



# GEORGIA ROADS

A Newsletter of Georgia's Technical Assistance Program

Vol. 20, No.13 Summer 2009



Now Available!



The Georgia Department of Transportation has developed this manual to assist local government. Please read the enclosed article on page 3.

## "BETTER ROADS THROUGH COOPERATION"



### Inside this issue:

LTAP Information and Lending Library	2
Local Government Resource Manual	3
Training Events	4
Title VI Forum	7
Hurricane Season	8
Better Back Roads	10
Emergency 911	11

## Selecting the Right Pavement Marking Materials

Pavement markings are a very important part of the communication system for road users along our nation's highways and roads. Can you imagine traveling on a freeway, major highway, or city street without the information that pavement markings provide? Pavement markings can be a very cost-effective roadway improvement in terms of reducing crashes and providing guidance to drivers, especially at night. Part 3 of the *MUTCD* defines the purpose of markings: to regulate and guide traffic movement and promote safety. Markings can be used to supplement other regulatory and warning devices or used alone to provide results that cannot be obtained with other devices without diverting attention from the roadway. Pavement markings, like other traffic control devices, should be easily recognized and understood, well-maintained, and used only in consistent applications, including design, color, and placement location.

### Materials

Pavement marking materials can be divided into two common types: nondurable, primarily paints, and durable, which includes epoxy, thermoplastics, polyurea, polyurethane, tapes, and raised pavement markings. Each type has specific characteristics that must be considered in the selection process, including service life expectancy, color quality, retroreflectivity, special application methods, and of course, initial cost. Because service life and retained retroreflectivity are key elements for agency consideration, these factors should be included in life-cycle analysis to determine the most cost effective material for each type of application.

**Pavement Marking continued p. 5**



**Rick A. Smith Program Director**  
**Beverly Fontenot, Program Training**  
**Coordinator II**  
**Adele Samuel, Program Assistant**  
**R.W. Vaughn, Editor**

**Address**  
 GDOT, LTAP  
 276 Memorial Drive, S.W.  
 Atlanta, GA 30303

**Phone: 404-656-4664**  
**or 1-800-573-6445**  
**Fax: 404-463-3564**

**EMAIL [LTAP@DOT.GA.GOV](mailto:LTAP@DOT.GA.GOV)**

The Local Technical Assistance Program (LTAP) is a nationwide effort financed jointly by the Federal Highway Administration (FHWA) and individual state departments of transportation and/or universities. Its purpose is to disseminate the latest state-of-the-art technologies for roads, highways and bridges to municipal and county highway and transportation personnel.

The Georgia LTAP is supported by FHWA and the Georgia Department of Transportation. The Georgia Roads Newsletter is one of the LTAP's activities. The opinions, findings or recommendations expressed in this newsletter are those of the Georgia LTAP Center and do not necessarily reflect the views of the FHWA or the Georgia Department of Transportation.

The Georgia Roads Newsletter is distributed free of charge to counties, cities, towns and others with transportation responsibilities.

## LTAP Lending Library

Here are some useful media

### Videos

Municipal Storm Water Pollution Prevention

### DVDs

Telephone Doctor:

How to Handle The Irate Caller  
 From Curt to Courteous  
 Five Forbidden Phrases

Operators Pre-Start Motor Grader Inspection

Roadway Safety

A Road Construction Industry Consortium  
 Training Program

### CDs

Common Sense Solutions to Intersection Safety Problems.

### Publications

Ground-Based LiDAR

Rock Slope Mapping and Assessment

Guide to Promoting Bicycling on Federal Lands

### **ASK US ABOUT OTHER TOPICS**



## Georgia DOT Develops Manual to Help Local Government Beverly Fontenot, Training Coordinator, GA LTAP

# Local Government Services and Resources Manual



The Georgia Department of Transportation, (GDOT) has developed *The Local Government Services and Resources Manual* that explains what GDOT does and the services that are available to local government. It is the goal of the GDOT to make it easier for local government to find information and services they need and GDOT employees who can best assist them. *The Local Government Services and Resources Manual* details information about:

