

# ON THE MOVE

Vol. 18, No. 1

Winter (January) 2005

Sharing Knowledge. Improving Communities.



From the Director's Desk:

## Australian Company Offers New Innovative Uses for Scrap Tires

by Doyt Y. Bolling, Director, Utah LTAP Center

Discarded tires present a significant problem to most landfills and waste management facilities of local agencies. Although much has been done and is being done through the Tire Recyclers Association to find beneficial uses of discarded tires, the problem still exists. As the old adage says, "One man's garbage may be another man's treasure". Such is the case for an Australia company that has developed three new innovative uses for scrap tires. These uses include a retaining wall system, roadway and structure foundation stabilization treatments, and scour and erosion control applications.

Field inspection and review of these three uses were conducted following participation in the 6th International Conference on Managing Pavements. All three applications appear to offer cost effective solutions and alternatives to standard methods of retaining wall construction, foundation stabilization, and erosion control. In addition, these innovative applications do offer another solution to the scrap tire disposal problem.

The following provides a brief overview of each of these applications and presents the apparent benefits that are being derived from their use.

### Retaining Walls

The retaining wall system is designed as a gravity wall. One of the sidewalls of a scrap truck tire is cut thus making a chamber like basket in which to place crushed rock. Once cut the tires are placed in layers and backfilled with granu-

lar material. Each layer of tires is offset so as to provide aggregate interlock within the wall system. This is shown in the two photographs on this page.



*Photo 1 Looking Down on Tire Placement & Granular Backfill.*



*Photo 2 Looking at Face of Wall Showing Layering of Tires.*

Full-scale structural tests have been conducted on the wall system with respect to surcharge loading, pullout tests, and associated deflections. Full-scale performance testing of the wall is reported as exceeding expectations. Engineering design criteria are based on the results of these full-scale tests.

(continued on page 2)

## Table of Contents

Legislative & Regulatory Update (Reauthorization Update).....2

URGENT: Correction for Upcoming 4th Annual ACPA Concrete Pavement Workshop ...3

Utah Asphalt Conference .....3

NHI Live Web Conference .....4

A Look at Crash Deaths on Utah Roads (2003).....5

All You Need to Know About Confined Space Entry .....6

CEU/CPU's Available for Utah LTAP Center Training .....8

Heat Up the Cold Winter Months with LTAP Training.....9

What Our Partners Are Doing..10

Has Your City or County Received FREE MUTCD ..... 11

The Skill of Survival: Desert Region (New Video/DVD) .....12

Utah LTAP Center

Page 1

January 2005



(continued from page 1)



Photo 3 Full Scale Test of Tire Wall.

A variety of fascia materials are used to meet architectural requirements and to provide an esthetic appearance as shown on this page.



Colourbond Facing



Shadecloth & Planted Facing



Timber Facing



Mock Rock Facing

To date more than 200 projects have been completed and engineer certified. Average cost savings on the order of twenty-five percent over conventional gravity walls are being reported.

### Foundation & Roadway Stabilization

Scrap truck tires with one sidewall removed have also been used to stabilize soft foundation conditions with CBR's of 3 and less. Installation procedures call for the placement of a non-woven geo-textile

on the existing ground surface or subgrade followed by a layer of tires. The tires are then filled with a uniformly graded 2 inch crushed rock to a depth of ten inches and compacted in a single layer. A top finishing layer of three inches of well graded ¾ inch crushed aggregate is placed and compacted. After compaction, this provides a 12 inch stabilized pavement section that provides reinforcement in all directions. Such sections have proven to carry loads in excess of 80 kN/M without distortion. Photo 4 shows a typical installation prior to placement of the top finish.



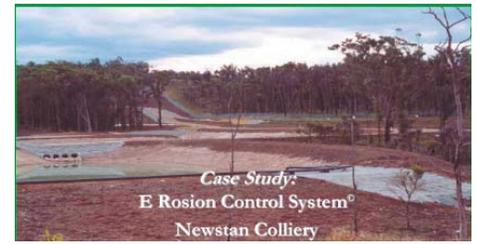
Photo 4 Installation of Roadway Stabilization over Soft Ground.

A cost comparison with a two layer Geogrid system having a similar thickness shows a cost saving on the order of thirty percent.

### Erosion Control Systems

A variety of successful erosion control treatments have been constructed using the same tire element with one sidewall removed and granular aggregate backfill materials. The following photograph

shows the extensive scour and erosion control treatments that were constructed at major mining facility in Australia.



The tire units in this installation were laid in a cellular formation and backfilled with granular material and then encapsulated in a wire mesh. A non-woven geotextile fabric was also used under the tire units as in the foundation stabilization to provide separation from migration of fines in the granular backfill. A cost savings of fifteen percent was reported for this project over conventional rock mattresses. In addition, the construction process was done in half the time scheduled for the rock mattresses.

These new innovative uses for scrap tires were developed by Ecoflex Australia PTY, LTD and are currently available for use in the United States. The respective trade names for each of the described uses are E-Wall, E-Pave, and E-Rosion. Each is covered under an international patent to protect the integrity of the designs and associated warranties. Persons, companies, and agencies wanting to know more about these innovative uses and technologies should contact Ecoflex by e-mail at [mail@ecoflex.com.au] or telephone at 61-2-4940-0178. The Web site for Ecoflex is [www.ecoflex.com.au].

