

Utah Technology Transfer Center Newsletter

TA ON THE MOVE

The Direction in Transportation Progress

Brought to you by Utah's LTAP (Local Technical Assistance Program)

Volume 16, Number 4

Fall (October) 2003

Update on Changes to the Professional Engineers & Professional Land Surveyors Licensing Act

by Doug Vilnius, Administrator, Professional Engineers and Land Surveyors Licensing Board

Recent changes to the Professional Engineers and Professional Land Surveyors Licensing Act have resulted in questions being raised by the professionally licensed engineers and land surveyors regarding how the changes will impact them. The changes to the Act became effective May 5, 2003 and rule changes were effective April 3, 2003. Below is a summary of those changes.

- After January 1, 2007 eight years of qualifying experience cannot be used as a substitute for education when applying for a Professional Land Surveyor license. [58-22-302 (3)(d) (ii)]
- Professional Engineers and Professional Structural Engineers must now complete a minimum of 24 hours of professional continuing education within a two-year renewal cycle. [R156-22-501(1)] The number of hours required for the next renewal cycle prorates to 21 hours.
- All disciplines of the NCEES Principals and Practice (PE) exam meet the PE exam requirement for a Professional Engineer other than the NCEES Structural II exam. [R156-22-204(1)(b)]

· An applicant for licensure as a Professional Structural Engineer must still pass the NCEES Structural I and Structural II examinations. The California Structural I and II Exams are no longer accepted examination options for licensure in Utah. [R156-22-205(1)(a)(b)]

· As of July 1, 2003 the application fee for engineers and land surveyors will be \$110 with a \$63 renewal fee. A \$10 fee will also be accessed for the Education and Enforcement Fund.

For additional details on these changes, please visit the Department of

Public Licensing Web site at [www.dopl.utah.gov]. You can also contact Douglas Vilnius by phone at (801) 530-6621 or e-mail [dvilnius@utah.gov].

To help professional engineers meet the new minimum continuing education requirements, the Utah LTAP Center will be providing workshop participants with the opportunity to receive CEU (continuing education units) credits for their participation through Utah State University. Interested participants should request the CEU application form, and follow the directions to receive the desired CEU credit.

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About *On the Move*

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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.

For more information about the LTAP program or items in this newsletter, please call us at 1-800-822-8878.



Legislative & Regulatory Update

Updated Administrative Rule Enhances Access Management for State Highway System

from Tim Boschert, UDOT Access Management Program Coordinator

The State of Utah, Administrative Rule 930-6: Accommodation of Utilities and the Control and Protection of State Highway Rights-of-Way, has recently been updated to reflect current right-of-way needs and national operational practices for permitted activities occurring within the State Highway right-of-way.

Primary to the update is the enhancement of the access connection process. The intent of the revised access permit process is three-fold for UDOT:

1. They were directed through the legislation of the Transportation Corridor Preservation Revolving Loan Fund (72-2-117) to draft a model access management ordinance.
2. In an effort to streamline and expedite the access permit processing, UDOT developed a unified access permit process, identified and assigned access spacing and design categories, and drafted a written inventory of access categories assigned to the state highway system; and
3. UDOT created a process that directly involves local government entities in the access permit process.

The development of the program has spanned several years, and has included researching existing Utah code, Department permit operation, and access management programs in other states as well as national AASHTO design standards. A traffic engineer consultant firm was retained to compile and draft the findings of the research. Several meetings were then held within UDOT to review and fine tune the draft program. Meetings were also held with local and national peer groups to present the findings. Finally, as the access categories were assigned to the roadway facilities, practitioners could assess the spacing and design requirements.

Starting in January of 2003, UDOT-wide meetings and local government presentations were conducted to inform and educate those interested in access management and the access permit process. In this step over thirty meetings and presentations were held across Utah, and over 230 letters were mailed to city and county representatives seeking comment on the program development.

A final draft was delivered to the State Rule-making committee on July 30, 2003. The draft process, as identified in the Rule committee, had 15 days to be read and reviewed for sufficiency. Comment or action, on the draft, was not requested of UDOT by the Rule committee. The draft was then posted for public comment from August 15 through September 15, 2003. No comment was received and the draft became rule September 16, 2003.

