WINTER 2021

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BEYOND THE PANDEMIC

by: Angelo Lombardo, P.E.

The last time I wrote a column for the OTEField, we were facing the beginning of the coronavirus pandemic. Among the unexpected consequences of 2020 has been the challenge of finding words to adequately describe it. In so many ways, it's been a year like no other.

Before COVID-19, the human race had dealt with three great world pandemics (in 541, 1347, and 1894), each time causing devastating mortality of people and animals across nations and continents. On more than one occasion, a pandemic has irrevocably changed the social and economic fabric of society. But, in spite of the darkness and uncertainty brought about by these terrible episodes in the history of humanity, that same history reminds me that there is a brighter tomorrow, that life will go on, and that the pandemic of our time will also pass. No one remains unchanged from unprecedented times such as what we have experienced in 2020. But I am confident that we can emerge stronger, with relentless hope for the future.

As I turn the page on 2020 - if not all of its challenges – I'm so grateful for my family, friends and colleagues. For all the ways the events of this year have physically separated us, we have continued to live productive lives in a "new normal". For OTEA, the last year saw the cancellation of the joint spring meeting with MOVITE in Tulsa and the fall meeting, as well as the suspension of the work zone training and certification classes. It also saw the commitment of an Executive Board that has continued to do the business of the organization by meeting virtually every month, pushing forward with the ONEITE initiative, reviewing a new Charter and set of Bylaws for OTEA, soliciting applications for the annual scholarships, and planning future meetings. These efforts guarantee an expeditious return to the business we knew before the pandemic, with productive meetings and the valuable PDHs we all rely on for the renewal of our professional licenses, not to mention the valuable service we provide with the training and certification of individuals responsible for the design and deployment of construction zones in our cities and highways.

I also want to take this time to elaborate a bit more on the ONEITE initiative. As you know, the membership voted on the question of our continued relationship with the Institute of Transportation Engineers and the transition from one of its chapters to one of its sections.

(Continues on Page No. 5)

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A Message from the President

By: Tammy Robinson, P.E.



Happy New Year and welcome to 2021!!!

This past year has been a challenge as we all move from what we considered to be normal operations to one of COVID induced shutdowns, restrictions, adjustments, etc. I hope that you have all remained healthy and safe during this period. While we have been unable to meet in person, there has been quite a bit of items moving behind the scenes of OTEA.

The Board has continued to meet monthly (albeit virtually....bless the Board as they worked with me to navigate that minefield) and worked on the transition of OTEA as we were to now be a Section of ITE. This was quite a process of drafts, reviews, discussions and ultimately agreement on how the Bylaws and Charter Documents would read and the requirements that would result from this transition. As a whole, our business operations remain mostly in place. We will be adding a new Director Position to the slate of available Board Positions of "Secretary-Treasurer". Angelo will remain on as the newly titled "Section Administrator", operating in the same manner as he has been.

Elections will be forthcoming in May 2021, so watch your emails for electronic ballots. If you are interested in serving on the Board, please contact Alan Soltani (asoltani@stantest.com). We are always looking for members who are willing to serve!

Due to the continued concerns of meeting in large, in-person groups, the Board has opted to move the Annual Meeting from May out to September. The meeting and golf tournament will still be held at the Hard Rock in Tulsa. So mark your calendars and SAVE THE DATE for September 20th-September 22nd. We will be sharing more information as it becomes available.

I hope everyone had a great holiday and has a healthy New Year. Please continue to be safe. I look forward to seeing you again in person soon.

Thanks,

Tammy Robinson 2020-2021 OTEA President



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BEYOND THE PANDEMIC

by: Angelo Lombardo, P.E.

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This question was answered in the affirmative with 55.4% of the ballots casted electronically, approving the continued relationship and transition. Once the direction was established, the OTEA Board began coordinating the transition and formal adoption of the new Charter and Bylaws. One minor change requested by the headquarters of ITE was that the Treasurer of the organization, a role I have filled for many years, be an elected position. This modification prompted the OTEA Board to rename my position as that of Section Administrator. The bottom line, is that the next time you see a ballot to elect the officers of the Executive Board, you will see nominees for the position of Treasurer. Another change you will see is the collection of annual dues through ITE.

Our annual meeting situation continues to be fluid. The Board is optimistic that with the rollout of the new coronavirus vaccines we may be able to safely hold a meeting this fall. We have penciled a possible late September date for our annual meeting in Tulsa at the Hard Rock Hotel and Convention Center. Please stay tuned and we will let you know as soon as possible so you can plan accordingly.

The nominating committee led by Past President Dr. Alan Soltani is finalizing the slate of candidates for officers of the new 2021-2022 Board of Direction. The time table for this election remains unchanged (late April / early May) and the vote will be by electronic ballot, through the Election Buddy on-line service we used in the last election. If anyone is interested in serving on the Board, please contact Alan at 405-602-0375 or email him at asoltani@stantest.com

On a personal note, after much reflection, planning and discussions with my family, I decided to retire on September 11, 2020 after 36 years of public service working first for ODOT, and then for the City of Norman. Retirement also involved moving away from my beloved Norman and the State of Oklahoma. Retiring was easy, but the decision to move was agonizing. In retrospect, I think this pandemic helped me realize the importance of being closer to my children and grandchildren. So, the week of my retirement I found myself also packing our things and moving 41 years of memories, to drive across the Red River and settling in our new home in the Dallas-Forth Worth area, specifically the Town of Argyle / Flower Mound which is located on the NW part of the Metroplex, about 10 miles south of the I-35 split in Denton, and 2 miles north of the Texas Motor Speedway.

I began to discuss my plans to retire and move with the OTEA Board more than one year ago, while expressing a desire to continue my service as Editor of the OTEField and Section Administrator. The Board agreed to give me that opportunity, which I will exercise from year to year at their discretion. With more time on my hands, I hope to improve on those roles as I continue my transition into retirement, with some traveling and a lot golf in my immediate future.

OTEA has been an important part of my life, and I intend to continue my engagement with the organization for years to come. I will be forever grateful for the professional relationships and friendships that have resulted from my involvement, and look forward to what the future has in store for all of us.

Stay safe and see you soon.

Angelo



With my granddaughters Caroline Grace and Camila Rose seconds before I walked out of my City of Norman office for the last time.

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38 Places Recognized with a Bicycle Friendly Community Award By: League of American Cyclists

As more Americans turn to biking during the pandemic, the League of American Bicyclists honors the communities across the country making biking better for everyone

Last year, the League of American Bicyclists honored 38 places with a Bicycle Friendly Community (BFC) award in its Spring 2020 round of awards. An additional eight first-time applicants earned Honorable Mentions. These 38 communities, seven of which are new to the program, join 482 total BFC awardees in the movement to build a Bicycle Friendly America for everyone.

"Undeniably, during the pandemic more Americans are biking to get around and to experience the joy that comes with being on a bike," said Bill Nesper, executive director of the League of American Bicyclists. "The League is proud to recognize these Bicycle Friendly Communities where leaders, both in government and advocacy, have committed to building better places for people to ride, whether they are new or seasoned. Bringing the joy of biking to people of all ages, abilities, and backgrounds is at the core of the mission of the League, and these Bicycle Friendly Communities are doing just that."

According to Eco-Counter data, during the week ending June 7, 2020, there was a 37.5 percent increase in the number of people riding bikes over the same time in June 2019. With so many people using bicycling as a way to stay healthy, mentally and physically, during the COVID-19 pandemic, many cities have explored slow streets and open streets options to allow people to stay active and remain socially distant. These people-focused innovations are enabled by the same type of planning, community engagement, and advocacy on display in Bicycle Friendly Communities.

The Spring 2020 round of awardees include first-time awardee Detroit, Michigan, which earned praise for its 51 miles of protected bike lanes and Slow Roll rides; Lawrence, Kansas, which judges noted has a high number of League Cycling Instructors who lead bike education programs and has recently completed a Bicycle Master Plan highlighting the Lawrence Loop and new bicycle boulevards; Asheville, North Carolina, which earned high marks for its in-school



State Highway 9 Multimodal Path in Norman

bicycle education programs and local advocate-led push for Bicycle Friendly Businesses; and Boise, Idaho, which stood out for its dedicated budget for bicycling and education programs for people biking and driving.

