



H-GAC Commissions Award-Winning Project

Author: David V. Manuel, EIT, AICP, Lockwood, Andrews & Newnam, Inc.

The Houston-Galveston Area Council (H-GAC), local MPO, received the ITE 2007 Transportation Achievement Award for Bicycles at the International ITE Conference held in Pittsburgh, PA. ITE recognized the plan for making Galveston Island a model for the region in creating an environment for non-motorized transportation. The plan was diligently promoted to residents, politicians, and stakeholders to develop a unique plan for utility-based pedestrian and bicyclist mobility.

Introduction

In 2004, the Houston-Galveston Area Council (H-GAC) conducted a study to identify districts throughout their 13-county region where there were high levels of pedestrian and bicyclist activity, or where there was the potential for such activity. Fifteen districts were identified throughout the region, with two of the top districts located on Galveston Island. H-GAC decided to treat these two districts together, and defined the Study Area as the urban portion of the island, from 1st to 53rd Streets, and from Harborside Drive to the Seawall. On the map at right, the circles represent the two districts, with the triangular shaded region representing the study area.

Study Process

H-GAC selected consultant Lockwood, Andrews & Newnam, Inc. (LAN), in association with sub-consultants Nelson\Nygaard Consulting Associates and The Lentz Group, to develop a conceptual master plan for comprehensive pedestrian and bicyclist improvements in the Galveston Study Area.

The Project team held a series of public meetings during the summer of 2006, presenting traffic counts, locations of schools and other attractors, location and severity of motor vehicle crashes involving pedestrians and bicyclists, other planned and proposed projects in the study area, and examples of best practices to accommodate pedestrians and bicyclists. Meeting attendees were asked to create their own plan for the island, and worked together to assemble their ideas and illustrate maps with common routes and destinations, problem areas, and potential improvements.



Study area covers Galveston Island from 1st to 53rd St.

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Welcome to the
2008 TexITE Winter Meeting
Wyndham DFW Airport North
Irving, TX

January 24—26, 2008

For more information, visit

<http://www.texite.org/wintermeeting/>

From the Editor's Desk

As reported earlier to the membership, TexITE Newsletter was named the best District/Section newsletter with more than 500 circulation. I accepted the award at the ITE Annual Meeting and Exhibit in Pittsburgh in August. As I received the award among distinguished recipients, I couldn't help but appreciate that the recognition was worth the effort put in by the newsletter committee over the last year. I, and the newsletter committee, thank the membership for their support to the newsletter.

In addition to the Newsletter award, our district was the recipient of four other awards at this year's ITE Annual Meeting. In this issue of the newsletter, we bring you additional information on the research or project work in the words of the award recipient.

We have added a new section to the newsletter this year titled "Student Research Corner", which highlights a research project conducted by students from one of the universities in Texas. In this issue, a project being conducted by students at Texas Southern University is presented. I thank Dr. Fengxiang Qiao, assistant professor at Texas Southern University for encouraging the students to submit their research work to TexITE newsletter. In addition, I also appreciate the student for taking their time to

send us an abstract of their research work.

Finally, don't forget to provide us with articles for the next issue of the newsletter. Hope to see you all in Irving!

Praveen Pasumarthy
Editor



Awards Committee Update

In 2007, the Texas District of the Institute of Transportation Engineers (TexITE) Committee for Future Engineers held a poster competition for 6th and 7th grade students in Texas. The purpose of this contest was to introduce students to the transportation profession.

Students were asked to submit original, non-computer generated artwork that addressed the past, present, and future of transportation in Texas. In total, the committee received 9 poster entries. Entries were judged by a panel of transportation professionals, and the committee sponsored cash prizes for the winners of first through third place.

Claire Simmons, a 6th grade student from College Station and daughter of TexITE member Kay Fitzpatrick, won 1st Place. Sarah Petrus and Parker Samuleson, both 6th grade students from College Station, won 2nd Place and 3rd Place, respectively. An Honorable Mention was awarded to Kelly Williams, a 6th grade student from College Station. Results of the contest were announced by the Future Engineers Committee following the completion of judging on November 7, 2007.

This was the 2nd Annual Transportation Poster Contest sponsored by the Committee for Future Engineers. The committee plans to hold the 3rd Annual Transportation Poster Contest in the fall of 2008. Details regarding this contest will be released in the summer of 2008.