For more information on the UDOT Access Management Program, please visit the UDOT Web site [www.udot.utah.gov/esd/AccessManagement/AccessManagementMain.htm].

Calling "Blue Stakes Before You Dig" is the Law

Blue Stakes of Utah is the communications link between excavators, homeowners and utility companies and is the only statewide association in Utah to contact when you need to have underground utility lines located and marked before commencing any excavation. This service is free of charge to excavators and homeowners and is funded by member utility companies.

The Utah State Law, "Damage to Underground Facilities Act," specifies that if an association is formed, each operator with underground facilities in the area shall become a member of the association. The act also specifies that an operator that does not comply with the act will be liable for damages incurred by an excavator who has complied with the requirements of the act. In addition to damages that an operator is liable for by not being a member of the association and complying with the act, civil penalties can also be imposed as specified in the act.

To receive more information regarding membership in Blue Stakes of Utah, please contact W. Gary Hansen, Executive Director, by calling (801) 538-5700 or by e-mail to [garyh@bluestakes.org]. And **don't ever forget to "call before you dig!"**

US Top Court Won't Review Sidewalk Disability Case

excerpt from ADA Watch Informational Alert, by James Vicini, National Coalition for Disability Rights (June 27, 2003) [www.ADAwatch.org]

The U.S. Supreme Court recently let stand a ruling that Sacramento must make all public sidewalks accessible to disabled Americans under a federal antidiscrimination law. The high court rejected an appeal by Sacramento, which asked the court to overturn a ruling that city sidewalks were covered by the Americans with Disabilities Act of 1990 and therefore have to be accessible. Sacramento argued that the ruling by a U.S. appeals court in California imposed a "staggering" financial burden on thousands of state and local governments. The U.S. Justice Department urged the high court to reject the city's appeal, arguing that the law covered public sidewalks.

The lawsuit said the city was required to alter and even rebuild its sidewalks to widen them. It also asked that the city remove such obstacles as benches, fire hydrants, newspaper racks, mailboxes, trees and utility, traffic signal and telephone poles. The lawsuit asked the city to get rid of roots and other protruding objects and to make sure sidewalks were level. Despite concerns about the high cost of compliance with this ruling, this ruling may impact compliance guidelines for all public facilities including roads, bridges, buildings, etc.

Utah T² Center Changing Name to Utah LTAP Center!

As the role of the Utah T² Center has expanded over the years, and to more closely align ourselves with the national identity of our organization, you have probably noticed the name Utah LTAP/T² Center during the last several newsletters and in our professional literature. Now it's time to make the name change complete and become officially the **Utah LTAP Center!** We will still continue to provide our highest levels of service to local Utah agencies in conjunction with our partners--only the name will change! So watch for our new look, and continue to turn to us for training, technology transfer, and help with your local transportation needs!

Advisory Board

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Utah Local Governments Trust

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West Valley City

Dean Steele

Utah Risk Management
Mutual Association

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

UDOT State Highway Access Management Plan Update

by Tim Boschert, UDOT Access Management Program Coordinator

Access management is the process of comprehensive application of traffic engineering techniques in a manner that seeks to optimize highway system performance in terms of safety, capacity, and speed. In our era of limited funding, access management is one tool to make what we have work better.

The Utah Department of Transportation (UDOT) has been committed to the development of an access management program because such a program provides great benefit is to the users of the transportation system. Success of an access management program can be measured in the application of several traffic engineering techniques; this can reduce accidents, lessen congestion and even improve economic virility.

With the recent adoption of the State of Utah, Administrative Rule 930-6: Accommodation of Utilities and the Control and Protection of State Highway Rights-of-Way, the UDOT access management program has become a formal part of how current right-of-way needs and national operational practices for permitted activities are addressed within the State Highway right-of-way.

Access management is a vital process to enhancing mobility on the State highway system and an important tool for UDOT to utilize in the optimization of capacity, thus extending the longevity of the existing system.

