrs

Heavy Equipment

Backhoe — Safety/Hands-on

Target Audience: Backhoe operators — all skill levels

Provides equipment operators with classroom and hands-on experience. Acquaints operators with proper road profiles, drainage issues, maintenance methods, and new techniques and technologies. Covers safety, backhoe types, maintenance, speed, aggregate types, road profiles, ditching, draining, dust control, wetlands issues, etc. Hands-on: instructor provides field assistance on backhoe techniques and solving problems on your agency's local roadways. The safety and hands-on training duration varies with skill level.

Public \$250/Private \$350

length varies

Bucket Truck — Safety/Hands-on

Target Audience: Operators, managers, administrators, and supervisors — all skill levels

This workshop is held at your location using your equipment. Topics include personal safety, personal protection equipment, pre-use inspection, functional operation, and inspection of all components. Importance of routine inspection reports and unit maintenance, as mandated/required by OSHA, are covered. Information on mechanics, hydraulics, fluids, and the dielectric testing integrity of the mast and boom/bucket is presented. Participants perform hands-on pre-use inspection, correct set up of a unit on available surface for maximum stability, and load capacities of the bucket on a 5 degree slope. A certificate of competency is awarded for passing the test. The safety and hands-on training duration varies with skill level.

Public \$250/Private \$350

length varies

Forklift-Powered Industrial Truck — Safety/Hands-on

Target Audience: Warehouse, shop, and maintenance drivers — all skill levels

This safety workshop complies with all OSHA regulations and is held at your location using your equipment. Learn how a forklift works, safe operating rules/techniques/procedures, load handling, and inspection. Passing the performance and written exams earns a certificate of competency. The safety and hands-on training duration varies with skill level.

Public \$195/Private \$295

length varies

Front-end Loader — Safety/ Hands-on

Target Audience: Front-end loader operators — all skill levels

This safety workshop complies with all OSHA regulations and is held at your location using your equipment. Topics include how a front-end loader works, safe operating rules/techniques, load handling, inspection, and hands-on operating procedures. A certificate of competency will be issued after passing the written test. The safety and hands-on training duration varies with skill level.

Public \$325/Private \$425
length varies

Motor Grader Operator — Safety/ Hands-on

Target Audience: Motor grader operators, managers, operator supervisors — all skill levels

This course and manual acquaint operators with proper road profiles, drainage issues, maintenance methods, and new techniques and technologies. Topics include safety, grader types, grader maintenance, blade pitch, articulation, grader speed, aggregate types, road profiles, ditching, draining, washboarding, dust control, wetlands issues, and more. The instructor travels to your municipality and provides field assistance on grader techniques and solving problems on your local roads. The safety and hands-on training duration varies with skill level.

Public \$350/Private \$475
length varies

Tractor Mower Operator Safety

Target Audience: Tractor mower operators — all skill levels

An AEMF/FEMA-based best safety practices Industrial Mower Operator Safety Training Program. All makes and models of tractors and mowers will be covered. This course has both classroom and hands-on training. Lunch is provided.

Public \$145/Private \$250

8 hrs

Maintenance of Traffic

Maintenance of Traffic — Basic

Target Audience: Individuals working in traffic control zones on state roadways with responsibility for flagging traffic

Basic MOT training is required for every employee flagging traffic in traffic control zones. Includes review of Part 6E of the MUTCD, Florida Design Standard Index 600, and general information for traffic control through work zones. This training may be performed in-house by a qualified Intermediate MOT or Advanced MOT employee. Requalification is required every four years.

Public \$90/Private \$120

6 hrs

Maintenance of Traffic — Intermediate

Target Audience: Persons with direct control of placement, maintenance and inspection of traffic control devices, training and placing flaggers, and drafting or generating electronic work zone control plans

Successful course completion provides Intermediate MOT qualification. Materials include in-depth analysis of Florida Design Standard Index 600 and the MUTCD Part 6. Requalification is required every four years.

CEU/PDH 1.5/15

Public \$170/Private \$210

16 hrs

Maintenance of Traffic — Intermediate Refresher

Target Audience: Refer to Maintenance of Traffic — Intermediate

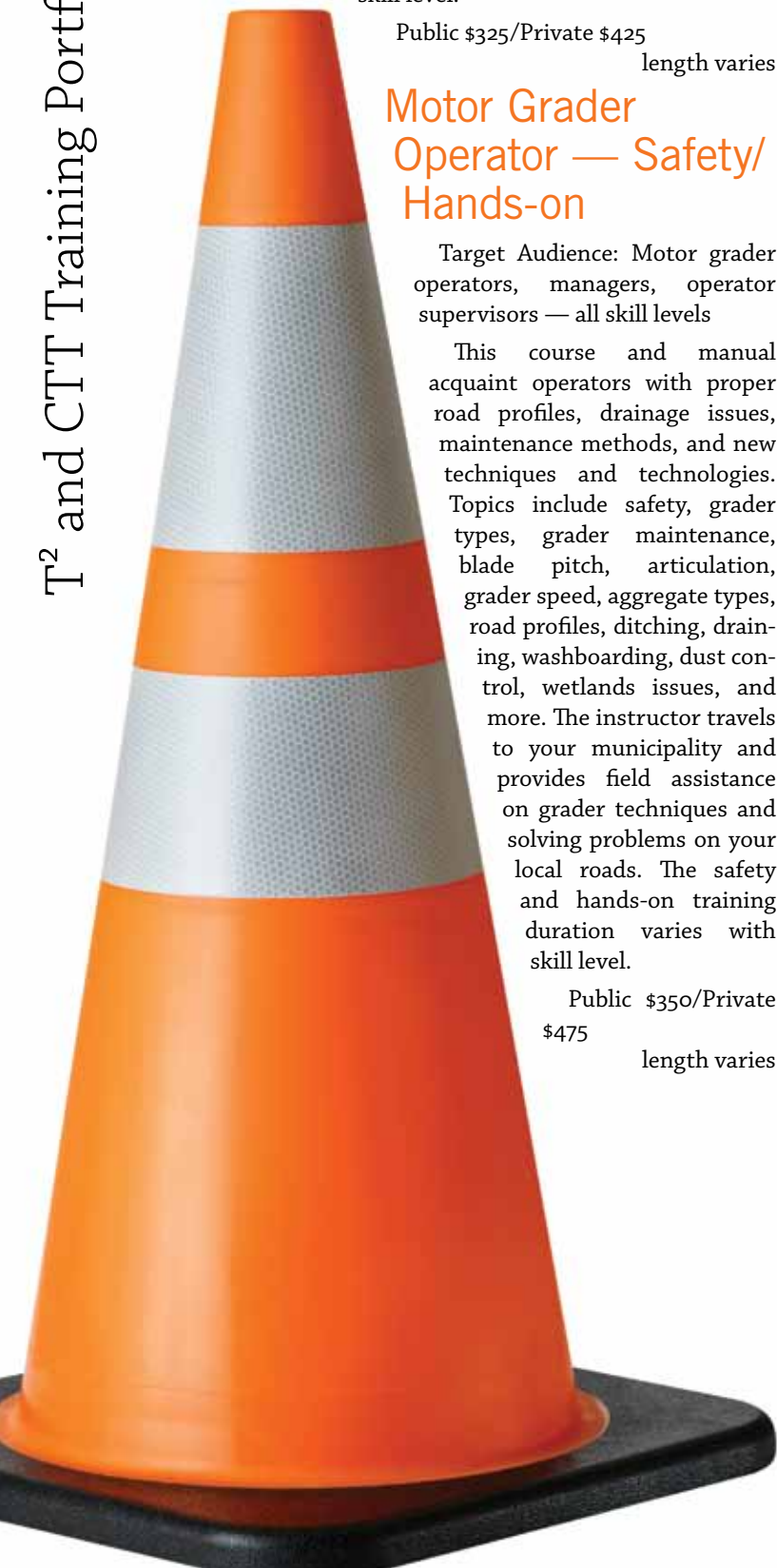
Prerequisite: Valid Intermediate Maintenance of Traffic qualification

Satisfactory completion of Intermediate Refresher training must occur on or before the participant's Intermediate MOT qualification expiration date to extend qualification for four years. This refresher course is an overview of the initial course with concentration on changes that have occurred to the Florida Design Standard Index 600 and Part 6 of the MUTCD in the past four years. Participants failing the exam must retake the full, 16-hour course to requalify.

CEU/PDH 0.7/7

Public \$120/Private \$160

8 hrs



Maintenance of Traffic — Advanced

Target Audience: All personnel with responsibility for, or authority to decide on specific maintenance of traffic requirements to be implemented on state roadways, including the engineer responsible for the work zone traffic control plan development and the work zone traffic control supervisor

Prerequisite: One year experience in work zone traffic control and responsibility for work zone traffic control plan development

Advanced MOT qualification is awarded to individuals who successfully complete this course. Successful participants will be able to analyze, design, implement and operate traffic control plans in a clear and concise manner. Requalification is required every four years.