The purpose of the Future Engineers Committee is to encourage students in Texas public schools to seek higher education in the engineering and science fields, with an emphasis on transportation engineering. For more information on the Committee for Future Engineers activities, visit www.texite.org or contact Melisa Finley at (979) 845-7596 or m-finley@tamu.edu.



1st Place

International Director's Message

Dear Texas District Colleagues:

I have just returned from the ITE Annual Meeting in Pittsburgh where I was glad to see many familiar Texas faces. It seemed ironic at first that I had time to enjoy several lunches with co-workers there when we have such a hard time doing it here, but that's what ITE is all about, isn't it – having an opportunity to take time out and find out what our colleagues are doing. And doing well, I'd say. I was so very pleased to see Praveen Pasumarthi receive the award for Outstanding Newsletter and TTI receive the Transportation Achievement Award for Safety for their Teens in Driver Seat program.

I have had the pleasure and privilege of working with Russell Henk, Chris Poe, Kathy Montemayor, and Christie Madsen of TTI to bring the Teens in the Drivers Seat program to all seven of the Garland Independent School District High Schools. Teens in the Driver Seat is America's first peer-to-peer safety program for young drivers. Unlike other safety program, TDS involves the teen audience directly in both the development and the delivery of safety messages, empowering young people to make a difference and save lives. It is a peer-to-peer program, where the students bring the message to other students. The message is based on solid research that identified the risk factors associated with teen crashes.



Robert Wunderlich
International Director

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Message from the President

What a year this has been! It has been a great honor of mine to have served you as your District President this year.

We had two very successful meetings this year in Houston and Amarillo. I look forward to our upcoming meetings in Irving for Winter '08, San Antonio for Summer '08, and Lubbock for Winter '09. Don't forget in there also that San Antonio will play host to the 2009 ITE International Meeting.

Our committees were also active this year. I am pleased with the strong involvement from the Younger Members Committee led by Jennifer Butcher. This group of young professionals steps in to give their energy and talents when called upon to identify technical speakers or prepare draft material for the District Board's review. The Membership Committee led by Becky Bray is making efforts to streamline the process for affiliate and subscriber application, as well as help promote ITE membership to the many professionals actively engaged at the section level. Melisa Finley and her group on the Future Engineers committee are making strides to engage young learners and get them interested in engineering. I am looking forward to seeing the next batch of winners from their fall poster contest.

All of the sections in the Texas District are strong and vibrant. I am pleased to see them maturing and seeking ways to promote the profession and give back to the community. Active participation at the section level should translate to greater involvement at the district.

Finally, please congratulate the award winners from our district when you get a chance. As individuals, representing their companies/agencies, or working for the district, they all receive our applause for the great work they performed and were so appropriately acknowledged for:

- Scott Cooner, TTI: Traffic Engineering Council's Outstanding Paper Award.
- Stephen Boyles, UT-Austin: Daniel B. Fambro Student Paper Award.
- Texas Transportation Institute: Transportation Achievement Award for Safety.
- Houston-Galveston Area Council: Transportation Achievement Award for Bicycles.
- TexITE: ITE Newsletter Award for circulation greater than 500. Praveen Pasumarthi, Wilbur Smith Associates, newsletter editor.

With these last few words, I wish to thank all of the volunteers who work for this District. There is not enough space or time for me to acknowledge you all. Your work may be on the stage for all to see or behind the scenes, but each of your efforts are important to this district, its members, and our success.

Jason Crawford



Jason Crawford
President

2007 Daniel B. Fambro Student Paper Award

A Stochastic Delay Predication Model for Real-Time Incident Management

Author: Stephen Boyles, UT-Austin

This summer, I was honored to learn that my paper, A Stochastic Delay Prediction Model for Real-Time Incident Management, was selected for the Daniel Fambro Student Paper Award, and to have received support from TexITE for travel to the annual meeting in Pittsburgh, allowing me to accept the award in person. The paper involved adapting an incident severity model to account for the unpredictable nature of incidents, since failing to do so can drastically underestimate the amount of delay caused by an incident (perhaps by as much as 50%). This research resulted in new analytical formulas, and simulation results to address more complicated situations with changing traffic demand.

As we all know, effective incident management is crucial to maximizing the performance of transportation systems: some studies suggest that at least half of delay on freeways is caused by non-recurring events, such as incidents. In turn, effective incident management requires some ability to predict the severity of an incident while it is still in progress.