As part of the process, UDOT will

implement a revised fee structure for access permits. A fee schedule will be developed based on the permit review complexity and intensity of traffic associated with development requesting access onto a state highway. Control lines of access and local government applications for access will be considered on an individual basis in the respective UDOT Region offices.

The UDOT Web site [www.udot.utah.gov/esd/AccessManagement/AccessManagementMain.htm] contains information concerning the access management program.

Information available on the Web site include links to "pdf" material of the;

- "Accommodation of Utilities; Ch 7, State Highway Access Management",
- Inventory - written listing by state route of the assigned access categories, and
- Maps - depicting the assigned access categories on the state system.

Access Categories are identified as Category 1 - 9 (see chart, below

for additional details). Category 1 as Interstate or Freeway facility, progressing to Category 9 as Other (typically an entrance to a State park or University grounds).

Recommended spacing is identified for the spacing of signalized streets, unsignalized streets, driveways, and the relationship of access to interchange structures. Determination of the spacing standards was based on AASHTO recognized values for acceptable operation and capacity flow. Highway segments were classified using several highway characteristics of functional classification, identification as a NHS route, FHWA designation of urban or rural area, and posted speed limit.

Please contact Mr. Boschert for more information. He can be reached by phone at (801) 965-4175 or by e-mail at [tboschert@utah.gov]. Information and education on the principles of access management and operation of the state highway access program can be arranged as necessary.

Table 7.4-1: State Highway Access Management Standards

Category	Minimum Signal Spacing (feet)	Minimum Street Spacing (feet)	Minimum Access Spacing (feet)	Minimum Interchange to Crossroad Access Spacing (feet)			
				to 1 st R-in R-out A	to 1 st Intersection B	from last R-in R-out C	
1	I	Interstate/Freeway Standards Apply					
2	S-R	5,280	1,000	1,000	1,320	1,320	1,320
3	S-U	2,640	No Unsignalized Access Permitted		1,320	1,320	1,320
4	R-R	2,640	660	500	660	1,320	500
5	R-PU	2,640	660	350	660	1,320	500
6	R-U	1,320	350	200	500	1,320	500
7	C-R	1,320	300	150	Not Applicable		
8	C-U	1,320	300	150			
9	O	1,320	300	150			



What Our Partners Are Doing

More Training Opportunities for YOU!!!



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



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].

2003 Annual Water Conference October 15-16, 2003 (Springdale)

On-line registration is now available, along with program information, at the Utah League of Cities & Towns Web site.

2004 Local Officials Day January 21, 2004 (State Capitol)

Plan now to take advantage of this opportunity to meet with your legislators during the 2004 legislative session!



Utah Association of Counties

For more information on UAC activities, or to register for a UAC sponsored event, please call them directly at (801) 265-1331 or go to their Web site [uacnet.pegasus.ultraservers.net].

2003 Annual Convention November 12-14, 2003 (St. George)

Registration for the 2003 Annual Convention is officially open and available

on-line at the UAC Web site! Cost for the Convention is \$190 for county attendees, \$215 for others. A spouse program is also available. The registration deadline is October 29, 2003.

This year's Convention "80 Years... and Counting" celebrates the 1923 founding of UAC. It promises to be the best one yet, with thought-provoking meetings, lively discussions, fresh ideas, rejuvenating activities, enjoyable networking, and memorable entertainment! The keynote speaker will be Hyrum W. Smith, Vice Chairman of the Board for Franklin Covey.



APWA, Utah Chapter

For more information on APWA activities please visit their Web site [www.apwautah.org]. Please note that monthly luncheons have been replaced with quarterly meetings. 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.

Fall Conference October 1-2, 2003 (West Valley City)

You won't want to miss this opportunity to meet with your fellow members of the APWA, Utah Chapter! Visit the Web site for more information and to register.



ITE, Utah Chapter

For information on ITE activities, please call Sara Colosimo with Riley Transportation; her e-mail address is

[scolosimo@rileytransportation.com]. Please note that the monthly luncheons are held the third Tuesday of each month starting at 12 noon at Shanghai Gardens (7200 South 300 West, Salt Lake City, Utah) unless otherwise indicated.



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]. Also, check out their Web site at [www.ulgt.org].

