Cell Phone GPS Data Points to Possible New Tactics for Reducing Congestion

Researchers Suggest Targeting Specific Groups of Drivers to Alter Rush Hour Commutes; TDM Can Play Role

A new study indicates that getting any drivers to avoid rush hour can help a city’s traffic congestion to some degree, but asking drivers from specific neighborhoods to alter their commute could make a much bigger difference.

The conclusion comes from engineers at the Massachusetts Institute of Technology and the University of California, Berkeley, who analyzed traffic patterns in Boston and San Francisco by studying GPS signals from cell phones. It’s the first large-scale traffic study to use anonymous cell phone data, rather than survey data or information from U.S. Census Bureau travel diaries. While the two cities have commuting patterns described as “radically different,” researchers discovered one big similarity. In both cities, certain neighborhoods caused more than their share of traffic tie-ups.

In the study, the researchers reported that reducing the peak period trips of one percent of all drivers across a road network would reduce delays caused by congestion by about three percent. However, reducing the peak period trips of one percent of drivers from carefully selected neighborhoods would reduce extra travel time for all other drivers in the metropolitan area by as much as 18 percent.

Researcher Alexandre Bayen, of UC Berkeley, says the preliminary study indicates that “reaching out to everybody to change their time or mode of commute is thus not necessarily as efficient as reaching out to those in a particular geographic area who contribute most to bottlenecks.”

Bayen does note that while computer modeling suggests this strategy would work, it would be up to policy makers to decide whether it’s practical or desirable to target specific neighborhoods.

The study indicates that in Boston,

Bike Horn Mimics Car Horn to Help Improve Bicyclist Safety

Loud Bicycle Horn to be Available this Summer

Loud Bicycle inventor Jonathan Lansey says he got the idea for the car-like horn for bicycles after a bicyclist friend was struck by a turning driver who was distracted by a blaring car radio. The driver didn’t hear the bicyclist’s warning screams before the collision.

Fortunately, Lansey says his friend was not seriously injured, but he figured, “no one should have to rely on luck when faced with a life-threatening situation. The problem is that yelling at drivers is not very effective. There is a delay while the driver is processing the sound of a yell, wondering if it is even directed at them.”

Lansey says the sound of a honking horn is different. Drivers react immediately to the sound of a car horn, even before they see where the sound is coming from. So, he put together a prototype for a new type of bicycle horn and “was immediately amazed at how effective a bike-car-horn was at alerting drivers.”
Newcastle University Testing SatNav System to Help Drivers Catch More Green Lights

*Drivers Will Be Told the Best Speed to Travel to Avoid Red Lights and Warned about Roadway Obstacles*

Researchers at Newcastle University are testing a technology that could help drivers hit more green lights on their daily commute and avoid approaching danger. The Satellite Navigation system, being tested in seven European cities, is designed to tell drivers how to adjust their speed to avoid red lights and warn them about obstacles in the road ahead.

In the United Kingdom, Newcastle University and the Newcastle City Council are leading the trial in an effort to help reduce congestion in the city and reduce the pollution that comes with stop-start driving. Though traffic management systems are already in place in the city, Phil Blythe, Professor of Intelligent Transport Systems at Newcastle University, says this trial is unique because it will be giving information “directly to the driver.”

He explains that the technology could tell a driver exactly what speed to drive to hit a series of traffic lights while they’re green. During peak travel times and more congested traffic periods, key roads could be given priority to keep traffic flowing.

The 10 million Euro project is called Compass4D – Cooperative Mobility Pilot on Safety and Sustainability Services for Deployment — and is being funded by the European Union’s program of Competitiveness and Innovation. Compass4D will run for three years, but the trial period, in which the effects of the technologies will be measured, is scheduled to last one year. After that, researchers plan to keep the infrastructure in place.

In addition to Newcastle, it’s being tested in: Bordeaux, France; Copenhagen, Denmark; Eindhoven-Helmond, Netherlands; Thessaloniki, Greece; Verona, Italy; and Vigo, Spain. Newcastle’s city council is cooperating with its European partners so the test cities can learn from one another and address common challenges.

Yvonne Huebner of Newcastle University, who is leading the project in the U.K., says the goal is to include 334 vehicles in the seven-city pilot program with more than 550 users. In Newcastle, 10 vehicles have initially been equipped with the SatNav technology, but she hopes to recruit more vehicles once the trial has started. The vehicles in Newcastle will use an in-vehicle unit to communicate with smart traffic lights controlled by the city’s Urban Traffic Management Control (UTMC) centre.

Huebner says the technology being tested differs from other commercial in-vehicle navigation systems that provide information on minimum time paths because of the package of services being tested on such a large scale. The system will provide three services:

- **Energy Efficiency Intersection Service** (E Eis), allowing the driver to choose a fuel-saving and comfortable speed profile to cross the intersection efficiently.
- **Forward Collision Warning** (FCW), in order to reduce road accidents by warning drivers about queuing traffic or other vehicles suddenly breaking/decelerating ahead.
- **Red Light Violation Warning** (RLVW), to reduce the number of red light violations and to minimize the impacts of such violations (such as emergency vehicles crossing).

The trial is the first of its kind in the United Kingdom, and Huebner expects the first results to be available toward the middle of 2014. Updated information will be available on the Compass4D website at: http://compass4d.eu/en/home/home.htm

Huebner expect the technology to benefit more than just car drivers. She says that “by creating a joined up information system for all road users, we can give other users, such as the emergency services and bus drivers, information which can help them get to their destination quickly and safely.”

For more information, please visit: http://www.ncl.ac.uk/press/office/pressrelease/item/satnav-to-ease-congestion-in-our-cities and http://compass4d.eu/en/home/home.htm or contact Yvonne Hueber at yvonne.huebner@ncl.ac.uk.

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The locations where the Compass4D is being tested. (Photo: Courtesy of Newcastle University)
A second high occupancy toll (HOT) project opened last month in the Los Angeles area, and the results are encouraging thus far. The toll lanes are part of a one-year demonstration program that involves the conversion of high occupancy vehicle (HOV) lanes to HOT lanes to reduce congestion and greenhouse gas emissions.

The 14-mile stretch of lanes on the I-10 San Bernardino Freeway run between the I-605 freeway and Union Station/Alameda Street near downtown Los Angeles. Last month’s opening follows the introduction of 11 miles of Metro ExpressLanes on the I-110 Harbor Freeway late last year.

The lanes on Interstate 10 opened on Saturday, February 23, and during their first weekday test, the Los Angeles County Metropolitan Transportation Authority (Metro) reported that speeds in the ExpressLanes through the morning commute on Monday remained above the targeted 45 mph the entire time. Metro calls the roll-out of the HOT lanes “very successful,” and it is currently evaluating the feasibility of implementing a HOT lane project on I-5 through a public-private partnership.

The newest set of HOT lanes operate 24 hours per day, seven days a week. There are two HOT lanes in each direction for nine of the 14 miles. The remaining five miles have one HOT lane per peak direction.

Double white lines separate the HOT lanes from general purpose lanes, and dashed white lines are used to provide access and egress to the lanes.

General purpose lanes on the I-110 and I-10 are not tolled. Vehicles with two occupants pay a toll to use the HOT lanes during peak periods and single occupant vehicles are required to pay a toll any time they use the ExpressLanes (the HOT lanes). In other words, vehicles with two occupants can travel the I-10 HOT lanes for a toll during peak travel times (5 a.m. to 9 a.m. and 4 p.m. to 7 p.m., Monday to Friday) but can travel for free all other times. Vehicles with three or more occupants can use the lanes toll-free. Vehicles using the lanes must set a FasTrak transponder to indicate whether there are one, two or three or more passengers in the vehicle.

Tolls can change as often as every five minutes and range from $0.25 to $1.40 per mile, depending on the level of congestion. With this congestion pricing, vehicles entering the ExpressLanes are limited in order to keep traffic flowing.

Metro says it’s too soon to tell if transit ridership and carpools have increased on the freeway as a result of the HOT lanes, but it anticipates an increase in both.

On day one, Metro reports there were 4,213 “free” trips on I-10 westbound during the morning peak travel period and 3,903 paying vehicles. Less than 30 percent of the vehicles on the first day were considered to be “illegal” users of the HOT lanes. Average daily numbers are not yet available. The assumed capacity per lane per hour for the HOT lanes is 1,700 vehicles.

Metro says that in a first for an ExpressLanes project, low-income commuters can receive a $25 toll credit when they set up an Equity Plan account, and the transponder deposit is waived. To qualify, motorists must live in Los Angeles County and have an annual income less than $37,061 for a family of three.

For more information, please visit http://www.metro.net/project_Hlt350432192tBM_1_s/expresslanes/ or http://www.metro.net/news/simple_pr/Opening-Metro-ExpressLanes-Along-14-miles-of-I10SB/ or contact Rick Jager at JagerR@metro.net.
Integrated Corridor Management Being Tested in Two Metropolitan Areas this Spring

San Diego and Dallas Chosen for Federal Pilot Program

The theory of Integrated Corridor Management (ICM) as a means of tackling transportation congestion is being put to the test this spring. The U.S. Department of Transportation (USDOT) is running pilot programs in two major metropolitan areas—Dallas and San Diego.

There is plenty of traffic information available these days, but USDOT says it is often “fragmented, outdated or not completely useful.” While major highways may be congested, there can be unused capacity along parallel routes, the non-peak direction on freeways and arterials, and in single-occupant vehicles and transit services. By taking a big-picture look at the entire traffic corridor, it’s believed these areas could be leveraged to help reduce congestion.

A six-month initial rollout period for ICM testing in San Diego began earlier this month, and the test period in Dallas begins April 1. The Federal Highway Administration (FHWA) says this rollout period will allow the two sites “to test the functionality of their systems, validate their response plans and build up the confidence of their local partners.”

The FHWA says there are four concurrent ICM stages under way: Demonstration; Analysis, Modeling and Simulation; Evaluation; and Knowledge and Technology Transfer. The ICM demonstration stage consists of two phases—design and deployment, and operations and maintenance.

San Diego is implementing ICM on its I-15 Corridor, and Dallas will use it on its US-75 Corridor. Implementation includes developing operational agreements between local partners, developing joint response plans, integrating data systems, deploying technology to support ICM and deploying the central decision support system.

According to the FHWA, the Analysis, Modeling and Simulation (AMS) stage utilizes analysis methodology to evaluate ICM for the demonstration corridors’ pre-deployment and post-deployment operation. The Evaluation stage looks at the effectiveness of the ICM demonstration sites over the life of the entire demonstration project. The final stage, Knowledge and Technology Transfer, consists of guidance development and delivery of knowledge transfer through presentations and briefings, technical workshops and peer-to-peer support.

No particular components of ICM are deemed more important than others. The FHWA says ICM requires the following: an acceptance and adoption of a pro-active approach to management; advancing integration and dissemination of data and information; improving the operation of network junctions; accommodating and promoting cross network route and modal shifts; and managing and modifying the capacity-demand relationship within the corridor. Traditional corridor studies have focused on a specific corridor element, such as a freeway at a particular time of day. The ICM approach analyzes different operational conditions across time and modes and across a large enough geographic area to absorb all impacts.

To do this, the ICM initiative developed an AMS methodology to help corridor managers better understand the impact of ICM in their corridors. This methodology includes: macroscopic trip table manipulation for the determination of overall trip patterns, mesoscopic analysis of the impact of driver behavior in reaction to ICM strategies (both within and between modes), and microscopic analysis of the impact of traffic control strategies at roadway junctions (such as arterial intersections or freeway interchanges).

Evaluations will cover mobility and safety in the corridor, traveler response, institutional and organizational components, technical capability, decision support systems, cost-benefit analysis and air quality.

The demonstration stage of the program in Dallas comes at a cost of $5.3 million in USDOT funding with a site match of $3 million. The San Diego program is using $8.6 million in USDOT funding with $2.2 million in site matching funds.

The FHWA expects the implementation of ICM to accomplish five goals: improve situational awareness, enhance response and control, better inform travelers, improve corridor performance and have benefits that outweigh the costs. ICM is expected to have a positive effect or no effect on air quality and safety. The implementation of ICM is expected to benefit from decision support systems.

For more information, visit: http://www.its.dot.gov/icms/index.htm or contact Robert Sheehan at Robert.sheehan@dot.gov or (202) 366-6817.
Ski-type Gondolas Being Considered to Ease Urban Congestion

Texas City Exploring Costs and Benefits of Gondola Option

Things are looking up when it comes to traffic congestion in Round Rock, Texas. City officials are considering the possibility of using ski-lift type gondolas to get commuters off the roads and into the sky.

Round Rock Mayor Alan McGraw says everybody has the same reaction when they initially hear about ski lifts for mass transit. “The first thing they do is laugh,” he says, but when they learn more and dig into the details, they start asking, “Why aren’t we considering it?”

As a skier, McGraw says he’s seen first-hand how efficiently ski resorts can move large numbers of people with ski lifts, and he’s thought for years that lifts might be a transit alternative in urban areas. However, his thoughts on the matter usually provoked giggles and the idea did not really go anywhere, until five or six months ago. McGraw says someone forwarded an article to him about plans for an urban gondola system that was being developed at the international design company called frog.

The design company, which has an office in nearby Austin, Texas, had put young designers to work on this gondola idea as a learning experience, and they had developed a presentation to highlight how this ski-lift system could work. They gave a presentation on the gondola idea to the city of Austin last year, and McGraw invited the designers to make their pitch to the Round Rock City Council last month.

This potentially new form of mass transit is being called “urban cable.” In its presentation, frog design outlined the many advantages it says urban cable offers to commuters. For instance, studies have shown that commuters often express concerns about crowding and cleanliness on conventional forms of mass transit, such as buses and subways. They say the high-speed, detachable gondolas used in urban cable come closer to the automobile experience. Individual gondolas would carry only four to eight people.

In addition, the gondolas they describe would move along their route at a speed of 12-15 mph and then slow to a little less than 2 mph when they enter a station. No scheduling is necessary. The gondolas never stop moving, which means the lines to use the gondolas keep moving, too. Station platforms are level, which keeps the gondolas ADA compliant and makes it easy for people to roll strollers, wheelchairs or bicycles onto the vehicles.

As the gondolas arrive at a station, they release from the overhead cable and move on a motorized track, described as “essentially a moving sidewalk.” Because the gondolas can detach from the cable, engineers can design cable systems that are capable of turning corners or making sharp turns. Cars can be added or subtracted as dictated by demand, and they can be easily removed from the system for cleaning or maintenance.

Frog design says the gondola cable can be strung high or low over a city as necessary, depending on the type of infrastructure that needs to be cleared. The gondola cable system also offers fuel efficiency and the possibility of no carbon emissions.

When it comes to cost, McGraw says urban cable is much less expensive than conventional rail installations. Designers estimate the urban cable system could be installed for around $12 to $24 million per mile. According to McGraw, that compares to estimates of around $100 million per mile for a light rail system in Austin.

Besides the comparatively lower price, McGraw says a big selling point to him is the idea of not having to adjust a person’s commute to a transit schedule. With a gondola coming by every 30 seconds or so, commuters won’t have to change their schedules just to fit the available transit. The gondolas also offer more personal space than buses or trains.

