

Also Inside:

Dealing with the Media

Emergency Preparedness

Preparing for Snow and Ice

Protecting Yourself Against Pesticides

Safety Circuit Rider Update

Tow Operators TIM Compliant

# Snow and Ice Removal Route Optimization in Kentucky

Eric Green, PE, KTC Research Engineer

Benjamin Blandford, PhD, KTC Research Scientist

Each year, the Kentucky Transportation Cabinet (KYTC) spends \$40 - \$80 million removing snow and ice from the state's roadways. During a snow event, trucks follow previously established routes. Currently, routes are largely county-based, with each county having a specific number of trucks and facilities available to address its needs. Routes in each county are divided into categories and prioritized based on several factors, with Average Annual Daily Traffic (AADT) being the most influential. Routes are cleared and treated within given timeframes based on their assigned priority.

While the current snow and ice treatment system is functionally effective, it has not been tested for efficiency. KYTC was interested in examining the network and procedure to determine if there was a potential to optimize the system. They contacted the Kentucky Transportation Center (KTC) at the University of Kentucky, College of Engineering to perform an analysis of Geographic Information System (GIS) based methods to determine the feasibility of new methods.

KTC started by evaluating the current routes as a control. Each district has a snow and ice book that outlines the currently used control routes. Routes were compiled in the Network Analyst feature of ArcGIS. ArcGIS is a geographic information system for working with maps and other geographic information. The time required for the routes were calculated through Network Analyst and a total time was tallied for all routes.

The next step was to create new routes for the pilot districts with the goal of improving the efficiency and simplicity of truck routes. KTC developed new routing solutions for each county and then combined them to show all the county-level routes within a district.

All routes, including the existing control routes and the newly created routes, were developed using Esri's Network Analyst. Routes were set up as a Vehicle Routing Problem (VRP), which finds the best routes for a fleet of vehicles to service many orders or deliver products. In this case, salt was the product being delivered to specific sites along roadways.

Initial results were promising and showed an overall 8.4% improvement across the district in treatment time. However, after closer examination, it was determined the routes produced by this model were overly complicated and not feasible. It also did not allow the truck drivers to become familiar with the routes they run.

Route Optimization, continued on p. 9



Routing Box

Routing box with horizontal lines for text entry.

# Preparing for the Snow and Ice Season

*Amy I. Terry, Marketing, Outreach and Publications Manager*

Today's motorists expect roads to be open and reasonably safe in almost any type of weather. A road department's ability to remove snow efficiently and open roads quickly is of key importance in the eye of the public.

Snow and ice control operators have two goals: make roadways passable, and provide adequate pavement friction to allow vehicles to brake, turn and accelerate safely.

Preparation for snow and ice removal begins long before the first flake falls. Agencies should have a snow and ice pre-season procedure in place that includes training, preparing and inspecting equipment, and following a checklist that covers a variety of topics.

Daniel Branham, Pike County Road Supervisor, said they start preparing for the first snowfall in October. "We put all spreaders and spinners on trucks and make sure everything is in working order," he said. In addition, they drive all the routes before the first snow to make sure the operators are familiar with their specific route and have ample room to turn around.

## TRAINING

Proper training for maintenance personnel is vital. Many organizations conduct training courses in the fall to ensure that equipment operators understand how to operate and maintain plows, spreaders, loaders and other equipment used for winter maintenance. This also gives employees the opportunity to be familiar with their responsibilities and have a full review of snow removal schedules and routes.

## EQUIPMENT

Discuss each type of equipment that employees will operate. Describe performance capabilities, load and weight limits, safety considerations, attachments and modifications. In Pike County, operators are responsible for their own truck. This policy provides a feeling that the equipment belongs to the employee which will compel an operator to show more responsibility for its upkeep.

Inspect equipment in early fall so repairs can be made ahead of the first snowfall. Pumps, hoses, and fittings should be inspected on spreaders. Snow plow blades should be carefully inspected. Snow plows do not wear evenly and should be replaced when they are worn at any point. Inspect and service all lighting and electrical equipment including wiring and sockets. Operators should carry ample stocks of parts for rotating flasher units including lenses and lamps. Finally, make sure there are flashlights, flares, flags, safety vests and a first aid kit in the truck.



Snow and Ice, continued on p. 6

# Are Your Tow Operators TIM Compliant?

*Megan Perrin, T2 Conference Coordinator*

In an effort to keep all first responders safe, the Kentucky State Police (KSP) has teamed up with the Technology Transfer Program to provide training for all first responders. The National Traffic Incident Management training (TIM) addresses the challenges of moving people and goods efficiently and safely on the nation's highways, by focusing on response efforts that protect motorists and responders while minimizing the impact on traffic flow. Using a multiple discipline perspective, first responders will learn how to operate more efficiently and collectively while at an incident scene.



