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ITS Plus Vehicle Detection simultaneously performing Advanced Detection, Stop Bar and Vehicle Counts

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PTV Vistro’s transportation impact analysis workflows allow engineers and planners to efficiently evaluate the addition of project trips on their roadway network. Quickly generate, distribute, and assign project trips. Evaluate operations and develop mitigations. Track new trips and determine fair-share contributions. Thoroughly present results with integrated graphical figures and detailed tables.

Scenario management.
PTV Vistro’s scenario manager allows you to model limitless scenarios. New developments require several scenarios to evaluate traffic impacts and operating conditions. These include fluctuations during different times of day, and varying traffic levels between existing conditions, plus project conditions, and cumulative conditions. Moreover, PTV Vistro Scenario Manager easily enables you to evaluate phased projects and sensitivity testing of different development intensities, all within a single file.

Trip generation, distribution, and assignment.
PTV Vistro’s trip generation accommodates ITE and custom trip generation rates, as well as direct trip entries. Trip generation calculations can reflect both added or removed trips, so redevelopment sites can be accurately evaluated. Distribution and assignment of trips are completely under the analyst’s control, allowing for maximum flexibility for assignments throughout the network, including project driveways. PTV Vistro’s robust TIA workflows account for internal trip capture, pass-by, and diverted trips. Last-minute changes to the project description? Need to test alternative land uses? PTV Vistro’s integrated workflow makes changes to the trip generation and resulting assignments a snap! Want to know how much VMT your project trips add, or how VMT differs between scenarios? PTV Vistro’s detailed trip assignment table calculates VMT for new project trips.

Evaluating intersections using industry-standard methods.
Robust industry-standard analysis methods including the Highway Capacity Manual 6th Edition, the Canadian Capacity Guide, ICU, and the Kimber method are available in PTV Vistro for diverse signalized, stop-controlled, and roundabout configurations. Analyze auto, pedestrian, and bicycle modes and the effects of transit. PTV Vistro reports, maps, and colorfully displays measures of effectiveness in the network editor. This makes for quick screening of traffic conditions and identifying locations for improvements.

Mitigation testing.
Quickly test different mitigation measures using PTV Vistro’s mitigation tool. Keep a record of potential mitigations using unique tabs in PTV Vistro’s mitigation workflow table. Ready to commit a mitigation as a future base condition for another nearby study? Quickly create a mitigated scenario using PTV Vistro’s flexible scenario manager.

Do you want to learn more about transportation impact analysis in PTV Vistro? Scan the QR code above to read our in-depth PTV Vistro Knowledge-Base article.
Complete Streets, Incomplete Work

The term “Complete Streets” describes something we as professionals have long strived for on our roads. From a technical perspective, the emergence of the term around 2003 somewhat troubled me, since it seemingly states the obvious. It has always been normal to consider the context, characteristics, and users of every street. But what has gotten in the way is how we’ve decided to use available funds. Many times, we as professionals focus on the street or the rails to such an extent that it missed filling out the system investment in an equitable, balanced modal way in many urban areas. The result led us to incomplete streets. For Denver Bronco fans, say it loud, IN-COM-PLETE.

My work experience in Oregon and California was built on legislation affecting the transportation profession. In 1969 when Senator Scoop Jackson ushered the National Environmental Policy Act for President Nixon’s approval, leading to the 1970 enactment of the California Environmental Quality Act by Governor Ronald Reagan, the groundwork for transportation studies that address environmental impacts was laid. My work allowed me to advance analysis of various modes. When I joined the start-up firm DKS Associates in 1979, each of the principals were working on a spectrum of transportation perspectives, providing mentoring in safety, transportation demand management, forecasting, light rail transit, land use development, and traffic calming. In 1985, NCHRP 279 established that conversions of four- and six-lane streets to three and five lanes was safer, providing space for repurposing streets. By 1991, the Oregon Transportation Planning Rule was enacted, requiring bikeways on arterials and major collectors. This was my new normal.

In the 30 years since the Americans with Disabilities Act was enacted, whose job is it to make sure streets are accessible? To make streets convenient and comfortable in urban areas for all users of various modes together with motor vehicles? To make streets emergency service and truck friendly? Healthier? More livable? More efficient? More equitable?

That responsibility is ours. While we have given the term a name in the last couple of decades, let’s remember it has always been our job to make streets “complete”. We can’t let the inertia of incomplete funding decisions dissuade us. Each time we use the excuse “we don’t have enough budget or staff” (rather than strategically making decisions about our community needs), we are contributing to incomplete streets. We will never have enough funding. Obtaining public support for the investment and the accountability needed a name, which is why we have Complete Streets. Achieving these types of roads in our communities can fall victim to scarcity-based decision making.

Going forward we can optimize each street and highway project with multi-layered analysis of streets using GIS, transportation inventories of volumes, safety, operations, and many more factors. In urban areas, that involves investing wisely as we move from undeveloped to developed, and developed to re-developed. In rural areas, the use of shoulders is not just for safety—it is good for bicyclists, truckers, and walkers. Safety, livability, accessibility, environment, economic development, and efficient mobility provide ample justification for investing—completely.

ITE has taken steps breaking down organizational silos in creating the Complete Streets Council. Are you completely ready?

RANSFORD S. MCCOURT, P.E., PTOE (F)
ITE International President
Complete Streets

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   Tyler Meyer, AICP (M) and Adam Archual

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Strategic Plan 2021-2023

In this month’s ITE Journal you will read about the new ITE Strategic Plan for 2021-2023, recently adopted by the International Board of Direction. I want to thank ITE Past President Shawn Leight for his leadership of this important effort and the many ITE leaders who contributed to its development.

While I have always been very focused on having a clear strategy in place for the organizations, programs, and activities that I have been charged with leading, I have not always been a fan of the formal strategic planning process. Oftentimes, so much energy goes into developing a great plan that mostly ends up sitting on the shelf collecting dust. The plan and process should be robust enough to set a clear direction, yet flexible enough to react to unanticipated changes, with energy primarily funneled into implementation.

The 2018-2021 Strategic Plan prepared under the leadership of ITE Past President Steve Gayle has served us very well in this regard. Focused on three key pillars—Membership, Technical Programs, and Institutional Sustainability—volunteers and staff working collaboratively have made great strides in implementing the plan’s goals and strategies. Membership has reached a 10-year high, exceeding 16,000, our technical initiatives have positioned ITE at the forefront of our profession, and the ONE ITE initiative has resulted in new Districts and Sections, tightening our bonds across organizational lines. Building off the success of the current plan, the new Strategic Plan maintains the three pillars while setting out new horizons for the organization. It calls for us to continue to diversify and grow our membership and to strive to be a true Community of Transportation Professionals; seeks to further strengthen our Councils and Committees and to more clearly assert ITE’s leadership; and challenges us to take advantage of the structural changes that we put in place through ONE ITE. I encourage you to review the summary of the plan in the article beginning on page 27 and the full plan online at www.ite.org/strategicplan.

On a personal note, in late October I reached the five-year milestone as the Executive Director and CEO of ITE. When I look back, I can see a tremendous amount of growth and change as an organization. I am pleased to have had the opportunity to help guide the evolution of ITE and position the organization for continued success. I have been fortunate to serve with outstanding ITE Presidents who have worked in partnership to set a cohesive vision for ITE, and Board Members who have worked collaboratively and rolled-up their sleeves to help make it happen. Critical to this success has been the day-to-day support of a talented, dedicated ITE staff.

This year was like no other in my lifetime and the impacts of COVID-19 will linger for a long time. Despite these challenges, I am excited about the future of ITE. We have managed to navigate difficult waters while reimagining existing products and services and creating new value for our members. Guided by the new Strategic Plan and with the strong leadership of 2021 International ITE President Alyssa Rodriguez, Vice President Beverly Kuhn, and Past President Randy McCourt, I am confident that we can reach new heights. I look forward to being part of it. You can reach me on the ITE e-Community or on Twitter: @JeffPaniatiITE.

Jeffrey F. Paniati, P.E. (F)
Executive Director and Chief Executive Officer
SIDRA INTERSECTION 9

Graphically fine-tune two-way progressions quickly and easily

SIDRA INTERSECTION 9 (SI-9) is powerful micro-analytical software used as an aid for the design and evaluation of intersections and networks.

This version includes a graphical Interactive Offsets function which is an interactive tool that allows the user to adjust traffic signal offsets in Time-Distance displays towards achieving improved two-way signal progressions quickly and easily.

Watch our new video demonstrating this function in SI-9.

Watch Video: Interactive Offsets

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PEOPLE IN THE PROFESSION

Member Update
Mike Croce, P.E. (M) has been promoted to Highway Practice Leader for the Northeast Infrastructure Group at national architecture, engineering and planning firm Bergmann. Croce, a 22-year veteran of the firm, has played an integral part in building Bergmann’s portfolio of award-winning transportation and highway projects in New York State. Croce has designed a series of roundabouts for Ontario County and led the City of Rochester’s Dewey and Driving Park Avenue Intersection Realignment, which won the New York State American Public Works Association Project of the Year. He provided traffic engineering and detailed design expertise in support of the reconstruction of Exit 122 on NY Route 17 in Middletown, NY, USA and helped develop an Environmental Impact Statement with a vision to transform the Scajaquada Expressway Corridor in Buffalo, NY.itej

New Members
ITE welcomes the following new members who recently joined our community of transportation professionals.