1. **Resources to Improve Local Roadways and Bridges** (i.e. State Aid Grant program, Off-system Striping, State Law Compliance and Landscape and Enhancement Programs)
2. **Federal Programs**, such as Federal Aid for Highways and Bridges, Safe Routes to School and Transportation Enhancements programs
3. **Technical Assistance and Training Opportunities** - Local Technical Assistance Program (LTAP) and Rural Transit Assistance Program (RTAP)
4. **Key Information Resources**- Transportation Explorer (TREX), Map Products, Traffic Data/Traffic Counts and the Governor's Road Improvement Program (GRIP)
5. **Permits**- covers Access Management, Driveway Permits, Traffic Signals Permits and Red Light Camera Permits
6. **Maintaining the System** - deals with Bridge Inspection Program, Litter Prevention and Pickup, and Limiting Junkyards
7. **Equipment**- provides information on crane use for bridge repair, surplus materials and roadway signage.

The manual also provides the names, email addresses and telephone numbers of contact persons in each district. Please consider the local GDOT staff as your primary contact for information on the Department – they live and work in the communities, municipalities and counties you represent. The manual can be downloaded from the GDOT website. Go to: [www.dot.ga.gov/localgovernment/Pages/default.aspx](http://www.dot.ga.gov/localgovernment/Pages/default.aspx) then scroll down to “Local Government Manual”

# EVENT CALENDAR

DATE	EVENT	LOCATION
September 3	<b>Chain Saw Safety Workshop</b>	Bibb County
September 22-24	<b>Urban Drainage Design</b>	Forest Park
October 6	<b>Basic Surveying</b>	Macon GDOT Area Office
October 7	<b>Advanced Surveying</b>	Macon GDOT Area Office

### **Work Zone Traffic Control**

Call to set up this workshop at your location

### **Safety 101**

Call to set up this workshop at your location



### **Georgia's on Georgia Highway Safety Association (GHSA) Mind in 2009!**

Plans are underway for GHSA's 2009 Annual Meeting, being held August 29-September 2 in Savannah, GA. This year's theme, "Toward Zero Deaths: Every Life Counts," highlights the association's ambitious fatality reduction goal. Visit [www.ghsa.org/html/meetings/annual/2009/index.html](http://www.ghsa.org/html/meetings/annual/2009/index.html) for more information.

### **APWA 2009 Congress– The Best Show in Public Works**

Plan to attend this spectacular event September 13-16, 2009, Columbus Convention Center, Columbus, OH. Check out APWA's website: [www.apwa.net](http://www.apwa.net) for more information and to register.

## **Pavement Marking continued...**

### **Performance**

Many factors influence the performance of pavement marking materials. The major factors can be grouped into three categories: Roadway Surface, Traffic and Environmental.

### **Roadway Surface**

The roadway surface that material is placed upon is one of the most important factors influencing pavement marking performance. Generally, pavement markings are placed upon three general types of roadway surfaces: hot-mix asphalt concrete, Portland cement concrete and open-graded bituminous pavements.

Engineers can expect a given pavement marking material to perform differently on each surface type. Three major surface characteristics that affect marking performance are: surface roughness, heat sensitivity and surface porosity.

### **Traffic**

Traffic volume greatly influences the performance of a pavement marking regardless of the pavement surface. The service life of nearly all pavement marking materials is decreased when exposed to increased traffic volumes. However, some materials are clearly more resistant to traffic than others. Some agencies select pavement marking materials based on traffic volume levels. Standard water-based paint often provides suitable performance on low volume roadways, thereby making it cost-effective. Durable pavement markings, such as thermoplastics, preformed tapes, and epoxies are often recommended for use on roadways with medium to high traffic volumes. This is mainly because paints often deteriorate rapidly under high traffic conditions, and frequent restriping is not desirable. Under extremely high-traffic conditions or locations of weaving areas or where there are transverse markings, materials of the utmost durability are desirable.

### **Environmental**

Environmental conditions have a major influence on the performance of a pavement marking material. The effect of environmental conditions on performance can be broken in two separate categories:

1. weather conditions when the marking is placed
2. year-round climate.

