

MATTERS

Montana's Answer To Technical Education of Roads & Streets

College of Engineering

Montana State University-Bozeman 1-800-541-6671 Bozeman, MT 59717-3910

Winter 2004

January February March

Vol.22, No. 1

INSIDE

- 2 Roads Scholars
- 3 Crosswalks Safe?
- 4 Annual Calendar
- 5 Calendar of Winter Events
- 6 New Publications & Software
- 7 New Publications &
 Software (cont'd)
 New MUTCD Order
 Information

PASS IT ON

After you have read this newsletter, copy what you need for your files and pass it on to other interested readers in your department:

Montana's First Roads Scholars

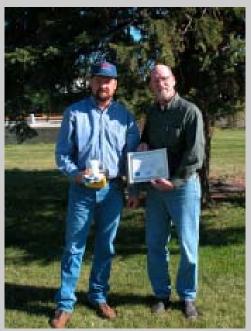
Steve Jenkins, Montana LTAP Director

ith increased Montana traffic as our state grows and new technologies becoming available, there is the need for more diverse skills and knowledge necessary for maintenance and preservation activities on roadways. Montana has over 70,000 miles of roads in cities, counties and highway districts.

Montana LTAP's Roads Scholar Program provides not only recognition of roadway professionals that are constructing and maintaining these Montana roadways, but also promotes attendance at safety workshops and further learning and education.

The Roads Scholar curriculum is designed to provide participants with the fundamentals of safety, management,

and advanced technologies, as well as exposure to a wide variety of other topics relevant to the transportation field.



September 2003, Wayne Buck was awarded one of the first Roads Scholar Certificates for Montana, having completed the requirements for Level I. He has worked for Rosebud County for the past twelve years, nine as operator and the last three as Road Foreman. Wayne maintains 1200 miles of gravel and dirt roads in Rosebud County along with his crew of twelve.

Wayne Buck (left) receives Roads Scholar Certificate from MACRS President Jack Knorr (also a Roads Scholar Recipient)

Southeastern Montana has been Wayne's home for the past thirty-five years. He and his wife, Elaine, have been married for twenty-two years and have five children, two girls and three boys. Three of the children have graduated from high school and are out on their own.

"All of the LTAP courses have benefits for operators and supervisors as new and better maintenance ideas are shared," commented Wayne.

Through this program, local agencies will be providing an opportunity to develop the agencies' greatest asset--its employees.

(continued on Page 2.....)

Advisory Committee Members

Ray Barnicoat

Montana Association of Counties

Bob Burkhardt

Federal Highway Administration

Kelly Elser

Town of Sheridan

Sam Gianfrancisco LTAP Field Engineer

Eric Griffin

Lewis and Clark County

Alec Hansen

Montana League of Cities & Towns

Russ Huotari Richland County

Jack Knorr Stillwater County

Bill Michalson City of Helena

Jim Reardon City of Great Falls

Donna Sheehy U.S. Forest Service

Sue Sillick

Montana Dept of Transportation

Dan Williams

Montana Dept of Transportation

Roads Scholars (continued from Page 1)

How Do Previously Taken Workshops Count? Starting January 1, 2001, LTAP has recorded workshops taken by participants up to the present time. There will be provisions for some courses and the Director will determine the student's ability to demonstrate a basic knowledge of the subject.

Requirements - Level I

Ten workshops are required to complete Level I (see chart below). Four core classes must be attended in addition to six optional classes. These certificate holders will be recognized statewide via this newsletter and LTAP's website for their accomplishment in addition to receiving awards.

Requirements - Level II

Twenty workshops are required for Level II, in addition to completing the Roads Scholar Level I requirements. Eight of the classes are core requirements with twelve optional classes needed to complete Level II. As in Level I, these certificate holders will be recognized statewide for their accomplishment in addition to receiving awards.

Jack Knorr received his Roads Scholar certificate September 2003.

In 1970, he started in the road profession in Pittsburgh, Pennsylvania.

Presently Jack maintains 844 miles of roads and 47 bridges in Stillwater County where he has lived for the past three years.