## Legislative & Regulatory Update

### Recent Developments in Reauthorization:

#### Congress Sends FY 2005 Funding Package to President

*excerpt from ARTBA Washington Newsline, Monday, December 13, 2004*  
(<http://www.artba.org>)

The House of Representatives finalized the FY 2005 omnibus appropriations bill December 6, sending the package to the President for his signature. The measure provides FY 2005 transportation investment levels of \$34.4 billion for the federal highway program, \$7.65 billion for transit, \$3.47 million for

airports, and \$1.21 billion for Amtrak. The final legislation also provides \$4.667 billion in investment for the Army Corps of Engineers civil works program—a \$90 million increase for port and waterway navigation improvements, locks and dams, flood prevention, shore protection and environmental restoration projects.

# URGENT: Correction for Upcoming 4th Annual ACPA Concrete Pavement Workshop January 20, 2005 in Salt Lake City

In our last issue of the On the Move Utah LTAP Center newsletter, we gave you the wrong information regarding the upcoming 4th Annual ACPA Concrete Pavement Workshop. The correct information is given here!

The Utah Chapter, ACPA and the Utah LTAP Center will host the 4th Annual Concrete Pavement Workshop at

the Little America Hotel in Salt Lake City, January 20, 2005.

General Sessions will cover topics such as balancing quality and time, stringless concrete paving, all season concreting, and many others. Concurrent sessions will focus on jointing rules of thumbs, curing practices, precast paving

applications, and constructing good quality concrete.

The **cost is \$75/ person, if registered before January 17th**, and \$85 after that date. Call Mitzi McIntyre at (801) 556.9561 or e-mail [mcintyre@utahacpa.com] for more information or for registration materials.

## 2005 Utah Asphalt Conference March 24, 2005 at the Hilton Salt Lake City Airport Hotel

Plans are now being finalized for the 2005 Utah Asphalt Conference to be held March 24 at the Hilton Salt Lake City Airport Hotel in Salt Lake City.

Committee members from UDOT, FHWA, Utah LTAP Center, University of Utah, and the private sector, have been working hard to arrange for presenters to discuss cutting edge issues in asphalt technology and application.

General Sessions will include a legislative outlook and discussion of the European scanning tour from Dave Gibbs of the Federal Highway Administration. Three tracks will aid participants in choosing break-out sessions suited to their

interests. The tracks will be: design/materials, construction, and maintenance.

- Some topics to be discussed include:
- Stone Matrix Asphalt--Lessons Learned
  - 2002 Design Guide--Case Study (Using Gilsonite & Trinidad Lake Asphalt)
  - Pavement Surface Type as a Noise Mitigation Strategy
  - Superpave Gyrotronic Dynamic Angle Validation--Utah Experience
  - Laboratory Information Management System (LIMS)
  - Proper Project Documentation for Inspectors and Supervisors

- Pavement Preservation--State-of-the-Practice
- Advancing the Art of Chip Seal Applications
- Thin HMA for Preventive Maintenance
- Cost & Performance Characteristics of Various Maintenance Alternatives And many more!

The **cost for this conference is \$75 if received before March 12, \$85 if received after March 12**. On-site check-in will begin at 7:30 am, with the conference sessions starting at 8:30 am. Lunch and breaks will be provided. Exhibitors are welcome!

### Utah Asphalt Conference (March 24, 2005) Registration Form

Names: \_\_\_\_\_  
Agency: \_\_\_\_\_  
Address: \_\_\_\_\_  
City/State/Zip: \_\_\_\_\_  
Phone: \_\_\_\_\_ FAX: \_\_\_\_\_  
E-mail: \_\_\_\_\_

Total Conference Registrations: \_\_\_\_\_ x \$75 Total Amount Due: \_\_\_\_\_

#### Method of Payment (Please check one)

\_\_\_ Check enclosed (made payable to Utah LTAP Center)

\_\_\_ Agency PO (Number: \_\_\_\_\_)

\_\_\_ Credit Card (Visa/MC/Discover) #: \_\_\_\_\_ Exp. date: \_\_\_\_\_

**Federal Tax ID #87-6000528**

# Construction Career Days: A Win-Win Situation for Students & the Construction Industry



There is a potentially serious problem facing the construction industry, and local agency construction crews...a shortage of skilled workers! A severe workforce shortage in the construction field is projected to reach 952,000 workers by the year 2008. This shortage of skilled workers in the construction fields has serious consequences for our society as well as industry industry and local agencies.

To offset this problem, the Construction Career Days program was started in Texas by Mike LaPointe, Greg Mooney, Humberto Martinez, and Ross Martinez. The purpose of the program is to help educate potential workers in the construction field. The vision of this group has aided the Construction Technology fields gain the interest of a potential work force to fill some of the need of the future growth in the Construction fields.

Humberto could see a pool of potential skilled workers in the rank of the next generation of students as they graduate from high school. A study done by the Bureau of Labor showed that many students would not attend a college or university. They would need a way to provide a living for themselves and their future families, and they could fill the void that Humberto saw.

Construction Career Days introduces high school students to the Construction fields from building trades, to heavy construction. The Students not only get to see these different construction fields first hand, but they see many different elements within the each construction area. Planning, managing, bidding, and building are just some of the elements presented. The safety element is emphasized with each aspect of the Construction Career Days program.