McGraw says the urban cable idea is still in its infancy in Round Rock. The city recently learned of a federal grant for studying alternative types of transportation that haven’t been used before, and the city is putting together a package to see if grant money can be used to take the idea a step farther.

When asked, McGraw says he won’t even begin to speculate about when such a system could actually take to the skies in Round Rock. While the ski gondolas are a proven technology, McGraw says there’s still a need to get public opinion from the point of asking, “Are we trying to be the Jetsons?” to the point where the gondolas could possibly be seen as a viable solution to some of the city’s transportation problems – “another arrow in the quiver.”

For more information, please visit http://www.roundrocktexas.gov/home/in_Hlt349719627_Hlt349719628dBM_1_BM_2_ex.asp?page=10&record_Hlt349044930_Hlt349044931dBM_3_BM_4_d=2997 to view the frog design presentation to the city council or http://www.frogsdesign.com/contact/austin.html or contact Courtney Nielson at the City of Round Rock at cnielson@roundrocktexas.gov.

Notice:
Our previous issue (Vol. 27 Number 1, page 4) contained an article about the ability of AirSage to track mobile devices. AirSage contacted The Urban Transportation Monitor and asked us to emphasize that the tracking is anonymous. They also asked us to include the following statement:

“AirSage captures anonymous data from mobile devices as they interact with cell towers. Because this technology does not require an engaged GPS system—which limits the pool of information—AirSage data is richer and can reveal broader population movement patterns, often with unexpected insights.”
A Glimpse Into the Future of a Connected City

It is Postulated that Everyone and Everything Benefits from Intelligent Wireless Connections

The GSMA (Groupe Speciale Mobile Association) has given people a chance to see what life might be like in the future when entire cities are linked through intelligent wireless connections. The “Connected City” it unveiled at last month’s Mobile World Congress 2013 featured a city street setting complete with a town hall, department store, apartment, electrical store, hotel, café and lounge, office and car showroom.

Those attending the event in Barcelona, Spain, could stroll the exhibit city to see how mobile devices may one day improve the daily lives of people through their use in education, health, homes, retail and transportation. With exhibits from AT&T, Deutsche Telekom, KT, Telenor Connexion and Vodafone, the GSMA built on the Connected House concept to take wireless connections to a new level.

According to GSMA, by 2020, there will be 25 billion connected devices, and at least half will be connected by mobile technology. Chief Marketing Officer Michael O’Hara says the possibilities offered by that kind of connectivity “are limited only by our imagination.” The Connected City allowed visitors to explore how the growth in mobile technology will impact vertical industries and how strategic partnerships could take advantage of this market.

In the realm of transportation, GSMA’s Aston Martin One-77 display showed how sensors embedded into the cranks and frame of the connected road bike could let it communicate with an on-board computer to display more than 100 channels of information. The information included speed, atmospheric pressure and cadence, as well as calculated inputs such as rate of climb and rider power. Embedded technology in its Cooltra Connected Electric Scooter lets customers know in real time where and when Cooltra’s connected rental scooters are available in a number of cities around Spain.

Deutsche Telekom and IBM demonstrated how they are using mobile technology to optimize services such as public transport, energy, security and water management in an urban setting. Their Connected Port Solutions gave attendees a chance to see an intelligent harbor solution that optimizes road and sea traffic control. Telenor Connexion showcased its connected services in collaboration with Volvo Cars.

Vodafone demonstrated how its Energy Data Management solution, solar energy production monitoring, remotely controlled street lighting and digital signage can enable a smart city. Its Smart Mobility display was intended to help visitors see how M2M is transforming the automotive and transportation industries through such services as real-time information systems for public transport, enhanced driver experience with telematics solutions or usage-based insurance services with Vodafone Vehicle Connect.

The GSMA represents the interests of mobile operators in more than 220 countries. It unites nearly 800 of the world’s mobile operators with more than 230 companies in the broader mobile ecosystem, including handset makers, software companies, equipment providers and Internet companies, as well as organizations in industry sectors such as financial services, healthcare, media, transport and utilities.


**Positions:**

**Senior Traffic Engineer, City of Federal Way**

$5,821-$7,372/month  
Tel. (253) 835-2531

**Senior Travel Demand Modeler and Project Manager – Atlanta, GA**  
(Job code TDF000001)

Cambridge Systematics is seeking an individual responsible for the direction and execution of project tasks in collaboration with other modelers. This individual will develop model input data and estimate parameters, conduct validation of travel demand models, execute model runs and evaluate results, research new modeling techniques, and test software enhancements. The position also includes some responsibility for business development activities, including proactive lead tracking and proposal development.

**Qualifications:** Master’s degree in either Urban and Regional Planning/Transportation Engineering; 8-12 years experience in hands-on development/application of travel demand models; Cube, Voyager, TRANPLAN, TP+, and TransCAD software and statistical packages; GIS skills with ArcGIS and/or TransCAD; MS Access, Excel, Word, PowerPoint; excellent written/oral communication; experience working with surveys, and using Census-related data products. Experience with task/project management is highly desirable and contacts in hands-on business development in the Atlanta region. Specific application experience with Atlanta Regional Commission and Georgia DOT models, transit ridership forecasting (including New Starts), and roadway project traffic forecasting is highly desirable as well as familiarity with travel demand models used in FLA and in the SE U.S.

Please send resume to [resume@camsys.com](mailto:resume@camsys.com) and reference job code TDF000001.
“Active Transportation” Could Improve Public Health and Reduce Greenhouse Gas Emissions

Researchers Quantify Benefits of Walking and Bicycling in San Francisco Bay Area

Efforts to reduce pollution and greenhouse gas emissions often center on lower carbon fuels and alternative fuel vehicles, but a team of researchers in California says that encouraging more people to walk or ride their bicycles could not only reduce pollution but also help improve public health.

A study on this so-called “active transportation” in the San Francisco Bay Area suggests that if median daily walking and bicycling was increased from 4 to 22 minutes, cardiovascular disease and diabetes could be reduced by 14 percent, or 32,466 disability-adjusted life years (DALYs). DALYs are the sum of years of life lost because of premature disability.

With more people on foot and on bicycles, the study predicts the traffic injury burden would be increased by 39 percent, or 5,907 DALYs. Still, authors of the report say that in the most ambitious active transport scenario, the potential harm from more active transportation is approximately 14 percent (based on DALYs) of the benefit from physical activity.

When it comes to pollution levels, the study says greenhouse gas emissions (GHGE) would be decreased by 14 percent. In comparison, low-carbon driving would reduce GHGE by 33.5 percent and the cardiorespiratory disease burden by less than one percent.

This international, interdisciplinary study was conducted by Sean Co, a planner for active transportation with the Bay Area’s Metropolitan Transportation Commission, Neil Maizlish, Ph.D., epidemiologist for the Center for Chronic Disease Prevention and Health Promotion at the California Department of Public Health in Sacramento, and Amir Fanai and David Fairley, Ph.D., with the Bay Area Quality Management District in San Francisco. They joined with researchers from the Centre for Research in Environmental Epidemiology in Barcelona, Spain, and the Centre for Diet and Activity Research in the United Kingdom, who provided the health impact modeling tool (ITHIM).

The predicted increase in road traffic injuries in the study is higher than that found in previous research in London. In ITHIM baseline data, researchers found that Bay Area pedestrians and bicyclists experienced 14.9 percent of fatal and serious road traffic injuries, though they traveled only 2.1 percent of all roadway miles. The authors point out that “a significant percentage” of walkers and bicyclists in the U.S. report feeling threatened by “the presence of motorists, crime or inadequate infrastructure.” Maizlish notes that “there are many policy, infrastructure/engineering, enforcement and educational interventions” that could help reduce this public health risk from accidents.

Maizlish adds that some researchers have suggested that the health benefits of walking and bicycling could be cancelled out if pedestrians and bicyclists use busy thoroughfares with heavy automotive exhaust. However, he says that on a population basis, “several studies have shown that the health co-benefits of physical activity appear to far exceed harms caused by walking and bicycling in polluting traffic.”

The California study, titled “Health Cobenefits and Transportation-Related Reductions in Greenhouse Gas Emissions in the San Francisco Bay Area,” was published online in February in the American Journal of Public Health.

For more information, please visit: http://ajph.aphapublications.org/ or contact Sean Co at SCo@mtc.ca.gov or Neil Maizlish at Neil.Maizlish@cdph.ca.gov.
Product and Industry News

Iteris Introduces SmartCycle for Bicycle Detection at Intersections

As more people turn to bicycles for commuting and other activities, more officials are seeing the need to monitor and take bicycle traffic into consideration. Iteris is adapting to the upsurge in bicycling by launching a new product it calls SmartCycle.

Iteris says SmartCycle is designed to give traffic engineers and planners a cost-effective way to bring their traffic management systems into compliance with new regulations that require bicycle detection capabilities. SmartCycle can differentiate between bicycles and other vehicles at an intersection to allow “more efficient signalized intersections and maximized traffic throughput.” The new product is an addition to the Iteris Vantage video detection product suite.

SmartCycle uses a single video detection camera that faces a dedicated approach. Iteris says the system can be placed anywhere within the approaching traffic lanes, eliminating the need for separate bicycle-only detection systems.

Bill Sowell, Iteris Vice President, Sales and Marketing Road Sensors, explains that the video detection system “employs special algorithms that analyze real-time video of intersection approaches. The video is digitized and run through a special algorithm that identifies moving and stopped objects on the traveled roadway. Additional analysis is performed by searching for specific features that are unique to bicycles.” Sowell says that once a bicycle or group of bicycles is identified, “a signal is provided to the intersection traffic controller so appropriate ‘green time’ is provided for the bicyclists. The extra green time enables bicycle riders to safely traverse the intersection with sufficient time.”

Traditionally, Sowell says bicycles have been detected by using special inductive loops — coiled wires embedded into the pavement — in dedicated bicycle lanes. The Iteris technology allows bicyclists to ride in any lane, and Sowell says it is especially beneficial when a bicyclist is in the left turn lane.

Vantage SmartCycle has been deployed and tested in bicycle friendly cities and universities, and Sowell describes its performance as “outstanding.” He says it has increased intersection safety and received “excellent feedback.”

When it comes to cost, Sowell says Vantage video detection for an intersection, installed, is approximately $16,000 to $20,000, depending on site specific elements such as lengths of cable and local labor rates.

Abbas Mohaddes, President and CEO of Iteris, says SmartCycle provides “a clear advantage as we pursue detection opportunities for the estimated 50,000 signalized intersections nationwide where cycling is most abundant.” The company’s Vantage video vehicle detection technology is in use in North America, Latin America, Europe, Asia and the Middle East with more than 100,000 operational video detection sensors.

SmartCycle is available for immediate purchase and implementation. Technical support and training is provided by the company’s global network of exclusive distributors and direct sales offices.

For more information, visit: http://iteris.com/ or contact Bill Sowell at whs@iteris.com or (949)-270-9664.

Siemens Becomes Exclusive Distributor of Acyclica Hardware to North American Market; BlueCompass, BlackCompass and CrossCompass being used to Map Congestion, Gather O-D Data and Help Improve Traffic Flow

Siemens Mobility and Logistics Division is teaming up with Acyclica Inc. to become the exclusive distributor of Acyclica’s BlueCompass, BlackCompass and CrossCompass hardware in North America.

Siemens says Bluetooth or Wi-Fi based sensors in the Acyclica hardware “record the unique signature emitted by handheld personal devices” in the vicinity and help cities and transit agencies “measure travel times, as well as origin-destination (OD) data.” The information, which is gathered anonymously, can be used to map congestion, conduct origin-destination studies, monitor intersection delays and provide construction zone monitoring.

At complex interchanges, Siemens says OD data can be gathered with enough accuracy to help make improvements to the interchange. The company explains that with typical Bluetooth O-D technology, samples rates of 2-4 percent are “quite typical.” With the addition of Wi-Fi, it has seen sampling rates “in excess of 20 percent.” It says having this “statistically significant data is imperative when making infrastructure improvement recommendations, and that is the strength of Acyclica technology.”

Siemens says the Acyclica BlueCompass, BlackCompass and CrossCompass products do not capture vehicle volumes, but they can be used to accurately measure congestion and relative volumes.

The company says the data Acyclica provides is different from that provided by its competitors, such as TomTom and Inrix, because it gives cities the ability to dictate where they collect data, rather than depending on specially-equipped vehicles traveling routes of interest. In addition, Siemens says the sample rates provide “more reliable data over more area providing data, real-time or not, to help traffic engineers better understand their network.”

Siemens will be working through its network of direct offices and Value Added Partners across the U.S. and Canada to distribute the hardware.

For more information, please visit: http://w3.usa.siemens.com/mobility/us/en/Pages/siemens-mobility.aspx or http://www.acyclica.com/ or contact annie.seiple@siemens.com.
Cell Phone GPS Data Points to New Tactics for Reducing Congestion

reducing one percent of peak period trips by select drivers in Everett, Marlborough, Lawrence, Lowell and Waltham would cut all drivers’ additional commuting time caused by traffic congestion by 18 percent. In San Francisco, reducing peak period trips of drivers from Dublin, Hayward, San Jose, San Rafael and parts of San Ramon would cut other drivers’ travel time by 14 percent.

Two different methods were used to gather data for the study. At MIT, lead researcher Marta Gonzalez and former MIT postdoc Pu Wang used three weeks of cell phone data to gather information about autonomous drivers’ routes and estimated traffic volume and speed on those routes in Boston and the San Francisco Bay Area. At UC Berkeley, Bayen and graduate student Timothy Hunter used a different set of data obtained from GPS sensors in taxis in the San Francisco area to compute the taxis’ speed based on travel time from one location to another, and then determine congestion levels. Bayen says there was good agreement between the two methods.

Findings were based on the use of just three types of data – population density, topological information about the road network and cell phone data. The researchers say that means the methodology could be used in almost any urban area and may be of special benefit to many cities in the developing world where travel surveys don’t exist.

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In this image the color of the road segments represents the number of neighborhoods that are major sources of drivers for that segment. For example, red is more than 100, yellow is 61 to 100, green is 41 to 60, dark blue is 1 to 20 and purple is none. (Image: Courtesy of Pu Wang, MIT)

Bike Horn Mimics Car Horn to Help Improve Bicyclist Safety

The Loud Bicycle Horn was born when Lansey put together a team to turn his concept into a “real product.” The 112-decibel horn has both high and low notes to make it “even more perceivable than louder horns that only have a single note.” Bicyclists can use their thumbs to activate the horn button that attaches to either handlebar. The horn is powered by a rechargeable lithium battery pack, and the honk can last up to 30 seconds. However, the Loud Bicycle website does warn users to “be respectful.”

Lansey says his product is unique. He says he “searched everywhere” for a good bike horn, but the few serious horns he found “sounded grating and unrecognizable and you wouldn’t want to rely on them in any emergency situation.” Lansey found most of the horns had extremely high frequencies that are harsh on the ears and can make it hard for people to determine from where the sound is coming.

Urban commuters are expected to be the biggest users of the Loud Bicycle Horn, but Lansey expects the horn to benefit even those who don’t buy his product. He says every time the horn is used and drivers become more careful and alert to bicyclists on the road, safety is improved for everyone.

The horn costs $95 and will begin shipping in August.

Loud Bicycle has won support from Linus Bike, an advocate of bicycling safety and developer of city bikes. Lansey says his company raised over $50,000 in January from 600 individuals who contributed to the cause in order to get a horn.