CEU/PDH 1.675/16.75

Public \$295/Private \$395

20 hrs

Maintenance of Traffic — Advanced Refresher

Target Audience: Refer to Maintenance of Traffic — Advanced

Prerequisite: Valid Advanced Maintenance of Traffic qualification

Overview of initial course with concentration on changes to the Florida Design Standards, Part 6 of the MUTCD, PPM, CPAM, and Florida's Standard Specifications for Road and Bridge Construction. Satisfactory completion of the Advanced Refresher training must occur on or before the participant's Advanced MOT qualification expiration date to extend qualification for four years. Participants failing the exam must retake the full, 20-hour course to requalify.

CEU/PDH 0.7/7

Public \$150/Private \$200

7 hrs

Making Work Zones Work Better

Target Audience: Traffic engineers, construction engineers, project engineers, contractors, utility personnel, law enforcement, planners, public officials, and others involved in project development and work zone operations and safety

Traffic mobility and safety in and around work zones continues to be a problem in Florida. Over the past 20 years, severe congestion has doubled and extreme congestion has tripled. More than 24% of all non-recurring congestion is due to work zones, and is projected to increase by 50% over the next 10 years. Course topics will include congestion through reduced-capacity work zones, noise requirements for nighttime construction, adequate public relations campaigns, and knowledge of mitigation techniques and strategies.

CEU/PDH 0.8/8

Public \$150/Private \$250

8 hrs

Mobile Equipment and Internal Work Zone Safety

Target Audience: Public works employees: water/waste water utility, parks, irrigation, those who operate/work near mobile equipment and in/outdoor municipal work zones

Topics covered include mobile equipment hazards, crashes, work zone perimeters/barriers; inclines, surface conditions, proximity to excavations/general stability; falling object protective structures (FOPS), rollover protective structures (ROPS), vehicle restraint devices and rider-passenger rules; pedestrian worker safety rules; suspended loads/rigging, "trailing," equipment inspection/pre-job checklists, and unattended equipment and nighttime security.

Public \$75/Private \$100

4 hrs

QuickZone

Target Audience: Engineers, planners, designers, contractors, inspectors

QuickZone traffic impact software estimates work zone delays, performs tradeoff analyses between costs of construction and delays costs, compares night and day work, and diverts traffic to different roads at various stages of construction. These effects can be estimated for periods as short as one hour or for the entire project.

CEU/PDH 0.7/7

Public \$125/Private \$210

7 hrs

Work Zone Training for Law Enforcement

Target Audience: Law enforcement officers

This course provides safe and effective practices, roles and procedures related to the use of law enforcement officers in work zones and the basic components, standards and guidelines related to temporary traffic control in work zones.

Public \$100/Private \$150

4 hrs

Pilot/Escort Flagging Pilot/Escort Flagging

Target Audience: Personnel responsible for assisting oversize load drivers and warning the motoring public of oversize loads

This course reviews official rules for Florida escorts found in the Florida Administrative Code chapter 14-26.012, as well as basic maneuvering with oversize loads, and flagging procedures from the MUTCD Part 6E. This course represents one-third of Florida's escort qualification requirements: (1) must be at least 18 years of age with a valid driver's license; (2) successfully complete a minimum 8-hour National Safety Council Defensive Driving course **or** possess a valid CDL (Class A, B, or C); and (3) successfully complete Florida Pilot/Escort Flagging training.

Requalification is required every 4 years.

Public \$120/Private \$120

8 hrs

Pilot/Escort Flagging Refresher

Target Audience: Refer to Pilot/Escort Flagging

Prerequisite: Valid Florida Pilot/Escort Flagging course certificate (8-hour or 4-hour course)

This course reviews the eight-hour course topics, with emphasis on February and October 2010 changes to the Florida Administrative Code. A four-year certificate is mailed to those who successfully complete the exam. The course is also available online through the Florida T² Center website (see Pilot/Escort Flagging Refresher Online).

Public \$60/Private \$60

4 hrs

Pilot/Escort Flagging Refresher Online

Target Audience: Refer to Pilot/Escort Flagging

Prerequisite: Valid Florida Pilot/Escort Flagging course certificate (8-hour or 4-hour course)

This 4-hour Computer Based Training (CBT) refresher reviews the eight-hour course topics, with emphasis on February and October 2010 changes to the Florida Administrative Code. A four-year qualification is mailed to those who successfully complete the exam. To enroll and take the online course, go to www.t2ctt.ce.ufl.edu/pero or for assistance, contact Florida T² Center Pilot/Escort online registration by phone: 352.273.1670.

Public \$60/Private \$60

4 hrs

Project Management Construction Estimating

Target Audience: Employees responsible for making construction quantities estimates

The workshop provides agency personnel practice and experience making computations for estimating and measuring roadway maintenance quantities and amounts. Participants must supply their own calculator (TI36X calculator or equivalent) and have the skill to add, subtract, multiply and divide on it.

Public \$120/Private \$210

4 hrs

Economic Evaluation of Public Projects

Target Audience: Engineers, managers, and technicians who assist with/analyze the financial feasibility of construction projects using public monies

This workshop provides a basic foundation in engineering economics principles and how to apply them to make realistic, economic decisions between competing alternative solutions. The analytical framework for decision making from an economic viewpoint includes theory, knowledge, and tools used to analyze commonly encountered engineering problems.

CEU/PDH 0.7/7.0

Public \$200/Private \$300

8 hrs

Final Estimates Level 1 — CTQP

Target Audience: FDOT, contractor, and construction inspection personnel responsible for providing proper measurements, computations, documentation, and submission of final estimates

The CTT review course covers general responsibilities and procedures for final estimates, types and methods of proper documentation, and methods for measuring and computing pay-item quantities.

Course and written exam:

CEU/PDH 0.6/6

\$350

8 hrs

Final Estimates Level 2 — CTQP

Target Audience: All employees responsible for producing, reviewing, and approving monthly, progress, and final payments and/or compiling final estimates packages

Covers contract language, asphalt records, final plans, certifications, earthwork requirements, and fuel and bituminous adjustments. Standard policies, procedures, and common practices necessary to produce optimal, accurate, and timely payments are also presented.

Course with written exam:

CEU/PDH 1.4/14

\$575

16 hrs

Florida Department of Transportation (FDOT) Specifications

Target Audience: Roadway designers, specification writers, engineers, contractors

FDOT uses Contractor Quality Control (CQC) specifications on all projects for asphalt, concrete and earthwork, fundamentally changing acceptance and testing on FDOT projects which may affect your city or county. Learn a simplified process and easily customized tools that follow FDOT's Standard Specifications for Road and Bridge Construction. Become familiar with the workbook and process of selecting files to include in project packages. Learn the macro to pull it all together.

CEU/PDH 0.6/6

Public \$125/Private \$210

6 hrs

Inspecting Municipal Properties

Target Audience: Employees responsible for safety inspection of public properties

This course covers the inspection of indoor and outdoor work areas, public properties and access areas and emphasizes basic OSHA regulatory compliance, standard work place safety issues, desirable/undesirable working conditions, personal protective equipment (PPE) requirements, signage and markings. Agency inspection checklist forms are shared. Proactive maintenance is recommended with limited resources.

Public \$100/Private \$150

4 hrs

Introduction to Highway Construction Inspection

Target Audience: Inspectors, contractors, technicians, and construction personnel

This course provides participants with a better understanding of construction processes and a useful reference for highway construction inspection. Topics include chain of command, the preconstruction conference, working shop drawings, construction records, control of materials, utility relocation, schedule and contract time, progress estimates, safety, contract modifications, contractor claims, acceptance of work, and final estimates.

CEU/PDH 0.7/7

Public \$125/Private \$210

7 hrs

Project Manager/Inspector Fundamentals

Target Audience: Roadway managers and inspectors

This introduction and review course gives managers and inspectors basic tools required for job planning. Reviewing and performing hands-on training will occur for plans reading and review, soil borings and geometrics, field layout and survey, utilities, bridges, drainage, soils and geotechnical, work zone safety, and construction safety. Participants will form teams, conduct a plans review, and an onsite/field review.

Public \$295/Private \$395

14 hrs

Quality Control Manager — CTQP

Target Audience: FDOT, contractor, and construction inspection personnel involved in acceptance decision-making

Learn how to develop quality control plans and how to monitor adherence to those plans during the construction process.

Course with written exam:

CEU/PDH 1.2/12

\$400 Reduced

14 hrs

Safety

Common Sense Solutions for Intersection Safety Problems

Target Audience: Elected officials, law enforcement officers, municipal workers, safety advocacy groups, roadway designers, public works employees, directors, and engineers

This class provides basics of intersection safety problems, issues and liability, and the officials' role in making local intersections safer while protecting their governments from litigation. It also provides practical information that does not require engineering expertise for common safety problems, as well as background information on problems that do require engineering expertise.

