

Country Roads & City Streets

WV Local Technical Assistance Program

Summer 2009

College of Engineering & Mineral Resources

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WV WOMEN WORK! ROADS SCHOLAR I GRADS

Sabrina DeVall, Public Relations Assistant, WV LTAP



Charleston Program

Clockwise from Front: Patricia Fay, Melissa Bird, Emily Matheny, Vickie Stowers, Tiffany Bowles

The WV LTAP is pleased to announce that 18 individuals recently graduated from the WV Roads Scholar I Program. The graduates are all enrolled in WV Women Work!, a statewide nonprofit organization that supports and advocates the education, employment, and economic equity for all women.

As participants in the WV Women Work! program, individuals can take advantage of Step-Up for Women; an employment-based skilled trades training program designed to prepare adult women for entry level positions in the construction industry and for



Martinsburg Program

Clockwise from Front: Annette Grantham, Alfrieda England, Tiffany Williams

registered apprenticeships. The WV LTAP enjoys partnering with the Step-Up for Women program and providing Roads Scholar I classes.

In order to become a Roads Scholar I graduate, participants must attend and complete eight classes. Training is provided free of charge and is conducted by the WV LTAP staff.

All Roads Scholar I graduates receive a framed certificate, a Roads Scholar ballcap, and a coffee mug. We are very proud of all our graduates and wish these women the best of luck.



<http://wvltap.wvu.edu>

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WV WOMEN WORK! ROADS SCHOLAR I GRADS

Country Roads & City Streets is a quarterly publication of the West Virginia Local Technical Assistance Program (WV LTAP). The purpose of this newsletter is to provide information that is beneficial to roadway construction and maintenance personnel.

The material and opinions contained in this newsletter are those of the WV LTAP and do not necessarily reflect the views of the Federal Highway Administration or the West Virginia Department of Transportation. Material contained in Country Roads & City Streets is a combination of original and borrowed material. Every effort has been made to ensure the integrity and accuracy of this material; however, the West Virginia LTAP does not assume responsibility for any incorrect material.



Enhancing Transportation
in Your Community



Morgantown Program

First Row: (L to R)
Stephanie Clemens,
Adriane Schauffner

Second Row:
Crystal Lefevers,
Paula Reynolds,
Christine Brown

Third Row:
DeeDee Loughrie,
Katherine Millican

Fourth Row:
Regina Eddy,
Patricia Trujillo

Not Pictured:
Judith Walker



Andrew Morgan takes participants outside during the Control of Utility Cuts class to assess a utility cut firsthand.

Graduates with the WV Women Work! program completed the following eight Roads Scholar I classes:

Equipment Operation and Worker Safety
Proper Signs and Markings
Asphalt Roads: Common Maintenance Problems
Tort Liability / Risk Management

Control of Utility Cuts
Work Zone Traffic Control
Winter Maintenance
Successful Supervision

WV LTAP's ROADS SCHOLAR I PROGRAM



In March 2009, Peggy Emery with the WVDOH successfully completed the Roads Scholar I Program. The WV LTAP congratulates Peggy on her hardwork and wishes her good luck in the future!

The statewide RS I program is designed for local and state level trans-

portation personnel to expand their knowledge and improve their skills in roadway maintenance and management techniques. There is no cost to participants and we try to make sure participants do not have to travel more than one hour each direction to attend our sessions. The RS I program is a great way for roadway agencies to keep their employees properly trained and educated on efficient and safe roadway maintenance and management techniques.

For more information, visit our website at <http://wvltap.wvu.edu>, or contact Andrew Morgan at (304) 293-3031 ext. 2629, or email Andrew.Morgan@mail.wvu.edu.