Currently, such decisions are made based on the engineering judgment and experience of TMC operators. While such experience is vital and irreplaceable, a great opportunity exists for computer models to assist operators in these decisions, especially in the context of novel incident management strategies which have complicated impacts on transportation systems. For instance, closing freeway onramps in the vicinity of an incident can greatly improve operations, but re-routing vehicles causes secondary impacts on alternate routes, and actually closing a ramp requires diverting resources away from the incident itself.

Some previous research has been concerned with estimating the total delay caused by an incident, a common measure of incident severity. Classical traffic flow theory can be used to show that incident delay is mathematically related to the traffic volume and to the incident's duration. Since there are also models that predict an incident's duration based on the number of vehicles involved, the number of lanes blocked, and so on, a reasonable approach is to estimate the incident's duration, and combine that with information on traffic volume (such as from loop detectors) to estimate the total delay.

The major problem with this approach is that the incidents are complicated, unpredictable events, and it is impossible to calculate exactly how long an incident in progress will last. Most incident duration models simply give an "expected" or "average" duration. However, it can be shown that using a single "expected" incident duration value will always underestimate the amount of delay caused by an incident. Mathemati-

cally, this is due to a fundamental result in probability known as Jensen's Inequality. More intuitively, this happens because the impact of incidents on freeways is nonlinear: when an incident clears faster than predicted, the freeway performs slightly better than predicted. But if an incident lasts longer than predicted, the freeway performs much, much worse. This asymmetry means that it is wrong to simply use the "expected" duration; some simulations show that this can underestimate delay by as much as 50%. But what should be used instead?

Addressing this issue is the main topic of my paper. There are a few types of incident duration prediction models that estimate an entire probability distribution; that is, the relative likelihood of different scenarios, instead of just returning the most likely result. In the paper, the delay prediction formulas were modified to allow a probability distribution to be used in place of a single value of incident delay. For two of the most common types of probability distribution (lognormal and piecewise uniform), the resulting formula is still closed-form and relatively simple.

However, real-life situations are more complicated still, since traffic patterns are dynamic and evolving, and the formulas usually assume steady-state conditions. To investigate the impact of changing traffic conditions, mesoscopic simulation was used to model incidents of random duration on a simple freeway segment for four different demand scenarios: rising demand (as at the start of the peak period), falling demand (as at the end of the peak), peaking demand (which rises first, then falls), and uniform (steady-state) demand. Varying the demand had a surprisingly large impact both on the average delay caused by the incident, and on its standard deviation. From these simulations, just using the average duration to predict delay underestimates the true delay by 22–54%, depending on the particular demand profile. Thus, in any practical application, the impact of changing demand needs to be accounted for.

While these results have already been useful, there is still much work to be done in actually applying this incident severity model in practice. However, the good news is that the primary barriers are institutional, rather than technical: computer-aided dispatch software, historical incident databases, and real-time ITS data collection mean that all of the information needed to effectively predict incident delay is readily accessible, at least in principle. Indeed, this is an excellent example of the opportunities to combine these technologies in new ways to improve transportation systems. It is an exciting time to be starting a career in transportation, and again, I am grateful to ITE for supporting my research.

H-GAC Commissions Award-Winning Project

(Continued from page 1)

The project team then went out for additional fieldwork, including a bicycling “test drive” of all the proposed routes. These recommended projects were presented to the public in August 2006, and the public were able to vote on the recommendations and offer comments and suggest refinements. Voting also took place through the website. A total of 219 votes were collected. The project team also scored the projects by feasibility, cost, safety benefit, and user demand. The final plan was presented to the public at an open house in September 2006.

Mike Behrens Receives President's Special Award of Merit

Texas Department of Transportation Executive Director Mike Behrens, P.E., was presented the AASHTO President's Award of Special Merit by AASHTO President Victor Mendez at the AASHTO Annual Meeting on September 30 in Milwaukee. The President's Special Award of Merit is presented to an individual who has made outstanding and exemplary contributions to AASHTO. Behrens recently retired from TxDOT.

Behrens was appointed Executive Director of the Texas Department of Transportation in September 2001, and he was responsible for the activities of 14,000 employees and an annual budget of more than \$7 billion. Under Behrens guidance, the department implemented a number of new financing tools created by the Texas legislature, including the establishment of comprehensive development agreements, pass-through financing, expanded bonding authority, and public-private partnerships, to help the state meet its growing transportation needs.

Behrens joined TxDOT in 1970 as an engineering assistant in the Yoakum District, an 11-county rural district, where he held the positions of area engineer, district planning engineer, & assistant district engineer, and where he would eventually serve as district engineer. He was promoted to the department's assistant executive director for engineering operations in Austin in 1998.