More than 850 communities have applied for recognition as a Bicycle Friendly Community since 1995. The 482 total communities, and the 38 honored last spring, meet criteria set by the League that provides a roadmap to making biking better for communities of all shapes and sizes. The program is used by both local government officials and local advocates to better understand best practices from across the country in making biking better.or everyone. With a history dating to 1880, the League is committed to engaging diverse communities and building a powerful, unified voice for change around protecting and promoting bicyclists' rights. Learn more at <u>www.bikeleague.org</u>.

(Continues on Page No. 32)

The City of Norman was the only City in Oklahoma included in the list of 38 places by having its previously awarded Bronze Level Bicycle Friendly Community status renewed during the latest round of awards.

In addition to Norman, only two other Oklahoma cities are included in the list of 482 total Bicycle Friendly awardees in the United States (Stillwater and Tulsa).

SUPPLIER DIRECTORY



WINTER 2021

New Paint Process Improves Safety for Workers and Motorists by: Iowa DOT



Council Bluffs Interstate Markings

Slow-moving maintenance activities, like painting pavement markings, are some of the most dangerous parts of the work our field forces need to get done. Typically, our own crews use equipment to apply a layer of water-borne paint and then drop a layer of tiny glass beads into the wet paint. The glass beads reflect light, which makes the lines more visible at night. But, because this is Iowa and our harsh weather conditions require snow-removal equipment that can scrape off the paint and glass beads, many of our roads, and especially our interstate markings, need to be repainted every year. The nature of the work means we have to paint the lane markings while traffic is speeding by, increasing the danger for both travelers and our crews.

Always looking for a better way to do things, our staff is testing a new epoxy paint system applied in grooves on Iowa interstates this summer. Iowa DOT engineers John Hart and Clayton Burke, of our Construction and Materials Bureau, are spearheading the effort to improve paint markings.

Hart said, "After successful use on interstate construction projects in Council Bluffs and other, smaller sections of I-80 and I-35, we're ramping up the use of the new paint system on many other interstate construction projects. Because the process requires grooves to be cut into the pavement, it is more cost-effective and safer to do this while the road segment under construction and not open to traffic."

In addition to applying the paint into a groove, which will help it stay on the road longer, the new system uses a

1 29 80

Placing the new paint into groves was first tested in the Council Bluffs area.

process where chemicals are mixed together and harden like an epoxy. Glass beads are also dropped into the surface of the paint before it hardens. The combination produces a pavement marking with a very durable finish. Hart said, "From our research, we're expecting the new pavement markings to last four years. Not having crews painting the interstate lines every year will be a significant safety improvement. Because the groove is about two times deeper than the layer of paint, we expect to be able to apply new paint two times before the groove will need to be cleaned out or a new groove cut into the pavement."



The epoxy-like paint and glass beads will be longer lasting and reflect better than water-born paint systems.

Hart explained that many of the states surrounding Iowa already use the paint system, but it is a shift in thinking for us. "We have our own equipment and crews that are set up for the water-borne paint." He said, "This new pavement marking system requires completely different materials and

(Continues on Page No. 17)

Biking for Your Kicks on Bicycle Route 66



For over 50 years, motorists traveled the legendary U.S. Route 66 – popularly known as Route 66 or the Mother Road – from Chicago, Illinois to the Santa Monica Pier in Los Angeles, California. Now it's the cyclists' turn.

In view of the strong association between the historic roadway and America's love affair with the automobile, it is perhaps ironic that hundreds of travelers will now attain independence from the motor vehicle by traveling Bicycle Route 66 under their own steam. While the cafes and grocery stores along the way remain important fuel stops for them, traveling cyclists can enjoy a certain satisfaction as they whiz past the many gas stations found in the towns and cities they visit.

Over the years Route 66 was in service there were multiple alignments of its path. Some of them exist today as Historic Route 66 and are signed in various ways. In many places Historic Route 66 was replaced by interstate highways. Bicycle Route 66 travels west on bike paths, county roads and state, federal and interstate highways. However, please

note Bicycle Route 66 does not always follow Historic Route 66. Deviations were made based on present-day conditions.

Right from the start in Chicago, Illinois, Bicycle Route 66 diverges from Historic Route 66 due to heavy traffic conditions. The official start location on Lake Michigan in Grant Park at Buckingham Fountain allows the use of multiple bike paths and trails along with city streets out of the congestion to meet up with Historic Route 66 in Elwood. A short distance later, the route begins its parallel path with I-55 passing through the capital city of Springfield as well as many smaller communities.

Much of the route in Illinois is characterized by the prairie landscape and rolling hills. In Madison County, the route takes advantage of a number of county-maintained trails to the Mississippi River crossing on the historic Chain of Rocks Bridge into St. Louis, Missouri.

(Continues on Page No. 13)

ITE Releases Recommended Practice for Traffic Signal Change and Clearance Intervals

ITE has issued guidance on yellow change and red clearance intervals for signalized intersections. The recommended practice -- Guidelines for Determining Traffic Signal Change and Clearance Intervals -- has been adopted by the ITE International Board of Direction and is now available for purchase. For additional information and to purchase the report, use the following link:

https://www.ite.org/technical-resources/topics/trafficengineering/traffic-signal-change-and-clearance-intervals/

The goal of the recommended practice is to create a consensus methodology for calculating and evaluating traffic signal change intervals that can be consistently implemented by transportation agencies. The recommendations presented in the report should yield reasonable times for the yellow change and red clearance intervals for traffic signals. These will allow the profession to balance those durations while enhancing intersection safety, maintaining reasonable traffic flow, and providing for movement of vehicles, bicycles, and pedestrians.

Jeffrey F. Paniati, P.E., Executive Director and CEO of ITE, said, "The guidelines set forth in the report were carefully considered and analyzed. With input from leading industry professionals and the public, we have produced a set of guidelines based on the best available knowledge and are designed to safely accommodate all users. ITE sought to strike an appropriate balance between theory and practical application."



MARCH 2020



Summary

The report describes the recommended methods to calculate traffic signal change and clearance intervals. The calculation methodology is based on the extended kinematic equation. The report provides guidance for applying the methodology and for selecting input values for both through and turning movements at signalized intersections. Input values include perception-reaction time, approach speed, deceleration rate, approach grade, intersection width, vehicle length, and conflicting movement start-up delay. The report notes application techniques for wide intersections and bicycle traffic, and concludes with measures of effectiveness and recommendations for monitoring and evaluation. Note that this report is specifically focused on the timing of traffic signal change intervals or enforcement of red light running.

Source: Institute of Transportation Engineers, Press Release, March 2, 2020

Oklahoma DOT Brings a Diverging Diamond to Elk City A First for the Sooner State by: Larry Bernstein

Located in Western Oklahoma, approximately 50 miles from the border with Texas is Elk City, Oklahoma. The city, which is off of the famous Route 66, has a population of approximately 11,500. While the historic route no longer exists in its original form, there is still significant traffic in this part of Western Oklahoma. When the Oklahoma Department of Transportation (ODOT) designed a project for the area, it was a unique solution that befits the traffic that utilize the roads.

The Need and the Right Solution

Today, Interstate 40 and State Highway 6 go through Elk City. In 2015, the existing twin bridges on SH 6 over I-40 were deemed structurally deficient. As ODOT began considering the project to replace the bridges, they also took into mind the on-ramps that were experiencing delays and backups.

Ultimately, ODOT decided to create a Diverging Diamond Interchange (DDI). While there are over 100 DDI's in the United States, the Elk City DDI will be the first in Oklahoma – although others are currently in the preconstruction phase. The innovative design offers a proven solution for improving traffic flow and safety at an interchange.