For more information, please visit: http://www.loudbicycle.com or contact Jonathan Lansey at jonathan@loudbicycle.com.
On a summer’s evening in June 2008, a motorcyclist collided with the fuel tank section of the lead engine of a two-carriage train that was crossing an intersection in New Holland, Pennsylvania. As a result of this accident, he was left partially paralysed.

He sued the rail Company in federal court seeking damages for his injuries, claiming the Company was negligent in (1) failing to warn of an approaching train; (2) failing to maintain a safe grade crossing area; and (3) violating various portions of the Federal Railroad Safety Act (FRSA) relating to adequate warning devices.

The District Court granted the Company’s motion for summary judgment, based on preemption provisions in the FRSA against state tort claims and motorcyclist appealed.

On appeal, the majority reversed in part and affirmed in part, and one judge submitted a dissenting opinion affirming the District Court’s ruling in its entirety.

The motorcyclist was familiar with the crossing, which he believed was inactive because he had never seen a train on it although he had crossed the intersection “hundreds of times.”

The crossing was marked by two reflectorized “crossbuck” signs (stating “Railroad Crossing”) which required road users to yield the right-of-way to rail traffic, and a black-and-yellow railroad-grade crossing sign approximately 150 feet north of the crossing.

At the time of the accident, the motorcyclist was wearing a full-face helmet with a visor and was traveling at approximately 30 to 35 miles per hour. According to witnesses, the driver of the train sounded his horn as the engine approached the crossing. Plaintiff braked aggressively, causing his front wheel to lock, resulting in him flying over the handlebars and hitting the front engine approximately 30 feet from its front leading edge. The crossing is only 29 feet wide.

According to the engine’s Event Data Recorder (EDR), the train was traveling at approximately 24 miles per hour at the time of the collision. It also recorded that the train horn was activated approximately one-quarter mile prior to the crossing and continued through the crossing, sounding for a total of 45 seconds.

While the speed of the train was not disputed, the class of track was: plaintiff alleged the tracks were Class 1, in which case the speed limit was 10 mph, and the locomotive was speeding. The Company responded they were Class 2 or 3, in which case the train was travelling within the speed limit.

At trial, plaintiff wished to produce nine crossing reports from the Department of Transportation’s National Crossing Inventory that suggested the Company train was going too fast when it entered the crossing. The District Court excluded all nine reports under evidentiary privileges granted by the United States Constitution. On appeal, the majority of the Court found it should have excluded only one report.

Plaintiff also wished to produce 10 accident reports, from 1975 to 2008, to substantiate his allegation the train was speeding, based on the classification of the track at the crossing they provided: four reports stated that the track was Class 2, one that it was Class 3, and five that it was Class 1. However, these reports were also excluded by the District Court, but on appeal the majority found that nine of the 10 reports were admissible.

The majority, therefore, found that, based on the crossing and accident reports that should have been admissible, plaintiff’s excessive speed claim should have survived summary judgment.

Plaintiff had also made two allegations in support of his second claim regarding the safety of the crossing: first, that the Company negligently maintained the crossing devices, in particular, that the warning sign was covered by tree branches, the pavement markings no longer existed, and the crossbucks had fallen into disrepair. Second, that the Company failed to provide adequate sight distance.

The District Court agreed that at least part of plaintiff’s second claim avoided preemption. Nevertheless, it granted summary judgment on his entire claim, concluding that he had failed to satisfy the elements of negligence. On appeal, appellant argued that the District Court ignored his
Continued from Page 10

**Transportation Tort Liability**

inadequate-maintenance allegation and misconstrued Pennsylvania law on the question of sight distance. The Court of Appeals agreed with the appellant and found that both parts of his second claim should have survived summary judgment.

The minority view held that the Occupied Crossing Rule should apply, which requires that a motorist must stop, look and listen before entering a crossing, particularly a crossing that is occupied. Given the length of the crossing (29 feet) and the point of impact on the engine (30 feet from the leading edge), he concluded the crossing was occupied and the appellant had breached the rule, which the courts had described as ‘not a rule of evidence, but a rule of law, peremptory, absolute and unbending described as “not a rule of evidence, but a rule of law, peremptory, absolute and unbending.”’

The majority argued that because the train was not visible in time for appellant to avoid the accident, the rule did not apply. Further, that the minority view implied that a train racing down the tracks at double the speed limit would avoid liability whenever a motorist ran into it--even when the train’s speed effectively prevented motorists from avoiding the collision.

It ruled that based on photographic evidence that the crossing was poorly maintained, it was reasonable to infer that the state of disrepair had contributed to the appellant’s belief that the crossing was inactive; in turn, this meant it was also reasonable to infer that on the night of the accident, the appellant approached the crossing with less caution than he otherwise would have.

With regard to sight distance, it found that a jury should have decided whether the Company should have asked the owner of an adjoining building to remove a sign that obstructed the view of the tracks. It noted that Company actually had a policy in place for doing so.

With regard to the appellant’s third claim of negligence, the full bench was in agreement that this claim was subject to preemption. It found that even though the appellant was unable to avoid preemption by asserting the Company installed the wrong warning devices, he was able to avoid preemption by asserting that it failed to maintain them.

The Court noted that it while it might seem that this scheme was internally inconsistent, it was nonetheless the scheme Congress has established.

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**Some Florida Lawmakers Want to Eliminate Red-Light Cameras in the State**

*Legislation Pits Constitutional Concerns against Safety Concerns*

Efforts are under way in Florida to get rid of red-light cameras in the state. A bi-partisan pair of state lawmakers is trying to repeal a Florida law that allows local governments to use the cameras to catch red-light runners.

The measure, House Bill 4011, is being sponsored by Representatives Daphne Campbell (D-Miami) and Carolos Trujillo (R-Miami). It cleared its first hurdle last month when it passed the House Economic Affairs Committee by a 10-8 margin. The vote followed a two-hour debate over the constitutional rights of drivers and studies showing the cameras can reduce intersection injuries. The bill had its first reading earlier this month, but its advancement to the House Appropriations Committee is currently on hold.

As the bill is worded, it removes provisions in the law “relating to installation and use of traffic infraction detectors to enforce specified provisions when driver fails to stop at traffic signal.” It also removes provisions that authorize the Department of Highway Safety and Motor Vehicles (DHSMV), counties or other municipalities to use such detectors.

Trujillo has sponsored similar legislation in the past to ban the cameras and says he doesn’t think they make intersections safer. Campbell has said she is spearheading the effort this time because she doesn’t think the cameras make roads safer, and she claims many target low-income areas. When asked about recent studies indicating the cameras do improve road safety, her office offered a 35-page report produced by “liberty” lobbyist Paul Henry and Associates.

Henry’s report refutes the findings in a 2012 DHSMV analysis that documented the effectiveness of red light cameras in Florida. Henry claims the analysis is “just a survey with no supporting data and numerous issues,” including the omission of key data.

However, the Miami Herald reports that Campbell faces a credibility problem herself in her pursuit of the legislation. It reports that her husband’s Honda Odyssey minivan has racked up five red light violations since 2010. The newspaper also notes that Campbell and her husband were hit last year with $145,000 worth in liens and her family has come under increased scrutiny for mortgage and Medicaid fraud.

For more information, please visit: http://www.myfloridahouse.gov/Sections/Bills/billdetail.aspx?BillId=49361.
This Month’s Survey Results (Survey 1)

Ethics in the Transportation Profession

*The Urban Transportation Monitor* conducted a nationwide survey last month to obtain opinions from practicing transportation engineers on various ethical situations.

Questionnaires were sent to 750 transportation professionals. A total of 58 responses were received, for a response rate of 7.7%. Respondents had an average of 24 years working experience.

Adaptations from actual case studies cited in Opinions of the Board of Ethical Review, published by the National Society of Professional Engineers (NSPE), were described in the survey; respondents were asked to make a judgment on whether each situation was ethical or not.

It should be recognized that all the information of a particular case could not be included because of space limitations. However, we endeavored to include all the relevant facts.

The purpose of the survey was to see how uniform opinions among practicing transportation professionals are with regard to ethical issues and how their opinions compare with those of the NSPE’s Board of Ethical Review. When giving an opinion about a particular case, the Board explained its reasoning behind its opinion. That discussion is not included in the survey results published here, again because of space limitations.

The Board requests that the following statement be included regarding its opinions:

“The opinions are based on data submitted to the Board of Ethical Review and do not necessarily represent all of the pertinent facts when applied to a specific case. These opinions are for educational purposes only and should not be construed as expressing any opinion on the ethics of specific individuals.”

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**SITUATION 1**

Transportation Professional A works as an employee for Consulting Firm B on a full-time basis. Transportation Professional A also has his own separate practice in which he performs services that are also performed by Consulting Firm B. Transportation Professional A’s work, including all client contacts, is done completely on his own time (evenings and weekends), using his own equipment. Transportation Professional A does not attempt to lure existing Consulting Firm B clients to his practice. The Consulting Firm B Employee Handbook has no specific policy that addresses performing outside work, and Transportation Professional A does not advise the firm of his outside practice.

**Question 1:**

*Would it be ethical for Transportation Professional A to continue to perform consulting services in his own practice in the manner indicated?*

**Survey results:**

Respondents who answered yes: 27 %  
Respondents who answered no: 73 %

Respondents with < 20 years experience who answered yes: 41 %  
Respondents with > 20 years experience who answered yes: 19 %

**Typical comments from respondents who answered yes:**

- Transportation Professional A has every right to pursue his own company on his own time and has no obligation to inform anyone of that. However, it would be ideal if he was comfortable enough with Consulting Firm B to have a professional discussion with them. But there is no ethical dilemma without telling firm B.
- Transportation is no different than any other service in which a person may perform that service on his own. This is not uncommon in trade professions. But he should get the permission of his primary employer.
- While there is the possibility for a conflict of interest, it does not exist under the parameters set forth by the question.
- No questionable activity and no policy violated. It might help for Transportation Professional A to inform Consulting Firm B of his activity to clear the air.
- Yes, but it depends. Only if the type of work performed in Transportation Professional A’s own practice is not in direct competition with the type of work offered by Consulting Firm B. For example, if A’s practice offers a niche service that is not offered by Consulting Firm B, there is no conflict. However, if services offered by A’s practice are the same services offered by Consulting Firm B, then there would be a conflict.
Ethics in the Transportation Profession (continued)

- I would say yes, but only if Transportation Professional A advises his employer of his separate practice. The employer may decide to ask A to cease and desist, or risk dismissal.
- Yes, provided he inform his employer that he has his own practice.
- Transportation Professional A keeps all work separate between Consulting Firm B and personal business. There is no company policy against outside employment.

Typical comments from respondents who answered no:

- Conflict of interest
- I would think Transportation Professional A should at least inform his employer of his practice first. The potential for conflict exists and the employer would most likely not support this practice. I would think the only way A could practice in this way is if Consulting Firm B allowed it.
- I believe Transportation Professional A should inform his consulting firm of his outside work and get a confirmation that they are okay with the arrangement. Transportation Professional A has an obligation to bring work into the firm. Since the work is the same nature as what is performed at his firm, he is not giving his best effort to the firm and its success. It would be good to know if Transportation Professional A started the business after gaining employment with the firm or before.
- While Transportation Professional A does not actively attempt to lure clients from Consulting Firm B, he is in fact competing with them for clients. There is an inherent conflict between his own practice and his work for Consulting Firm B.
- Since his services in his own consulting work are the same as his work as an employee, his work reflects on his employer.
- He is in direct competition with his employer. At a minimum, his employer is owed a notification.
- Even though there might not be conflicts with jobs, the apparent conflicts of interest cannot be avoided.
- Technically/legally, Transportation Professional A may not be violating Consulting Firm B’s policies. Ethically A should disclose who the clients are that may conflict with B’s business.
- If the individual works for Consulting Firm B, he’s still competing against the firm which employs him.
- Transportation Professional A is directly competing with Consulting Firm B.
- Transportation Professional A should disclose his outside work to Consulting Firm B as they may be competing for the same projects.
- He should advise Consulting Firm B of his outside practice.
- They both could theoretically compete for business of some future client (both respond to an RFP).
- It is not ethical for an agent of Consulting Firm B to compete or gain inside information from their principal full time employer. As it states, Transportation Professional A does not attempt to lure existing clients. Transportation Professional A can learn of potential work being considered and take advantage of that information.
- If the professional’s scope of work for his own business did not overlap with the services provided by his consulting firm, then it would probably be okay. As described, it would be difficult or impossible for the clients to tell the difference between the two businesses.
- Although there is no specific policy, Transportation Professional A should at least inform his employer of his practice, so that potential conflicts can be avoided.
- He needs to inform Consulting Firm B to see if they have any concerns.
- The complexity of this discussion is beyond the scope of mere quips or anecdotal commentary, but suffice it to say, an employer deserves to know how its employee’s energy is being partitioned, and with that said, Consulting Firm B would do well to establish a policy on the matter.
- At the very least, the consulting firm should be aware of the outside work since one of their employees is in effect a competitor. The outside employment should probably not be going on at all, even though he is not luring customers.
- The potential for conflict may become an issue. If Transportation Professional A wants to continue to work for Consulting Firm B and himself, he should advise the firm of his practice.
- The professional should inform his firm that he is doing the outside work.
- I believe Transportation Professional A has an ethical responsibility to inform Consulting Firm B of his outside work in the profession.
- There is a conflict of interest even though the company does not have a clear policy against performance of the same work outside the company.
- He could be taking work away from Consulting Firm B without their knowledge, which is competing with them behind their backs.
- I think this could be answered either way. The problem I see would be a client of Consulting Firm B may jump to Transportation Professional A, without being “lured,” simply because they may have had a working relationship through B. On his own, A may be a better choice for the client due to probable lower costs. In addition, just because the B handbook doesn’t address this issue, it doesn’t mean there isn’t a possible conflict of interest which could be professionally ethically wrong.
- The firm should be aware of outside employment of any kind so as to avoid potential conflicts of interest. I think there is a fair expectation that if the employee is full-time and salaried that they would not be conducting the same work in competition with the employer. If the employee was a contract employee, however, I would see no issue here.
Opinion of the Board of Ethical Review:

It would be unethical for Transportation Professional A to continue to perform engineering services in his own engineering practice in the manner indicated without clearly and unambiguously advising his full-time employer Consulting firm B.

Main conclusions of the Board of Ethical Review:

The ethical issues involved in engineers performing services outside of regular employment has been an ongoing question for many years. There is a strong possibility that as a result of outside work, potential and actual conflicts could arise between the interests of the employer and the interests of the individual employed engineer, as well as ethical issues.

The facts that all client contacts are performed completely on Transportation Professional A’s own time (evenings and weekends), using his equipment and materials, that Transportation Professional A does not attempt to lure existing Consulting firm B clients to his engineering practice, and that the Consulting firm B Handbook contains no specific policy that addresses performing outside work do not establish a basis to justify Transportation Professional A’s failure to advise Consulting firm B of his outside practice.

SITUATION 2

Transit Professional A works for CCC Consultants. As part of Transit Professional A’s activities and employment responsibilities on behalf of CCC Consultants, he attends various conferences and trade shows. While attending a recent conference and trade show at CCC Consultants’ expense, Transit Professional A won a door prize worth $5,000.