At the national level he served as chairman of AASHTO's Special Committee on U.S. Route Numbering responsible for the U.S. and Interstate Numbering Systems. He has served on the Executive Committee of the Transportation Research Board and President of the Western Association of State Highway and Transportation Officials. He also serves on the Civil Engineering Council at Texas A&M University and on the Texas Transportation Institute Advisory Council.

Recommendations and Outcome

After the voting and ranking process was complete, Mayor Lyda Ann Thomas and Galveston City Council indicated a willingness to fund the entire range of improvements identified in this report, with a commitment of \$300,000 to \$400,000. At their September 26, 2006 meeting, Council voted to fund the 20% local match required by H-GAC. The seventeen projects consisted of the following:

Potential Improvement	Vote Count
Develop Bikeway Network	149
Bike Racks at Businesses/Destinations	98
Pedestrian Improvements around Downtown	73
Curb extensions on Seawall Boulevard	68
Broadway Intersection Improvements — Group 1	67
Broadway Intersection Improvements — Group 2	61
Pedestrian Improvements - Downtown to UTMB (including Magnolia Homes)	44
Pedestrian Improvements - Galveston College, Ball High, Scott Elementary	38
Pedestrian Improvements - Menard Park (new transit center)	28
Pedestrian Improvements on 45th Street	27
Bike Racks on Buses	24
Pedestrian Improvements around Social Services Center	18
Broadway Intersection Improvements — Group 3	17
Pedestrian Improvements - San Jacinto Elementary and Gulf Breeze Homes	14
Selected Renaissance Zone #2 Improvements: San Jacinto Elementary	12
Selected Renaissance Zone #1 Improvements: Rosenberg Elementary	9
Selected Renaissance Zone #3 Improvements: Morgan Elementary	4

Informed Reader

A Survey of Research From Around the Country

Thoroughfare Network for Pedestrians?

Source: [Mid-Ohio Regional Planning Commission \(MORPC\)](#)

The terms “arterial” and “demand” are commonly used when discussing roads, but what about sidewalks? The Mid-Ohio Regional Planning Commission (MORPC) conducted a study for the City of Columbus, OH, identifying a network of major pedestrian thoroughfares across the city. The study utilized the roadway thoroughfare network and determined the potential for pedestrian travel on the network based on criteria such as:

- Access to residential populations
- Concentrations of employment
- The presence of key destinations within the corridor
- Linkage to transit

The study resulted in a map showing the potential, or “latent demand,” for pedestrian travel across the thoroughfare network. MORPC and Columbus then established pedestrian facility standards to apply to areas of different latent demand. Together, this information forms a plan the City can use to establish a consistent means of prioritizing pedestrian improvements throughout Columbus. As a result, the City will be able to focus its resources on high-impact investments where each dollar of taxpayer money will benefit the most pedestrians possible.

TTI Urban Mobility Report

Source: <http://mobility.tamu.edu/ums/>

The results of the Texas Transportation Institute’s (TTI) 2007 Urban Mobility Report were released at a press conference on September 18, 2007. The report focuses on the effects of traffic congestion in 437 U.S. urban areas and includes detailed information for 85 specific urban areas. According to the report, traffic congestion continues to worsen in American cities of all sizes, creating a \$78 billion annual drain on the U.S. economy in the form of 4.2 billion lost hours and 2.9 billion gallons of wasted fuel.

Transport Needs of Young and Old

Source: http://trb.org/news/blurb_detail.asp?id=8427

The U.K. Department for Transport (DfT) has released a report that explores the transport needs and opinions of older and younger people. According to the report, the transition from education to employment is a key development stage in young people’s lives during which it might be most effective to target efforts to influence their transport choices. The report also indicates that improving the frequency and reliability of public transport services was a key concern of both older and younger people.

Corridors of the Future

Source: www.fightgridlocknow.gov

U.S. DOT has announced six interstate routes that will be the first to participate in a new federal initiative to develop multi-state corridors to help reduce congestion.

The announcement follows a year-long competition to select a handful of interstate corridors from among the 38 applications received from public and private sector entities to join the Department’s “Corridors of the Future” program aimed at developing innovative national and regional approaches to reduce congestion and improve the efficiency of freight delivery. The selected corridors carry 22.7 percent of daily U.S. interstate travel.