Recent surveys show that 10,000 vehicles travel SH 6 and 18,000 travel I-40 on average per day. That number for SH 6 is expected to grow to nearly 11,000 by 2040, while average daily traffic on I-40 is projected to be 23,400. Of the traffic that uses I-40, 39 percent is trucks. This is one of the reasons that ODOT decided the DDI was right for the area.

"When we were considering the future of the signal, we recognized it was uniquely suited for a DDI," says Brian Taylor, Chief Engineer for ODOT. "Because of the traffic volume and many left turns – a high percentage of which were trucks – signals were warranted but not in place."

As a reminder, DDIs aim to eliminate the left turn and give "free-flowing" or simple left and right-hand turns from all directions. Ultimately, they create safer, less congested intersections, give drivers better sight distance at turns, and make pedestrian crossings shorter.

A key reason why ODOT went with a DDI is because of the enhanced safety they offer. "The DDI will reduce the number of conflict points from 26 to 14," says Taylor. "If accidents do occur, they will happen at lower speeds therefore lessening the severity of the accidents." According

to Taylor, the area was experiencing some issues previously, but it was not elevated.

Budget and Schedule

The project began in May of 2019 and is expected to be complete by the end of this summer. ODOT and their contractor – Oklahoma's Frontier Bridge Inc. – are on target to complete the project on time despite getting off to a slow start due to rain.

Cost of construction for the project is \$16 million, and is currently on budget. "ODOT created a really good set of plans that ensured we stayed on budget," says Taylor.

Bidding was done via an optional tie job. "There's a project [a bridge over the North Fork Red River] similar in nature nearby," says Taylor, "so we put out the type of bid in the hope we could get economy of scale." Ultimately, Frontier was indeed awarded both contracts saving ODOT an estimated nearly \$2.4 million.

The funds to pay for the project are coming from the Federal, State, and City governments. The project was a recipient of a \$1 million accelerated innovation deployment demonstration grant from the Federal Highway Administration. "We received the grant because this is the first DDI in Oklahoma to go to construction," says Taylor.



An aerial shot of work progressing on the Elk City Diverging Diamond, the first of it's kind in Oklahoma.

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Biking for Your Kicks on Bicycle Route 66

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The Riverfront Trail leads cyclists into the city and past the Gateway Arch commemorating the launch of the Lewis & Clark Corps of Discovery Expedition. Once through the suburbs on city and county roads, Bicycle Route 66 begins paralleling I-44 mostly on frontage roads and some county highways. Not far out of St. Louis, cyclists will encounter the rolling hills of the northern reaches of the Ozark Mountains. West of Springfield, Missouri, the route leaves Historic 66 in favor of quieter county roads and state highways. Leaving Bicycle Route 66 rejoins Historic Route 66 east of Joplin.

Kansas contains only about a dozen miles of Route 66, the least of any of the eight states the highway runs through. That didn't prevent the residents of the area from taking great pride in "owning" part of the highway.

Once the route reaches the Oklahoma border, the flat to rolling landscape will encompass a variety of different prairie types until it reaches the Great Plains of the Texas panhandle. In general, the terrain across Oklahoma is a gradual uphill again paralleling interstates, first I-44, then I-40.

Amarillo, Texas is the last large city on the route before you reach the midpoint of Historic Route 66 in Adrian, Texas. Up to this point in the route, services of most types are regularly available and there are no extended sections of sparse services. However, the availability of bike shops decreases as the route heads west.

Much of Bicycle Route 66 across New Mexico is either on or roughly paralleling I-40 and/or I-25. One notable exception is where the route heads north to Santa Fe following an older alignment of Historic Route 66 before returning south to Albuquerque. Cyclists wishing a more direct route can opt to ride the shoulder of I-40 to Tijeras



then return to the route. A second exception takes cyclists onto the Turquoise Trail/State Highway 14 between Santa Fe and Tijeras providing beautiful open vistas before returning to Historic Route 66.

West of Albuquerque to Chambers, Arizona and again past Flagstaff, Arizona, Bicycle Route 66 passes through several Native American lands known as Pueblos, Nations, and Reservations. These are sovereign lands with their own cultural flavor. Etiquette across them will require you to be a bit more circumspect in your behavior. Stealth camping is not permitted and in most, permission must be granted to photograph or otherwise record the scenery and sites. While most of the roads through these lands are state owned, those on the Pueblo Alternate through Acoma Pueblo are not and are subject to closures periodically. A visit to the Sky City Cultural Center and Haak'u Museum is a must if riding this 27.1 mile alternate.

Just west of Grants, New Mexico, cyclists will cross the Continental Divide as they pedal through the El Malpais National Monument. For a more direct route between Grants and Gallup, you can choose to follow I-40 and its frontage roads. This is the original alignment of Route 66.



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2020 OTEA Scholarship Recipients

In 2020 OTEA received two applications (both from Oklahoma State University students) for the annual \$1,000 scholarship. The applications were reviewed by members of the selection committee headed by Dr. Alan Soltani, P.E. - Past President, and a recommendation made to award \$1,000 scholarships to the following students:





Morgan J. Miller is a graduate student from Oklahoma State University. She worked in the OSU ODOT Roadway Design squad and graduated in December of 2020. Her college advisor had this to say about her in his letter of recommendation: "Morgan has a strong skill set in transportation, construction management, surveying, QA/QC, auditing, inspection material sampling and administration. As a dedicated and knowledgeable student and all around leader, I know she would be a deserving recipient of your scholarship. She will be a leader in the traffic and transportation industry, who you will be proud to support." She accepted a position with ODOT as an Engineer-in-Training and began work with the agency in January of 2021.



Bryson L. Ridley received a Bachelor of Science in Engineering Technology degree from Southwest Oklahoma State University and is currently attending Oklahoma State University in Stillwater in pursuit of a Civil Engineering degree. His college advisor describes him as a dependable, intelligent and hardworking person and ranked him among the top 10% of all undergraduate students in the past 35 years. Bryson is the grandson of Mr. Gary Ridley, former Director of the Oklahoma Department of Transportation and Secretary of Transportation for the State of Oklahoma.



In 2006, the OTEA Board of Directors approved the establishment of a scholarship program to recognize outstanding Oklahoma civil engineering students. Every year, students from the University of Oklahoma and Oklahoma State University have an opportunity to apply for one of three \$1,000 scholarships awarded on an annual basis.



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Oklahoma DOT Brings a Diverging Diamond to Elk City A First for the Sooner State by: Larry Bernstein

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Elk City contributed \$250,000, which will be used towards the aesthetics of the project. The final project will include bronze elk statues and decorative elements on and around the bridges.

Project Challenges

As noted above, there was a significant amount of rain in the area of the project when construction began, and this caused it to get off to a slow start. "Frontier added crews to make up for the lost time," says Taylor, "which made it possible to have the project complete this summer."

Because I-40 and SH 6 are highly trafficked, the project had to be built in phases. Removal of the old bridges and construction of the new bridges was done half at time. Multiple phases helped to keep traffic moving and also maintained full access to all the adjacent businesses. Those businesses include truck stops and other common businesses found around interstates.

While Elk City has been supportive and excited about the DDI from the beginning, informing them of the new

traffic pattern is necessary. "It's an educational process, and we will be working with city and local officials to help educate the traveling public as to what is to be expected," says Taylor.

When drivers go into a DDI for the first time, many know it's different, but do not realize they are driving on a different side of a road. "A DDI prevents you from making mistakes, so we don't anticipate problems," says Taylor.

With the completion of the Elk City DDI, there will be an increase in safety and capacity leading to lessening of delays. Although Route 66 is no further in its current form, a smooth ride through Western Oklahoma persists.

Source: Construction News, Associated Construction Publications, August 2, 2020





Elk City's DDI Aesthetic Features designed by Creative Design Resolutions

New Paint Process Improves Safety for Workers and Motorists by: Iowa DOT

(Continues from Page No. 9)

different equipment. Instead of buying this new equipment, we have found contractors that will complete the work on new construction projects on interstates. Once we expand the use of this type of paint on all interstates using contractors, our crews will be free to concentrate on our two – and fourlane roads, which will eventually increase the frequency that we can repaint those lane markings increasing safety on those roads, as well."