The weather conditions when the marking is placed are often said to be one of the most influential factors in the performance of the marking. This is especially true for environmentally sensitive materials such as thermoplastics and tapes. Year-round climatic conditions can also affect the long-term performance of a pavement marking material. States in sunbelt regions may experience color fading and cracking of certain pavement marking materials due to more intense ultraviolet exposure in these areas. For all pavement marking materials, a properly cleaned and dried surface is absolutely critical to ensure proper bonding and maximum durability in the performance of nearly all markings, especially thermoplastic.

### **Determining When To Restripe**

Eventually all pavement markings degrade to the point where they reach the end of their useful service life. This is defined as the point when the marking has deteriorated so that it no longer provides suitable visibility to drivers. It may be anywhere from a few weeks to many years after placement of the marking.

### **Determining End-of-Service Life**

Normally, three methods are used for determining the end-of-service life of pavement markings: daytime visual evaluation; nighttime visual evaluation and retroreflectivity evaluation.

**Daytime Visual Evaluation.** Subjective daytime visual evaluation can be performed using the daytime inspection method. This method involves determining the maximum daytime visibility distance of existing markings when viewed from a vehicle. Daytime visual inspection of pavement markings should occur at least once a year.

**Nighttime Visual Evaluation.** Subjective nighttime visual evaluation can be performed using the nighttime inspection method. This method involves determining the maximum nighttime visibility distance of existing markings when viewed from a vehicle with the headlamps on. Nighttime visual inspection of pavement markings should occur at least once per year.

**Retroreflectivity Evaluation.** Retroreflectivity evaluation can be performed by taking a series of retroreflectivity measurements of the markings and comparing them to guidelines for minimum in-service retroreflectivity

For additional information on pavement marking, check out these resources:

Manual on Uniform Traffic Control Devices, 2003 Edition <http://mutcd.fhwa.dot.gov>.

Texas Department of Transportation Pavement Marking Handbook-<http://onlinemanuals.txdot.gov/txdotmanuals/pmh/pmh.pdf>.

Low Cost Safety Improvements, FHWA, March 2004 (workshop material) available at: [www.fhwa.dot.gov/resourcecenter/teams/safety](http://www.fhwa.dot.gov/resourcecenter/teams/safety) or call FHWA at 708-283-3545.

FHWA MUTCD Pavement Marking Tutorial- [http://mutcd.fhwa.dot.gov/PavMkgs/Tutorial/pm\\_types.htm](http://mutcd.fhwa.dot.gov/PavMkgs/Tutorial/pm_types.htm).

Wisconsin Transportation Bulletin • No. 9- [http://epdfiles.engr.wisc.edu/pdf\\_web\\_files/tic/bulletins/Bltn\\_009\\_Pavement\\_Markings.pdf](http://epdfiles.engr.wisc.edu/pdf_web_files/tic/bulletins/Bltn_009_Pavement_Markings.pdf).

The Traffic Control Devices Handbook, ITE, 2003. Available at [www.ite.org](http://www.ite.org) or call 202-289-0222.

Videotapes are available through LTAP free of charge. Some titles that relate to marking are: Sign Maintenance and Installation; FHWA, 27 min., #M/O - 158 Traffic Signs and Markings – S/T- 128

*Reference:*  
*Pavement Marking Handbook, (2004) Texas Department of Transportation from <http://onlinemanuals.txdot.gov/txdotmanuals/pmh/pmh.pdf>*



**Deciding to Restripe**



## **National Title VI/Nondiscrimination Forum** for Local Public Agencies (LPAs) August 19, 2009 Birmingham, AL

The FHWA is sponsoring a **National Title VI Forum** for state and local governments, agencies and organizations who receive FHWA funds. These recipients and sub-recipients must ensure non-discrimination in all their programs and activities, as required by Title VI of the Civil Rights Act of 1964, and related statutes. As leaders for improving mobility on our nation's highways, the FHWA has responsibilities for ensuring that all people, regardless of Race, Color, National Origin, Sex, Age, or Disability share in the benefits of highway programs.

The **National Title VI Forum** will advance the concept of: **Public Funds for Public Benefits!!!**

The **Objectives** of the **Title VI Forum** are:

1. To share information on meeting Title VI requirements and other related statutes and authorities, such as ADA/504, Environmental Justice (EJ), Limited English Proficiency (LEP), etc.
2. To provide an opportunity for our customers, partners, and stakeholders to share knowledge, resources, and demonstrate tools to implement efficient and effective programs that enhance community participation and partnerships.
3. To communicate emerging issues in Title VI and provide updated info on the **American Recovery and Reinvestment Act (ARRA)**.

