

t r a n s p o r t a t i o n TRACKS

Technology Transfer Newsletter



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At the Institute for Transportation Research and Education, North Carolina State University

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Going on a Road Diet

Publication Number FHWA-HRT-11-006, by Carol H. Tan

Have you ever had a problem walking across a street because you felt it was too wide or had too many lanes to cross comfortably? Have you ever wanted to ride your bicycle to your destination but felt uncomfortable because the direct route lacked bike lanes? Have you ever been through a downtown that seemed drab, dull, lifeless?

You're not alone. Pedestrians generally have difficulty crossing wide roads that have multiple lanes in both directions. In some areas, crossing opportunities for pedestrians are located only at signalized intersections that are spaced at uncomfortable walking distances. In some cases, the number of lanes may be unnecessary for the actual volume of motor vehicle travel. Some roads with lower traffic volumes might be good candidates for bicycle travel, but bicyclists avoid them because of the lack of dedicated bike lanes.

Historically, adding more lanes has been one of the preferred solutions for

reducing traffic congestion. In some downtown areas, however, adding lanes and removing parking spaces have resulted in fewer opportunities for people to stop and shop, reducing business for retail stores.

One approach that engineers and planners use to address these problems is the road diet. Not only can this tactic improve pedestrian and bicyclist mobility and revitalize a downtown, but also it can increase safety by reducing conflicts between motor vehicles.

What Is a Road Diet?

The road diet approach involves narrowing travel lanes or shoulders or eliminating some of them to provide more space for pedestrians and bicyclists. A typical road diet consists of converting a four-lane roadway (two in each direction) to a three-lane (one in each direction plus a center turn lane) and adding sidewalks and/or bicycle lanes. At times, this reconfiguration can be accomplished by simply restriping



Photo: Dan Gallagher

This "during construction" photograph shows a four-lane road in a neighborhood in Charlotte, NC.

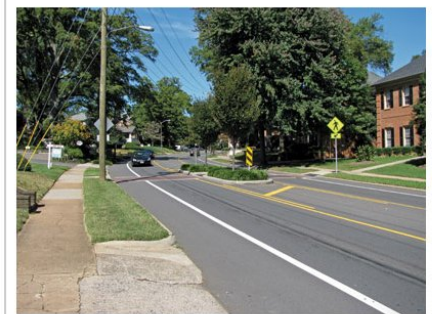


Photo: Dan Gallagher

As shown in this "after" photo of the same location, reclaiming road space by turning the four-lane road into two lanes plus bicycle lanes created room for a pedestrian refuge island.

the lanes in conjunction with a resurfacing project.

To read the complete article as printed in the September/October 2011 edition of Public Roads, click here:
<http://www.fhwa.dot.gov/publications/publicroads/11septoct/05.cfm>

Carol H. Tan is a highway research engineer with FHWA's Office of Safety Research and Development and has been with FHWA for 20 years. She has served as the team leader for the Safety Management Team and managed the HSIS program since 2002. Previously, she managed FHWA's Pedestrian and Bicycle Safety Research Program. She has a B.S. and M.S. in civil engineering from Texas A&M University and a Ph.D. in civil engineering from The Pennsylvania State University.

For more information, and additional resources, contact Carol Tan at 202-493-3315

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Congratulations!

2011 Advanced Roads Scholar Graduates and Roads Scholar Graduates



The 2011 Roads Scholar Graduates and Advanced Roads Scholar Graduates pictured below were recognized at the APWA-NC Combined Equipment Services and Streets Conference in Concord on September 29, 2011.



L to R: Ronald Moore, James Gastor, Ralph Holt, Steven Cockrell, Gary Rhodes, Brian Vernon, Christopher Bolin, Grant Crago, Tracy Pedigo.



L to R: Ronald Moore, Kenneth Jones, Santiago Hernandez

2011 Advanced Roads Scholars

Advanced Roads Scholar graduates have completed 8 of the 11 training sessions offered by NC LTAP each year. In addition to attending the training sessions, they have each written a paper on how the Advanced Program has helped them in their job and in the community. The class of 2011 consists of the following:

- ◆ Al Ballard, City of Raleigh
- ◆ Sammie Bearden, City of Wilson
- ◆ Jonathan Dekle, Town of Wake Forest
- ◆ Santiago Hernandez, Town of Chapel Hill
- ◆ Louis Isabella, Jr., Town of Wake Forest
- ◆ Kenneth Jones, Town of Chapel Hill
- ◆ Ronald Moore, Town of Wake Forest
- ◆ Lance Pontrelli, Town of Wake Forest
- ◆ Jon Ray, Town of Wake Forest

2011 Roads Scholars

The following individuals have completed at least 7 of the 13 training sessions offered by the NC LTAP Roads Scholar Program.