Although this training has been taught to first responders around the nation since its inception in 2013, beginning January 2018, all operators/assistants of towing equipment will be required to have completed the TIM training in order to be on the Kentucky State Police wrecker list. This includes any person requested by KSP to respond to an incident, whether driving the apparatus or there to assist. The order issued by KSP reads:

“Due to General Order OM-B-13 published by the Kentucky State Police (KSP), effective April 1, 2017, all wrecker service owners and drivers shall complete the National Traffic Incident Management Responder Training (TIM) in order to remain on KSP’s wrecker log, no later than December 31, 2017. Those wrecker services not in compliance will be immediately removed from the log for three years”.

This training is offered in two methods: attend a training near you or take the online version of the training. Both methods have been approved by KSP. After completing the training you will receive a certificate and wallet card via email. A copy of each card will also need to be photocopied and provided during your yearly wrecker inspection that is completed by KSP. For any new employee that is hired after January of 2018, he/she will have three (3) months from their hire date to complete the class. Any employee on scene without this qualification will result in the business being removed from KSP’s list for no less than a three (3) year minimum.



This training is offered completely free of cost!

Visit our website at <http://www.kyt2.com/training/event/traffic-incident-management> to see upcoming trainings near you, or to take the online version.

If you have any questions, contact Megan Perrin, TIM Coordinator, at [megan.perrin@uky.edu](mailto:megan.perrin@uky.edu) or 800-432-0719. 

## Update: Safety Circuit Rider Program

*Valerie Pitts, T2 Local Government Liaison*

It was a deadly year on Kentucky roads in 2015. There were over 5,000 non-fatal crashes and 85 fatal crashes on county roads and city streets. As a means of improving safety on local roads and reducing crashes and fatalities, the Federal Highway Administration (FHWA) introduced the Safety Circuit Rider Program (SCRCP) in 2005 and established Kentucky as a pilot program. Today, the SCRCP is funded through a grant from FHWA – Kentucky in coordination with the Kentucky Transportation Cabinet (KYTC). The Program operates from the Technology Transfer Program (T2) of the Kentucky Transportation Center (KTC) at the University of Kentucky. With the cooperation of local, state, and federal agencies, Kentucky's program is now a national model.

The SCRCP focuses on locally owned roads, however, the program works with KYTC districts on any location where a local road intersects with a state maintained road. The Program focuses on low cost safety measures and teaches the local agencies the importance of minor safety precautions such as; removing vegetation and fixed objects, updating signs to meet MUTCD standards, setting curve advisory speeds, and correcting water runoff and drainage. This technical advice is offered free of charge and is helping communities across Kentucky save lives every day.

Although the SCRCP is available for technical assistance to any local agency, six focus counties are selected each year. These counties are selected because they have shown a critical crash rate from 2007 to 2015. Working together with county elected officials and road crews, all parties can leverage their combined knowledge of safety and community issues to reduce road crashes, injuries, and fatalities. Effective collaboration and communication among community and safety stakeholders is necessary in order to achieve ambitious yet achievable safety goals.

Jeff Hackbart, P.E. is the current Safety Circuit Rider for Kentucky. He served as the Public Works Director and City Engineer for the city of Frankfort for nearly 20 years.

The six counties chosen for 2017-2018 are: Graves, Laurel, Madison, Ohio, Warren and Whitley. T2 will be reaching out to officials in these counties to review their crash data and the program. We are looking forward to working with these counties to bring awareness of safety issues.

For additional information on the Safety Circuit Rider Program, visit our website at [www.kyt2.com](http://www.kyt2.com).



*Before*



*After*

Crittenden County Improvements through the Safety Circuit Rider Program

# Protecting Yourself Against Pesticides

*Amy I. Terry, Marketing, Outreach and Publications Manager*

**P**esticides are chemicals that control pests. They can include insecticides, herbicides and fungicides. Unfortunately, pesticides can also hurt people, animals and the environment if they are not used according to label directions.

Those who handle pesticides most often get sick because the pesticide is spilled or splashed onto their skin. If you handle pesticides or work in an area where pesticides are used, it is important to wash your hands thoroughly every time you take a break or leave the area.

Too much exposure to some pesticides may make you feel tired or dizzy. Overexposure to pesticides can also cause stomach cramps, vomiting, headaches, or blurred vision. Additional symptoms include excessive sweating, chest pains or trouble breathing. Exposure to fungicides and herbicides may give you a skin rash or burn.

