

TECHNOLOGY *eXchange*

For more information, visit our website:
<http://www.ltrc.lsu.edu/ltap.html>

Lafayette Joins Roundabout Circle



If you ask Tony Tramel, Director of the Traffic and Transportation Department of the Lafayette Consolidated Government, about Lafayette's new "modern roundabout," you'll hear an enthusiastic testimony as to how congestion and delays have been reduced in a cost-effective manner. Add

that to the positive comments from initially dubious motorists who have been won over by the simplicity of the design and the ease of use and you can recognize a successful project.

Lafayette developed preliminary designs for LADOTD, who then finalized the construc-

Cont. on page 2

National Public Works Week

National Public Works Week (NPWW) was celebrated May 16-22 this year. NPWW is a celebration of the tens of thousands of men and women in North America who provide and maintain the infrastructure and services collectively known as public works. This year's theme "24/7: Focused on Our Community" highlighted the hard work and dedication of public works personnel and the contribution that these workers make to our local communities.

Instituted as a public education campaign by the American Public Works Association (APWA) in 1960, NPWW calls attention to the importance of public works in community life. The week seeks to enhance the prestige of the often-unsung heroes of our society—the professionals who serve the public good every day with quiet dedication.

Public works agencies and professionals are encouraged to take the opportunity to make their stories known in their communities. Over the years, National Public Works Week observances have taken many forms, including parades, displays of public works equipment, high school essay contests, open houses, programs for civic organizations, and media events. The occasion is marked each year with scores of resolutions and proclamations from mayors and governors as well. However, as the theme of this year's Public Works Week reflects, the public works professionals serve our communities 24/7 all year long. Agencies and communities are encouraged to recognize the service of this profession on a regular and ongoing basis.

Lafayette Joins Roundabout Circle, continued from page 1

tion plans and built the modern roundabout in August 2003 at the intersection of two state highways, Ridge Road (LA 242) and Rue de Belier (LA 93). This project was the first modern roundabout constructed in the state by LADOTD. The roundabout replaced a three-way stop intersection design that was plagued with lengthy delays during peak traffic hours. Encouraged by the success of the first roundabout, Tramel said that other sites are being considered for roundabout design.

Modern roundabouts, primarily developed in the United Kingdom starting in the 1960's, are widely used in other countries. They are gaining popularity in the United States as their advantages over traditional intersection designs become more widely accepted. Forty states now use or are experimenting with roundabouts. According to the Seattle Times, there are more than 600 in the United States. Utah is one of the leaders with over 40 roundabouts in use and

more on the drawing table. Some of these were implemented to keep traffic moving when Salt Lake City hosted the Olympic games.

Experts warn that roundabouts should not be confused with old traffic circles, which are often very large with traffic entering and exiting at high speeds. The modern roundabouts actually reduce circle size along with vehicle entry and exit speeds. When properly designed, roundabouts have been shown to reduce crashes by 50 to 90 percent when compared to two- and four-way stops or signalized intersections (Better Roads, 2003). Properly designed roundabouts also result in significantly fewer vehicle-to-vehicle or vehicle-to-pedestrian conflict points.

In addition to the safety and congestion improvements, roundabouts are also cost-effective from both the construction and the maintenance perspectives. No long-term maintenance of signals has resulted in these significant cost savings to local agencies.

Although their benefits are obvious, roundabouts are not a panacea for all traffic congestion problems. Proper design selection procedures should be followed. In "A Policy on Geometric Design of Highways and Streets," the American Association of State Highway and Transportation Officials (AASHTO) presents six warrants (selection criteria) for interchanges and grade separations, including reduction in bottlenecks, crashes, and traffic volumes.

Selecting the most appropriate type of interchange depends on various factors such as

the number of intersection approaches, expected traffic movement, expected volumes and accommodations for pedestrians and bicyclists and access for persons with disabilities. However, a modern roundabout might be the most cost-effective solution for delay-plagued diamond interchanges with low-to-moderate traffic flows.