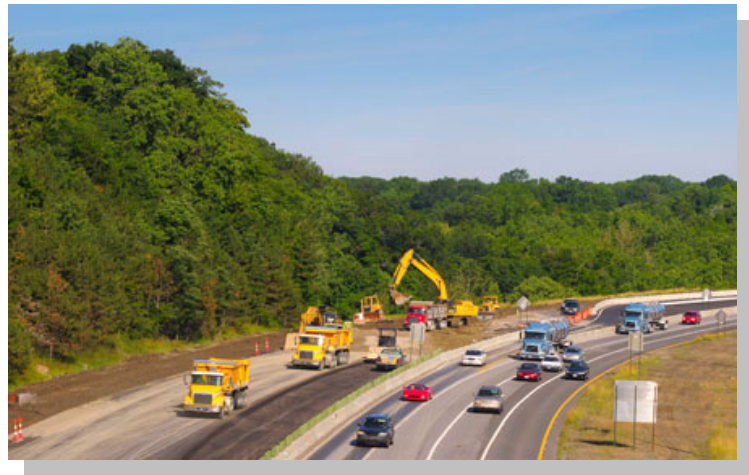
- ◆ Travis Alston, Town of Chapel Hill
- ◆ Christopher Bolin, City of Charlotte
- ◆ Steven Cockrell, City of Kannapolis
- ◆ Cedric Coleman, City of Wilson
- ◆ Grant Crago, City of Charlotte
- ◆ Devorio Evans, Town of Chapel Hill
- ◆ Sharn Faulkner, City of Kannapolis
- ◆ Dennis Fone, Town of Carrboro
- ◆ Ralph Holt, City of Sanford
- ◆ Gary Lovelace, City of Reidsville
- ◆ Ronald Moore, Town of Wake Forest
- ◆ Amanda Mueller, City of Charlotte
- ◆ Tracy Pedigo, Town of Knightdale
- ◆ Tony Pone, Town of Hope Mills
- ◆ Gary Rhodes, City of Kannapolis
- ◆ Jeff Rosson, City of Greensboro
- ◆ Roger Silvers, Town of Zebulon
- ◆ Jayson Staley, Town of Chapel Hill
- ◆ William Tasaro, Town of Garner
- ◆ Manuel Turner, Town of Carrboro
- ◆ Brian Vernon, City of Greensboro

FOCUS on Training – Ready, Set, Go: FHWA's Online Maintenance Training Series

It's training at your convenience. Ready to go at the time and place that best suits your schedule, the Federal Highway Administration's (FHWA) free online Maintenance Training Series covers topics ranging from pavement preservation concepts to weather-related operations to the practicalities of work-zone traffic control. Each of the 11 self-paced training courses takes approximately 1 hour to complete.

"The Maintenance Training Series was created to respond to the needs of those individuals responsible for the maintenance of the Nation's infrastructure. The series allows them to access the training they need, any time and any where," notes Christopher Newman of FHWA.

Participants are encouraged to register for the entire series (Course No. FHWA-NHI-134109), so that they can access all 11 training courses. However, those interested in specific training that fits their needs can also register for courses individually.



FHWA's free online Maintenance Training Series features 11 self-paced courses on a range of highway maintenance topics.