Taking advantage of his surroundings, he hunts, fishes, and enjoys the outdoors. Jack and his wife have five children who are grown and live in other parts of the country.



Jack added, "All of the training that LTAP offers is outstanding. I would recommend that every road personnel take as many classes that he or she can to improve their skills."

Roads Scholar - Level I Core Requirements

This program may be completed in four to six years:

- 1. Work Zone Class (1)
- 2. Equipment Operation Class (1)
- 3. Winter Maintenance or Safety Class (1)
- 4. Leadership Class (1)
- 5. Optional Classes (6)

Optional Classes for Road Scholar -Level I

- 1. Drainage
- 2. Forklift
- 3. PASER
- 4. Sign Vandalism
- 5. Summer Survival
- 6. Cattle Guards
- 7. Wheel Loader

Roads Scholar - Level II Core Requirements

This program may be completed in four to six years:

- 1. Work Zone Class (2)
- 2. Equipment Operation Class (2)
- 3. Winter Maintenance or Safety Class (2)
- 4. Leadership Class (2)
- 5. Optional Classes (12)

Optional Classes for Road Scholar -Level II

- 1. Tort Liability
- 2. Management Classes
- 3. Culvert Placement Trenching
- 4. Sensitivity Training
- 5. Dust Control
- 6. IMSA

Are Your Crosswalks Safe?

ill STOP signs protect your citizen's children when they cross the street to and from school?

Lloyd H. Rue, P.E., P.T.O.E FHWA Safety-Design Traffic Engineer Helena, Montana

If you believe the answer is yes, you will be surprised by some of the findings presented by the National

SAFE KIDS Campaign. SAFE KIDS recently released a report detailing a study on motorist behavior. Data were collected in 39 states and the District of Columbia

to uncover whether motorists comply with

walk: 7619 (29.7%) stop signs and marked

crosswalks, with and without pedestrians present. The 3-page summary report can be read on the SAFE KIDS website at http:// www.safekids.org/. Look for the report entitled, "Stop Sign Violations Put Child Pedestrians at Risk: A National Survey of Motorist Behavior at Stop Signs in School Zones and Residential Areas -- Full Report."

You'll be interested in these facts and conclusions presented by SAFE KIDS:

No, did not slow for stop sign: 1857 (7.2%)

→Each year, stop sign violations are associated with approximately 200 fatal crashes and 17,000 non-fatal injury crashes.

→ Motorists did not obey stop signs, putting pedestrians and passengers in other vehicles at risk. Nearly half (45 percent) of vehicles surveyed violated the stop signs by not coming to a complete stop at intersections.

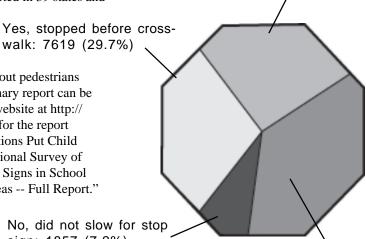
-More than a third (37 percent) of motorists rolled through the stop signs.

-Nearly a tenth (7 percent) of motorists did not even slow down for the stop signs.

→When a motorist completed a stop, the vehicle frequently stopped in or past the crosswalk, thus increasing the risk to pedestrians walking across the street. At intersections with marked crosswalks, one quarter (25 percent) of vehicles stopped in or past the crosswalks, impeding the pedestrian pathway.

Observation of Stop Sign Violations

Yes, stopped in/past crosswalk: 6582 (25.7%)



No, rolled through stop sign: 9602 (37.4%)

→Motorists were more likely to stop when pedestrians were present

-Nearly a third (32 percent) of motorists violated the stop signs when child pedestrians were present.

-Nearly half (47 percent) of motorists violated the stop signs when no pedestrians were present.

→Drivers were more likely to stop for pedestrians who were crossing than for those waiting to cross.

-Nearly a quarter (24 percent) of drivers did not come to a complete stop at intersections where pedestrians were crossing.

-More than a third (3 percent) of motorists violated the stop signs when pedestrians were waiting to cross.

LTAP Matters is published by the Local Technical Assistance Program at Montana State University, Bozeman, Montana.