This program has successfully served more than 116,000 students with more than 100 events in the last five years:

- 1999--1 event, 1,300 students
- 2000--9 events, 11,238 students
- 2001--22 events, 33,088 students
- 2002--25 events, 31,159 students
- 2003--28 events, 27,255 students
- 2004 (partial year)--16 events, 12,296 students

**It is time to give this same opportunity to the students in Utah.**

A committee has been established and is working toward the completion of two Construction Career Days in the state of Utah. The first one is scheduled for March 8-9, 2005 at the Washington County Fairgrounds for students in the Washington County area. The second will be in the northern Utah area in October of 2005. If enough interest is shown, other regional Construction Career Days can be presented.

This program will benefit not only the students, in giving them additional outlets for their interests and aptitudes, but also provide the construction industry with a pool of potential workers. It really is a win-win situation.

There is an opportunity here for the construction industry to make a difference in the future of many of the students that attend these Construction Career Days program...and to get ahead of the projected worker shortage!

If you are interested in being a part of the Construction Career Days program, please contact Dee Hadfield or Keri Shoemaker with the Utah LTAP Center by calling (435) 797-2410 (Dee), (435) 797-2931 (Keri) or 1-800-822-8878.

A Web site for Construction Career Days is linked to the Utah LTAP Centers Web site [[www.utaht2.usu.edu](http://www.utaht2.usu.edu)].

## NHI Live Web Conference: Project Management Scheduling Concepts January 26, 2005, 11 am-1 pm MST

### Learn more about:

- The definition of project management "scheduling."
- Identifying the rules of thumb for allocating resources when scheduling a project.
- Reviewing scheduling methods using Microsoft Project.
- Making recommendations on a given schedule regarding time-lines, milestones, and scheduling strategy.
- Applying scheduling strategies to a project, considering time and cost for improving on a given project schedule.

To register, go on-line to

[<http://www.nhi.fhwa.dot.gov/calendar/eventreg.asp>]

Utah LTAP Center

Page 4

January 2005

# A Look at Crash Deaths on Local Utah Roads (2003)

by G. Stuart Thompson, Assistant Director, Utah LTAP Center

Overall crash fatalities on local roads in the state of Utah show a decrease in numbers as well as a decrease in percentage of the total fatalities on Utah roadways for the years 2000 to 2003. In 2000 there were 127 fatalities on local roadways or 34% of the total fatalities in Utah; by 2003 the number of fatalities had decreased to 85 or 28% of total crashes.

The question we ask ourselves when dealing with crash history is which areas are being adequately addressed and which areas require additional attention. Analysis of crash data can aid us in prioritization of our efforts. One way that FHWA's Fatality Analysis Reporting System (FARS) categorizes fatalities is by the First Harmful Event.

Of the 85 fatalities in 2003 on Local Roads: 36 were Vehicle in Transport, 20 were Pedestrians, and 14 were Overturned vehicles. The 36 Vehicle in Transport crashes were up from 30 in 2002 but down from 53 in 2000. Pedestrian fatalities were at 20 for 2003 and 2002 but down from 27 in 2000. Overturned vehicle

fatalities were at 14 in 2003 compared to 21 in 2002 and 13 in 2000.

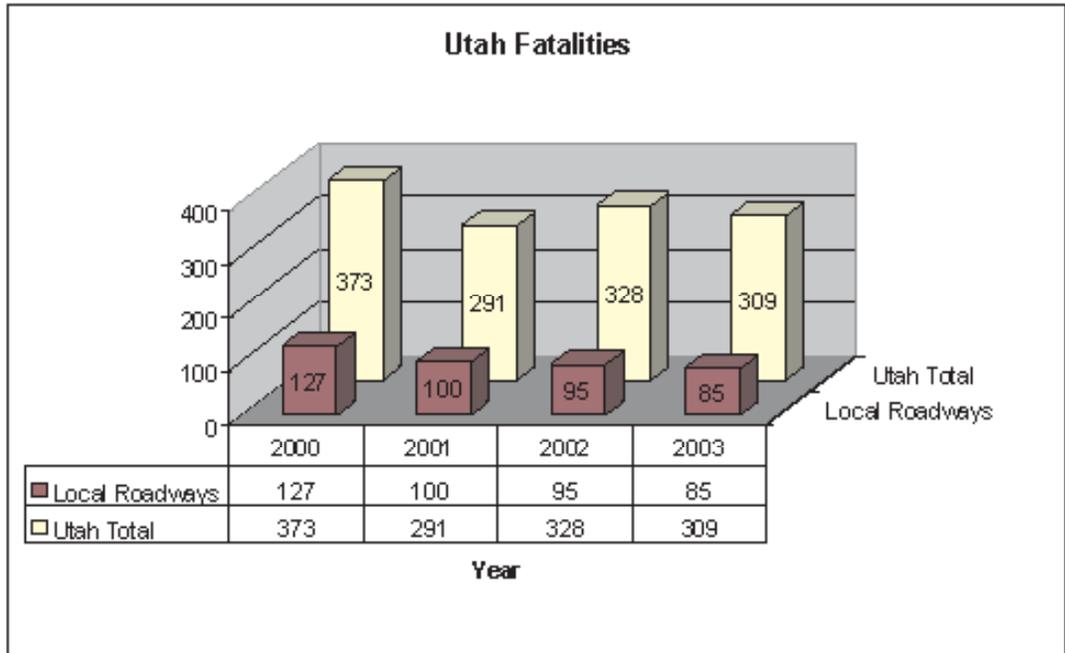
Twenty-four percent (24%) of fatalities in 2003 on local roads involved pedestrians. The distribution was split at 10 on Local Urban Roads and 10 on Local Rural Roads. On local urban roadways one of the fatalities was of school age or younger while four were 73 plus years old. Surprisingly on Local Rural Roadways 7 of the fatalities were 18 years of age or younger. Generally it appears that older Utahans are more challenged on Urban

Roadways and school age Utahns may require a greater focus on Rural Roadways.