Clayton Burke, who has been working with Hart, says there are other unique features that will not only improve safety now, but far into the future. He said, "In addition to the change in material and placement, the new markings are six inches wide, compared to our standard four-inch paint lines." Other improvements include high contrast "skip dashes" between lanes. Burke said, "Drivers will start to see white and black markings between the lanes of travel. These high-contrast markings make seeing the lanes much easier in lower light and rainy conditions, especially on concrete surfaces."

Research on this new method of marking roads isn't simply geared towards today's drivers. Burke explained, "The wider and more visible paint markings will certainly help the current vehicles that are equipped with safety features like lane-keeping assist, but we are also planning for the future where these lines will help autonomous vehicles of the future 'see' the road better."

Source: Iowa DOT, Getting Your There, July 27, 2020



"Skip dashes" with white and black markings have been shown to be much more visible to traffic, especially in low light or rainy conditions.

NACTO Releases City Limits, an Innovative Framework to Set Safe Speed Limits on City Streets

Over 35,000 people die on U.S. roadways every year, at a rate twice as high as peer countries

Current speed limit setting practice results in unsafe streets; new NACTO guidelines outline how to use a tested and proven safe systems approach to set safer speed limits in urban areas

Speeds and crash severity have increased on many streets during the coronavirus pandemic, underlining the importance of safer speed limits

The National Association of City Transportation Officials (NACTO), today released an innovative, tested, and proven framework for setting safe speed limits for city streets. Developed by a steering committee of NACTO's 86 member cities and transit agencies, City Limits outlines how to use a safe systems approach to set speed limits in urban environments, in contrast to legacy methods (e.g. the 85th percentile) that often result in speeds that are inappropriately fast for urban environments.

City Limits outlines a three-method approach to speed limit setting that provides an alternative to percentile-based speed limit setting:

- 1. **Setting default speed limits** on many streets at once (such as 25 mph on all major streets and 20 mph on all minor streets),
- 2. Designating slow zones in sensitive areas, and
- 3. Setting corridor speed limits on high priority major streets, using a safe speed study, which uses conflict density and activity level to set context-appropriate speed limits.

The methods outlined in City Limits can be combined, and, unlike percentile-based approaches, each is contextsensitive, allowing cities to holistically evaluate who is using streets and how people are using them, from people walking and biking, to those taking transit or visiting a school. The guidance ranges from step-by-step checklists for conducting activity level & conflict density analyses, to nuanced metrics for documenting speeds that go beyond percentile-based speed setting practices.

Over 35,000 people die on US roads every year, a traffic safety crisis unmatched in severity by the US's industrialized peers. Speed is what most often turns a crash deadly. A person hit by a car traveling at 35 miles per hour is five times more likely to die than a person hit at 20 miles per



hour. Yet, speed limits in the US are often set in a process that largely ignores anyone outside of a car.

"Most speeds limits are set using an oversimplified and outdated method: measure 100 drivers traveling without any traffic and set the speed limit based on the 15th-fastest driver, said **Jenny O'Connell, NACTO Program Manager.** "If this sounds like a system that would create

(Continues on Page No. 23)

Meet the 2020-2021 OTEA Board

Past President	Alan Soltani, P.E., Ph.D.	President Standard Testing and Engineering Company
President	Tammy Robinson	Chief Estimator Haskel Lemmon Construction Company
Vice President	Derick Millican, P.E., P.T.O.E.	Lead Engineer - Roadway Team Olsson
Secretary / Treasurer	Angelo A. Lombardo, P.E.	Retired
ODOT / OTA / FHWA Director	Justin Calvarese, P.E.	Traffic Engineer - Division 1 Oklahoma Department of Transportation
City / County Director	Brian McNabb	Traffic Signal Supervisor City of Norman
Consulting Engineer Director	Luke Schmidtt, P.E., P.T.O.E.	Traffic Engineering Consultant Kimley-Horn
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2020-2021 OTEA Board of Directors

From Left to Right Top Row: Tammy Robinson (President), Derick Millican (Vice President), Justin Calvarese (ODOT Director), Brian McNabb (City/County/FHWA Director) Bottom Row: Luke Schmidtt (Consultant Director), Jason Ty Espinoza (Contractor/Supplier Director), Alan Soltani (Past President) and Angelo Lombardo (Secretary-Treasurer)

Oklahoma DOT Gets Approval For \$8.6B Construction Plan

The Oklahoma Transportation Commission recently approved the Oklahoma Department of Transportation's latest eight-year, \$8.6 billion Construction Work Plan for 2021-2028 – a plan that takes into account an upcoming reduction in state funding done through previous legislative action to help balance the state budget due to the impact of the COVID-19 pandemic.

"These are challenging times, and we appreciate the support by legislators and Governor [Kevin] Stitt in recognizing that a good transportation infrastructure is a critical component in driving Oklahoma's economy," said Tim Gatz, state transportation secretary and executive director of the Oklahoma DOT, in a statement.

"We looked for innovative ways to keep our plans fiscally responsible and progressing with the focus on maintaining good bridges and improving pavement conditions in our state," he said.

The plan will fund 1,350 projects in total – including 609 bridge rehabilitation or replacement efforts plus nearly 1,900 miles of roadway improvements, which include more than 800 miles of two-lane highway safety improvements on two-lane highways with deficient or no shoulders.

This follows a recent effort by the agency in June to get public feedback on its 25-year long-range transportation plan to help establish overall priorities and goals for various modes of travel and freight movement in the state, including highway; passenger and freight rail; public transit; bicycle and pedestrian; ports and waterways and airport access.



Additionally, in October, the Oklahoma DOT – in partnership with the Oklahoma Transit Association – unveiled the state's first-ever public transportation plan: a plan that seeks to unite urban and rural transit services by laying out mobility priorities for the next 20 years.

The two transportation agencies presented that plan to the Oklahoma legislature in a formal ceremony on December 10.

"Completion of the state's first transit plan is a milestone achievement in moving Oklahoma toward becoming a 'Top Ten State' for all modes of transportation," Governor Kevin Stitt (R) noted in remarks at the ceremony. "Thanks to the input from transit providers and users, we now have a roadmap for modernizing transit services and ensuring mobility for all Oklahomans."

Source: AASHTO Journal, December 11, 2020

FHWA Seeks To Make MUTCD Updates



The Federal Highway Administration plans to propose 600 changes to the Manual on Uniform Traffic Control Devices for Streets and Highways or MUTCD via a notice of proposed amendments or NPA scheduled for release on December 14.

This is the first comprehensive update in more than 10 years to advance traffic operations and safety in states and cities nationwide, the FHWA said.

"The proposed updates to the manual smartly envision the future of transportation by considering the preparedness of our nation's highways for automated vehicles," noted Nicole Nason, FHWA's administrator, in a statement. "They also renew attention on safety for our most vulnerable road users, including the nation's highway workers, emergency responders, cyclists, and pedestrians."



The agency added that the MUTCD serves as the national standard for traffic signs, signals, and pavement markings for America's streets and highways.

"This document sets the standard for uniformity throughout the nation," noted Eric Perry, director of innovation and technical services for the American Traffic Safety Services Association in a 2019 blog post. "We're trying to help promote uniformity across ... U.S. roadways so that we can focus on our mission which is to keep everyone safer and work toward zero deaths."

The FHWA noted that the NPA represents a comprehensive update to the MUTCD, incorporating the results of over 150 official experiments with new traffic control devices and applications, along with official interpretations, interim approvals, and other research conducted both independently and by the Traffic Control Device Consortium Pooled Fund, which includes 26 state departments of transportation.

Among other improvements, the proposed updates reflect state-of-the-art traffic research to help transportation agencies prepare for automated vehicles and other cuttingedge technologies.

Features for vulnerable road users include the rectangular rapid-flashing beacon, expanded traffic signal warrants, and an array of roadway treatments for cyclists – many proven via the "experimentation process" defined in the MUTCD.

The MUTCD revision will also incorporate accommodations for automated vehicles, while affording states and local communities more innovation opportunities with traffic control systems – changes the FHWA alluded to in 2018.