Question:
Would it be ethical for Transit Professional A to keep the door prize or is he required to remit the prize to CCC Consultants?

Survey results:
Respondents who answered yes: 42 %
Respondents who answered no: 58 %
Respondents with < 20 years experience who answered yes: 65 %
Respondents with > 20 years experience who answered yes: 27 %

Typical comments from respondents who answered yes:
- The door prize was awarded to him as an individual.
- Yes, he should be able to keep it. Door prizes are generally random drawings made available to all attendees. As a side note, a $5,000 door prize does seem inappropriate and one may question attending a conference and trade show giving away such prizes.
- This was not a payment for services rendered.
- The door prize is inconsequential to the activities and employment responsibilities.
- He should be able to keep the door prize, but he should also disclose his winnings to CCC Consultants, who should let him keep it.
- I think a door prize is for the one individual who won it, unless the prize itself can be split and is intended to be shared. However, $5,000 is a lot, and ethically, I would check with the appropriate persons in the firm on the proper procedures that need to be taken.
- If CCC hasn’t addressed this circumstance at a policy level, then Transit Professional A has every right to keep the gift. CCC can easily make the gift opportunities a perk of the position similar to a bonus.
- Door prizes are typically meant for individuals — not for organizations.
- Door prizes normally are kept by the person selected. The value, unless there is a written policy, usually has no bearing.
- The prize was not an individualized gift or from an individual or company. The prize was available to all attendees. However, the prize should be reported to the company and on the professional’s income for taxing purposes.
- Neither. He should not accept the prize at all. The question doesn’t state if the prize is a work-related product. If it is, the product may or may not be a product that either Transit Professional A or CCC Consultants endorses, however, because they won the prize, either A or CCC may feel obligated or swayed to promote this product to clients.
- Nothing unethical here, but if the employee was savvy, he/she would reimburse the employer for the cost of the meeting and keep the balance.
- He won it.
- The prize is for a person.
- There is no link between winning a door prize at a conference and a company offering to pay an employee’s expense to attend that same conference.
- Yes, if this was a random door prize and nothing was set up ahead of time.

Typical comments from respondents who answered no:
- He should not be attending the conference at consultant’s expense anyway.
Ethics in the Transportation Profession (continued)

- The door prize results from pure luck. Anyone the company sent would theoretically have received the door prize, so it was not attributable to the individual in attendance. I believe the company should in turn allow the Transportation Professional to keep some or all of the prize - but it should be turned in to the company for its disposition.
- He should notify his employer, and if the employer does not have a problem with him/her keeping the door prize, it is okay. Again, notification is appropriate. It was won on their dime.
- Transit Professional A attends conferences/trade shows on behalf and at expense of CCC Consultants. A should remit the prize to CCC.
- The employee should check with his HR department and company policies. A prize of significantly less value may not be an issue.
- CCC Consultants should consider splitting the winnings with Transit Professional A.
- If his employer paid for travel, registration, lodging, etc., then the employer is entitled to the door prize.
- The employee should be honest with their principal employer to see if the company has a policy on accepting, gifts, door prizes or gratuity of any kind. If the agency does not prohibit this type of gift and gives Professional A the authority to keep the prize, it would not be a conflict.
- If CCC Consultants paid for his registration and travel, they should receive the door prize.
- It depends on what the prize is. If it is not something the firm needs or wants, they can give it to the employee.
- The professional should remit the prize to the company and the company should then reward the professional for his honesty.
- I assume all the costs associated with attending the conference/trade show are paid for by CCC Consultants, therefore, he should inform the firm of his prize and a determination be made by CCC as to whether he can keep the door prize.
- The professional is not entitled to that much of a value, especially since they would not be at the conference to be able to win that gift if it was not for their agency paying for the trip.
- The prize was earned as an employee of the company and thus is the employer’s property.
- The employer should have the option of determining whether the employee can keep it.
- The employer should be notified. If the employer wants to let Professional A keep the prize, that’s fine, but it should be CCC’s decision.
- No, unless his company has a policy set otherwise
- If CCC Consultants had not paid for his entrance, Transit Professional A would not have been present to win the door prize. He should at least give CCC Consultants the option to withhold the door prize.
- Transit Professional A’s conference fees were paid by CCC Consultants, so the prize is CCC’s property. CCC may choose to share the prize with other CCC employees, if practical.
- Since the employer paid for all expenses for the conference, the employee should turn over the door prize.
- He should let his employer make the decision on who keeps the prize. Transit Professional A should have notified the engineering society of her views

Opinion of the Board of Ethical Review:

Transit Professional A has an ethical obligation to, at a minimum, report the substantial door prize to CCC Consultants since Transit Professional A attended the event at the expense of CCC Consultants. The ultimate decision as to the best method of addressing this matter is solely between Transit Professional A and CCC Consultants.

Main conclusions of the Board of Ethical Review:
The Board is of the opinion that in view of the fact that Transit Professional A attended the event at the expense of CCC Consultants, Transit Professional A, as a representative of his employer, had an ethical obligation to, at a minimum, report and disclose the door prize to CCC Consultants. Obtaining a financial windfall within the scope of employment is not a private matter but is instead a matter of which an employer should be made aware. The ultimate decision as to the best method of addressing this matter is solely between Transit Professional A and CCC Consultants.

SITUATION 3

Traffic Engineer A, a licensed professional engineer in private practice, conducts traffic impact studies for developers. Recently, Traffic Engineer A started her own consulting traffic engineering firm. Traffic Engineer A would like to include on her firm’s website several projects that she completed over the years, including some work that Traffic Engineer A designed while employed with other consulting firms. All web content would be original and the content would be non-confidential. The content would include a picture of the development and a short, generic narrative of the work performed. Work performed by Traffic Engineer A while under employment with the other firms would be described accordingly. Traffic Engineer A would claim credit for the traffic impact work only and would not state or imply that clients of other consulting firms are a client of Traffic Engineer A. None of the subject projects are covered by any employment agreements with any of Traffic Engineer A’s previous employers.
Ethics in the Transportation Profession (continued)

Question:
*Is it ethical for Traffic Engineer A to reference previous projects she has worked on for other employers on her website in the manner indicated?*

Survey results:
- Respondents who answered yes: 91%
- Respondents who answered no: 9%
- Respondents with < 20 years experience who answered yes: 88%
- Respondents with > 20 years experience who answered yes: 92%

Typical comments from respondents who answered yes:
- Yes, if it includes the name of the firms also.
- These projects are directly attributable to the individual. As long as there is disclosure that the subject work was performed by the engineer while with another company, this should be okay.
- She is now working on her own.
- Yes, if the work is described as being done while at the other company and with the company’s consent.
- Traffic Engineer A would only claim credit for the traffic impact studies and other studies she conducted and would not state or imply that clients of other consulting firms are a client of Traffic Engineer A. None of the subject projects are covered by any employment agreements with any of Traffic Engineer A’s previous employers.
- Traffic Engineer A should acknowledge the consulting firm associated with each study in her narrative.
- She is only advertising her specific role in the impact studies. If it is the same information she would include in responding to an RFP, then it should be okay on the Web.
- It is ethical to list work experience gained while working for another firm. It would be even better if you had letters of recommendation and/or permission from your previous employer.
- No conflict as long as she clarifies that this was work done while employed by a different firm.
- Yes, as long as she clearly identifies what she was responsible for.
- This is appropriate with full disclosure.
- It would seem if the work is deemed non-confidential and not restricted by employment agreements, then the engineer would be able to refer to what she has done for previous employers.
- It is an accurate representation of work she conducted and the information is non-confidential.
- She has no agreements with her previous employer that would not permit this. The website is in effect a resume with credit to her previous employer.
- As long as the traffic engineer clearly states that the work was performed as an employee of another company and that none of the pictures were obtained as an employee of the company she left, it should be ethical to list those projects.
- On the web page, Traffic Engineer A would need to state that Traffic Engineer A specifically completed the TIA examples and not the new firm she is creating.
- Yes, if she makes it clear what firms did the work, it is ethical to describe her role in those projects as an employee of those firms. It is simply stating facts about her work history.
- Yes, if credited appropriately to the previous employer, it is in essence a detailed resume.
- She did the work and should be able to indicate what she has done in the past.
- It becomes part of her resume.
- If her work is accurately described and all projects properly attributed, that should be just fine. It is a practical matter that in today’s job market, people move around, and it would be unfair to not let people take credit for their accomplishments.
- Her experience comes from all her past work. As long as she only claims the work she has done, it is ethical.
- There are obvious legal channels for making sure that the information being provided is presented fairly and accurately.
- The traffic engineer’s previous work is extremely relevant to the services she is now providing. She might want to clarify that the experience was gained at a previous firm, but she should definitely be able to advertise her experiences.
- I believe it is acceptable so long as Traffic Engineer A only references work she completed and makes specific note that such work was done while employed at the firm. This would be the same as any resume.
- Conditionally, but only as part of his/her resume and not as part of the new company’s accomplishments.
- This one is solid - credit and disclaimers appear to be appropriately provided to the previous firm, and the engineer is clearly responsible for the work.
- No problem.
- Yes, provided she clearly indicates who her employer was at the time and the exact services that person performed.
- Yes, but only if she specifically states under each project that she performed that work while employed at her previous employer and specifically names that previous employer in that description. For example, the description for each project needs to include a statement such as, “I performed this work in 2006 while employed at ABC Consulting.”
Ethics in the Transportation Profession (continued)

Typical comments from respondents who answered no:
- Traffic Engineer A needs to separate herself from her previous firm’s work. She can refer to the types of work, but it’s a little misleading to imply that her new self-owned firm worked on specifically-named projects. Perhaps verbally or in resumes, proposals, and statements of qualifications she can cite these projects, but a website might mislead viewers.
- The projects and work described may be placed in Traffic Engineer A’s resume, but it should not appear elsewhere on the website, as it gives the false impression (whether stated, implied or otherwise) that her firm was retained by the client, rather than by the past employer.
- She can list the projects on a resume of her professional experience but not as “company” experience, as this is misleading.
- No, unless written consent is given by the previous employers.

Opinion of the Board of Ethical Review:
It would be ethical for Traffic Engineer A to use her work while under employment with the other firms in the manner indicated provided there is no misrepresentations or misleading information either expressed or implied and provided there is full disclosure and attribution accorded to the former employer firm.

Main conclusions of the Board of Ethical Review:
The promotion and marketing of traffic engineering services and the material utilized in promoting and marketing those services can sometimes raise sensitive ethical issues. Including or excluding certain information and material in those promotional and marketing efforts can often raise ethical concerns both because of what is and is not communicated. The obligations of a traffic engineer to be objective and truthful and to not falsify qualifications or engage in misleading or deceptive activities are fundamental to appropriate ethical conduct by engineers involved in these matters.

The Board is of the view that in the present case, Traffic Engineer A may include the referenced materials and photographs provided there is no misrepresentation or misleading information either expressed or implied and provided there is full disclosure and attribution accorded to the former employer engineering firm. In addition, the Board is of the view that any references to Traffic Engineer A’s services either in a resume or on the Web site should also describe the scope and limits of Engineer A’s contributions and provide appropriate credit/acknowledgements of Traffic Engineer A’s former employer (e.g., include a brief synopsis or summary of the nature of the project) so that the former employer is accorded appropriate recognition and Traffic Engineer A’s contributions are placed in proper context.

SITUATION 4
In response to a public agency request for qualifications (RFQ), Transportation Professional A submits his firm’s qualifications to a state DOT for a public project using the state’s public procurement procedures. Prior to the interview process, Transportation Professional B, a competitor of Transportation Professional A, whose firm also intends to respond to the same RFQ, submits a state Freedom of Information Act (FOIA) request in order to obtain a copy of the qualifications information Transportation Professional A submitted to the state. The state provides the information to Transportation Professional B. Thereafter, Transportation Professional B submits his firm’s qualifications to the state agency for the same public project.

Question:
Was it ethical for Transportation Professional B to make the FOIA request in connection with the state’s procurement of consulting services?

Survey results:
Respondents who answered yes: 33%
Respondents who answered no: 67%
Respondents with < 20 years experience who answered yes: 24%
Respondents with > 20 years experience who answered yes: 38%

Typical comments from respondents who answered yes:
- Yes, so long as none of the information in the RFQ is deemed proprietary or confidential.
- If it is public information, there is no ethical issue.
- Any information that is subject to FOIA is appropriate.
- It seems like it’s not a question of ethics whether Transportation Professional B can file a request. The bigger issue to me would be how the state handled it. In my experience, information submitted by consultants in response to an RFQ is confidential during the selection process and only shared after the conclusion of the process, if requested.
Ethics in the Transportation Profession (continued)

- Transportation Professional A knew, or should have known, that information submitted to the DOT is subject to FOIA. If he wanted to keep it from Transportation Professional B, he could have waited until the deadline was near.
- Yes, if the state allowed it.
- Freedom of Information means that anyone is allowed to view the information. Knowing your competition is important, and it’s valuable to know what you have to offer in comparison. But, even with knowing their competition’s qualifications, Transportation Professional B cannot falsify their own RFQ.
- What dumb state does not require them to be submitted at the same time to prevent this?
- On the surface, the information is public. The state DOT could unmuddy the water by informing Transportation Professional B that the information will be forwarded to him after the selection process has been completed.

Typical comments from respondents who answered no:

- If the request was to obtain the RFQ submission of another consultant before the submission date, this does not seem ethical (or legal). I would presume that documents for an open RFQ would not be released from a public agency until after the selection process has been completed. In order to have a fair selection process, all consultant teams should have the same information. If Consultant A obtains the material from Consultants B and C, then Consultants B and C should receive copies of the information from all other competitors as well.
- It may be legal but not ethical. Most submittals are protected as a part of the process until complete.
- One should submit one’s own work and not be privy to other consultant’s submissions.
- Transportation Professional B copies information provided by A in the RFQ and tries to score higher in the interview by having inside information before the interview.
- Not without Transportation Professional A having the same opportunity.
- While an RFQ is being processed and under consideration, this information should not be made public for the period of time that the RFQ is being evaluated. This is a slippery slope. Plus, in some states, there is a cone of silence once the advertisement goes out.
- Technically, Transportation Professional B can obtain that information, but they are using this information to gain an unfair advantage in the process.
- All companies responding to the RFQ should have the same information available. Since Transportation Professional B has additional information, they have an unfair advantage over Transportation Professional A in responding to the RFQ.
- Our profession should not purposefully and knowingly undercut one another. It can be inferred that Professional B was obtaining Professional A’s qualifications to work off of and build on whatever they submitted. If that is not the case, Professional B should have gone directly to Professional A. While it may be legal, nothing about what Professional B did is ethical, and those practices will only make our profession worse.
- The DOT should not provide pre-decision documentation under an FOIA request.
- While technically legal, it is unethical as Transportation Professional B now has an unfair advantage as he has access to information prior to submission of his RFQ. It would not be unethical to request the information after the DOT has made its selection.
- While it may be legal, that was unfair and gave Transportation Professional B an advantage.
- Clearly, the FOIA request was to gain an advantage in the RFQ process. That is not what FOIA requests are for.
- Without getting into a specific discussion of FOIA itself, the potential ramification of this particular situation I think is obvious.
- The state should not have provided the information until after the project was awarded. Transportation Professional B should be allowed to obtain the qualifications, but it should be after the award process.
- This is a loophole abused by the professional in what should be a confidential and competitive process for consultant selection.
- I think it was unethical for the state to provide the information. I think it is unethical for B to ask for that information, simply because they could use that info to their advantage, by providing individuals on their team that meet or exceed those that would be provided by A, as now A’s possible weaknesses are revealed. If the info was not known, B may have provided “lesser” qualified individuals from its team to "squeak by” on the qualifications. My experience has been to review the qualifications after the deadline, similar to a bid opening process, which would not allow this situation to occur.
- The state was not obligated to provide the materials to Transportation Professional B during the RFQ period. All RFQ submittals could have been made publicly available after the RFQ deadline.
- While what Transportation Professional B did may be legal as described, it is unfair for B to use a legal loophole to gain an advantage over A.
- Transportation Professional B should have known that the information was privileged and not subject to dissemination until after the RFQ had closed and awarded. Regardless that DOT improperly released the information, B should not have asked for it in the first place.
- It may be legal, but he is seeking an unfair advantage over his competitor.
Ethics in the Transportation Profession (continued)

Opinion of the Board of Ethical Review:
It was ethical for Transportation Professional B to make the FOIA request in connection with the state’s procurement of engineering services, pursuant to the State’s RFQ procedures. However, in order to avoid any appearance of impropriety, Transportation Professional B should have made the FOIA request subsequent to Transportation Professional B’s firm’s submitting its RFQ.