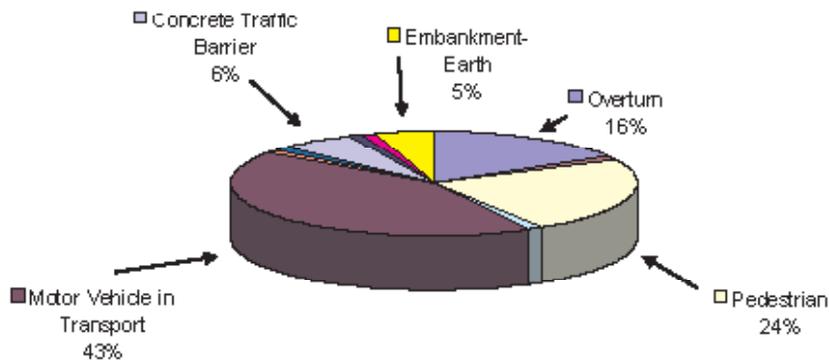
Sixteen percent or 14 fatalities involved overturned vehicles on Local Roadways in 2003. Twelve of these fatalities were on rural local roadways or streets and involved the driver being sited for either "Driving too Fast for Conditions or in Excess of Posted Maximum Speed or Operating the Vehicle in an Erratic, Reckless, Careless or Negligent Manner; Operating at Erratic/Suddenly Changing Speeds."

This is an area where programs such as the Local Roadway Safety Program being facilitated by the Utah LTAP Center and sponsored by FHWA and UDOT may have a significant impact.

One final area of concern is the trend associated with concrete barriers. In the years 2000 and 2001 there were zero fatalities on Utah Local Roadways involving concrete traffic barriers. Then in 2002 there were 3 fatalities and in 2003 there



Crash Fatalities on Utah Local Roads 2003



(continued on page 6)



(continued from page 5)

were 5 fatalities involving concrete traffic barriers.

What is the cause of this increase? Concrete barriers are meant to save lives. Part of the answer can be attributed to the fact that local agencies were given the opportunity to purchase barriers used during the Olympics and they have begun to install these barriers. While in some cases these barriers may have saved lives the data shows that they have also been shown as "harmful events" in other fatal crashes.

Are our barriers installed correctly as outlined in the Roadside Design Guide or AASHTO's green book? The Utah LTAP Center and FHWA will explore these questions in upcoming workshops on Roadway Safety in the spring of 2005.



## All You Need to Know About Confined Space Entry

by Shaheen Safiullah, Utah OSHA

Many workplaces contain spaces that are considered to be "confined" because their configurations hinder the activities of any employees who must enter into, work in, and exit from them. In many instances, employees who work in confined spaces also face increased risk of exposure to serious physical injury from hazards such as entrapment, engulfment, and hazardous atmospheric conditions. For example, confinement, limited access, and restricted airflow can result in hazardous conditions that would not arise in an open workplace. The term "permit-required confined space" (i.e., permit space) refers to those spaces that meet the definition of a "confined space" and pose health or safety hazards, thereby requiring a permit for entry.

### What is a confined space?

- A confined space has limited or restricted means of entry or exit,
- Is large enough for an employee to enter and perform assigned work,
- Is not designed for continuous occupancy by the employee. These spaces may include, but are not limited to, underground vaults, tanks,

storage bins, pits and diked areas, vessels, and silos.

### What is a permit required confined space?

A permit-required confined space is one that meets the definition of a confined space and has one or more of these characteristics:

- contains or has the potential to contain a hazardous atmosphere,
- contains a material that has the potential for engulfing an entrant,
- has an internal configuration that might cause an entrant to be trapped or asphyxiated by inwardly converging walls or by a floor that slopes downward and tapers to a smaller cross section, and/or
- contains any other recognized serious safety or health hazards.

### What are the employers responsibilities?

- Evaluate the workplace to determine if spaces are permit-required confined spaces.
- The employer must inform exposed employees of the existence, location, and danger posed by the permit required confined spaces.
- This can be accomplished by posting danger signs or by another

equally effective means. The following language would satisfy the requirements for such a sign:

**DANGER  
PERMIT REQUIRED  
CONFINED SPACE  
AUTHORIZED ENTRANTS ONLY**

- Develop a written permit space program, which shall be made available to employees.

### When may employers use alternate procedures?

If employers can demonstrate with monitoring and inspection data that the only hazard is an actual or potential hazardous atmosphere, which can be made safe for entry by the use of continuous forced air ventilation alone, they may be exempted from some requirements, such as permits and attendants. Even in such circumstances, however, the internal atmosphere of the space must be tested first for oxygen content, second for flammable gases and vapors, and third for potential toxic air contaminants before any employee enters.