Canadian
Donna Howes
Christopher Chahil
Maria Kavanagh
Haider Talib
Chris King
Hilary A. Enns
Wai Tsun Cheung
Manvir Sohi
Lorraine Huinink, RPP, MCIP

Great Lakes
Robert James Evans
Thomas Vincent Flask
Ryan Lee Hewett

Mid-Colonial
Eric Tang, P.E., RSP1
Laura Leticia Castro
Sam Murrey
Ray Z. Bernardo, P.E.

Florida Puerto Rico
Arjun Chauhan
Geraldo Sanchez

Southern
Connie Betts, P.E.
Spenser Meekins
Laura H. Chandler

Texas
Yucheng Shi
Sai Krishna Chandra Segu
Shahram Bohluli

Global
Jun Hyouk Han
Madhu Babu Garapatiti

Western
Ryan Jahns, P.E., PTOE
Lee Reis
Gursewak Singh
Chandler Waldal
Madeline Kay Harriott
Jay Martin Salazaar
Victoria Nicole Funke
Rjahja Canlas, P.E.

Letters in parentheses after individuals’ names indicate ITE membership status: S - Student Member; IA - Institute; M- Member; F - Fellow; R - Retired Member; and H - Honorary Member. Information reported here is based on news releases and other sources. If you have news of yourself or the profession that you would like considered for publication, please send it to Holly Stowell, hstowell@ite.org.
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ITE NEWS

2021 NOCoE TSMO Awards Now Open!
The 2021 National Operations Center of Excellence (NOCoE) Transportation Systems Management and Operations (TSMO) Awards are now open for submissions through December 4, 2020. Two new categories have been announced for 2021:

- Work Zones Using TSMO
- Project Selection and Prioritization for TSMO

These new categories will accompany the ongoing categories of Best TSMO Project and Agency Improvement. An Overall Winner will then be chosen from the four category winners. This year’s Overall Winner was the Georgia DOT for their Automated Traffic Signal Performance Measures Project.

These awards aim to celebrate the best of TSMO but also to capture all the good work being done by the TSMO community. In the first two years, NOCoE has taken more than 100 awards submissions and turned them into case studies, turning your TSMO practices into resources from which the entire TSMO community can benefit.

As part of the awards program, we’ll also honor a TSMO Champion. We are looking for you to identify an individual who was not only integral in implementing TSMO in their agency or organization, but who also led the way in transferring knowledge about TSMO to help the industry improve. The 2020 Champions were Tony Kratofil of Michigan DOT and Faisal Saleem of Maricopa County DOT.

NOCoE empowers the TSMO community to succeed by building its knowledge, skills, and abilities and to connect them with best-practices and experts to save lives, time, and money. NOCoE’s founding partners are the American Association of State Highway and Transportation Officials (AASHTO), the Institute of Transportation Engineers (ITE), and the Intelligent Transportation Society of America (ITS America), with support from the Federal Highway Administration (FHWA). Learn more at www.transportationops.org/tsmoaward.

Community Corner
Community Corner highlights the efforts of ITE members to not only encourage transportation education among our youth but to improve the daily lives of people in their community beyond transportation through acts of service.

Serving Others through Civic and Government Roles
Claudia Hirschey, P.E., RSPI (F) President, ITE Washington Section

Community service has been at the core of who Claudia Hirschey, P.E., RSPI (F) is and motivates her every day. In addition to serving in nearly every role of the WTS Puget Sound Chapter and most recently the full suite of ITE Section leadership roles, Claudia has served in a variety of civic roles and government service, and each has served and enhanced her career in many ways.

Claudia’s government service began when her home in King County, WA, USA became the incorporated City of Newcastle, WA. Claudia was asked to prepare the first set of transportation policies with the planning commission and was then asked to run for the city council, serving as a councilmember from 1998 to 2002. The greatest personal impact was a profound sense of responsibility for citizens’ safety. As a transportation engineer, the greatest reward was moving forward sidewalk repairs, developing parks, and improving Coal Creek Parkway. While on the council, Claudia enjoyed a tour of the Puye Cliff Dwellings before the Western ITE Meeting in Albuquerque, NM, USA, July 2016.
Claudia attended the March for Science with son David Hirschey in Portland, OR, USA in March 2017.

she served on King County Metro’s Regional Transit Committee, providing first-hand experiences with transit operations and budgets.

Since then, Claudia has served as a member of the King County Boundary Review Board for four terms. Claudia was the first, and is the only member, with transportation expertise (they won’t let her go!). Serving as chair was a tremendous experience in leading public hearings for major incorporations, an action that affects people’s daily lives.

In Newcastle, she also served on the Lake Heights Family YMCA (Board of Directors) for three terms. The Lake Heights Family YMCA was the largest daycare facility in the Puget Sound Region. Claudia dedicated her involvement to bringing a full-service YMCA to Newcastle and participated in the facility planning and capital campaign for the new YMCA in Newcastle. This experience is Claudia’s connection with transportation and health.

During the 2008 recession, while work was slow, Claudia was a volunteer every Monday morning at the front desk of the International Rescue Committee (IRC). In that role, she experienced first-hand how people of low income who speak limited English must navigate the transportation system to receive vouchers for rides to essential services and ride transit to jobs. The experience made her feel extremely well-grounded in her career as we provide transportation mobility to all people in our communities.

Now, as ITE Washington Section President, Claudia has discovered the rewards and learning experience of ITE leadership roles—they have far exceeded her expectations. The most rewarding is the expansion of her transportation community to so many younger and enthusiastic professionals! And, being a leader in a section of a national organization is yet another unique experience in organizational structure, and also makes her career feel whole and meaningful in ways she did not expect.

We want to hear from you!

Have you, your Section, or Chapter taken on a community project or provided assistance to a non-profit organization? Large or small, we want to hear about it! Please send photos (300 dpi or higher) along with a write-up (no more than 200 words) to Pam Goodell, pgoodell@ite.org for inclusion in a future issue of Community Corner.

ITE Talks Transportation Podcast

New from the Thought Leadership Series
Promoting Quality of Life Through Rural and Tribal Transit – National RTAP Program

Robin Phillips, Executive Director of the National Rural Transit Assistance Program (RTAP), discusses the challenges of delivering safe and effective public transportation in rural and tribal areas, and highlights some of the challenges faced by these communities, especially in light of the COVID-19 pandemic. National RTAP serves as a training and technical assistance resource for agencies across the United States to facilitate more efficient use of public transportation resources, and Phillips highlights how the program works to ensure a high quality of life for communities through access to jobs, healthcare, education, shopping, and other services.

All episodes available at www.ite.org/learninghub/podcast.asp | Subscribe for free via iTunes at http://apple.co/2hOUz8t
Thank You, Econolite!

Econolite has donated $20,000 to the ITE Legacy Fund to support the ITE Diversity Scholars Program and the ITE Collegiate Traffic Bowl. These generous funds will be used to support the education and development of students from underrepresented populations pursuing degrees in transportation-related fields, as well as the Traffic Bowl, which tests the knowledge of college-level students on transportation planning and engineering topics.

ITE is pleased to welcome Econolite into its Legacy Society at the Trailblazer level.

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2020 EVENTS

Due to the fluid nature of COVID-19, event dates and times are subject to change. For an up-to-date listing of ITE event information, please visit https://www.ite.org/events-meetings/event-calendar/.

NEW ENGLAND SECTION ANNUAL MEETING
November 2 | Virtual Meeting

MET SECTION ANNUAL MEETING
November 12 | Virtual Meeting
Visit www.ite-metsection.org for more information.

FLORIDA PUERTO RICO DISTRICT ANNUAL MEETING – 60TH ANNIVERSARY
November 18–19 | Virtual Meeting

2021 EVENTS

CAL POLY SLO VIRTUAL STUDENT LEADERSHIP SUMMIT
January 15–17
Visit www.sls2021cpslo.weebly.com for more information.

ITE VIRTUAL STUDENT LEADERSHIP SUMMIT
TBD
Visit www.ite.org/events-meetings/student-leadership-summits for more information.

MOVITE SPRING MEETING
April 7–9 | Bentonville, AR, USA

MID-COLONIAL DISTRICT ANNUAL MEETING
April 25–27 | Baltimore, MD, USA

NORTHEASTERN DISTRICT ANNUAL MEETING
May 12–14 | Long Island, NY, USA

CITE ANNUAL CONFERENCE
June 6–9 | Hamilton, Ontario, Canada

FLORIDA PUERTO RICO SUMMER MEETING
June 23–25 | Fort Lauderdale Beach, FL, USA

JOINT ITE INTERNATIONAL AND MOUNTAIN AND WESTERN DISTRICTS ANNUAL MEETING AND EXHIBITION
July 18–21 | Portland, OR, USA
WHERE IN THE WORLD?