The routes will receive the following funding amounts to implement their development plans: \$21.8 million for I-95 from Florida to the Canadian border; \$5 million for I-70 in Missouri, Illinois, Indiana and Ohio; \$15 million for I-15 in Arizona, Utah,

Nevada and California; \$15 million for I-5 in California, Oregon and Washington; \$8.6 million for I-10 from California to Florida; and \$800,000 for I-69 from Texas to Michigan.

The proposals were selected for their potential to use public and private resources to reduce traffic congestion within the corridors and across the country. The concepts include building new roads and adding lanes to existing roads; building truck-only lanes and bypasses; and integrating real-time traffic technology like lane management that can match available capacity on roads to changing traffic demands.

U.S. DOT and the states will now work to finalize formal agreements by spring 2008 that will detail the commitments of the federal, state and local governments involved.

News You Can Use

A Collection of Articles and Events to Help Keep You Up-To-Date

Traffic Bottlenecks

Source: http://trb.org/news/blurb_detail.asp?id=8313

The U.S. Federal Highway Administration has released a report, *Traffic Bottlenecks: A Primer – Focus on Low-Cost Operational Improvements*, that describes traffic bottlenecks and explores the opportunity for near-term operational and low-cost construction opportunities to correct them.

The delays arising from traffic congestion are a fact of life in many communities. Close to half of all congestion happens day after day at the same time and location. Much of this recurring congestion is due to physical bottlenecks.

While many of the Nation's bottlenecks can best be addressed through costly major construction projects, there is also significant opportunity for the application of operational and low-cost infrastructure solutions to bring about relief in the short term.

This Primer is intended to be a dynamic work-in-progress. The Primer is a key resource for Federal Highway Administration's Localized Bottleneck Reduction (LBR) Program, providing a virtual forum for peer exchange between members of the transportation community interested in alleviating bottleneck congestion. The LBR program, initiated in 2007, is designed to expand the portfolio of bottleneck reduction tools available to transportation agencies to encompass innovative, readily adopted strategies for reducing congestion at bottleneck locations.

Future of the Transportation System

Source: www.ite.org/government/index.asp

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), the U.S. surface transportation authorization bill, expires in September 2009. As such, ITE is working with its technical councils and Policy and Legislative Committee to develop position statements to address the future of the surface transportation system. As ITE moves through the process, the ITE Government Affairs Web page www.ite.org/government/index.asp, will be updated with statements and actions of relevance from ITE, the White House, U.S. DOT, Congress and other professional and trade associations. A draft of ITE's reauthorization policy positions will be published for member comment in the January 2008 issue of ITE Journal.

Are Hydrogen Cars Good For America?

Source: http://trb.org/news/blurb_detail.asp?id=8368

The Reason Foundation has released a report that explores the use of hydrogen as a component of the nationwide effort to develop cleaner, greener, and more sustainable sources of energy.

Hydrogen cars have captured the imagination of politicians and the public alike. In addition to hydrogen's perceived efficiency and environmental friendliness, policymakers also have welcomed hydrogen as a source of energy that could wean the country off its dependence on oil and foreign sources of energy.

As this policy report explains, however, hydrogen's promise as a truly clean and efficient alternative to oil is still only a promise. At present, hydrogen is not an efficient or environmentally friendly alternative to the gasoline that powers nearly all automobiles. Hydrogen fuel cells in the cars themselves produce virtually no pollution, aside from water. However, depending on the technology used, the manufacture of hydrogen fuel cells produces as much or more net pollution than the manufacture and use of gasoline.

Moreover, hydrogen would not significantly reduce the country's dependence on foreign sources of energy. The hydrogen manufacturing process requires substantial quantities of natural gas. Since production at known natural gas reserves in the United States and Canada has leveled off, the United States would need to look elsewhere for sources of natural gas to create the hydrogen for its hydrogen-powered future. Russia and countries in the Middle East are, as with oil, the largest producers of natural gas.

Policymakers' desire to reduce pollution is admirable, but hydrogen may not yet be the answer. Instead, other technologies – including clean coal processes & nuclear power – show promise.

How Far, By Which Route and Why?

Source: [Mineta Transportation Institute Report 06-06](#)

The Norman Y. Mineta International Institute for Surface Transportation Policy Studies at the San José State University College of Business has released a report that examines the distance pedestrians walk to rail transit stations and the environmental factors that influence their route choice.