### What are the essential elements of a permit required confined space?

- Identify and evaluate permit space hazards before allowing employee entry;



- Test conditions in the permit space before entry operations and monitor the space during entry;
- Perform in the following sequence, appropriate testing for atmospheric hazards: oxygen, combustible gases or vapors, and toxic gases or vapors;
- Implement necessary measures to prevent unauthorized entry;
- Establish and implement the means, procedures and practices --such as specifying acceptable entry conditions, isolating the permit space, providing barriers, verifying acceptable entry conditions, purging, making inert, flushing, or ventilation of the permit space--to eliminate or control hazards necessary for safe permit-space entry operations;
- Identify employee job duties;
- Provide, maintain, and require, at no cost to the employee, the use of personal protective equipment and any other equipment necessary for safe entry (e.g., testing, monitoring, ventilating, communications, and lighting equipment; barriers, shields, and ladders);
- Ensure that at least one attendant is stationed outside the permit space for the duration of entry operations;
- Coordinate entry operations when employees of more than one employer are to be working in the permit space;
- Implement appropriate procedures for summoning rescue and emergency services;
- Establish, in writing, and implement a system for the preparation, issuance, use, and cancellation of entry permits;
- Review established entry operations and annually revise the permit-space entry program; and
- When an attendant is required to monitor multiple spaces, implement the procedures to be followed during an emergency in one or more of the permit spaces being monitored.
- If hazardous conditions are detected during entry, employees must immediately leave the space, and the employer must evaluate the space to determine the cause of the hazardous atmospheres.

### **When can I reclassify a permit required space?**

If testing and inspection data prove that a permit-required confined space no longer poses hazards, that space may

be reclassified as a non-permit confined space. A certificate documenting the date, location of the space, and the signature of the person making the certification must be available at the site.

### **What are the contractors' responsibility?**

- Inform the contractors of permit spaces and permit space entry requirements, any identified hazards, the employer's experience with the space (i.e., the knowledge of hazardous conditions), and precautions or procedures to be followed when in or near permit spaces.
- All affected employers must coordinate entry operations to ensure that affected employees are appropriately protected from permit space hazards.
- Contractors also must be given and other pertinent information regarding hazards and operations in permit spaces and be debriefed at the conclusion of entry operations.

### **What is the permit system?**

- A permit, signed and verified by the entry supervisor.
- The verification must include pre-entry preparations, the space is safe to enter, must be posted at entrances or otherwise made available to entrants before they enter a permit space
- The duration of entry permits must not exceed the time required to complete an assignment.
- The entry supervisor must terminate entry and cancel permits when an assignment has been completed or when new conditions exist.
- New conditions must be noted on the canceled permit and used in revising the permit space program.
- The employer shall keep all canceled entry permits for at least 1 year.

### **What information is required on the entry permits?**

Entry permits must include the following information:

- test results;
- tester's initials or signature;
- name and signature of supervisor who authorizes entry;
- name of permit space to be entered, authorized entrant(s), eligible attendants, and individual(s)

- authorized to be entry supervisor(s);
- purpose of entry and known space hazards;
- measures to be taken to isolate permit spaces and to eliminate or control space hazards, i.e., locking out or tagging of equipment and procedures for purging, making inert, ventilating and flushing permit spaces;
- name and telephone numbers of rescue and emergency services;
- date and authorized duration of entry; acceptable entry conditions;
- communication procedures and equipment to maintain contact during entry;
- additional permits(s), such as for hot work, that have been issued to authorize work in the permit space;
- special equipment and procedures, including personal protective equipment and alarm systems; and
- any other information needed to ensure employee safety.

### **What type of training and education do employees need?**

- Training must be provided before initial work assignment begins.
- Employers must ensure that employees have acquired the understanding, knowledge, and skills necessary for the safe performance of their duties.
- Additional training is required when (1) the job duties change, (2) there is a change in the permit-space program or the permit space operation presents a new hazard, and (3) when an employee's job performance shows deficiencies. Training also is required for rescue team members, including cardiopulmonary resuscitation (CPR) and first-aid training (see Emergencies).
- Employers must certify that training has been accomplished.
- Upon completion of training, employees must receive a certificate of training that includes the employee's name, signature or initials of trainer(s), and dates of training.
- The certification must be made available for inspection by employees and their authorized representatives.



### What are the authorized entrant's duties?

- Know space hazards, including information on the mode of exposure (e.g., inhalation or dermal absorption), signs or symptoms, and consequences of the exposure;
- Use appropriate personal protective equipment properly (e.g., face and eye protection, and other forms of barrier protection such as gloves, aprons, and coveralls);
- As necessary, maintain communication (i.e., telephone, radio, visual observation) with attendants to enable the attendant to monitor the entrant's status as well as to alert the entrant to evacuate;
- Exit from permit space as soon as possible when ordered by an authorized person, when the entrant recognizes the warning signs or symptoms of exposure exist, when a prohibited condition exists, or when an automatic alarm is activated; and
- Alert the attendant when a prohibited condition exists or when warning signs or symptoms of exposure exist.

