



OTEFiField

An Update on Norman's Flashing Yellow Arrows for Left Turns

By: David Riesland, P.E.

As many of you are probably aware, the City of Norman has gotten fully behind the concept of flashing yellow arrows. Through numerous articles and presentations, you know that our first installation was just over two years ago at the intersection of 12th Avenue SE and Lindsey Street near the OU campus. That intersection featured four flashing yellow arrows to replace the familiar doghouse style head for protected-permissive left-turns. The date of that changeover was January 27, 2011. In the weeks and months that followed that first installation, the number of intersections continued to grow steadily. This growth resulted in a total of seventeen (17) intersections with at least one flashing yellow arrow head by November 2012.

Then, in December 2012, a massive project using 100 percent Federal Safety funds was launched. This project touched a total of fifty-seven (57) intersections. With the



Workers with Traffic Signals, Inc. install a new FYA traffic signal head at Robinson Street and Berry Road in Norman

completion of that project in mid-February of 2013, the City of Norman has seventy-four (74) intersections with flashing yellow arrows. This latest project actually

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OTEA Safe Driving Presentation Update

by: David Riesland, P.E.

On Wednesday afternoon October 31, 2012, OTEA was invited to present our version of the Safe Driving Presentation to an assembly at Newcastle High School. This happened to be the first full-school assembly in the school's brand new auditorium. Following the presentation, the school had a student/faculty costume contest for Halloween. In the picture, you can see a "Soap" costume. The wearer of this costume was accompanied on stage by a girl dressed as a loofah. The invitation was extended by Dr. Jason Brunk, Principal of Newcastle High School. Contact with Dr. Brunk was arranged by OTEA member David Glabas and his wife Beth (who works in the Newcastle School District).

On behalf of OTEA, the Safe Driving Presentation was delivered by David Riesland. A short presentation by the Newcastle Police Department using the OTEA Fatal Vision goggles followed the Safe Driving Presentation. A total of 525 students were in attendance.

Another presentation was made on Monday, February 4, 2013, to the spring driver's education class at Claremore High School. A total of 40 students were in attendance for that class. This

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Newcastle High School Students attend OTEA's Safe Driving Presentation

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Bike Boom

OKC Bicycling get a Boost from the Creation of Special Bike Lanes and Expansion of Downtown's Bike-Share Program

by: Clifton Adcock

Oklahoma City has begun work creating the first street lanes that will be shared between bicycles and cars. That development comes amid an expansion of the city's downtown bike-share program.

The city is planning for more than 200 miles of bike routes, which includes so-called "sharrow" lanes. The word "sharrow" is a combination of "share" and "arrow." The lanes are designated by pavement markings showing a picture of a bicycle below two arrows.

The bike routes will be added in phases. The first phase includes Eastern Avenue, South Villa Avenue and Interstate 235 and Interstate 35 service roads north of 63rd Street, in addition to downtown streets. In total, the first phase is expected to create 90 miles of bike routes.

Funded by a 2007 general obligation bond, the improvements are expected to cost around \$362,000 to install.

"It's a way to encourage cyclists and notify drivers that this is a prime bicyclist route; you should expect to see bicyclists here," said Randy Entz, the city's transportation planner.



Intersection of Main Street and Walker Avenue
Downtown Oklahoma City

While there are no hard data to show exactly how many bicyclists are in Oklahoma City, anecdotal evidence points to a jump in cycling enthusiasts.

"We're seeing a large increase in cyclists on city streets," Entz said. "It's a little bit of everything: It's higher gas prices, people wanting to be more healthy, a generational change where people are living a more urban lifestyle. And bicycling is part of that."

Jill DeLozier, marketing director for Downtown Oklahoma City Inc., said her organization, which manages the bikeshare program called Spokies, is seeing the program membership increase. She praised the city for its work on the bike routes and educating drivers and cyclists about safety.

"We are really excited about what the city is doing to encourage bike riding and making it safer for both riders and drivers," DeLozier said.

Spokies, which launched earlier this year, recently installed a new kiosk in Automobile Alley at N.W. Ninth and Broadway, bringing the total number of kiosks in the downtown area to seven. That translated into about 75 bikes on the street.

The program offers daily, monthly and annual membership, and is seeking more annual members as well as corporate sponsors to expand the number of kiosks.

Membership costs in the program run \$5 for one day, \$20 for a month and \$75 for a year. A 25-percent discount is offered for businesses or groups that purchase a year-long membership for 10 or more people.

Source: Oklahoma Gazette, November 7, 2012

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Ridley will be missed at Oklahoma Department of Transportation

INCOMING Oklahoma House Speaker T.W. Shannon recently said his "first and foremost goal" is to restrain state agency heads who, in his view, wield too much clout at the Capitol. Surely he wasn't talking about Department of Transportation Director Gary Ridley. Oklahoma would be fortunate to have more like him, not fewer.

Ridley, who announced last week that he is retiring in March after 44 years with the agency, has been a consummate professional. He's the foremost reason Oklahoma's roads and bridges have improved in the past several years instead of deteriorating, as they had done for so long — thanks largely to legislative neglect.

Although not bashful about letting lawmakers know how he felt about issues related to his agency, Ridley didn't politicize his office or use his position to grind axes. His aim was to improve Oklahoma transportation, period. His experience and integrity make him one of the best at his job in the country.

Ridley, 67, rose to the top of ODOT the old-fashioned way. He began his

career with the agency as an equipment operator and then held several jobs along the way. He was named agency director in 2001 during the administration of Republican Gov. Frank Keating. Ridley retained the job through the two terms of Democratic Gov. Brad Henry, who later named Ridley his transportation secretary.

Republican Mary Fallin kept Ridley in both jobs when she moved into the Governor's Mansion in January 2011. He will relinquish the ODOT title in March but continue as transportation secretary.

As director of ODOT, Ridley pushed for the installation of cable barriers on state highway medians. These have reduced the number of cross-over fatality accidents and done so economically — the cables cost far less to install and maintain than concrete barriers.

In May 2002, not long after he became director, a 600-foot section of the Interstate 40 bridge near Webbers Falls collapsed after the bridge was struck by a barge. Fourteen motorists died. Ridley's oversight helped get the high-

traffic bridge rebuilt and reopened 64 days later, 10 days ahead of schedule.

His greatest legacy is the road and bridge repair program now in place for Oklahoma. A decade ago, Oklahoma's bridges consistently ranked among the nation's worst, as ODOT treaded water with the same annual appropriation from the Legislature that it had received for 20 years.

The 2004 death of a motorist who was struck by a piece of falling bridge debris graphically illustrated the sad state of our bridges. A solid road funding bill came out of the Legislature in 2005. After voters that year rejected a plan to increase the gasoline tax to help fund road and bridge improvements, the Legislature in 2006 passed additional road/bridge funding, putting ODOT in a position to really make a dent in the problem.

"I promise you," Ridley said after passage of the 2006 legislation, "the Transportation Department will work relentlessly to make Oklahoma's highway system the envy of our neighbors."

He kept that promise. This year, Fallin signed two bills designed to all but eliminate the state's 700 or so remaining structurally deficient bridges in the next seven years. One bill increases the amount of money directed each year to a fund ODOT uses for fixing bad bridges. The other increases the amount of money counties receive each year to spend on their roads and bridges.

Both bills were authored by T.W. Shannon, who no doubt knew that with Ridley minding the shop, the work would get done.

Source: Editorial from The Oklahoman - Published December 26, 2012



Gary Ridley - Oklahoma's Transportation Secretary

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OTEA 50th Anniversary

By: Don Russell, P.E.



We are beginning to make plans for the OTEA 50th Anniversary in 2016. The celebration will be in conjunction with the joint OTEA/ MOVITE meeting being held in Oklahoma in the Fall of 2016. At this time we do not have a location or date, but we are beginning to work on the details and will keep you posted. Pencil it into your calendar for late September or early October of 2016. The normal one day 2016 Fall meeting will be moved to the Spring, and the joint meeting will be a 3 day event, probably in eastern Oklahoma.

We are forming a steering committee to plan the meeting. We will be asking for volunteers to help with the planning and preparation at this year's Spring Meeting. We may also do some brain storming in the hospitality room, so give some thought to your history in OTEA and what you think a 50th Anniversary celebration should be.



OTEA Safe Driving Presentation Update

by: David Riesland, P.E.



Continues from Page No. 3

marked the fifth time the presentation has been given at Claremore High School, and dates for the two summer classes are already on

the calendar. On behalf of OTEA, the Safe Driving Presentation was delivered by David Riesland.

As an update to our statistics here in Oklahoma, OTEA has presented our Safe Driving Presentation a total of fifteen times. We have been in a total of five

schools and reached over 3,300 students. If you are interested in presenting or if you have a contact who might be able to get us into a different school, please let a member of your Board of Directors know.



Claremore High School Students attend OTEA's Safe Driving Presentation



Waco City Council Pushes for More Bike Lanes

By J.B. Smith

The city of Waco should continue building bike lanes in strategic areas of town but also should educate motorists and cyclists about the rules of the road, Waco City Council members said Tuesday.

The city has built nearly five miles of dedicated bike lanes along thoroughfares, mostly in the past couple of years. Those include lanes and bright green “bike boxes” along Fourth and Fifth streets from downtown to Baylor University.

Bike boxes are marked zones at signalized intersections that allow cyclists to pull in front of motorists for a head start.