Those improvements include congestion-reduction strategies such as variable speed limits, dynamic lane control and shoulder use and pedestrian safety enhancements such as the rectangular rapid-flashing beacon and crosswalk marking patterns.

Source: AASHTO Journal, December 11, 2020

See Sheet No. 25 for information on the comment period and the specific amendments listed in the Federal Register

LEVERAGING TECHNOLOGY TO IMPROVE ROADWAY AND WORK ZONE SAFETY IN NEVADA

By: M.J. Maynard, Regional Transportation Commission of Southern Nevada

An estimated 2.3 million people call Southern Nevada home with approximately 50,000 new residents moving to Clark County every year. As a result, the roads are busier than ever to the tune of 9 million trips daily. The Regional Transportation Commission of Southern Nevada (RTC) is capitalizing on emerging technologies to adapt to the growing pains of the Las Vegas Valley, with road safety as its top priority. Inevitably, growth has led to more traffic congestion and road construction, both sometimes resulting in automobile crashes. In an effort to prevent collisions and reduce congestion, the agency's Traffic Management Center has actively tested technological advances for the past few years along Southern Nevada's busiest interstate. As the RTC continues to leverage technology to improve roadway safety on freeways, the agency is engaging in a first-of-itskind effort to bring the same results to work zones.

The RTC, together with the Nevada Highway Patrol (NHP) and Nevada DOT (NDOT), launched an artificial intelligence (A.I.) project on one of the busiest sections of I-15 with technology company Waycare in 2018. Waycare's A.I. platform and real-time data analysis enables detection of significantly more traffic crashes, facilitating faster validation and reducing emergency response times.

Typically, law enforcement or drivers would have to call in a crash. Waycare eliminates the gap between dialing 911 or

SEEING RESULTS

In Southern Nevada, the results of utilizing Waycare's advanced technology are impressive. Waycare has uncovered 20% more crashes than previously reported. Waycare has also enabled the RTC and its law enforcement partners to reduce response times to crashes on average by nine to 10 minutes. The faster emergency crews arrive on scene, the faster vehicle occupants can get help, which ultimately helps to prevent traffic jams and mitigate the likelihood of injury leading to fatality.

Waycare's technology also combines real-time data with predictive analytics to help identify areas at high risk for a collision, dangerous driving conditions, and traffic congestion. This insight enables NHP to proactively deploy traffic patrols and abatement efforts more efficiently with the goal of preventing crashes, reducing speeding, and increasing safety. For the first time, there is an objective understanding based on data—instead of anecdotal references—about what stretches of roadway are prone to crashes and in need of abatement measures.



The Regional Transportation Commission of Southern Nevada has partnered with HAAS Alert to install its devices which broadcast, via the Waze app, the location of construction vehicles, equipment, and workers within active construction zones. The goal is to alert traffic engineers and the traveling public of work zones along a route. As of January 2020, there are 12 HAAS Alert devices on fleet vehicles, including bus stop maintenance crews.

(Continues on Page No. 24)

NACTO Releases City Limits, an Innovative Framework to Set Safe Speed Limits on City Streets

(Continues from Page No. 18)

dangerous outcomes, that's because it does. Even worse, in many cases, speeds ramp up over time as drivers respond to speed limit signs and speed a few miles per hour over the posted limit, creating a negative feedback loop of faster, less safe streets."

In many areas, cities rely on police enforcement to compensate for a lack of flexibility in engineering and speed limit setting policies, a practice that is not proven to reduce traffic injuries or fatalities and often increases risk for Black people and other people of color on city streets. A growing body of evidence shows that speed limit changes alone can lead to measurable declines in speeds and crashes, even absent enforcement or engineering changes.

The importance of safe speed limit setting has been underscored in recent months by effects from the coronavirus pandemic. As people traveled less during stayat-home orders, speeds increased to even more unsafe levels. In May, traffic across the U.S. was **41% lower than pre-pandemic volumes**, yet crashes only dropped 21%, meaning **each trip was riskier**.

"Context-sensitive speed limit setting means that safe speeds are chosen based on how a street is used, and the important functions it plays in a community," said **Corinne Kisner, NACTO Executive Director**. "An increasing number of cities are moving beyond the flawed assumptions in the 85th percentile approach, and have developed new ways to set speed limits. We're proud to have worked with these cities to document and codify these groundbreaking approaches, which have already saved many lives, and have the potential to save thousands more every year."

"Slower is safer. In Minneapolis, we are lowering our residential speed limit to 20 mph, and our major streets to 25 mph because we know it will save lives," said **Robin Hutcheson, Minneapolis Director of Public Works and NACTO President**. "NACTO's new guidance will help cities across the country use a modern, adaptive approach to speed limit setting that centers safety—not speed—as the primary goal. City Limits reflects intense effort from city staff who are doing the work every day, and provides expert guidance for cities to prioritize the safety of people traveling, especially our most vulnerable users."



THE LIKELIHOOD OF FATALITY INCREASES EXPONENTIALLY WITH VEHICLE SPEED³²

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LEVERAGING TECHNOLOGY TO IMPROVE ROADWAY AND WORK ZONE SAFETY IN NEVADA

By: M.J. Maynard, Regional Transportation Commission of Southern Nevada

(Continues from Page No. 22)



The RTC is testing various technologies to detect work zones in real time. This allows them to broadcast the location of static barricade equipment - including cones, barrels, and signs - as well as construction vehicles and workers.

During the pilot, the emerging technology identified a 6mile segment of I-15 as a high-risk area. Consequently, NHP focused its preventative measures and patrols in this stretch of road. As a result, 91% of drivers traveling over the speed limit of 65 miles per hour reduced their speed to below the speed limit, simultaneously reducing the number of primary crashes by 17%.

NUMBERS DO NOT LIE

The results of this testing phase prove that A.I. has a dramatic impact on improving safety even on our busiest freeways. Stemming from these findings, the RTC is once again partnering with NHP and NDOT to expand its study area. Through a grant from the National Safety Council's Road to Zero initiative, the RTC deployed five additional Strategic Traffic Management Sites (STMS) in October 2019. STMS provide law enforcement with elevated, protected platforms in visible locations, coupled with specific messaging on dynamic message signs (DMS) along enforcement corridors. This encourages drivers to slow down on Southern Nevada's high-risk urban corridors on I-15 and U.S. 95, as identified by the A.I. technology.

After three successful years, the RTC and Waycare expanded its program in January 2020 to create the largest

integration of connected vehicle data in the nation. Through new partnerships with multiple smart mobility firms, Waycare will now obtain and analyze data from thousands more connected vehicles. The data will look at driving behavior, intersection wait times, location, and speed. This additional information will further enhance the RTC's ability to effectively investigate causes of roadway crashes, reduce congestion and secondary crashes, and deploy preventative actions.

SMART WORK ZONES REDUCE CONGESTION AND IMPROVE SAFETY

Given the proven efficacy of Waycare's A.I. platform, the RTC is engaging in a first-of-its-kind effort to reduce traffic congestion and improve safety in and around road construction. The agency is testing various technologies, such as Nexar, iCone, and HAAS Alert, to detect work zones in real time. This allows them to broadcast the location of static barricade equipment—including cones, barrels, and signs—as well as construction vehicles and workers.

(Continues on Page No. 31)

COMMENT PERIOD FOR PROPOSED AMENDMENTS TO BE INCLUDED IN THE 11TH EDITION OF THE MUTCD EXTENDED

A summary of the proposed general changes and proposed changes for each of the parts of the MUTCD is included in the following discussion. In general, the proposed changes are based on the goal of achieving uniformity in the appearance, meaning, application, and other critical attributes of traffic control devices to promote the safe and efficient utilization of the streets and highways. Uniformity and consistency in message, placement, and operation of traffic control devices have been shown to accommodate the expectancy of the road user, resulting in a more predictable response which, in turn, results in a safer, more efficient operation of the roads nationwide. It is under this premise that the provisions of the MUTCD are developed and promulgated. These proposals are based on the best available research, professional judgment, and data demonstrating that road user confusion would be avoided had a non-uniform traffic control device been uniform. Where this Notice of Public Amendment (NPA) proposes regulatory requirements prescribing specific conduct that regulated entities must adopt, FHWA has determined that these regulations are necessary to address the compelling need for nationwide uniformity to ensure the safety and efficiency of the traveling public.