### What are the attendant's duties?

- Remain outside permit space during entry operations unless relieved by another authorized attendant;
- Perform no-entry rescues when specified by employer's rescue procedure;
- Know existing and potential hazards, including information on the mode of exposure, signs or symptoms, consequences of the exposure, and their physiological effects;
- Maintain communication with and keep an accurate account of those workers entering the permit-required space;
- Order evacuation of the permit space when a prohibited condition exists, when a worker shows signs of physiological effects of hazardous exposure, when an emergency outside the confined space exists, and when the attendant cannot effectively and safely perform required duties;
- Summon rescue and other services during an emergency;

- Ensure that unauthorized persons stay away from permit spaces or exit immediately if they have entered the permit space;
- Inform authorized entrant's and entry supervisor of entry by unauthorized persons; and
- Perform no other duties that interfere with the attendant's primary duties.

### What are the entry supervisor's duties?

- Know space hazards including information on the mode of exposure, signs, or symptoms and consequences of exposure;
- Verify emergency plans and specified entry conditions such as permits, tests, procedures, and equipment before allowing entry;
- Terminate entry and cancel permits when entry operations are completed or if a new condition exists;
- Take appropriate measures to remove unauthorized entrants; and
- Ensure that entry operations remain consistent with the entry permit and that acceptable entry conditions are maintained.

### What are the employer's responsibility during emergencies?

- Ensure that rescue service personnel are: provided with and trained in the proper use of personal protective and rescue equipment, including respirators; trained to perform assigned rescue duties and have had authorized entrant's training; trained in first aid and CPR and, at a minimum, one rescue team member

be currently certified in first aid and in CPR.

- The employer also must ensure that practice rescue exercises are performed yearly, and that rescue services are provided access to permit spaces so that they can practice rescue operations. Rescuers also must be informed of the hazards of the permit space.
- When appropriate, authorized entrants who enter a permit space must wear a chest or full body harness with a retrieval line attached to the center of their backs near shoulder level, or above their heads.
- Wristlets may be used if the employer can demonstrate that the use of a chest or full body harness is infeasible or creates a greater hazard.
- Ensure that the other end of the retrieval line is attached to a mechanical device or to a fixed point outside the permit space. A mechanical device must be available to retrieve personnel from vertical type permit spaces more than 5' deep.
- In addition, if an injured entrant is exposed to a substance for which a Material Safety Data Sheet (MSDS) or other similar written information is required to be kept at the worksite, that MSDS or other written information must be made available to the medical facility treating the exposed entrant.

**For more information, contact Utah Occupational Safety & Health by calling (801) 530-6901.**

## CEU/CPU's Offered for Utah LTAP Center Training Students Have a Choice to Apply for Credit

With the new licensure renewal requirement for continuing education for Professional Engineers, we offer CEU/CPU credits for each of the training programs offered through the Utah LTAP Center. We provide this documentation through the Utah State University Continuing Education office.

For students to receive the available credit, they will need to complete the appropriate paperwork (available at each

workshop, or on-line at our Web site), and submit it, with payment of \$20/course, to the USU Continuing Education office.

Professional engineers will want to be aware that documentation of credit availability (as evidenced in our workshop brochures) may be sufficient for license renewal. You will need to provide this documentation, or apply for the appropriate CEU credits formally, if your renewal is audited.

# Heat Up the Cold Winter Months with LTAP Training

The following workshop offerings are scheduled to-date by the Utah LTAP Center during the winter training season. Additional workshops will be added, so please check our Web site for up-to-date details on available workshops.

In addition, we offer workshops on-demand as instructor schedules permit. If you need training, please contact us as soon as possible to arrange a workshop for your area!

**As a service to our participants, CEU credits are available for these courses through Utah State University.**

Workshop participants may apply for CEU credits using the form available on our Web site. The cost is \$20/course. Students choosing to receive this credit must submit the form with payment to the USU Continuing Education Office directly.

To streamline your workshop registration needs, we have provided a winter training registration form below. You can also register for specific workshops on-line at our Web site.

**ATSSA Flagging**

Cost for this workshop is **\$40.**

- Feb. 23, 2005 (SLC) 8 am-12 noon

- Feb. 23, 2005 (St. George) 8 am-12 noon
  - March 9, 2005 (SLC) 8 am-12 noon
  - April 27, 2005 (St. George) 1-5 pm\*
- \*cost for this workshop is only \$25 as part of Road School

**ATSSA Flagging  
(In Spanish/En Espanol)**

Cost for this workshop is **\$40.**

- Feb. 23, 2005 (SLC) 8 am-12 noon
- This Spanish language workshop is a new option for local agency personnel. It is offered in Spanish for Spanish speakers.

**Heavy Equipment Safety Operations**

Cost for this workshop is **\$60.**

- March 28, 2005 (St. George)
- April 4, 2005 (Tooele)

**Heavy Equipment Hands-On Training**

Cost for this workshop is **\$200.**

- March 29-30, 2005 (St. George)
- March 30-April 1, 2005 (St. George)
- April 5-6, 2005 (Tooele)
- April 7-8, 2005 (Tooele)

**ADA Compliance**

Cost for this workshop is **\$60.**

- Jan. 19, 2005 (St. George) 8 am-5 pm
- Feb. 9, 2005 (Ogden) 8 am-5 pm
- March 7, 2005 (SLC) 8 am-5 pm
- April 1, 2005 (Provo) 8 am-5 pm

**APWA Construction Inspector Training**

Cost for this workshop is **\$200.**

- February 9-11, 2005 (SLC) 8:30 am-4:30 pm

**Microsoft Excel 2000 Level 1**

Cost for this workshop is **\$65.**

- Jan. 27, 2005 (SLC) 9 am-4:30 pm

**School Area Training**

This training is available on-demand for local Utah agencies. Topics covered include: child access routing plans and school zone signing requirements. Call 1-800-822-8878 to schedule a workshop for your agency!