NEW MATERIAL AVAILABLE IN THE LENDING LIBRARY

DVDs

University Course on Pedestrian and Bicycle Transportation; FHWA

Pavement Preservation Toolbox, 2nd Edition; FHWA

Median Barriers: A Solution to Cross-Median Crashes; FHWA

CD-ROMs

Comprehensive Intersection Resource Library; FHWA

Turner-Fairbank Highway Research Center: Human Centered Approach; FHWA

Publications

Minimum Retroreflectivity Levels for Blue and Brown Traffic Signs

Informational Report on Lighting Designs for Mid-Block Crosswalks

Soil Stabilization: Driving on a Solid Foundation

A complete listing of other great DVDs, CD-ROMs, and publications with material descriptions can be found by visiting <http://wvltap.wvu.edu/library.htm>. Please contact Mark Franz at (304) 293-3031 ext. 2611 or email Mark.Franz@mail.wvu.edu to request library resources. Materials are provided free of charge for a two week lending period. The only cost to you is mailing the materials back to the WV LTAP Center.



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STAFF CHANGES AT THE WV LTAP



*Andrew Morgan, P.E., PTOE
Program Coordinator, WV LTAP*

The WV LTAP is proud to welcome back Andrew Morgan. Andrew worked for the Center from 2001-2002 as a technical assistant and is returning to us now as the new program coordinator. Andrew will be instructing courses, providing technical assistance, and overseeing day-to-day operations of the Center.

Andrew earned a B.S. in Civil Engineering in 2001 and an M.S. in Civil Engineering in 2003, both from West

Virginia University. He worked as a WVDOH Co-op from 1999-2000 while an undergraduate. From 2003-2009, he worked at TranSystems in Dublin, OH as a traffic engineer. Andrew likes to hike and spend time with friends.

“I’m really excited to be returning to the WV LTAP and am looking forward to the opportunity. It’s a new beginning with familiar faces,” he says.

Kevin Butler joins the WV LTAP as a technical assistant. He was raised in northwest Arkansas and moved to West Virginia to attend West Virginia University. Kevin says, “The scenic mountains and Mountaineer pride are what attracted [him] here above all else.”

Kevin obtained a B.S. in Civil Engineering in May 2009 and is currently pursuing an M.S. in Civil Engineering. Kevin worked as an engineering intern for a small civil engineering consulting firm in Eureka Springs,

Arkansas during the summer of 2008. Prior to that, he worked as a carpenter during the summers from 2005-2007 in the Hampton Roads area of Virginia. These experiences provided invaluable insight related to both the design and construction phases of engineering.

Kevin’s hobbies include automobile restoration, fishing, hiking, and sailing. “I look forward to furthering my education at West Virginia University and being a part of the WV LTAP team,” he says.



*Kevin Butler, Technical Assistant,
WV LTAP*

We are very pleased to announce that Mark Franz has been accepted into the Ph.D. program at the University of Maryland in the Department of Civil Engineering. He has been awarded the A. James Clark (AJC) Fellowship and will begin his studies in the fall semester of 2009.

Mark will be working with the transportation research group and will be involved with projects of Intelligent Transportation Systems (ITS) and infrastructure optimization.

Upon completion of his studies, Mark hopes to one day become a professor of civil engineering.

“I would like to thank all of the students, staff, and faculty that have made my experience at West Virginia University very enjoyable. I would also like to thank the West Virginia Local Technical Assistance Program for offering me a research assistantship that allowed me to pursue my master’s degree at WVU, and I would especially like to thank Kim Carr, Dr. Ron Eck, and Dr. John Zaniwski for all of their support and guidance through my studies at WVU,” Mark says.

We are very sad to see Mark leave, but wish him all the best of luck. Congratulations!



*Mark Franz, Technical Assistant,
WV LTAP*

ROAD SAFETY AUDITS

Sabrina DeVall, Public Relations Assistant, WV LTAP

A Road Safety Audit (RSA) is the formal safety performance examination of an existing or future road or intersection by an independent, multidisciplinary team. Road safety audits serve as an effective tool to improving transportation safety because the goal is to answer the following questions:

What elements of the roadway present a safety concern: to what extent, to which road users, and under what circumstances?

What opportunities exist to eliminate or mitigate identified safety concerns?

Road safety audits are beneficial because they promote awareness of safe design practices and consider human factors in all facets of design, often reducing the number and severity of crashes. Another benefit of RSAs is that they can be used in any phase of project development from planning and design to construction. They can also be used on any size project from minor intersection and roadway retrofits to mega-projects.