CEU/PDH 0.7/7

Public \$125/Private \$210

7 hrs

Community Approach to Safe Routes to School Programs, A

Target Audience: Community safety officials, CTST members, bike/ped coordinators, Safe Kids Coalition members, county health staff, school administrators, interested PTA members

This course is a national Safe Routes to School (SRTS) overview covering the 5 "Es" (Engineering, Education, Encouragement, Enforcement, and Evaluation) and practical ways to create a community-based SRTS program. Addresses state funding applications and applying for infrastructure/non-infrastructure funds. Includes field exercise "walk audit" of a school site. Shares local success stories with "walking school buses" examples, enforcement strategies, education programs and encouragement ideas.

CEU/PDH 0.6/6.0

Call 352.273.1685 for pricing

7 hrs

Confined Space Entry Certification

Target Audience: Municipal water, waste water and storm water utility employees

Identifies/addresses common municipal permit-required, confined space situations rarely covered by other programs. Provides a comprehensive Confined Space Entry policy and implementation methods. Introduces other hazards specific to water/waste water/storm water facilities. Presents new safety products, accident prevention, site analysis measures, protocol development for each permit-required confined space location, and the most advanced Confined Space Entry Permit form. Includes field exercise.

Public \$125/Private \$210

8 hrs

Defensive Driving Skills and Crash Prevention For Heavy Vehicle Operation

Target Audience: Operators of heavy equipment — all skill levels

This class helps develop knowledge and driving skills for dual and single axle dump trucks, ¾ ton pickups, emergency vehicles, and more. Increase your confidence level in operating vehicles with a GVWR over 26,000 LBS and towing trailers/vehicles rated at 10,000 LBS GVWR or less by taking this course. The safety and hands-on training duration varies with skill level.

Public \$175/Private \$295

length varies

Lockout/Tagout: Isolation and Control of Hazardous Energy at Municipal Work Places

Target Audience: Public works/utility employees, water/waste water distribution/plant operators, anyone exposed to hazardous energy

This course combines a total program approach to lockout/tagout principles with worksite safety engineering, safe work practices, protective devices/products, special clothing and proper use of personal protective equipment. Hazardous energy sources, lockout/tagout concepts applicable to public work spaces, recent public sector lockout/tagout hazards and accidents, and available isolation and/or lockout devices are presented.

Public \$75/Private \$100

4 hrs

Low-Cost Safety Improvements for Rural Roads

Target Audience: Elected officials, law enforcement officers, municipal workers, safety advocacy groups, roadway designers, street superintendents, public works employees, directors, and engineers

This class is a basic review of low-cost safety solutions for roadways, emphasizing rural roads. Information for common safety problems is provided in a practical format that does not require engineering expertise.

Public \$125/Private \$210

6 hrs

Nuclear Density Gauge Safety – CTT

Target Audience: Technicians who use or work near nuclear density gauges

This course covers the proper use and safe transportation requirements of portable nuclear density gauges. Topics include radioactivity, radiological health and safety, regulations, monitoring and transport. Passing the exam fulfills requirements for technicians using nuclear density gauges, required for Earthwork Construction Inspection Level 1 CTQP qualification. The class is highly recommended for Asphalt Paving Level 1 technicians as they use or work near nuclear density gauges.

Course with written exam:

CEU/PDH 0.6/6.0

Call 352.273.1661 for pricing

8 hrs

OSHA Competent Person

Target Audience: Engineers, contractors, supervisors, inspectors, construction and road crews

Covers the OSHA Trenching and Excavation Competent Person requirements. Learn new terms and how to apply the standards. Other topics include soil classifications, tests, and hazard recognition.

Public \$125/Private \$210

5 hrs

Power Line Safety for the Municipal Worker

Target Audience: Public works/utility crews, anyone working around power utilities, safety officers, safety loss control officers

This program educates workers on above- and below-ground power line configurations. Activities that place them at risk of contact with high voltage lines are described, as well as accident prevention methods and safe work practices when operating near power utilities. Power line accident scenarios, issues and incident prevention, and ground penetrating radar are discussed. Includes a field exercise and demonstration.

Public \$75/Private \$100

4 hrs

Road Safety Audits for Community Traffic Safety Teams (CTSTs)

Target Audience: CTST members

Road Safety Audits (RSAs) for CTSTs, an abbreviated version of the full course, is available only to CTST members. The RSA is an effective tool to help reduce injuries and fatalities on your road network. CTST members are provided with a step-by-step procedure for performing RSAs to recognize basic RSA concepts, evaluate risk and safety, and become familiar with common issues, which gives the team the ability to conduct audits. Simple, low-cost safety improvements can be implemented to reduce fatalities and severe crashes. An optional, onsite RSA will be conducted at a predetermined, local site.

CEU/PDH 0.4/4

Call 352.273.1697 for pricing

8 hrs

Road Safety Audits for Local Governments

Target Audience: Traffic engineers and other local government decision makers

Road Safety Audits (RSAs) for Local Governments introduces RSAs as an effective tool to reduce injuries and fatalities on your road network. Learn basic RSA concepts, risk and safety, and common issues. Gain experience in conducting a RSA. Low-cost safety improvements can be implemented quickly to reduce fatalities and severe crashes. An onsite RSA is conducted on day 2 at a predetermined, local site.

CEU/PDH 1.2/12

Call 352.273.1697 for pricing

16 hrs

Roadside Maintenance Safety

Target Audience: Mower tractor operators, vegetation control workers

This course teaches workers OSHA standards, the fundamentals of safely using mowers, traffic control procedures, PPE, sprayers, accident reviews and prevention, and vegetation control. This is not a hands-on equipment course.

Public \$120/Private \$210

5 hrs

Safe Mobility for Life Program: Planning and Designing for an Aging Population

Target Audience: Engineers, planners, and associated professionals

By 2020, one in four Florida residents will be over 65, and half of those will be 75 or older. Developed by FDOT, this Florida-specific training, based on FHWA's Highway Design Handbook for Older Drivers and Pedestrians, raises awareness of roadway needs related to mature drivers. It presents alternative solutions to planning, design, and operation of roadways and associated facilities.

CEU/PDH 0.7/7.0

Call 352.273.1685 for pricing

7 hrs

Stormwater

Stormwater, Erosion, and Sedimentation Certification Program (NPDES)

Target Audience: Persons responsible for planning and/or inspecting stormwater runoff and containment sites

This course satisfies the EPA regulations for qualified/certified inspectors for the Florida Stormwater, Erosion and Sedimentation Control Program and covers best management practices as set forth by the state of Florida. To become a Certified Stormwater Management Inspector, participants must successfully pass a state-approved test upon completion of the course.

CEU/PDH 1.3/13

Public \$195/Private \$295

13 hrs

Surveying

Surveying Methods for Local Agencies

Target Audience: Experienced individuals are welcome; however, the focus is for those with limited/no surveying experience including engineers, supervisors, managers, state and local officials, road agency personnel, and others interested in learning simple surveying methods

Basic surveying techniques using the hand level, rule (tape), and level rod are taught. Participants learn to record field measurement notes and use the notes to make simple calculations.

CEU/PDH 0.7/7

Public \$125/Private \$210

7 hrs

Workforce Development and Management

Between You and Me: Managing Conflict at Work

Target Audience: Your entire team

In today's workforce, some are reluctant to get involved in a conflict situation. Who doesn't feel uncomfortable at the thought of an unpleasant and possibly emotional confrontation? Unfortunately, conflicts are rarely self-healing conditions. Learn how to take responsibility for resolving individual conflicts by following simple, effective steps.

Public \$125/Private \$210

3 hrs

Coaching for Success

Target Audience: Supervisors and other leaders

Learn basic leadership skills to encourage/guide employees toward accomplishing goals in the work environment. Coaching is a dynamic, face-to-face leadership style. This intensive session provides practical tips on how to be a coach and therefore become a better manager. Lectures, group discussion, and case study reviews cover techniques that can help you become a more effective leader.

Public \$125/Private \$210

3 hrs

Communicate Assertively

Target Audience: Supervisors, managers, office personnel, and engineers

Assertiveness is an acquired skill, not a personality trait that some people have and others do not. When we communicate assertively, we express our feelings, thoughts, and wishes, standing up for our legitimate rights without violating the rights of others. Learn communication skills essential in many day-to-day situations.

Public \$125/Private \$210

3 hrs

Communication Confidence

Target Audience: Supervisors, managers, office personnel, and engineers

Most of us think we're good communicators. Listening and talking are activities we engage in all the time, so we assume we do it well. Unfortunately, that is often not the case. Learn skills and tools to improve the way your team communicates.