Director Steven Jenkins StevenJ@coe.montana.edu

Accounting Tech/ Conference Coordinator Donnetta Bohrman dborhman@coe.montana.edu

Graphic Tech/Librarian Michele Beck mbeck@coe.montana.edu

Phone: (800) 541-6671

994-6100 (406)

FAX: (406) 994-5333

E-Mail (Internet): MTLTAP@coe.montana.edu

Updated Web Site: www.coe.montana.edu/ Itap

> "There are no traffic jams along the extra mile." -Roger Staubach

City Training Workshops for February

After surveying Montana city offices last fall, the two prominent requests were Winter Maintenance and Trench Safety. Based on this survey, Montana LTAP's Director Steve Jenkins will be offering this combination training workshop for the cities during February:

Registration: 8 am-8:30 am Class: 8:30 am - 4:00 pm Lunch: Noon - 1:00 pm

Feb. 10, Tuesday: Missoula, Ruby's Inn

Feb. 11, Wednesday: Helena, Jorgenson's

Feb. 12, Thursday: Great Falls, LaQuinta

Feb. 13, Friday: Billings, Billings Hotel & Convention Center

The cost of this workshop is \$30 per person and includes lunch from noon to 1:00 pm. Register with LTAP's Conference Coordinator, Donnetta Bohrman, at 1-800-541-6671 or fax your request to our new fax number: 1-406-994-5333 or email address: mtltap@coe.montana.edu

Annual Calendar 2004

January 2004							February 2004								March 2004						
S 4	M _5	T 6	W 7	Th 1 8	F 2 9	S 3 10	S 1 8	M 2 9	T 3 (10)	W 4 (11)	Th 5 (12)	F 6 (13	S 7) 14	S 7	M 1 8	T 2	W 3	Th 4	F 5	S 6 13	
11 18 25	12 19 26	13 20 27	14 21 28	15 22 29	16 23 30	17 24 31	15 22 29	16 23	17 24	18 25	19 26	20 27	21 28	14 21 28	15 22 29	16 23 30	17 24 31	18 25	19 26	20 27	
12, 13, 14: Loss Control Conference, Lewistown, MT 29: Train the Trainer, MDT, Helena						City Training: Winter Maintenance & Trenching Safety: 10-Missoula; 11-Helena; 12-GreatFalls; 13-Billings								9-12: MDT Work Zone Training 23-26: MDT: Work Zone Training 29-4/2: USFS Work Zone Training							
						Training on Request: Winter Travel- Survival, Winter Maintenance, Leadership							30-4/1: APWA Spring Conf., Cheyenne, WY								
Λn	:1 Դ	004					Ma	ay 2	2004					June 2004							
S	M	004 T	W	Th	F 2	S] 3	S	M	T	W	Th	F	S	S	M	T 1	W 2	Th 3	F 4	S 5	
4	5	6	7	8	9	10	2	3 10	11	5 12	6 13	7 14	8 15	6 13	7 14	8 15	9 16	10 17	11 18	12 19	
1	12	13	14	15	16	17	16	17	18	19	20	21	22	20	21	22	23	24	25	26	
18 25	19 26	20 27	21 28	22 29	23 30	24	23 30	24 31	25	26	27	28	29	27	28	29	30				
1-2: USFS Work Zone Training 6-7: Dillon-Gravel Roads Workshop						4-5: Libby-Gravel Roads Workshop 18-19:Lewistown-GravelRds Wrkshp							Training on Request: *Work Zone Training								
12-15: MACRS Annual Conference, Bozeman, MT								_	on Re Forkl				ads,	*Gravel Roads & Maintenance							
											Owing	-									
1	ly 20				_	_		_	t 20			_	_	September 2004							
S	M	Т	W	Th 1	F 2	S 3	<u>S</u>	<u>M</u>	<u>T</u>	$\frac{W}{4}$	Th 5	F 6	S 7	S	M	T	$\frac{\mathbf{W}}{1}$	$\frac{\text{Th}}{2}$	F 3	$\begin{bmatrix} S \\ 4 \end{bmatrix}$	
4	5	6	7	8	9	10	8	9	10	11	12	13	14	5	6	7	8	9	10	11	
11	12	13	14	15	16	17	15	16	17	18	19	20	21	12	13	14	15	16	17	18	
18 25	19 26	20 27	21 28	22 29	23 30	24 31	22 29	23 30	24 31	25	26	27	28	19 26	20 27	$\frac{21}{28}$	22 29(30	24	25	
31: Nat'l LTAP Conf.,New Mexico						1-4:Nat'l LTAP Conf.,New Mexico								1-2: 15th Annual Equpment Training & Snow Rodeo, Great Falls, MT							
Training on Request					Training on Request							23-24: APWA Conf., W.Yellowstone, MT MACRS: 28-Great Falls;29-Billings; 30-Glendive									
														Late September: Nat'l Snow & Ice Conference(APWA Snow Rodeo), Greeley, CO							
October 2004							November 2004								December 2004						
S	M	T	W	Th	F 1	S 2	S	M 1	T 2	W 3	Th 4	F 5	S 6	S	M	T	W 1	Th 2	F 3	S 4	
3	4	(5)	6	(7)	8 (9	7	8	9	10	11	12	13	5	6	7	8	9	10	11	
10	11	12	13		15	16	14	15		17	18	19	20	12	13			16		18	
17 24	18 25	19 26	20 27		22 29	23 30	21 28	22 29	23 30	<i>2</i> 4	25	26	27	19 26	20 27		22 29	23 30		25	
31						15-16:MACRS Planning Meeting, Lewistown, MT															
6-8: League of Cities & Towns, Kalispell, MT Training on Request: Equipment-Life					Training on Request: Winter							Trai	ining		quest		Survi	_{va1}			
Cycle Costing; Backhoe, Loader, Forklift; Pick-ups-Mower						Maintenance & Winter Survival							*Winter Travel-Survival *Winter Maintenance *Leadership								
												,									