Conducting Your Own RSA

The FHWA Office of Safety has established a peer-to-peer (P2P) program to provide assistance to agencies considering or conducting RSAs. This program can help agencies solve technical or procedural questions by providing free and convenient access to professionals experienced in RSAs.

Agencies can contact a P2P coordinator who will then match the agency with a transportation professional experienced in RSAs. The matched peer and agency will then work out the details of the assistance to be provided. For free access, call (866) P2P-FHWA, email SafetyP2P@dot.gov, or visit <http://safety.fhwa.dot.gov/rsa>. The WV LTAP is also able to help conduct an RSA or can offer an RSA workshop. Please contact Andrew Morgan for additional information.



This RSA identified the marked crosswalk (shown in left image) that was not visible to approaching southbound motorists (driver's view shown in right image) because the crosswalk was located behind a small crest in the roadway.



Based on recommendations of the RSA team, a pedestrian crossing sign was installed, clearly indicating the location of the marked crosswalk and thereby enhancing pedestrian safety. (Southbound driver's view is shown in the right image.)

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The West Virginia LTAP Center is a part of the nationwide Local Technical Assistance Program (LTAP), which is funded by the Federal Highway Administration. The program also receives funding from the WV Department of Transportation.

Mission:

The mission of the WV LTAP is to foster a safe, efficient, and environmentally sound surface transportation system by improving skills and increasing knowledge of the transportation workforce and decision makers.

Overall Goal:

The Center’s overall goal is to improve the transportation system by focusing on professional training, technical assistance, and information dissemination.

To achieve this goal, the WV LTAP does the following:

- Provides on-site training and demonstrations
- Publishes a quarterly newsletter
- Maintains a video, CD-ROM, and publications library
- Provides technical assistance via mail, telephone, fax, email, or site visits



The WV LTAP asks you to take a moment to update your contact information. Please complete the following form and fax to (304) 293-7109 or mail to: WV LTAP, WVU-CEE, PO Box 6103, Morgantown, WV 26506-6103.

Name _____

Job Title _____

Organization _____

Address _____

City _____ State _____ Zip _____

Phone _____ Fax _____

Cell _____ Email _____

- Add me to your mailing list. Keep me on your mailing list.
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Country Roads & City Streets is available electronically at our website or by email. If you would like to stop receiving paper copies of the newsletter and receive only electronic copies instead, please let us know.

- Send Country Roads & City Streets to me electronically.
 Send Country Roads & City Streets to me in printed form.

NEEDS ASSESSMENT SURVEY

The WV LTAP is constantly striving to improve our Center and our services to you. We have posted a link on our website at <http://wvltap.wvu.edu> to a **needs assessment survey**. This survey will help us know what your greatest training and technical assistance needs are and will help us better meet your needs. We encourage you to take a few minutes to fill out this needs assessment survey. If you would prefer a printed copy, please contact Kim (see contact info, page 5).

UPCOMING WVDEP WORKSHOP

The WVDEP is hosting “Managing Wet Weather with Green Infrastructure,” presented by the Environmental Protection Agency. This workshop is targeted to municipalities that deal with wet weather issues. If you manage stormwater, whether in your sanitary collection system (CSO) or in your storm sewer system (MS4), this workshop is for you.



The workshop will be held July 21-22, 2009 at the WVDEP’s training room facility in Kanawha City. For more information, please visit our website and click the link to the WV Small MS4 Program. You can also contact Sherry Wilkins, MS4 Coordinator, at (304) 926-0499, ext. 1048.

WEST VIRGINIA UNIVERSITY'S GREEN ROOF

Kim Carr, Program Coordinator and Sabrina DeVall, Public Relations Assistant, WV LTAP

Plants purposely grown on roofs: This is a process referred to as green or vegetated roofs.

Green roofs are an environmentally friendly alternative to traditional roofs. They provide many environmental and economic benefits and are aesthetically pleasing. Green roofs are also beneficial because they effectively decrease loads on combined sewer systems (CSS) and may reduce or sometimes prevent stormwater-related fees and taxes.