Public \$125/Private \$210

3 hrs

Creating Possibilities

Target Audience: Supervisors, managers, office personnel, and engineers

Features the work of Ben Zander, world-famous conductor of the Boston Philharmonic Orchestra. A fresh approach for improving your leadership is offered by encouraging you to become a possibility — a vision. The program expresses the importance of relating to people on your team as co-visionaries and co-leaders in the part they have to play.

Public \$125/Private \$210

3 hrs



Discover the Leader in You

Target Audience: Supervisors, managers, office personnel, and engineers

Packed with practical exercises, tools, checklists, and action plans, this course will help you identify specific leadership roles that are natural for you, most critical to your organization, and most difficult for you. Learn practical tools for developing your skills. Good managing and effective leadership are not about memorizing techniques; they are about the kind of capability that begins to feel like a natural part of your being.

Public \$125/Private \$210

3 hrs

Empowerment: Unleash Potential

Target Audience: Supervisors, managers, office personnel, and engineers

Want to maximize human potential? Create a culture that fosters independent initiative, creativity, and resourcefulness through proactive leadership. Identify proactive versus reactive behavior, increase your awareness of untapped potential, and develop an action plan to maximize potential in your work group.

Public \$125/Private \$210

3 hrs

From Manager to Motivator

Target Audience: Supervisors, managers, office personnel, and engineers

Inspiring employee motivation requires much more than the old-fashioned carrot-and-stick approach. Today's managers must understand reasons why employees work and rewards they hope to receive. Learn the many factors affecting employee motivation. If you lead others, this workshop is for you.

Public \$125/Private \$210

3 hrs

Leading the Challenge of Change

Target Audience: Supervisors, managers, office personnel, and engineers

In this world of high velocity change, we face the challenge of leading others through change every day. Why is this a challenge? When people perceive an established belief, value, or behavior is threatened, they experience fear — which then motivates them to protect themselves and resist the change! Explore the dynamics of change, the role of values and behavior in the change process, how to overcome resistance to change, and how to make change irresistible.

Public \$125/Private \$210

3 hrs

Making Meetings Work

Target Audience: Supervisors, staff, and engineers

How many meetings have you attended or conducted that seemed like wasting time? Well, no more! Attend this workshop and learn how to conduct more effective meetings. You'll even learn why meetings don't work and what you can do to overcome typical meeting blunders.

Public \$125/Private \$210 3 hrs

Now Hear This

Target Audience: Supervisors, managers, office personnel, and engineers

Forty percent of your average workday is spent listening to others. That's close to half a day! Are you an effective listener? Assess your listening skills. Could you improve?

Public \$125/Private \$210 3 hrs

Power of Feedback, The

Target Audience: Your entire workforce

Whenever we respond to another person, we are giving feedback. Effective feedback clearly communicates what's expected. It avoids attacks, judgments, and name-calling, and uses reinforcement to point out positive behavior that can be repeated or redirected when an employee is not contributing toward the organization's goals.

Public \$125/Private \$210 3 hrs

Powerful Public Speaking

Target Audience: Upward bound employees, engineers, supervisors, and managers

Have you ever been in an interview, a meeting, or presentation and wished you were better prepared? Has stage fright impacted your effectiveness? Learn how to reduce stage fright and deliver your message in a professional manner. You will apply public speaking basics by focusing on situation, purpose, audience, and methods.

Public \$125/Private \$210 3 hrs

Quality Customer Service

Target Audience: Your entire workforce

We all have customers. How effective are you when dealing with them? When was the last time you really assessed your customer interaction? Could you improve? Would it help to review and get re-energized? This is not your ordinary customer service workshop.

Public \$125/Private \$210 3 hrs

Relationship Strategies

Target Audience: Upward bound staff, supervisors, and engineers

This demanding workshop offers guidelines for understanding and adjusting to differences in people through observation of their behavior. Tools presented enable you to see yourself and your world through someone else's eyes which increases communication effectiveness.

Public \$125/Private \$210 3 hrs

Successful Supervision in Public Works

Target Audience: Public works directors, engineers, supervisors, and superintendents

Improve the quality of supervision in your public works department. This class covers tasks related to human resources management, a responsibility for all public works supervisors; how the certification interview can be used to select supervisors with competencies in human resource management; evaluation of supervisory performance related to the management of human resources; and a training program to improve supervisory performance related to personnel management.

CEU/PDH 0.6/6

Public \$125/Private \$210 6 hrs

Surviving the Challenge of the Problem Employee

Target Audience: Supervisors, managers, engineers, and office personnel

"Bill's work is not up to speed, but I'm afraid he's going to get angry if I tell him." "Mary does good work . . . when she actually comes to work." "The problem with Joe is his attitude. I just want to fire him!" Supervisors learn how to analyze and control problem employees and how to get the workplace back on track to productivity.

Public \$125/Private \$210 3 hrs

Teamwork: Together Everyone Wins

Target Audience: Team members, upward bound employees, engineers, supervisors, managers, and office personnel

Many organizations today use teams to identify and solve problems. Groups can transform themselves by learning the essential elements of team development.

Public \$125/Private \$210 3 hrs

What to Do First When Everything is Important

Target Audience: Supervisors, managers, office personnel, and engineers

"It takes too much time to plan, besides, I've been successful so far without planning." "Everything I have to do is important." In today's work environment, supervisors often are bombarded with simply too much to do. While it is true that we don't have enough time to do it all, it is equally true that we have enough time. The key is knowing what to do first. Learn how to control work environments and how to manage workloads.

Public \$125/Private \$210 3 hrs

Mobile Video Training

Target Audience: Work crews, field and entry level employees, and supervisors

This efficient training delivers video-based instruction and job-related skills information directly to your office, maintenance yard, or training facility. All training materials reflect Florida's regulations and guidelines. Sessions are scheduled on a first-come, first-served basis with a small registration fee that covers all employees. Meeting space and breaks are provided by your agency.

Schedule as much training in one day as possible (7 hours) and have the instructor travel to and from without an overnight stay. Sharing costs with another agency can save money and train the most employees at once. Average cost per training hour decreases as the total training hours offered increases. Custom tailored training is available.

Visit t2ctt.ce.ufl.edu and complete the request form, then submit as directed. Limited scholarships are available. For special training or questions, contact mvt@ce.ufl.edu or 352.273.1670.

Mobile Video Training Program Modules

Module 1: Work Zone Safety

- 1A. Rural Road Operations (4 hrs)
- 1B. Urban Streets (4 hrs)
- 1C. Combination of Rural Roads and Urban Streets (4 hrs)
- 1D. Detours (2 hrs)
- 1E. Flagging (2½ hrs)
- 1F. Intersection Work (2 hrs)
- 1G. Low Speed Streets (3 hrs)
- 1H. Moving/Mobile Operations (2 hrs)
- 1I. Pedestrians (2 hrs)
- 1J. Surveyors/Locators (2 hrs)
- 1K. Utility Work (2½ hrs)
- 1L. Nighttime Operations (2½ hrs)

Module 2: Asphalt Pavement

- 2A. Asphalt Pavement Repair (2 hrs)
- 2B. Asphalt Paving (1½ hrs)
- 2C. Asphalt Paving Inspection (1-2 hrs)
- 2D. Asphalt Surface Treatments (2 hrs)

Module 3: Equipment/Tool Operation and Safety

- 3A. Asphalt Paving Compaction Equipment Operation (2 hrs)
- 3B. Backhoe/Loader Operation (1½ hrs)
- 3C. Chainsaw Safety (1 hr)
- 3D. Commercial Driver's License (4 hrs)
- 3E. Crane Safety (1 hr)
- 3F. Crawler Excavator (Crawler Backhoe) Safety (1 hr)
- 3G. Dump Truck Operation and Preventive Maintenance (1 hr)
- 3H. Forklift Operation and Safety (1 hr)
- 3I. Front End Loader (2 hrs)
- 3J. Motor Grader (1½-2 hrs)
- 3K. Skid Steer Loader (Bobcat) (2 hrs)

Module 4: Portland Cement Concrete

- 4A. Reinforced Portland Cement Concrete Inspection (4 hrs)
- 4B. Portland Cement Concrete Flatwork (2½ hrs)

Module 5: Roadside Maintenance Operations

- 5A. Mowing Safety (1 hr)
- 5B. Roadside Vegetation Control (4 hrs)
- 5C. Shoulder and Roadside Ditch Maintenance (2 hrs)
- 5D. Guardrail Installation (2½ hrs)

Module 6: Drainage Construction/Erosion Control

- 6A. Pipe Placement (1½ hrs)
- 6B. Underground Safety (2 hrs)