Main conclusions of the Board of Ethical Review:
Transportation professionals and transportation companies compete within the legal framework that exists at the local, state, and federal levels. While certain practices and activities are clearly beyond what is legally and ethically acceptable, it is also clear that free and open competition is a basic rule that generally exists under local, state, and federal laws and regulations.

In the context of the present case, the Board must assume that the referenced public procurement system was designed to advance the public interest in obtaining the most qualified engineering services and that the laws and regulations pertaining to that system were put into place to achieve that result. In this situation, overlooking the timing of Transportation Professional B’s request, which is of concern to the Board, Transportation Professional B appears to have been acting in a manner consistent with those laws and regulations, and the Board is not in a position to second guess or otherwise determine the appropriateness of those rules and regulations. Moreover, in view of the fact that the public procurement process is intended to be free and open in order to, among other considerations, avoid misrepresentations by parties including consultants, a review of a party’s representations provides the public with some degree of protection that misleading or deceptive representations are not made that could undermine the public interest.

In passing, the Board would caution engineers that in situations such as the one represented by the facts of this case, a transportation professional may wish to avoid including any confidential or proprietary information in this type of submission to a public agency since such information could be subject to public disclosure under applicable laws and regulations.

SITUATION 5
Question:
Traffic Engineer A, who has expertise in intelligent transportation systems (ITS), is asked by a Company Z that supplies ITS products to make a presentation at a conference on ITS. Traffic Engineer A agrees to participate. Company Z offers to pay Traffic Engineer A’s travel expenses and Traffic Engineer A accepts Company Z’s offer. Traffic Engineer A shares a draft of his remarks with Company Z. Company Z then requests that Traffic Engineer A include within his slide presentation some slides that highlight some of Company Z’s ITS products.

Question 1a:
Was it ethical for Traffic Engineer A to accept Company Z’s offer to pay his travel expenses?

Survey results:
Respondents who answered yes: 70 %
Respondents who answered no: 30 %
Respondents with < 20 years experience who answered yes: 82 %
Respondents with > 20 years experience who answered yes: 62 %

Typical comments from respondents who answered yes:
- It is just a business agreement.
- Based on the situation described above, there is no “quid pro quo,” so it should be acceptable.
- I don’t see where the acceptance of travel expenses in and of itself is unethical.
- It was ethical, although it seems important that Traffic Engineer A divulge the relationship somewhere in the presentation.
- Payment for services.
- Of course, the work is to their mutual benefit.
- Yes, indicating the support, etc. in the presentation. Disclosure, disclosure, disclosure.
- In effect, Traffic Engineer A is providing a sales pitch on Company Z’s products which provides value to Company Z. If the Engineer works for a public agency, this is not ethical since Public Agency Engineers cannot show bias toward a particular vendor for profit (travel expenses).
- It wouldn’t hurt if a disclaimer was also added that Company Z paid for his travel.
- Engineer A is functioning as a sub-contractor for Company Z. His form of payment is remuneration for the travel expenses. Mr. A should mention that he is representing the interests of Company Z at the conference.
- Yes, assuming that Traffic Engineer A is not a public employee. For public employees, these actions would be unethical.
- It is okay to accept the travel, but he cannot make his presentation an advertisement by including the information in his presentation.
- The engineer can do it and it is not unethical, they will just be “selling out” and should consider the fact that they will be considered the lap dog of Company Z by their peers.
Ethics in the Transportation Profession (continued)

- Yes, BUT, Traffic Engineer A should make it clear that he is attending on Company Z’s behalf (full disclosure).
- There are a number of additional questions that come to mind in the reading of this particular scenario, but without engaging in those additional details, it would be possible for Traffic Engineer A to make an objective presentation on the subject and thus there is no quid pro quo issue that could be attached to the covering of his expenses.
- It depends on whether Traffic Engineer A works in the public or private sector. In the private sector, I think it would be okay since it is essentially a mutually beneficial business relationship. If Traffic Engineer A works in the public sector, it would not be okay since Traffic Engineer A may be a customer of Company Z and that would be a conflict of interest.
- Traffic Engineer A should disclose that his/her presentation is sponsored by Company Z.

Typical comments from respondents who answered no:
- Accepting travel pay from Company Z gives the appearance of a lack of objectivity to Traffic Engineer A’s study results. What matters is what others will think.
- No, if A works for any government agency.
- If compensation is to be given to conference presenters, then it should be done through the organization sponsoring the conference. Payment from a vendor suggests a quid pro quo.
- Speaking at a conference is exposure and a marketing opportunity for the Traffic Engineer, and costs should be born by either him or his company.
- This does smack of a conflict of interest.
- It is against professional ethics to accept such offers in return for a presentation to include Company Z’s product that may result in bias selection of Company Z’s product by other professionals who respect Traffic Engineer A as an expert in ITS.
- Not if Traffic Engineer A is a public employee.
- This is pretty grey. I would say it hinges on how the request for additional slides is handled — if the slides are merited or not. If Traffic Engineer A feels comfortable making the call on what ends up in the presentation, with no basis on whether or not Company Z pays, I think this is ethical.
- Accepting funds gives the perception of accepting gifts for services.
- It depends. Initially as described, this is quid pro quo. If Traffic Engineer A does not disclaim that he was essentially paid by Company Z to make the presentation, it would be unethical. However, if A states that he is essentially a paid representative of Z in the presentation, it would be ethical. In this case, the differentiating point between ethical and unethical behavior is the disclaimer.
- Absolutely not! Traffic Engineer A has compromised his ability to be objective and gives that air of objectivity by not identifying himself as an employee of Company Z or as a paid sponsor of the product. Consideration should be given to suspending the PE license of that individual.
- Traffic Engineer A should have notified the engineering society of his views

Opinion of the Board of Ethical Review:

*It was unethical for Traffic Engineer A to accept Company Z’s offer to pay Traffic Engineer A’s travel expenses.*

Question 1b:

*Would it be ethical for Traffic Engineer A to include within his presentation slides that highlight some of Company Z’s ITS products?*

Survey results:

- Respondents who answered yes: 60%
- Respondents who answered no: 40%
- Respondents with < 20 years experience who answered yes: 71%
- Respondents with > 20 years experience who answered yes: 54%

Typical comments from respondents who answered yes:

- It is “yes,” as long as the engineer qualifies Company Z’s products as examples of what is available in the marketplace.
- As long as he states that he is there representing Company Z and the products are relevant to the presentation topic.
- Yes it would, but he should divulge the relationship in his presentation.
- Payment for services.
- The work is to their mutual benefit.
- Yes, indicating support, etc. Disclosure, disclosure, disclosure.
- As long as Traffic Engineer A is not responsible for the purchasing, bidding or contracting of products from Company Z, it should not be a conflict of interest.
- If the engineer has used and tested their products and agrees they are quality products that he would recommend to others, then it is ethical. If he does not have any knowledge of the products, then no, it is not ethical.
- As long as Traffic Engineer A is not making untrue comments, this should be okay. It wouldn’t hurt if a disclaimer was also added that Company Z paid for his travel.
Ethics in the Transportation Profession (continued)

- That is what he is being paid to do and he is representing the interests of Company Z. It would be unethical to receive payment for the trip and not follow the terms of their agreement.
- Traffic Engineer A must clearly state that this is a presentation for pay and identify the slides provided by Company Z as their property.
- I think he can do it ethically if he has personal experience with the product, but he will label himself as a lap dog of the company.
- Yes, if Traffic Engineer A fully discloses the financial relationship.
- The key word is “some”. If Traffic Engineer A is doing a presentation on ITS, his presentation should include products from a variety of vendors, not just Company Z’s products, and this is based on a favorable experience with Company Z’s products. One would hope that a presentation on ITS would explain what ITS is to people who may not know, or who want to know, offer different scenarios in which ITS is used, provide a general idea what products are available for these scenarios, include some slides that highlight Z’s products, as well as products of other vendors.
- Traffic Engineer A should disclose that his/her presentation is sponsored by Company Z.
- Yes, if it was in the way he used them and benefit his goals.
- Traffic Engineer A has to feel comfortable making the call on what ends up in the presentation with no basis on whether or not Company Z pays.
- Yes, if Traffic Engineer A has used the specific products and honestly speaks to the experience in reference. Traffic Engineer A should also highlight other products or the potential for other products in the presentation so that it does not appear exclusive (unless the product is unique in its nature).

Typical comments from respondents who answered no:

- This is stickier. This is quid pro quo. If Traffic Engineer A uses slides from other companies and does not endorse, it may be acceptable.
- I’m making the assumption here that Traffic Engineer A did not disclose during his presentation that Company Z was paying his expenses, and I think inclusion of information about Company Z’s products is somewhat questionable unless Engineer A in fact has experience using those products in projects upon which to base his or her comments about the products.
- If he does, he is a salesman.
- There are a number of additional questions that come to mind in the reading of this particular scenario, but without engaging in those additional details, the presumption is that Traffic Engineer A has agreed to Company Z’s request and thus has exchanged his expertise for an endorsement of Company Z’s products.
- It’s okay to accept the travel expenses, however, it’s not okay to have product placement within his remarks.
- Accepting payment of travel expenses to deliver an infomercial for Company Z gives the appearance of a lack of objectivity to Traffic Engineer A’s presentation. What matters is what others will think.
- No, if Traffic Engineer A works for any government agency.
- In this example, this would be the repayment from Traffic Engineer A for the compensation of the travel. Even if Traffic Engineer A had already included photos of Company Z’s ITS products in their presentation naturally because of their superior performance, it could still be considered a conflict of interest since compensation was provided.
- It is against professional ethics to accept such offers in return for a presentation to include Company Z’s product that may result in bias selection of Company Z’s product by other professionals who respect Traffic Engineer A as an expert in ITS.
- It’s not ethical to be a paid spokesperson for the company.
- It depends. Initially as described, this is quid pro quo. If A does not disclaim that he was essentially paid by Company Z to make the presentation, it would be unethical. However, if Traffic Engineer A states that he is essentially a paid representative of Company Z in the presentation, it would be ethical. In this case, the differentiating point between ethical and unethical behavior is the disclaimer.
- It would be permissible if Traffic Engineer A states at the outset that he is being paid by Company Z, but even then I would consider this “sleazy.”

Opinion of the Board of Ethical Review:

*It would be unethical for Traffic Engineer A to include within his slide presentation some slides that highlighted some of Company Z’s products.*

Main conclusions of the Board of Ethical Review:

There is a concern that Traffic Engineer A’s judgment could be compromised by a relationship with a vendor whose products or services could be specified by the Traffic Engineer. While accepting a de minimis gift may not rise to an ethical violation, accepting something of substantial value could raise a serious ethical question. In the present case, Company Z, has offered to pay Traffic Engineer A’s travel expenses. While this alone (depending upon the amount, meeting location, and other factors) may not amount to substantial value, this offer combined with Company Z’s subsequent request that Traffic Engineer A include slides that highlight some of Company Z’s products suggests an effort by Company Z to influence Traffic Engineer A’s professional judgment in violation of the Code of Ethics.
This Week’s Survey Results (Survey 2)

Multimodal Level of Service

Earlier this month, The Urban Transportation Monitor sent via e-mail survey questionnaires on Multimodal Level of Service to 400 city and county traffic engineers. Responses were received from 44 cities and counties. This represents a return rate of 11%.

The results of the survey are published here.

How satisfied are you with the Highway Capacity Manual (HCM) LOS methodology, providing six levels of quality of service based on capacity?

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<th>Percentage of Respondents</th>
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<tr>
<td>very satisfied</td>
<td>5%</td>
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<tr>
<td>satisfied</td>
<td>30%</td>
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<tr>
<td>neutral</td>
<td>30%</td>
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<tr>
<td>unsatisfied</td>
<td>35%</td>
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<tr>
<td>very unsatisfied</td>
<td>0%</td>
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What are the main reasons for your answer to the previous question?

- It is the national standard and Florida has been and will continue to be a major contributor.
- Current delay thresholds somewhat reflect driver perceptions. LOS stated here is motor vehicle delay, not quality of service. Quality of service involves more than motor vehicle delay.
- Doesn’t encompass all travel modes and reflect varying tolerances to delay depending on location.
- It goes into a great level of detail and it penalizes high capacity bike and walk areas for being too successful. A full sidewalk should not have a direct relationship to a lower LOS.
- I was glad to see the multi-modal LOS features in the new manual but was disappointed after testing the tool. Parameters that we reasonably expected to “move the dial” did not significantly change the LOS. There seems to be a sensitivity issue with the new procedures. For example, we analyzed a segment with and without a physically buffered bikeway and the results were unrealistically close.
- Too auto focused. Not convinced that capacity is best indicator of service.
- More levels will be more difficult to explain the difference.
- The bar for assigning A, B etc. is set too low. Politically it is difficult to defend a standard of LOS A or B for bikes or pedestrians when we are experiencing LOS F for vehicles, yet bike/ped LOS A and B are not that great. Very data intensive, does not lend itself to system planning nor to development review, and difficult for advocates to apply the methodology.
- It’s too complicated.
- The Level of Service concept of A to F is not matching the public’s reality. No one wants their student to get a D, but that’s really not bad in our urban settings.
- HCM is clear and easy to follow. Additionally, several software programs are based on the HCM methodology to make it easier to do the calculations.
- Scoring on a point system seems too subjective. The research findings were based on limited funding and are bound to be overturned in the future.
- Auto LOS is widely recognized as a poor performance measure to use for design transportation systems in urban areas as it ignores other important goals, including multimodal access, safety, and land use goals.
- Only accounts for vehicles.
- The public has a hard time understanding how a D is considered acceptable.
- First of all, it has been used for a long time. Second, it is not just based on capacity, but also other criteria pertaining to each specific type of facility and modes of transportation. I have seen different, more complicated definitions of LOS, such as A-G, being used in other publications, but just a different way of characterizing the LOS. A-F grade is acceptable and relates with humans’ expectations reasonably well.
multimodal level of service (continued)

- I work for a state DOT. While they sometimes raise other concerns, besides capacity, the public we serve seem to be concerned primarily about capacity, meaning the ability to go where they want when they want with as little delay as possible.
- Level of Service is easily understood by non-professionals and the new multimodal LOS provides comparative performance measures using the same tool.
- It appears to be the best tool around. It is popular, the concepts are relatively easy to follow, and it does take account of driver behavior.
- The HCM methodology is not a bad method, but quality of service could be based on more factors than just capacity.
- Capacity (defined as roadway capacity for the purposes of the following comments) is only one of many considerations when assigning LOS to facilities. Capacity is applicable for vehicle flow but is not as applicable in determining bicycle, pedestrian and transit LOS for a chosen facility. Assigning LOS grades based primarily on capacity is misleading and almost useless for bicycle and pedestrian facilities in particular.

should LOS be based on traveler perceptions?