Some dates & locations subject to change. Call Donnetta Bohrman, LTAP, 1-800-541-6671 or 406-994-6100 to confirm.

Calendar of Winter/Spring Events

MACo Loss Control Conference (In lieu of LTAP's 3rd Annual Safety Congress)

Lewistown, Montana

January 12-14, 2004

Yogo Inn, 1-800-860-9646, Room Reservations

Contact Emelia McEwen, 406-457-7210, to Make Meeting Reservations

Train the Trainer, Work Zone Training, MDT

Helena, Montana - Jorgenson's **January 29, 2004** Contact Donnetta Bohrman, LTAP Conference Coordinator, 1-800-541-6671

City Training, Winter Maintenance & Trench Safety

Missoula, Montana
Helena, Montana
Great Falls, Montana
Billings, Montana
February 10, 2004
February 11, 2004
February 12, 2004
February 13, 2004
Contact Donnetta Bohrman, LTAP Conference Coordinator, 1-800-541-6671

Work Zone Training, MDT

Location To Be Announced March 9-12, 2004 Location To Be Announced March 23-26, 2004 Contact Donnetta Bohrman, LTAP Conference Coordinator, 1-800-541-6671

Forest Service Training

Missoula, Montana March 29-April 2, 2004 Contact Donnetta Bohrman, LTAP Conference Coordinator, 1-800-541-6671

January 12-14, 2004---Partnerships To Get the Job Done!

In lieu of the 3rd Annual Safety Congress, Montana LTAP has joined resources with Montana Association of Counties (MACo) and Montana Sheriffs & Peace Officers Association (MSPOA) for the Risk Management Loss Control Conference being held in Lewistown, Montana, January 12-14, 2004.

If you have questions, please call Emelia McEwen, 406-457-7210, at MACo. Look forward to seeing you there!