Student Research Corner

Evacuation Modeling In a Small and Dense Area-A Case Study of the Texas Medical Center

By Ruixin Ge and Fengxiang Qiao (Texas Southern University)

As different types of emergency situations are occurring more and more frequently, transportation evacuation modeling has drawn increasing research interests. Most of these studies focused on large-scale evacuations such as those caused by hurricanes. While large-scale evacuation studies are important, evacuation for small and dense areas is also essential given the context that chemical leaks, terrorist attacks, and other unexpected accidents occur in these areas and may cause severe casualties if persons remain in the affected areas.

This research studied transportation evacuation in a small and dense area -- Texas Medical Center in Houston, Texas, by using microscopic simulation model VISSIM with the hypothetical event of a toxic material leakage. The general study procedure included data collection, O-D estimation, network coding, scenario development, simulation and analysis. The network was coded in great detail to ensure that simulation quality and attributes different from large-scale evacuation were taken into account.

Different evacuation scenarios were developed to evaluate the impacts of different strategies in response to the emergency needs including the options of reversed-lane and different service rate of shuttles. Reversed lane (RL) helps to increase the capacity of evacuation network in the outbound direction. As the population in TMC is much larger than the capacity of its parking garages, inbound shuttles (IS) were used to evacuate patients and staff promptly. In total, 20 scenarios were developed and analyzed.

Measurement of Effectiveness (MOE) in both network-wide area and in the so-called "core area" were used for the evaluation of different scenarios. Core area refers to the region close to the location where the emergency event occurs. As the study is based on the hypothetical event of a toxic material leakage, the core area was expected to be the earliest and most severely affected area in the network.

It was found that scenarios under Static Traffic Assignment (STA) provided better performances than Dynamic Traffic Assignment (DTA). Errors in estimating Origin-Destination matrices from filed data could have contributed to this error. As the area is small, there are limited alternative route choices for vehicles. The vehicles queuing at the exits of parking garages would result in extra lane changes which further slows down the traffic. All these factors contributed to poor overall performance.

It was noted that Reversed Lane (RL) greatly maximized the roadway capacity, which especially benefited vehicles close to

the reversed lane. Used in the right manner, it could have the potential to quickly evacuate vehicles.

The simulation result indicated that Inbound Shuttle (IS) was a good way to evacuate a large number of people especially for a small and dense area where number of vehicles are usually less than the number of evacuees, or areas with a lot of people with special needs.

If the number of vehicles waiting for evacuation can be restricted by certain management tools, then the relationship between IS and the percentage of allowed vehicles needs to be studied. Optimal balance on the factors can make evacuation more efficient.

This research demonstrates how a feasible evacuation strategy for small and dense areas can be developed through microscopic simulation. Attributes which are different from large-scale evacuation are taken into account and a general study procedure is presented.

About the Authors:

Ruixin Ge is a Master's student and Graduate Research Assistant at Texas Southern University. He expects to graduate in December 2007. Fengxiang Qiao is an assistant professor at the Texas Southern University.

International Director's Message

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We certainly have had a problem in Garland with teen crash fatalities. Twelve kids lost in crashes over a four-year period. Perhaps your community has this issue too. Over 6000 teens lose their lives in crashes each year and it's the number one cause of death for persons aged 15 to 19.

I urge you to look into this program to see if it can be started in your community. It's not the traditional role of the transportation professional to champion such a program, but it may well turn out to be one of the most important. It just takes the willingness to try another approach and to work with the School District. We're very fortunate here in Garland to have a good working relationship with the School Administration, a City Youth Council that has been instrumental in taking this out to the schools, a Youth Council Liaison that has kept them on track (not me, our Public Information Officer, Dorothy White) and a bunch of bright, dedicated and caring kids that want to make a difference.

Teens in the Driver Seat Program

Author: Scott A. Cooner, P.E., Texas Transportation Institute—Arlington Office

It was certainly an honor to be recognized by the Traffic Engineering Council of ITE with the Outstanding 2007 Paper award for the paper entitled *Operational and Safety Guidelines Around Schools in Texas*. This paper was based on a two-year research project funded by the Texas Department of Transportation and involved several Texas Transportation Institute colleagues: Kay Fitzpatrick, Mark Wooldridge (now with TxDOT Yoakum District), Garry Ford (now with Bexar County), and Jason Crawford. The best paper recognition is largely because the subject-matter hits home with many in the traffic engineering community who have to deal with traffic congestion, access and safety issues around schools.