All pesticide labels have an emergency first aid section that you should review prior to using the pesticide. If you begin to feel dizzy, sick, or have trouble breathing when working with pesticides, stop what you are doing right away. If a pesticide gets on your skin, wash the area thoroughly with soap and water. If the pesticide gets in your eyes, rinse them right away with an eyeflush kit or allow a gentle stream of clean water to flow across them. Hold your eyelids open and keep rinsing your eyes for about 15 minutes. In the event that the pesticide has been inhaled, get to fresh air immediately, sit down and call for help.

Personal protective equipment (PPE) helps to keep pesticides from getting on or in your body. PPE may include gloves, shoe covers, aprons, goggles, or respirators. PPE must be made from a material that is chemical resistant. Before putting on the PPE, check for any tears, holes or signs of excessive wear.



*Joe Smith from KDOH Dist 5 is demonstrating proper PPE with instructor, Doug Luscher.*

In Kentucky, it is required that any person handling, applying, or supervising the use of pesticides as part of that person's job must be certified and licensed by the Kentucky Department of Agriculture. The Technology Transfer Program (T2) at the University of Kentucky is offering training and testing for the 2017-2018 training season in Categories 3, 5 and 6 and continuing education for Categories 3, 5, 6 and 18.

## CATEGORY 3, 5, AND 6 TRAINING AND TESTING

In order to prepare participants to take the certification exam, there will be six hours of classroom instruction, and at the completion of the training, the Department of Agriculture will administer the exam. These courses offer three general hours and one specific hour per category of continuing education training.

Fee: \$130 for one category, \$140 for two categories, \$150 for all three categories

Pesticides, continued on p. 9

## Snow and Ice, continued from p. 2

### SNOW AND ICE REMOVAL PRE-TRIP CHECKLIST

When snow is predicted, it is good to go through a list of items prior to departure. The last thing an operator wants is to be out in a storm and have an issue with their equipment. Under the hood, the oil, coolant, and washer fluid levels should be checked. In addition, check that there are no loose or damaged belts or hoses. The operator should take a walk around the truck and inspect the mirrors, lights, reflectors, tires, wipers, and any attached equipment. Inside the cab, check that there is necessary safety equipment such as a flashlight and first aid kit.

To help maintain the equipment, a post-storm review is also recommended. This would include washing the trucks and equipment, and checking the blades. Look over all equipment and check for cracks or damage and address the repair immediately. Lastly, do another walk around the truck and check tires, lights and wipers.

A little planning before the first snowfall will help prevent equipment failure and resulting accidents, injuries and deaths.

The Technology Transfer Program (T2) offers a Snow & Ice Removal course as part of the Road Master Program. It covers pre-trip inspection and maintenance of the truck, snow plow and spreader. It also helps attendees identify different snow conditions. For a list of upcoming training, visit our website at [www.ky2.com](http://www.ky2.com). Another option is to request an On Demand training which is offered to provide low cost training to agencies. T2 provides the instructor and training material, and the agency provides the meeting room, AV equipment and on-site assistance. For information about On Demand training, contact T2 at 800-432-0719. 

### Snow and Ice Checklists

Example of checklist items.

#### **Pre-Season Checklist**

- Tire tread and pressure**
- Leaking fluid**
- Fluid levels**
- Interior lights and gauges**
- Windshield and wiper blades**
- First Aid Kit**
- Condition of plow blade**
- Warning lights, reflectors**
- Address mechanical issues before the first snowfall.**

#### **Pre-Storm Checklist**

- Tires**
- Fuel level**
- Wiper blades**
- Plow Mount**
- Safety equipment inside cab**
- Plow blade**

#### **Post-Storm Checklist**

- Empty bed and wash thoroughly**
- Check fluid levels and refill**
- Check the plow, cutting edge and spreader**
- Report any maintenance issues that need to be addressed before next snowfall.**

Sources:

*Local Roads Maintenance Workers' Manual*, Iowa State University, Institute for Transportation,  
[http://www.ctre.iastate.edu/pubs/maint\\_worker/](http://www.ctre.iastate.edu/pubs/maint_worker/)

*Snowfighter's Handbook*, Salt Institute,  
<http://saltinstitute.org/wp-content/uploads/2015/02/SASS-Handbook-2016-1.pdf>

# Is Your Agency Prepared for an Emergency?

**D**uring a disaster, are you confident that your organization can protect the lives of everyone at your facility?

If a tornado warning is issued, do your coworkers know where to go and find shelter in less than 14 minutes?

Is your organization prepared to handle a prolonged power outage?

If you answered “no” to any of these questions, then your agency should take steps now to prepare for disasters and other emergencies. Emergencies are inevitable.

The American Red Cross Ready Rating program is a free, self-guided program designed to help businesses, organizations and schools become better prepared for emergencies. Members complete a ReadyGo or ReadyAdvance assessment and have access to tools, tips and best practices to help improve their level of preparedness.