Regional training dates allow the Trust to coordinate their overall provision of services around the state. If you have training needs, please contact the Trust and they can help you set up what you need during the assigned dates for your region.



"Serving Utah Municipalities"

Utah Risk Management Mutual Association

For information or to register for these and other URMMA training activities, please call Joanne Glantz at (801) 225-6692 ext. 18. You can also check out their Web site at [www.urmma.org].

**Risk Management Leadership
Workshop**
October 9 & 10, 2003 (Sherwood Hills)
The cost for the full-day session is \$75

(continued on page 8)

FYI: For Your Information

UDOT Engineer's Conference November 12-14, 2003 South Towne Expo Center

You won't want to miss the UDOT Engineer's Conference! On-line registration and information has been updated to include a tentative agenda, break-out session overview, etc.

Break-out sessions are broken into topic areas including:

- ITS
- Right of Way
- Research
- Program Development
- Planning
- Personal Development
- Materials
- Consultant Services
- Hydraulics

- Leadership
- Structures
- Construction
- Construction Technician
- Maintenance
- Access Management
- Value Engineering
- Traffic and Safety
- Risk Management
- Media Relations
- Environment
- CSS, and
- Miscellaneous

Visit the Web site for more information [www.udot.utah.gov/esd/conference/updates.htm]!

County Safety Grants Available from NACE/3M

Counties are invited to apply for cooperative safety grants from NACE and 3M. While the first grant application deadline of September 30 has passed, you can start planning now to apply for the next quarter! Don't miss this opportunity for receiving a safety grant to address a specific safety concern in your community.

Visit their Web site for instructions and further information [www.3m.com/us/safety/tcm/news/nace.jhtml].

October 2003

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
		ATSSA Flagger (Tooele, SLIC, St. George, Provo/Ogden) ULC&T Water Conf. (Springdale)				
19	20	21	22	23	24	25
26	27	28	29	30	31	
	Heavy Equip Safety Oper. (Tooele)	Heavy Equipment Hands-on Training (Tooele)		Heavy Equipment Hands-on Training (Tooele)		

November 2003

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
2	3 Heavy Equip. Safety Oper. (St. George)	4 Heavy Equipment Hands-on Training (St. George)	5	6 Heavy Equipment Hands-on Training (St. George)	7	8
9	10	11	12 UAC Annual Convention (St. George) 2003 UDOT Engineer's Conf (Salt Lake City)	13	14	15
16	17	18	19 ATSSA TCT (SLC)	20 ATSSA Traffic Control Supervisor (SLC)	21	22
23 30	24	25	26	27 	28 	29

Additional Workshops Are Available, please see article on page 9. Updates on these and other calendar items are available at the Utah LTAP Web site [www.utaht2.usu.edu] or by calling 1-800-822-8878.

December 2003

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1 MUTCD Update Workshops (Logan, Ogden, SLC, Orem)	2	3	4	5	6
7	8	9	10	11	12	13
14	15 MUTCD Update Workshops (Moab, Richfield, Vernal)	16	17	18	19	20
21	22	23	24 	25 	26 	27
28	29	30	31 			

(continued from page 5)

for URMMA members, \$100 for non-members. The half-day session cost is \$30 for URMMA members, \$50 for nonmembers. This training includes the personnel workshop, negotiate or litigate and police liability.

Gordon Graham Risk Management for Police & Fire
October 27, 2003 (Orem)

October 28, 2003 (Ogden)

Cost is \$25 for URMMA members, \$40 for non-members.

Negotiate or Litigate

November 12, 2003 (West Jordan)

This workshop runs from 8 am to 12 noon and is required for those not attending one of the 2003 Risk Management Workshops. Cost is \$10 for URMMA members, \$20 for non-members.

Police Liability Review

December 2, 2003 (West Jordan)

This workshop runs from 9 am to 12 noon and is required for those not attending one of the 2003 Risk Management Workshops. Cost is \$10 for URMMA members, \$20 for non-members.

