The Connecticut Technology Transfer Center and the Connecticut Highway Street Supervisor Association are pleased to be hosting our fun and informative Technology Transfer Expo once again this year. You won't want to miss this terrific opportunity to see and experience the latest innovations in public works products and equipment, technologies, and services.

Please join us Wednesday, September 15, 9:00 a.m. to 3:00 p.m., rain or shine, at the University of Connecticut’s Depot Campus in Storrs where vendors, public service agencies, and professional organizations will showcase hands-on demonstrations and educational displays. Some of the many exhibitors registered to date include:

- 3M Traffic Control Materials Division, Weatogue, CT
- Bobcat of Connecticut, Inc., East Hartford, CT
- Call Before You Dig, Inc., Hamden, CT
- Capitol Rentals, Inc., East Hartford, CT
- Clearwater Technology, Inc., Newark, NJ
- CT Department of Transportation, Newington, CT
- CT Highway Street Supervisor Association, Bloomfield, CT
- CT Technology Transfer Center, Storrs, CT
- CUES, Inc., Franklin, CT
- Environmental Services, Inc., South Windsor, CT
- EPPCO, Newington, CT
- Federal Highway Administration, Glastonbury, CT
- Freightliner of Hartford, Inc., East Hartford, CT
- Genalco, Inc., Springfield, MA
- H.O. Penn, Newington, CT
- Kahn Tractor & Equipment, Inc., North Franklin, CT
- Lubrication Technologies, West Springfield, MA
- New England Municipal Equipment Co., Bristol, CT
- Occupational Safety and Health Administration, Wethersfield, CT
- Peterbilt of Connecticut, Berlin, CT
- Pete’s Tire Barn, Franklin, CT
- Sanitary Equipment Company, West Haven, CT
- Signal 54 Training, Yantic, CT
- St. Jacques Family Enterprises, Inc., Windsor, CT

continued on page 2
The Expo will also feature our ever-popular Public Works Challenge. Municipal employees can compete individually or as a team for the best overall score in several skills and knowledge activities. Will South Windsor’s 2003 champions sweep the three top awards again this year? Take the challenge to see how you place and show off your expertise.

To register for the Challenge or for additional information, please call Mary McCarthy at 860-486-1384. To request free Expo tickets, call 860-486-5400.
Connecticut Construction Career Days: Making a Difference for the Future

The Construction Career Days (CCD) movement is sweeping the country! It’s an exciting and rewarding opportunity for the construction industry and associated fields to introduce and promote the profession as an attractive career option to high school students. With the Federal Bureau of Labor Statistics estimating that the commercial construction industry will need almost 73,000 workers by the year 2010, it’s also a timely and crucial program. Since 2002, Connecticut’s annual CCD events have been overwhelmingly successful. More than 2,250 students participated during the first two years and an additional 1,200 students are expected to attend this year’s events on October 5th and 6th in Wallingford.

We’ve already reached our student enrollment limit, but we’d be happy to hear from anyone who would like to participate as a volunteer or exhibitor. If you would like to volunteer your time to assist at the CCD events one or both days, please contact Donna Shea, 860-486-0377 (ph) or shea@engr.uconn.edu. If you would like to exhibit your services or demonstrate your trade, please complete our online registration form by September 1 at http://www.cti.uconn.edu/ti/construction/ccd_exhibitor_regform2.htm.

The Connecticut Construction Career Days program is sponsored by the Connecticut Department of Transportation, Connecticut Transportation Institute, Federal Highway Administration, Connecticut Bituminous Concrete Producers Association, Connecticut Construction Industries Association, and various skilled trade unions.

For more information on Connecticut’s CCD program, please visit our web site at http://www.cti.uconn.edu/ti/constructioncareerday2.htm. To learn more about Construction Career Days programs in other states, please visit http://www.constructioncareerdays.info.
Pedestrian safety at intersections is a big problem. In 2002 (the most recent year for which complete crash data is available), 4,808 pedestrians were killed in roadway related crashes. Of these, 1,058 fatalities (22 percent) occurred at intersections.