In a Tuesday work session with city staff, council members embraced the vision of a bike-friendly community but said the new lanes and bike boxes have created some confusion.

Traffic engineer Norman Hogue said many motorists initially were ignoring the bike boxes, but signs telling them where to stop have helped.

Councilman Kyle Deaver said it is unclear whether a motorist who stops before an unoccupied bike box is allowed to then make a right turn.

The answer is yes, but Deaver said more signage and education could help clarify that rule.

“It’s not intuitive,” he said. “We need to do some work with drivers on how to interact with (cyclists).”

Councilwoman Toni Herbert agreed on the need for more public education on how to navigate the new bicycle routes.

In addition to the downtown lanes, the city has built bike lanes along North 34th Street and along Panther Way near Hewitt Elementary School.

City planners are proposing to build about three more miles of lanes in the near future, including some along Franklin and Washington avenues in downtown Waco.

The lanes cost \$2,010 to \$2,380 per mile to paint, not counting the bike boxes, which cost \$2,800 to \$3,800 each.

The countywide Metropolitan Planning Organization and the Waco Plan Commission are recommending a thoroughfare plan for Greater Waco that calls for bike lanes along many thoroughfares.

Mayor Malcolm Duncan Jr. said he is open to expanding bike lanes.

“I think we should support them wholeheartedly if we have demand for them,” he said. “I think with added bicycle use, we also need more parking spaces (for bicycles) and bike racks.”



Waco City Council members embraced the vision of a bike-friendly community but said the new lanes and bike boxes have created some confusion

Source: *The Waco Tribune*, December 5, 2013

A Message from the President

By: Faria Emamian, P.E.



I hope everyone had a great holiday and survived the snow season.

Since we had a great time last year, the Board decided to do a repeat and have this year's spring meeting at Quartz

Mountain Resort.

The Board planned very good and informative topics for the spring meeting. I am sure you will enjoy the presentations and also learn a great deal by visiting the product booths in the suppliers' corner. This will be an opportunity to exchange work experience and knowledge with cities, counties, ODOT divisions, suppliers, and contractors.

There will be a golf tournament on Wednesday afternoon as well as social gatherings in the evenings at the hospitality room.

Hopefully, the Board and I have made this year a success for you and OTEA. It was a pleasure for me to serve as your president. My many thanks go to OTEA members, and the Board, whose help and support make the organization succeed.



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<http://www.redcross.org/mobile-apps/tornado-app>



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Vehicle-Train Collisions and Injuries Decrease, Rail Trespass Deaths and Injuries Rise in 2012, Early Data Shows

Preliminary 2012 data from the Federal Railroad Administration shows that while there were fewer train-vehicle accidents and injuries than in 2011, more people died and were injured through rail trespass incidents than in the previous year, according to rail safety non-profit Operation Lifesaver, Inc.

The data shows that rail crossing collisions, overall, were down 5.1 percent in 2012 (amounting to 1,953 collisions) from the year before, while the number of fatalities stayed roughly the same at about 270. Injuries in those instances, however, decreased more than 11 percent between 2011 and 2012 (totaling 917 injuries). However, when looking at incidents that occur from people trespassing on railroad tracks and property in 2012, fatalities are up 7.5 percent from 2011 (to amount to 442 deaths). Injuries for that kind of incident case rose 10.4 percent from 2011 to 2012 (to just over 400).

Overall, the injuries and deaths for those pedestrian incidents are at their highest rate since 2008, OLI says.

"We are gratified with the continued improvement in highway-rail grade crossing collisions, but educating a distracted public in order to reduce trespassing injuries and fatalities continues to be a challenge," said Operation Lifesaver President and CEO Joyce Rose in a statement. "Operation Lifesaver, in partnership with



major freight railroads, commuter and light rail systems, state and local law enforcement, and transportation agencies, is expanding our efforts to encourage Americans to make safe decisions around tracks and trains."

Source: AASHTO Journal, March 8, 2013

TRESPASSER CASUALTIES (DEATHS AND INJURIES) (EXCLUDES HIGHWAY-RAIL INCIDENTS)

State - OKLAHOMA County - All Counties
All Regions - All Casualties
Calendar Year - 2012

Counties	Total		Total Year Counts			YTD Counts Jan - Dec		% Change Over Time		
	Cases	Pct of Total	2009	2010	2011	2011	2012	2009 to 2011	2010 to 2011	To Dec 2011 2012
GRAND TOTAL....	39	100.0	11	11	7	7	10	-36.4	-36.4	42.9
CLEVELAND	6	15.4	2	2	1	1	1	-50.0	-50.0	.
TULSA	6	15.4	1	1	2	2	2	100.0	100.0	.
OKLAHOMA	4	10.3	3	1	.	.	.	.	.	.
CREEK	2	5.1	1	.	.	.	1	.	.	.
LE FLORE	2	5.1	1	1	.	.	.	.	.	.
MUSKOGEE	2	5.1	.	2	.	.	.	.	.	.
PAWNEE	2	5.1	.	1	1	1	.	.	.	.
ROGERS	2	5.1	1	1	.	.	.	.	.	.
WAGONER	2	5.1	.	.	.	.	2	.	.	.
BRYAN	1	2.6	1	.	.	.	.	.	.	.
CANADIAN	1	2.6	.	.	1	1	.	.	.	.
CARTER	1	2.6	.	.	.	.	1	.	.	.
MCCLAIN	1	2.6	.	.	1	1	.	.	.	.
MAYES	1	2.6	.	.	.	.	1	.	.	.
NOBLE	1	2.6	.	1	.	.	.	.	.	.
NOWATA	1	2.6	1	.	.	.	.	.	.	.
SEQUOYAH	1	2.6	.	.	.	.	1	.	.	.
STEPHENS	1	2.6	.	.	.	.	1	.	.	.
TEXAS	1	2.6	.	.	1	1	.	.	.	.
WOODWARD	1	2.6	.	1	.	.	.	.	.	.

2013 MOVITE SPRING MEETING

The spring 2013 MOVITE meeting will be held in Kansas City, Missouri at the Westin Crown Center. Kansas City is centrally located in the region and provides for a quick driving or flying trip. The hotel offers premium facilities for meeting activities, numerous attractions within walking distance, and is just minutes from downtown Kansas City and the Country Club Plaza.



The meeting will provide opportunities for learning and networking. This year the Spring meeting is being co-hosted by KC Scout, Kansas City's bi-state highway traffic management system. Partnering with the KC Scout Annual Symposium will provide multiple sessions to choose from with diverse speakers and topics.

Want to be involved as a sponsor or vendor at the spring meeting? Specific sponsor and vendor recognition, a designated vendor area, and an opportunity for sponsors and vendors to talk about your company/product during the conference will be provided. Vendor space will be limited, so make sure you get your registrations in early.

Plan on attending the meeting to expand your knowledge, experience the City, and re-establish connections with fellow professionals. Plans are under way and the meeting is sure to impress.

For meeting information and registration packet, please go to <http://www.movite.org/PDFs/2013Spring/Spring2013Registration.pdf>



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The Case Against One-Way Streets

You might say that a number of cities are heading the other direction on one-way streets. [Dallas](#), [Denver](#), [Sacramento](#), and [Tampa](#) are just some of the places that have converted one-ways into two-way streets in recent years. Any number of reasons are cited for the shift:

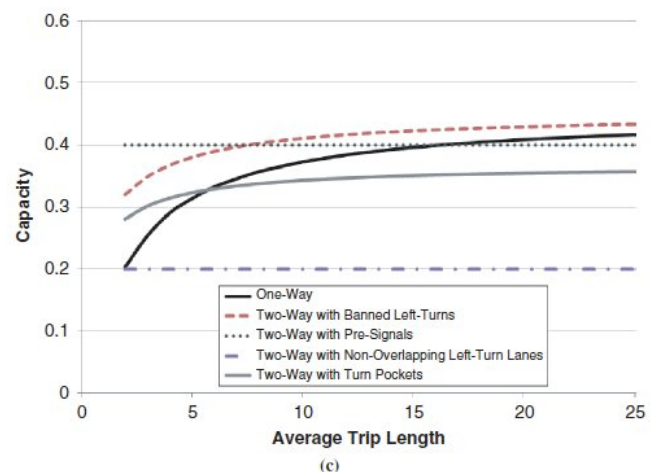
- Livability: vehicles stop less on one-way streets, which is hard for bikers and pedestrians.
- Navigation: one-way street networks are confusing for drivers, which leads to more vehicle-miles traveled; they also make it tough for bus riders to locate stops for a return trip.
- Safety: speeds tend to be higher on one-way streets, and some studies suggest drivers pay less attention on them because there's no conflicting traffic flow.
- Economics: local businesses believe that two-way streets increase visibility.

One thing that's not typically cited is traffic flow. Cities have long been home to one-way streets because transportation engineers believe they move cars better than two-way streets do. That's largely the case because one-way streets eliminate tough left turns through oncoming traffic. Any way around conflicting lefts, on two-way streets, creates congestion: left-turn lanes take up space, and guarded signals take up time. [Vikash Gayah](#), a civil engineer at Penn State University, isn't so sure about that conventional wisdom. In addition to the aforementioned reasons to convert one-way streets, Gayah believes congestion will improve as well. He makes his case in a [recent paper](#) published in the *Transportation Research Record*, and offers a popular summary in the transportation quarterly *Access* [\[PDF\]](#).*

The typical metric of traffic is vehicle flow — which amounts, more or less, to standing on the corner and counting how many cars go by. Flow is high on one-way streets because there's little reason for cars to slow down. But flow doesn't take into account the fact that traveling through one-way street systems often means taking a circuitous route, which adds distance to every trip.