There is no shortage of information on roundabouts. A "Google" search yielded over 89,000 hits. A good place to start is to search the Federal Highway Administration site at <http://www.fhwa.dot.gov>.



LADOTD Transportation Enhancement Program:

A Call for Projects

LADOTD has designated the period of June 1 – July 31, 2004, as the time to submit applications for funding reimbursement under the LADOTD Transportation Enhancement Program, a federally funded program administered through LADOTD. The goal is to work toward building a more balanced transportation system that includes pedestrians and bicyclists as well as the motoring public.

Projects, however, are not limited to sidewalks and bike paths. They can include safety and educational activities for pedestrians and bicyclists; landscaping and other scenic beautification; historical preservation of abandoned railway corridors; scenic or historic highway programs including the provision of tourist and welcome center facilities; archaeological planning and research; control and removal of outdoor advertising; environmental mitigation; and the establishment of transportation museums. Thirty-four projects were selected for funding in 2003 and totalling approximately \$8.3 million. The costs of each of these projects ranged between \$25,000 and \$399,000, with the average project costing approximately \$200,000 to \$250,000.

To be considered for funding, projects must meet three basic eligibility criteria:

- Does the proposed project fit into one of the 12 enhancement categories?
- Does it relate to surface transportation?
- Does the project have a sponsor that complies with the program guidelines?

Information necessary to apply for project reimbursement and the application itself is found in the Transportation Enhancement Information Guide. These documents as well as additional information on the program can be found on the Transportation Enhancement Program website at <http://www.dotd.state.la.us/planning/tep>.



Berwick Lighthouse Renovation
State Project No. 424-05-0092
Berwick Downtown Lighthouse Parkway

Interested project applicants and sponsors are urged to review the requirements for the program, including the required fund match, eligibility criteria, and the application deadline. Applicants having questions are encouraged to call the staff of the Enhancement Program at (225) 379-1351 as early in the application preparation process as possible.



Sidewalk
Enhancement at St.
Francisville
State Project No. 744-
63-0001
St. Francisville
Revitalization Plan

Examples of past Transportation Enhancement Program projects

Remarkable but True: Mendocino County, CA, Reduces Road Accidents by 42%

LTAP Showcase to Detail Process



Mendocino County lies on the coast of California, about one hundred miles north of San Francisco. The Mendocino County Department of Transportation (MDOT) is responsible for just over 1,000 centerline miles of roadway and serves a population of 87,000 people inhabiting a 3,510-square-mile area. During the 1990s, MDOT developed a program of Road System Traffic Safety Reviews (RSTSR) to improve signing and markings on the arterials and collectors in the system. The effectiveness of the program was measured by comparing accident data for the reviewed roads with the data for roads not included in, or influenced, by the reviews. Over two consecutive three-year cycles, the number of accidents on the reviewed roads fell

by 42.1 percent, while on the county-maintained roads not included in the program, they increased by 26.5 percent.

While a 42 percent reduction in low-volume road crashes may seem unbelievable to many safety professionals, the cost-to-benefit ratio of 1:299 is truly astounding. The low-cost and high return puts the program within the reach of even the most sparsely populated farm-to-market county or parish. The total cost to conduct the reviews and implement the recommended changes from 1987 through 1995 was \$79,300.

The Mendocino RSTSR Showcase will be held in Ukiah, CA on September 28 and 29, 2004. The Showcase will include:

- Details on the entire process from start-up to implementation and evaluation

- Guided visits to improved sites
- Hands-on application of process at untreated sites
- Post-showcase support to attendees including grant assistance and technical "on-call" assistance
- An easy-to-use Sign Management System (SMS) software package developed by the New Hampshire LTAP Center
- An Asset Management software package developed by the Utah LTAP Center

Registration fees will be kept as low as possible and special room rates are being arranged. Some scholarships may be available. The final details are still being determined, so mark your calendar and watch for more information in the next Technology Exchange.