After joining the Ready Rating Program online, the next step is to take an assessment. There are two assessments to choose from: ReadyGo and ReadyAdvance. ReadyGo is a basic assessment that focuses on the most critical preparedness steps your organization should take in order to better prepare for disasters and other emergencies. ReadyAdvance is an in-depth assessment that measures your organizations existing preparedness plans allowing you to implement actions to take your preparedness to the next level. The assessment consists of five sections that score emergency preparedness efforts in terms of commitment, knowledge of hazard vulnerability, emergency planning, plan implementation and community resiliency.

The next step is to create an Emergency Action Plan (EAP). An EAP describes the steps your

## American Red Cross **Ready Rating™**

organization will take to protect the agency and employees before, during and after an emergency. The Occupational Safety and Health Administration (OSHA) has a rule in place that mandates every organization to have an EAP. Smaller organizations can verbally discuss their plan, however organizations with ten or more staff must have a written plan that is available for review by all employees.

The Ready Rating program provides two fully customizable versions of an EAP. The templates are accessible online and can be downloaded for customization for each agency's needs. Each of the two plans exceed the six requirements specified by OSHA for an EAP.

Once you have finalized an EAP, then it is time to improve your level of preparedness. This can be done through unlimited access to Ready Rating's large library of safety and security materials which include checklists, videos, presentations and other emergency planning tools. The material can be used to conduct drills and test your EAP.

There is no final step to being prepared for an emergency or disaster because it is a continuous cycle of assessing and planning. Material should be updated when necessary and employees should be trained on a regular basis.

By using the one-of-a-kind tools provided by Ready Rating, your company will improve its ability to withstand a disaster, maintain operations and protect lives and property.

For additional information, visit American Red Cross Ready Rating at [www.readyrating.org](http://www.readyrating.org).

## Asphalt Qualification Program

The Kentucky Asphalt Qualification Program is a partnership of the Kentucky Transportation Cabinet, the Plantmix Asphalt Industry of Kentucky, and the Kentucky Transportation Center. The purpose of the program is to develop and maintain a pool of well-trained specialists for designing and managing asphalt.

Kentucky specifications and Federal mandates require qualified technologists for all asphalt projects to assure the quality of both materials and construction. Experience and knowledge of basic asphalt concepts and testing procedures are highly recommended prior to enrollment.

### SUPERPAVE PLANT TECHNOLOGIST QUALIFICATION (SPT)

Registrants in the Superpave Plant Technologist (SPT) course should be familiar with the fundamentals of the operation of asphalt mixing plants, basic process-control tests and inspection duties, acceptance testing of asphalt mixtures, and all related calculations. Prior to registering, individuals should also be familiar with the associated testing equipment, including the devices used for asphalt binder content determination, wet-sieve analysis, gyratory compaction, and maximum specific gravity determination. This three-and-a-half day course prepares an individual to be qualified to perform daily inspection, process-control, and acceptance of verification testing as defined in the Kentucky Standard Specifications. Individuals seeking SPT qualification must attend the entire three-and-a-half day course and successfully pass a lab skills test and written exam. The cost for this course is \$800.

#### Dates:

February 6-9, 2018: Frankfort Testing Lab  
March 6-9, 2018: Frankfort Testing Lab



### SUPERPAVE MIX DESIGN TECHNOLOGIST QUALIFICATION (SMDT)

Registrants must be qualified as Superpave Plant Technologists prior to enrolling in the mix design course. Prior to registering, individuals should be familiar with the fundamentals of laboratory mix design, including aggregate preparation, aggregate-consensus-property tests, asphalt binder/aggregate mixing, volumetric tests, moisture-susceptibility tests, and all related calculations. They should also be familiar with the associated testing equipment. This three-and-a-half day course qualifies an individual to perform, submit, adjust, or approve mix designs as defined in the Kentucky Standard Specifications. Anyone seeking SMDT qualification must already be qualified as an SPT and must successfully complete the three-and-a-half day course which includes the lab skills test and written exam. The cost for this course is \$800.

#### Date:

March 20-23, 2018: Frankfort Testing Lab

For additional information on the Asphalt Qualification Program, or to register online, visit our website [www.kyt2.com](http://www.kyt2.com), or contact Megan Perrin at 800-432-0719 or [megan.perrin@uky.edu](mailto:megan.perrin@uky.edu).

Pesticides, continued from p. 7

**CATEGORY 3, 5, 6, AND 18 CONTINUING EDUCATION TRAINING**

This workshop is for those individuals who are currently licensed and who need continuing education credit in order to keep their applicator’s license.