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<th>Percentage of Respondents</th>
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<tr>
<td>yes definitely</td>
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<tr>
<td>yes</td>
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<tr>
<td>neutral</td>
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<tr>
<td>no</td>
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<tr>
<td>definitely not</td>
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what are the main reasons for your answer to the previous question?

- From a planning perspective, LOS is used to determine the number of lanes needed for future demand. The future is difficult to predict so perception would be difficult to measure. The perception seems to come into play more when doing operational types of analysis to understand or help predict traveler behavior as part of active traffic management strategies.
- There may be some value in LOS delay thresholds being different in urban and rural areas. For instance, LOS D/E is 55 seconds of vehicle delay. Perhaps this could be increased for urban areas where drivers tolerate a higher level of congestion and costs to improve to LOS D are high, which may prevent agencies from doing any improvements at all.
- I would say yes - but this could be very hard to collect.
- Perception is important, but some empirical data should also play an important role.
- Only in terms of multi modal — where perception (of safety, especially) has a big impact. For instance, a wide, smooth bike lane may have more than enough capacity but if on a 60 mph road, it’s actual utilization may never come close to its theoretical capacity.
- Traveler perceptions is not a very good indicator.
- Perception of safety and comfort is what leads people to walk or ride. In the US, crowding (v/c) is typically not an issue for bikes and pedestrians.
- I work with the public. I know perception is very different among people.
- There is good and bad with that. The problem with the LOS is that if your city’s policy is to increase active transportation, then the performance measures are not aligned with what the perception is.
- Not just traveler perceptions, but also tangible field conditions.
- The term ‘service’ is typically defined as subjective to the person receiving the service. “
- Engineers prefer a numerical result and so does the public from engineers. Somehow, perception has to be determined numerically.
- My answer is “maybe” because I do think that there should be some sort of standard and if it was based on travel perceptions, we wouldn’t have any consistency nationwide since people in larger areas tend to have higher thresholds for congestion.
- End user perceptions should play a part.
- Such as pedestrian, bicyclists and transit, the LOS should be based on traveler perceptions. Even the current A-F LOS designation based on capacity also ties indirectly with travelers’ perceptions as well, because it has to do with spatial density of the vehicles on roadways.
- In a perfect world, I would say “yes, definitely.” Realizing, however, that perceptions vary with the individual and can be difficult to assess, there may be practical limits to what we can do in this regard. We need to use quantitative, calculable measures.
- Performance is mostly a determination of traveler perception of acceptability.
- The LOS is a combination of driver perception and capacity i.e. physical space and time to process vehicles
Multimodal Level of Service (Continued)

What should LOS be based on?

- Volume to capacity.
- Delay of all modes, comfort (speed, variation in speed, lane changes, driveway/side street friction, etc.), appearance (vegetation, active frontages, human-scale references).
- Delay for motor vehicles is good. More quality-based for pedestrians and bicyclists.
- A simple set of measures that can be easily gathered. More detailed analysis can be left to engineering judgment. The LOS should be a screening process, not a full design.
- Physical conditions, including dimensions (road, lanes, sidewalks), volumes, width, parking availability, pavement condition, number of driveways, accident history, etc.
- Roadways need to consider intersection capacity and other facilities should account for perceptions, though quantified, that could increase or decrease capacity accordingly.
- Volume to capacity in addition to delay.
- Speed and volume of adjacent vehicle traffic; presence/volumes of buses and trucks; presence and type of buffer from adjacent traffic; width of b/p facility; pavement quality; presence of illumination; attractiveness of adjacent land uses; and presence of landscaping.
- I think we should keep the Automobile LOS. It will be affected by bicyclists and pedestrians. The city has adopted a complete streets approach to traffic impact analysis. I would like to see the automobile LOS only considered as an impact but make sure new developments are upgrading bicycle and pedestrian facilities to current standards.
- It should be a function of community values.
- Traveler perceptions, all users of the roadway: bikers, pedestrians, etc.
- The conditions used are fine, but the output should be based on a measure of effectiveness rather than a unitless point rating system
- All factors: vehicles, signal timing, pedestrians, bikers, etc.
- More than just peak 15 minutes.
- As it stands now, different criteria have been used in different facilities and modes of transportation. If you were to propose new criteria in addition to those, I will suggest the “safety” measure. That will also lie into the Highway Safety Manual.
- For about 30 years now we’ve been using some variant of delay as the measure for intersections and elements thereof. It seems like a good basis, if a cumbersome one to calculate. Computationally, capacity is easier, but I don’t think it serves the public as well.
- The facility’s performance.
- The LOS should be based on several factors, including capacity, traveler’s perception, volume and various travel modes of users.

Which transportation modes do you believe the concept of LOS is applicable to?

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<th>Percentage of Respondents</th>
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<tr>
<td>auto only</td>
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<tr>
<td>all highway modes (auto, bicycle, pedestrian, transit, truck)</td>
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<tr>
<td>other</td>
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Does your agency believe that auto, bicycle, pedestrian, and transit LOS should all be evaluated on urban streets?

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<th>Percentage of Respondents</th>
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<tbody>
<tr>
<td>yes definitely</td>
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<tr>
<td>yes</td>
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<tr>
<td>neutral</td>
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<tr>
<td>no</td>
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<tr>
<td>definitely not</td>
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Multimodal Level of Service (Continued)

What are the main reasons for your answer to the previous question?

- Our agency has been on the forefront conducting research and implementing bike, pedestrian, and auto level of service.
- Policy says yes, still working on how to incorporate evaluation into analysis and design.
- Such policy decision has not been investigated and presented to decision makers.
- Still figuring this out.
- We wish to improve conditions for all users of the street system; working toward moving away from an auto-centric LOS-based impact analysis to a complete streets approach so that we can pursue multi-modal mitigations that can also demonstrate a quantifiable improvement over existing conditions.
- The City of Austin is committed to the complete streets approach to managing our rights of way. All modes need space, and streets should serve the community — not the other way around.
- To identify the improvements in modes.
- ODOT is interested but typically does not assign resources to evaluate bike/ped/transit LOS on urban arterials. The only policy standard in place is v/c - currently practitioners have no way to make tradeoffs between modes.
- We believe that a project’s impact on all modes of transportation should be considered when processing a new development.
- Yet, the new LOS does not reflect our needs.
- It will be hard to evaluate LOS for other than vehicles. Additionally, it will cost a lot and take more time. There should be other ways to evaluate the roadway LOS for other modes than the HCM methodology.
- Depends on the type of study. For routine, small projects, multimodal LOS would be overkill and yield little in terms of unusual findings.
- If LOS is used as a performance measure, it should cover all users. However, this still leaves important goals, such as safety and land use, unaccounted for.
- The last five years or so, the public has become smarter in their understanding of what the LOS does not include. This city also has heavy bicycle traffic.
- All are viable transportation modes. Frequently improving corridors to accommodate acceptable LOS for cars means providing no accommodations for other users (LOS F for ped, bike and transit).
- On the rural area as well.
- There are probably only one or two dozen people in my agency more than vaguely aware that LOS can be calculated for other modes.
- Our governor has mandated a “complete streets” policy, but we are still working through what that means.
- Why should LOS not apply to urban streets?
- The discussion in the office is going in that direction, but many are skeptical. The level of congestion, vehicular and pedestrian, in NYC poses challenges to the HCS in simulating New York conditions. Thus, adding more modes to the same shared network is simply problematic.
- I think that the character of the street should determine what level of services should be evaluated.
- A multimodal transportation district was established in central Tallahassee in 2009.

How should the LOS be reported for the different modes using an urban street?

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<th>Percentage of Respondents</th>
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<tr>
<td>report the LOS for each mode separately</td>
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<tr>
<td>report one overall LOS for the street</td>
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<td>other</td>
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How should each mode be treated independently (current HCM approach) or is it better to use each simultaneous, interactive multimodal LOS approach?

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<th>Percentage of Respondents</th>
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<tr>
<td>mode should be treated independently</td>
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<td>a simultaneous, interactive multimodal approach?</td>
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<tr>
<td>other</td>
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Multimodal Level of Service (Continued)

What are the main reasons for your answer to the previous question?

- If there are no bike or pedestrian facilities on the network, it may not make sense to do an interactive approach, for example along an interstate or other facilities connecting regions where the context is to move people and freight only. Should there be a consideration for LOS of rail, aviation, and truck? There seem to be two types of multimodal (1) the urban street concept where bike, ped, auto and transit are all working to move people and (2) inter-regional concept where rail, aviation, truck, and auto are moving people and goods.
- More effort is needed to design all streets with a simultaneous, interactive multimodal design approach, but in all cases the LOS for one mode will have a higher priority than others, so overall street LOS should reflect individual LOS for each mode as well as composite.
- Knowing the modal components of an overall multimodal score may allow some adjusting to take place. If a multimodal standard is used, it would be beneficial to know how each mode contributes to this score when tradeoffs have to be made to adjust the overall score.
- This question needs a lot of thought. I don't think the industry is ready to answer this question. ODOT is looking at Traffic Level of Stress as a good screening indicator, along with the Travel Cost Index (TCI), to simultaneously measure accessibility across all modes.
- Four separate calculations adds to the cost and data collection of analyses is one key reason; difficult to collect all the data required for the current HCM method.
- Each mode is important and no one mode should dominate a street's score.
- To identify the improvements needed in each mode.
- Method should allow trade-offs and comparison of alternatives but not report as single LOS. MMLOS should be a tool - decision-makers (not just engineers) still have to make the tough decisions.
- I think the most important LOS is for the auto, but I think the LOS should be considered for other modes of transportation also.
- There are many different situations that are important here.
- It is better to evaluate the overall LOS for roadways and recommend improvements that will improve the overall system rather than focusing in evaluating one mode and come up with improvements to that mode which for sure will affect other modes. For example, better vehicle LOS mean higher speeds and would impact pedestrian and bike activities.
- Each mode has a different perspective. Combining mode LOS would dilute the amount of information that is available.
- Theoretically, the current HCM does use simultaneous calculations, in that changes to auto design affect ped LOS. However, refinement of the models is likely needed to get these relationships right.
- Each of the modes can be treated separately, but possibly the engineer/planner should have the means to determine for the locale the percentage of impact of each individual mode to the total result.
- One simultaneous LOS for all modes of transportation might be interesting and useful. I need to see it before convincing myself that it is definitely useful. On the downside, the unified multimodal LOS index will require much more data to derive the level of service.
- On every road and street I work with, the auto LOS would or should dominate the calculation, but we value non-auto travelers as well. Having a composite measure could allow us to better observe how changes in volume or capacity for one mode would affect the LOS of the others.
- An independent analysis helps isolate the mode performance, although an interactive multimodal LOS could be beneficial in measuring the interaction of modes.
- When one mode is as dominant as is the case auto or pedestrian, then the very minor modes can easily be skewed in relation to the dominant modes.
- A multimodal approach would certainly be more advantageous in balancing the needs of all transportation modes
- Every place is unique and a single approach will not work for every community. Flexibility is preferred.

Do you believe your agency’s engineering department would be supportive of a multimodal LOS approach or would it be more supportive of a traditional auto only approach?

<table>
<thead>
<tr>
<th>Percentage of Respondents</th>
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<tbody>
<tr>
<td>multimodal approach</td>
</tr>
<tr>
<td>auto only approach</td>
</tr>
<tr>
<td>other</td>
</tr>
</tbody>
</table>
Multimodal Level of Service (Continued)

If a professionally acceptable multimodal LOS approach(es) was available do you believe your agency would attempt to use it?

<table>
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<tr>
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<th>Percentage of Respondents</th>
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<tbody>
<tr>
<td>yes</td>
<td>96%</td>
</tr>
<tr>
<td>no</td>
<td>4%</td>
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</table>

Would it be desirable for each mode to have independent nationally recognized approach (e.g., Transit Capacity and Quality of Service Manual) or would it be desirable to have the modal approaches contained in one nationally recognized document (e.g., HCM, AASHTO's “Green Book” [Geometric Design of Urban Streets and Highways])?

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<th>Percentage of Respondents</th>
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<tbody>
<tr>
<td>one document for all modes</td>
<td>74%</td>
</tr>
<tr>
<td>independent documents for each mode</td>
<td>0%</td>
</tr>
<tr>
<td>other</td>
<td>26%</td>
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</table>

Any other comments?

- New data sources are coming online so fast. I think we need to move more to engineering judgment and farther away from cookbook manuals - they are out of date by the time they come online.
- One publication is enough. Too many documents cost too much.
- I would prefer a national approach, or at least by region, as it makes it easier for the city to determine a means for LOS which is the same for all studies.
- Good proposal. A paradigm-shift step.
- My comments above about what would be “desirable” notwithstanding, realizing that resources are finite, I would have difficulty advising my congressman to support capacity-related research on modes other than autos and transit. The bicycle and pedestrian modes need facilities, but in most of the country, they don’t have enough volume for capacity to be an issue.
- It would normally be tested, and if proven to be effective, then it could be adopted.
REQUESTS FOR PROPOSALS

1. Downtown Parking Analysis
   Agency: City of Columbus, IN
   Deadline: March 29, 2013 by noon
   Contact: Heather Pope, Redevelopment Director, Columbus Redevelopment Commission
   Tel. (812) 376-2547 or e-mail: h pope@columbus.in.gov
   Website: http://www.columbus.in.gov/linkservid/7DA AE50D-BC30-5BDD-7FF87F6A5FBDAC58/showMeta/0/
   Description: The City of Columbus Redevelopment Commission requests proposals from qualified firms for the purpose of selecting a parking consultant to analyze the existing public parking in downtown Columbus and recommendations for best use of existing parking. The selected consultant will analyze the current parking conditions of the Downtown area and make recommendations for best practices to maximize their use for downtown benefit. The consultant will also analyze the future needs of the Downtown area and make recommendations of future parking policies and practices that will optimize the vitality of our downtown community of businesses, residents, customers and visitors. The City of Columbus is also working to provide alternatives and other downtown users with excellent transit and bike and pedestrian options. Plans are being developed to make sure these options are safe, viable and efficient. With this in mind, we are looking for consultants that understand how parking and management thereof can bring about this vision.