Training modules included in the series are:

- ◆ Pavement Preservation Programs (Course No. FHWA-NHI-134109A)
- ◆ Shoulders and Shaping (Course No. FHWA-NHI-134109B)
- ◆ Thin HMA [Hot-Mix Asphalt] Overlays and Leveling (Course No. FHWA-NHI-134109C)
- ◆ Base and Subbase Stabilization and Repair (Course No. FHWA-NHI-134109D)
- ◆ Drainage (Course No. FHWA-NHI-134109E)
- ◆ Outdoor Advertising and Litter Control (Course No. FHWA-NHI-134109F)
- ◆ Roadside Vegetation Management (Course No. FHWA-NHI-134109G)
- ◆ Weather-Related Operations (Course No. FHWA-NHI-134109H)
- ◆ Basics of Work-Zone Traffic Control (Course No. FHWA-NHI-134109I)
- ◆ Underground Storage Tanks (Course No. FHWA-NHI-134109J)
- ◆ Cultural and Historic Preservation (Course No. FHWA-NHI-134109K)

The courses are designed for State, county, or regional agency personnel who manage transportation maintenance and operations programs and handle oversight, quality assurance, materials, scheduling, budgeting, or planning.

For more information on the Maintenance Training Series or to register, visit www.nhi.fhwa.dot.gov (click on 'Register for a Course'). Information on the series is also available by contacting Christopher Newman at FHWA, 202-366-2023 (email: christopher.newman@fhwa.dot.gov).



*Improving the
Performance of the
Transportation
Industry Through
Training*



You're Invited!

APWA-NC MEET & GREET Luncheon

Thursday, December 1, 2011
11:00 AM - 12:45 PM

College of Textiles, Convocation Center, Room 2309
NC State University's Centennial Campus, Raleigh, NC

Each year the North Carolina Chapter of APWA hosts a Meet and Greet luncheon for new, curious, and potential members who would like to know a little more about the chapter and have an opportunity to meet the chapter's leadership. This luncheon is intended to be informative and fun! Please plan to attend.

Join us to welcome and celebrate our new members, meet your APWA-NC chapter leaders, learn about our technical divisions, and network with other public works professionals.

Space is limited!

To reserve your seat, register on-line
<http://northcarolina.apwa.net/events/7629/>

Reservation deadline is Wednesday, Nov 23

or send your business card to:
Bob Wilson, Membership Committee
US Infrastructure of Carolina, Inc.
1043 E. Morehead Street, Suite 203
Charlotte, NC 28204
Phone: 704-342-3007
Email: wilsonr@usi-eng.com

Directions to ITRE: <http://itre.ncsu.edu/ITRE/location.html>

Save the Dates: Register now!

APWA-NC Construction Inspection for Public Works Projects
March 5-7, 2012 in Raleigh

APWA-NC Advanced Construction Inspection
May, 17-18, 2012 in Charlotte

<http://northcarolina.apwa.net/events/7656/>



Every Day Counts - December 15, 2011

You are invited to participate in a series of seminars on the FHWA Every Day Counts initiative

These sessions will be held in Raleigh in the ITRE classroom, Room 2600 in Research IV on NC State Centennial Campus.

The "season premier" will be December 15, 2011 from 1-4 pm.

This training is designed to help local transportation agencies.

These three hour events will include effective project development and delivery practices, tools and "market ready" technologies that local and tribal transportation agencies can readily implement into their programs.

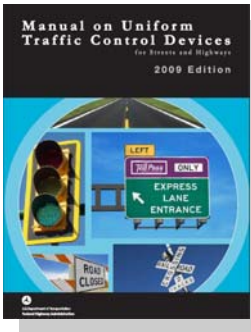
FHWA national subject matter experts, in conjunction with FHWA and State DOT field office experts, will provide information and materials, and facilitate discussions designed specifically for the local/tribal transportation managers. More information about Every Day Counts can be found at <http://www.fhwa.dot.gov/everydaycounts/>.

These sessions are free, but please register online at the link below if you would like to attend. Or email linda_collier@ncsu.edu to reserve your space.

<http://www.itre.ncsu.edu/LTAP/education/selection.asp#LTAP-EDC>

Taped Webinar Now Available: MUTCD Compliance Dates and Definition of Standard Statements

MUTCD Compliance Dates and Definition of Standard Statements Webinar Taped September 27



The FHWA's MUTCD Team discussed two proposed rules that are currently open for public comments. They provided information on the proposed rule on the definition of standard statements, the use of engineering judgment, and the proposed rule on MUTCD compliance dates. The presentation will be imbedded in the webinar.

There is no fee for viewing this webinar. [Click here to Watch Now](#)

Save The Dates For the Next Two Webinars:

A Tutorial on Establishing Effective Work Zone Performance Measures

October 27, 1-2:30 p.m. EST

This webinar will introduce the participant to the reasons that work zone performance measures should be established, describe a general process that agencies can follow to establish work zone performance measures that are useful to them, and provide several examples of how agencies can start computing work zone performance measures from the data they may have available or can easily collect.