Can you guess the location of the “Where in the World?” photo in this issue? The answer is on page 50. Feel free to send in your own photos to hstowell@ite.org. Good luck!

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ITEj
As part of ITE’s recognition of Infrastructure Week, we reached out to our public agency members to find out what projects are taking place in our communities. The first submissions appeared in the September edition of ITE Journal; the projects presented here conclude the Public Agency Showcase for 2020. ITE extends thanks to all our public agency members who participated!

**AUSTIN, TX, USA**

**I-35 Innovative Safety Barriers Save Lives**

In an effort to reduce pedestrian fatalities along I-35 in Austin, the Texas Department of Transportation (TxDOT), in coordination with the City of Austin, TX, USA has made modifications to the center-line barrier along a 3.3-mile stretch of the highway where pedestrians have attempted to cross. The modifications include a new 2-foot panel on the top of the barrier and no pedestrian crossing signs from 51st Street to Rundberg Lane.

Often used for glare reduction, these panels extend the visual and physical vertical dimension of the center-line barrier, discouraging pedestrian crossings. The panels are removable by emergency personnel in the event of a crash.

The project is funded through TxDOT’s Road to Zero program. TxDOT also partnered with more than 100 businesses along I-35 to display “Stay Alive, Don’t Cross I-35” window clings and table tents in English and Spanish.
In Recognition of Infrastructure Week

CALGARY, ALBERTA, CANADA

17 Avenue S.E. Bus Rapid Transit

The 17 Avenue S.E. Bus Rapid Transit Project (BRT) is a community revitalization, transit connectivity, and transportation project that created a space for all road users in southeast Calgary, Alberta, Canada. After years of community engagement, construction began in 2017 and included bus-only transit lanes down the centre of 17 Avenue S.E., wider sidewalks, improved pedestrian crossings, boulevards, and landscape enhancements that reflected the unique nature of International Avenue (17 Avenue S.E.) in Calgary.

The project also consisted of building three BRT bridges over Deerfoot Trail, the Western Headworks Canal, and the Bow River that included a multiuse pathway for cyclists and pedestrians, a safe and accessible connection between southeast Calgary and the river pathway system, Inglewood, and into the downtown core. The project created efficient, reliable transit, better pedestrian and cycling connections, and revitalized an eclectic urban space to ensure Calgarians have options to get where they need to go.

DENVER, CO, USA

Montbello Bicycle Course

The City and County of Denver Department of Transportation and Infrastructure in Denver, CO, USA has partnered with Denver Parks and Recreation to construct Denver’s first outdoor hands-on bicycle skills course at Montbello Recreation Center. The project (finished construction installation on July 31, 2020) is part of the Safe Routes to School Program, which is focused on teaching kids ways to safely walk and bike to school. The consultant was RSH Inc. and the contractor was Colorado Barricade.

With the increase of bicycle infrastructure installation in Denver, it is important to provide facilities that teach people of all ages and abilities how to ride and feel comfortable using a variety of bicycle facilities throughout our city. With five different sections, the course gives people hands-on experience with different bicycle skills including: starting, stopping, signaling, turning, and merging, so they feel ready to ride on city streets. Classes will be provided through Denver Parks and Recreation and Denver Public Schools in conjunction with bicycle and pedestrian advocacy groups.

FLORIDA, USA

Solar Powered Illumination for Safety

The Florida Department of Transportation (FDOT)/Florida’s Turnpike Enterprise has long sought high return safety solutions to minimize speeding and crashes in dark, higher risk areas. At the milepost 166 mainline curve of Florida’s Turnpike, the agency installed 912 solar-powered, internally illuminated in-road lights in the center lane and along both road edges. The lights were installed in one week, are embedded 1.5-inches in the pavement, and extend less than 0.25 inches above the road surface. The solar hybrid capacitor LED lighting units are housed within a dome-shaped aluminum structure that will withstand 120,000 pounds at high speed and stop conditions.

The MUTCD-compliant and FDOT approved embedded lights, visible at 2,000 feet in any weather condition, created an enhanced guideway for drivers. Within the first week of installation, vehicle speeds reduced 35-58 percent, versus speeds previously reported at 75 miles per hour and higher. The 1.2-mile project’s complete cost was $160,000.
HOUSTON, TX, USA

Mason Park Pedestrian Bridge

Located near the confluence of Brays Bayou and Buffalo Bayou, Mason Park in Houston, TX, USA is home to 104 acres of bayou-bank recreation. The Mason Park bridge provides a pedestrian and bicyclist friendly crossing of Brays Bayou and provides a safe connection from Mason Park to the Brays Bayou Greenway trail system—a network of more than 100 miles of trails connecting the city’s parks. Prior to construction, the only connection between the football/soccer fields on the north side of the bayou and the baseball fields, swimming pool, hiking trail, and disc-golf course and community center on the south side was a narrow sidewalk on the busy 75th Street bridge, with no protection for pedestrians from vehicular traffic.

The three-span, 485-foot-long, 16-foot-wide cable-stayed truss bridge and associated trails were designed by a local team in close coordination with the Houston Parks Board and Houston Parks and Recreation Department. Design focused heavily on the use of signature bridge features and aesthetics to carefully integrate into the park’s surroundings and natural features. Trail lighting and bridge rail and tower up-lighting add both safety and visual appeal to the structure. Weathering steel truss members and graffiti-resistant form-lined tower aesthetics reduce maintenance requirements, ensuring that this structure will be enjoyed by Houstonians for generations to come.

MEMPHIS, TN, USA

Memphis Innovation Corridor

The Memphis Innovation Corridor project—part of the Memphis Transit Vision Plan and 2019 BUILD Grant Awardee—is a joint project of the Memphis Area Transit Authority and the City of Memphis, TN, USA. This future vision for transit shifts from coverage to increased frequency resulting in more than 45 percent more jobs reachable in an hour for minority and low-income residents, with 79,000 more people and 103,000 more jobs near frequent transit.

The project includes mConnect, the first Bus Rapid Transit (BRT) system in Memphis. With BRT vehicles arriving every 10 minutes during peak travel times and direct connections to 18 bus routes, mConnect improves travel times across the entire MATA service area. Additional improvements include roadway and intersection improvements to make the corridor safer, while features like green infrastructure, LED street lights, and all-electric BRT vehicles make it more environmentally sustainable.

NORTHERN VIRGINIA, USA

Accommodating Pedestrians

VDOT (Virginia Department of Transportation) Northern Region manages more than 1,450 traffic signals (approximately half of the total signals maintained by VDOT statewide) in three counties in Virginia, USA. In recent years, the region completed conversion of all signals from type 170 to 2070 controllers, including a firmware upgrade that has allowed for deployment of low cost solutions with safety and operational benefits, while accommodating all its users. Although the region faces severe traffic congestion related issues due to its proximity to the nation’s capital—Washington DC, USA—and non-recurring traffic events, keeping the signal timings updated while utilizing innovative low cost safety solutions have significantly helped improve operations overall.

In spring 2020, the region met its target of implementing leading-pedestrian-interval (LPI) at 100 percent of locations (almost 450 signals) where the side-street pedestrian phase was served simultaneously with conflicting permissive left-turn movement. The LPI delays green to side-street traffic by few seconds (typically 4 seconds used) while displaying a “Walk” indication. This pedestrian head start makes pedestrians more visible in the crosswalk and alerts motorists to their presence, enhancing safety. Additionally, using the upgraded controllers, it has been possible to omit permissive left-turns for flashing yellow arrow in the presence of pedestrians, as well as resting the pedestrian signals in “Walk” at applicable locations and periods of time.
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ITE Consultants Council

The ITE Consultants Council communicates and shares ideas, concerns, trends, industry direction, and needs of ITE’s consulting community.

Members of the Consultants Council are part of a supportive and collaborative environment that include small, medium, and large organizations with a wide range of specialties, including planning, engineering, modelling, deployment, operating, maintaining and/or supplying equipment. Participation in the Consultants Council serves as a springboard toward leadership at the corporate level and offers a wealth of networking opportunities with peers to share insights and experiences.

ITE regularly looks to the Consultants Council, along with the Industry and Public Agency Councils, to spearhead dialogue on emerging trends and key issues. While the Consultants Council will identify specific activities (i.e., identifying the keynote speaker for the ITE Annual Meeting) or products to develop, it may also join with one or both of the other Councils to create programs, products, and services that provide value to ITE members and other transportation professionals.

Member firms receive an array of benefits, including:

• Recognition as a leader among transportation consulting firms through all ITE communication channels
• Ability to influence the development of new ITE programs, products, and services as well as initiatives in the transportation industry
• Connection with other Councils on projects or activities of common interest
• Collaboration and mentoring with companies of all sizes and varying resources
• Member-only networking and peer exchange through ITE’s e-Community
• Discounts on access to ITE services such as job postings through the ITE Career Center

The annual fee to join the ITE Consultants Council is fully reinvested to support the Council’s products and services. The fee is tiered to provide access to firms of all sizes.

This has been a year of transformation for the Consultants Council, where we transitioned to a new firm-based membership structure and have been busy with several initiatives.