"You can move more vehicles through a roadway, but if they have to travel a longer distance, in the end, you have actually fewer people being able to get to their destination and get off the road," says Gayah.

Instead, Gayah prefers a metric called "trip-serving capacity," which considers both the flow and the extra travel distance created by a street system. Using this new metric he compared one-way streets to several types of two-way streets (those with full left-turn lanes, those with left-turn pockets, and those that banned left turns). When it comes to trip capacity, the two-ways held up:



What the chart shows is that, for very short trips, two-way streets perform about as good or better than one-way streets, whose flow can't compensate for the additional distance. Over longer distances one-way streets start to perform better, but never quite up to the trip capacity of two-way streets with banned left turns (the dotted red line). The beauty of this type of system is that it combines the flow of a one-way street with the directness of a two-way street.

"You're able to get the higher speeds that you would in a one-way street but you get less circuitry than in one-way street," says Gayah. "It's kind of the best of both worlds."

(Continues on Page No. 20)

An Update on Norman's Flashing Yellow Arrows

By: David Riesland, P.E.

Continues from Page No. 1

included a couple of locations with flashing yellow arrows for permissive only left-turns. This experience has led to the creation of a project to upgrade more candidate permissive only left-turn lane locations. A future project will be forthcoming for that.

A new signal will be under construction on the south side of the OU campus at the intersection of Jenkins Avenue and Stinson Street. This intersection features an exclusive northbound right-turn lane that will have an overlap. The plans were designed to install a flashing yellow arrow for this right-turn lane. This, of course, will lead to yet another project that will upgrade a number of right-turn overlaps within the city to feature a flashing yellow arrow.

Norman has now phased out all "doghouse" protected permissive signal heads, becoming the first city in

Oklahoma (and maybe in the nation) to fully implement the flashing yellow arrow phasing for left turns.

The feedback received from the program continues to be overwhelmingly positive. In fact, I have been contacted on more than one occasion by a citizen who thinks a particular intersection should have received a flashing yellow arrow but did not. All of these concerns and opinions are being considered as these future projects continue to evolve. One of the things that we wanted to accomplish was a before and after study to determine the safety impacts of the flashing yellow arrow. Now, this technology, from Norman's perspective will be expanding to include permissive only left-turn heads as well as right-turn overlap heads. Stay tuned...



Norman installed left-turn yellow lights at intersections to improve safety

New Director is selected for Oklahoma Department of Transportation

Mike Patterson, the Oklahoma Transportation Department's deputy director and chief financial officer, will succeed Gary Ridley on April 1.

The deputy director and chief financial officer for the Oklahoma Transportation Department will be taking over the helm of the agency April 1.

Mike Patterson, who has held both jobs since 2010, was named Monday by the Oklahoma Transportation Commission to head the agency.

Patterson, 60, was among three key executive officers from the Transportation Department vying for the post. He will succeed Gary Ridley, who is retiring March 31.

"It was not an easy decision," said Greg Love, chairman of the Transportation Commission.

The vote to promote Patterson, of Edmond, was unanimous, 8-0. Commissioners met for slightly more than an hour in a closed, executive session before coming back and voting during their regularly monthly meeting.

"Wow," Patterson said to commissioners after they voted, giving credit to the agency's 2,300 employees. "There are a lot of great people here at ODOT. It's what makes ODOT what it is today.

"I welcome the opportunity to serve the department. ODOT is known nationally as one of the best, and we will continue to be so. We will continue to be laser-focused on providing a safe, effective and efficient transportation system for the people, commerce and communities of Oklahoma."

Patterson complimented other executives of the agency, specifically Deputy Director/Chief Engineer Gary Evans and Director of Engineering David Streb who also sought the job.

"I can only imagine your decision was difficult to make because I know the talent of these individuals," Patterson said.

Love said Patterson's financial knowledge of the agency and his knowledge of the legislative process gave him the edge. Patterson often is at the state Capitol tracking budget bills affecting his agency.

"The organization is run by the engineers and people that maintain the roads; however, the funding to make all that



Michael Patterson - New ODOT Director happen is essential," Love said. "He knows all the ins and outs of how the financial world works as it relates to ODOT as well as the fact that he's got a very good relationship with the Legislature ... as well as our federal delegation. We felt like he was the right guy for the job at this point in time."

Patterson first worked for the Transportation Department as a summer employee in 1970 and returned in 1980 as deputy comptroller.

He was promoted to comptroller in 1984, and in 1999 he was named assistant director of finance and administration.

His father, Joe, worked from 1961-87 in the department's planning division.

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New Director is selected for Oklahoma Department of Transportation

Continues from Page No. 16

Transition is set

Ridley has served as director of both the Oklahoma Turnpike Authority and the Oklahoma Transportation Department since 2009.

Ridley, who will retire from both positions March 31, will remain on the governor's Cabinet as secretary of transportation.

"We have a lot of people in the agency that I think could do a great job," Ridley said. "I certainly think that Mike certainly is one of those people. He'll do a great job, and the reason he'll do a great job is because everybody else will help him."

The Turnpike Authority and the Transportation Department, the 15th largest transportation agency in the country, will have separate directors, which is typical. Tim Stewart, the Turnpike Authority's deputy director and chief operating officer, was named last month to head the Turnpike Authority.

"I am delighted with the selection of Mike Patterson as director and thank the commission for their hard work," Fallin said. "The department has great leadership and this will be a smooth transition."

Commission Chairman Greg Love said of the commission's decision, "After much deliberation, the commissioners decided based on where the agency is at today that Mike Patterson was the right person for the job given his experience with the department and vision for the future." Love continued, "The commission had a tough decision to make on replacing Director Ridley, largely because of a number of highly-qualified candidates. We felt that, by all appearances, ODOT is an extremely well-run agency and that promoting from within the ranks of ODOT would be the best way to go."

Ridley praised Patterson's ability to work with state leaders and his commitment to moving the department forward.

"In his three decades with ODOT, Mike has been instrumental in working with the state legislature and governor to ensure that transportation is a top priority in Oklahoma," Ridley said. "I am confident that under Mike's



leadership, ODOT will continue to make great strides in improving our state's transportation system."

Patterson first worked for ODOT as a summer employee in 1970. He returned in 1980 as Deputy Comptroller and was promoted to Comptroller in 1984. In 1999, he was named Assistant Director of Finance and Administration and served in that capacity for 10 years.

"I welcome the opportunity to serve the department," Patterson said.

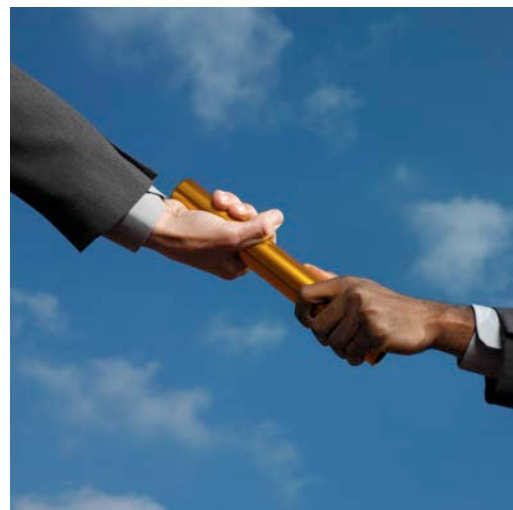
"ODOT is known nationally as one of the best and we will continue to be so. We will continue to be laser-focused on providing a safe, effective and efficient transportation system for the people, commerce, and communities of Oklahoma."

An Oklahoma City native, Patterson holds a bachelor's degree in Accounting and a master's degree in Finance from the University of Central Oklahoma.

Along with his ODOT responsibilities, Patterson serves as vice chair of the Standing Committee on Finance and Administration for the American Association of State Highway and Transportation Officials. He is also a member of the board of directors of the Oklahoma Employees Credit Union.

Patterson and his wife, Joy, live in Edmond and have two daughters and five granddaughters. He continues a tradition of family service to ODOT. His father, Joe, worked in the Planning Division from 1961 to 1987.

Source: ODOT Press Release & NewsOK, March 5, 2013



As Traffic Jams Worsen, Commuters Allowing Extra Time for Urgent Trips

As traffic congestion continues to worsen, the time required for a given trip becomes more unpredictable, and researchers now have a way to measure that degree of unreliability, introduced for the first time as part of the annual [Urban Mobility Report](#) (UMR), published by the [Texas A&M Transportation Institute](#) (TTI).

The [Planning Time Index](#) (PTI), a measure of travel reliability, illustrates the amount of extra time needed to arrive on time for higher priority events, such as an airline departure, just-in-time shipments, medical appointments or especially important social commitments. If the PTI for a particular trip is 3.00, a traveler would allow 60 minutes for a trip that typically takes 20 minutes when few cars are on the road. Allowing for a PTI of 3.00 would ensure on-time arrival 19 out of 20 times.

PTIs on freeways vary widely across the nation, from 1.31 (about nine extra minutes for a trip that takes 30 minutes in light traffic) in Pensacola, Florida, to 5.72 (almost three hours for that same half-hour trip) in Washington, D.C., according to the study by TTI, a member of The Texas A&M University System.