Hazardous intersection types for pedestrian crossings include high-volume, high-speed and multi-lane intersections with complex signal phasing or without any traffic control at all. Pedestrians are at risk even at simple STOP sign or YIELD sign intersections because of the common disregard of traffic control devices by motorists. Traffic improvements that include widening streets, adding lanes and using traffic engineering solutions that increase vehicular efficiency can decrease pedestrian safety. Many intersection reconstruction projects and traffic control installations have increased the distances that one must walk to cross at an intersection.

In addition, intersection signal timings may be too short to permit safe intersection crossings. Traffic engineers may use a walking speed that is too fast for many pedestrians (i.e., the elderly, disabled, and children) in determining the necessary time for pedestrians to cross the street. Pedestrians have not been accorded equal status with vehicles at intersections. Roadways have been designed and constructed primarily to accommodate vehicular traffic rather than pedestrians.

Crash data consistently show that collisions with pedestrians occur far more often with turning vehicles than with straight-through traffic. Left turning vehicles are more often involved in pedestrian crashes than right-turning vehicles, partly because drivers are looking for an opportunity to turn rather than focusing on crossing pedestrians. Right turn on red contributes to pedestrian crashes because it creates reduced pedestrian opportunities to cross intersections without having to confront turning vehicles.

Another problem with intersections is drivers not seeing the pedestrian. Pedestrian visibility to drivers is much poorer during hours of darkness, especially in areas where there is poor lighting on the road. This is a common shortcoming of rural and suburban intersections. In fact, half of all pedestrian fatalities occur between 6 p.m. and midnight (a 6-hour window).

How Can We Reduce Pedestrian Fatalities and Injuries at Intersections?

Although the problem is complex, there are many ways to improve pedestrian safety at intersections:

- **Increase visibility.** Pedestrians need to be more visible during evening and nighttime hours. Adding/improving roadway lighting is one way to do this. Another is to encourage pedestrians to wear reflective clothing and accessories.

- **Adjust signals.** Reassess the adequacy of pedestrian-signal timings, consider pedestrian-only phasing in a traffic signal cycle, and ensure that the pedestrian signal is visible and that any push-buttons are accessible. Signals may be supplemented with audible messages for visually impaired persons.

- **Identify and decrease road and traffic hazards.** Repair/re-stripe crosswalks and stop lines, improve lighting, provide additional signage where
necessary, install barriers to discourage pedestrians from crossing at unsafe locations, and provide a wide refuge island on a median.

- **Make crosswalk improvements**, such as a ladder pattern that is more visible to motorists, crosswalks with flashing lights embedded in the roadway pavement, and flashing "Pedestrian Crossing" signs that alert oncoming traffic to pedestrians in the crosswalk.

- **Coordination among engineers, educators and enforcement personnel.** Improved pedestrian safety at intersections requires coordination among public authorities, professional engineers, media, education experts and vehicle designers to reduce both the number and severity of pedestrian collisions. Pedestrian safety cannot be improved by traffic engineering alone.

- **Focus enforcement on** motorist compliance with pedestrian safety laws, pedestrian compliance with pedestrian signals and appropriate crossing locations, and reducing speeding through intersections.

- **Education.** Develop a sustained, comprehensive public awareness campaign that reaches both motorists and pedestrians. The Federal Highway Administration’s Safety Office has developed such a campaign that comes with ready-to-use materials and focuses, in part, on intersections. The Pedestrian Safety Campaign can be viewed at: http://safety.fhwa.dot.gov/pedcampaign/index.htm


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**From Our Resource Library**

To request any of the following selected materials, please call us at 860-486-6446, send us the request form on the back page of this newsletter, or use our on-line information request form at http://www.cti.uconn.edu/ti/Technology/Info_request.htm. Publications are free while supplies last, unless otherwise noted. Videotapes may be borrowed free of charge for two weeks.