The Council has been in close discussions with the Public Agency Council and ITE Headquarters to develop a Consultants Selection Guide. This document will be written for public sector officials responsible for selecting professional consultants to perform services relating to transportation systems, particularly for mobility and safety. It is intended to assist the public agency staff in engaging the most appropriate consultant for a given assignment and help explain the value proposition to consultants.

While applying to all potential assignments in this broad field, the document focuses on the procurement of consulting services in the fields traditionally described as transportation or traffic engineering and transportation planning being performed for municipal and other local governments. Our goal is to have the Guide published in early 2021.

The Council has also been instrumental in developing webinars on topics that affect our industry. Our webinar in May, Transportation Career Paths and Opportunities, provided a glimpse into what to expect from careers in the public sector, private sector, and education, along with resources offered by ITE to support an individual’s growth on entering the transportation career path. The Council’s webinar in September, Working from Home – COVID-19 Lessons
Learned and Success Stories, shared perspectives from IT and human resources departments, as well as personal stories of employees who are new to the remote work environment or have been working from home for decades, given how COVID-19 transformed our commuting patterns and how our industry quickly adapted to the remote work environment. Success stories and lessons learned from bumps along the way were discussed.

The Council was pleased to sponsor the Opening Plenary and the Micromobility Sandbox Competition as part of the 2020 ITE Annual Meeting and Exhibition. The Council hopes to continue to support these initiatives moving forward as well.

The Council further contributed to the thought leadership Developing Trends report published by the Coordinating Council, discussing topics such as the Role of Disruptive Technologies and Data Analytics in Swinging Transportation Equilibrium, and Attracting and Retaining New Talent – A Workforce Development Challenge.

As we look ahead into 2021, the Council hopes to continue many of the initiatives discussed above starting with the publication of the Consultants Selection Guide. We are looking to advance additional initiatives for the short- and long-term, and collaborate further with the other Employer Councils. We would like to encourage you all to communicate with us on relevant topics and issues, and on how we can continue to communicate needs of the ITE consulting community.

Contacts

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Vice-Chair
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A Survivor’s Spirit

Michael Gruenbaum, P.E. (R) is a survivor of the Holocaust and author of the book, *Somewhere There is Still a Sun*, which has been translated into 13 languages. Michael was born in 1930 in Prague, Czechoslovakia. In 1942, he was sent to the concentration camp Theresienstadt, or Terezín, with his mother and sister, and remained there until the end of the war. After emigrating to the United States in 1950, he went on to attend MIT, serve two years in the Army, and have a successful career in transportation planning. He was married for 50 years to the late Thelma Gruenbaum, with whom he shares three sons and four grandchildren.

**ITEJ**: When did you first consider transportation planning as a possible career field, and what ultimately inspired you to go into urban planning?

**GRUENBAUM**: When I was doing my undergraduate work in civil engineering at the Massachusetts Institute of Technology (MIT), we had to choose what we wanted to major in in the last year. I was always interested in things that move, so I had a choice of getting into oil, water, or traffic. I chose traffic and transportation. When several years later I was accepted by the Bureau of Highway Traffic at Yale University to study toward a certificate in traffic engineering, we had a guest lecturer from the City Planning Department who got me very interested in city planning and thus broadened my horizon. I was only the second person in the history of the Bureau and Yale University to stay there for another year. Having gotten credit for my work in traffic engineering, I was able to get my master’s degree in City Planning that year.

**ITEJ**: During your time at Boston Redevelopment Authority in Massachusetts, USA, what stands out to you as some of your most memorable accomplishments?

**GRUENBAUM**: While working for the Boston Redevelopment Authority, my biggest accomplishment was putting together a one-inch thick book titled *Transportation Facts for the Boston Region*. The book required a major effort by several staff members and took several months to accomplish. The Boston Redevelopment Authority is a city agency—thus, it was unusual that I was allowed to display transportation statistics for the entire Boston region. Until then, most of these statistics had never been published anywhere, and each agency kept them under wraps. Needless to say, the book was very much in demand by transportation professionals in the Boston area, and was used as an example for other states by the Federal Highway Administrator in Washington, DC, USA. On the more concrete side, I prepared a traffic circulation plan for the Back Bay area of Boston, which until then had a hodgepodge street circulation system—some streets were two way, other adjacent streets one way in the same direction, etc.—and my proposal was accepted and implemented.

While working as the Special Assistant to the Commissioner of the Massachusetts Department of Public Works, I arranged for the Massachusetts Highway map to be transformed into the Massachusetts Transportation map. The Federal Highway Administrator in Washington, DC sent a copy to every state in the country and asked them to do the same for their highway maps, which they did. For five years, I represented the Commonwealth on the National Transportation Week, and we produced several pamphlets showing the various aspects of the work done by the staff of the Massachusetts Public Works Department. Later, I was assigned to the section that initiated the environmental impact study for the mammoth “Big Dig,” the $25 billion project to put underground the expressway. Originally, it was built above the downtown area.
Toward the end of your career, you cofounded the traffic and transportation firm Bruce Campbell & Associates, and successfully practiced there for 14 years before selling the firm. How did working for the City of Boston prepare you for work in the private sector?

GRUENBAUM: When we started our company, Bruce Campbell & Associates, I felt that after working as a traffic and transportation engineer for some 30 years, I wanted to switch to administration and marketing in an engineering company. I felt my previous experience would be ideally suited for such a new assignment, and I was proven right. Most engineers want to concentrate their working hours on engineering, and have someone else work on bringing the work in. So while we had our company, I became the office manager and also divided the marketing efforts amongst the staff. We started the company with seven staff members and reached a peak of some 25, before we had to cut back due to a major recession. All in all, we had a very successful firm where everyone liked to work.

What benefits have you reaped from being an ITE member, and how has it aided you in your career trajectory?

GRUENBAUM: My involvement with ITE was mostly on the local level. For several years I was the chairman of the Membership Committee and I always had major assignments when ITE had its annual meetings in Boston. I lobbied hard and successfully to have the name changed from the Institute of Traffic Engineers to the Institute of Transportation Engineers. I lobbied hard for one of my employees, Thomas Brahms, to get the job of Executive Director of ITE, which he successfully fulfilled for some 40 years. I also successfully lobbied to open the membership in ITE from just traffic engineers to all people working in the transportation field. I wrote and had published about half a dozen articles in ITE Journal on various topics relative to our transportation activities in the Boston area.

You published a book about your survival of the Holocaust, and it has been translated into 13 languages. How has telling your story to the wider world impacted you?

GRUENBAUM: In 2015 Simon and Schuster published my memoirs of living as a teenager through the Holocaust during World War II in Czechoslovakia. Some 75,000 copies of the book have been sold in the United States to-date, and the book is available in 13 languages. Having Michael's grandson, Benjamin, designed this poster in honor of his father's book Somewhere There is Still a Sun and its translation into 13 languages.
Sign Up Today for the Matson and Hammond Mentoring Program

Learn from the Experience of Others & Share Your Experience with Others

Get involved: https://community.ite.org/mentoring/how-to-get-started
(ITE membership log-in required)

Learn More

To learn more about Michael Gruenbaum and his inspiring story of surviving the Holocaust and his life beyond, visit www.michaelgruenbaum.com.

"Through the ITE mentoring program, I have learned about short- and long-term objectives and perspectives for my career from a person who has been through this journey. We have both been eager to share our professional experiences and learn from our choices. Although we are in different countries and time zones, we never fail to connect at least once a month by email or video chat. My advice to others is to start the mentoring program, have fun, learn from each other, and enjoy the experience."

Samira Farahani, MSc, P.Eng.
Senior Project Manager
Ontario Ministry of Transportation

"We've all had help along the way to get to where we are at and I've had a lot of help from some pretty tremendous mentors. It is my honor to repay that debt by mentoring the next generation of transportation professionals. Working together we can achieve great things for our profession and our communities."

Shawn Leight, P.E., PTOE, PTP
Transportation Engineer
CBB Transportation
Engineers + Planners

reached the ripe age of 90, I consider it now my last mission to alert people all over the world what evil can result from small actions like painting a swastika—and as a result, eventually things can get completely out of hand, like they did in Germany in the 1930s. Since we got these translations mostly through my efforts, the publisher was so impressed, they invited my entire family and me to come to their office in New York, NY, USA and honor me there. They had never had an author accomplish such a feat.

ITEJ: As you pass your legacy onto your children and grandchildren, you have said that you want to remember, “don’t accept no for an answer.” How can transportation professionals put this lesson into practice when they are working on something they truly believe in?

Gruenbaum: The main reason why I survived the war is that my mother did not accept “No” for an answer. This was a good lesson to learn from her and I have practiced it ever since. If you have a transportation project in mind, you will have to present it at various public meetings. Often these meetings are attended by people who want to be heard and want to impress others with their expertise. No matter what you propose, they will try to shoot it down. So to circumvent that, your proposal should be embellished enough so that you can satisfy these people by reducing your embellishments and then get the project done the way you originally wanted to. ITEJ
ITE Virtual Traffic Bowl: Volunteers Make it Happen!

It takes a village of ITE volunteers to put on a virtual ITE Traffic Bowl. Thank you for your time, dedication, and support of our student members!

