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J-turn at US 167 and LA 699

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UPCOMING EVENTS

**NHI Course No. 134077 - Contract
Administration Core Curriculum**
March 24-25
TTEC - 100

*To view more events, please visit
<http://www.ltrc.lsu.edu>.*

RESEARCH

J-Turns near Businesses Shown to Not Decrease Sales

New research from the Louisiana Transportation Research Center is putting Louisiana business owners' minds at ease. A recent study shows J-turn intersections do not appear to have a negative impact on business sales. Instead, researchers found the opposite—an increase in sales on average.

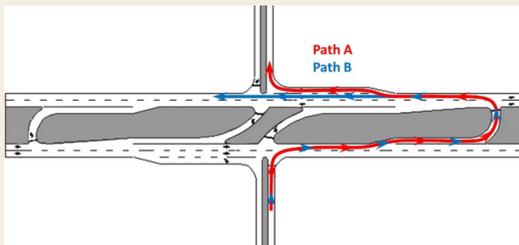
Led by LSU researchers Helmut Schneider, Ph.D., Stephen Barnes, Ph.D., Emily Pfetzer, Ph.D., and Cory Hutchinson, Ph.D., a study was launched in response to concerned businesses located near installed J-turns. The research team explained, "There is sufficient evidence that J-turns reduce severe injury crashes, and the FHWA has added them to their list of 'Proven Safety Countermeasures.' However, there is often resistance from businesses because of potential loss of business due to a perceived reduced ease of access of customers to their business."

The J-turn intersection, also known as a restricted crossing U-turn, or RCUT, is an innovative, safer intersection design that displaces left-turn and through movements from the minor street. This research study, "Economic Effect of Restricted Crossing U-Turn Intersections in Louisiana," assessed the economic impact J-turns have had on businesses by analyzing sales data surrounding 10

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J-turns reduce the risk of crashes and specifically the risk of severe crashes such as side-collisions or T-bone type accidents.



RCUT intersection diagram, FHWA

completed J-turn projects in four Louisiana locations for two years prior and two years after the completion of the projects.

Since 2011, the Louisiana Department of Transportation and Development (DOTD) has deployed approximately a dozen J-turn intersections at strategic locations and along major corridors throughout the state. The J-turns suitable for the study were urban four- and six-lane divided highways, such as US 61 at LA 42 in Baton Rouge.

Using survey methods, researchers sought to provide insight into currently existing access-related concerns among businesses and their patrons near the J-turns. “To gain insight into perceptions of access to businesses in these locations, businesses within a half-mile of existing J-turns constructed from 2011-2013 and their patrons were surveyed,” the research team said. “All data were collected electronically on iPads and facilitated in-person by the research team, accompanied by field supervisors with prior experience

to monitor effort, manage the distribution of interviewers across businesses, and answer any questions throughout the day. Questionnaires were created and programmed using Qualtrics data collection software: one specifically tailored to business managers and employees and the other was developed for a general population.”

The economic impact analysis showed that in the aggregate, mean sales were higher after the J-turns were installed and yielded no evidence at the macro level that J-turns had a negative effect on business sales. Researchers explained, “Rather than harming sales, it appears that the J-turns are positively correlated with growth in areas where they have been installed.”

The team explains that the safety benefits cannot be overstated: “The simple justification for regulating access connections from the road system is that it is in the best interest of the state and the general welfare of the public. In the long-run, once construction is complete and local traffic has grown accustomed to the J-turn, the economic benefits will become apparent.”

To ease apprehension surrounding future J-turn sites, researchers recommend that planners proactively address the concerns of businesses and other stakeholders in preliminary stages of development/project planning. Researchers recommend to foster a more cooperative environment and encourage productive dialog between all parties.

Learn More

To read the report or technical summary in full, please visit our publications page online and select Final Report 617.

For more information, contact Dr. Schneider at hschnei@lsu.edu or 225-578-2516.



RESEARCH

New Accessible Word Template Available

Under the refresh of Section 508 Compliance, all federally funded research with public facing PDFs must now be fully accessible, according to the final federal rule. LTRC has spent the last year adjusting to the new rule and recently launched a new final report Word template and user guide.