*Workshop dates are subject to change. Please call us or go on-line to confirm dates and availability!*

**Circle the bullet beside the workshop date you want to register for. Then use the form below to complete your registration and fax the entire page to the LTAP Center at (435) 797-1582.**

**Any questions? Please call 1-800-822-8878.**

## Utah LTAP Center Winter 2005 Workshop Registration Form

Name: \_\_\_\_\_  
 Agency: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City/State/Zip: \_\_\_\_\_  
 Phone: \_\_\_\_\_ FAX: \_\_\_\_\_  
 E-mail: \_\_\_\_\_

Total Workshops Registered For: \_\_\_\_\_ Total Amount Due: \_\_\_\_\_

**Method of Payment (Please check one)**

\_\_\_ Check enclosed (made payable to Utah LTAP Center)

\_\_\_ Agency PO (Number: \_\_\_\_\_)

\_\_\_ Credit Card (Visa/MC/Discover) #: \_\_\_\_\_ Exp. date: \_\_\_\_\_

**Federal Tax ID #87-6000528**



# What Our Partners Are Doing

## More Training Opportunities for YOU!!!



### Utah League of Cities & Towns

If you desire more information on League activities, or to register for a League sponsored event, please call the Utah League of Cities & Towns directly at (801) 328-1601 or 1-800-852-8528 or go to their Web site [[www.ulct.org](http://www.ulct.org)].

January 17, 2005  
Opening Day of the Utah Legislature

January 19, 2005  
Local Official's Day at the Utah Legislature (Salt Lake City)

March 4-8, 2005  
National League of Cities (Washington DC)

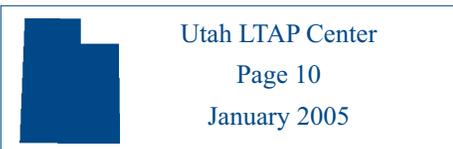
April 14-15, 2005  
ULCT Midyear Convention (St. George Dixie Center)  
Cost, program and registration material will be available on-line soon after the first of the year.

April 27-29, 2005  
City Streets & County Road School (St. George Dixie Center)  
Cost, program and registration material will be available on-line soon after the first of the year!



### Utah Association of Counties

For more information on UAC activities, or to register for a UAC



Utah LTAP Center  
Page 10  
January 2005

sponsored event, please call them directly at (801) 265-1331 or go to their Web site [[uacnet.pegasus.ultraservers.net](http://uacnet.pegasus.ultraservers.net)].

February 3, 2005  
Newly Elected Officials Training (Murray)

February 4, 2005  
County Officials Day at the Utah Legislature (Salt Lake City)

March 4, 2005  
NACo Legislative Conference (Washington DC)

April 20-22, 2005  
Management Conference (Layton)



### ITE, Utah Chapter

For information on ITE activities, please contact Walt Steinvorh by e-mail at [[msteinvorh@utah.gov](mailto:msteinvorh@utah.gov)]. Please note that the monthly luncheons are generally held the third Tuesday of each month starting at 12 noon at Golden Corral (8860 South Redwood Road, West Jordan).



### APWA, Utah Chapter

For more information on APWA activities please visit their Web site [[www.apwautah.org](http://www.apwautah.org)]. Please note that in addition to monthly luncheons, quarterly meetings will also be held. The quarterly meetings will last about 3 hours, and will include breakout sessions. The location of each meeting will vary to accommodate more of the APWA's diverse membership.

As of press time we don't have any dates or locations for these events at the time of this printing, but encourage you to check the Web site listed above for more information when it becomes available.



### Utah Local Governments Insurance Trust

For information on these and other Trust activities, please call Craig Bott at 1-800-748-4440. You can also e-mail Craig at [[cbott@ulgt.org](mailto:cbott@ulgt.org)]. The Trust is also offering internet training through their Web site at [<http://www.ulgt.org/internettraining.htm>]. Please check out their Web site at [[www.ulgt.org](http://www.ulgt.org)].



*"Serving Utah Municipalities"*

### Utah Risk Management Mutual Association

For more information or to register for these and other URMMA training activities, please call Joanne Glantz at (801) 225-6692. You can also check out their Web site at [[www.urmma.org](http://www.urmma.org)].

### Risk Transfer in Government Contracts & Agreements

January 6, 2005 (Orem) 9 am-12 noon  
There is no cost for URMMA members, all others are \$15/person.

### Leadership Under Pressure

January 11, 2005 (Ogden) 9 am-1 pm  
February 9, 2005 (Orem) 1-5 pm  
Presented by Chief Randy Watt. No cost for URMMA members, all others are \$30/person.

### Counseling Without Confrontation

January 27, 2005 (Draper) 1-5 pm  
March 3, 2005 (WVC) 9 am-1 pm  
Presented by Chief Randy Watt. No cost for URMMA members, all others are \$30/person.

Hiring the Right Person  
 February 16/17, 2005 (WVC) 9 am-3 pm  
 Presented by Jathan Janove. Cost for  
 URMMA members is \$10, all others are  
 \$50/person.