**Publications**

**Accessible Sidewalks and Street Crossings: An Informational Guide**, Federal Highway Administration, Report No. FHWA-SA-03-19

This guide focuses on some of the emerging accessibility issues and the design parameters that affect sidewalk and street crossing design and operation. Information is provided on: the legal framework, understanding sidewalk users, sidewalk corridors, sidewalk grades and cross slopes, sidewalk surfaces, protruding objects, driveway crossings, curb ramps, providing information to pedestrians, accessible pedestrian signals, and pedestrian crossings.

**Accessible Sidewalks and Street Crossings: On the Safe Side**, Federal Highway Administration, Report No. FHWA-SA-03-017

This double-sided poster-sized brochure is a companion piece to the Informational Guide described above. One side covers most of the material contained in the guide, and much of the second side is illustrated with a map that demonstrates how various ADA treatments look in the roadway environment.

**Videotape**

**Accessible Sidewalks: Design Issues for Pedestrians with Disabilities**, U.S. Access Board, 41 minutes


With summer in full swing, OSHA has guidelines for those working outside. The agency’s Heat Stress Card lists tips and precautions to prevent many heat-related deaths and injuries. It is available in English and Spanish, offering a quick reference about heat-related injuries, including warning signs, symptoms, and early treatment. OSHA also has revised its pocket card that addresses sun protection. These cards may be downloaded from OSHA’s website at www.osha.gov or ordered from OSHA’s Publication Office in Washington, DC at 202-693-1999.

Vegetation Control for Safety

During the growing season, grass, weeds, and brush often limit a driver’s view of approaching vehicles. Likewise, lush vegetation can act as a screen that hides pedestrians and bikers from drivers and vice versa. Be alert for places where vegetation needs to be cut back.

Goals for Vegetation Control
The main goals for vegetation control include:

• Keeping signs and vehicles visible to drivers as well as pedestrians and bike riders in cross walks, at street lights, at uncontrolled intersections, and on bike paths.
• Helping pedestrians and bike riders see oncoming traffic more easily.
• Improving winter road maintenance in snow and ice areas.

Line of Sight Clearance
Drivers approaching an intersection need a clear line of sight along crossroads early enough to see any conflicting vehicles, pedestrians, and bicyclists to avoid a collision. Drivers also need an unobstructed line of sight to any roadside signs or hazards far enough in the distance to allow them to react safely to each situation.

Keeping Signs and Traffic Control Devices Visible

**Suggested maintenance steps:**

1. Look for signs and other traffic control devices blocked by brush, trees, grass, or weeds when on routine maintenance patrol. Often a small branch from an overhanging tree or some brush near the sign is all that needs to be cut back. If vegetation along the ditch or shoulder blocks a driver’s view of a sign, then cut enough to allow a driver sufficient time to see the sign and respond to its message. If your agency has a policy on how far from a sign vegetation has to be cleared for a safe view, then follow that policy. If you do not have such a policy, the following chart is a suggested guideline to allow a driver 3 to 5 seconds to read and respond to the sign.

<table>
<thead>
<tr>
<th>Speed Limit (MPH)</th>
<th>Noncritical Signs (Feet)</th>
<th>Critical Signs (Feet)</th>
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Critical signs are: STOP, YIELD, DO NOT ENTER, ONE WAY, WRONG WAY, and other regulatory signs. Non-critical signs are destination guide signs, parking regulations, advance warning signs, and similar warning or information signs.

2. Pull the maintenance vehicle off the traveled lane and place temporary traffic control.
3. Cut or trim trees, brush, weeds, or grass to clear a driver’s line of sight to the sign or traffic control device. Always wear protective leather gloves, safety glasses or goggles, safety vest, hard hat, and leather boots (not sneakers or soft shoes).
4. Paint the stubs of brush or small trees with a weed killer solution to keep vegetation from growing back.
5. Collect limbs and large brush to haul away for disposal or run them through a wood chipper if available.
6. Look for moving traffic when removing the temporary traffic control and leaving the site. Drivers may not realize you are through working and probably will not expect you to pull onto the traffic lane.
7. Watch especially for overhead power lines and electrified farm fences when cutting brush. Never touch a wire farm fence when an electrical storm is in the vicinity of your work.