The template is an update to reflect accessibility requirements with a navigation pane including built-in styles, headings, and formatting that will pass Section 508 requirements. Within the user guide, researchers can find step-by-step instructions demonstrating how to set up styles, tables, lists, figures, among others. Examples include screen shots to help guide users in understanding how to access new formatting requirements.

LTRC has also updated the website to reflect all accessibility

standards and updated over 180 PDF documents on the LTRC and LTAP sites to ensure accessible content. The publications team is currently in the process of updating over 700 PDFs to comply with the latest standards; however, all new content posted online passes the latest accessibility requirements.

Problems or Questions?

If you have any accessibility questions or Word template problems, please contact Jenny Gilbert at 225-767-9150 or jenny.gilbert@la.gov.

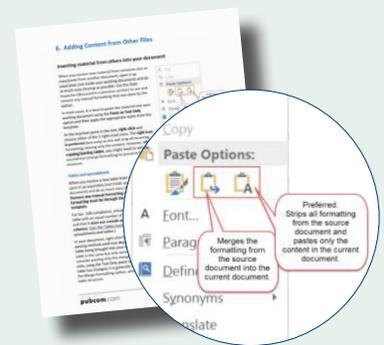
Download here

The new template and user guide is available for download at http://www.ltrc.lsu.edu/downloads.html#pub_forms.



Template Tip

Keep Text Only—When copy and pasting content into the new template, authors must select “Keep Text Only” or “Paste Text Only” to strip all formatting from the source document and paste only the content. If not, the new template cannot function properly. The user guide shows how to do this with text and tables on pg. 21.



RESEARCH

LTRC Associate Director of Research Presents Darrell Elliott Lecture



At this past year’s Louisiana Civil Engineering Conference, Associate Director of Research Tyson Rupnow, Ph.D., P.E., was invited to give the 2019 Darrell Elliott Lecture.

Dr. Rupnow presented “Louisiana Concrete Specifications: A Review of the Past and Current Specifications Program Description,” which included a brief review of DOTD’s past and present specifications, showing the progression in making DOTD’s concrete specifications—some of the most progressive specifications in the United States. By covering topics on phase change materials, alternative cementitious materials, alternative test methods, and nanotechnology, the remainder of the lecture focused on both LTRC and national concrete cutting-edge research efforts working to move concrete into the mid to latter part of the 21st century.

A Closer Look: LTAP Team

The Louisiana Local Technical Assistance Program (LTAP) Center is just one of 52 centers networked throughout the United States. The center's job is to stimulate the progressive transfer of highway technology through training, workforce development, and technical assistance. As a cooperative effort of DOTD, FHWA and LSU, LTAP leverages the expertise and resources of these organizations for the benefit of local transportation and public works agencies.

The LTAP team provides training opportunities, infrastructure management guidance, and technical assistance to local public agencies. This includes transportation workers and public works personnel employed by the parishes, cities, and municipal governments in Louisiana. LTAP has delivered all types of training—from work zone safety, chainsaw safety, and pavement preservation, to winter weather maintenance and basic supervisory skills classes. As the “voice of the locals,” LTAP leverages resources by partnering with LSU, DOTD, FHWA, AASHTO, and NACE as well as with the Louisiana Parish Engineers and Supervisors Association (LPESA), the Louisiana Municipal Association (LMA), the Police Jury Association of LA (PJAL), the American Public Works Association (APWA), the Institute of Transportation Engineers (ITE), and other associations. All of these groups have the same goal of helping local governments deliver a more efficient, safer, and innovative transportation system.



Steven C. Strength serves as the program director for LTAP. Steve was promoted to this position in August following the retirement of his predecessor, Marie Walsh, Ph.D. He oversees the implementation of LTAP's work plan with a core emphasis on workforce development, infrastructure management, worker and roadway safety, and technology transfer programs. He was previously employed by DOTD in the New Orleans District for over 31 years, including 22 years as a District Traffic Operations engineer. He is a past president of the Deep South and Southern Districts of the Institute of Transportation Engineers (ITE), past board member of Gulf Region ITS, and past board chairman of the

South Louisiana Chapter of the National Safety Council. Steve now serves as the National LTAP Association's (NLTAPA) liaison to the National Association of County Engineers (NACE). Steve is a registered professional engineer (PE) and is certified as a Professional Traffic Operations Engineer (PTOE). He earned his bachelor's degree in civil engineering from Auburn University and served in the U.S. Navy for four years after graduation prior to joining DOTD.