Follow-up on Adjustable Manhole Covers Showcase in Logan, Utah

Rare is the community who does not suffer from adverse public reaction and the related safety concerns sinking or shifting manholes pose to the driving public. Rarer still is the community who has solved this problem, not only for the short term but for years to come.

Nestled along Utah's Wasatch Mountain Range, Logan, home to Utah State University, experiences all of the havoc weather can inflict on a community's street and drainage systems. The city has more than 6,100 manholes to maintain in a roadway system with terrain ranging from perfectly flat to hills with more than 20 degree inclines. While heaving and sinking is an ever-present maintenance concern, matching shifting grade changes and keeping pace with scheduled resurfacing projects are additional practical challenges. Add it all up and the city's maintenance folks face impossible odds. Sound familiar? Less than two years ago, Logan's Water/Waste Water Department discovered the adjustable manhole cover technology developed by Precision Cover Systems, Inc., and a solution was within their grasp.

With some practical experience under their belt, The City of Logan was very willing to share their adjustable manhole cover experiences by co-hosting with the Utah and Florida LTAP Centers, a national Demonstration Showcase at their

Service Center Complex on April 29, 2003. Mayor Doug Thompson welcomed everyone and then Dee Hadfield with the Utah LTAP Center who moderated the Showcase introduced Jay Curtis, Waste Water Crew Chief for the City of Logan. Jay's presentation provided background on the city's former manhole maintenance program including a detailed cost/benefit comparison between the old process and this new technology. For new installations less equipment is required - no air compressor, jackhammer and street saw - and with material and labor costs substantially reduced - two crew members can install - meaningful cost savings were immediately apparent. This new system provides an easy and efficient method for adjusting to grade and slope as well as height. Another key feature, this new cover system provides for height adjustments in .25 inch increments up to 2.75 inches. This allows for two future overlays before additional hardware is required, quite possibly 20 to 30 years in the future. Now, with this new system, city fathers can depend on cost savings and citizen satisfaction for years to come. The city is installing 40 more adjustable manhole cover systems this year.

Once Curtis acquainted everyone with the city's manhole situation and the cost benefit potential of this new technology, Chris Sondrup, President of Precision

Cover Systems, Inc., explained the adjustable manhole cover system in detail and participants had an opportunity to review the system up close before moving on to the real-time field installation. He also called attention to the fact that with this system, shimming with rocks or bricks - a major cause of post installation shifting - is eliminated in almost every case.

Following lunch everyone boarded buses for guided site visits of past installations and a real-time field installation. The Showcase wrapped up with everyone returning to the Logan Service Center complex for open discussion, a review of this technology and its field application potential. All showcase handout material is available on loan from the Showcase Coordinating Center at the Florida LTAP Center, University of Florida, PO Box 116587, Gainesville, FL 32611-6587. You may order by phone (325) 392-2371 ext. 237 or Fax (352) 392-3224.

For further details of the Logan's experience with this system you may contact Jay Curtis, with Logan's Water/Waste Water Department by phone at (435) 716-9620. For more vendor information on the Adjustable Manhole Cover System you may visit Precision Cover Systems, Inc., or contact Chris Sondrup at (801) 785-8088.

Take Full Advantage of Fall Training Opportunities

Don't miss your chance to participate in one or more of these workshops!

The following workshops are being offered by the Utah LTAP Center during the fall training season. **As a service to our participants, CEU credits are available for these courses through Utah State University.**

ATSSA Flagging

October 14, 8 am-12 noon (Tooele)
 October 15, 8 am-12 noon (SLC)
 October 16, 8 am-12 noon (St. George)
 October 16, 8 am-12 noon (Provo)
 October 17, 8 am-12 noon (Ogden)
 This workshop is designed to train those who need certification in flagging. A certification exam will be offered as part of the course. The workshop costs \$40/person and includes all handout materials.

Heavy Equipment Safety Operations

October 27, 8 am-5 pm (Tooele)
 November 3, 8 am-5 pm (St. George)
 This workshop is designed to cover all aspects of heavy equipment safety operation. The cost is \$60/person and includes lunch and all materials.