"We all understand that trips take longer in rush hour, but for really important appointments, we have to allow increasingly more time to ensure an on-time arrival," says Bill Eisele, a TTI researcher and report

co-author. "As bad as traffic jams are, it's even more frustrating that you can't depend on traffic jams being consistent from day-to-day. This [unreliable travel is costly](#) for commuters and truck drivers moving goods."

Rankings of the nation's most congested cities vary slightly from year to year, and many of this year's top 10 are repeat performers. Washington, D.C. tops the list, followed by Los Angeles, San Francisco-Oakland, New York-Newark and Boston. The second five include Houston, Atlanta, Chicago, Philadelphia and Seattle. The report provides a detailed illustration of traffic problems in a total of 498 U.S. urban areas.

In addition to PTI, the 2012 UMR also debuts an estimate of the additional carbon dioxide (CO₂) [emissions attributed to traffic congestion](#): 56 billion pounds – about 380 pounds per auto commuter.

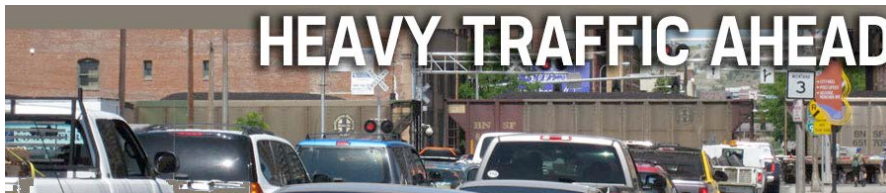
"Including CO₂ emissions into the UMR provides another dimension to the urban congestion problem," says researcher and co-author David Schrank. "It points to the importance of implementing transportation improvements to reduce congestion." The analysis of CO₂ was made possible by funding from the National Center for Freight and Infrastructure Research and Education (CFIRE).

Traffic congestion in U.S. cities has remained relatively stable in recent years and continues to underscore the link between traffic and the economy, according to the UMR. As the nation's job picture has slowly improved, some congestion measures in 2011 were generally comparable to the year before.

Fuel wasted in congested traffic reached a total of 2.9 billion gallons – enough to fill the New Orleans Superdome four times. That's the same as 2010, but short of the 3.2 billion gallons wasted in 2005. The Travel Time Index (the difference in time required for a rush hour commute compared to the same trip in non-congested conditions) remained steady at 1.18, still short of the 1.23 level in 2005.

The total financial cost of congestion in 2011 was \$121 billion, up one billion dollars from the year before and translating to \$818 per U.S. commuter. Of that total, about \$27 billion worth was wasted time and diesel fuel from [trucks moving goods](#) on the system. The methods and measures developed by TTI and used in the Urban Mobility Report have been successfully implemented for policy making and prioritizing congestion-mitigating projects," says report co-author and researcher Tim Lomax. "In light of the recent signing of the Moving Ahead for Progress in the 21st Century (MAP-21) Act, there is greater importance on using such measures to prioritize transportation improvement spending to get the highest investment return for the public."

Researchers say that the most effective way to [address traffic congestion](#) varies from one urban area to another, but that in all cases,



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- The OTEField is intended to inform and create discussion in our profession.
- Contributions from any person are welcomed.
- The information presented in this newsletter does not necessarily reflect the views of O.T.E.A.
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- Send articles, comments or suggestions to Angelo Lombardo, Editor, 4405 Trophy Drive, Norman OK 73072 or E-Mail at OTEFIELD@sbcglobal.net.

MUTCD Revisions Affect Local Agencies

Heads-up for local governments on changes that affect local roads and streets.

Revisions adopted last year to the 2009 Manual on Uniform Traffic Control Devices (MUTCD) include changes that make complying with the MUTCD less onerous for local agencies with limited funds. This article will review some of those changes from the original 2009 version and how they apply to your agency. This information is adapted from a memo sent by FHWA's Office of Safety to its field offices.

On May 14, 2012, two rulemakings revising the MUTCD were published in the Federal Register. The rulemakings were published as Revisions 1 and 2 to the 2009 MUTCD. They include the revisions summarized in this article. To see the specific sections mentioned, go to http://mutcd.fhwa.dot.gov/kno_2009r1r2.htm and click on either the HTML or the PDF version.

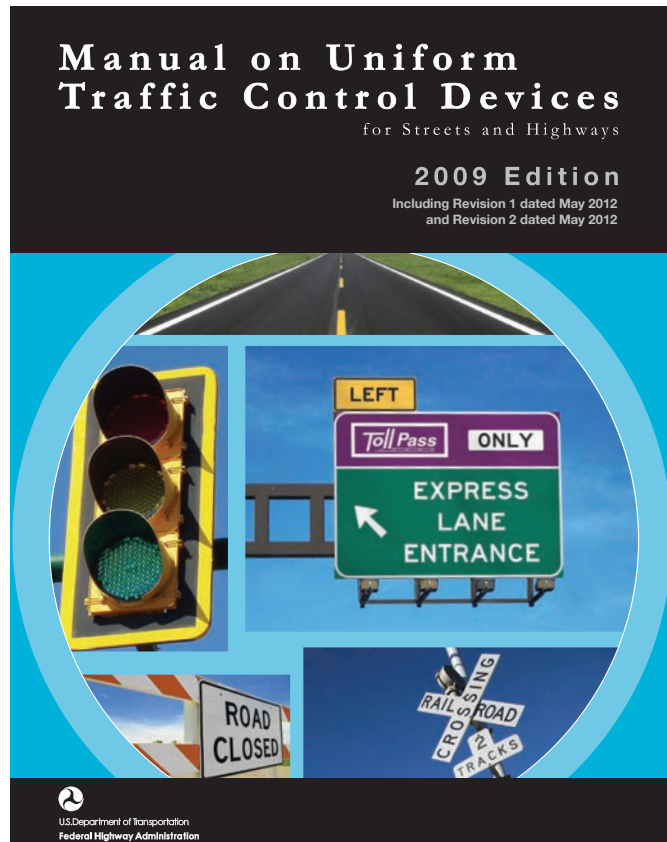
Clarification about the use of engineering judgment – and definition of Standard (Sections 1A.09 and 1A.13). Certain language about the use of engineering judgment in the 2003 MUTCD that was removed from the 2009 edition and has been restored (see Paragraph 3 of Section 1A.09).

In another section, the definition of “Standard” has been revised to remove the sentence that said the Standards could not be modified through engineering judgment or study (Section 1A.13).

These two revisions* define the conditions under which deviation from a Standard provision in the MUTCD can be justified based on engineering judgment or study. Now, in limited, specific cases, deviation from a Standard provision is still allowed at a location (or at other locations with the same conditions) provided that the engineering reasons for the deviation are fully documented.

Programmatic deviations from Standard provisions, such as in a State MUTCD, Supplement, or policy, continue to be prohibited. (Kansas does not have its own MUTCD.)

* in conjunction with FHWA's October 1, 2010, Official Ruling No. 1 (09)-1 (I) (still in effect) (see http://mutcd.fhwa.dot.gov/resources/interpretations/1_09_1.htm)



Some compliance dates rescinded.

Some compliance dates were removed from Table I-2 in the MUTCD's Introduction. If a compliance date no longer appears in Table I-2, it means that there is no longer a specific compliance date associated with that provision. Even if a former compliance date has already expired, if the date no longer appears in the Table, it is considered to have been rescinded retroactively and no longer applies to existing devices that have not yet been brought into compliance. When there are no compliance dates, signs are to be brought into compliance through routine maintenance or a systematic replacement process.

Some compliance dates retained.

If a compliance date appears in Table I-2, then it still applies and all existing devices must be brought into compliance by the date listed. Even if a date has already expired, but the

Continues on Page No. 21

The Case Against One-Way Streets

So cities looking to improve trip capacity in downtown areas have some options. Smaller cities, with shorter average trip lengths, should be able to reduce congestion by converting one-way streets into two-way streets (with a couple options for left turns). Larger cities, with longer trip distances, should consider a shift to two-way systems that ban left turns entirely.

And that's just focusing on traffic. The benefits of switching to two-way streets mentioned at the top of this post only sweeten the deal.

The work has its limitations. Gayah's models are theoretical, and he hopes his work prompts more study of one-way versus two-way systems, especially in test trials. In cities like New York, with streets that aren't always wide enough for two-way traffic, the idea doesn't have much promise. Gayah also recognizes that transforming one-way streets is a costly process that carries political risks.

Even if a city isn't willing to convert its one-way streets quite yet, Gayah's trip-capacity work shows the wisdom of banning left turns at existing two-way intersections. (That's something U.P.S., which doesn't let its drivers turn left, has [known for years](#) — and New York appears to be [learning this lesson](#) too.) Since such a change carries a very low implementation cost, that's a great place for cities to start.

"I think if a city was willing to try that they would see some significant benefits in the long run," he says.

* A note to readers who click through to the Access article: Figure 3, which compares two-way streets to one-ways, has reversed the lines for banned left turns and left-turn lanes. [UPDATE: The figure has been updated [here](#).]

Figure from Gayah, V.V. & Daganzo, C.F. Analytical Capacity Comparison of One-Way and Two-Way Signalized Street Networks. *Transportation Research Record*, No. 2301 (2012), pp. 76–85. DOI: 10.3141/2301-09.

Source: Eric Jaffe, *The Atlantic Cities*, January 23, 2013

As Traffic Jams Worsen, Commuters Allowing Extra Time for Urgent Trips

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a multi-faceted approach should be used, relying on more efficient traffic management and public transportation in addition to new construction. Travel options such as flexible work hours and telecommuting should also be part of the mix.