These training courses provide three general hours and one specific hour for each of the four categories (3, 5, 6, and 18) for a total of seven hours of training if the individual holds certification in all four categories. If certification is only in one category, the individual will receive four hours (three general and one specific in the category); if certification is held in two categories, individuals will receive five hours (three general and one specific in each of two). It is understood that individuals attending the continuing education training already have certification in these areas and just need annual continuing hours.

Fee: \$99 (There is no additional charge for multiple categories for CEU training.)

**DATES**

**TRAINING AND TESTING**

- February 1, 2018 - Fairfield Inn North, Lexington
- February 8, 2018 - Barren River SRP
- February 15, 2018 - Blue Licks Battlefield SRP

**CONTINUING EDUCATION**

- November 8 - KY Dam Village SRP
- November 9 - KY Dam Village SRP
- November 15 - Jenny Wiley SRP
- November 16 - Jenny Wiley SRP
- November 21 - Holiday Inn Express, Somerset
- November 28 - Rough River Dam SRP

Additional dates can be found on page 13 or online at [www.kyt2.com](http://www.kyt2.com).

Source:  
 Protect Yourself from Pesticides: Guide for Pesticide Handlers (PDF), [www.epa.gov](http://www.epa.gov)

Route Optimization, continued from cover

In the end, KTC determined that a route tree was the best solution. The route tree structures each route around a central high priority road. This allows the drivers to become very familiar with their areas and routes. In addition, it makes it easier for drivers to address inevitable complexities of a “non-typical” winter storm. A preference was given to A routes and then built outward to address the B and C routes. Each truck route for a county began with a center truck (A route) and branched out to treat the adjoining branches (B and C routes). Truck operators preferred this approach as it allowed them to quickly gain familiarity with their routes.

Instead of tracking the total time required to treat all the routes on schedule in a county, the team tracked the total number of trucks needed per county to treat all the routes. This was useful to KYTC because they often used contract trucks for snow and ice removal.

The revised modeling indicated that KYTC could treat all routes on schedule and use fewer trucks in the process. Because fewer contract trucks are needed, KYTC can potentially realize significant cost savings. In four of the counties examined, a total of nine contract trucks could be eliminated with a cost savings of \$25,000 per truck per year.

Implementation and testing is scheduled for the 2017-18 snow season in four counties. Lessons learned from the implementation of these routes will assist the team in establishing additional routes statewide.

Local government agencies can also use this process to optimize their snow and ice removal process. For additional information on how this process can assist your agency, contact Dr. Benjamin Blandford at [benjamin.blandford@uky.edu](mailto:benjamin.blandford@uky.edu) or 859-257-7504.

Source:  
 Blandford, B., Lammers, E., & Green, E. (2017) *Snow and Ice Removal Route Optimization in Kentucky*, KTC-17-18/SPR16-529-1F

## Check Out Your World

It's time to prepare for fall and winter. Planning, maintenance and safety are major aspects of your preparation. Included in this issue are selected online resources that may help you with your work. Contact the Technology Transfer Library to help locate transportation information or resources that you need. The Librarian, Laura Whayne, may be reached at 800-432-0719 or [laura.whayne@uky.edu](mailto:laura.whayne@uky.edu).

### *Materials to Consider:*

**Federal-Aid Essentials for Local Public Agencies – FHWA** (website). <https://www.fhwa.dot.gov/federal-aidessentials/index.cfm>  
Information and resources to help local agency professionals navigate and understand the Federal-aid Highway Program.

**Local Roads Maintenance Workers' Manual. CTRE, Iowa State University, 2006** (book). [http://www.ctre.iastate.edu/pubs/maint\\_worker/](http://www.ctre.iastate.edu/pubs/maint_worker/)  
This manual describes best roadway maintenance practices for Iowa's local roads and streets, from the center line to shoulders, ditches, and drainage, with chapters on public relations, bridge maintenance, and snow and ice control.

**National Center for Rural Road Safety** (website): <https://ruralsafetycenter.org/> Focuses on improving safety on rural, local and tribal roads through education, training, tools, and technical assistance.

**Road Weather Management Program – FHWA** (website): <https://ops.fhwa.dot.gov/weather/index.asp> Provides information, best practices, and resources on the safety and mobility impacts of weather on roadways. Promotes strategies and tools to mitigate those impacts. Covers rain and flooding, snow and ice, low visibility, hurricanes, and high winds.

**Roadside Revegetation: An Integrated Approach to Establishing Native Plants** (website): <http://www.nativer Revegetation.org/>  
The website has four integrated and interlinked modules dedicated to explaining the art and science of roadside revegetation. Has information, resources, practices and project summaries and roadside revegetation.