Guidance on Managing Speeds in Work Zones

November 30, 1-2:30 p.m. EST



The determination of work zone speed limits is typically based on state laws, agency policies and engineering judgment. Many factors impact the decision to reduce the regulatory speed limit in a work zone, implement speed limit management strategies and utilize speed reduction strategies. The information presented in this webinar should aid agencies and highway contractors in understanding these factors and the interaction among them.

ABOUT THE NATIONAL WORK ZONE SAFETY INFORMATION CLEARINGHOUSE

The National Work Zone Safety Information Clearinghouse is dedicated to providing the transportation construction industry and the general public with comprehensive information to improve motorist, worker and pedestrian safety in roadway work zones. The Clearinghouse has the world's largest online library of free information on work zone safety, www.workzonesafety.org.



NCTROADS: A listserv that works for you!

NCTROADS, the NC LTAP listserv, is an informal network for the exchange of news about current research, discussion of problems and solutions, request for advice and assistance, and announcements of upcoming conferences, events and training opportunities for transportation personnel.

Once you are subscribed, you can send a message all the listserv members at NCTROADS@lists.ncsu.edu



To Subscribe:

Send a email to linda_collier@ncsu.edu and ask to be added to NCTROADS

To Post A Message (after you subscribe):

Send an e-mail message to: NCTROADS@lists.ncsu.edu

Distracted Driving Challenge

Play the game and learn about Distracted Driving Laws in North Carolina

<http://www.distraction.gov/distraction-challenge/index.html#/intro>

Official US Government Website for Distracted Driving

<http://www.distraction.gov/>

Driving and Texting Video

<http://www.youtube.com/user/OregonSafetyHealth#p/c/3/bIFsd17Heu8>

Registration Form North Carolina Local Technical Assistance Program

Register by Mail: Fill out a copy of this form and mail with a *check payable to NC State University* ITRE/NC State, Attention: Bill Woods, Campus Box 8601, Raleigh NC 27695-8601

By Email: bill_woods@ncsu.edu

Online: www.itre.ncsu.edu/itremain/education/training_list.html#LTAP

COMING SOON! Watch the NCLTAP website for additional training opportunities.

Sign Me Up	Date	Class Title	Location	RS/ARS	Cost
	November 1	Basic Work Zone Safety Training	Raleigh	RS	\$99
	November 2	Intermediate Work Zone Safety Training	Raleigh	RS	\$99
	November 3	Basic Drainage/Roadway Drainage Maintenance	Raleigh	RS	\$99
	November 4	Guardrail Design, Installation and Maintenance	Raleigh	ARS	\$99
	November 8	Flagger Training AM 7:30 am	Morganton	RS	\$69
	November 8	Flagger Training PM Noon	Morganton	RS	\$69
	November 9-10	Flagging Instructor Training	Morganton	ARS	\$175
	November 10	Maintenance and Repair of Utility Cuts	Mooresville	RS	\$69
	November 15	Flagger Training AM 7:30 am	New Bern	RS	\$69
	November 15	Flagger Training PM Noon	New Bern	RS	\$69
	November 16-17	Flagging Instructor Training	New Bern	ARS	\$175
	November 17	Computers: Reports and Presentations	Raleigh		\$99
	December 5	Basic Work Zone Safety Training	Raleigh	RS	\$99
	December 6-8	Work Zone Traffic Control Supervisor	Raleigh	ARS	\$345
	December 8-9	OSHA 10 Hour Safety Training	Raleigh	ARS	\$150
	December 13	Flagger Training AM 7:30 am	Raleigh	RS	\$69
	December 13	Flagger Training PM Noon	Raleigh	RS	\$69
	December 14-15	Flagging Instructor Training	Raleigh	ARS	\$175
	2012				
	January 13	Fall Protection	Raleigh	ARS	\$125
	January 18	Managing Conflict with the Public and Employees	Raleigh	RS	\$99
	February 8	Construction Math	Raleigh	RS	\$99
	February 9	Plan Reading for Transportation Personnel (4 hours)	Raleigh	RS	\$69
	February 28	Basic Work Zone Safety Training	Maggie Valley	RS	\$99
	February 29	Trenching Competent Person	Raleigh	ARS	\$125
	February 29	Basic Work Zone Safety Training	Maggie Valley	RS	\$99
	March 1	Flagger Training (4 hours)	Maggie Valley	RS	\$69
	March 12	Confined Space Entry and Lockout/Tagout	Raleigh	ARS	\$125

Confirmation letters with class detail will be **emailed** 2 weeks prior to the class. Dress is casual.