Special thank you to the Mountain and Western Districts for spearheading the Virtual Traffic Bowl Competitions at their District meetings and supporting the Traffic Bowl Committee in going virtual, and many thanks to John Davis for leading the effort.

ITE Traffic Bowl Committee
John Davis (Chair)
Ken Ackeret
Richard Caudle
Gene Chartier
Vishal Kakkad
Shawn Leight
Rock Miller
Gary Thomas
Ken Voigt
Dalene Whitlock

Emcees
Nick Erpelding
Devin Moore
Mark Spencer
Gary Thomas

Judges
Ken Ackeret
Karen Aspelin
Richard Caudle
Jason Crawford
Paula Flores
Beverly Kuhn
Shawn Leight
Randy McCourt
Alyssa Rodriguez
Michael Sanderson
Dalene Whitlock
Pete Yauch

Clue Board Keeper/Timekeeper
Jerry Bollinger
Kevin Carstens
Vishal Kakkad
Ellie Volosin

3rd Party Scorekeeper/Backup Board Keeper
Wyatt Huber
Travis Low
Danielle Scharf
Steven Zehr

Zoom Operators
Colleen Agan
Victoria Edington
Phil Kulis
Kimberly Leung

Production Lead/Tech Support
Gene Chartier
Ashley Kim
Chris Sobie
Cole Villalobos

Twitter Support and Back-up
Tyler Krage

Reviewers
Ken Ackeret
Rock Miller

Clue Development Crew from CBB
Jacob Kaltenbronn
Shawn Leight
Paige Martz
Esther Robinson
Sophia Roth
Mirza Sharif
ITE-ANZ Section President

Nicholas Szwed, P.E., MEngSc, MITE (M)
Road Safety and Sustainable Transport Consultant (self-employed)

Education
Bachelor of Engineering (Civil) and Master of Engineering Science at University of Melbourne

Professional Affiliations
MITE

ITE Involvement
Joined ITE in 1989
Joined ITE-ANZ Board, 2009
Secretary of ITE-ANZ, 2009
President of ITE-ANZ since 2014
Current President of Australia and New Zealand (ANZ) Section

Awards and Recognition
Outstanding Service to the ITE-ANZ Section Award, 2018

In celebration of its 90th anniversary, ITE is recognizing each of its District Administrators throughout the year in a series of profiles. Each month this column will also feature historical facts and figures on the various Districts, including important dates and people throughout their history.

The Australia and New Zealand (ITE-ANZ) Section of ITE is a unique entity in the organization—the sole Section in ITE’s Global District. This small but mighty group of transportation professionals is gaining strength and numbers annually due to the dedication of its leadership and the increased engagement of its younger members. Unlike ITE’s other Districts, the Global District does not have a District Administrator. But, luckily, they do have Nick Szwed, P.E., MEngSc, MITE (M).

Nick has been an ITE member for 31 years and has served as ITE-ANZ president for more than six. “I found transport subjects at university more interesting than others and went on to do research into freeway merging,” he tells ITE Journal. “I started my career in the traffic engineering department of the state road authority. I played a key role in changing attitudes on how speed limits are set, such as convincing people that lowering speed limits saved lives. I currently advocate for introducing compulsory autonomous vehicle features to fight the road toll, as well as better protection for cyclists.”

Nick joined the ITE-ANZ board after transitioning from being a full-time employee with the state road authority to being a self-employed consultant. “I only needed to work part-time and had some spare time on my hands. I wanted to give something back to the community after a long career in transport,” he says. “But I had no idea what I was walking into. I thought I would join the board and learn the ropes before putting my hand up for any roles.”

However, Nick had not anticipated the level of burnout that the very strong board had after hosting the first Annual ITE Meeting outside of North America in 2005. “As they began to put back time into their personal careers, they unfortunately did not give enough consideration to succession planning,” he says. “The size of the group dwindled to almost nothing, and we failed to get a quorum at several meetings. The acting president talked about folding up the Section.”

During his first year on the board, Nick took on the role of secretary and learned the procedures without much guidance, and started to organize events and regular communications. Relying on his network in the transport profession in Melbourne, he started to recruit people to the board. A few years later when the ITE-ANZ president had to step back to focus on career and family, Nick canvassed strongly for someone to take up the presidency. No one was ready or willing, so guess who was left, in his words, “holding the baby”?ITE-ANZ now has co-vice presidents, and Nick hopes that this will lead to a new president being ready in the near future.

As for members he recruited to the board, David Nash (F), he says, is the best secretary the board could wish for. With succession planning in mind, he focused on recruiting younger people. Professor Richard Tay, Ph.D. (F) had also just joined ITE-ANZ and he reactivated the Student Chapter at Monash University, and has subsequently encouraged student involvement at other universities.

ANZ-ITE president Nick Szwed, YITE president Matthew Bennett, and Riddhi Karla, president of Transport Engineers Monash pose with ITE International President Bruce Belmore.
A significant development in the ITE-ANZ Section came about through professional connections Nick made early in his career. First, Rahmi Akcelik, P.E. (F) of SIDRA SOLUTIONS approached him about sponsoring an annual award for a postgraduate student from a tertiary institution in Australia or New Zealand, based on quality of his or her research and potential to make a significant contribution to the profession. Next, John Reid (Austraffic) approached Nick to find ways to get involved in nurturing young professionals just embarking on a career in transport. “Together we developed the Worldwide Learning Opportunities (WLO) program, which has enabled seven young people to attend conferences overseas. Three of the seven attended Annual ITE Meetings.”

Laura Aston (S) came to ITE-ANZ via the Monash Student Chapter two years ago. After she attended the 2018 Annual ITE Meeting on a WLO scholarship, she organized the first Student Leadership Summit (SLS) in ANZ, and subsequently facilitated the formation of the Young ITE (YITE) group. YITE has taken the lead on planning ITE-ANZ seminars and supporting members of the ITE-ANZ board in a variety of ways, including being emcees for the night. YITE also spearheads a new social media strategy where they record, edit, upload, and distribute seminars via social media.

“I believe that the ITE-ANZ Board’s strength has been re-established, and with the strong Student Chapter activity at four universities and others coming on board, together with the formation of YITE, the future has been secured. …And maybe we can find a new president soon!” Nick says. “I get a great deal of personal satisfaction with helping others and I love the social contact and networking that ITE facilitates. In fact, I should have gotten involved with ITE earlier.”

Getting to Know
ITE’s Global District

Global District: Focus on Australia-New Zealand (ITE-ANZ) Section
ITE’s Global District is comprised of all members outside the United States and Canada, spanning more than 70 countries around the world. This profile focuses specifically on the ITE-ANZ Section, the sole Section of the Global District.

ITE-ANZ Membership
Current membership is about 260 members; approximately 35 live in New Zealand. ITE-ANZ also has a large group of friends with more than 1,500 subscribers who receive our communications and participate in Section events.

Student Chapters
Monash University
University of Canterbury
Sydney University
University of Melbourne

Section Leadership
President – Nick Szwed, P.E., MEngSc, MITE (M)
Vice Presidents – Sarah Zhang (M), Cassie Min (M)
Treasurer – Eric Ye (M)
Secretary – David Nash (F)
Assistant Secretary – Daniel Gaschk (M)
District 8 (Global) Director – Daniel Przychodzki (M)
New Zealand Representative – David Mitchell (M)
Academia & Students – Dr. Richard Tay (F), Dr. Sara Moridpour (M)
Communications – Ben Thomson (M), Tabitha Yeoh (M)

Diversity & Inclusion – Laura Aston (S)
Mentoring and Newsletter – Marianne Richards (M)
Web Master – Arash Fatemi (M)
Strategic Planning – Ruw Palapathwala (S)
Seminar Coordinators – Daniel Gaschk (M), Danielle Rebbechi (M), Michael Plant (M)
Seminar Recording – YITE
Board Members – Don McKenzie, P.E. (F), John Smelt (M), Ken Hall, P.E. (M), Dr. Ashim Debnath (M), Kenn Beer (M)

Young Members Group
Matthew Bennett (M), Danielle Rebbechi (M), Ruw Palapathwala (S), Cristian Jara Infante (S), Dat Tang (S), Jey Parthiban (S), Tabitha Yeoh (M), Cassie Min (M), Riddhi Kalra (S), Canwei (Steven) Pang (S), Hesavar Manivasakan (M), Ben Thomson (M), Patrick Xue (S), Mitchell Young (M), Devika (S), Joshua Jang (S), and Yvonne Chen (S)

Did You Know?
• ITE’s Global District has recently been expanding its student chapters around the world, mainly in India and Pakistan where there are relatively new student chapters.
• ITE-ANZ developed a strong seminar program regularly attended by up to 100 people. Its list of subscribers began to grow and is now more than 1,500 strong.
• From time to time, the ITE-ANZ board has advocated on issues that concern its members. Examples include: Rail Transport to Airport, Sustainable Transport (Cycling, Walking), Road Safety (Access to Crash Data), and Vehicle Standards (National Design Rules, Window Tinting, Autonomous Features)

Historical Facts
• In the early 1960s, most of the 20 or so members of ITE in Australia had developed an interest in ITE while attending the Bureau of Highway Traffic at Yale University, or programs at other universities as International Road Federation Fellows.
• The Australian Section was formed in 1972. It started in Sydney, but moved a few years later to Melbourne, given most members were located there.
• New Zealand joined Australia to form the ITE-ANZ Section in 1996.
• ITE-ANZ has three ITE Honorary members: Ted Barton, Andrew O’Brien, and Peter McCombs.
• In 2005, the Annual ITE Meeting took place in Melbourne, Australia, the first and only time an ITE international conference was held outside North America.
Upcoming Live Webinars

Missed registering for the live event? You can still register and view webinars on-demand within 60 days after the original date.