### **FORMAT**

Keynote speakers

Panels/roundtables/Q&A's

#### **Workshops and General Sessions:**

1. American Recovery and Reinvestment Act (ARRA)
2. FHWA ARRA National Review Teams
3. Sub-recipients' Guide to Implement Title VI
4. Civil Rights Requirements for LPAs (ADA/504, DBE, Title VI, Contractor Compliance)
5. Research & Development (R&D) Opportunities (Partnerships with Minority Colleges & Universities)
6. Title VI Considerations in the Federal-aid Highway Program: Planning, Environment, Design, Right-of-Way, Construction, R&D

### **EXHIBITS**

**Product Demonstration Showcase (PDS)** of Title VI Tools

Public Involvement Software

ADA and Title VI e-learning Tools

Data Collection and Analysis Software Demonstrations

Brochures, Program Documents, Sample Plans, Forms, etc.

***No Registration Fee for the Forum!***

***WHEN: August 19, 2009 (8:00 a.m. – 5:00 p.m.)***

***WHERE: Wyndfrey Hotel, 1000 Riverchase Galleria, Birmingham, AL 35244***

***Phone: 205-987-1600 for Reservations***

***TO REGISTER: Visit the following website: [www.brgfl.com/STCREC](http://www.brgfl.com/STCREC) or for more information contact:***

***Teresa Banks 404-562-3592; Candace Groudine 202-366-4634; Mohamed Dumbuya 804-775-3339***

## Hurricane season is underway

The Atlantic hurricane season began June 1 and runs through November, with August and September being the busiest part of the season.

[The National Hurricane Center](#) predicts there will be nine to 14 named storms, four to seven hurricanes and one to three major hurricanes at Category 3 or higher this season.

Take steps now, and do small things incrementally to get ready for the hurricane season. Use the following checklist as a guide to help prepare.

### DISASTER SUPPLY KIT

- Water** - at least 1 gallon daily per person for 3 to 7 days
- Food** - at least enough for 3 to 7 days
  - non-perishable packaged or canned food / juices
  - foods for infants or the elderly
  - snack foods
  - non-electric can opener
  - cooking tools / fuel
  - paper plates / plastic utensils
- Blankets / Pillows, etc.**
- Clothing** - seasonal / rain gear/ sturdy shoes
- First Aid Kit / Medicines / Prescription Drugs**
- Special Items** - for babies and the elderly
- Toiletries / Hygiene items / Moisture wipes**
- Flashlight / Batteries**
- Radio** - Battery operated weather radio
- Telephones** - Fully charged cell phone with extra battery and a traditional (not cordless) telephone set
- Cash (with some small bills) and Credit Cards** - Banks and ATMs may not be available for extended periods
- Keys**
- Toys, Books and Games**
- Important documents** - in a waterproof container or watertight resealable plastic bag
  - insurance, medical records, bank account numbers, social security card, etc.
- Tools** - keep a set with you during the storm
- Vehicle fuel tanks filled**
- Pet care items**
  - proper identification / immunization records / medications
  - ample supply of food and water
  - a carrier or cage
  - muzzle and leash

Reference: [www.nhc.noaa.gov/HAW2/english/prepare/supply\\_kit.shtml](http://www.nhc.noaa.gov/HAW2/english/prepare/supply_kit.shtml)



# FAMILY DISASTER PLAN

- ✓ Discuss the type of hazards that could affect your family. Know your home's vulnerability to [storm surge](#), [flooding](#) and [wind](#).
- ✓ Locate a safe room or the safest areas in your home for each hurricane hazard. In certain circumstances the safest areas may not be your home but within your community.
- ✓ Determine escape routes from your home and places to meet. These should be measured in tens of miles rather than hundreds of miles.
- ✓ Have an out-of-state friend as a family contact, so all your family members have a single point of contact.
- ✓ Make a plan now for what to do with your [pets](#) if you need to evacuate.
  