Road Traffic Injuries: A Worldwide Threat

World Health Organization Declares Road Safety as World Health Day Focus

A Global Problem

Road traffic collisions take the lives of 1.2 million people around the world each year and injure millions more. In addition to the human loss, pain, and suffering, these injuries represent a loss of approximately \$65 billion annually (World Health Organization, 2003). To highlight the problem and encourage public discussion and action, the World Health Organization dedicated its annual World Health Day, April 7, 2004, to Road Safety.

The Problem in the United States

The number of traffic fatalities in the U.S. has increased annually since 1998. In 2002 over 42,800 people were killed in traffic collisions, and many more were injured. Of the fatalities 26,549 were drivers and 10,571 were passengers. In addition, over 4800 pedestrians and 662 cyclists were killed (Federal Highway Administration, 2004).

At Home in Louisiana

According to the Louisiana Highway Safety Commission, there were 815 fatal crashes in 2002 in Louisiana resulting in 911 fatalities. In addition, there were 87,100 traffic related injuries and 114,900 property damage only crashes. Louisiana is one of the top three states in number of fatalities and collisions per miles traveled. In addition to the immeasurable personal loss, the dollar cost from these crashes and injuries is staggering. It is estimated that these crashes cost the citizens of Louisiana around \$5.3 billion every year. This equals \$1,880 for every driver in Louisiana. This is the 2nd highest cost per driver in the country.

More Sobering Statistics

- Louisiana ranks 9th in the country for the percentage of persons killed in crashes with blood alcohol levels above 0.08.
- 431 of the 911 fatalities were estimated to be alcohol related.
- 10.6 percent of the 51,000 crashes with injuries involved alcohol.
- 64 percent of drivers killed were not wearing seatbelts.
- 65 percent of all occupants killed were not wearing seatbelts.
- 69 percent of passengers ages 5 years and older who were killed were not wearing seatbelts.
- 42 percent of children ages 4 and younger killed were not properly restrained.
- Nearly 72,000 of the crashes in Louisiana occurred on local, non-state funded roads.
- 164 of the crashes on local roads resulted in fatalities.

Clearly we would all benefit from reducing the tragic and expensive costs of traffic related crashes. Each of us can personally and professionally contribute everyday to improving safety on our roadways.

- Continue implementation of well-designed, properly maintained, and well-marked roads.
- Wear your seatbelt. Require your employees and family members to do so. A one percent increase in seatbelt usage could save 14 lives and prevent over 400 injuries in Louisiana next year.
- Follow the traffic laws and speed limits.
- Don't drink and drive or allow anyone else to drink and drive. Support stiffer enforcement and penalties for those who drive drunk.



Workplace Safety is Always Important

Roads Scholar Safety Course Participation Tops 350

“Opened my eyes to safety...” “Taught me that safety saves lives...” “Safety first!” “Provided better knowledge of safety operations in the field and shop...” “Pointed out the need for awareness and what is taken for granted...” These are just a few of the many positive comments provided by the over 350 participants in Roads Scholar courses #5 and # 6 conducted in February and March by LTAP’s David McFarland. The participants clearly appreciated the opportunity to attend the classes that served as an introduction for some and a refresher for others.

The classes, “Safety: A Common Sense Approach for the Public Worker” and “Equipment Operation and Worker Safety,” provide a multi-media presentation on workplace safety led by LTAP’s experienced safety trainer, David McFarland. He uses real life and death examples to paint a compelling picture of the need for vigilance and the importance of individuals to their own safety and to their organizations’ “safety teams.”

If your organization would benefit from participating in these courses, or if you need training on other safety topics, contact David McFarland at (225) 767-9118. LTAP routinely offers these and other classes at regional locations. We will also come directly to your worksite to present training and work with your training staff and supervisors to develop ongoing programs that will help keep your workers safe and productive.

