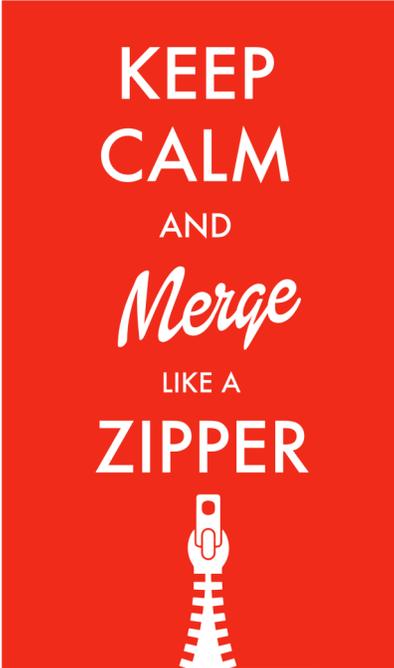




Zipper Merge Reduces Congestion

Researchers at ITRE have found that a new traffic treatment called a “zipper merge” has the potential to reduce traffic backups by as much as 50 percent in areas where there are lane reductions, or drop-offs. The North Carolina Department of Transportation is working with ITRE to determine if this new style of merge can be successful at a number of sites across the state, including NC-58 South in Carteret County before the bridge to Emerald Isle, NC, I-85 South in Durham County after the merge with NC-147, and on I-85 North at the work zone currently in place in Vance County, NC.



In This Issue

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Congratulations!

2016

Roads Scholars & Advanced Roads Scholars

transportation **TRACKS**
Technology Transfer Newsletter

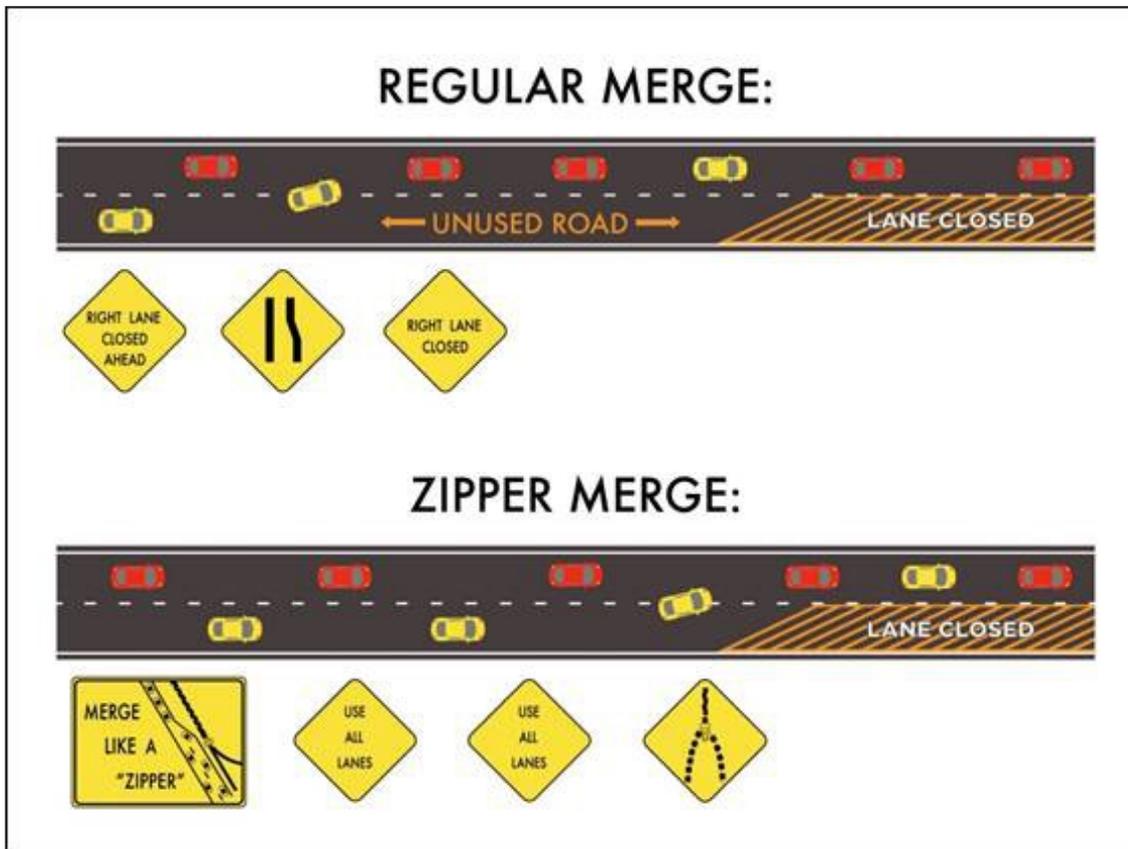
Published by the
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Institute for Transportation Research and Education at
North Carolina State University
www.itre.ncsu.edu

Zipper merge (continued)

The zipper merge treatment encourages drivers faced with lane closures to work together and take turns entering where the lanes merge, to both reduce congestion for all vehicles and improve safety.