Name: _____ Department: _____
 Title: _____
 Agency: _____ Address: _____
 City: _____ State: _____ Zip: _____
 Phone: _____ Fax: _____
 Email: _____
 Supervisor's Name: _____ Title: _____
 Confirmation email should be sent to: _____

Let Us Know . . .

To update your mail information, add a colleague to the database or obtain information about the Roads Scholar Program,

Fax this sheet to 919-515-8897.

Your Name: _____

Company/Organization: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____

Fax: _____

email: _____

Check Appropriate items:

- Add/update to the NCLTAP listserv NCTROADS
- Send information about Roads Scholar program
- Send schedule of Training opportunities

I would like to borrow (check box below):

	Sand and Salt Spreader Calibration, 2007, Massachusetts Technology Transfer Center	DVD 13 minutes
	Anti-Icing for Maintenance Personnel, 1966, FHWA	Video 12 minutes
	New Generation of Snow and Ice Control: Anti-Icing and RWIS, 2001, FHWA	Video 7 minutes

Coming Soon!

Asphalt Roller Operator Safety Training	Raleigh	\$125.00
Motorgrader Operator Safety Training	Raleigh	\$125.00

Watch the NC LTAP website for additional training opportunities



Get the Picture!

by Timothy B. Baughman, PE
ITRE's Highway Operations and Safety Manager

So what's wrong here? The photo is taken at the stop position at this "Y" intersection. You can see the back of a warning sign that has been placed for work to your right. Looking around the sign, you can see a vehicle making its right turn on the approach to you. However, you cannot see the truck in the left lane approaching you. When signs are placed near intersections, side-roads, and even driveways, the installer must check that sight distance is maintained.

If you have any questions or comments about worker safety and work zone traffic control, give me a call at (919) 515-8654, or email me at tbb@ncsu.edu.

To find out what is going on at ITRE you can view the ITRE Directions Newsletter here:

<http://www.itre.ncsu.edu/ITRE/news/newsletters/ITRE-Directions-2011-summer.pdf>

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2011 NC LTAP Advisory Board

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Nagui Roupail, Ph.D., ITRE/NCSU

Gary Smith, City of High Point



LTAP Links on the Web	
NC LTAP	http://itre.ncsu.edu/LTAP/
National LTAP/TTAP	http://www.ltapt2.org/
Federal Highway Administration (FHWA)	http://www.fhwa.dot.gov/
Institute of Transportation Engineers (ITE)	http://www.ite.org/
U.S. Department of Transportation	http://www.dot.gov/
NCSITE (NC Section of Institute of Transportation Engineers)	http://www.ncsite.org/NCSITE.html
North Carolina Department of Transportation (NCDOT)	http://www.ncdot.org/
NCDOT Safety & Loss Control	http://www.ncdot.org/doh/safety/
School of Government	http://www.sog.unc.edu/

Transportation Tracks is published quarterly by the North Carolina Technology Transfer Center at the Institute for Transportation Research and Education (ITRE), North Carolina State University (NCSU), in cooperation with the North Carolina Department of Transportation (NCDOT) and sponsored by the Federal Highway Administration (FHWA) through its Local Technical Assistance Program (LTAP). Center staff include: James B. Martin, P.E., Director; Linda Collier, Assistant Director and Newsletter Editor; and Bill Woods, Program Assistant.

To be added to the mailing list or to submit articles for the newsletter, contact the center at ITRE: NCSU Centennial Campus, Box 8601, Raleigh, NC, 27695-8601. Phone: (919) 515-8899. Fax: (919) 515-8897. Web site: . Address correction requested. Any opinions, findings, conclusions, or recommendations expressed herein are those of the author(s) and do not necessarily reflect the findings, policies, or procedures of ITRE, NCSU, NCDOT, or FHWA.

transportation **TRACKS**

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