This regulatory action seeks to collect comments from the public on proposed revisions to the MUTCD. The proposed changes are intended to streamline processes and reduce burdens on State and local agencies by including many of the successful devices or applications that have resulted from over 180 official experiments that FHWA has approved, including congestion-reduction strategies such as variable speed limits, dynamic lane control and shoulder use, and pedestrian safety enhancements such as the rectangular rapid-flashing beacon.

The proposed changes would update the technical provisions to reflect advances in technologies and operational practices, incorporate recent trends and innovations, and set the stage for automated driving

Want to comment on the proposed amendments to the MUTCD? The comment period closes on <u>May 14, 2021</u>



systems as those systems continue to take shape. These changes would promote uniformity and incorporate technological advances in traffic control device design and application, and ultimately improve and promote the safe and efficient utilization of roads that are open to public travel.

With this proposed rule, FHWA seeks to address any existing provisions that might have contributed to situations that inhibit or contravene the purpose of a nationwide standard for traffic control devices, which is to promote the safe and efficient utilization of the highways and streets through an uninterrupted uniform system of signs, signals, and markings as road users travel between jurisdictions. Uniformity and consistency in message, placement, and operation of traffic control devices have been shown to address the expectancy of the road user, resulting in a more predictable response. The system of uniform traffic control devices works in concert with the natural tendencies of the road user in the various high-judgment situations that the road user will encounter.

(Continues on Page No. 26)

COMMENT PERIOD FOR PROPOSED AMENDMENTS TO BE INCLUDED IN THE 11TH EDITION OF THE MUTCD EXTENDED

The 647 proposed amendments can be viewed at: <u>https://www.federalregister.gov/documents/2020/12/14/2020-26789/</u><u>national-standards-for-traffic-control-devices-the-manual-on-uniform-traffic-control-devices-for</u>. You can also make online comments using the same link.

Federal Highway Administration (FHWA) officials this week extended the comment period for proposed revisions to the "Manual on Uniform Traffic Control Devices" (MUTCD) to May 14, 2021. The 60-day extension will allow additional time for public participation in the MUTCD's first major update in more than 10 years.

"This important document will set the tone for the future of our transportation system for the years ahead," Deputy Federal Highway Administrator Stephanie Pollack said. "We want to ensure our stakeholders have ample opportunity to address the diverse needs of travelers nationwide."

This latest proposed update to the MUTCD would advance traffic operations and safety nationwide. The comment period extension is in response to stakeholder requests that additional time would help to address the scope and complexity of the notice of proposed amendments.

Created in 1935, the MUTCD is the national standard for traffic signs, signals and pavement markings for use on all public streets and highways. The proposed revisions offer many proven advancements while remaining flexible to accommodate newer technologies and operational strategies.

As part of the process of updating the MUTCD, FHWA will consider feedback from state and local traffic engineers and other traffic control device stakeholders, and the public in general, submitted through the docket that is now open for public comment.

For more information, see https://www.federalregister.gov/d/2021-01440



OTEA Year-End Financial Report for 2020

Accounts Summary

Assets:	ASSETS
¢02 700 76	Money Market \$46,180.04
\$90,700.70	
Liabilities	Nel World \$98,700.76
Liabilities.	
\$0.00	
Charling	
Checking	
OTEA - Checking	\$52,520.72
_	\$52,520.72
Savings	
	BALANCE
OTEA - CD No. 1	\$26,936.99
OTCH CO NU. 2	\$19,245.05
	Net Worth: \$98 700 76
TEA 2020 Summary of Fi	nances
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OTEA 2020 Summary of Finances: printed from Angelo's Finances on 1/9/21

Accounts

NACTO Releases City Limits, an Innovative Framework to Set Safe Speed Limits on City Streets

(Continues from Page No. 23)

"Among New York City's very first Vision Zero accomplishments in 2014 were persuading our State Legislature to allow us to lower our default speed limit to from 30 mph to 25 mph and to expand our automated enforcement program. Both have been central to the progress we have made since then in reducing fatalities," said **New York City Transportation Commissioner Polly Trottenberg**. "Speed management is the number one priority in roadway safety. Vehicles traveling at safer speeds are far less likely to be involved in fatal crashes. I thank the team at NACTO for providing the detailed guidance of City Limits, an invaluable resource on how to achieve safer speed limits - and save lives on our nation's streets."

"The City of Atlanta is excited about the release of NACTO's speed limit setting guidance," said **Josh Rowan**, **Commissioner of the Atlanta Department of Transportation**. "We recently adopted Vision Zero and legislated a default 25 MPH speed limit on certain city-controlled streets. This guidance has been and will continue





to be beneficial in establishing safe speed limits on our urban arterial streets that feel and function like suburban roads, where using the traditional 85th percentile methodology will only lead to higher speed limits being set. NACTO continues to be a leader in urban street design and forges the way for many cities like us to create safer streets and move closer to realizing zero fatalities."

"As vehicle speeds increase above 15 mph, crashes quickly get deadly. If you're hit by a car at 15 mph, you'll likely recover. At 45 mph, you're dead. Reducing speeds is a critical step to saving lives," said **Jeffrey Tumlin**, **Director of Transportation, San Francisco Municipal Transportation Agency (SFMTA)**. "NACTO has elevated the importance of this necessary strategy. In California, we continue to pursue legislative action for setting rational speed limits. NACTO's guidance provides national leadership on this critical issue."

(Continues on Page 30)

NACTO Releases City Limits, an Innovative Framework to Set Safe Speed Limits on City Streets

(Continues from Page No. 28)

"The traditional method of setting speed limits based on the 85th percentile ignores many realities of cities, particularly the connection to nearby land uses," said **Joseph Barr**, **Cambridge Director of Traffic, Parking, and Transportation and NACTO Board Member**. "We're thrilled to support City Limits, which outlines methodologies for setting speeds that put the safety of people front and center. This guidance will help cities move from a percentile-based system that rewards unsafe speeding towards one that helps achieve a safer environment for everyone using city streets."

"Traditional transportation design has focused on designing streets and roadways for speeds that are generally inappropriate, especially in an urban context, contributing to unnecessary loss of life and serious injuries," said **Billy Hattaway, Transportation Director, City of Orlando.** "Practitioners need guidance on reducing posted speeds and managing speed to improve safety for all users, especially vulnerable users such as pedestrians and bicyclists. This is an essential guide to support that goal."

"A safe street is not one where safety is determined by how fast someone can comfortably drive, but rather one where a person can comfortably walk, ride a bike, and cross the street using a wheelchair," said **Ryan Noles, Senior Transportation Planner, City of Boulder**. "City Limits creates a framework to move beyond setting speed limits using the 85th percentile, to a place where cities can set speed limits that prioritize policy goals. Boulder is proud to have already adopted a 20 mph default speed limit across the city, and going forward we will be working to meet the intent of that policy and make our streets slower, and safer, for everyone."

"It's crucial that cities inform and inspire each other as we work towards Vision Zero," said **Chris Warner, Transportation Director for the City of Portland, Oregon**. "I'm proud to work with cities that collaborate and bring the nation's best ideas to their local communities. In Portland, we reduced the speed limit on most city streets to 20 mph in Portland with broad public support. By working together, we can save lives, while making our cities more vibrant and sustainable."

"Addressing dangerous speeding is the only way for everyone to get around safely," said **Sam Zimbabwe**, **Director of the Seattle Department of Transportation**. "As we design a transportation network that serves everyone, we have to prioritize saving lives as we manage our streets." "From 2010 to 2019, most Washingtonians killed while walking or biking (87%) died on roads with a posted speed of 30 mph or higher. To tackle this critical problem, WSDOT is leading a multi-agency, multidisciplinary group working on a model policy addressing speed management for injury minimization," said **Keith Metcalf, Deputy Secretary, Washington State Department of Transportation**. "We know we need to apply design tools and create 'self-enforcing' streets that help drivers move at speeds appropriate to the context. We want to be a partner with our cities and counties in saving lives, and City Limits will help us work with them."