Heavy Equipment Hands-On Training

October 28-29 (Tooele)
 October 30-31 (Tooele)
 November 4-5 (St. George)

November 6-7 (St. George)

This two-day (7:30 am to 5 pm each day) hands-on follow-up workshop provides participants with practical experience in heavy equipment operation. The cost is \$200/person and includes all materials and use of equipment.

Retroreflectivity Training

October 27, 8 am-12 noon (West Valley)
 October 28, 8 am-12 noon (Logan)
 October 29, 8 am-12 noon (Ogden)
 November 5, 8 am-12 noon (Orem)
 November 6, 8 am-12 noon (Richfield)
 November 7, 8 am-12 noon (St. George)
 This workshop covers the basics of retroreflectivity, including the retroreflectivity principles of pavement

CEU credits are available for these courses!

markings and other traffic control devices. Learn ways to improve the effectiveness of traffic control devices through the proper use of retroreflectivity. The cost is \$25/person and includes all materials.

ATSSA Traffic Control Technician

November 19, 8 am-4 pm (Woods Cross)
 This workshop provides in-depth coverage

of the responsibilities of a traffic control technician. The cost is \$75/person and includes all materials.

ATSSA Traffic Control Supervisor

November 20-21 (Woods Cross)
 This two-day (8 am-4 pm each day) workshop provides in-depth coverage of the responsibilities of a traffic control supervisor. The cost is \$185/person.

MUTCD Update

December 1, 8 am-12 noon (Logan)
 December 2, 8 am-12 noon (Ogden)
 December 3, 8 am-12 noon (SLC)
 December 4, 8 am-12 noon (Orem)
 December 15, 8 am-12 noon (Moab)
 December 16, 8 am-12 noon (Richfield)
 December 17, 8 am-12 noon (Vernal)
 This workshop is designed to bring local agency personnel up-to-date on the many recent changes to the MUTCD. The cost is \$25/person and includes one free copy of the updated MUTCD for each participating agency.

Use the registration form provided below to make sure you and your employees have the opportunity to latest tools for effective public service!

Utah LTAP Center Fall 2003 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/T² Center)
 Agency PO (Number: _____)
 Credit Card (Visa/MC/Discover) #: _____ Exp. date: _____

Please indicate the workshops you will be attending.

ATSSA Flagging (\$40)

Oct 14 (Tooele) Oct 15 (SLC)
 Oct 16 (St. George) Oct 16 (Provo)
 Oct 17 (Ogden)

Heavy Equipment Safety Operations (\$60)

Oct 27 (Tooele) Nov 3 (St. George)

Heavy Equipment Hands-On Training (\$200)

Oct 28-29 (Tooele) Oct 30-31 (Tooele)
 Nov 4-5 (St. George) Nov 6-7 (St. George)

Retroreflectivity Training (\$25)

Oct 27 (WVC) Oct 28 (Logan)
 Oct 29 (Ogden) Nov 5 (Orem)
 Nov 6 (Richfield) Nov 7 (St. George)

ATSSA Traffic Control

Technician/Supervisor (\$75/\$185)

Nov 19 (Woods Cross) Nov 20-21 (same)

MUTCD Update (\$25)

Dec 1 (Logan) Dec 2 (Ogden)
 Dec 3 (SLC) Dec 4 (Orem)
 Dec 15 (Moab) Dec 16 (Richfield)
 Dec 17 (Vernal)

Focus on New Technology

Pavement Marking Test Deck Study Update

by G. Stuart Thompson, Assistant Director

The Pavement Marking Test Deck located at Morgan, Utah has been in service since August of 2001. On the test deck thirteen (13) manufacturers installed ninety-five (95) products laterally across one lane of Eastbound I-84. Evaluation of the retroreflectivity, color, and durability (percent of marking remaining) were performed monthly for the first year on each

product in both the skip line (SL) area and the left wheel path (WP).

Measurements taken in the left wheel path represent an accelerator test; those in the skip line area give an indication of the performance expected in a skip line installation of a roadway with similar attributes. The following list identifies the pavement marking materials sorted by material type,

color, and retroreflectivity readings taken in the skip line area after one year. Materials listed were installed on an Asphalt surface.