Topics being covered include Freedom of Information Act; Workplace Stress; New 2003 MUTCD Manual and AASHTO Road http://maco.cog.mt.us/

information and registration forms:

Side Design Guide; Safety & Health Recogni-

three-day conference is packed with valuable

information. Check out this website for more

tion Program just to mention a few. This

Spring Events 2004

April 6-7, 2004

Gravel Roads Workshop in Dillon, Montana

- April 12 (Registration)
 April 13-15, 2004
 MACRS 24th Annual
 Conference is being held in
 Bozeman, Montana at the
 GranTree Inn. Registration
 brochures will be coming out
 in early February, 2004.
- May 4-5, 2004 Gravel Roads Workshop in Libby, Montana
- May 18-19, 2004 Gravel Roads Workshop Lewistown, Montana

MACRS President:

The 24th Annual Montana Association of County road Supervisors Conference will be held April 13, 14, and 15, 2004 at the Best Western GranTree Inn, Bozeman, Montana. This is your early notification. This conference is fast becoming one of Montana's best for County personnel as well as elected officials. Last year's conference was attended by nearly 250 people, 54 of 56 Counties were represented in MACRS. Many County Commissioners attended as well as 35 different vendors. We have reserved 140 rooms at the GranTree and the Holiday Inn (next door) at state rates. Make your reservation early, rooms sold out last year. Our agenda promises to address the road issues that concern taxpayers. Our speakers come from all over the Northwest and are highly respected in their fields.

I am looking forward to visiting with each of you at the Conference,

Jack Knorr, MACRS President Stillwater County Welcome to the LTAP Lending Library where publications, videos, and software may be borrowed for two weeks and then returned to the Library. Up to three videotapes may be borrowed from the LTAP Lending Library rentfree for two weeks. Some publications are free or for a nominal charge upon request.

Call Donnetta Bohrman or Michele Beck, LTAP 1-800-541-6671 for information or checkout procedures.

Note that our website at www.coe.montana.edu/ltap has been updated and includes the total library publications and videos. At this website you can also keep track of upcoming workshops, our newsletter, and "News Flash" items that change every month.

APWA

Click, Listen, & Learn Workshops @ www.apwa.net/Education/CLL

January 22, 2004 Leadership in the New Age of Public Works with John Luthy

February 19, 2004 Restoration of Utility Cuts

March 24, 2004 What a Construction Manager Can Do for You

LTAP Lending Library

Publications

p-285: Infrastructure Research and Technology Stake-holder Workshop Summary Report: This report documents the Stakeholder Workshop discussions and recommendations. FHWA will use the workshop discussions and recommendations to revise and sharpen the Infrastructure R&T vision and help to define stakeholder involvement.



p-367: Asphalt Seal Coat Treatments: This publication identifies and discusses applications of the various asphalt seal coat treatments that are available. This publication also describes each of the treatments, the methods of application, advantages and disadvantages, expected performance, and costs.

p-416: Concrete Mixture optimization Using Statistical Methods: Final Report: This report presents the results of a research project whose goals were to investigate the feasibility of using statistical experiment design and analysis methods to optimize concrete mixture proportions and to develop an Internet-based software program to optimize concrete mixtures using these methods.

p-437: Long-Term Effectiveness of Cathodic Protection Systems on Highway Structures: The primary objective of this 5-year study was to determine the effectiveness of various materials and configurations when used as auxiliary anodes on highway structures during a long-term evaluation. The findings of the study summarize the protection provided by the systems evaluated and estimate the expected service life for the anode materials in similar environments.

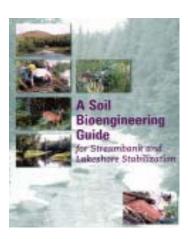
p-438: Long-Term Performance of Corrosion Inhibitors Used in Repair of Reinforced Concrete Bridge Components: This follow-on study of the SHRP effort was initiated by the FHWA in August 1994 and ended in July 1999. The primary goal of this study was to monitor the SHRP field sites for 5 years to determine the long-term effectiveness of corrosion inhibitors. An analysis of the results concluded that neither of the corrosion inhibitors evaluated in this study, using the specified repairs and exposed to the specific environments, provided any corrosioninhibiting benefit.

p-632: Effects of Geosynthetic Reinforcement Spacing on the Performance of Mechanically Stabilized Earth Walls: This report is part of an effort to refine the design of Mechanically Stabilized Earth (MSE) walls with modular block facing. The study simulated the construction of a reinforced soil wall up to failure with two-dimensional finite difference computer program. Results of the study indicate that reinforcement spacing controls the failure mechanism and affects considerably the performance and internal stability of MSE walls. The results of the study infer that the beneficial effects of reinforcement spacing in MSE systems should be considered as a component of sound design.