A New Roadmap for Transportation and Health Equity
Monday, November 2, 2:00 - 3:30 p.m. ET, 1.5 PDH Credits
Transportation is much more than mobility; it is a social determinant of health. Transportation affects residents’ health and well-being in multiple ways, including facilitating or constraining opportunities for physical activity, exposing communities to vehicular air pollution, and enabling residents to access health-promoting destinations. The way transportation systems have been planned, designed, and built has had uneven impacts on communities, with communities of color having greater exposure to pollution from vehicular traffic, less access to health-promoting destinations, and inadequate infrastructure for walking and cycling. Native American, Black, and Hispanic pedestrians are overrepresented in traffic deaths. Furthermore, people of color—especially Black people—face the threat of violence when traveling, limiting the ability to travel freely by any mode.

In this webinar, ITE will share what it is doing to create a more diverse, equitable, and inclusive organization and transportation profession. This webinar will describe the multiple ways in which transportation contributes to the health and well-being of individuals and communities. Strategies for how to better address health and equity in transportation planning and design to improve the quality of life in communities will also be shared. Participants will have the opportunity to reflect on their own transportation practices by considering how their projects have harmed or benefited communities of color, and reflect on what they might have done differently. The webinar will conclude with action items for individuals to advance equity in their workplace and community.

Considering E-Scooter Safety in Vision Zero and MaaS/MOD Programs, Policies, and Practice
Wednesday, November 4, 2:00 - 3:30 p.m. ET, 1.5 PDH Credits
The ITE Vision Zero Standing Committee, Pedestrian and Bicycle Standing Committee, and Mobility as a Service (MaaS)/Mobility on Demand (MOD) Institute Initiative identified the need to share emerging policies and practices of e-scooter safety under MaaS/MOD and Vision Zero programs in cities.

This webinar will feature speakers from three communities where e-scooters are in use to present their agency’s background, information, and experiences on Vision Zero and e-scooters. This webinar will highlight how e-scooter safety is being considered under Vision Zero programs in Atlanta, GA; Austin, TX; and Washington, DC. The webinar will highlight how public agencies can consider and plan for the safety impacts of e-scooters in cities, especially when considering programs and permits for MOD shared micromobility devices like e-bikes and e-scooters.

This webinar will also touch on how cities and some providers are partnering to ensure safe riding of e-scooters and how cities are re-designing streets to provide safe places to ride e-scooters. The presenter will cover policy, data and street design trends for e-scooter safety, and how to consider e-scooter safety in a Vision Zero program.
The ITE International Board of Direction (IBOD) recently adopted a new Strategic Plan for 2021-2023. Over the past year, a Steering Committee, led by ITE Past President Shawn Leight, P.E., PTP, PTOE (F) and made up of more than 20 leaders from across ITE, worked diligently on the development of this new plan. An in-person meeting during the Transportation Research Board Meeting in January and seven virtual meetings were used to brainstorm, craft, and refine the plan. Parts of the new Strategic Plan build off the initiatives and successes of the previous plan for 2018-2020. There are also new goals and opportunities for growth identified in the plan.
As with the prior plan, this document is designed to guide Board, Committee, and staff efforts to grow and enhance ITE member value over the next three years. In the coming months, ITE will use various channels to share the new plan with members and to highlight initiatives carried out in support of it. Over the life of the plan, the IBOD will periodically report on progress in implementing the plan through ITE Journal, Spotlight, and other member communications. The Strategic Plan is available on ITE’s website at www.ite.org/strategicplan.

2018-2020 Strategic Plan
As we look forward to a new Strategic Plan, it is instructive to take a brief look at previous initiatives and resulting accomplishments.

Membership
Through the 2018-2020 Strategic Plan, ITE has continued to focus on supporting sustained membership growth and retention reaching a 10-year high with more than 16,000 members, reinvigorating student participation with new student chapters in North America and internationally, and broadening ITE membership and services as a true Community of Transportation Professionals. Hundreds of former Institute Affiliates were brought on board as full members through an opportunity to transition to full membership at a discounted price.

Diversity and Inclusion. ITE recognizes the need to actively encourage involvement from traditionally underrepresented groups and bring a more diverse and inclusive membership into ITE. In support of the Strategic Plan, ITE established the Diversity & Inclusion Board Committee, led by ITE International Vice President Alyssa Rodriguez, P.E., PTOE (F) and International Director Jeff Riegner, P.E., PTOE, AICP (F). In June 2020, ITE released a statement on social justice and equality, and a Power Plenary at the virtual Annual Meeting and Exhibition highlighted the most pressing issues facing industry professionals today as they work toward a more equitable transportation system. Under the leadership of ITE Past President Ken Voigt, P.E. (H) the Diversity Scholars Program was also established, the first two Diversity Scholars were selected, and significant contributions were received, including a $100,000 pledge from Transoft Solutions.

Strengthening Employer Councils. As part of the 2018-2020 Strategic Plan, opportunities to strengthen ITE’s ties to industry and public sector member organizations were identified, providing a home for organizations in ITE. In 2019, ITE successfully launched the Industry Council, chaired by Abbas Mohaddes, P.E. (F). This Council is a home for companies that provide solutions to traffic professionals, including those working in the traffic control, new mobility, communications, and data analytics spaces. It has focused its initial efforts on updating procurement guidance so that potential buyers of industry products can most effectively engage in the marketplace. ITE also transitioned the Consultants Council to an organizational membership under the leadership of Amir Rizavi, P.E., ENV SP (F). Jennifer Toth, P.E. (M), chair of the Public Agency Council, has guided a Council restructuring. All three Councils are implementing new agendas and initiatives in line with the priorities of member organizations.

Coordinating Council
Under the leadership of Coordinating Council Chair Jason Crawford, P.E. (F) and Vice Chair Eric Rensel (M) the role of ITE’s Councils and Committees has been elevated and strengthened. This has resulted in increased timeliness and quality of technical products, a more robust professional development program, and the emergence of the annual Developing Trends report. ITE’s “technical engine” is now regularly producing high value content that includes not only traditional informational reports and recommended practices, but also Quick Bites on emerging practices, white papers on key topics, and new professional development opportunities. The Developing Trends report provides members with a look over the horizon, and supports the IBOD as it identifies new Institute Initiatives and member engagement opportunities.

ITE Technical Resources
The 2018-2020 Strategic Plan provided a vehicle to advance ITE’s five Institute Initiatives, positioning ITE at the forefront of the profession. ITE continues to develop products and resources for professionals to further their understanding of the profession and offer timely tools to deliver solutions in the real world. Over the last three years, significant new technical products have been delivered, including a new Parking Generation Manual, a significant Trip Generation Manual Supplement, the Curbside Management Practitioners Guide, release of the recommended practice Guidelines for Determining Traffic Signal Change and Clearance Intervals, and development of Vision Zero Core Principles with the Vision Zero Network. New educational programs include the Traffic Impact Analysis Training Program—a certificate-based, blended-learning offering.

In light of the unprecedented challenges of the COVID-19 pandemic, ITE offered its members a wealth of resources to help navigate the uncertainty, and offered new ways to enhance professional development. Virtual Drop-in Sessions have allowed members from across the globe to engage on timely topics in an engaging format, and a COVID-19 Resources page on the ITE website provides tools and critical information affecting people, organizations, and the transportation industry as a whole. A Traffic Counting Considerations Workgroup quickly and efficiently gathered COVID-19 transportation data to produce a new technical publication, What a Transportation Professional Needs to Know about Traffic Counts and Studies during a Pandemic. Finally, the 2020 ITE Annual Meeting and Exhibition was held virtually for the
first time, with nearly 1,800 participants taking part in two weeks of technical sessions, poster presentations, plenaries, social networking events, and a week of Council and Committee meetings. The success of the virtual meeting demonstrated the readiness and ability of ITE to adapt to the times, all while providing the same value members expect from an annual conference.

ITE’s response to COVID-19 demonstrates the flexibility built into the existing Strategic Plan. The 2018-2020 Plan set a clear course for ITE, but provided sufficient latitude to allow the IBOD and staff to nimbly adjust to unprecedented circumstances and find new ways to provide value to our members.