(Continues on Page No. 33)

LEVERAGING TECHNOLOGY TO IMPROVE ROADWAY AND WORK ZONE SAFETY IN NEVADA

By: M.J. Maynard, Regional Transportation Commission of Southern Nevada

(Continues from Page No. 24)



In Southern Nevada, utilizing Waycare's advanced technology has helped to uncover 20% more crashes than previously reported. Waycare has also enabled the RTC and its law enforcement partners to reduce response times to crashes on average by nine to 10 minutes.

This insight feeds into the Waycare platform to inform first responders and law enforcement to support their roadside response efforts. In addition, some of the technologies feed into popular traffic apps like Waze and the RTC's own traffic alert email and text message system to help motorists know what is ahead on their trip.

For example, the RTC has been testing and recently expanded Nexar CityStream, which gathers data to improve traffic conditions and safety in and around road construction zones. Nexar's A.I.-based detection program crowdsources information about temporary traffic control devices such as cones and barricades in construction work zones and other road obstructions. This helps to mitigate congestion and reduce the possibility of traffic collisions.



Waycare's technology also combines real-time data with predictive analytics to help identify areas at high risk for a collision, dangerous driving conditions, and traffic congestion.

Nexar's platform uses dashcams in private vehicles, taxis, and transportation network vehicles like Uber and Lyft to look for temporary traffic control devices and road obstructions from a driver's perspective. The dashcams provide anonymous real-time data on the status of hundreds of temporary traffic control devices. The footage allows Nexar to then analyze the effect on traffic: location, date, time, number of traffic lanes affected, and a video frame image of the detected activity. In addition, Nexar can report near-miss collisions or harsh braking situations—safety issues that previously were never recorded or monitored for causation trends and secondary effects.

The pilot with Nexar began in a 3-sq-mile area in downtown Las Vegas and now includes a total of 9 sq miles in both the cities of Las Vegas and Henderson. Since its launch in December 2018, Nexar-connected vehicles are logging approximately 800,000 miles within the Las Vegas Valley each week.

Another technology piloted by the RTC is iCone traffic control beacons. Currently, 40 of these state-of-the-art beacons are installed on cones, drums, and arrow boards, broadcasting their locations from inside the work zone to the traveling public through the Waze traffic app.

Similarly, the RTC has partnered with HAAS Alert to install its devices which broadcast, via the Waze app, the location of construction vehicles, equipment, and workers within active construction zones. The goal is to alert traffic engineers and the traveling public of work zones along a route. As of January 2020, there are 12 HAAS Alert devices on fleet vehicles, including bus stop maintenance crews.

By providing roadway construction information from these technologies via the popular Waze app, the RTC empowers the public with more knowledge as they plan their commute. With more real-time information, drivers can consider alternate routes to avoid a crash or road construction, helping reduce congestion and the possibility of secondary traffic collisions.

Nexar, iCone, and HAAS Alert have been tested actively in the field by the RTC for more than a year. To expand its efforts, beginning this year Southern Nevada jurisdictions seeking funding from the RTC for a roadway maintenance or improvement project will be required to use any combination of these devices to improve traffic operations and ultimately increase roadway safety in and around the congested areas created by road construction.

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38 Places Recognized with a Bicycle Friendly Community Award By: League of American Cyclists

(Continues from Page No. 7)

The Bicycle Friendly Community award process considers a range of elements, including a community's efforts to educate children and adults about how to bike, plan and build bike infrastructure, evaluate success towards getting more people on bikes, and encourage road safety all through the lens of equity. (Note: the Bicycle Friendly America program is currently updating and reassessing its "Enforcement" section of the BFC application. Please read our statement for more information.) The application process is an educational tool in itself, laying out for communities what steps they must take to be considered award-worthy. As part of each review, the League and applicants also seek input from local bicyclists and active transportation advocates on their experiences and perceptions of bicycling in their community.

In addition to awarding new communities, the League is removing 14 communities from our list of current awardees as they have exceeded the four-year renewal deadline. Our Bicycle Friendly Community awards reflect local leaders' ongoing work to build better places to bike and evaluate those efforts as part of a national movement. The League requires places to show they are improving across our measures of better biking, all through the lens of equity.

Each of the five levels of the Bicycle Friendly Community award – diamond, platinum, gold, silver and bronze, plus an honorable mention category – provide a clear path for communities to continuously improve. Awarded communities must renew their status every four years to ensure that they not only maintain existing efforts, but also keep up with changing technology, national safety standards, and community-driven best practices.

For questions, please email communications@bikeleague.org. To learn more about the BFC program, visit bikeleague.org/community.

The League of American Bicyclists leads the national movement to create a Bicycle Friendly America for everyone. With a history dating to 1880, the League is committed to engaging diverse communities and building a powerful, unified voice for change around protecting and promoting bicyclists' rights. Learn more at www.bikeleague.org.





Bicycle Friendly Communities **BY STATE**

See the full list at bikeleague.org/community

Bicycle Friendly Communities BY RANK

As of Spring 2020, 482 communities are currently recognized as a Bronze, Silver, Gold, or Platinum Bicycle Friendly Community. See the full list of BFCs at bikeleague.org/community.



NACTO Releases City Limits, an Innovative Framework to Set Safe Speed Limits on City Streets

(Continues from Page No. 30)

"Thank you to NACTO for publishing this guide, and elevating the significant relationship between speed and safety for all road users," said **Stephanie Pollack**, **Secretary and CEO**, **Massachusetts Department of Transportation**. "This guidance comes at an especially important time as the rate of fatal crashes has increased during COVID and we need safer speeds to prevent serious injuries and fatalities."

"ITE congratulates NACTO on the development and publication of this important new speed management resource," said **Jeff Paniati, Executive Director and CEO of ITE.** "Determining and achieving context-appropriate target speeds on urban streets is essential to the vision of zero fatalities and serious injuries."

"The top priority in our nation's transportation policy and program is to let vehicles go fast. It has filtered into every level of implementation, down to the way we set speed limits. We raise the speed limit to suit the speeders, as long as there are enough of them (and it doesn't take that many)," said **Beth Osborne, Director of Transportation for America**. "NACTO once again provides excellent guidance to practitioners who recognize the problem and who want to put safety ahead of speed."

"The soaring number of pedestrian deaths we've seen in recent years is a wake-up call for a new approach to vehicle speeds in urban areas," said Jessica Cicchino, Vice President for Research at the Insurance Institute for Highway Safety (IIHS). "IIHS research demonstrates that



lowering city speed limits curbs the most dangerous speeding and can make the roads safer for everyone who drives, walks, or bikes."

"To advance Vision Zero, nothing is more important than managing speeds," said **Leah Shahum, Founder & Director, Vision Zero Network**. "For too long, cities have been hindered from setting speeds to promote safe mobility for all. This resource will help usher in a new day of safety on our streets, especially our most vulnerable—children, seniors, and people walking and biking."

City Limits is available as a free resource at <u>nacto.org/</u><u>safespeeds</u>.

Source: National Association of City Transportation Officials, City Limits - Setting Safe Speed Limits on Urban Streets, Press Release, July 22, 2020

LEVERAGING TECHNOLOGY TO IMPROVE ROADWAY AND WORK ZONE SAFETY IN NEVADA

By: M.J. Maynard, Regional Transportation Commission of Southern Nevada

(Continues from Page No. 31)

As we enter a new decade, advanced transportation technologies will continue to evolve, enabling traffic management agencies like the RTC to further enhance its efforts to improve roadway safety, taking an innovative leap in testing out new technology, not knowing what would be learned. To say the lessons learned are significant is an understatement. Technology is literally reshaping every facet of how we address roadway safety. The agency's ambition to explore and enter unchartered territory is what led to start-up companies that have produced positive results. As we continue to discover how technology can keep our growing region moving safely on the road, the RTC remains committed to aggressively pursuing new opportunities in technological advances.