Module 7: Soils

- 7A. Soil Cement Construction in Florida (1½ hrs)
- 7B. Soil Stabilization in Clay Soils (1½ hrs)
- 7C. Geotextiles and Geogrids (2 hrs)
- 7D. Graded Road Maintenance (1-2 hrs)
- 7E. Erosion Control (2 hrs)

Module 8: Legal Concerns

- 8A. Legal Testimony — Trial and Deposition (2 hrs)
- 8B. Tort Liability — Field Responsibility (1 hr)
- 8C. Tort Liability — Management Responsibility (1-2 hrs)

Module 9: Highway Safety: Design, Construction and Maintenance

- 9A. Highway Safety Features (4 hrs)

Module 10: Traffic Operations

- 10A. Highway Signing and Pavement Marking Maintenance (4 hrs)

Technology Transfer Quarterly

Florida's Traffic Engineering and Safety Workforce Training Update



Florida Transportation Technology Transfer Center



Volume 25, Number 04
November 2010

Social networking: what should your agency be doing?

p. 24-25



Florida Transportation Technology Transfer Center

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FHWA's Every Day Counts Initiative

Technologies and Delivery Processes Are Applicable to Local and State Agencies

Meeting the challenges of today's transportation needs while working more efficiently, sustainably, and cost effectively means going beyond innovation and ingenuity. It means making every day count. Rapid deployment of proven technology and solutions to speed up project delivery are at the heart of the Federal Highway Administration's (FHWA) new Every Day Counts (EDC) initiative.

Priority technologies are:

- **Warm Mix Asphalt** — Warm mix asphalt (WMA) technologies allow the producers of hot-mix asphalt pavement to lower the temperatures at which the material is mixed and placed on the road, which can result in significant cost savings and reduced greenhouse gas emissions. WMA projects have been constructed in more than 40 states to date.
- **Prefabricated Bridge Elements and Systems** — The use of prefabricated bridge elements and systems (PBES), ranging from superstructures or substructures to totally prefabricated bridges, offers both faster and safer bridge construction and better quality. PBES can also reduce costs and the environmental impact of projects. ▮

Florida Technology Transfer Quarterly Established 1984

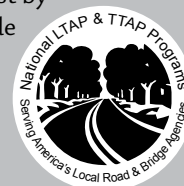
Voice	352.392.2371
Workshop Registration	EXT. 31670 or 31669
Workshop Development	EXT. 31685
Traffic Safety Courses	EXT. 31685
Pilot/Escort Program	EXT. 31670
CTT and CTQP Courses	EXT. 31669 or 31670
Customer Service	EXT. 31674 or 31676
Media Center	352.392.9537 EXT. 1544
Product Demo. Showcases	EXT. 31687
Safety Circuit Rider Program	EXT. 31685
Safety Resource Center	352.392.9537 EXT. 1544
Mailing list	EXT. 31670
Fax	352.392.3224
Email	t2@ce.ufl.edu
Web	t2ctt.ce.ufl.edu

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), Safety Circuit Rider Program (SCR), 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 completing and returning the FaxBack form on the inside back cover. Newsletter content and accuracy is the exclusive responsibility of the Florida T² Center.

Circulation: 16,931



- **Adaptive Signal Control Technology** — Adaptive signal control systems, such as Adaptive Control Software Lite (ACS-Lite), coordinate the control of traffic signals across a network by adjusting the lengths of green lights based on prevailing traffic conditions. These adjustments can improve travel time reliability, reduce congestion, and provide a smoother flow of traffic.
- **Safety Edge** — The Safety Edge technology provides a simple and extremely effective solution to reduce pavement edge-related crashes and help save lives. By shaping the edge of a pavement to 30 to 35 degrees, the Safety Edge helps eliminate the problem of vertical drop-off, enabling vehicles to return to the paved road smoothly and easily.
- **Geosynthetic Reinforced Soil (GRS)** — Instead of conventional bridge supported technology; GRS technology uses alternating layers of compacted fill and sheets of geotextile reinforcement to provide support for the bridge. The technology can reduce construction time and costs and also offers flexible design and the ease of using common equipment and readily available materials.

Along with new technologies, FHWA plans to make innovative contracting standard business practice by supporting the deployment of accelerated project delivery methods. The Construction Manager/General Contractor (CM/GC) is a project delivery method where the owner contracts with a construction manager to provide constructability, scheduling, and pricing information during the design process. CM/GC allows state departments of transportation to remain active in the design process while assigning risks to the parties most able to mitigate them. CM/GC occupies the middle ground between design-bid-build and design-build. The CM/GC method has the potential to lower project costs, accelerate project completion, and reduce change orders.

In the alternative Design-Build project delivery method, the design and construction phases of a project are combined into one contract. This can result in significant time and cost savings and also provides the contractor with increased flexibility to be innovative.

The EDC initiative will also provide innovative approaches to improving the delivery process for projects that require an Environmental Impact Statement (EIS) or other environmental document. The proposed initiatives will help state and local agencies speed project delivery by using the following time-saving practices:

- **Planning and Environmental Linkages** — This initiative will provide a tool to increase incorporation of planning documents and decisions into the environmental review process, minimizing duplication of effort, promoting environmental stewardship, and reducing delays in project implementation.



- **Legal Sufficiency Enhancements** — By consulting with FHWA environmental attorneys early in project planning and development, decision makers can avoid problems later, saving time and money.
- **Expanding Use of Programmatic Agreements** — This initiative will identify and assist in the expansion of new and existing programmatic agreements to avoid, minimize, and mitigate project impacts.
- **Use of In-Lieu Fee and Mitigation Banking** — Expanded use of in-lieu fees and mitigation banking will create a more streamlined process to expedite project delivery.
- **Clarifying the Scope of Preliminary Design** — The initiative will identify the amount of design work allowable under current law prior to completion of documents required under the National Environmental Policy Act. FHWA will also develop guidance to provide consistency in applying this definition of preliminary design.
- **Flexibilities in Right of Way (ROW)** — FHWA will highlight opportunities to achieve project time savings by using ROW flexibilities already provided for in statutes and FHWA regulations.
- **Flexibility in Utility Accommodation and Relocation** — Existing flexibilities for accommodating and relocating utilities will be spotlighted, as well as techniques for fostering effective utility coordination during project development.

Enhanced Technical Assistance on Delayed EISs—This initiative will provide additional FHWA technical assistance to identify major challenges on a few ongoing EIS projects and to implement solutions to resolve project delays where feasible.

Visit the EDC website at www.fhwa.dot.gov/everydaycounts/index.cfm ■■■

Alternative Transportation Options Database Now Available

The University of Florida's Institute for Mobility, Activity and Participation has, with funding from the Florida Department of Transportation, developed the Florida Senior Safety Resource Center (FSSRC), a database containing over 700 transportation services. This up-to-date and user-directed information for seniors, or persons with disabilities, addresses the need to find appropriate, acceptable and affordable alternative transportation options within their local communities. These services range from highly organized to very flexible and providing various levels of assistance, throughout all of Florida's 67 counties. To view the alternative transportation options that are available within your community, go to www.SafeandMobileSeniors.org/FindARide.htm and click on the county name, it is that easy! ■■■

Using Social Media by Public Agencies

Don't Get Left Behind

It's no secret that public agencies are getting on board with social media, with more agencies joining every day, including public works and transportation departments at local, state and federal levels. Twenty-two percent of all Internet time is spent on social networking and blog sites (June 2010 -Nielsen). In an environment where people now have a choice of the medium they wish to receive their news: radio, TV, Internet, newspaper, and now social media, it can only benefit an agency to share information in multiple venues.

Social media can help public works and transportation departments spread the word, become part of the conversation, help shape public perception, stay current and improve internal efficiencies. Social media sites currently being utilized by agencies include Facebook, Twitter, and YouTube.

Facebook

Facebook is the most popular social networking site with over 500 million active users (*Facebook.com*). Facebook is free to use, and agencies can create organizational profiles or "pages" where they can post information, photos, videos and links about events, projects, public meetings/hearings, job openings, emergencies, road closures, controlled burns, etc., for others to see. Individuals have the option to become a fan of the agency's page, enabling users to receive all the latest news and announcements in real time.

Two public works departments that are successfully utilizing Facebook are the City of Burlington, VT www.facebook.com/pages/Burlington-VT/City-of-Burlington-Public-Works/368680935799 and the City of San Francisco, CA www.facebook.com/sfdpw. The City of Burlington consistently posts about its projects: the location, dates, and specifics. The City of San Francisco not only posts about its projects, but acts as its own cheerleader. For example, one post includes photos of a construction crew working over the weekend to fill over 125 potholes! The department also posts numerous other pictures and articles featuring its Clean & Green Trucks Program, Community Clean Team, Spruce Up by Sun Up Campaign, Sunday Streets San Francisco, Urban Gleaning Program, etc.