**Institutional Sustainability**

A key goal in the 2018-2020 Strategic Plan was to “Maximize and provide a consistent ITE membership experience, regardless of geographic location through successful program delivery by Districts, Sections, and Chapters.” The ONE ITE Initiative was launched, resulting in the creation of the new Mountain District, restructuring of the Great Lakes, Midwestern, and Florida Districts, the elevation of the Missouri Valley Section to a District, the creation of 16 new Sections, and the development of new Charters and Bylaws for all ITE entities. This is quite likely the largest comprehensive update in ITE history, and was supported by countless volunteer hours at the International, District, Section, and Chapter levels, as well as ITE staff.

Through the Strategic Plan and the ONE ITE initiative, a spirit of collaboration was enhanced throughout the many parts of ITE, providing a foundation for future growth and success.

**The New Strategic Plan**

In developing the new Strategic Plan, the Committee started by reviewing the ITE Mission, adding a Vision Statement, and developing new Value Statements. Taken together, these elements of the Strategic Plan provide a clear sense of who ITE is as an organization, what we aspire to be, and the values that guide our efforts.

As with the existing Strategic Plan, this new plan is organized around three pillars—Membership, Technical Knowledge, and Institutional Sustainability. By maintaining the existing structure, the Committee reinforced its perspective that this new Strategic Plan should build off the successes of the current plan, and does not represent a change in direction or focus.

Under each pillar are a series of goal statements and strategies. The goal statements represent the outcomes we aspire to, and the strategies describe how we intend to achieve these outcomes. Using these two elements, the IBOD and staff will develop an annual action plan with specific actions to be taken during that calendar year. At each meeting of the IBOD, the Executive Director and CEO reports on progress made, and Board members discuss their efforts in support of the Strategic Plan.

A description of each of the Pillars is provided below.

**Membership**

Over the next three years, ITE will continue to focus on growing and broadening its membership. This plan recognizes the need to diversify the membership by reaching out to and engaging under-represented groups. ITE Student Chapters are a strength and will be a clear part of this effort. We want to continue to enhance our global reach building off of our growing presence in Australia and New Zealand and our emerging international student chapters. We will continue to strengthen our new Employer Councils as the focal point for organizational engagement in ITE. Throughout all of these efforts we recognize the impacts of COVID-19 on ITE and our members and will respond appropriately.

**Technical Knowledge**

We recognize that our members look to ITE for technical resources and tools, continuous learning, and professional development. ITE will remain at the forefront of practice and seek to influence the direction of our industry. We will also respond to emerging trends, connecting members to the ideas, people, and resources we all need to be successful. We will continue to elevate the role of our Councils and Committees, seeking to broaden participation from within and outside of North America, engaging educators and students, and supporting and recognizing those that take on leadership roles.

**Institutional Sustainability**

Now that we have completed significant institutional change through the ONE ITE initiative, we recognize the need to “be ONE ITE.” Significant effort will be devoted to continuing to strengthen ties among all elements of ITE. We want to make ITE’s voice heard on important technical issues and on matters of transportation policy at all levels of government. We see opportunities to do so individually and in partnership with others. We recognize the financial impacts of COVID-19, and will take the necessary steps to ensure that our financial position remains strong. As with the other two pillars, we see opportunities to expand and enhance our global presence.

This new Strategic Plan is just that—a plan. It will not become a reality without the hard work and support of ITE members at all levels: International, District, Section, Chapter, and Student Chapter. It will take leadership, initiative, nimbleness, a willingness to challenge the status quo, collaboration and compromise, and an unwavering commitment to our values. Over the last three years, we have demonstrated the ability to do all of these things. Following this new Strategic Plan with the same level of commitment will bring us to even greater success in the future.
CORE ELEMENTS:
2021-2023 Strategic Plan

Mission Statement
To provide the global community of transportation professionals with the knowledge, practices, skills, and connections to serve the needs of their communities and help shape the future of the profession and transportation in the societal context.

Vision Statement
“To be the transportation organization of choice.”

Value Statements

- Technical Excellence: We are recognized technical leaders in our profession and bring innovation to our work.
- Community: We promote collaboration within our professional and local communities.
- Making a Difference: We create positive outcomes in our society and our world.
- Diversity and Inclusion: We embrace a diverse membership that reflects the broad demographics of cultures, skills, disciplines, and experiences of the global communities we serve.
GOAL STATEMENT

Membership

RECRUITMENT, ENGAGEMENT, AND RETENTION

GOAL 1 To be the preferred choice for members from all disciplines and at all stages of their careers.
- Develop creative and innovative ways to recruit and retain members, particularly during global events such as COVID-19.
- Diversify the membership of student chapters.
- Retain students as they transition to young professionals by increasing engagement and leadership opportunities for young professionals.
- Clearly define the value of ITE from the member perspective to differentiate ITE from other associations.
- Encourage and support underrepresented groups in the profession and in ITE.
- Develop the foundation for successfully recruiting and engaging planners in membership.

GOAL 2 To have a clearly-defined recruitment and retention strategy for the Global District.
- Focus on the membership needs of the ITE Australia and New Zealand (ITE-ANZ) Section.
- Support the existing international Student Chapters.
- Identify opportunities to expand global Student Chapter success into a professional presence.

ENGAGEMENT WITH EMPLOYER ORGANIZATIONS

GOAL 3 To have strong ties to Employer Organizations through the Councils.
- Elevate the profile, membership, and Council leadership of the Public Agency Council.
- Grow the Industry Council and support the advancement of emerging solutions.
- Build a restructured Consultants Council and Council leadership.
- Encourage collaboration and development of initiatives amongst Councils.
- Use the Councils as sounding boards to understand the impacts of global issues such as COVID-19 on our industry, members, and ITE.
GOAL 1  To be a leader in the industry in core and emerging practices.

- Continue to invest in ITE’s core products and services.
- Promote a collaborative culture where members are free to explore a wide range of transportation concepts and ideas for the betterment of society and our communities.
- Deliver value-added information on best practices and experiences related to emerging trends and practices.
- Support transportation educators on college-level courses.
- Ensure that ITE’s technical products and services address the full breadth of member needs and interests.

GOAL 2  To be a community of technical and thought leaders who influence the industry.

- Make Council volunteer opportunities more inclusive and professional development opportunities more relevant for transportation professionals outside North America.
- Develop a formal process for identifying, orienting, and supporting effective Council and Committee leaders.
- Increase the esteem of the technically-oriented ITE Awards.
- Ensure professional development opportunities are offered in a variety of methods and made available to the broadest cross section of the membership, and maximize agility in delivering the program.
- Create opportunities to demonstrate thought leadership by students.
GOAL 1 To Be ONE ITE – strengthened by our strong Student Chapters, Chapters, Sections, and Districts.
- Ensure the success of new, reorganized, and existing Districts.
- Build strong Sections (transferrable across the organization).
- Establish a leadership on-boarding and development program.
- Ensure that the ITE Diversity and Inclusion policy and ONE ITE are institutionalized in the organization.

GOAL 2 To have partnerships that enhance our value.
- Identify and maintain strategic partnerships that support ITE initiatives and policies.
- Strengthen partnerships with educational institutions through the Education Council.
- Collaborate with strategic partners to advance ITE’s policy and legislative priorities.

GOAL 3 To be a leading voice in the development and implementation of transportation and knowledge.
- Encourage technical products that reflect all users and a duty of care mindset by professionals to save lives and create healthy communities.
- Develop strong ITE policies or positions on strategic focus areas to inform national, state/provincial, and local policymaking.
- Accelerate and advance ITE member interests by influencing national policymaking.
- Increase engagement by Districts and Sections on local policy issues.

GOAL 4 To provide sound financial stewardship that protects the experience of our members.
- Continue to protect, monitor and strengthen the financial health and resiliency of ITE at the international level, particularly in responding to global events such as COVID-19.
- Establish long-term support for key programs such as LeadershipITE and the Diversity Scholars Program.
- Provide guidance to Districts and Sections regarding reserves, non-profit financial management, and responsible spending on member programs.

GOAL 5 To have an expanding global presence.
- Create a Global District Board of Directors and Committee structure.
- Develop technical programs and products that are relevant to the needs of the Global District membership and enhance the global interest in the ITE Council structure.
- Encourage, develop, and maintain relationships with global professional transportation societies having objectives and missions aligned with ITE.
Redefining Greensboro’s Gateway

By Chris R. Spencer, P.E. (M), Deniece Conway, P.E. (M), Tyler Meyer, AICP (M) and Adam Archual

With an eye on creating a well-balanced multimodal transportation system, the Greensboro Urban Area Metropolitan Planning Organization in North Carolina, USA formally adopted a Complete Streets Policy (Policy) in 2015. The effort facilitates the City of Greensboro’s mission of developing and maintaining a safe, efficient, sustainable, and environmentally compatible transportation system that provides convenient choices for traveling throughout the Greensboro Metropolitan Area.
The Policy is a powerful tool available to transportation planners to advance transformational social and economic initiatives to create livable communities by prioritizing safe access for pedestrians, bicyclists, motorists, and transit riders. The Policy requires that convenient choices for accessing destinations throughout the region include well-integrated, connected public transportation, pedestrian, and bicycle networks.