“While this goes against the grain of what we like to do as drivers, the zipper merge allows both lanes to be used to their full capacity,” said Kevin Lacy, state traffic engineer. “With a little extra courtesy, we could

greatly reduce the length of traffic jams, decrease travel times and increase safety.”



The NCDOT is installing signs directing drivers to follow the zipper merge pattern. The signs ask drivers to stay in their lane until they reach a specified point. They then follow the directions of signs to make the merge. Drivers in the open lane are asked to take turns entering the open lane, allowing vehicles from the closing lane to merge in front of them.

Engineers at ITRE have already collect-

ed video and travel time data at the Carteret County and Durham County sites, and have recently installed cameras to collect data at the Vance County site. They will compare the data collected with and without zipper merge signage in place to determine whether the zipper merge was effective at changing driver behavior to reduce delays and increase safety.

Michigan and Minnesota are among several states that have implemented the zipper merge and have decreased the length of backups to create safer, smoother driving conditions. At one zipper merge site in Michigan, the congestion area was reduced from 6 miles to 3 miles and the time spent in traffic was decreased dramatically, saving drivers an average of 15 to 25 minutes.

During congested periods, the NCDOT urges drivers in these areas to be extra courteous to other drivers and understand that those in closing lanes are not simply trying to “cut in line” in front of drivers in the open lane.

“Cooperation with other drivers is the only way this will work. While this seems daunting, we are confident that a little southern hospitality can go a long way,” said Chris Vaughan, ITRE research associate.

Road Diets—Safer Roads, Safer Communities

By: Rebecca Crowe, FHWA Office of Safety

Across the Nation, travelers are continuously looking for ways to find safer and more efficient travel routes. Whether on their daily commute, walking to school, or just trying to get "from point A to point B," increasing safety for travelers is a win for everyone.



Installing a Road Diet is one way to achieve safer roads. A Road Diet is a roadway reconfiguration that improves safety, convenience, and quality of life for all road users, including pedestrians, cyclists, and public transportation passengers. A Road Diet can make it easier for pedestrians to cross the street and can also create room for bicyclists. In addition, this roadway safety solution can be a relatively low-cost option if planned in conjunction with reconstruction or simple overlay projects. Applying a Road Diet is a very inexpensive, simple process: it consists primarily of restriping roadways.

Two excellent examples of this type of Road Diet can be found in the city of Reston, Virginia, on Lawyers Road and Soapstone Drive. The two projects both took away one lane in each direction and added a center turn lane.

The Road Diet project on Lawyers Road helped reduce crashes in the corridor by **67 percent**.

These installations were so successful that in late 2015 they received a National Roadway Safety Award for Infrastructure and Operational Improvements (<http://safety.fhwa.dot.gov/roadwaysafetyawards/>).

Transportation (VDOT), led the effort in developing the two Road Diets. In a recent interview with the Office of Safety, Randy stated, "If you build a Road Diet with a paving project, it can be done at almost no cost. There are huge safety and livability benefits, as well as 'extras' like bike accommodations. Why wouldn't you want to apply a Road Diet when there are so many benefits?"

Randy Dittberner, a Regional Traffic Engineer at the Virginia Department of

Public outreach was the greatest challenge and most critical element to this project. The VDOT team led efforts to clearly explain to the public how a Road Diet could improve the community. Travelers found comfort in knowing that this effort was not an attempt to impose travel restrictions but rather a roadway safety solution.



To find out if a Road Diet is right for your area, download our Road Diet Informational Guide today http://safety.fhwa.dot.gov/road_diets/info_guide/.

A common Road Diet configuration reduces four lanes to three. This Road Diet on Soapstone Drive in Reston, VA, reduced crashes by 65 percent in the first 3 years of implementation.

To learn more about Road Diets use cases and scenarios, download the Road Diet Case Studies Guide: http://safety.fhwa.dot.gov/road_diets/case_studies/roaddiet_cs.pdf.



Join the legacy of NCLTAP
Become a Roads Scholar!



[ADVANCED ROADS SCHOLARS] Top row (left to right): Magda Holloway, Chris Turner. Bottom row (left to right): Bill Woods, Carl Stukes, David Munoz, Tracy Nelson, Steve Esposito, James Hall, Frank LoPresti

Congratulations to the 2016 Graduates!

The following individuals have completed at least 8 of the 18 training sessions offered by the NC LTAP Roads Scholar Program, and completed a summary of how the **Advanced Roads Scholars Program** has helped them in their job or community.