The State of Texas has experienced considerable population growth in recent years. This growth has produced new schools in areas near highways designed for low volumes and relatively high speeds. Another trend is the higher proportion of children being transported to and from schools in private vehicles. These realities, and other issues, make it important to aggressively consider the design of roadways within and around schools to ensure the safest possible traffic environment. Equally important is the consideration of the location and design of the school site, preferably during the planning stages, in order to establish safe and efficient operations.

The *Operational and Safety Guidelines Around Schools in Texas* paper summarizes the development of school site planning guidelines for transportation-related elements such as site selection, general site requirements and design, bus operations, parent drop-off/pick-up zone, drive-ways, turn lanes, signing and marking, parking, and pedestrian/bicycle access. The research team based these guidelines

on a comprehensive review of existing guidelines and the results of field studies at over thirty schools in Texas. Examples of good practices and of practices to avoid are provided to illustrate the guidelines. The guidelines are focused on transportation design, operations and safety within school sites – with a particular focus on parent drop-off/pick-up zones. The final portion of the paper contains a site plan review checklist based on the 21 consensus guidelines. Engineers, field crews, architects, and school district personnel can use this checklist to coordinate efforts and improve the safety and efficiency of school site access and traffic flow.

For more information: <http://tti.tamu.edu/documents/4286-2.pdf> - Traffic Operations and Safety at Schools: Recommended Guidelines

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Legislative Report

Authors: Walter Ragsdale and Parind K. Oza, Jacobs North American Infrastructure Group

In the final hours of the 80th Texas Legislature the Senate and House passed several laws affecting automated enforcement. These new laws went into effect on September 1, 2007. Cities across Texas were using the authority in an Attorney Generals 2002 opinion to implement enforcement systems. The opinion indicated that current state law did not prohibit these systems.

Senate Bill 1119 gives authority for cities or counties to create local ordinances for automated enforcement for red light running. This Bill spells out specific requirements that must be met to implement this type of enforcement. The Bill places a maximum civil penalty of \$75 for violators. A traffic engineering study of the intersection is required to determine whether an alternative system or design changes may be implemented to reduce red light running. A local citizen committee must also be appointed to advise on the installation and operation of the systems. Studies and reports are also required annually. The bill is clear that anyone using these systems for other purposes (e.g. surveillance) is subject to a Class A misdemeanor charge. The Bill also sets out specific requirements for site selection, implementation, information on the violation notice, mailing notices, reporting information to the state and the administrative adjudication hearing process. Some of these requirements are:

- The local authority may not contract other services using a percentage of the penalties collected.
- Defining a violation as while facing only a steady red signal displayed by an electronically operated traffic-control signal located in the local authority, the vehicle is operated in violation of the instructions of that traffic-control signal.

- The minimum (yellow) change interval must be in accordance with the TMUTCD.

- Advance signs must be installed indicating automated enforcement at least 100 feet prior to the intersection.



Walter Ragsdale

If a motorist receives a citation from a police officer, a civil penalty may not be issued and the penalty may not go on the owners driving record. If the penalty is not paid, vehicle registration may be withheld. A late fee of \$25 may be added. The local funding received may only be used for traffic safety programs.

Senate Bill 125 was passed simultaneously with SB 1119. Some of the enforcement requirements are repeated. The bill requires that 50 percent of the revenue generated after deducting operating expenses go toward local trauma service in the area.

House Bill 922 prohibits the use of automated (video/photo) traffic enforcement systems to record speed limit violations by municipalities.

No bills were passed relating to the automated enforcement of Rail Road signals, which some cities are implementing.

About the Authors:

Walter Ragsdale is a professionally licensed engineer in the State of Texas and the Legislative Chairman for TextITE. Parind K. Oza is a traffic engineer with Jacobs Civil. Both are based in the Dallas Jacobs Office.

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People News

Civil Associates, Inc., a professional consultation firm that provides project management, planning, environmental, civil engineering, design, and traffic services, has moved to:

1521 Northwest Highway
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Their new contact information is:

Phone: 214.703.5151
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Email: info@civilassociates.com

Norman Hogue of City of Waco is happy to announce the birth of his son, Aiden Lane Hogue on July 13, 2007. He weighed in at 9 lbs. 4 oz. and was 20 1/4 in. long. His wife Brooke has been keeping up with the daily activities on their blog at www.wacohogues.blogspot.com

Scott Booker, P.E. has joined the newly formed company Campbell Technology Corporation (CTC) located in Fort Worth. CTC specializes in all areas related to highway-rail grade crossings including railroad quiet zones, traffic signal preemption, and design and project management of active warning devices at grade crossings. CTC is also a distributor of Reno A&E traffic products in Texas and railroad products nationwide. Scott has over 20 years experience in traffic signal and railroad signal engineering and is a member of ITE's Highway-Rail Grade Crossing Committee.