2. Multimodal Transit Facility
   Agency: Central Texas Rural Transit District
   Deadline: April 8, 2013, by 5 p.m. CST
   Contact: Joe Guajardo, Assistant General Manager at 1(800)710-2277 ext 229.
   Website: http://www.cityandruralrides.com/Procurement_htm
   Description: The Central Texas Rural Transit District (CTRTD) is requesting qualifications statements from professional service teams to assist with conceptual design, advanced planning, final design, construction documents, bid phase, and construction phase related services, to modifying an existing building into a multimodal transit terminal in Early, Texas to serve rural transit customers in Brown County and the surrounding area. Necessary services include surveying, geotechnical analysis, architecture, structural engineering, civil engineering, mechanical/electrical/plumbing (MEP) engineering, landscape design and construction phase services. The facility is located at 1031 Early Blvd. (US Hwy 377/67) in Early, Texas. The selected consultant team will be required to comply with the attached Specifications. The Chatham County Department of Transportation (TxDOT) and Federal Transit Administration (FTA) requirements. All construction documents and other documentation produced by the selected team must meet and address all TxDOT and FTA requirements. The selected team will be required to have external knowledge and experience with federal and state procurement, design, and construction management and administration services, and compliance requirements associated with the expenditure of federal and state transit funding. The project team should evidence extensive expertise in the management of design and construction related activity.

3. Interchange Modification Report (IMR)
   Agency: Chatham County-Savannah Metropolitan Planning Commission/Coastal Region MPO
   Deadline: April 22, 2013 at 5 p.m.
   Contact: Jessica Hagan, tel. (912) 651-1474, email: haganj@thempc.org
   Website: http://www.thempc.org/Transportation/Transportation_RFP.htm
   Description: RFP NO. 13002
   The Chatham County-Savannah Metropolitan Planning Commission/Coastal Region MPO is seeking requests for proposals to conduct a Park and Ride Lot Study. Please see our web page.

4. Park and Ride Lot Study RFP
   Agency: Chatham County-Savannah Metropolitan Planning Commission/Coastal Region MPO
   Deadline: April 22, 2013 by 5 p.m.

Contact: Jessica Hagan, tel. (912) 651-1474, email: haganj@thempc.org.
Website: http://www.thempc.org/Transportation/Transportation_RFP.htm
Description: Bid Number 13001
The Chatham County Savannah Metropolitan Planning Commission/Coastal Region MPO is seeking requests for proposals to conduct a Park and Ride Lot Study. Please see our web page.
## CONFERENCES