City of Greensboro

Tracy Nelson
David Munoz
Carl Stukes

City of Raleigh

Antonio Ruffin
Jason Moon
Sam Potter

City of Charlotte

Magda Holloway

Town of Matthews

Steve Esposito
Chris Turner
Frank LoPresti
James Hall



2016 NC LTAP Roads Scholars

The following individuals have completed at least 7 of the 13 training sessions offered by the NC LTAP Roads Scholar Program, and have been recognized as our 2016 Roads Scholars.

| | | | |
|--|---|---|---|
| City of Albemarle Randy Huneycutt Alain Marti Jason Palmer | City of Monroe Johnny Faulk | City of Mount Airy Dan Speight | Town of Ahoskie Cornelius Davis |
| City of Asheville Terry Manos Brad Hunter Jennifer Mazza Todd McMahan | City of Greensboro Keith Lovings Chris Tolbert George Farmer Jr. Caleb Fridenbach Nicholas Nickerson Doug Beeson | City of Raleigh Kevin Moore Keith Murray Sam Potter Michael Medlin Jason Moon | Town of Chapel Hill Bobby Bratton |
| City of Charlotte Michael Hendricks Terrance Piggee Christopher Jiles | City of High Point Nick Hardison | City of Rocky Mount Tim Allen Chris Pridgen | Town of Hillsborough Curtis Watkins Brian Tatum |
| City of Concord Seth Burris Brian Taylor | City of Jacksonville William Cramer Christopher Lennen Coleen Kinkade Rosa Warman Ryan Carr | City of Roxboro Bryan Garrett | Town of Matthews Steven McCaffrey Randy Clark |
| City of Durham Jeanie James | City of Kannapolis Leo Pope | Town of Nags Head Steven Saunders | Town of Mint Hill Chris Cochrane |
| City of Fayetteville Terrance Roberson | City of Kinston Tony Kennedy Micah Moore | City of Wilson Chad Winslow Justin Nichols Brian Johnson Jeremy Lucas Chris Roberts | Town of Morrisville Levi Henry, Jr Mitchell Womack |
| | | | Town of Wake Forest Ronnie Privette |
| | | | Town of Bayboro Mark Howell |

Advanced Roads Scholar Summaries

Each Advanced Roads Scholar candidate must write a summary of their experiences in the program and the impact of the program on their career, family, and community.

Congratulations to the 2016 Advanced Roads Scholars!

Magda Holloway, City of Charlotte

The Local Technical Assistance Program has been a great help to my career. I started in local government 11 years ago. I knew absolutely nothing about Street Maintenance when I started. Everything I have learned has come from on the job training, and the wonderful classes that I have taken at LTAP. Luckily, I started taking classes in 2005 to work towards being a Road Scholar. I learned all about maintenance and repairs of utility cuts, road safety fundamentals, snow and ice control, asphalt pavement maintenance, basic drainage, and my favorite, managing conflict. All of these courses helped me to have a broader understanding of technical skills necessary to perform my job. I became a Road Scholar in 2009, and wanted to continue to learn more. Since then, I've taken various courses from "Supervisory Skills for Experienced Supervisors", "Road Safety 365", "Stormwater Hydrology", and "Pavement Markings". Most recently, I took "Advanced Computers: Practical Applications". What I thought would be a generic computer class turned out to be one of the best courses I have taken thru LTAP. I thought I was pretty proficient in Microsoft Office applications including Power Point, Excel, and Word....but quickly found out there was so much more that could be learned. After spending 1 day with instructor Daniel Findley, he taught us so many short cuts and techniques to use in building presentations, documents, and building spreadsheets. Again, I've used these methods for 20+ years, and learned most of what I knew through college and trial and error. This class is highly recommended to anyone who uses these products weekly. He taught ways to shave off "hours" of time when using Microsoft. I learned ways to fine tune existing spreadsheets, documents and presentations that classmates had brought from the working world. To be able to use real life examples was amazing, and gave me new ideas how to better use my time and efforts at work. I was able to find new methods to communicate with new tricks for memos and documents, calculate and analyze better on spreadsheets, and produce better presentations more efficiently, learning time saving tips. I will be able to take what I learned in 8 hours, and be much more effective on the computer to save me A LOT of time to be able to do other tasks during my day.

All the courses I have taken have taught me something to further educate myself, be more efficient, and more effective. I highly encourage anyone who wants to better themselves to pick the classes right for them, and soak up what they have to offer. Thanks for the opportunity to become an Advanced Road Scholar.

Antonio Ruffin, City of Raleigh

The Advanced Road Scholar course program has changed my life. The class instructors are great and I was able to benefit from a variety of new things from these classes, as well as refresh my memory on things that I knew, just needed a reminder about. I have learned a lot from all the classes I have taken, but in my field of work and being the Asphalt Supervisor for the City of Raleigh a few in particular stood out for me.

Advanced Work Zone Traffic Control – I really enjoyed Tim Baughman and this class. I think the most helpful part was actually being in groups and setting up different types of work zones using different scenarios.

OSHA 10-Hour Safety Training – I enjoyed Paul McCain and this class. This course covered so much valuable safety information in general and in my field of work one can never have too much safety training.