The 2012 installment of the study includes 30 years of trend data with which TTI has measured and analyzed traffic congestion and its impact on life in urban America. The report is the third prepared in partnership with INRIX, a leading private-sector provider of travel time information for both commuters and shippers.

TTI, a member of The Texas A&M University System, seeks solutions to the problems and challenges facing all modes of transportation, as well as helping prepare students for transportation-related careers.

Source: Texas A&M Transportation Institute, 2012 Annual Urban Mobility Report



The measures of congestion in Oklahoma City and Tulsa continue to degrade according to the 2012 Annual Urban Mobility Report.

Ranking of Oklahoma Cities
2012 Annual Urban Mobility Report
(Top 100 Cities in the U.S.)

CONGESTION MEASURE	RANKING	
	OKC	Tulsa
Total Congestion Cost	43	57
Commuter Congestion Cost	34	51
Freeway Travel Time	47	73
CO2 Emissions due to Congestion	34	50
Wasted Hours in Congestion	23	38

Oklahoma City ranks 23rd among the 100 largest cities in the nation in the number of hours that drivers waste in traffic congestion according to latest Annual Mobility Report .



MUTCD Revisions Affect Local Agencies

Heads-up for local governments on changes that affect local roads and streets.

(Continues from No. Page 19)

date still appears in the Table, that compliance date remains in effect. Devices that do not meet the corresponding MUTCD provisions are non-compliant.

Sign retroreflectivity (Section 2A.08).

The compliance dates for replacing existing signs not meeting the minimum retroreflectivity levels in Chapter 2A, Table 2A-3, have been rescinded. However, a compliance date by which an assessment or management method must be implemented and in use to maintain minimum retroreflectivity levels of regulatory and warning signs has been extended to June 13, 2014. Other types of signs are to be added to the method as agency resources allow.

Because there is no compliance date by which signs not meeting the minimum retroreflectivity levels must be replaced, replacement of these devices must be prioritized based on engineering considerations and agency resources. It is important to note that signs with retroreflectivity below the minimum levels are considered to have exceeded their service life because they no longer serve the needs of the nighttime driver. Accordingly, such signs might demand a higher priority for replacement over non-compliant signs that are replaced by systematic upgrading or routine maintenance schedules.

Historic Street Name Signs exempted from some provisions (Section 2D.43).

A new provision has been adopted that exempts historic Street Name signs on lower speed roadways in locally-identified historic districts from complying with the provisions for retroreflectivity, letter height and case, color, and placement.

Federal code (36 CFR 60.4) provides criteria for evaluating a district to be identified as a historic district and for

evaluating a system of structures, such as Street Name signs, to be identified as historic structures.

The term “lower speed” is not defined in the MUTCD. It is up to the agency having jurisdiction over the roadway to make this determination, as that agency ultimately assumes the risk of tort liability.

This revision assumes that the vast majority of historic Street Name signs meeting the criteria will be on local roads with speed limits of 25 m.p.h. or less. If a community decides to use the new Option to retain existing historic Street Name signs on lower speed roadways within a historic district, it is important for the community to ensure that the signs provide at least some degree of utility as navigational devices for road users.

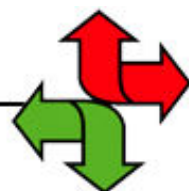
This Option applies only to historic Street Name signs in historic districts meeting the eligibility criteria of 36 CFR 60.4 and does not apply to other types of traffic signs or devices, nor to locations outside of historic districts.

In sum, Revisions 1 and 2 of the (current) 2009 MUTCD contain changes relevant to local agencies. They address several concerns that were raised with the adoption of the 2009 edition. Make sure whomever is responsible for complying with the MUTCD for your city, county or township is familiar with these changes. The MUTCD home page contains the complete, revised 2009 edition. You can also look at just the pages for Revisions 1 and 2. See the link below to access the MUTCD.

Sources:

- (1) 2009 MUTCD (with Revisions 1 and 2 included).
http://mutcd.fhwa.dot.gov/pdfs/2009r1r2/pdf_index.htm.
- (2) Lindley, Jeff. Memorandum. INFORMATION: Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) – Final Rules on Engineering Judgment and Compliance Dates to FHWA field offices. May 31, 2012.

Manual on Uniform Traffic
Control Devices (MUTCD)



2013 - 2014 OTEA Board of Directors Meet the Candidates

President

David Riesland, P.E.



David moved to Norman with his wife, Donna, and his daughter, Ellie, in the fall of 2009 from Tennessee. David received his Bachelors and Masters degrees in civil engineering from the University of Illinois in December 1986 and December 1987, respectively. Following completion of his Masters degree at Illinois, David enrolled at Texas A&M University and completed the Masters curriculum in traffic engineering at the Texas Transportation Institute. Prior to graduation with a second Masters degree, David received a job offer to work with a regional consulting firm in Nashville, Tennessee. As this was close to his home, David accepted the offer and left TTI.

David worked as a consultant from February 1990 until July 2009. His position at his firm was eliminated in the receding economy. David applied with the City of Norman for an open Assistant Traffic Engineer position and began working in Norman in September of 2009. His wife and daughter moved from Tennessee to Norman in October.

David is a registered engineer in Oklahoma, Tennessee, Alabama, Ohio, and Georgia. In his spare time, David enjoys coin collecting, minor furniture refinishing, traveling, spending time with family, reading, and enjoying the family pets.

 **Vote**

**Meet
the
Candidates**

Vice President

Kristi McCain Drury, P.E.



Kristi Drury is the Construction Engineer with the Oklahoma Turnpike Authority where she oversees projects that are currently under construction. She achieved her bachelor's degree in Civil Engineering from Oklahoma State University and is currently completing the curriculum for a Masters Degree in Transportation from OSU. In addition, Kristi earned an Associate's Degree in Industrial Drafting from OSU Tech. in OKC. Prior to going to OTA, Kristi served as an Engineering Manager in the ODOT's Traffic Division, she also served as a Lead Engineer in ODOT's Roadway Division as well as three years as a Project Engineer in the Edmond Construction Residency.

Richard McCubbin, P.E.

Richard McCubbin is a civil engineer in the Oklahoma City Public Works Department Traffic Management Division. Some of his primary job duties include the design and review of construction documents for new traffic signals and related traffic improvement projects; plan review in conjunction with new land development and redevelopment; providing coordination support for special events; and administration of the UPWP traffic count data collection program providing traffic data to the Association of Central Oklahoma Governments (ACOG) and their Traffic Count database website. He joined the Public Works Department in March 2011.

Before joining Oklahoma City, he worked for CPH Engineers in their Jacksonville, Florida office for nearly four (4) years as the principal Traffic Engineer. At CPH, he was responsible for traffic impact studies, traffic signal design and access management for major retail clients. His duties there included providing close support of client development applications to a variety of government commissions and city councils. Prior to working for CPH, Richard served as the City Traffic Engineer for the City of Jacksonville, Florida. As City Traffic Engineer his primary job duties include the design and review of construction documents for new traffic signals and related traffic improvement projects; plan review in conjunction with new land development and redevelopment; and providing coordination support for special events including Super Bowl XXXIX.



Richard McCubbin is a veteran of the USAF and a 1994 graduate of the University of Oklahoma, Norman, OK, earning a B.S. degree in Civil Engineering. He became a registered professional engineer in the State of Oklahoma in 1999. He is currently registered in Oklahoma, Texas and Florida, a member of the Institute of Transportation Engineers, a current member of the Oklahoma Traffic Engineering Association and a former member of International Municipal Signal Association.

ODOT / OTA / FHWA Director

Ken Phillips

Ken Phillips began working for the Oklahoma Department of Transportation in August 1996. He joined Traffic Engineering in January 2011 as a Transportation Manager and currently manages and oversees designs for Traffic Control, Signing, Traffic Signals, Lighting, and Cable Barrier projects for Field Divisions, 1, 3, 5, & 8. Before joining Traffic Engineering in January of 2011, Mr. Phillips began working for the Roadway Design Division and was hired as a Senior Drafting Technician. For 11 years he was the Design Supervisor at Oklahoma State University's Design Group in Stillwater, and later transferred to the Transportation Building in Oklahoma City for 2 years. He continues to help teach the Geometric Design of Highways course with Dr. Samir Ahmed at Oklahoma State University in Stillwater. Mr. Phillips served as an advisor for Oklahoma State University in Okmulgee from August 1999 to May 2003. Mr. Phillips is married to his wife Stacy and has four children, Austin, Madison, Braxton, and Kelby.

Marco White

Marco White is a Transportation Manager II with Traffic Engineering Division. Marco is currently managing the Central Sign Shop where he oversees the production of Highway Signs.

Marco has worked for the Department of Transportation for twenty five years, thirteen of which has been in Traffic Engineering Division. While in Traffic Engineering Division Marco has worked in plan production of lighting, signals, and traffic operations. Marco really enjoys the hands on aspect of the sign shop.

Marco is a graduate of Bishop McGuinness Catholic High School in Oklahoma City. Marco studied Civil Engineering while attending the University of Oklahoma and later Business Management at the University of Central Oklahoma. Marco is a proud member of the Omega Psi Phi fraternity.

Marco has been happily married to his bride Felecia since 2008. He has two sons and one daughter. Marco is a proud Papa to three granddaughters and one grandson.