Useful Information on Transportation Education and Careers

Department of Transportation Education Homepages (Kindergarten through Lifelong Learning)

Garrett A. Morgan Technology and Transportation Futures Homepage

<http://education.dot.gov>

Transportation Heroes & Heroines | TEENzine | DOT schools, training, and resources | Who is Garrett A. Morgan?

Bureau of Transportation Statistics (BTS)

www.bts.gov/edu

Age-specific resources | Educational and fun links | On-line libraries

Federal Aviation Administration (FAA)

www.faa.gov/education/

Careers in transportation | Curriculum ideas | Calendar of Events / ACE Camp Art Contest | Grants and Scholarships | Resource Library | Region-by-region information

Federal Highway Administration (FHWA)

www.fhwa.dot.gov/education/

Instructional aids for teachers | National Transportation Week | Transportation-related science projects and topics

U.S. Maritime Administration (MARAD)

www.marad.dot.gov/kids

Mark Your Calendar

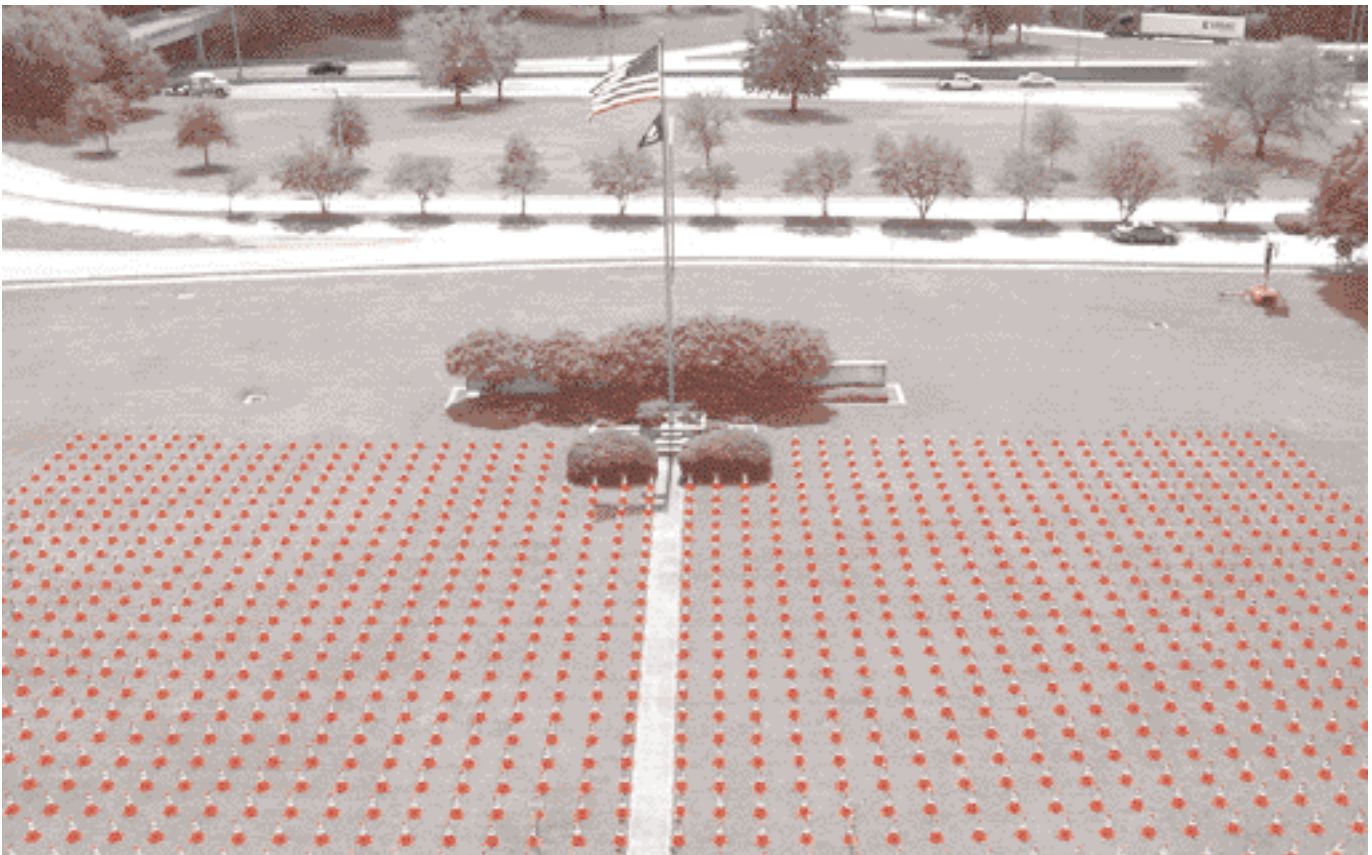
RS #8 Introduction to Successful Supervision for the Local Road Supervisor (Updated Course!)