- ✓ Check your insurance coverage - flood damage is not usually covered by homeowners insurance. Stock non-perishable emergency supplies and a [Disaster Supply Kit](#).

Reference: [http://www.nhc.noaa.gov/HAW2/english/prepare/family\\_plan.shtml](http://www.nhc.noaa.gov/HAW2/english/prepare/family_plan.shtml)



## Common Sense Approach to Traffic Control in Intersections

Have you ever had to set up a work site in the middle of an intersection? Then you're all too familiar with the problem this causes with cross traffic, turn lanes, extra directional signs, and often signals. When setting up a work site in or near an intersection, you're making it even that much more difficult for motorists. To find ways to help guide motorists past your work site when you're working in an intersection, check out "A Common Sense Approach to Low Speed Traffic Control" by Traffic Education & Consulting Services. This video and participant guide can be checked out from our LTAP library free of charge.



## Road Safety Audits (RSA) for Local Governments Workshop—Orlando Florida

This free, workshop introduces local road agency professionals to RSAs as an effective tool to reduce injuries and fatalities. The training includes basic road safety audit concepts, risk and safety, common issues, and demonstrates how low cost safety improvements can be implemented quickly on any road network. Participants will gain experience in conducting a Road Safety Audit. Register for this events by clicking on the links above or by calling 352-273-1675.

<http://t2.ce.ufl.edu/workshops.asp?workshop=RSA1>

**Tuesday September 22** 2:00 p.m.–5:00 p.m.

**Wednesday September 23** 8:00 a.m.–5:00 p.m.

## AASHTO Video Advances Life-Saving Study

Approximately 60 percent of the nation's highway deaths are caused by lane departure crashes. This type of collision occurs when a vehicle veers from its lane. The American Association of State Highway and Transportation, AASHTO, released "Driving Down Lane-Departure Crashes," a study outlining a number of relatively low-cost, systematic approaches that many state departments of transportation are implementing to save lives. You can watch this educational video by visiting [www.youtube.com/aashtovideo](http://www.youtube.com/aashtovideo), or by logging onto [www.transportation.org](http://www.transportation.org)

Share your successes (and your challenges) with the LTAP community. If you have tried something new that is working well, send in the details and it may be included in the LTAP newsletter. If you have a challenge, maybe LTAP can help you address it and include the story in the newsletter. Photos of interesting transportation features in your community can also be submitted for the newsletter.

# Georgia Better Back Roads Program

From Rick, A. Smith, Director GA, LTAP



## Project Background:

County commissioners from throughout the state have long been concerned with the increased cost for maintaining unpaved roads, as well as the potential for water quality related fines caused by sediment leaving these dirt roads. In response, the Two Rivers Resources Conservation and Development (RC&D) Council has secured a Georgia Environmental Protection Division grant to address these needs. This statewide partnership includes NRCS Field Offices, Georgia RC&D Councils, Georgia Soil and Water Conservation Districts, Georgia DOT, Georgia Association County Commissioners of Georgia (ACCG), and the Georgia Chapter of the American Public Works Association. The project will have three components: 1) Statewide Demonstration Sites, 2) Statewide Training Seminars, and 3) Publication of an Unpaved Road Maintenance Manual.

## Project Goals:

1. Improve water quality by identifying cost-effective techniques/materials for stabilizing road surfaces and ditches.
2. Establish and monitor 40 statewide demonstration sites.
3. Document/Publish project results in the Unpaved Road Improvement Manual.
4. Provide statewide training opportunities to county officials, state and federal agencies responsible for maintaining unpaved public roads.


## Project Timeline:


1. Demonstration Sites - Forty statewide sites will be treated by July 2010
2. Unpaved Road Maintenance Manual - A Georgia manual will be published by November 2009
3. Statewide Training Seminars - Two statewide seminars will be conducted before February 2010.

The concept of people helping people to improve the environment and their standard of living is not a new one. RC&D Councils have been doing this since 1964. Today, there are more than 368 independent RC&D Councils in the United States. In Georgia, the Two River RC&D Council is one of 11 Councils authorized and partially funded by the USDA Natural Resources Conservation Service, all incorporated as non-profits under section 501c (3) of the Internal Revenue Code. To learn more about Two Rivers RC&D or the Georgia Better Back Roads Program, contact them at [www.tworivers.org](http://www.tworivers.org).