Here are some tips to keep pages fresh and inviting: keep your Facebook conversational (don't sound like a robot), responsive (comment on any comments you receive right away), timely (don't post information that is irrelevant or outdated), and social (two-way conversation). The Government on Facebook page at www.facebook.com/government and the Facebook Security page at www.facebook.com/security are two excellent sources for getting started.

Twitter


Organizational efficiency is dependent on the level of communication within any agency and with its constituencies, and one of the most useful social media tools for improving this efficiency is Twitter. The micro-blog service made its mark by asking users to answer a simple question: "What's happening?" That is

the same question that public works managers continually ask themselves. However, the method in which managers receive answers can either hinder or improve organization efficiency. For instance, when managers engage staff and ask the same question, the answer usually comes in a ten minute conversation, and staff may even end up resenting the inquiry. Twitter, on the other hand, limits answers to 140 characters.

When all members of an organization are engaged in sharing 140-character activity updates on a regular basis, the need for management to ask the "What's happening?" question is eliminated. This allows staff to focus on the task at hand while the management focuses its efforts on providing staff with the support they need to complete their work.

Furthermore, because Twitter can be used via text messaging on a standard mobile phone, its use is not limited to office personnel. Field teams and maintenance crews can also use Twitter to continually update the organization and their constituency on their work status. This approach has been successfully used to log construction activity, as well as minor maintenance, for local agencies. Implementing it in your organization is bound to improve efficiencies and results.

YouTube

A picture is truly worth a thousand words. YouTube also presents a platform to share information via video among staff and constituencies. Public works and transportation departments are just now beginning to fully realize the benefits of using this video-hosting site to improve communication and performance. Video communication is rapidly becoming the preferred form of sharing complex information, especially for public .



relations and training. As video technology becomes readily available and increasingly mobile, organizations everywhere can begin to leverage YouTube further.

One example of the effective use of YouTube is when documenting repairs to infrastructure in the field. Documentation typically takes the form of a written log; however, using smart phones and other mobile devices, a video log of these repairs can be uploaded to YouTube before a field team or maintenance crew completes its work at a particular site. This not only informs the agency's staff and management team of the work status or completion, it can also be used to notify constituencies. While this use is currently not widespread among public works and transportation organizations, its implementation has potential to significantly improve operational efficiencies.

YouTube can also be used as a public relations tool. The relative simplicity of embedding YouTube videos into an organization's website, coupled with its large user base, makes implementing YouTube to improve public image an attractive option for agencies. While this is a benefit in and of itself, the value of YouTube, like that of all social media, comes from creatively using it to meet the specific needs of each organization.

Legal /Security Issues and Developing a Social Media Policy

While the benefits of social media are numerous, it is also important for agencies to understand the legal and security issues surrounding their use and develop a social media policy. The bottom line, however, is to use your judgment and common sense throughout the process.



Legal issues stem from the following:

- Freedom of Information Act: this Act allows public access to all government records, including those created through a public agency's social media site
- Privacy Act: public agencies should be conscious of the rights of individuals who join their social media sites
- Rehabilitation Act: per Section 508 of this Act, electronic documents must be made available in an alternative format upon request
- First Amendments rights: people have the right to post critical comments about a public agency on a social networking site
- Florida's Sunshine Laws: public officials cannot comment on another public official's social networking site about certain matters
- Public Records Law: public agencies must have a management and retention schedule for all records created by social media
- Florida Attorney General Opinion: AGO 2009-19 addresses implications for a city's Facebook page www.myfloridalegal.com/ago.nsf/Opinions/25F14F90483F3901852575A2004E46CB

Furthermore, those in the agency who have access to the agency's social media sites should be trained on security issues. Personnel and financial/proprietary information should never be shared. Agencies should also learn about the different forms of social engineering to recognize when a hacker is attempting to gain access to a site. To learn more, visit www.cio.gov/Documents/Guidelines_for_Secure_Use_Social_Media_v01-o.pdf.

Following these legal and security risks, it is important for entities to create a social media policy to use as a guideline. The policy may outline how the agency will address the above legal and risk issues, as well as identify which sites to use and how to use them. Examples of existing agency social media policies can be found at socialmediagovernance.com/policies.php?f=5.

Additional resources to assist in guiding an agency's social media direction include:

- Making the Most of Social Media – 7 Lessons from Successful Cities ivyridgegreen.org/media/Fels_socialmedia_final.pdf
- Government-to-Citizen Communications: Utilizing Multiple Digital Channels Effectively www.scribd.com/doc/32362140/Government-To-Citizen-Communications-Using-Multiple-Digital-Channels-Effectively
- Social Networking in Government – Opportunities and Challenges www.saba.com/offers/register.aspx?sasfid=70150000000Knsv

There are more reasons for public works and transportation agencies to use social networking than not use it. Just think of the Gov 2.0 buzzwords: community, collaboration, transparency, participation, information sharing, two-way communication and human interaction. We are living in a social networking age, where agencies not participating in social media sites will soon be left behind. Look around in your organization and you will surely find a social networking guru willing to champion the process.

Amy Blaida, MPA, Project Coordinator, Transportation/Infrastructure Program, Reynolds, Smith and Hills, Inc., Orlando and Herb Raybourn, PE, Principal Engineer, Mola Engineering, Lake Buena Vista, FL. They can be reached at amy.blaida@rsandh.com and hgraybourn@me.com ■■■

Making Roadways Safer for Motorcyclists *continued*

In our last newsletter, we featured information on how to improve roadway safety for motorcycle riders. In the coming issues of this publication we will present information that has been included in a series of eight, recently developed training segments designed to raise awareness of public works and transportation employees who are responsible for the planning, designing, construction and maintenance of our roads.

The training segments include a short video clip illustrating a set of hazards and several PowerPoint slides that supplement the video to stimulate discussion and provide suggestions. The training materials will also be incorporated in various Florida T² Center and Center for Transportation Training (CTT) courses in the coming year. These materials are also available for agencies to use in their own in-house training sessions. The segments can be used together as a 30 minute, standalone unit or separately in any design/construction/maintenance training program. The objective is to have personnel look at pavements from a different viewpoint than conventional wisdom would teach. Ultimately, a smooth and safe roadway for the motorcyclist will be equally enjoyed by all road users. Contact t2@ce.ufl.edu and request a training materials CD.

The eight segments are as follows:

Segment 1: Overview – Understanding the dynamics of a motorcycle

Segment 2: Bumps, holes, cracks, and gravel

Segment 3: Lane ridges and rises, lane changes

Segment 4: Grooved surfaces and bridge deck surfaces

Segment 5: Joints on bridges and lanes and railroad tracks

Segment 6: Utility covers and other grates or steel plates

Segment 7: Painted pavement markings, raised pavement markings (RPMS) and signage

Segment 8: The combination of hazards found in work zones

The first segment is featured below and the other segments will be included in future newsletters.

Segment 1

Overview - Understanding the dynamics of a motorcycle

Because most individuals do not know the dynamics of a motorcycle, a bit of background on handling a motorcycle would be beneficial for folks to better understand the challenges of riding, especially when hazardous situations are encountered. The Segment 1 video clip describes the motorcycle as the articulated

device dependent on the forces of centrifugal force and gravity to stay upright when at speed. Given the gyroscopic motion of the wheels, the motorcycle is always in danger of becoming unstable when encountering roadway abnormalities such as holes, cracks, bumps, and slick or coated surfaces - posing a risk to the driver. These irregular surfaces can disturb the balancing effect of the wheels, destabilizing the motorcycle and quickly sending the rider into an uncontrollable crash situation.

Key operational differences exist between a motorcycle and a four-wheeled car, SUV, or truck. First, there are two wheels versus four, but more importantly are the forces acting on a single wheel or pair of wheels working in tandem, versus a set of four tires with integrated suspension system. As a single wheel turns, it is subject to centrifugal forces and gravity that keep it upright. This gyroscopic motion can be significantly affected by the road surface. The smoother the road, the less issues presented to the motorcyclist.

There are different types of motorcycles and each design reacts differently to diverse roadway situations. Motorcycles come in a variety of shapes including large touring bikes, cruisers, sport bikes, dual sports, mopeds, and hard tail choppers. Each bike has different size and shaped tires and suspensions. For example, small wheeled, limited suspension and skinny tired motorcycles all react individually to holes or cracks.

Conventional vehicles have four tires and each tire has a large footprint. Motorcycles, by comparison, have two very narrow tires and a very small footprint, about the size of a playing card for each tire. Thus, motorcycles have very limited grip on the roadway given the round contact area and the small tire size. Due to their special tire design, motorcycles must lean over to turn corners and the tire footprint becomes even smaller. In contrast, automobiles have four flat-faced tires and their wheels are not dependent on centrifugal force or gyroscopic motion. Road debris, bumps, utility cuts, and expansion joints have a much more significant impact on the motorcycle than on the conventional car or pickup truck.