Marco loves sports including football, basketball and track and field. His hobbies include baby sitting, watching "Swamp People" and yard work. One interesting fact about him that you may not know is that he won a gold medal in the Sooner State Games in the thirty and over bracket for the Men's Long Jump.

City / County Director

Doug Williams

Doug Williams is a Supervisor for the City of Midwest City Public Works. He manages the Street Department, Parks Department, Drainage Department, and Facilities & Forestry Department. He has been with Midwest City since August of 2009. He started with Oklahoma County Highway Department District #2 in 1983 working as a laborer while attending college at night. He worked up to truck driver, equipment operator, crew supervisor, construction superintendent, and was the District Superintendent for seven years before leaving Oklahoma County in early 2009 after 25 years.

Doug and his wife Jeannie have been married for 10 years and have four sons between them, the youngest who is a freshman at Harrah. They have three grandchildren, Brooklyn, Avery, and Easton.

Jack Stewart, P.E.



Jack Stewart is a County Commissioner in Canadian County and has been since April, 2010. Besides being an administrator for the county, he oversees the design, construction, and maintenance of over 400 road miles. He has been a registered Professional Engineer in the State of Oklahoma for over 30 years. Additionally, he recently became registered as a Certified Floodplain Manager.

Jack received his Bachelor of Science degree in Civil Engineering from Oklahoma State University in 1974. Upon graduation, he joined the Oklahoma Department of Transportation (ODOT) where he had already worked for two summers while in school and in their Roadway Design squad on the OSU campus while a student. He completed the Engineer-in-Training Program in 1975 and then took a full-time position with the Clinton Residency for 2 years. From there, Stewart spent 3½ years as a Project Engineer in the Research Division, 3½ years as ODOT's Geometrical Design Engineer, 3 years as El Reno Residency's Asst. Resident Engineer, 1 year as Duncan Resident Engineer, 2½ years as Division 7's Maintenance Engineer that also oversaw Traffic Engineering, and finally, his last 15 years at ODOT were as the Division Engineer of the Office Engineer Division.

After 31 years at ODOT, Jack slid over to the private sector as the Transportation Unit Manager for Carter & Burgess Engineering Co. There he oversaw the design and construction of all transportation projects that the company had under contract in Oklahoma. Stewart previously served on the Yukon Traffic Commission for 3½ years just prior to becoming a County Commissioner. During this time, both Yukon and Canadian County were among the fastest growing areas in the state.

Jack has been married to wife Jan for 36 years. They have three grown daughters: Lisa, a Reading Specialist in Yukon; Dina, a Speech Pathologist in Dallas; and Maryann, an Elementary/High School art instructor in Yukon.

Consultant Director

Derick Millican, P.E., P.T.O.E.



Derick Millican is a Project Manager for Garver's Traffic Design Center working in the Norman, OK office. His responsibilities include traffic signal design, temporary traffic control, traffic studies including operational and safety analysis, signing and striping, micro-simulation modeling, pedestrian-bike oriented improvements, traffic data collection, geometric design, project management and preparing engineer's cost estimates. He has been employed with Garver for over six months and has been working as a transportation/traffic engineer for over six years.

Derick received his Bachelor of Science Degree in Civil Engineering from Oklahoma State University in 2005. After working for just over a year as a design engineer in residential land development, Derick realized his true calling as a transportation and traffic engineer. In October of 2006, he began employment with Professional Engineering Consultants, P.A. (PEC) in their Wichita, KS office. He grew into his role as a traffic engineer at PEC through a willingness to expand his knowledge base and responsibilities, the support of a couple of accomplished (and patient) mentors, a fair measure of hard work and a curiosity that persistently pursued the detailed pros and cons that support traffic and transportation design decisions and best design practices.

Derick is a registered Professional Engineer in the States of Oklahoma and Kansas, and has been a member of the Institute of Transportation Engineers since 2008. He has been a member of the OTEA since 2012 and earned his Professional Traffic Operations Engineer (PTOE) certification in 2010. During his time in Wichita, Derick was very involved with the Wichita Branch of the American Society of Civil Engineers, serving as Secretary-Treasurer, Vice President, and the representative to the Wichita Council of Engineering Societies.

Derick has been married to his wife Jodie, an industrial engineer, for over seven years. They have two children: Roland (age 5) and Rayleigh (age 2).

Esther Shaw, P.E.

Esther Shaw is the Branch Manager of the Oklahoma office of Lee Engineering, a specialty traffic engineering firm founded over 25 years ago with offices in Phoenix, Dallas, Albuquerque, San Antonio, and San Diego. She has held this position since the office was opened in January 2012. She is responsible for the primary project management, engineering design, and business development duties for the office. Esther has worked in the consultant field for over 8 years and also has 2 years of experience in the government sector with the Oklahoma Water Resources Board.

Esther received her Bachelor of Science Degree from the University of Oklahoma. She is a registered Professional Engineer in the State of Oklahoma, a member of the Institute of Transportation Engineers, the American Society of Civil Engineers, the American Public Works Association, and the OU Alumni Association. Esther has been a member of the Oklahoma Traffic Engineering Association since 2005.

Esther is newly married to Chris Smith who works as a Construction Project Manager at a local consultant firm. They spoil a large 240-lb English Mastiff named CJ and spend most of their summer at Lake Eufaula boating and fishing. Esther also enjoys golf, tennis, ATVs, spending time with family & friends, and volunteering.

Contractor / Supplier Director

Maggie Dorrell



Maggie Dorrell, LC has over 20 years of experience as a professional consultant in the commercial, infrastructure, architectural outdoor and industrial markets. Since 2003, she has maintained the position of Oklahoma Factory Lighting Consultant for Holophane Lighting, a division of Acuity Brands Co. Ms. Dorrell has her Lighting Certification (LC) through IES (Illuminating Engineering Society); she has earned her Bachelors in Business Administration from Northeastern State University, and then attended Oklahoma State University for graduated school. As a former adjunct instructor of business courses at Tulsa Community College, Ms. Dorrell enjoys sharing her business and lighting knowledge with customers by offering AIA accredited courses in Oklahoma. Ms. Dorrell and husband Fred reside in Broken Arrow, OK. They enjoy spending their free time with family and friends, and on weekends they can often be found on leisurely motorcycle rides, or enjoying other outdoor activities. Maggie Dorrell can be reached at 918-344-6103, or

Maggie.dorrell@holophane.com.

Jeremy Tilton

Jeremy Tilton is the General Manager of Oklahoma Logos, LLC. Under the supervision of ODOT and the OTA, Oklahoma Logos operates the Specific Information Logo Sign Program which provides identification and directional information to the traveling public. Jeremy has been in his current position for over thirteen years, and is responsible for all aspects of the logo program in Oklahoma.

Jeremy received his Bachelor of Arts degree in Communication from Texas A&M University – Corpus Christi in 1995, and has been a member of the OTEA since his arrival to Oklahoma in January of 2000. He has been married to his wife Bernadette for twelve years, and they have five children between the ages of nine and seven months old. Jeremy and his family are very involved at Epiphany of the Lord Catholic Church in Oklahoma City, where he currently serves on their Parish Council. In his spare time, he enjoys spending time with his family, basketball, softball, collecting sports memorabilia, and volunteering for various projects through his church.

Jennifer Sheehan



Beginning her career in 2001 in sales with the largest guardrail and end terminal provider in the U.S., afforded Ms. Sheehan both knowledge and experience from production to delivery issues, from manufacturing facilities to roadways. Having spent more than 3 years working in the steel barrier market, Ms. Sheehan continues to assist in bringing new and innovative products to the state and construction market. Utilizing this experience to sell to large general contractors, Departments of Transportation and Toll Road entities, Ms. Sheehan has helped bring the companies she represented a reputation for excellence and performance. Serving on the Public Affairs Committee with the Associated General Contractors of Texas has helped Jennifer gain not only company recognition, but also knowledge of the industry in which she participates. Ms. Sheehan has a wide range of experience in all facets of heavy highway construction and will continue to be an active participant as our infrastructure continues to face challenges and seek solutions in the 21st century.



OTEA SPRING MEETING

May 1 - 3, 2013

Quartz Mountain Resort Arts and Conference Center
Lone Wolf, Oklahoma



REGISTRATION FORM

NAME: _____

EMPLOYER: _____

ADDRESS: _____

CITY: _____ STATE: _____ ZIP: _____

TELEPHONE: _____ E-MAIL: _____

Registration Fees

Conference fees include the technical sessions on May 2, 2013, breaks, lunch and dinner on Thursday, and breakfast on Friday.

- | | |
|---|----------|
| <input type="checkbox"/> Before April 19, 2013 | \$100.00 |
| <input type="checkbox"/> After April 19, 2013 | \$150.00 |
| <input type="checkbox"/> Thursday Only (with Lunch) | \$ 50.00 |

Extra Meals for Spouse/Guest

- | | |
|---|----------|
| <input type="checkbox"/> Thursday Lunch | \$ 15.00 |
| <input type="checkbox"/> Thursday Dinner | \$ 25.00 |
| <input type="checkbox"/> Friday Breakfast | \$ 6.00 |

TOTAL FEES: \$ _____

Payment

Make checks payable to OTEA. Refunds provided if cancellation is made prior to April 26, 2013

- ☐ Check Included
- ☐ P.O. Included
- ☐ Credit Card (Pay Pal through OTEA Web Page)



Golf

Are you playing golf on Wednesday?