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<tr>
<th>DATES</th>
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<th>MAIN TOPICS</th>
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<tr>
<td>April 9-10</td>
<td>Kansas State University’s Kansas Transportation Engineering Conference</td>
<td>Manhattan, KS</td>
<td>Kansas State University Student Union</td>
<td>A conference program is not yet available, but the conference is being sponsored by the K-State University Transportation Center, KDOT, Kansas County Highway Association, Kansas Chapter of APWA, Kansas Association for Uniform Traffic Control, the FHWA, Mid America Transportation Center and the Kansas University Transportation Research Institute.</td>
<td><a href="http://www.dce.k-state.edu/conf/transportation/">http://www.dce.k-state.edu/conf/transportation/</a></td>
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<tr>
<td>April 9-11</td>
<td>MetroRail 2013 by Terrapinn</td>
<td>Madrid, Spain</td>
<td>Hilton Madrid Airport Hotel</td>
<td>MetroRail is a senior level conference about the key challenges and opportunities facing the world’s metro rail operators. It is neither a technical conference nor is it a large exhibition. It is a meeting place for the executives responsible for running the world’s metros. Attendees will learn to finance, plan and implement metro rail projects by hearing from a diverse, senior, influential and successful group of metro operators on overcoming challenges in increasing urban populations by building line extensions and new lines, as well as managing operations effectively to drive revenues and profits.</td>
<td><a href="http://www.terrapinn.com/2013/metro-rail/">http://www.terrapinn.com/2013/metro-rail/</a></td>
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<tr>
<td>April 14-16</td>
<td>IBTTA Transportation Finance and Mileage-Based User Fee Symposium: Innovating to Find New Revenues</td>
<td>Philadelphia, PA</td>
<td>Doubletree by Hilton</td>
<td>This Summit will explore the full range of issues affecting surface transportation policy, finance and funding. Sessions will address the latest studies in mileage based user fees and the diverse range of financing tools available to toll agencies, state DOTs and local governments. IBTTA is co-hosting this meeting with AASHTO, I-95 Corridor Coalition, MBUFA and the Reason Foundation and TRB.</td>
<td><a href="http://www.ibtt.org/Events/EventDetail3.cfm?ItemNumber=6300&amp;RDtoken=22941&amp;userID=">http://www.ibtt.org/Events/EventDetail3.cfm?ItemNumber=6300&amp;RDtoken=22941&amp;userID=</a></td>
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<tr>
<td>April 14-17</td>
<td>National Trails Symposium AmericanTrails.org</td>
<td>Near Fountain Hills, Mesa and Scottsdale, AZ</td>
<td>Fort McDowell Yavapai Nation Resort Destination, Radisson Resort &amp; Conference Center</td>
<td>The Symposium addresses both non-motorized and motorized issues and the American Trails vision for trails and greenways nationwide. Dozens of speakers and keynote presenters from across America cover the top topics and state of the art technology.</td>
<td><a href="http://americantrails.org/2013/index.html">http://americantrails.org/2013/index.html</a></td>
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<tr>
<td>April 15-18</td>
<td>2013 Joint Rail Conference: Next Generation Rail—Meeting Challenges of the Future</td>
<td>Knoxville, TN</td>
<td>Knoxville Convention Center</td>
<td>The purpose of this conference is to promote the dissemination of information and discussion of technological advances relevant to railroad operational and engineering issues and other matters. Topics to be discussed include railroad infrastructure, rail equipment, signal and train control engineering, planning and development, safety and security, energy efficiency and sustainability, and urban passenger rail transport.</td>
<td><a href="http://ctr.ra.utk.edu/jcr2013/">http://ctr.ra.utk.edu/jcr2013/</a></td>
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<tr>
<td>April 16-18</td>
<td>2013 International Highway Technology Summit – IHTS Delivering Innovative Approaches and Best Practices Co-sponsored by the Transportation Research Board</td>
<td>Beijing, China</td>
<td>Beijing International Convention Center</td>
<td>The conference will include four tracks that will address highway engineering, bridge and tunnel structures engineering, traffic engineering and environment and sustainability. The focus of the conference will be on inspection, maintenance, and management of bridges and tunnels; pavement technology; road environment and safety; and intelligent transportation systems. It will include two days of invited keynote presentations, technical sessions, and a one day study tour.</td>
<td><a href="http://www.trb.org/Calendar/Blurbs/166851.aspx">http://www.trb.org/Calendar/Blurbs/166851.aspx</a></td>
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<tr>
<td>April 21-24</td>
<td>14th International Conference on Automated People Movers and Automated Transit Systems American Society of Civil Engineers’ Transportation and Development Institute</td>
<td>Phoenix, AZ</td>
<td>Phoenix Marriott Mesa Hotel and Convention Center</td>
<td>The conference theme is “Half a Century of Automated Transit - Past, Present and Future,” and it will feature a look back over the past five decades, and examination of the current state of AMTs and related ATS, and and exploration of what the future might hold. Planners, inventors, designers, suppliers, builders, government officials, owners and operators of automated transit of all forms will be in attendance to have a say on technologies such as Personal Rapid Transit and Robocars.</td>
<td><a href="http://www.asce.org/apm2013">www.asce.org/apm2013</a></td>
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<td>April 22-24</td>
<td>23rd Annual ITS America Annual Meeting</td>
<td>Nashville, TN</td>
<td>Gaylord Opryland Convention Center</td>
<td>This year’s theme “Real Progress — Great Future” will touch on how far we’ve come as a nation in the deployment of ITS technologies and will also illustrate just how much further we can go to create a connected, efficient, sustainable and safe transportation system. The 2013 conference will offer opportunities to see the latest and future of intelligent transportation solutions from across the U.S.</td>
<td><a href="http://www.itsa.org/annualmeeting">http://www.itsa.org/annualmeeting</a></td>
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<tr>
<td>May 3-7</td>
<td>American Association of State Highways and Transportation Officials (AASHTO) Spring Meeting</td>
<td>Providence, RI</td>
<td>Westin Hotel Providence</td>
<td>Details of the meeting agenda have not yet been released.</td>
<td><a href="http://transportation.org/meetings/389.aspx">http://transportation.org/meetings/389.aspx</a></td>
</tr>
<tr>
<td>May 5-8</td>
<td>American Public Transportation Association 2013 Bus and Paratransit Conference</td>
<td>Indianapolis, IN</td>
<td>JW Marriott Indianapolis</td>
<td>Programming includes topics such as policy and planning, operations and maintenance, public transportation in today’s operating environment, technology, safety and security, procurement, professional development, and special issues on accessible transportation. The conference will include over 30 specialized educational sessions, technical training workshops, interactive presentations, special events, tours, and a bus display and exhibitor showcase featuring the latest bus and paratransit vehicles, products, and services.</td>
<td><a href="http://www.apta.com/mc/bus/Pages/default.aspx">http://www.apta.com/mc/bus/Pages/default.aspx</a></td>
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<tr>
<td>May 5-9</td>
<td>14th TRB National Transportation Planning Applications Conference</td>
<td>Columbus, OH</td>
<td>Hyatt Regency Columbus</td>
<td>The goal of this conference is to provide an outlet for new transportation planning techniques and methods. It will emphasize practical, innovative and timely technical and policy approaches to transportation planning through professional presentations, workshops and poster sessions spread over the course of five days.</td>
<td><a href="http://trbappcon.org/">http://trbappcon.org/</a></td>
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<tr>
<td>May 15-17</td>
<td>Women’s Transportation Seminar (WTS) Annual Conference</td>
<td>Philadelphia, PA</td>
<td>Sheraton Society Hill Hotel</td>
<td>The Annual Conference is the WTS annual networking event of the year. It attracts more than 500 corporate and governmental industry leaders worldwide. For the full duration of the conference, private corporations, public agencies and government officials invested in every transportation mode will exhibit, present, learn and network. Eight distinct events, including an opening night reception and a banquet dinner, will showcase the tremendous leaders represented.</td>
<td><a href="https://www.wtsinternational.org/networking/annual-conference/">https://www.wtsinternational.org/networking/annual-conference/</a></td>
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<tr>
<td>May 15-17</td>
<td>Road Safety on Four Continents (RS4C) Sponsored by the Swedish National Road and Transport Research Institute (VTI), the Research Institute of Highway (RIOH) (Ministry of Transport China), and the Transportation Research Center at Beijing University of Technology</td>
<td>Beijing, China</td>
<td>China People’s Palace</td>
<td>The conference addresses highway safety from a global perspective with tracks on safety research implementation and safety in developing countries. It will focus on the exchange of new findings on road safety, the transfer of road safety knowledge and the exchange of evaluated good practices.</td>
<td><a href="http://www.vti.se/en/road-safety-on-four-continents/">http://www.vti.se/en/road-safety-on-four-continents/</a></td>
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<tr>
<td>May 22-23</td>
<td>24th Annual CTS Transportation Research Conference</td>
<td>St. Paul, MN</td>
<td>St. Paul RiverCentre</td>
<td>The conference will act as a forum for researchers and practitioners from Minnesota and the Upper Midwest to share their research findings in a variety of transportation-related areas. Concurrent sessions are focused in four categories that match the Center’s research emphasis areas—Transportation Safety and Traffic Flow, Transportation Infrastructure, Transportation and the Economy, and Transportation Planning and the Environment—with a fifth category covering Education and Outreach issues.</td>
<td><a href="http://www.cts.umn.edu/events/conference/index.html">http://www.cts.umn.edu/events/conference/index.html</a></td>
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<tr>
<td>May 26-29</td>
<td>Intelligent Transportation Systems Society of Canada (ITS Canada) 16th Annual Conference and General Meeting</td>
<td>Toronto, Ontario</td>
<td>Fairmont Royal York Hotel</td>
<td>The conference will discuss developments and deployments in the field of intelligent transportation technology, presentation of technical papers, exhibition of technology providers and a tour of local traffic management facilities.</td>
<td><a href="http://itscanada.ca/">http://itscanada.ca/</a> Bruce Zvaniga, Director of Transportation Services in Burlington, (877) 213-3609, ext. 7976 or <a href="mailto:Bruce.Zvaniga@Burlington.ca">Bruce.Zvaniga@Burlington.ca</a></td>
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N/A = Not Available; m = member; nm = non-member. To list your transportation conferences here FREE, send all information as above to: The UTM Conference Dept., P.O. Box 12300, Burke, VA 22009-2300, or call (703) 764-0512, or fax (703) 764-0516, or email: editors@lawleypublications.com.
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<tr>
<td>May 26-30</td>
<td>60th UTP World Congress and Mobility &amp; City Transport Exhibition</td>
<td>Geneva, Switzerland</td>
<td>Palexpo</td>
<td>The biennial event will focus on the urgent need to transform urban mobility: with unchallenged car dependency, cities across the world will lose out in competitiveness and wealth creation failing to attract both businesses and people. The ‘green alliance’ of public transport, walking and cycling can fill that gap, but more is needed to change people’s mobility habits by providing services that fit changing lifestyle needs. As expressed in the slogan ‘i-MOVE 2.0, THE business model for tomorrow’, the event will constitute a major step forward in efforts to bring about the radical overhaul of the sector that is necessary in order to double the public transport market share worldwide by 2025.</td>
<td><a href="http://ultgeneva2013.org/">http://ultgeneva2013.org/</a></td>
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<tr>
<td>May 29-31</td>
<td>Intertraffic Istanbul Organized by Amsterdam RAI</td>
<td>Istanbul, Turkey</td>
<td>Istanbul Expo Center Turkey</td>
<td>Professionals from around the world visit and participate at Intertraffic Istanbul to keep up to speed with the very latest trends and developments. Intertraffic Istanbul is organized once every year to ensure that the products shown at the exhibition are totally new. The event offers solutions for problems regarding infrastructure, traffic management and parking. Intertraffic Istanbul attracts high profile visitors: final decision makers, co-decision makers and advisors from private ventures, contractors, local, national and international authorities. 4,801 professionals from 83 different countries worldwide. It features exhibits by manufacturers, importers and agents of products and services of infrastructure, traffic management, safety and parking who are active in the region of Intertraffic Istanbul.</td>
<td><a href="http://www.intertraffic.com/intertraffic-trvvisitors/pages/default.aspx">http://www.intertraffic.com/intertraffic-trvvisitors/pages/default.aspx</a></td>
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<tr>
<td>June 2-5 (new dates)</td>
<td>American Public Transportation Association Rail Conference</td>
<td>Philadelphia, PA</td>
<td>Philadelphia Marriott Downtown</td>
<td>Workshops and technical sessions will cover timely issues of widespread interest in operations, technology, safety, security, planning, finance, capital projects, and the technical aspects of providing all modes of rail service: urban, commuter, high-speed, and intercity. The conference features the industry’s premier product and services showcase to learn more about advances in railroad and rail transit markets.</td>
<td><a href="http://www.apta.com/mc/rail/Pages/default.aspx">http://www.apta.com/mc/rail/Pages/default.aspx</a></td>
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<td>June 11-14</td>
<td>Velo-city 2013 Vienna: The Sound of Cycling-Urban Cycling Cultures Organized by the City of Vienna and the European Cyclists’ Federation</td>
<td>Vienna, Austria</td>
<td>Vienna City Hall</td>
<td>Velo-city 2013 will provide an opportunity for participants to communicate and exchange their work, ideas and visions, as well as to interact with a diverse array of experts, advocates and decision makers. As cycling plays a crucial role in the integrated mobility strategy of the city of Vienna, the conference also aims to become a catalyst for cycling in Vienna, and will therefore actively reach out to the Viennese population. Moreover, the city council will declare 2013 a special year of cycling in Vienna, combining a wide range of measures empowering urban cycling.</td>
<td><a href="http://velo-city2013.com/">http://velo-city2013.com/</a></td>
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<tr>
<td>June 25-26</td>
<td>SMART Traffic Asia 2013</td>
<td>Jakarta, Indonesia</td>
<td>Hotel Mula or Grand Hyatt</td>
<td>Smart Traffic Asia 2013 will bring together government, transport business and thought leaders to reflect on the key challenges facing Indonesia, evaluate the business and investment opportunities brought about in the transportation sector. Attendees will get the chance to unravel the minds of key stakeholders in Indonesia’s transport industry and be the first to preview the projects available now.</td>
<td><a href="http://www.smarttraffic.com.sg/">http://www.smarttraffic.com.sg/</a></td>
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<tr>
<td>June 25-27</td>
<td>SMART Passenger Rail Asia 2013</td>
<td>Jakarta, Indonesia</td>
<td>Grand Hyatt Jakarta</td>
<td>Smart Passenger Rail 2013 is the region’s largest industry event, attracting C-level rail operators, transport authorities, government and leading solution providers to uncover key challenges, discuss key policies, and showcase latest and upcoming projects. Attendees will be able to discover the opportunities offered by key stakeholders in Indonesia’s transport industry and be the first to preview the PPP Priority Projects available now.</td>
<td><a href="http://www.smartpassengerrail.com.sg/">http://www.smartpassengerrail.com.sg/</a></td>
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<tr>
<td>July 17-19</td>
<td>20th International Symposium on Transportation and Traffic Theory Organized by Delft University of Technology</td>
<td>Noordwijk, The Netherlands</td>
<td>Grand Hotel Huis ter Duin</td>
<td>The symposium covers all scientific aspects of transportation and traffic, spanning all modes of transport, including freight, air, and maritime modes, as well as private and public transport. Topics may include: traffic flow theories and their implications; traffic management and control; dynamics of transport phenomena, especially when coupled with observation; Intelligent Transport Systems; travel behavior processes and demand modeling; vehicular interactions in mixed-mode traffic; congestion pricing and other policies; pedestrian and crowd modeling; transport safety; and network modeling and dynamics.</td>
<td><a href="http://www.ertico.com/20th-international-symposium-on-transportation-and-traffic-theory/">http://www.ertico.com/20th-international-symposium-on-transportation-and-traffic-theory/</a></td>
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<td>July 19-22</td>
<td>National Association of Counties (NACo) Annual Conference and Exposition</td>
<td>Fort Worth, TX</td>
<td>Fort Worth Convention Center</td>
<td>Details of the conference agenda have not yet been released.</td>
<td><a href="http://www.naco.org/meetings/participate/Pages/futuredates.aspx">http://www.naco.org/meetings/participate/Pages/futuredates.aspx</a></td>
</tr>
<tr>
<td>July 24-26</td>
<td>25th Annual American Road and Transportation Builders Association (ARTBA) P3 in Transportation Conference</td>
<td>Washington, DC</td>
<td>Grand Hyatt Washington</td>
<td>More than 300 industry executives, federal, state and local public officials, as well as financial and public policy experts are expected at the ARTBA conference, which is the nation’s longest-running P3 event. During three days, over 15 sessions will focus on topics such as innovative technologies, model legislation, public relations, market opportunities, federal policy and new sources of alternative project financing. This year’s ARTBA P3 Conference will include a unique focus on improving federal P3 policies and legislation in addition to all of the critical market updates and networking opportunities available that attendees have come to expect from ARTBA.</td>
<td><a href="http://www.artbap3.org/">http://www.artbap3.org/</a></td>
</tr>
<tr>
<td>Sept. 4-6</td>
<td>hEART 2013-2nd Symposium of the European Association for Research in Transportation, The Centre for Transport Studies, KTH Royal Institute of Technology, Sweden</td>
<td>Stockholm, Sweden</td>
<td>KTH Royal Institute of Technology</td>
<td>The symposium is an interdisciplinary research conference, covering all areas of transportation research, with a focus on quantitative methods and analysis of transport systems. The aim is to connect research in transport modeling, transport economics and transport policy with advanced practice. Bringing together leading experts and promising young researchers, the symposium offers an opportunity for scientific discussion and interaction in relatively small groups. The day before the conference (Sept. 3), there will be a summer school intended for PhD students.</td>
<td><a href="http://www.kth.se/en/abe/centra/cts/heart">http://www.kth.se/en/abe/centra/cts/heart</a></td>
</tr>
<tr>
<td>Sept. 29-Oct. 2</td>
<td>American Public Transportation Association (APTA) Annual Meeting</td>
<td>Chicago, IL</td>
<td>Hilton Chicago</td>
<td>The industry’s premier event includes general sessions and forums focused on current issues facing public transportation and features first-rate professional speakers. It offers information for transit personnel, policymakers, board members, government agencies, manufacturers, suppliers and consultants.</td>
<td><a href="http://www.apta.com/mc/annual/Pages/default.aspx">http://www.apta.com/mc/annual/Pages/default.aspx</a></td>
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<td>Sept. 30-Oct. 2</td>
<td>41st European Transport Conference The Association for European Transport</td>
<td>Frankfurt, Germany</td>
<td>Campus Westend, Goethe University</td>
<td>The conference attracts around 400 transport practitioners and researchers seeking in-depth presentations on policy issues, best practice and research findings across a broad spectrum of transport modes. Themes for the 2013 conference include: low emission vehicles, issues in the challenge of movement of goods and people across long distances, changes in travel behavior and demand patterns during changing economic times, climate change and extreme weather conditions, the response of transport planning to the rise of social media, the future of bus rapid transit and personal rapid transit, new approaches and applications in modeling, city logistics and the difference e-shopping makes and achieving the goals of the Decade of Action for Road Safety.</td>
<td><a href="http://aetransport.org/">http://aetransport.org/</a> or contact Sally Scarlett at <a href="mailto:sally.scarlett@aetransport.org">sally.scarlett@aetransport.org</a></td>
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<td>Oct. 3-5</td>
<td>Intertraffic India Amsterdam RAI</td>
<td>Greater Noida, India</td>
<td>India Expo Centre</td>
<td>Professionals from around the world visit and participate at Intertraffic India to keep up to speed with the very latest trends and developments. Intertraffic India is organized once every two years to ensure that the products shown at the exhibition are totally new. Innovation is the key word at Intertraffic. Intertraffic offers a fully comprehensive overview of the traffic and transport industry. All under one roof. It offers solutions for problems regarding infrastructure, traffic management and parking.</td>
<td><a href="http://www.intertraffic.com/intertraffic-india/Pages/default.aspx">http://www.intertraffic.com/intertraffic-india/Pages/default.aspx</a></td>
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<td>Oct. 7-10</td>
<td>LTA-UITP, Singapore International Transport Congress and Exhibition (SITCE) 2013: People-Centered Mobility for Liveable Cities</td>
<td>Suntec City, Singapore</td>
<td>International Convention &amp; Exhibition Centre</td>
<td>The inaugural SITCE 2013 is a platform for urban land transport professionals worldwide to meet and discuss ways to shift the transport focus to people. The biennial SITCE is one of the first initiatives by the UITP Centre for Transport Excellence for the Asia-Pacific region. SITCE will bring four established conferences, the World Urban Transport Leaders Summit (WUTLS), the World Roads Conference (WRC), the World Urban Transit Conference (WUTC) and UITP Asia-Pacific Congress (APC). It will congregate eminent international speakers to share insights on urban transport issues, and solutions that improve the quality and effectiveness of land transport systems. Participants will be able to exchange knowledge and experiences on urban transport planning, development, operation and management. In conjunction, a world class international exhibition on urban transport technology, planning, development, systems and operations management will be held.</td>
<td><a href="http://sitce.org/">http://sitce.org/</a></td>
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<tr>
<td>Oct. 14-18</td>
<td>20th ITS World Congress</td>
<td>Tokyo, Japan</td>
<td>Tokyo International Forum and Tokyo Big Sight</td>
<td>ITS is expanding into the next stage of mobility and society. Starting with safety and traffic management as basic concerns, ITS is reaching out to three new domains: energy management, personalized mobility services navigated by big data, and resilient transport systems. Congress topics will include safety and traffic management, next generation mobility and sustainability, efficient transport systems in mega cities/regions, intermodal and multimodal systems for people and goods, personalized mobility services, resilient transport systems for emergency situations and institutional issues and international harmonization.</td>
<td><a href="http://www.itsworldcongress.jp/index.html">http://www.itsworldcongress.jp/index.html</a></td>
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<tr>
<td>Oct. 16-18</td>
<td>GIS in Transit Conference</td>
<td>Washington, DC</td>
<td>Keck Center of the National Academies</td>
<td>This conference is designed for transit planners, managers, researchers and GIS industry experts who are interested in sharing ways to use geographic and spatial analysis in transit planning, operations, and marketing to increase efficiency and effectiveness. The conference will provide GIS transit professionals an opportunity to learn from peers and industry experts (vendors, researchers, and practitioners), discuss emerging trends in geo-spatial analysis and transit informatics, demonstrate the use of GIS data to improve transit efficiency and effectiveness and provide a forum for public-private discussions about practical applications of new technologies</td>
<td><a href="http://transitgis.org/conference/2013-conferences/">http://transitgis.org/conference/2013-conferences/</a></td>
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<td>Oct. 22-25</td>
<td>2013 AMPO Annual Conference</td>
<td>Portland, OR</td>
<td>Embassy Suites Hotel Portland – Downtown</td>
<td>The AMPO Annual Conference brings together policy board members, executive directors, technical staffs, federal and state employees, and consultants to share information on a variety of MPO issues. This year’s topics include Addressing Economic Goals, Climate Change, Emergency Preparedness, Environmental Justice/Title VI, Disadvantaged Business Enterprise, Freight and Commerce, Interregional Compacts, Land Use and MPO Operations and Management.</td>
<td><a href="http://www.ampo.org/content/index.php?pid=283">http://www.ampo.org/content/index.php?pid=283</a></td>
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<td>Oct. 23-25</td>
<td>7th International Symposium on Visualization in Transportation</td>
<td>Irvine, CA</td>
<td>Beckman Center</td>
<td>The conference is designed to explore future research needs as well as recent findings, new methods, and new software related to visualization in transportation and data. Potential symposium topics include: Big Data Info Visualization; Visual Analytics and Decision Support; Performance Measurement; BIM and/or CIM Data Viz; Collaborative Visualization; Transportation Operations; LIDAR/Laser Scanning Visualization; Augmented Reality; Network Graphs, 3D, Multi-Variate/High Dimensional Viz; and Virtual Design and Construction (VDC).</td>
<td><a href="http://www.trb.org/Main/Blurbs/167315.asp">http://www.trb.org/Main/Blurbs/167315.asp</a></td>
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<td>Nov. 3-6</td>
<td>2nd T&amp;DI Green Streets, Highways and Development Conference</td>
<td>Austin, TX</td>
<td>Sheraton Austin Hotel at the Capitol</td>
<td>The 2nd T&amp;DI Green Streets, Highways &amp; Development (GSHD) Conference will bring together engineers, contractors, planners, architects, landscape architects, private practitioners, government officials, academics and students to share information at the cutting edge of advancing the application of sustainability concepts in Transportation and Development. It will offer cutting-edge applications of green, sustainability and livability concepts relevant to transportation and development infrastructure, services and education. Conference sessions will highlight best practices and successes with real-world design approaches, planning methodologies, progress evaluation tools, performance measurement and management approaches, policies and case studies -- nationally and internationally. The conference program includes an extensive technical program, a plenary session and exhibits.</td>
<td><a href="http://content.asce.org/conferences/greenstreets-highways2013/index.html">http://content.asce.org/conferences/greenstreets-highways2013/index.html</a></td>
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<tr>
<td>Nov. 9-13</td>
<td>17th IRF World Meeting and Exhibition</td>
<td>Riyadh, Saudi Arabia</td>
<td>King Fahd Cultural Center and the Intercontinental Hotel Riyadh</td>
<td>The event will include technical and scientific sessions by surface transportation experts and researchers from around the world. Themes for the conference include Transport Policy and Economics, Road Safety, Pavements and Materials, Integrated Mobility and ITS, Transport Security/Disaster Mitigation and Recovery, Asset Management, Road Construction and Operations, Tunnel Construction and Operations and Urban and Public Transport.</td>
<td><a href="http://www.IRFnwos.org">www.IRFnwos.org</a></td>
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<tr>
<td>Nov. 17-20</td>
<td>3rd International Conference on Urban Public Transportation Systems</td>
<td>Paris, France</td>
<td>National Conservatory of Arts and Crafts</td>
<td>This Conference will offer a forum for civil engineers seeking to address civil engineering applications associated with all modes of public transportation, including bus and rail. The conference will have four parallel tracks covering the following topics: •Planning, environment, and finance: planning tools, environmental and sustainability issues, and innovative financing mechanisms for planning, operations, and construction •Operations &amp; maintenance of systems infrastructure: security, safety, and efficiency •Design and construction of infrastructure: bus (bus rapid transit, exclusive bus lanes, etc.) and rail systems (underground, elevated, and surface alignments), stations, etc. •Innovative systems and practices: leading edge vehicle, infrastructure, and propulsion systems.</td>
<td><a href="http://content.asce.org/conferences/tdi/utsconference/">http://content.asce.org/conferences/tdi/utsconference/</a></td>
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<td>March (exact date TBD)</td>
<td>2014 Transportation Planning, Land Use and Air Quality Conference</td>
<td>Charlotte, NC</td>
<td>N/A</td>
<td>The conference will address the latest research on the integration of transportation planning, land use decisions, and air quality. March 2014 is a new date for the conference. It previously had been planned for the June/July 2013 timeframe.</td>
<td><a href="http://www.trb.org/Calendar/Blurbs/168154.aspx">http://www.trb.org/Calendar/Blurbs/168154.aspx</a></td>
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<td>March 4-6</td>
<td>Minnesota’s Transportation Conference</td>
<td>Bloomington, MN</td>
<td>DoubleTree by Hilton</td>
<td>Conference sessions and an exhibit area will feature recent advances in highways, transit, rail, waterways, biking, walking, and more from the Twin Cities metro area and Greater Minnesota. Current technical and policy issues will also be explored. Attendees will be able to earn training and professional development credits, including American Institute of Certified Planners (AICP) credits and Professional Development Hours (PDHs). Individuals from multiple transportation-related disciplines and organizations are encouraged to attend.</td>
<td><a href="http://mntransportationconference.org/">http://mntransportationconference.org/</a></td>
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N/A = Not Available; m = member; nm = non-member. To list your transportation conferences here FREE, send all information as above to: The UTM Conference Dept., P.O. Box 12300, Burke, VA 22009-2300, or call (703) 764-0512, or fax (703) 764-0516, or email: editors@lawleypublications.com.