Cars are passively operated devices whereas motorcycles are very actively operated. The rider must continually apply a balancing action, using their hands, arms, and body to help steer and control the bike while constantly being diligent of other roadway users and all surface conditions. Being exposed to all elements (rain, heat, cold, wind, and darkness) also adds another level of complexity to the operation of the motorcycle.

Segment 2: Bumps, holes, cracks, and gravel will be featured in our February 2011 issue. ■■■

And the Winner of the Work Zone Equipment Package is Hendry County Public Works Department

Congratulations to Hendry County Public Works Department! They are the winners of the work zone package worth over \$2,100. Every local public agency employee who attended one or more of our **free** transportation safety courses (Low Cost Safety Improvements for Rural Roads, Intersection Safety, and/or Road Safety Audits for Local Governments) this past summer through September earned an entry into the drawing for the equipment which included: 36" traffic cones, stop/slow paddles, 48" signs: (Flagger, Road Work Ahead, One Lane Road Ahead, End Road Work), Class II vests, ball caps, and sign stands! The free courses were provided through a grant from the Florida Department of Transportation Safety Office and the work zone equipment package was provided through an Accelerating Safety Activities Program (ASAP) grant from the Federal Highway Administration. ■■■



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FACERS Agenda in conjunction with **FAC (Florida Association of Counties) Legislative Conference** **November 17-19, 2010 — Amelia Island Plantation**

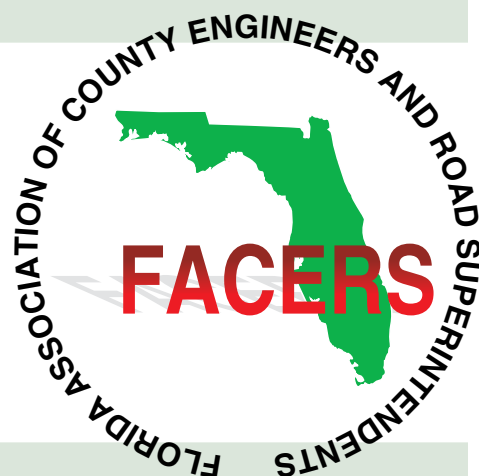
Wednesday Titanic & Archaeology in Florida's Waterways
 Pavement Preservation & Reconstruction – Best Practices Workshop
 Asphalt Plant Green Features
 Transportation Issues
 FDOT LAP Community of Practice Efforts

Thursday Quality Based Roadway System
 Legislative Issues: CCNA & Procurement Pricing; Utility Relocation/LAP/CCNA
 Lunch (on your own or FAC Luncheon if register with FAC)
 Florida's Water Quality System and Standards and TMDL
 Budget and the Effect on Your Department & Cost Efficiencies of Public vs. Private
 Round Table Discussion
 FACERS Social

Friday Board of Directors & General Membership Meeting
 Discussion with Florida Emergency Preparedness Association

FACERS Meeting Broadcast

Wednesday's technical sessions will be broadcast free of charge. Email jacarreon@ufl.edu to receive information. FACERS does not charge a registration fee for its activities, however attendance at any events/functions provided by FAC requires that you are a registered participant.



Wednesday

9:00 AM – 10:00 AM	Titanic & Archaeology in Florida's Waterways
10:30 AM – 11:30 AM	Pavement Preservation & Reconstruction – Best Practices Workshop
1:00 PM – 2:00 PM	Asphalt Plant Green Features
2:30 PM – 3:30 PM	Transportation Issues
4:00 PM – 5:00 PM	FDOT LAP Community of Practice Efforts

Retroreflectivity Mandatory for All Public Roads by 2012

New Federal requirements make managing sign retroreflectivity mandatory for all public roads. Agencies are required to select a retroreflectivity management method by 2012 and have all regulatory signs brought up to standards by 2015. For more information on these regulations, see: safety.fhwa.dot.gov/roadway_dept/night_visib/policy_guide/fhwasao7020/ ■■■

Florida Greenbook Course Scheduled for 2011

The first Florida Greenbook courses will be held in Tallahassee on January 27-28, 2011 and in Gainesville on February 9-10, 2011.

All design and construction plans for city and county road projects are required to conform to Sections 334.044(10)(a) and 336.045, Florida Statutes. The course on the Florida Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways (Florida Greenbook) covers uniform minimum standards and criteria for the design, construction, and maintenance of all public streets, roads, highways, bridges, sidewalks, curbs and curb ramps, crosswalks, bicycle facilities, underpasses, and overpasses used by the public for vehicular and pedestrian traffic as directed by Florida Statutes.

Participants attending this two-day class will be able to develop and evaluate designs that conform to the Greenbook standards, and hence offer a safer, more consistent roadway network throughout the state.

The target audience is young engineers, engineering interns and design technicians charged with developing roadway designs in Florida that are not located on the State Highway System, as well as agency staff charged with reviewing designs prepared by others to determine conformance with Florida Department of Transportation Greenbook criteria.

Visit t2ctt.ce.ufl.edu to register and find additional dates and locations as they are posted. ■■■

Sharing Success Stories *continued*

The Florida T² Center is continuing our commitment to feature success stories identified through the Florida Association of County Engineers and Road Superintendents (FACERS) annual awards and other success story submissions. Although winners were announced in our August newsletter, other outstanding nominations deserve to be shared. As newsletter space permits, a brief synopsis of the FACERS Team Project award entries will be featured.

Please visit www.facers.org for information on all the award categories and to make nominations to recognize outstanding projects and efforts of your agency. FACERS and the Florida T² Center hope sharing these stories will provide a small thank you for a job well done and also inspire others to share theirs.

Hurley Boulevard and Canal 19 Drainage Structure

When faced with regional flooding issues with an open channel drainage system, the City of Palm Bay (CPB) often faces adversity and challenges beyond what typical smaller cities face. As a part of on-going, comprehensive stormwater planning efforts, the city, Melbourne Tillman Water Control District (MTWCD) and the St. Johns River Water Management District (SJRWMD), identified several, long term projects to improve the drainage basin. The city and MTWCD operate a co-mingled drainage canal system of 125 miles (CPB) and 185 miles (MTWCD) of canals, respectively. System improvements were needed to prevent local severe storm flooding. The system also includes nearly 1,100 side-lot ditches, 6,000 culverts, and 1,500 miles of roadside swales, and countless structures, inlets and drainage-related components. Most are the CPB Public Works Department responsibility. A short video at www.youtube.com/procej illustrates a precast concrete span drainage bridge installation designed, permitted, and constructed entirely by Palm Bay Public Works Department employees. All underlying foundations, steel work, concrete pours, and setting of arches were completed by staff. Project rubble was acquired from recycled concrete from a demolition project. The new structure replaced two 66 inch diameter corrugated metal pipes that were rusted and had failed and were severely under capacity, resulting in a major overall drainage system restriction. This new structure provided significant improvements to the regional stormwater system, providing needed capacity and safe passage for vehicles bridging the canal. The total cost was \$500,000, was completed ahead of schedule and under budget, and was funded entirely by a SJRWMD grant.

City of Plant City's Traffic Signal Closed Loop System

Plant City's traffic signal closed loop was installed in 1995. Obtaining parts and keeping up with repairs was difficult. A \$2.4 million grant and a Local Agency Program (LAP) agreement with the Florida Department of Transportation (FDOT) allowed the city to upgrade to a state-of-the-art, traffic responsive system with 43 signals, a Traffic Management Center, CCTV cameras for incident management, a battery backup, and an Ethernet-based communications network.

The Traffic Team competitively bid and piggy-backed on other approved contracts and conducted all the field work in-house to increase savings. A system manager approach allowed for control over quality control, delivery dates, pre-prep work for faster field installation, and in-house testing that assured everything worked before deploying to the field.

Plant City had no funds available for the project so the grant provided 100% reimbursement. The project was completed on time and under budget, saving over \$250,000. The traffic operations team conducted the field work so money could be reinvested to expand the system, including ten additional CCTV cameras, and a traffic responsive software connection to the FDOT's District 7 Traffic Operations Office, complete with a work station. The 43 signals have 8 hour battery backups, eliminating the need for officers to direct traffic.

This project positively impacts Plant City and the public using the I-4 corridor, especially during traffic incidents.

St. Johns County Cold In-Place Recycling (CIR) Project

St. Johns County staff identified a cost effective alternative to traditional rehabilitation while using a LEED certified green process. Cold In-Place Recycling (CIR) was specified and used on Roscoe Boulevard in the municipality of Ponte Vedra.