Publications & Software

p-633: A Soil Bioengineering Guide - for Streambank and Lakeshore Stabilization: This guide illustrates many soil bioengineering techniques being used by various

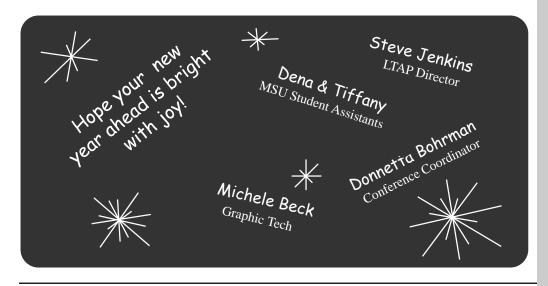
agencies and private industry to stabilize streambanks. It is essential that one have a firm grasp of the functions of the watershed and its riparian ecosystem before executing any of the soil bioengineering techniques presented in this guide. Look at the big picture and find the cause. Treat the cause; not the symptom.



Software

SW-500: Beyond the 7 Habits - Stephen R. Covey: Three cds that outline leadership qualities.

SW-505: The Leader in You - Dale Carnegie & Associates, Inc. Two cds regarding "How to Win Friends, Influence People, and Succeed in a Changing World." The ability to communicate and motivate people will determine who wins and who loses.



New 2003 MUTCD Order Information

For complete information about the new 2003 MUTCD (Manual on Uniform Traffic Control Devices), visit Federal Highway Administration's web site: http://mutcd.fhwa.dot.gov

They list the 2003 Change List in PDF format, 219 pages, or 2003 Change list in HTML format. There are three access sites to order the new manual at ATSSA (listed below), ITE, or AASHTO.

ATSSA's website: www.ATSSA.com
You can download their order form for the 2003 Manual and also catch the latest news regarding the American Traffic Safety Services Association. Please note that they will be shipping these manuals at the end of January, beginning of February. If you do not have website access, please call Montana LTAP 1-800-541-6671 and we will fax or mail you a copy of this order form.

"A positive attitude will not solve all your problems, but it will annoy enough people to make it worth the effort."

-Herm Albright



Local Technical Assistance Program 407 Cobleigh Hall PO Box 173910 Montana State University-Bozeman Bozeman, MT 59717-3910



Non-Profit Org. U.S. Postage PAID Permit No.69 Bozeman, MT 59715

Approximately 1600 copies of this public document were published at an estimated cost of \$.81 per copy for a total cost of \$1,290 which includes \$1,000 for printing and \$290 for distribution.

П

MDT attempts to provide accommodations for any known disability that may interfere with a person participating in any service, program or activity of the Department. Alternative accessible formats of this document will be provided upon request.

Please send us any comments or concerns you may have regarding this newsletter with your name and address in order that we may respond in a timely manner. The Local Technical Assistance
Program Newsletter is published quarterly.
Funding for this program is provided by
the Federal Highway Administration
through the Montana Department of
Transportation, Montana State University
and a portion of Montana's gas tax
revenues.

This newsletter is designed to keep you informed about new publications, techniques and new training opportunities that may be helpful to you and your community.

Individuals wishing to receive future copies of the newsletter at no cost may send their request to LTAP, 407 Cobleigh Hall, PO Box 173910, Montana State University-Bozeman, Bozeman, MT 59717-3910, or call 1-800-541-6671.

Editorial Contributions Welcome

LTAP welcomes contributions to LTAP *Matters*. Those wishing to submit relevant material to be published in the next newsletter can submit their ideas and articles to:

Michele Beck Local Technical Assistance Program 407 Cobleigh Hall PO Box 173910 Montana State University-Bozeman Bozeman, MT 59717-3910

(800) 541-6671 or (406)994-6100

Fax: (406) 994-5333

email: mbeck@coe.montana.edu