- ☐ Yes ☐ No

Golf fees of \$50 will be paid at the golf course. The tournament will be held at Quartz Mountain Golf Course, located at the main entrance to Quartz Mountain Nature Park, just 2 miles from the Resort. It is an 18-hole par 71 course at the foot of the rugged granite hills at the tip of scenic Lake Altus. The cost includes green fee, cart, prizes and the tournament entry fee. To register or to help sponsor the tournament, please contact Marty Pinkley at 405-755-0858 or e-mail him at mpinkley@aol.com

Accommodations

The meeting will be held at the Quartz Mountain Resort Arts and Conference Center (22469 Lodge Road, Lone Wolf, OK 73655). Rooms are available for \$70 or \$89 per night plus tax for single and double occupancy respectively. Reservations can be made by calling (580) 563-2424 or Toll Free at (877) 999-5567. A block of rooms will be held until April 12, 2013.

Directions: From East (Oklahoma City Area)

Follow I-40 west to Exit #66; take Hwy 183 south toward Cordell/Hobart (35 miles). Turn right onto Hwy 9 west (not Business 9) to Lone Wolf (9 miles). At Lone Wolf turn left onto Hwy 44 south (8 miles). Turn right onto junction 44a (1 mile). Road Y's go to the right and follow main road 2 miles. Road ends at hotel parking lot.

Submit Form

Mail, fax or e-mail this completed form to:

Oklahoma Traffic Engineering Association
c/o Angelo Lombardo, Secretary - Treasurer
4405 Trophy Drive
Norman, OK 73072

Fax: (405)366-5418

E-Mail: angelo.lombardo@normanok.gov

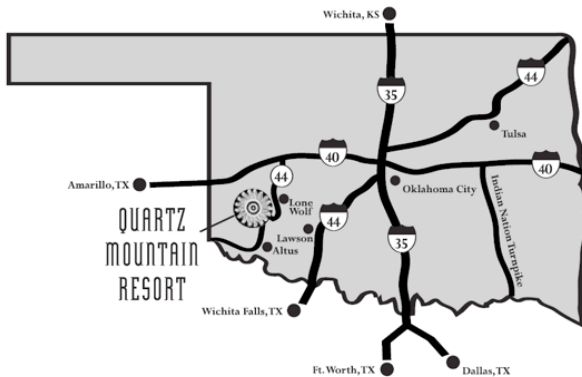
Quartz Mountain Resort Arts & Conference Center... The Choice for Oklahoma Resorts!

Located 17 miles north of Altus in the Wichita Mountains of southwestern Oklahoma near the Texas border, Quartz Mountain Resort Arts and Conference Center is ideally located just two and a half hours from Oklahoma City and four hours from Dallas, TX making it the perfect location for corporate retreats, national conferences, workshops, family reunions, destination weddings, and quiet escapes.

Southwest Oklahoma's premiere destination resort retains an element of the mystical and sacred that contributes to the overall atmosphere of the lodge-style hotel. Custom, hand painted art donated to the resort provides a visual of the rich heritage.

No matter if you are looking for a unique location for destination wedding, or just a destination to get away to -- Quartz Mountain Resort is the perfect location. Come hike in the mountains, go boating on the lake, play a round of golf, explore the Arts Institute, or just relax at the lodge!

Though Quartz Mountain Resort is located in an isolated spot, guests can still keep in touch with the outside world. Guests have access to Wi-Fi high-speed internet in their rooms and there is complimentary Wi-Fi in the lobby of the resort.



From West (Texas Panhandle Area)

Follow I-40 east to Exit 20 at Sayre, OK. Follow 283 South, approximately 45 miles to the Junction of 283 & 44. Turn left on 44 for approximately 2 miles. At the Quartz Mountain Resort sign, turn left onto Highway 44A and follow the signs back to the Resort.

From East (Oklahoma City Area)

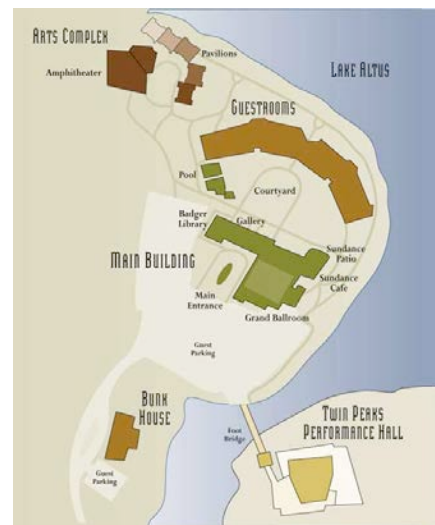
Follow I-40 west to Exit #66; take Hwy 183 south toward Cordell/Hobart (35 miles). Turn right onto Hwy 9 west (not Business 9) to Lone Wolf (9 miles). At Lone Wolf turn left onto Hwy 44 south (8 miles). Turn right onto junction 44a (1 mile). Road Y's go to the right and follow main road 2 miles. Road ends at hotel parking lot.

From South (Dallas/Fort Worth area)

Take Highway 287 to Wichita Falls and on to Vernon, Texas. Exit Highway 283 in Vernon going north through Altus, OK, continuing north to the Junction of 283 and 44. Continue north on 44 for approximately 2 miles to Quartz Mountain Resort entrance. Turn left onto Highway 44A and follow the signs back to the Resort.

From North (Wichita, KS area)

Take I-35 south to Oklahoma City. Take I-40 west from Oklahoma City to Exit #66; take Hwy 183 south toward Cordell/Hobart (35 miles). Turn right onto Hwy 9 west (not Business 9) to Lone Wolf (9 miles). At Lone Wolf turn left onto Hwy 44 south (8 miles). Turn right onto junction 44a (1 mile). Road Y's go to the right and follow main road 2 miles. Road ends at hotel parking lot.



Area Recreation

Quartz Mountain Visitor/Nature Center

The center is located one-half mile from the park entrance. Park information and brochures on local attractions are available for guests. Park Rangers can be contacted by calling the visitor center. The Nature Center features seasonal displays of park wildlife, plant life and geologic history. Hands-on exhibits include a touch table, tracks pit, and quiz board. The Naturalist also provides weekend nature programs throughout the summer. Hours of operation are from 8:00am to 12:00pm and 1:00 to 5:00pm daily. Call 580-563-2666 for more information.

Quartz Mountain Fun Park & Water Slide

Get a double dose of water thrills on the double waterslide, then visit next door to enjoy the go-carts, bumper cars, Ferris wheel, petting zoo, and kiddie rides. Open the 3rd weekend of April until the last weekend of September with operating hours of 10:00am to 10:00pm. Call 580-563-2511 for more information.

Quartz Mountain Paddleboats & Miniature Golf

Enjoy an 18-hole miniature golf course, take a ride in a paddleboat or canoe, or browse in the gift shop. Open daily May 1st through Labor Day. Open weekends only during April and the 2 weeks following Labor Day with operating hours of 10:00am to 8:00pm for paddle boats and canoes Sunday through Thursday and 10:00am to Dusk on Friday and Saturdays. Miniature Golf operating hours are 10am to 8pm Sunday through Thursday and 10:00am to 10:00pm Friday and Saturday. Call 580-563-2465 for more information.

Boating

Lake Altus offers four boat ramps that are located throughout the park. Two unlighted ramps are located in the Lake View campground and Beach Haven area. Lighted ramps are available at Hicks Mountain and in the Live Oak campground.

Off Road Vehicle Park

The Eagles Roost - Located on the north shore of Lake Altus this area is for ATV and motorcycle riders. Winding trails through wooded dunes and along the lakeshore provide off-road enthusiasts hours of entertainment. All vehicles must be equipped with a colored, 10-foot whip flag. Full cover helmets are strongly suggested. The off-



road area is open from sunrise to sunset from April 1 to September 30. There is a \$5.00 activity fee. Contact the Quartz Mountain State Park Office for information 580-563-2238.

Quartz Mountain Trails & Hiking

Sunrise Trail - ½ Mile Long, travel time ½ hour one-way or 1 hour round trip. Moderate to difficult in challenge level. This trail starts across the street from the Twin Peaks Performance Hall driveway and climbs Quartz Mountain behind the lodge.

Sunset Loop - ¼ Mile Long, travel time ½ hour round trip. Moderate challenge level. This trail starts by the Great Plains Amphitheater and climbs the Quartz Mountain, then meanders through the valley on the opposite side. It does share part of the Sunrise trail at the beginning and the end.

Cave Trail - 200 Yards Long, travel time 10 minutes one way or 25 minutes round trip. Moderate challenge level. This trail starts near the shore behind the Great Plains Amphitheater, enters the woods and quickly climbs to a very small cave. Please respect any of the wildlife that may inhabit the cave. You are a visitor to their home.

Twin Peaks Trail - ¼ Mile Long, travel time is 20 minutes one-way or 45 minutes round trip. This former roadbed will be developed into a paved handicap-accessible trail sometime in the future. Currently it is an easy walk around the point, great for bird watching!

New Frontier Trail - ½ mile long, travel time is 1 ½ hours round trip. This is a moderate level trail. Trail starts ¼ mile south of Lodge on the gravel road leading to the water tower. Sturdy hiking shoes or boots are required.

For Hotel Reservations please call (877) 999-5567 before April 15, 2012. The block of rooms will be held until then.

2013 OTEA GOLF TOURNAMENT

Quartz Mountain Golf Course



The Choice for Oklahoma Golf Resorts...