For further detail on application thickness, type of beads, color readings, or other questions contact the Utah LTAP Center by calling 1-800-822-8878.

Manufacturer	Product #	Color	Material Type	Retrorefl.		Durability	
				SL	WP	WP	SL
Ennis Paint, Inc	EP500W1	White	3-yr Waterbone "super" Paint	66	17	1	6
LaFarge Road Markings, Inc.	LAF2001-109	White	3-yr Waterbone "super" Paint	65	32	6	8
Ennis Paint, Inc	EP500Y2	Yellow	3-yr Waterbone "super" Paint	44	20	4	7
Ennis Paint, Inc	EP500Y1	Yellow	3-yr Waterbone "super" Paint	23	13	1	6
Brite-Line Technologies, Inc	XRP-1	White	Durable Tape	88	41	9	2
Trelleborg Industries(USA)	CW200	White	Durable Tape	57	41	10	6
Trelleborg Industries(USA)	CY200	Yellow	Durable Tape	24	20	10	6
LaFarge Road Markings, Inc.	LAF2001-120	White	Epoxy	127	25	1	5
POLY-CARB, Inc.	Mark 55.4	White	Epoxy	125	15	2	8
POLY-CARB, Inc.	Mark 55.3(Y)	Yellow	Epoxy	75	11	2	8
LaFarge Road Markings, Inc.	LAF2001-122	Yellow	Epoxy	72	14	1	5
Avery Dennison	7WV-075-SO, Exp.	White	Hot Tapes	112	88	10	9
Avery Dennison	YIE-7TX-90, Exp.	Yellow	Hot Tapes	71	56	9	10
Avery Dennison	YIE-7TX-90	Yellow	Hot Tapes	66	50	10	10
Avery Dennison	7YV-075-SO, Exp.	Yellow	Hot Tapes	44	46	9	10
Flint Trading	223-1003	White	Pre-Formed Thermal Plastic	170	69	7	8
Flint Trading	175-1001(HS)	White	Pre-Formed Thermal Plastic	117	25	1	8
Flint Trading	214-23	Yellow	Pre-Formed Thermal Plastic	73	44	7	9
LaFarge Road Markings, Inc.	LAF2001-119	Yellow	Pre-Formed Thermal Plastic	62	45	5	8
Cataphote	XT31101001-01	White	Thermal Plastic	220	154	6	8
Ennis Paint, Inc	884490	White	Thermal Plastic	186	124	8	8
Cataphote	XT31201001-01	Yellow	Thermal Plastic	147	88	4	8
Cataphote	XT31201002-01	Yellow	Thermal Plastic	132	54	4	8

Innovative Thinking Leads to Delineator Breakthrough

by N. Dee Hadfield, Field Projects Manager

We all need to be looking and thinking about ways to do maintenance in the safest, quickest, and best way possible. Here is an innovative idea that has come about as a result of an employee looking for a better way.

Like many of us, Todd Ovard, an employee of the Utah Department of Transportation, had experienced the inability to see under heavy deep snow conditions. He saw a need for a faster, easier, and less expensive way to provide effective

delineation. That led to his design and development of an extension to a delineator that is not only easy to see and does an excellent job of defining the edge of

(continued on page 11)

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roadway, but is also easy to install (Patent Pending).

As I was taking pictures, I asked a rancher from the Bear Lake Valley to install the delineator extension. With no training he was able to install and remove, then reinstall and remove the second time in less than twenty seconds. This device is securely fastened to the delineator. The wind or plowed snow will not knot this extension off the delineator. You may

want to consider it for use. This method uses a metal adapter that fits on top of the delineator that holds a standard poly delineator with reflectors. This device fits a delineator that face in either direction or has riveted or glued on reflector.

For more information on this innovative development, you can reach Todd through the Utah LTAP Center at 1-800-822-8878. Additional documentation and pictures are available with the on-line version of this newsletter. You can find it at [www.utaht2.usu.edu].

Focus on the Field

Preparing for Winter Maintenance

by N. Dee Hadfield, Field Projects Manager

As we start into another winter season, have you prepared for the work to be done? We suggest developing a comprehensive checklist including making the public aware of how they can help.