Camille Brown has joined the Street Smarts Dallas office. Camille's previous experience includes two years in the traffic section of the Dallas District office of TxDOT.

Walter P Moore has opened a new office—their 10th—in El Paso, Texas. Managing the new office is **Lourdes (Lulu) Cardenas, P.E.**, who has played a significant role in engineering El Paso's traffic and ITS infrastructure for more than 20 years. At Walter P Moore, she

will continue her commitment to producing transportation systems that keep commercial and commuter traffic flowing and enhance public safety and national security.

Pape-Dawson Engineers, Inc. proudly announces the addition of **Kerri Collins, PTOE**, as a Senior Project Manager in the Transportation Department. Ms. Collins has over 23 years of transportation planning and traffic engineering experience acquired within the public and private sectors.

Brown & Gay Engineers, Inc. announces the opening of offices in Austin and Tyler. **David C. Johnston, PE**, recently named Statewide Transportation Manager, brings 35 years of transportation design and planning experience to the firm. **William D. "Doug" Dillon, PE**, has been appointed Statewide Manager of Construction and Program Management and will be located in the Fort Worth office. **Chris Kuykendall, PE**, has relocated to the Fort Worth office, and **Eric Fisher, PE**, is now located in the new Tyler office. **Jeffrey Durso, PE**, has joined the firm as Intelligent Transportation Systems Manager.

Consolidated Traffic Controls is pleased to announce the addition of **Bryan Jones** to its sales and customer service staff. Bryan was formally the Traffic Operations Supervisor with the City of San Angelo.

RTC Manufacturing, Inc. is proud to announce the addition of **Mark Sampson** in the position of Electrical Engineer. Mark joins the staff with a Bachelor's Degree in Electrical Engineering and a Master's Degree in Mathematics. RTC has also hired **Nancy Taylor** for the position of Marketing Specialist.

Klotz Associates, Inc. announces the addition of **Eduardo C. Serafin, AICP**

as Senior Project Manager in the Traffic & ITS Department within the firm's Houston office. Serafin brings 22 years of transportation engineering expertise to Klotz Associates. Serafin's portfolio includes extensive experience in traffic engineering and safety management as well as intelligent transportation systems (ITS) deployment planning.

Dan Saucedo, President of **North American Controls Corporation**, was nominated by Senator Kay Bailey-Hutchinson to participate in the National Hispanic Leadership Summit in Washington D.C, March, 2007 to address technical and immigration issues. Mr. Saucedo presented, to Senator Hutchinson, NACC's "Bridge Allision Avoidance System" developed to protect transiting ships and bridges and other overhead ship channel obstructions spanning navigable waterways. This system incorporates a laser tripwire system that automatically measures ship air-draft and projects anticipated bridge clearance, complementing international AIS, the USCG's AVTS and NOAA's PORTS systems.

The Officers of **Pape-Dawson Engineers, Inc.** proudly announce the addition of **Scott D. Armstrong, P.E.** and Mr. **James A. Lutz, P.E.** as Vice Presidents, Transportation. Scott's 23 years of experience includes employment with both public agencies and private engineering firms, with a focus on the planning and design of transportation infrastructure. James leads a team of engineers and technicians providing transportation planning and highway design services for Pape-Dawson clients throughout Central and South Texas, including roadway and bridge layout and design, traffic engineering, drainage design, and construction project management.

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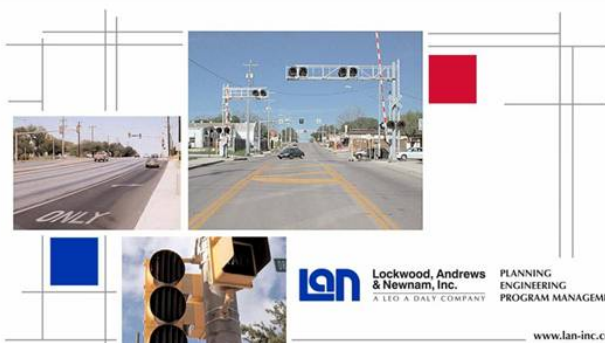
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