**Suggested equipment:**

1. Leather gloves to protect your hands from cuts and nicks.
2. Hard hat to protect your head from a falling limb or flying debris during cutting and clearing.
3. Safety glasses or goggles to protect your eyes from flying chips or particles during cutting and clearing.
4. Safety vest to reduce accidental injury by vehicles and hunters.
5. Chain saw, fuel, bar oil to cut small trees and large brush.
6. Gasoline powered weed trimmer to cut grass and small weeds away from sign support and similar areas.
7. Brush knife or machete to cut small brush.
8. Loppers (long-handled side cutters) to cut small low-hanging branches and large woody weeds.
9. Tree trimming saw with small branch lopper (on a telescoping pole handle) to cut higher branches from overhanging trees that are blocking the view of a sign or traffic control device.
10. Tall step ladder to help cut branches near the tree truck to limit regrowth.
11. Axe to chop down small saplings.
Traffic Control Considerations During Maintenance

Make sure that your temporary traffic control layout complies with the current edition of the *Manual on Uniform Traffic Control Devices* (MUTCD) and is appropriate for your work situation. Three common situations associated with vegetation work are:

1. shoulder closure on a two-lane, two-way roadway
2. vehicles and equipment completely off the road and shoulder
3. lane closure where equipment and/or people will be in a travel lane.


The complete guide in PDF format can be found on FHWA’s web site at: http://www.fhwa.dot.gov/tfhrc/safety/pubs/90003/90003.pdf

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**Calendar**

Connecticut Technology Transfer Center events and training opportunities

**AUGUST**

24-25  *Principles of a Road Maintenance Management System*
       Road Master Elective, Hartford

26-27  *Principles of a Road Maintenance Management System*
       Road Master Elective, Hartford

**SEPTEMBER**

15    *Technology Transfer EXPO 2004*
       Storrs

28    *Effective Use of Your Zoning Toolbox: A Primer on Managing Local Parking and Access through Zoning*
       Hartford

**OCTOBER**

5, 6   *Connecticut Construction Career Days*
       Wallingford

6     *Principles of an Equipment Maintenance System*
       Road Master Elective, Hartford

7     *Principles of a Sign Inventory Management System*
       Road Master Elective, Hartford

19    *Planning and Managing Local Road Snow and Ice Activities*
       Road Master Required, Waterbury

20    *Planning and Managing Local Road Snow and Ice Activities*
       Road Master Required, Hartford

21    *Planning and Managing Local Road Snow and Ice Activities*
       Road Master Required, Storrs

For more information on upcoming programs or to register on line, please visit our web site at http://www.cti.uconn.edu/ti/Technology/workshops_2004.htm.

If you have additional questions, please contact
Mary McCarthy, Workshop Coordinator: phone 860-486-1384 or e-mail mary@engr.uconn.edu.
Technology Transfer Center Request Form

_____ Please change my address/contact information as indicated below.

_____ Please add this person to the mailing list. _____ Please remove this person from the mailing list.

Name: ______________________________________________________________________________

Title: ______________________________________________________________________________

Agency/Organization: __________________________________________________________________

Address: ____________________________________________________________________________
___________________________________________________________________________________

City/State/Zip: ________________________________________________________________________

Phone: ___________________ Fax: ___________________ E-mail: __________________________

I would like to see a future newsletter article on the topic of _____________________________________

I would like to submit a newsletter article; please call me at___________________________________

I would like to request the following informational resource materials:
___________________________________________________________________________________
___________________________________________________________________________________

Please fax a copy of this form to 860-486-2399 or mail to:

University of Connecticut
Technology Transfer Center
Connecticut Transportation Institute
179 Middle Turnpike Unit 5202
Storrs, CT  06269-5202