Making frequent reminders to the public about winter maintenance policy and procedures will help you get the job done, and save the traveling public inconvenience and time delay this winter season! Some of the ways you can get the word out include radio, newspaper, handouts, posters in public buildings and through utility billings.

Other points to check include making sure that all of the new roads or new areas to be maintained have been reviewed. Have manholes, water valves, fire hydrants, curb and gutters, retaining walls, and other objects that can cause damage or injure maintenance people and equipment been marked so their location is known when there is a foot of new snow?

Have the personnel responsible for maintenance in these areas had the opportunity to acquaint themselves with the changes in the road system? Have

they had the opportunity to make changes or repairs that may make their response to winter road conditions faster and easier?

Make sure that the maintenance equipment needed for the winter season is in excellent condition. The equipment and personnel will be working in very demanding conditions and this is no time for minor repairs. Be sure that maintenance personnel and operators have been given the time needed to check both the equipment and the attachments needed.

Also, ensure that the equipment maintenance area has in stock (or ordered in advance) the appropriate wear components needed for the season!

And finally, make sure that all of the anti-icing and deicing materials are ready and arrangements have been made to restock materials on an as-needed basis. Then don't forget to make sure that the application equipment has been calibrated for the materials that will be used.

We all need to be looking and thinking about ways to do maintenance in the safest, quickest, and best way possible.

ADA & Detectable Warnings

Recently a number of questions have been raised by people from various agencies concerning the use of detectable warnings, specifically truncated domes, when constructing or altering curb ramps. Truncated domes are the standard design requirement for detectable warnings for determining the boundary between the sidewalk and street by people with visual disabilities.

Detectable warnings are an Americans with Disabilities Act (ADA) requirement in the current Americans with Disabilities Act Accessibility Guidelines (ADAAG) for the use of detecting the boundary between the sidewalk and the street. The original requirement in ADAAG was suspended for a time to conduct further research. Research was conducted, and the suspension of the requirement was lifted on July 26, 2001, and are now required when constructing and altering curb ramps. Truncated domes are the only detectable warnings allowed by ADAAG. Grooves, exposed aggregate, and other designs intended for use as detectable warning are too similar to pavement textures, cracks and joints and are not considered equivalent facilitation. Truncated domes are a unique design and have proven to be the most detectable surface.

The original ADA design standard for truncated domes is found in ADAAG (4.29.2). After the research was conducted, a new design recommendation was made for the placement of the domes on curb ramps. Both FHWA and the U.S. Access Board are encouraging the use of the new design over the original. Information is available on the recommended design, etc. If you have any questions, please contact the Utah LTAP Center by calling 1-800-822-8878.

ACPA, Utah Chapter Sponsors Concrete Workshop January 2004

The Utah Chapter, American Concrete Pavement Association (ACPA) and the Utah LTAP Center will sponsor the 3rd Annual Concrete Pavement Workshop on January 29, 2004 at the Little America.

This is a must-attend all-day workshop for engineers, designers, contractors, and inspectors/technicians involved with concrete pavement.

Some of the topics to be included in this year's workshop will be: innovative contracting project planner, how to get a good job in a low bid system, techniques for design, construction, and maintenance, update on the 200X Guide, tools for quality concrete, procedures and techniques for fast track paving.

The cost for this all-day workshop is \$60 per person if registered on or before January 16, or \$70 per person after

January 16, 2004. CEU credits will be available for those who need to meet the new licensing requirements.

Use the registration form (below) and send payment (checks made payable to Utah Chapter, ACPA) to 1036 Lincoln Lane, Park City UT 84098.

ACPA Concrete Workshop Registration Form January 29, 2004 (Little America Hotel, Salt Lake City)

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

Registration & Payment Information

You can also fax your registration to (435) 647-5972 or send by e-mail to Mitzi McIntyre [mcintyre@utahacpa.com]. Registration is also available on-line at [www.utaht2.usu.edu]. Send check for your registration, made payable to Utah Chapter, ACPA, to 1036 Lincoln Lane, Park City UT 84098. If you have any questions, please call Mitzi McIntyre, ACPA, at (801) 556-9561.

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