By utilizing CIR, the county saved taxpayers a significant amount of money and the project was completed on budget and faster with less impact and traffic delays to the road, to adjacent roads and to the environment. Use of the CIR process removed over 2,600 trucks off the project and reused 29,000 tons of asphalt. ■■■

Roundabout Video Will Help Convince Decision Makers

Modern Roundabouts: A Safer Choice is a video produced by the Federal Highway Administration that explains the many benefits of roundabout intersections. The target audience is primarily local and state transportation agency decision makers to help them overcome common barriers and reasons for not considering roundabouts as intersection alternatives. It is presented in a non-technical manner and can be used at public meetings for proposed roundabout projects.

The video covers roundabout features and principles; applicability to all roadway types, including state highways and at interchange ramp termini; accommodation for pedestrians, large trucks and emergency vehicles; and public acceptance, including older drivers. The video also discusses the safety, operational, environmental, and aesthetic benefits of roundabouts.

The video can also be viewed on YouTube at www.youtube.com/watch?v=GeVWPvRFDi4 ■■■

Upcoming Workshops through March 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

November 17-19, 2010	Orlando
December 8-10, 2010	Pompano Beach
January 11-13, 2011	Cantonment
January 18-20, 2011	Tallahassee
February 2-4, 2011	Pompano Beach
February 16-18, 2011	Gainesville
March 9-11, 2011	Tallahassee

Advanced Maintenance of Traffic-Refresher

November 16, 2010	Orlando
December 7, 2010	Pompano Beach
January 10, 2011	Cantonment
January 17, 2011	Tallahassee
February 1, 2011	Pompano Beach
February 8, 2011	Gainesville
February 15, 2011	Orlando
March 8, 2011	Tallahassee

Asphalt Combo-Inspection and Maintenance

February 16, 2011	Gainesville
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Asphalt Paving Level 1 *Reduced Fee!*

November 15, 2010	Fort Myers
December 7, 2010	Davie
January 10, 2011	Tampa
January 18, 2011	Miami
February 8, 2011	Jacksonville
March 1, 2011	Orlando

Asphalt Paving Level 2 *Reduced fee!*

December 8-10, 2010	Davie
January 12-14, 2011	Tampa
January 19-21, 2011	Miami
February 9-11, 2011	Jacksonville
March 2-4, 2011	Orlando

Asphalt Plant Level 2

January 25-27, 2011	Gainesville
March 15-17, 2011	Orlando

Bucket Truck Safety/Hands-On

March 10, 2011	Gainesville
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Concrete Batch Plant Operator

January 19, 2011	Pompano Beach
February 22, 2011	Orlando

Drilled Shaft Inspection *Reduced Fee!*

December 7-9, 2010	Gainesville
January 4-6, 2011	Chipley
March 14-16, 2011	Orlando

Earthwork Construction Level 1

January 4-5, 2011	Pompano Beach
March 8-9, 2011	Jacksonville

Earthwork Construction Level 2

<i>Reduced fee!</i>	
January 6-7, 2011	Pompano Beach
March 10-11, 2011	Jacksonville

FDOT Concrete Field Inspector

Specification *Reduced fee!*

November 16-17, 2010	Lakeland
January 4-5, 2011	Tampa
January 20-21, 2011	Pompano Beach
February 3-4, 2011	Chipley
February 23-24, 2011	Orlando
March 22-23, 2011	Miami
March 23-24, 2011	Tampa
May 10-11, 2011	Jacksonville

Final Estimates Level 1

January 10, 2011	Tampa
February 23, 2011	Chipley
March 9, 2011	West Palm Beach
March 14, 2011	Tampa

Final Estimates Level 2

November 17-18, 2010	DeLand
February 24-25, 2011	Chipley
March 10-11, 2011	West Palm Beach
March 15-16, 2011	Tampa

Florida Greenbook

January 27-28, 2011	Tallahassee
February 9-10, 2011	Gainesville

Forklift-Powered Industrial Truck-Safety/Hands-On

March 11, 2011	Gainesville
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Intermediate Maintenance of Traffic

November 17-18, 2010	Saint Petersburg
January 19-20, 2011	Gainesville
January 26-27, 2011	Naples
January 26-27, 2011	Orlando
February 23-24, 2011	Cape Coral

February 23-24, 2011	Port Charlotte
March 16-17, 2011	Gainesville
March 16-17, 2011	Orlando

Intermediate Maintenance of Traffic-Refresher

November 15, 2010	Naples
November 16, 2010	Saint Petersburg
January 18, 2011	Gainesville
January 25, 2011	Naples
January 25, 2011	Orlando
February 22, 2011	Port Charlotte
March 15, 2011	Gainesville
March 15, 2011	Orlando

Limerock Bearing Ratio (LBR)

<i>Technician Reduced fee!</i>	
February 17-18, 2011	Gainesville

Mobile Equipment and Internal Work Zone Safety

January 25, 2011	Pompano Beach
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Pile Driving Inspection

January 31-February 2, 2011	Chipley
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Pilot/Escort Flagging

November 16, 2010	Fort Myers
December 9, 2010	Gainesville
January 12, 2011	Orlando
February 8, 2011	Gainesville
March 5, 2011	Tallahassee
March 8, 2011	Orlando

Qualified Aggregate Sampler

February 16, 2011	Gainesville
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Quality Control Manager *Reduced fee!*

November 18-19, 2010	Lakeland
January 6-7, 2011	Tampa
March 24-25, 2011	Miami

Roadside Maintenance Safety

February 23, 2011	Pompano Beach
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Safe Mobility for Life Program: Planning and Designing for our Aging Population

November 18, 2010	Cape Coral
January 13, 2011	Ocoee

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NCHRP0656.01 NCHRP |
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P8387.01 ACRP | <input type="checkbox"/> Pedestrian and Bicyclist Safety and Mobility in Europe
P8388.01 USDOT | <input type="checkbox"/> Humor, Heroism and Humanity in Public Works
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N-SYN406.01 NCHRP | <input type="checkbox"/> Median Intersection Design for Rural High-Speed Divided Highways
NCHRP0650.01 NCHRP | <input type="checkbox"/> Recommended Performance Guideline for Micro Surfacing
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| <input type="checkbox"/> Guidebook on Risk Analysis Tools and Management Practices to Control Transportation Project Costs
NCHRP0658.01 NCHRP | <input type="checkbox"/> LRFD Design and Construction of Shallow Foundations for Highway Bridge Structures
NCHRP0651.01 NCHRP | <input type="checkbox"/> Stabilization Selection Guide for Aggregate and Native-Surfaced Low Volume Roads
P8398.01 USDA |
| | <input type="checkbox"/> Effect of Debris on Bridge Pier Scour
NCHRP0653.01 NCHRP | <input type="checkbox"/> Drilled Shaft Axial Capacity: Effects Due to Anomalies
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Giveaways - CDs

- ☐ Updated Traffic Safety CD, includes 2010 MUTCD information
- ☐ FHWA PowerPoint presentations (included on one CD):
 - Safety at Signalized Intersections
 - Safety at Unsignalized Intersections
 - Safety Aspects of Roundabouts
 - Red-Light Running
 - Intersection Safety
- ☐ Making Roadways Safer for Motorcycles, includes video clips and PowerPoint presentation

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FDOT Final Research Reports are Available Online

For a complete list, visit www.dot.state.fl.us/research-center/completed_research_main.shtm



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Upcoming Workshops

For the dates and locations of these upcoming workshops, see page 30.

Advanced Maintenance of Traffic 7 Classes	Earthwork Construction Level 2 <i>Reduced fee!</i> 2 Classes	Limerock Bearing Ratio (LBR) Technician <i>Reduced fee!</i> 1 Class
Advanced Maintenance of Traffic-Refresher 8 Classes	FDOT Concrete Field Inspector Specification <i>Reduced fee!</i> 8 Classes	Mobile Equipment and Internal Work Zone Safety 2 Classes
Asphalt Combo-Inspection and Maintenance 1 Class	Final Estimates Level 1 4 Classes	Pilot/Escort Flagging 6 Classes
Asphalt Paving Level 1 6 Classes	Final Estimates Level 2 4 Classes	Qualified Aggregate Sampler 1 Class
Asphalt Paving Level 2 <i>Reduced fee!</i> 5 Classes	Florida Greenbook 2 Classes	Quality Control Manager <i>Reduced fee!</i> 3 Classes
Asphalt Plant Level 2 <i>Reduced fee!</i> 2 Classes	Forklift-Powered Industrial Truck-Safety/Hands-On 1 Class	Roadside Maintenance Safety 1 Class
Bucket Truck Safety/Hands-On 3 Classes	Intermediate Maintenance of Traffic 8 Classes	Safe Mobility for Life Program: Planning and Designing for our Aging Population 2 Classes
Drilled Shaft Inspection <i>Reduced fee!</i> 3 Classes	Intermediate Maintenance of Traffic-Refresher 8 Classes	
Earthwork Construction Level 1 2 Classes		