Courtney Dupre is the LTAP business manager. She served as LTAP's training coordinator for five years until she was promoted in January 2019, following Bob Breaux's retirement. She takes care of LTAP's budget, training registrations, meeting logistics, catering arrangements, instructor's contracts, and travel authorizations. She manages the day-to-day business functions for all of LTAP. She's your go-to-person if you are scouting for potential training locations or excellent catering possibilities across the state. Courtney holds bachelor's degree in history from LSU and a master's degree in history from ULL.



Leo Marretta has served as the Local Road Safety Program (LRSP) manager for over three years now. He handles the LRSP grant applications and provides technical support to local jurisdictions. He also offers support to the nine regional safety coalitions and facilitates the development of local road safety plans. Leo has 25 years of extensive experience in urban and regional planning, transportation planning, emergency response, and project management. Prior to joining LTAP, he served as the administrator of the Houma-Thibodaux Metropolitan Planning Organization (MPO) for 10 years. Leo holds a bachelor's degree in social welfare from Southeastern Louisiana University and a master's degree in urban planning from Florida Atlantic University.



Rudynah “Dynah” Capone is transitioning into her new role as the LTAP Innovation and Technology Transfer manager. She has 19 years of combined experience in public relations, newswriting, strategic planning, and program implementation. She leads the strategic communications and technology transfer efforts for LTAP, including the quarterly Technology Exchange newsletter, monthly Local Connections e-news, conference exhibits, and other LTAP outreach initiatives. She is also tasked with seeking out opportunities for leadership development, inter-agency collaboration, and innovation exchange that benefit local transportation professionals. Dynah graduated magna cum laude with a bachelor’s degree in mass communications from the University of San Jose Recoletos in the Philippines. In 2019, she earned her Master of Public Administration (MPA) degree from LSU.



Olivia Phelps, a recent California transplant, serves as LTAP’s training coordinator. She sends out training announcements, coordinates the logistics, packages training materials, and travels with trainers or the program director of LTAP to provide training to the locals across the state. Prior to LTAP, she worked as retail store manager of Starbucks for 10 years and as store manager of In-N-Out Burger for three years. Olivia holds a bachelor’s degree in interdisciplinary studies from Arizona State University.



Christopher Melson is the newest addition to the LTRC/LTAP family as program manager. He coordinates LTAP activities with Local Road Safety Program efforts and the implementation efforts for the Louisiana Strategic Highway Safety Plan. He also provides technical assistance to local agencies on road safety problems and oversees course content for LTAP technical and workforce development programs. Chris is excited to join LTAP to serve the training needs of local communities as he used to integrate community perspectives in his previous research management roles. In addition, he serves as an instructor for LTAP technical courses and workshops including “Work Zone Safety,” “Road Safety 365,” “Safety Data Analysis,” “Basics of a Good Road,” etc. as part of LTAP’s annual work program. Chris received his master’s degree in engineering from the University of Texas at Austin and his bachelor’s degree in civil engineering from the University of Wyoming.

STAFF NEWS

Staff Updates and Accomplishments

Senior Geotechnical Research Engineer **Gavin Gautreau**, P.E., is currently serving as the 2019-2020 Chair of the Transportation & Development Institute (T&DI) for the Louisiana Chapter of the American Society of Civil Engineers (ASCE).

Laura Williams, LTRC graduate assistant and editorial assistant, successfully defended her dissertation proposal. She will move forward in refining her dissertation project, titled “Poetic Counternarratives: Pursuing Poetic Paths for Elderly Burgeoning Readers,” which focuses on a subset of the adult literacy student population known as elderly burgeoning reader/writers.

Associate Director of External Programs **Vijaya (VJ) Gopu**, Ph.D., P.E., was a keynote speaker at the 3rd Global Conference on Applied Science, Engineering and Technology held in Dubai in October. He also delivered the keynote address at the 11th International Conference of the International Federation of High Rise Structures (IFHS) held in Singapore this past fall.

Editor **Jenny Gilbert** was recently presented with her 10-year service award.