Experienced Supervisors – This class helped me become a better leader and discover different management strategies and techniques that I use daily.

Flagger Instructor Training – I learned a lot from this class. Flagging is one of the most important if not the most important job in a work zone and learning the correct way to teach others how to flag was helpful. I teach a flagger training class to my crew room annually thanks to what I learned from this class.

Through the Advanced Road Scholar program I have become a better leader, more knowledgeable about safety and I learned valuable information about setting up work zones which is all beneficial to me and my job, the group that I manage and the citizens of Raleigh. I would like to thank LTAP and all of the instructors and I am looking forward to more great learning experiences.

Tracy Nelson, City of Greensboro

The Advanced Roads Scholar program is a training curriculum I highly recommend to those individuals seeking an opportunity to acquire advanced job skills, which includes hands-on and practical application scenarios, and to learn OSHA safety requirements.

During the training, I learned techniques and best practices that were designed to be executed effectively and efficiently. Having the variety of techniques as part of my knowledge tool belt allows for options of 'how-to' execute the same tasks in multiple ways without increasing expenses (staff and material).

Two Examples of Learnings and Job Application

Soil Fundamentals

By knowing the different types of soils (A, B, C) and how they sustain or hold up to the weight of the roadway, I was able to assess a particular job site and provide my crew with direction on the depth of the roadway base that we needed to put in place. The goal behind the direction was to ensure the problem we were correcting, bad drainage/break-up of the base underneath the road surface, would not continue to be a long-term problem that would require constant repair; which in turn provides safe roadways for the citizens of Greensboro and eliminates over-spending on maintenance for this particular area of roadway.

Workzone Safety/Traffic Control & OSHA 1-Hour Safety

The advanced training provided me with a more in-depth knowledge of ways to set-up work zones to better protect the community and the crew when traffic needs to be diverted or flow into and out of the work zone. Pre-planning work zone set-up is something I do consistently and the job site specifications determine the types of advanced warning materials (signs, sign boards, cones, barrels, barricades, etc.) I generally use. But, specifically learning the science behind the attenuators has given me the ability to make better assessments of when to use this safety equipment versus other warning materials.

Personally, I encourage the City of Greensboro to continue to offer the Roads Scholar program and to make available new classes for those who have completed the program, so they can continue to grow their knowledge and skills as

Frank LoPresti, Town of Matthews

The North Carolina LTAP program is a great way to continue your training. The classes that Bill, Linda and the entire staff put on are extremely educational in the Public Works Sector. I have gained a lot of knowledge from the first class I took to achieve my Roads Scholar to the last class I took to receive my Advance Roads Scholar. I encourage everyone in taking these great classes that they offer through your career as a Public Works Employee. Every class that I have taken left me with something that I can bring back to help myself succeed in my years ahead. The 3 classes that stick out in my mind that has helped me in my decision making are:

Designing Pedestrian Facilities for Accessibility- Being the Concrete/Sidewalk Supervisor this class has helped a lot. It not only went over the laws and regulations regarding accessibility it also taught you about the different types of curb ramps that are allowed, the detectable warning mats, the various slopes and angles that are legal. This class is a must for people who deal with accessibility issues.

Flagger Training Instructor- This course will give you the knowledge to train and teach your co-workers about the safety of flagging. It covers anything from the equipment you need to different types of operations that you may encounter. You did various hands on exercises so that you can effectively train your peers to flag traffic in the safest manor possible. It also gives you the materials you need in order to successfully train your co-workers.

Management and Supervisory Skill – Experienced Supervisor –This class was extremely well put together. The teacher was full of knowledge about this subject. You interacted among your peers on various activities about each subject you went over. This class teaches you negotiations skills for talking to “higher ups”. It also sets the stage on delegation of duties, why it is important, and the benefits it has to the employee, employer, and yourself. It goes over coordination of work duties, what is the best way to get the job done on time. It also teaches you about team building and setting your priorities to make the day go effectively as possible.

I would like to take this opportunity to thank everyone that is involved in making these classes happen. The instructors are very knowledgeable in the field that they teach. I will continue to take the classes that I have not taken to further my knowledge and I look forward to moving on to get my Master Roads Scholar.

Advanced Roads Scholar Summaries

Steve Esposito, Town of Matthews

I think that both the Road Scholar and the Advance Road Scholar programs showed you to think smart when you are out on the road working with everyday situations. I also think that all of the instructors with ITRE present themselves and the courses that they teach very professionally. I think that having an instructor that can mix teaching and some humor can make you feel more alert. The first course that I want to talk about is OSHA 10 Hour Safety Awareness Training. It is very important to be OSHA compliant. Employee training programs are very important to everyone. Each employee must have training for P.P.E. accident prevention and also to know all of the OSHA rules and regulations. This will help the employee and the company to stay safe and keep accident rates down.