### Blue Stakes of Utah

The Blue Stakes of Utah Utility Notification Center, Inc. will be offering the following **Damage Prevention Seminars** for operators of underground utility facilities and excavators:

- Friday, January 14, 2005, 7:30–10 am (Dixie Center, St. George)
- Tuesday, January 18, 2005, 7:30–10 am (Salt Lake Community College–Miller Campus, Salt Lake City)
- Wednesday, January 19, 2005, 7:30–10 am (Salt Lake Community College–Miller Campus, Salt Lake City)
- Thursday, January 20, 2005, 7:30–10 a.m. (Marriott Hotel, Ogden)

## Take a Minute to Check... Has Your City or County Received Their FREE MUTCD?

The Utah Department of Public Safety, Highway Safety Office awarded a grant to the Utah Local Technical Assistance Program (Utah LTAP Center) to purchase and deliver copies of the 2003 Manual on Uniform Traffic Control Devices (MUTCD) and the MUTCD sections 1, 5, and 6 to local cities and counties.

We've been diligently working to make sure each city and county has their free copy of this vital document. The MUTCD is "the law" for all state, local and national entities on what types, when and how to use the many traffic control devices available. But, we've still got some left that need to find their rightful home!

So, give us a call at 1-800-822-8878 to find out if your community has received their copy (we can tell you if we've delivered to your community and, if we have, to whom it was delivered). We want to make sure that YOUR city or county has received their FREE MUTCD!

**Don't delay...call us today!**

- Friday, January 21, 2005, 7:30–10 am (Marriott Hotel, Provo)

These Damage Prevention Seminars include a FREE breakfast buffet, damage prevention training, and a prize drawing. To obtain seminar registration information, please contact Blue Stakes Administrative Assistant, Millie Richardson at (801) 208-2101.

Our thanks to these important partners for sharing this information and working with us in our efforts to serve the local agencies of Utah.

## Asphalt Institute Nat'l Training Opportunities

The Asphalt Institute offers a wide variety of courses around the country:

- Asphalt Binder Technology
- HMA Mix Design Technology
- Airport Pavement

Check out the listed their Web sites for dates, locations, etc.:

[http://www.asphaltinstitute.org/ai\\_pages/Seminars/](http://www.asphaltinstitute.org/ai_pages/Seminars/)

## Advisory Board

Joe Anderson  
 Utah Local Governments Trust

Loren R. Anderson, P.E., Ph.D  
 Utah State University

Dave Beach  
 Utah Highway Safety Office

Denton Beecher, L.S.  
 Box Elder County

Ken Berg, P.E.  
 Utah Department of Transportation

Sydney Fannesbeck  
 Utah League of Cities & Towns

L. Brent Gardener  
 Utah Association of Counties

Brett Hadley, P.E.  
 Utah Department of Transportation

J. Raymond Johnson, P.E.  
 Tooele County

Paul Mooney  
 FHWA, Utah Division

Clyde Naylor, P.E.  
 Utah County

Trace Robinson, P.E.  
 West Valley City

Dean Steele  
 Utah Risk Management Mutual  
 Association

William Swensen  
 St. George City

The Utah LTAP Center Advisory Board meets twice annually (and as needed) to make recommendations and evaluate the effectiveness of the program.

Utah LTAP Center

Page 11

January 2005



# The Skill of Survival: Desert Region

*A Guide to Hot Weather Survival*

We have recently added a "video/DVD-encyclopedia of hot Weather survival skills" to our free lending library and it was filmed RIGHT HERE IN UTAH!! So, even though it's winter here, it's never a bad time to learn important survival skills for living in our own climate!

Such topics as water requirements, finding water, conserving water, water production, drink/don't drink, survival gear, heat diseases, desert driving skills, dressing for heat, fire building, shelter production, direction finding, signaling, ingenious tips and much, much more!

So, warm yourselves up at your next safety meeting with this hot weather survival video/DVD! Call 1-800-822-8878 to borrow this video/DVD!!

## About the Utah LTAP Center

The Utah LTAP Center is an integral part of a nationwide Local Technical Assistance Program (LTAP) financed by the Federal Highway Administration, state departments of transportation and local transportation agencies. The Center bridges the gap between research and practice by translating the latest state-of-the-art technology in transportation into implementable products and information for the special use of local transportation agencies and personnel.

## About On the Move

On the Move is published quarterly by the Utah LTAP/Transportation Technology Transfer Center at Utah State University. Subscriptions are free and are available by contacting the Utah LTAP Center. Articles may be submitted to the editor at the above address. To obtain permission to reprint any articles from On the Move, please call the Center.

## Utah LTAP Center Staff

Director .....Doyt Y. Bolling  
 Assistant Director..... Stuart Thompson  
 Coordinator ..... Keri Shoemaker  
 Field Projects Manager .....Dee Hadfield  
 Network Administrator ..... Brian Birch  
 Newsletter ..... Julie Duersch  
 Phone/Fax ..... (435) 797-2931/797-1582  
 E-mail..... utaht2@cc.usu.edu  
 Web site..... www.utaht2.usu.edu

USU is an equal opportunity education institution/equal opportunity employer.



U.S. Department of Transportation  
Federal Highway Administration

NON-PROFIT ORGANIZATION  
U.S. POSTAGE PAID  
LOGAN, UTAH  
PERMIT#1



Utah LTAP Center  
Utah State University  
4111 Old Main Hill  
Logan UT 84322-4111

Return Service Requested