Quartz Mountain Golf Club is located at the main entrance to Quartz Mountain Nature Park, just 2 miles from the Resort. It is an 18-hole par 71 course at the foot of the rugged granite hills at the tip of scenic Lake Altus.

The golf course is ideal for the beginning or recreational golfer and features a pro-shop, driving range and putting green. The course is open daily from dawn to dusk, weather permitting.

Club Rentals: \$10 per set per round
Range Balls: \$5 per bucket

Pro-Shop Number: 580-563-2520







Reviews and Write-ups

This resort course has an abundance of wildlife....The course is cut out of the natural terrain. The natural beauty is the most distinguishable feature of Quartz Mountain Golf Course.

-- Golfcourses.com

Surrounded by a sea of sage and prairie grass, this course is located at the base of rocky Quartz Mountain on the western edge of the Wichita Mountains range. Winds swirling in from around the mountains and the dam of Lake Altus- Lugert add to the difficulty.

-- USACourses.com

-  **Location:** Quartz Mountain Golf Course, Lone Wolf
-  **Cost:** \$50 (includes green fee, cart, entry fee and prizes). Payment must be made in cash or by check (written to Marty Pinkley)
-  **Format:** 4-Player Scramble
-  **Check in:** Begins at 10:45 am on May 1, 2013. Shot Gun Start @ 12:00 Noon
-  **Prizes:** 1st, 2nd, and 3rd places, closest to the pin and long drive
-  **Registration:** Call, fax or e-mail registration to:

Marty Pinkley
(405)755-0858 (Office)
(405)752-7947 (Fax)
mpinkley@aol.com

2013 OTEA GOLF TOURNAMENT REGISTRATION FORM

Name: _____

Company: _____

Phone: _____

Average 18-Hole Score: _____





OTEA SPRING MEETING
May 1 - 3, 2013
Quartz Mountain Resort Arts and Conference Center
Lone Wolf, Oklahoma



WEDNESDAY - MAY 1, 2013

12:00 Noon	Golf Tournament (Quartz Mountain Golf Course)
5:00 pm - 7:00 pm	Cookout - Hamburgers and Hot Dogs (Park Shelter)

THURSDAY - MAY 2, 2013

8:00 am to 9:00 am	Late Registration	
8:30 am to 8:40 am	Welcoming Remarks	Faria Emamian, P.E. - President
8:40 am to 9:00 am	State of the Transportation System in Oklahoma	David Streb, P.E. - ODOT
9:00 am to 10:00 am	Work Zone Traffic Control 101 - Part 1 (Moderator - Don Russell, P.E.) Traffic Control Plans Definition of the Basic Elements of a Work Zone	Brion Bannister, P.E. - Ridge Engineering Don Russell, P.E. - Russell Engineering
10:00 am to 10:30 am	BREAK	
10:30 am to 12:00 Noon	Work Zone Traffic Control 101 - Part 2 Traffic Control Devices Q/A Equipment Demonstration	Brian Taylor, P.E. - ODOT
12:00 Noon to 1:30 pm	LUNCH	
1:30 pm to 2:00 pm	ODOT's Qualified Products List Process	Faria Emamian, P.E. - ODOT
2:00 pm to 2:30 pm	Norman's Sign Inventory and Management System	Randy Barth, 3M Company
2:30 pm to 3:00 pm	Oklahoma Turnpikes - Update	David Murdock, P.E. - OTA
3:00 pm to 3:30 pm	BREAK	
3:30 pm to 4:15 pm	Adaptive Traffic Signal Systems	Jennie Neville - Rhythm Engineering
4:15 pm to 4:30 pm	Final Comments	
7:00 pm to 9:00 pm	BANQUET / SCHOLARSHIP PRESENTATION Speaker - Deidre Smith - ODOT Waterways Division - "Oklahoma Waterways"	
9:00 pm to ?	Hospitality Suite	

FRIDAY - MAY 3, 2013

8:00 am to 9:00 am	Breakfast	
9:00 am to 9:30 am	OTEA's 50th Anniversary	Don Russell, P.E. - Russell Engineering
9:30 am to 10:30 am	Business Meeting	
10:30 am to 11:00 am	Golf Tournament Results, Awards and Prizes	
11:00 am	Adjourn	



Institute of Transportation Engineers



OTEA

Oklahoma Traffic Engineering Association
405 Trophy Drive
Norman, OK 73072
OTEFIELD@sbcglobal.net

Sponsorships

Dear OTEA Member and Supporter:

The annual meeting has been set for May 1-3, 2013 at Quartz Mountain Resort in southwestern Oklahoma. OTEA hopes that you will be a meeting sponsor and / or purchase an exhibit or display table. As in years past, we are offering three levels of sponsorship:

Platinum \$500 and More provides (1) Meeting and Breakfast Sponsor, (2) Exhibit Booth, (3) Special Recognition, (4) Meeting Registration for two people

Gold \$300 to \$499 provides (1) Meeting and Breakfast Sponsor, (2) Exhibit Booth, (3) Meeting Registration for one person

Silver \$100 to \$299 provides Meeting Sponsor and Hospitality Suite Sponsor

Please send OTEA a check at the address above for the level of sponsorship that you desire. Your sponsorships enable us to keep the registration fees low and allow many of our members to attend who do not have meeting budgets.

The OTEA golf tournament will be held on Wednesday, May 1, 2013 at the Quartz Mountain Resort Golf Course. Marty Pinkley has agreed to be the contact person for those wishing to contribute to this event (e.g., donate prizes or sponsor holes). Please call him at 405-755-0858 or mpinkley@aol.com.

Thank you for your interest in being a sponsor for the OTEA conference! *Confirm your registration by April 19, 2013 to ensure your logo is included in conference publicity materials.*





OTEA

Vendor and Sponsor Registration

Company:			
Name(s):			
Address:			
Telephone:		E-Mail:	
Sponsorship Level	Sponsorship Amount	Exhibitor (Yes / No)	Sponsorship Total
<i>Platinum</i> (1) Meeting and Breakfast Sponsor, (2) Exhibit Booth, (3) Special Recognition (4) Meeting Registration for <u>two people</u>	\$500 and More		
<i>Gold</i> (1) Meeting and Breakfast Sponsor (2) Exhibit Booth (3) Meeting Registration for <u>one person</u>	\$300 to \$499		
<i>Silver</i> Meeting Sponsor and Hospitality Suite Sponsor	\$100 to \$299		
TOTAL			

Submit registration form and check to: OTEA c/o Angelo Lombardo at 4405 Trophy Drive, Norman, OK 73072. Angelo can be contacted at 405-366-5327 or via e-mail at angelo.lombardo@normanok.gov. Make checks payable to OTEA. If paying by credit card, please do so by using Pay-Pal through the link in the OTEA Web Page (www.otea-ok.org)

Confirm your registration by April 19, 2013 to ensure your logo is included in conference publicity materials.

Member News

Jim West, Son of Dr. Leonard West, loses long battle against Lou Gehrig's Disease

James "Jim" Daniel West, 47, son of Dr. Leonard B. West, died December 31 after a brave 7 year battle with ALS (Lou Gehrig's Disease). He was born November 21, 1965 in Starkville, MS; attended public schools in Cary, NC and Norman, OK, where he graduated high school with honors. He graduated from the [University of Texas](#) Austin with a BSEE-Computer Major and the University of Alabama with a MSEE. Jim was a gifted computer software engineer, writing test programs for various companies during his career including NASA, Lockheed-Martin, Carrier Access and Summitek Instruments. He resigned from his work the first of May, 2012, when ALS impacted his ability to effectively continue. During his career he was active in IEEE in the Denver Section. After his ALS diagnosis, Jim and his wife invested time and effort into raising funds for ALS research through Augie's Quest, a special fundraising effort of the Muscular Dystrophy Association. He continued to give support and encouragement to other persons with this diagnosis and their families. Jim was a brave and courageous man who will be missed tremendously. His final gift was the gift of life via organ donation. Jim is survived by Lecia, his wife; sons Logan and Vincent; parents Andrea and Leonard West of Centennial; brother Pat West of Steamboat Springs, sister Marta West of Centennial; nephews Alexander Kollars; nieces Elena Kollars, and Harper West; and numerous aunts, uncles and cousins.

Jim desired that memorial donations be made to ALS TDI, 300 Technology Square, Suite 400, Cambridge, MA, 02139 (www.als.net/donate) or to Donor Alliance at www.DonateLifeColorado.org.

Mbroh Promoted to Transit Division Manager

ODOT is pleased to announce the selection of Ms. Ernestine Mbroh as the new Division Manager of the Transit Division. She comes to this position with experience in many areas of the Department, most recently as the Assistant Division Manager in the Civil Rights Division and the Manager of the Safe Routes to Schools Program. Please join us in welcoming Ernie to her new position.



Oklahoma Traffic Engineering Association
4405 Trophy Drive
Norman, OK 73072
(405) 360-6664
E-Mail OTEFfield@sbcglobal.net

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OTEFfield - Winter 2013 Edition



Institute of Transportation Engineers



Spread the Word - Sign Up New Members

2
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1
3

OTEA Membership Data Form

Name _____

Title / Job _____

Employer _____

Mailing Address _____

City _____ State _____ ZIP _____-

Telephone _____ Fax _____

E-Mail _____



New Members and Renewals Send Check for \$25 per Year and mail to:

OTEA
C/o Angelo Lombardo
4405 Trophy Drive
Norman, OK 73072