Source: Road & Bridges Magazine, April 2020, Scranton Gillette Communications

Biking for Your Kicks on Bicycle Route 66

(Continues from Page No. 13)

Gallup, New Mexico is home to the Brickyard Bike Park, which celebrated its grand opening in September 2013, with cycling celebrity Levi Leipheimer officiating. The bike park, coupled with a 15-year-long effort to build trails outside of town and recast the city as a mountain-biking mecca, has earned Gallup a formal designation by the state legislature as the Adventure Capital of New Mexico. Today, the area boasts two major networks of professionally designed, curvy singletrack trails, including the flagship High Desert Trail. Gallup hosts more mountain bike races than any other community in New Mexico and the High Desert Trail system has been designated a National Recreation Trail.

Bicycle Route 66 breaks from following Historic Route 66 to head south through the Petrified Forest National Park. Its hauntingly beautiful archaeological sites and unique geological formations include, not surprisingly, petrified trees.

In Flagstaff, Arizona you'll see your first bike shop since Albuquerque. From Flagstaff, cyclists will ride a combination of I-40, paralleling service roads and county roads to Ash Fork before riding onto Old Route 66 the rest of the way across Arizona. From five miles south of Kingman to Topock at the California border, Old Route 66 has been designated by the Bureau of Land Management as the Historic Route 66 National Back Country Byway. It crosses Sitgreaves Pass in the rugged Black Mountains, where the BLM warns: "Travelers are advised that the portion of the highway passing through the mountains is a very narrow two-lane with no shoulders, extremely tight switchbacks, and many steep drop-offs."

The entry into California drops cyclists into a long, desert stretch with very limited services from Needles to Barstow. This region is subject to violent thunderstorms and downpours in the summer monsoon and winter storm seasons. The weather pattern can result in flash flooding that closes the former Route 66 now known as the National Trails Highway (NTH) and thus Bicycle Route 66. Over the years the NTH has fallen into some disrepair and, in



September 2014, a particularly bad storm system came through not only flooding the area but further damaging the NTH and several of the original Route 66 bridges causing long term closures of the road. However, there are longterm construction projects aimed at restoring the damaged portions. See advcy.link/sbtempclosures for road closures or inquire locally about conditions.

I-40 was built to replace the NTH. It is now the main thoroughfare between these two towns, and thankfully, has a well-maintained riding surface. While interstate riding is not our preference, it is the best solution to the problem of travel between Needles and Barstow if the NTH is impassable. Though I-40 is normally closed to bicycling, Adventure Cycling has worked with the California Department of Transportation (Caltrans) to come to an agreement about temporarily allowing cyclists to ride sections of I-40 to continue on Bicycle Route 66. (See the map updates and corrections for Bicycle Route 66, Section 6 for current detour information.)

Once out of the desert, services improve and traffic increases as the route becomes urban through the suburbs of Los Angeles. While there are several plaques in the area denoting the end of Historic Route 66, the terminus of Bicycle Route 66 is on the Santa Monica Pier at the sign located where the road meets the pier.

Source: Adventure Cycling Association





WINTER 2021

Member News

David Glabas Retires



David Glabas retired last summer, completing a three-decade career with ODOT.

He joined ODOT in the late 1980's working in the Bridge Division. He then took advantage of ODOT's college education program and went back to college to earn a degree in Civil Engineering. Upon

graduation, he completed the Engineer-in-Training program and became the Field Division Traffic Engineer for Division 1 in Muskogee. He spend the last few years of his career working in the Traffic Engineering Division as the Assistant Division Engineer.

David has been active with OTEA for almost two decades, serving twice as the ODOT/FHWA Director in the Board of Direction (2007 and 2017).

Congratulations to David and good luck.

David Riesland Promoted



David Riesland is the new Transportation Engineer for the City of Norman in charge of the City's Traffic Control Division.

David joined the City of Norman staff as the Assistant Traffic Engineer in 2009. Prior that that time, he has worked in Tennessee for a

consulting engineering firm. He was later promoted to City Traffic Engineer and last month took over the reigns of the Traffic Control Division as the new Transportation Engineer.

David has been active with OTEA since his arrival in Oklahoma. He has served in the Board of Directors as the City County Director in 2012, Vice President in 2013 and President is 2014. He also led OTEA's "Distracted Driving" educational outreach program that targeted high school students throughout the state.

Congratulations to David on a well deserved promotion.

Angelo Lombardo Retires

On September 11, 2020, after 36 years of public service, Angelo hung the gloves and retired to spend more time with his children and grandchildren. He began his professional career with ODOT in the summer of 1984, completing the Engineer-in-Training program and joining the Traffic Engineering Division where he led the Roadway and Railroad Safety Section of the Planning and Safety Branch.

Angelo joined the City of Norman Public Works Department in 1991 as the City's first ever City Traffic Engineer. He was promoted to Transportation Engineer in 2014, a position he held until the day of his retirement.

Angelo has been active with OTEA since 1986. He served on the Board of Direction as a Director in 1995 and President 1996, and has been the Editor of the OTEField newsletter since 2002 and Secretary-Treasurer since 2006.

Angelo and his wife Annie now reside in Argyle, Texas. He will continue to work as the Editor of the OTEField and as Secretary-Treasurer of OTEA (and future Section Administrator) by the Board of Direction.



Member News

Lauren Parrish Ludwig Promoted



ODOT's Lauren Parrish Ludwig returns to the Traffic Engineering Division as the new Assistant Division Engineer.

She joined ODOT in 2014 working as an Engineering Manager in the Traffic Engineering Division after spending a few years in the private sector for Benham–SAIC. In 2016, she transferred to the Roadway Design Division as the State Highway Geometrics Engineer, only to return to the Traffic Engineering Division as the new Assistant.

Lauren has been active with OTEA for

almost a decade and has served in the OTEA Board of Directors as ODOT/ FHWA Director in 2014, Vice-President in 2015 and President in 2016.

Welcome back to the Traffic Engineering Division and congratulations on the promotion.

Sheila Dees Retires

Congratulations to Sheila on the occasion of her retirement.

Sheila practiced the traffic engineering profession for almost four decades working for ODOT and the City of Oklahoma City. She joined ODOT in the early 1980's working in the Traffic Signal Section of the Engineering Branch. She left ODOT a few year later to work for Oklahoma City's Traffic Management Division and after twenty years returned to ODOT as the Field Division Traffic Engineer for Division 7 in Duncan.

Sheila retired in the summer of 2020.

Jami Short joins City of Edmond

Jami spent almost seven years at ODOT working moly in the Traffic Engineering Division. In August of 2020 she joined Edmond's staff as a Traffic Engineer responsible for assisting with the operations of the current signals and ITS systems, including updating the timing and coordination of the signals along 2nd Street, which was Phase 1 of the City's ITS deployment. She is currently working on the coordination of the signals along Broadway which will be implemented once the installation of Phase 2 of the ITS System is complete later this year. In this new position she is also learning how to evaluate and troubleshoot whenever a signal may go into flash as well as the monitoring of daily traffic for signals connected to the Traffic Management Center (TMC). In just six months, she is now able to help with incident management and adjusting the timing of the signals from the TMC if a crash occurs near I-35 and 2nd Street, for example, when traffic is diverted to the off-ramps and/or frontage roads. She is also able to use her design background to help review plans for signal and lighting installations, signing and striping plans, traffic control plans and field implementation, as well as fiber optic cable installation which is relatively new for her. She brings with her the experience of traffic signals and lighting design



with the added bonus of now learning the flip side of that and what is required to operate and maintain such systems.

Jami is an active member of OTEA, serving in the Board of Directors as the 2016–2017 ODOT/FHWA Director.

Congratulations to Jami on her new job and good luck on the new assignment and challenges.

OKLAHOMA TRAFFIC ENGINEERING ASSOCIATION

WINTER 2021

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