**Small Town and Rural Multimodal Networks. FHWA-HEP-17-024. FHWA, 2016** (book). [https://www.fhwa.dot.gov/environment/bicycle\\_pedestrian/publications/small\\_towns/fhwahep17024\\_lg.pdf](https://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/small_towns/fhwahep17024_lg.pdf) A resource and idea book to help small towns and rural communities support safe, accessible, comfortable, and active travel for people of all ages and abilities.

**Web Soil Survey** (website): <https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm> Provides soil data, maps, and information produced by the National Cooperative Soil Survey. Useful for making land use and management decisions.

**Winter Operations Training Series. Iowa Department of Transportation** (15 online videos). [https://www.youtube.com/playlist?list=PLurY2WfsVWKn1Ekx7H\\_v8DjwJvXl0lN9n](https://www.youtube.com/playlist?list=PLurY2WfsVWKn1Ekx7H_v8DjwJvXl0lN9n)  
Learn about all aspects of snow and ice control and winter operations through these training videos.

*Did you know that the Link is also available in electronic format?  
To change your print subscription to electronic, contact Michele Baker at  
[michele.baker@uky.edu](mailto:michele.baker@uky.edu) or 800-432-0719.*

## Roads Scholar & Road Master Highlights

### Instructor John Fleckenstein

**J**ohn Fleckenstein has been an instructor for the Technology Transfer Program since 2004. He currently teaches Drainage: The Key to Roads that Last, which is a required class for the Roads Scholar program.



John was born in San Diego, California, and moved to Huntington, West Virginia, at 3 months old. John attended Saint Joe High School and participated in basketball. He graduated from Marshall University in 1984 with a degree in Geology.

Professionally, John has been a Project Geologist for Stokely-Cheeks and Associates, a Research Investigator at the Kentucky Transportation Center, and a Research Investigator at the Kentucky Transportation Cabinet. He is currently the owner of Highway Drainage Consultants LLC.

In his spare time John enjoys a variety of outdoor activities including sailing, backpacking, biking, golfing, fishing and hiking. He has two adult children, Leo and Shelby. Leo works full time in aquaculture research, and Shelby will be starting medical school in 2018. 

## Technology Transfer Staff

### Michele Baker

**M**ichele Baker is an Administrative Assistant in the Technology Transfer (T2) office. She maintains the mail list and has various accounting duties. Michele began working at T2 in 2014.



Michele was born and raised in Lexington, Kentucky, and attended Bryan Station High School. Following high school, she attended Kentucky State University and the Lexington School of Cosmetology. After graduating from cosmetology school, she opened her salon “Tresses” in Lexington. Although Michele enjoyed having her own salon for eight years, she decided to change her career and began to pursue administrative jobs.

Michele is involved in her community and is on the Board of Directors for the Lexington Community Land Trust. Her hobbies include reading, traveling and being active in her church. Michele also values the time she can spend with family and friends, especially her 11-year-old daughter, Amaya. 

## ASK AN ENGINEER!

Is there an engineering issue that is troubling you? Are you confused on how to address a specific road problem? Then the “Ask an Engineer” section is here to help! Submit your safety, engineering or other road questions to us and we will consult an engineer within the Kentucky Transportation Center to find an answer for you. Questions can be emailed to [amy.terry@uky.edu](mailto:amy.terry@uky.edu) or mailed to Ask an Engineer, Kentucky Transportation Center, 176 Raymond Building, Lexington, KY 40506.



**Question:** I have been seeing green bike lanes around town. Why are they green and what does it mean for me as a driver?

**Answer:** The Federal Highway Administration considers green pavement markings to be effective in increasing awareness of bike lane conflict areas. It allows bicyclists to position themselves more accurately as they travel across intersections. For drivers, it provides a visual cue to be cautious in these areas and be on the lookout for cyclists.



## Kentucky Transportation Hall of Fame

The Kentucky Transportation Center is currently accepting nominations for the Kentucky Transportation Hall of Fame.

*“Kentucky Transportation Hall of Fame inductees shall be persons who by their foresight, dedication, leadership, perseverance, and integrity have significantly enhanced transportation systems in the Commonwealth. They shall be or shall have been residents of the Commonwealth.”*

If you would like to nominate an individual for the Hall of Fame, please visit [www.ktc.uky.edu/about/kentucky-transportation-hall-of-fame/](http://www.ktc.uky.edu/about/kentucky-transportation-hall-of-fame/).

The deadline for nominations is **Friday, November 17, 2017.**

For additional information about the Hall of Fame, contact Andrew Myers at 859-218-0337 or [myers.andrew@uky.edu](mailto:myers.andrew@uky.edu).