The second course that I would like to talk about is Flagger Training. This is as important as or more important than the person operating the equipment because the person or persons flagging will keep everyone in the work zone safe. Everyone that works in the roadway should have Flagger Training. This is the employee's responsibility to make sure everyone has the proper training.

The third course I would like to talk about is Tort Liability and Risk Management. It is very important to your company that they have guidelines, regulations and policies that will keep you from being sued. I learned that any time you see a road sign or pot holes that they should be repaired as soon as possible. Risk management objectives are to make roadways safer and to reduce the exposure to liability. Tort liability objectives are to review legal aspects and to reduce the risk. I learned from these courses that

Carl Stukes, City of Greensboro

I am a paving crew supervisor for the City of Greensboro. I have taken multiple classes through the ITRE program throughout my years of service. Lately, I have taken more of the Advanced Road Scholar classes. I have found that I use the information that I learned from these classes on a daily basis. Our safety director ensures that we always have the opportunity to attend the classes that are offered that correlate with our line of work.

One of the classes that I found to be the most helpful is the Basic and Intermediate Work Zone Safety. This is a two day class that we are offered every year. They teach us the correct and most safe way to set up our work zones for different situations. We are able to get up and show on the white boards how we would do our set-ups. I feel that it really helps our front line employees to be able to actually interact with the instructor and others in the class. They are able to make mistakes and learn in a classroom setting rather than putting lives on the line in the field. I can now discuss what we learned with my crew and make sure that they know that each work zone set up is different and if they have any questions they can always refer back to the MUTCD booklet that we keep in our truck.

My second favorite and useful class was the one on Tort Liability. I learned that everything we do is subject to some sort of liability case. If we make poor decisions on work zone set ups or if we leave safety hazards we can cost the City of Greensboro lots of money. We learned that for every single situation you have to step back and think about how it could possibly affect the traveling public or pedestrians. It gave me the tools that I needed to be able to make important decisions about how we can be held liable for so many things.

I would recommend this program to any company or agency. It has probably saved our organization hundreds of thousands of dollars in lawsuits. Also, there have possibly been lives saved from the information that we have learned in the ITRE classes. I would love to continue my education through the Master Roads Scholar program and be able to pass my knowledge down to the members of my crew.

David J Munoz, City of Greensboro

Over the years I have always looked forward to attending ITRE classes these classes were not just only informative, but have allowed me to grow within my organization. The classes that ITRE sponsored are classes that are designed specifically for what we do in the Public Works sector.

As I grew within the City of Greensboro my knowledge of Street Maintenance had to grow as well, that is where ITRE came into place ITRE had classes for all skill levels so that I could tailor the classes to my needs. I enjoyed that the instructors that taught these classes had firsthand knowledge of what they were conveying to the class, they had been out in the field and had applied these applications in their work as well.

When I first started with the City of Greensboro in 1995 I started out as a Crew Member on a special projects crew, after working 6 years with the city I was promoted to Crew Supervisor of the same Special Projects Crew. Now in 2016 I am a Section Supervisor in our Street Maintenance Division with a total staff of 23 employees and 7 direct reports and ITRE has been a part of my growth since day one.

I can honestly say that ITRE has helped me and my staff grow and develop over the years and we look forward to continuing to attend the training that ITRE provides.

So on behalf of me and my employees here at the City of Greensboro we say Thank You for the dedication, service and training that ITRE has provided over the years.

James Hall, Town of Matthews

North Carolina's Advanced Road Scholar Program was very informative for me. Classes were helpful for me, helping me to understand that my job responsibilities are and the proper way I should handle my job duties and safety me of my coworkers and the public first.

The classes that help me the most were the 10 hr OSHA safety training, Trenching Competent Person, and Flagger Instructor Training.

The 10 hour OSHA course helped me learn about fines, who can be fined and who is responsible for the fine, and also how to keep me and coworkers safe. Top priority and main goal is to keep everybody safe and have no disasters, and for everyone to go home safe at the end of the day.

Trenching competent person training was a very informative class, because I learned how to safely trench banks back to ensure the safety of employees that are in the trench, and how important it is to use a trench box when hole you are digging in requires it cause it will keep the bank from caving in on coworkers, and there are lots of dangers when trenching to be aware of.

Flagger instructor training was one of my favorite classes because it showed me that no matter how much experience I have the most important person on the job is the flagger while the job is going on, cause he or she has the whole crew lives in their hands, the classes also caught me how to teach and instruct employees the right way to flag safely and the importance of flagging, and understanding why proper flagging operations are so important, and also learned proper flagger signals and procedures for different types of procedures that may come up.

Jason Moon, City of Raleigh

My experience with LTAP training has improved my ability to do my job. I am more confident, better prepared as well as better able to instruct and lead my staff. The way I have been able to implement the skills I've learned has sparked enthusiasm among my staff to pursue their own Road Scholar Certificates.