2019, in Cairo Egypt. He also delivered a keynote presentation at the 2019 Oklahoma Transportation Research Day -Transportation Excellence Through Research and Implementation held on November 5, 2019.

Section 33 would like to welcome its newest employees

Heather Huval joins LTRC from DOTD's Compliance Programs at Headquarters as the new Pre-Construction Training program manager.

Jeff Eichholz recently joined the team as the teaching associate 4 for Internal Training. He joins us from Aptim Environmental as well being a retired officer in the United States Marine Corp.

LTAP's new Program Manager **Chris Melson** previously worked at the Tran-SET University Transportation Center at LSU with time spent with the Federal Highway Administration as well.

VIEW ONLINE



To download a complete list of LTRC publications, visit www.ltrc.lsu.edu.

PUBLICATIONS

Recently Published

Project Capsule 19-1GT

Maintenance of Roadway Edge Drop-Off Utilizing Readily Available Materials
Gavin Gautreau, P.E.

Project Capsule 19-3SA

Pedestrians and Bicyclists Count, Phase 2: Implementing and Applying Multimodal Demand Data
Tara M. Tolford, MURP, AICP

Project Capsule 20-2B

Feasibility and Performance of Low Volume Roadway Mixture Design
Corey Mayeux, P.E.

Project Capsule 20-1B

Evaluation of Performance and Life Cycle Cost of Asphalt (8/18 Specifications)
Corey Mayeux, P.E.

Project Capsule 19-5SA

Young Driver Crashes in Louisiana: Understanding the Contributing Factors to Decrease the Numbers
Elisabeta Mitran, Ph.D.

Project Capsule 20-1C

Evaluation of the Miniature Concrete Prism Test (MCPT) for use in DOTD
Jose Milla, Ph.D. E.I.

Project Capsule 20-2C

Using the Portable XRF to Identify/Verify Field Material Properties
Jose Milla, Ph.D., E.I.

Technical Assistance Report 19-01TA-C

A Review of the Louisiana Department of Transportation's Structural Concrete Specifications in Response to House Resolution No. 309

Tyson Rupnow, Ph.D., P.E., Jose Milla, Ph.D., E.I., William Saunders, E.I.

Technical Assistance Report 19-01TA-B

Variability of In-Line RAP Crushing vs. Pre-Screened RAP Stockpiles
Corey Mayeux, P.E., Saman Salari, P.E., and Samuel Cooper, III, Ph.D., P.E.

Final Report and Technical Summary 592 (14-3SS)

Development of a Mode Choice Model to Estimate Evacuation Transit Demand
Chester Wilmot, Ruijie Bian, and Ravindra Gudishala

Final Report and Technical Summary 597 (15-3SA)

Investigating Safety Impact of Center Line Rumble Strips, Lane Conversion, Roundabout and J-Turn Features on Louisiana Highways
Xiaoduan Sun, Ph.D., P.E., and M. Ashifur Rahman

Final Report and Technical Summary 599 (16-4SA)

Pedestrians and Bicyclists Count: Developing a Statewide Multimodal Count Program
Tara M Tolford, AICP; Maryam Izadi; Colin Ash; and Julius Codjoe, Ph.D., P.E.

Final Report and Technical Summary 603 (11-3GT)

Accelerated Load Testing of Geosynthetic Base Reinforced/Stabilized Unpaved and Pavement Test Sections
Murad Y. Abu-Farsakh, Ph.D., P.E.; Qiming Chen, Ph.D., P.E.; and Shadi Hanandeh, Ph.D.

Final Report and Technical Summary 606 (16-1SA)

Highway Construction Work Zone Safety Performance and Improvement in Louisiana
Helmut Schneider, Ph.D., Cory Hutchinson, Ph.D., and Emily Pfetzer, Ph.D.

Final Report and Technical Summary 610 (13 -9GT)

CORS 911: Continuously Operating Reference Stations for the Bayou Corne Sinkhole
Joshua D. Kent, Ph.D., and J. Anthony Cavell, PLS, CFedS

Final Report and Technical Summary 617 (18-1SA)

Economic Effect of Restricted Crossing U-Turn Intersections in Louisiana
Helmut Schneider, Ph.D., Stephen Barnes, Ph.D., Emily Pfetzer, Ph.D., and Cory Hutchinson, Ph.D.



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