# TRAINING CALENDAR

## November 2017 - February 2018

\* Indicates Roads Scholar course      # Indicates Road Master course      \*\*Indicates Central Standard Time Zone

### November 2017

- 15    KEPSC Inspector Requalification.....Fairfield Inn North, Lexington
- 15    Pesticide Continuing Education .....Jenny Wiley State Resort Park, Prestonsburg
- 15    Traffic Incident Management Training .....Albany Fire Station
- 16    KEPSC Inspector Qualification.....Fairfield Inn Lexington North
- 16    Pesticide Continuing Education .....Jenny Wiley State Resort Park, Prestonsburg
- 21    Pesticide Continuing Education .....Holiday Inn Somerset
- 28    Pesticide Continuing Education .....Rough River Dam SRP, Falls of Rough\*\*
- 29    Pesticide Continuing Education .....Rough River Dam SRP, Falls of Rough\*\*
- 29    Grade and Drain Level II.....Four Points by Sheraton, Lexington
- 30    Pesticide Continuing Education .....Rough River Dam SRP, Falls of Rough\*\*

### December 2017

- 5    Grade and Drain Level I.....Frankfort Testing Lab
- 6    Pesticide Continuing Education .....Fairfield Inn Lexington North
- 12    KEPSC for Roadway Inspectors.....Jenny Wiley State Resort Park, Prestonsburg
- 13    KEPSC for Roadway Inspectors.....Four Points by Sheraton, Lexington
- 14    KEPSC for Roadway Inspectors.....The Corbin Center

### January 2018

- 17    Grade and Drain Level I.....Frankfort Testing Lab

### February 2018

- 1    Pesticide Training & Testing .....Fairfield Inn Lexington North
- 6    Superpave Plant Technologist Qualification.....Frankfort Testing Lab
- 8    Pesticide Training & Testing .....Barren River Lake SRP, Lucas\*\*
- 14    Grade and Drain Level I.....Frankfort Testing Lab
- 15    Pesticide Training & Testing .....Blue Licks Battlefield SRP, Carlisle

*To check the availability of a workshop, please visit our website, [www.kyt2.com](http://www.kyt2.com).*

*To register for a class contact us at 800-432-0719.*

# Coming Soon!



## 2018 Training Calendar

The 2018 Training Calendar will be available in December.  
Additional information will be posted on our website as soon as it is available.  
[www.kyt2.com](http://www.kyt2.com)

# Tips for Dealing with the Media in a Crisis

*Amy I. Terry, Marketing, Outreach and Publications Manager*

**W**hen a crisis happens, the media can be a useful tool for disseminating accurate and timely information. An effective and constructive response can put your company in a positive light during a tough time.

## HAVE A PLAN

Having a plan in place for how to handle a crisis and the accompanying media coverage is far better than dealing with things on the fly. Never underestimate the negative impact a story can have on your agency. With planning, you are able to respond quickly and already know what to say.

Select a company spokesperson who will be the main contact so consistent information is provided to the media. The spokesperson should have been through some type of training on how to deal with the media. They need to be able to support the company under sometimes intense questioning and they should also be comfortable speaking in front of cameras or microphones.

## BE HONEST

Good news or bad, let the media know what is happening. Always be honest, and if you do not know the answer to a question, say so. Do not speculate. Release only the information you know is accurate. When necessary, have a subject matter

expert available to answer any technical questions that the spokesperson cannot answer.

The media is not your enemy. They are just as concerned as you are about what is happening and want to get the information out to the public.

## TYPES OF MEDIA

There is a variety of ways to get emergency information out to the public.

## MEDIA RELEASES

Print information must move electronically to the media or be distributed as handouts to the media at the site of the incident. By releasing information in print, it provides a historical record-in-the-making. Unfortunately, printed media releases can take time to write, review and release.

## PRESS CONFERENCE

If the media are at the site of the event, a press conference is a great way to conduct the interview in one shot and ensure that the information is consistent. It also shows that there is a process in place and the agency is ready to deal with it immediately. However, it may be difficult to get the right people in front of the media immediately.





## Kentuckians for Better Transportation

January 17-19, 2018  
Lexington, Kentucky



The 2018 KBT Kentucky Transportation Conference will be held January 17-19, 2018 at the Marriott Griffin Gate Resort in Lexington, Kentucky.

This premier event is now in its 40th year. The conference is designed to provide ample opportunity to network with and learn from leaders throughout Kentucky and the nation.

More than 500 industry participants are expected to be at the conference this year. They bring with them up-to-date knowledge and information necessary to remain successful in this industry.

The Kentucky Transportation Center will have a booth in the exhibit area. Stop by and see us at booth 33 to learn more about our research and training programs, and register to win a fabulous prize.

[www.kbt.net.org](http://www.kbt.net.org)

### WEB SITES AND SOCIAL MEDIA

Posting information to your web site or social media sites is a rapid way to inform the media and the public at one time. It will also allow you to post links that can provide detailed information when needed.