My favorite class was Flagger Instructor Training. Mr. Tim Baughman was a great instructor but the real benefit for me has been teaching flaggers for the street maintenance staff at the City of Raleigh. I teach flagger certification twice annually. I take a great deal of pride in training our staff how to protect each other in dangerous work zones. Tim was thorough and his class gave me the confidence to pass on the knowledge I gained. In my personal life, I take pictures of other flaggers I pass to add to my class presentation each year and developing my teaching presentation has become a passion project. Instructing flaggers is one of the most fulfilling duties I perform for my employer. The opportunity for that fulfillment was given to me by Tim Baughman and LTAP.

The most frequently used class was my Intermediate Work Zone Safety class. This class was also taught by Mr. Tim Baughman. The class taught me how to use and interpret the Manual on Uniform Traffic Control Devices. I implement what I learned at that class on a daily basis to design the temporary traffic control that protects my staff. I frequently explain to my staff that an average human stride minus the length of the foot is approximately eighteen inches, a standard traffic cone is fourteen inches wide at the base, and by those two facts we are less than a footstep away from traffic when we are in a work zone. The ability to safely control traffic through our work zones in a uniform manner is a critical skill that I use on a daily basis. Mr. Baughman's expert and enthusiastic instruction gave me that skill.

The most valuable class for my employer was "How To Keep Yourself and Your Agency Out of Court". This is a class that has incredible potential value but it is value I hope to never need. This class demonstrated, through both instruction and case study, how it is possible to perform yourself safely and correctly and still have to defend your decisions. I can confidently protect my staff and the public in work zones, however, this class showed me the weaknesses in how I document my work zones. In a civil suit, the only truth that protects my employer is the truth I can prove. The skills I learned in this class protect my employer on a daily basis and, to me, that translates to job security.

I am grateful to LTAP for developing and providing quality training that is easy to implement in our daily operations. The staff at LTAP has always shown their passion about what they do in their willingness to add classes to their schedule and travel to our facility to accommodate our needs. I am very proud of my Road Scholar and Advanced Road Scholar Certificates and I've already picked a spot on the wall next to them to one day hang a Master Road Scholar Certificate.

Advanced Roads Scholar Summaries

Sam Potter, City of Raleigh

LTAP has improved my performance on the job it has better prepared me for things that I was not seeing in the field and has helped me lead my crews better. I like Mr. Tim Baughman he is a great instructor in the Work Zone Safety class. The Manual on Traffic Control has come in handy a lot on planning out a safe work zone. If you set up your work zone in the right manner for safety it will insure that you go home to your family at night.

The class I learned the most from was the Shoring Class, I've been digging ditches a lot in my time and there were things that I did not know. From the right way to step a ditch back, all the way to how far the dirt is to be from the ditch, and the Danger in digging a ditch so that your friend goes home at night. The class that Mr. Paul McCain gave on Excavation Safety was one that I learned a lot from it has helped me a lot out in the field.

The 10 hour OSHA Safety Training that Mr. Paul did helped out a lot in the field with on site flagger, and set up work site in a way that sometimes are not in the book for setting up work zones. Some time you have to use what you have on site, all jobs are not the same.

For me the class that ITRE offers I learned a lot from. It has helped me show my crew what they need to do. Thanks for all that you have to offer. I look forward to more class.

Chris Turner, Town of Matthews

The NC Advanced Roads Scholar Program was very informative to me. The classes were very helpful to me in helping me understand more of what my job responsibilities are and the proper ways of handling my job duties properly and safely. The main goal is the safety of each and every one that is involved whether employee or bystander. The classes that stand out to me the most are the 10 hour OSHA Class, "Trenching Competent Person," Snow/Ice Control, and Advanced Work Zone Traffic Control.

The 10 hour OSHA Class helped me learn about fines, who can be fined and who is responsible when fined. I also learned how to be safe and how to keep other employees working with me safe also. The top priority or main goal to achieve is to keep everyone safe and have no major disasters. Everyone goes home at the end of the day.

"Trenching Competent Person" was a very informative class for me because I learned how to properly slope trench banks to ensure the safety for the employees. A very important safety measure is to always use a trench box, for a trench box keeps the bank from caving in on the employees. There are a lot of dangers with trenching to be aware of.

In Snow/Ice Control, I learned that if you work with the city and you remove snow from the state roads and an accident happens while removing snow from state road the city is responsible. You have to put the brine down of the roads before it rains. If the temperature gets below 28 degrees it does not work on the roads.

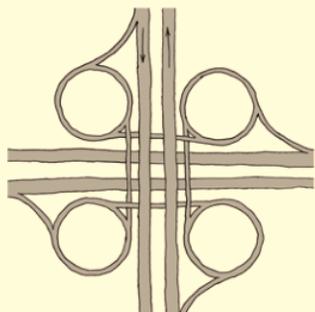
In Advanced Work Zone Traffic Control, I learned the safety for workers setting up a work zone. They have to keep citizens driving on the roads where work is being done safe. A flagger's job requires a lot of responsibility for the crew that is working in the work zone insuring that the motorist won't hurt anyone while traveling through the work zone, or getting in the way of equipment and being hit or hitting the equipment.