Green roofs have been used in Europe for more than 25 years, but the idea has only recently gained popularity in the US. Cities across the country are utilizing this environmentally-friendly alternative and West Virginia has taken its own interest in implementing green roofs into architecture.

Members of the WV LTAP Advisory Board recently had the opportunity to learn more about green roofs and specifically the green roof on West Virginia University's Brooks Hall during the May 14, 2009 quarterly board meeting.

Brooks Hall originally opened in



Photo of the green roof on Brooks Hall at West Virginia University.

1950. In 2005, a 20 month renovation project began and the building reopened in 2007. Brooks Hall now has energy-efficient windows and an energy-efficient HVAC system, in addition to the environmentally friendly green roof.

The initial costs of this roof were higher than traditional roofing systems, though the costs will eventually pay for themselves as the roof has a longer usable life than a conventional roof. It also saves money by providing insulation to the building.

Choosing the green roof helped the Brooks Hall renovation project comply with Morgantown's stormwater runoff requirements. The City of Morgantown requires a 10% reduction of pre-construction values. The reduction is typically achieved by installing underground storage tanks, collection ponds, or ground swales to collect and slowly release the runoff. The green roof, however, presented an alternative solution for reducing stormwater runoff.

WVU Green Roof Benefits

Extended Usable Life - The roof has a PVC membrane on it that typically carries a 30 year warranty. Because the main cause of PVC roof failure is UV rays, placing the soil over the membrane extends the expected life of the membrane by 60%. The usable life of the roof system is now estimated at 50 years.

Insulation - The soil provides a wonderful R-value to the already well-insulated building as it does not absorb or transmit heat and cold like a typical roofing system. The heating and cooling load is much less with this roof type.

Lower Temperatures - The radiant heat released into the atmosphere outside from the green roof has been measured by the weather station on the roof at 30 degrees cooler in the summer than a typical roofing system.

Air Quality - The plants absorb dust and noise, consume carbon dioxide, and produce oxygen.

The plants used on the Brooks Hall green roof are a good choice because they do not require extensive maintenance. The plants are a very hardy variety of sedums, including Reflexum, Sexangulare, Album, and others.

Other places in West Virginia are also taking an interest in green roofs. Students at Musselman High School in Berkeley County recently created a green roof on top of their school with the help of a science teacher. The students committed more than 250 hours to the project and moved more than 12,000 pounds of soil from the ground to the rooftop. **More information on this story and a video can be found at <http://your4state.com/content/fulltext/?cid=66361>.**



Photos compliments of WVU Facilities.

UPCOMING TRAINING



Work Zone Traffic Control (Half-day RS I Class) – July 9, 2009; 8:30 AM-12:00 PM; Public Works Shop, Fayetteville, WV

Work Zone Traffic Control (Half-day RS I Class) – July 21, 2009; 8:30 AM-12:00 PM; Public Works Center Assembly Room; 902 N 3rd Street, Clarksburg, WV

Traffic Calming (Full-day RS II Class) – July 8, 2009; 8:30 AM - 3:30 PM; Fayette County Board of Education Offices, 111 Fayette Avenue, Fayetteville, WV

Traffic Calming (Full-day RS II Class) – July 14, 2009; 8:30 AM - 3:30 PM; WVDOH D-5 Headquarters Conference Room, Burlington, WV

All classes are free of charge but registration is required. Please contact Kim at 304-293-3031 ext. 2612, kim.carr@mail.wvu.edu, or Sabrina at 304-293-3031 ext. 2662, sabrina.devall@mail.wvu.edu to register or for more information. You can also visit the website for a complete description of each course.

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IT'S A GIRL!

Welcome, Amelia Marie DeVall!
Born April 3, 2009, Amelia is the daughter of WV LTAP Public Relations Assistant Sabrina DeVall and her husband, Doug. Amelia weighed 7 lbs, 10 oz. and was 19.5" long. She has one brother, Kane.