The most important thing to remember about dealing with the media is to stay calm. When you appear calm, the media and public will realize that everything is under control. 

Source:

*How to Handle the Media During a Crisis* by Bob Violino, <https://www.cio.com/article/2438594/it-organization/how-to-handle-the-media-during-a-crisis.html>

*Working Effectively with the Media*, [https://www.orau.gov/cdcynergy/erc/content/activeinformation/essential\\_principles/EP-media\\_content.htm](https://www.orau.gov/cdcynergy/erc/content/activeinformation/essential_principles/EP-media_content.htm)

**Publication Statement** *The Link*© is published quarterly by the Kentucky Transportation Center, College of Engineering, University of Kentucky, using funds from the Federal Highway Administration and the Kentucky Transportation Cabinet. The opinions, findings, or recommendations expressed in this newsletter are those of the Kentucky Transportation Center and do not necessarily reflect the views of the Federal Highway Administration nor the Kentucky Transportation Cabinet nor the University of Kentucky. Any product mentioned in *The Link* is for informational purposes only and should not be considered as a product endorsement. Comments may be addressed to: Kentucky Transportation Center, 176 Raymond Building, University of Kentucky, Lexington, KY 40506-0281. Phone: 859-257-7466 or 800-432-0719.

Staff include:

Joe Crabtree, Ph.D., P.E. Director, Kentucky Transportation Center  
Martha Horseman, Program Manager, Technology Transfer Program  
Amy I. Terry, Editor, Technology Transfer Program



The Link is printed on recycled paper.



*Kentucky LTAP Center*



Kentucky Transportation Center  
 Technology Transfer Program  
 176 Raymond Building  
 University of Kentucky  
 Lexington, Kentucky 40506-0281  
[www.kyt2.com](http://www.kyt2.com)

Non-Profit Org.  
 U.S. Postage Paid  
 Lexington, KY  
 Permit No. 51



THE LINK, Kentucky Transportation Center, Technology Transfer Program

# Congratulations!

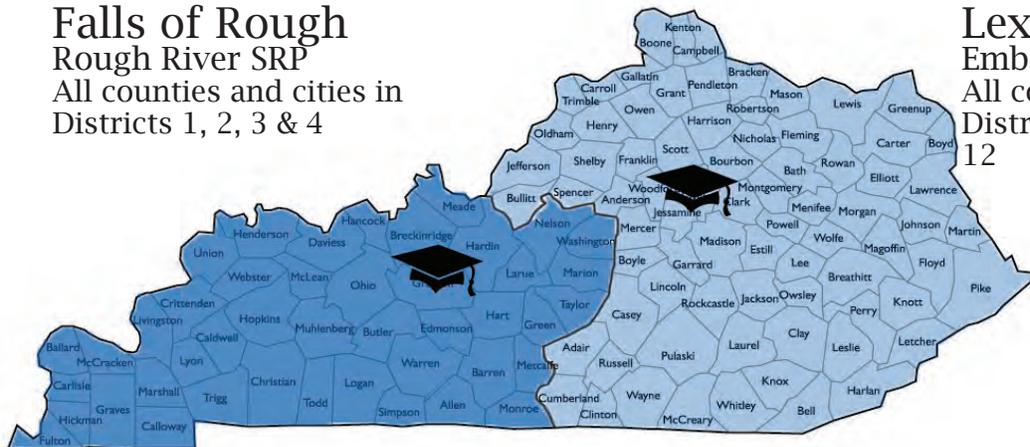
The Technology Transfer Program at the Kentucky Transportation Center is proud to celebrate the achievements of our 2017 Roads Scholar and Road Master Graduates.

## December 6th

Falls of Rough  
 Rough River SRP  
 All counties and cities in  
 Districts 1, 2, 3 & 4

## December 7th

Lexington  
 Embassy Suites  
 All counties and cities in  
 Districts 5, 6, 7, 8, 9, 10, 11 &  
 12



## In This Issue:

*If you think you are graduating but have not received a graduation letter, please contact Becky Boston at (859) 257-4509 or [becky.boston@uky.edu](mailto:becky.boston@uky.edu).*

Snow and Ice Removal Optimization .....	Front Cover	Asphalt Qualification Program .....	8
Preparing for Snow and Ice Season.....	2	Check Out Your World - Library .....	10
Are Your Tow Operators TIM Compliant?.....	3	Ask an Engineer/Hall of Fame.....	12
Update: Safety Circuit Rider Program.....	4	Training Calendar .....	13
Protecting Yourself Against Pesticides.....	5	Tips for Dealing with the Media in a Crisis .....	14
Is Your Agency Prepared for an Emergency?.....	7	Congratulations Graduates.....	Back Cover