100 Ridley Avenue  
LaGrange, GA 30240  
Phone: 706-885-0101  
Fax: 706-885-0103  
Email: [tworiversrcd@hotmail.com](mailto:tworiversrcd@hotmail.com)





**GEORGIA DEPARTMENT OF TRANSPORTATION  
LOCAL TECHNICAL ASSISTANCE PROGRAM  
276 Memorial Drive SW  
Atlanta, GA 30303-3743**

Working with Georgia Cities and Counties to Improve Transportation

Postage



**Grant Available to Help States Upgrade 9-1-1 Services**

The U.S. Department of Transportation’s National Highway Traffic Safety Administration (NHTSA) and the U.S. Department of Commerce’s National Telecommunications and Information Administration (NTIA) have announced the Notice of Funding Availability for more than \$40 million in grants to help states and territories improve their 9-1-1 call centers. The grants were authorized by the “Ensuring Help Arrives Near Callers Employing 9-1-1 Act” (ENHANCE 911 Act).

All States, the District of Columbia, Puerto Rico and U.S. Territories are eligible for the grants. Among other things, the funds will be used to implement technologies to deliver wireless 9-1-1 calls with automatic location information.

The joint announcement, published in the Federal Register, spells out details of the grant program, including the application and administrative requirements of the Final Rule. The funds will be awarded in fiscal year 2009. Interested parties will have 60 days to submit applications. Instructions for applicants can be found at: [www.e-911ico.gov/](http://www.e-911ico.gov/). Questions related to the application process can be directed to [nhtsa.national911@dot.gov](mailto:nhtsa.national911@dot.gov) or 202-366-3485.

**NEW SUBSCRIBER OR UPDATE YOUR INFORMATION**

Circle one

City \_\_\_\_\_ County \_\_\_\_\_ State \_\_\_\_\_ Federal \_\_\_\_\_ Contractor \_\_\_\_\_ Consultant \_\_\_\_\_

Name \_\_\_\_\_

Organization \_\_\_\_\_

Address \_\_\_\_\_

City/State \_\_\_\_\_ Zip Code \_\_\_\_\_

Phone \_\_\_\_\_ Fax \_\_\_\_\_

Email \_\_\_\_\_

Comments: \_\_\_\_\_

Call Toll Free: 1-800-573-6445

Email: LTAP@dot.ga.gov Fax: 404-656-3564 Ph: 404-656-5364

CUT OR FOLD AND TAPE IF INCLUDING COMMENTS

**ABOUT THE CONTENT OF GEORGIA ROADS...**

I find the writing to be (check one below):

\_\_\_\_\_ too technical \_\_\_\_\_ not technical enough \_\_\_\_\_ at the technical level I want

I rate the appearance to be (check one):

\_\_\_\_\_ not appealing \_\_\_\_\_ not clear enough \_\_\_\_\_ appealing \_\_\_\_\_ clear

Rank the following subject areas from 1 to 6 in order of importance to you:

One being the most important

Research \_\_\_\_\_ Technology and Engineering \_\_\_\_\_ Innovative ideas

APWA membership news \_\_\_\_\_ Maintenance \_\_\_\_\_ Questions and Opinions

I feel this newsletter (check all that apply)

\_\_\_\_\_ keeps readers up to date on innovation, technology, and maintenance

\_\_\_\_\_ provides me with useful information of local interest

\_\_\_\_\_ provides me with useful in my job

Comments: \_\_\_\_\_

CUT IF MAILING OR FAX TO 404-463-3564

**Georgia Department of Transportation  
Local Technical Assistance Program**

276 Memorial Drive S.W.  
Atlanta, GA 30303



Sponsored by:  
Georgia Department of  
Transportation  
U.S. Department of  
Transportation  
Federal Highway  
Administration

**GEORGIA ROADS**

Is a technical newsletter about local roads published by the Georgia Department of Transportation Local Technical Assistance Program. It is written for Georgia's municipal and county employees who are responsible for planning and managing local roads. All your comments, questions, and suggestions are welcome. Please call us toll free at 1-800-573-6445.