If you look back over all the classes, the main goal is about safety. Keeping workers and bystanders alive and safe. No matter what job you are doing there is potential for danger or disaster. So everyone should always be alert and watch out for others as well as yourself.

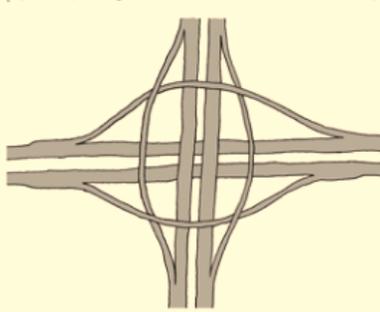
Highway Engineer Pranks

From: XKCD.com

THE INESCAPABLE CLOVERLEAF:



THE ZERO-CHOICE INTERCHANGE:



THE ROTARY SUPERCOLLIDER:



NC LTAP Social Media Corner

Follow us on Facebook and Twitter to receive updates, news, and special offers!



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NC LTAP @NCLTAP · Nov 1
 "The people in #publicworks believe in the power of community."
 @APWATWEETS

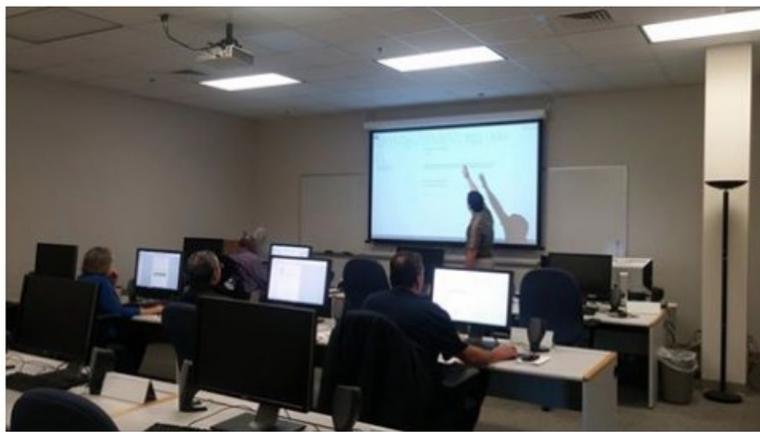


PWX 2016: "We are Public Works" Brand Video
 youtube.com

North Carolina Local Technical Assistance Program - NC LTAP

November 15 at 1:57pm · 🌐

Work smarter, not harder, using computer programs. There are still spots in our Advanced Computer Skills class tomorrow. Register online at: <http://bit.ly/2fTideW>



Help us to improve transportation services by taking the 2016 NCDOT Customer Service Survey
go.ncsu.edu/customerservice2016

Don't drive if you're tipsy, buzzed or Blitzen.

Get a sober ride or call a cab.

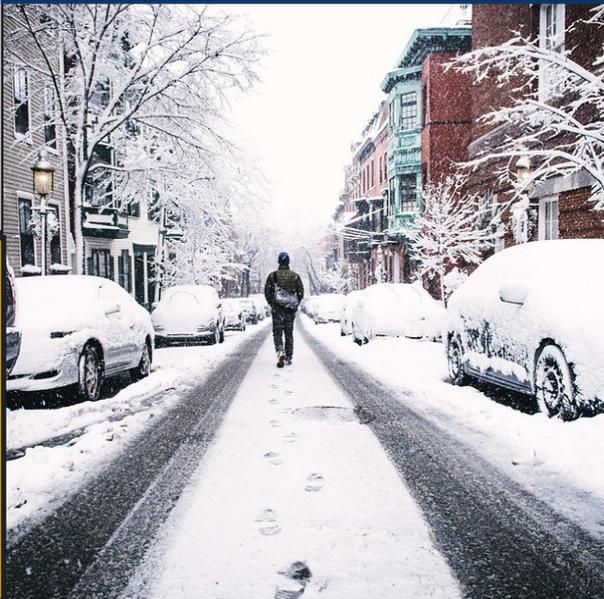


saveMOLives.com

Winter weather is coming. Are you prepared?

Get the Snow and Ice Control Guidebook at:

<http://www.dot.state.mn.us/research/TS/2016/2016RIC11.pdf>



Upcoming 2017 Classes

[Register online](#) for these and other NC LTAP training offerings. For more information, email Bill Woods, bill_woods@ncsu.edu.

Traffic Calming

This class will outline changes in street alignment, installation of barriers, and other physical measure to reduce traffic speeds and cut-through volumes in the interest in street safety, livability, and other public purposes.

Road Safety Fundamentals

This class will cover road safety basics, solving traffic safety problems, traffic control devices, and roadway design criteria. In addition, we will discuss improving roadside safety and intersection safety, with the goal of laying the foundation for safe roads.