June 15 - Port Allen
June 17 - Jefferson
June 22 - Alexandria
June 23 - Bossier City
June 24 - Ruston
June 29 - Sulphur
June 30 - Lafayette
July 1 - Slidell

RS # 7 Improving Supervisor Skills

July 7 - Slidell
July 13 - Bossier City
July 14 - Ruston
July 20 - Port Allen
July 21 - Bossier City
July 22 - Jefferson
July 28 - Lafayette
Aug. 10 - Alexandria
Aug. 17 - Sulphur

LADOTD Urges Motorists to "Stay Alert" in Work Zones



LADOTD displays traffic cones in a vivid display of work zone accidents. Each cone represents a person killed in a workzone in 2002.

- 1,181 cones representing the number of people killed in 2002 work zones nationwide
- 14 of the cones represent the Louisiana fatalities in work zones in 2002.

Mailing List Update

Please use this form to update your mailing address or to request to be added to or deleted from the mailing list.

1 Please change my address, as indicated below.

1 Please add this person to the mailing list.

1 Please remove this person from the mailing list.

Name: _____

Title: _____

Organization: _____

Address: _____

City/State/Zip: _____

1 I have the following suggestion(s) for newsletter articles:

Newsletter Staff

Sher Creel, Executive Editor

Emily Wolfe, Writer/Editor

Vicki Dischler, Designer

Jenny Speights, Website Developer

Publication Statement

Technology Exchange is published quarterly by the Louisiana Transportation Research Center. It is the newsletter of the Louisiana Local Technical Assistance Program. Any findings, conclusions, or recommendations presented in this newsletter are those of the authors and do not necessarily reflect those of LSU, LADOTD, or FHWA.

Need Technical Help?.....Contact Our LTAP Center Staff:

Dr. Marie B. Walsh..... Director

David McFarland..... Teaching Associate

Robert D. Breaux..... Office Manager

The Louisiana Local Technical Assistance Program was established at the Louisiana Transportation Research Center on the LSU campus in 1986. The purpose of the center is to provide technical materials, information, and training to help local government agencies in Louisiana maintain and improve their roads and bridges in a cost-effective manner. To accomplish this purpose, we:

- W** publish a quarterly newsletter,
- W** conduct seminars, workshops, and mini-workshops covering various aspects of transportation,
- W** provide a lending library service of audio/visual programs on a variety of transportation topics,
- W** provide technical assistance through phone and mail-in requests relating to transportation technology,
- W** and undertake special projects of interest to municipalities in Louisiana.

225-767-9117

800-595-4722 (in state)

225-767-9156 (fax)

LALTAP@ltrc.lsu.edu (e-mail)

LTAP Center @ Louisiana State University
Louisiana Transportation Research Center
4101 Gourrier Ave.
Baton Rouge, Louisiana 70808

Non-Profit Org.
U.S. Postage
PAID
Permit No. 733
Baton Rouge, LA