Basic GIS

The objectives of this course are to gain a basic and practical understanding of GIS terms and concepts, to explore GIS applications using free software, and to explore resources of GIS data available to the public.

Low Cost Safety Improvements

This workshop emphasizes the application of traffic control devices, enhanced traffic control device application measures, low-cost safety improvements, and their specific safety benefits in terms of crash modification factors. Signing, marking and illumination are also discussed.

Effective Team Building

This course, geared towards those in leadership or supervisory roles, will assess each participants' leadership strengths, areas for development, and leadership styles. Empowered with this information, participants will learn supportive communication techniques and how to give strengths based feedback with the goal of building a strong team.



Let Us Know!



Complete and Fax the form below to update your contact information in our NC LTAP database, add yourself or a colleague to our NCTROADS email listserv, or request information about the Roads Scholar Program or other training opportunities. Fax this form to **919-515-8898**, or email your information to Linda Collier, linda_collier@ncsu.edu.

Your Name: _____

Company / Organization: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ Fax: _____

Email: _____

Check all appropriate items:

- Add / update to NCTROADS listserv
 Send Roads Scholar Program info
 Send Training class schedule info

Join the NCTROADS Listserv

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NCTROADS is an informal network for exchanging news about current research, discussion of problems and solutions, requests for advice and assistance, and announcements of upcoming conferences, events and training opportunities for transportation personnel.

To subscribe, simply email Linda Collier at NC LTAP, linda_collier@ncsu.edu, and ask to be added to NCTROADS.

Once subscribed, you can post messages and send questions to all listserv members at NCTROADS@lists.ncsu.edu.





LTAP Links on the Web

| | |
|---|--|
| NC LTAP | www.itre.ncsu.edu/LTAP |
| National LTAP / TTAP | www.ltap.org |
| Federal Highway Administration (FHWA) | www.fhwa.dot.gov |
| U.S. Department of Transportation | www.dot.gov |
| Institute of Transportation Engineers (ITE) | www.ite.org |
| NC Section of ITE (NCSITE) | www.ncsite.org |
| NC Department of Transportation (NCDOT) | www.ncdot.gov |
| UNC School of Government | www.sog.unc.edu |

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transportation **TRACKS**

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North Carolina Local Technical Assistance Program 2017 Schedule

January – February – March

For Online Registration: <https://itre.ncsu.edu/training/ltap-training/>

Questions or email registration: aljarus@ncsu.edu

Course descriptions available on website. Also check website for additional training dates.



| Date | Class Title | Location | RS/ARS | Cost |
|--------------------|---|-----------|--------|----------|
| January 11, 2017 | Trenching Competent Person | Charlotte | ARS | \$150.00 |
| January 31, 2017 | Basic Drainage/Roadway Drainage Maintenance | Raleigh | RS | \$125.00 |
| February 1, 2017 | Basic GIS | Raleigh | MRS | \$150.00 |
| February 7-8, 2017 | OSHA 10-Hour Safety Training | Matthews | ARS | \$175.00 |
| February 14, 2017 | Asphalt Pavement Maintenance | Concord | RS | \$125.00 |
| February 14, 2017 | Basic Mathematics for Transportation Personnel | Raleigh | RS | \$125.00 |
| February 15, 2017 | Soils Fundamentals | Concord | RS | \$125.00 |
| February 15, 2017 | Plan Reading for Transportation Personnel | Raleigh | RS | \$90.00 |
| February 16, 2017 | Maintenance and Repair of Utility Cuts | Concord | RS | \$90.00 |
| February 21, 2017 | Asphalt Pavement Maintenance | Raleigh | RS | \$125.00 |
| February 22, 2017 | Soils Fundamentals | Raleigh | RS | \$125.00 |
| February 23, 2017 | Maintenance and Repair of Utility Cuts | Raleigh | RS | \$90.00 |
| March 7, 2017 | Management and Supervisory Skills for First-Time Managers | Raleigh | RS | \$125.00 |
| March 8, 2017 | Management and Supervisory Skills for Experienced Supervisors | Raleigh | ARS | \$125.00 |
| March 10, 2017 | Trenching Competent Person | Raleigh | ARS | \$150.00 |
| March 15, 2017 | Confined Space Entry and Lockout/Tagout | Matthews | ARS | \$150.00 |
| March 21, 2017 | Excavation Safety | Raleigh | RS | \$150.00 |
| March 22, 2017 | Basic Work Zone Safety Training | Concord | RS | \$125.00 |
| March 23, 2017 | Intermediate Work Zone Safety Training | Concord | RS | \$150.00 |
| March 24, 2017 | Flagger Training AM | Concord | RS | \$90.00 |
| March 27, 2017 | Low Cost Safety Improvements | Raleigh | RS | \$135.00 |
| March 30, 2017 | Road Safety Fundamentals | Raleigh | RS | \$125.00 |
| March 31, 2017 | Traffic Calming | Raleigh | RS | \$125.00 |