Like many cities and transportation departments across the nation, Greensboro is evaluating options to retrofit outdated roadway corridors designed to principally accommodate motorized vehicles. As urban areas continue to evolve and residents seek more well-rounded communities, automobile-centric corridors—often located in challenging and constrained environments—require redesign to create a more equitable environment that is safe and inviting for all modes of transportation. In all cases, redesign is a balancing act requiring a thorough understanding of a community’s needs.

**Project Mission**

As part of Greensboro’s ongoing mission to create a more equitable transportation system, the Greensboro Department of Transportation (GDOT) partnered with Gannett Fleming to perform a Corridor Feasibility Study for a 1.8-mile (2.9 kilometers [km]) section of West Gate City Boulevard (Phase II)—extending improvements completed in Phase I.

The High Point Road/West Lee Street Corridor Plan–Phase I (Corridor Plan) was adopted in 2008 and serves as the guiding document for future public and private development and redevelopment along the corridor from S. Eugene Street to I-40. It recommended reconfiguring the roadway to improve corridor safety, promote new investment patterns, remove impediments to pedestrians and bicyclists, improve the corridor appearance based on conceptual streetscape plans, and create a transit-focused public space. These recommendations acknowledge that the character of a transportation facility greatly influences the types of investments made there.

West Gate City Boulevard is a key east-west thoroughfare just south of the downtown district that carries significant traffic volumes between the downtown district, Interstate 40 (I-40), and major cultural destinations, including the Greensboro Coliseum Complex and University of North Carolina at Greensboro (UNCG). As such, maintaining vehicular capacity is a primary goal. However, the city is seeking to do more within the limited public right of way.

The study developed streetscape enhancement concepts for the project corridor that were carefully crafted to achieve Complete Streets goals with input from the local community and stakeholders. Close coordination with UNCG staff and consultation with the Campus Master Plan were essential to align visions with a focus on safe and convenient crossings for students accessing the main

![Figure 1. Map of project area showing key landmarks of the project.](image-url)
campus a few blocks north of the corridor. Collaboration with key stakeholders as well as a tight focus on project goals enabled the study team to develop an effective road map to guide significant community enhancement.

**Planning Context**
As a vital thoroughfare, West Gate City Boulevard (High Point Road/West Lee Street prior to 2017) was identified as a key Reinvestment Corridor in the Greensboro Connections 2025 Comprehensive Plan, adopted in 2003, along much of its western segment. As mentioned, the 2008 Corridor Plan established the framework for transportation improvements. The High Point Road/West Lee Street Streetscape Implementation Plan (Implementation Plan) was accepted two years later to make the Corridor Plan’s vision a reality. The Implementation Plan prioritized streetscape improvements between I-40 and Coliseum Boulevard. Greensboro City Council created the Gate City Boulevard Partnership to provide citizen oversight for the implementation of the streetscape enhancements. The group worked with city staff to create three new zoning districts designed to attract investment along the corridor by identifying desired development possibilities.

The city completed Phase I streetscape enhancements in 2017 from I-40 to the Greensboro Coliseum. The work included widening sidewalks, improving crosswalks and intersections, consolidating overhead utility lines, and adding street trees to provide shade and aesthetic appeal. The upgrades were intended to create a safer pedestrian environment and a more attractive street—as well as tangible evidence of what effective corridor enhancement could be.

Significant corridor development projects provided a powerful impetus to extend streetscape enhancements. An expansion of the Greensboro Coliseum added the White Oak Amphitheatre and Greensboro Aquatic Center and rehabilitated the historic Canada Dry bottling facility for use by the Greensboro Area Convention and Visitors Bureau. UNCG also made a major expansion on West Gate City Boulevard, adding 1,200 beds in dormitories, and office, classroom, performance, and retail space to create an active extension of the campus.

**Existing Characteristics**
West Gate City Boulevard is a state-maintained principal arterial that accommodates annual average daily traffic (AADT) volumes greater than 25,000 vehicles per day. The corridor serves as a

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**Figure 2. Rendering showing common characteristics of street environments, existing and future.**

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convenient connection between the interstate system, downtown district, and the Greensboro Coliseum and Convention Center. The 22,000-plus seat Greensboro Coliseum, which opened in 1959, is a major regional entertainment destination and event traffic typically uses West Gate City Boulevard—in some capacity—to access the facility. Phase I (mentioned above) improved the streetscape character on the west approach to the Coliseum.

Like many urban commercial corridors, West Gate City Boulevard supports development that reflects more than a century of city planning and zoning regulations, from older structures with zero setback to freestanding structures surrounded by parking lots. The existing five- to six-lane roadway ballooned to accommodate efficient movement of vehicular traffic through the city. The center two-way left-turn lane (TWLTL) permits easy access to several driveways accessing the mix of commercial, light industrial, and institutional uses. These automobile-centric environments—consisting of multiple driveway crossings, long roadway crossings, and proximity to vehicular traffic—are not inviting to active transportation modes.

As UNCG continues to expand throughout West Gate City Boulevard, increased student pedestrian and bicycle volumes are expected on the corridor in the future. This projected growth, along with the 23 crashes involving bicycles and pedestrians reported in the study area between 2007 and 2017, make safety a priority. Though sidewalks are present on both sides of the roadway, they are generally narrow, between 4 to 6 feet (ft.) (1.2 to 1.5 meters [m]) in width, and are ridded with utility poles. In addition to posing barriers for pedestrians, the utility poles detract from the corridor’s appearance. Similarly, existing crosswalks are generally long and limited to signalized intersections; pedestrians crossing outside of crosswalks (i.e., mid-block) are common along the corridor.

Corridor Character in Transition
More recent development undertaken by UNCG is supporting the Complete Streets vision one block at a time. UNCG has invested in several large projects south of West Gate City Boulevard, including the Leonard J. Kaplan Center for Wellness and student housing. UNCG has been a productive partner, incorporating significant components of the Corridor Plan, including higher densities, mixed uses, the removal of driveways, and inclusion of 8-ft. (2.4 m) sidewalks and plantings. Together, these elements have helped to define the future of the corridor.
The city completed Phase I enhancements to West Gate City Boulevard west of Coliseum Boulevard in 2017; Phase II will extend enhancements into Downtown. High visibility pedestrian crossings, pedestrian refuge, street lighting, and bus shelters—common characteristics of the enhancement—have improved the Patterson Avenue intersection just south of the Greensboro Coliseum Complex.

Industries of the Blind occupies an older, historic manufacturing facility with zero setback along the north side of the roadway west of Tate Street. Along the south side of the roadway, late 20th century construction includes multiple driveways and parking lot behind the sidewalk. UNCG investment is defining the corridor’s future, with higher density student housing visible along the south side of the roadway.

The project team also engaged user groups and local businesses. Transit Alliance of the Piedmont (TAP) is a citizen’s group supporting multimodal transportation throughout the region. TAP advocated for a design approach that differentiated between various zones or districts along the corridor, consistent with the vision outlined in previous plans and an approach endorsed by UNCG during one of several stakeholder meetings. While recognizing that students would continue to be a major corridor user, future businesses in the area would not support solely students—it will be essential to address the needs of all members of the community.

A priority for the study team was gathering input from the Industries of the Blind, a manufacturing and packaging facility that employs more than 150 visually impaired individuals on West Gate City Boulevard. Among the goals of the small group meeting was understanding and observing how associates access the facility. Site-specific design recommendations were captured, and the unique accessibility needs of the facility will be carried forward into design.

The city implements a robust and inclusive public and stakeholder engagement program in project planning as a matter of course. The West Gate City Boulevard Phase II Feasibility Study was no exception. Engagement efforts featured user surveys, small group meetings, and focused community outreach.

Early in the project, the team conducted a Pedestrian Origin and Destination Survey that reached 335 participants at three locations near the university. The survey supports the need for a mid-block crossing near the Leonard J. Kaplan Center for Wellness, improvements to the at-grade Glenwood Avenue crossing, and other safety features, including security cameras and lighting.

The city hosted a booth at the popular Grove Street People’s Market in the historic Glenwood neighborhood to discuss the project and solicit feedback. The neighborhood expressed the importance of maintaining access to West Gate City Boulevard and transit opportunities, emphasizing the need to plan for increased pedestrian activity resulting from redevelopment.

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The benefits of engaging the community and stakeholders early in planning far outweigh any negatives. GDOT and the city have strengthened existing relationships and forged new ones with the community, all while gathering useful inputs to make this project reflect local needs and advance the corridor vision.

Collaboration and Community Involvement
The city completed Phase I enhancements to West Gate City Boulevard west of Coliseum Boulevard in 2017; Phase II will extend enhancements into Downtown. High visibility pedestrian crossings, pedestrian refuge, street lighting, and bus shelters—common characteristics of the enhancement—have improved the Patterson Avenue intersection just south of the Greensboro Coliseum Complex.

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Streetscape Design
The goal of conceptual streetscape designs was to maximize multimodal utility within the existing right of way. Due to the current traffic volumes, GDOT and the NC Department of Trans-
portation settled on 11-ft. (3.4 m) travel lanes, the minimal acceptable width to safely accommodate current truck traffic. A traffic capacity analysis supports the elimination of a third westbound lane between S. Josephine Boyd Street and Coliseum Boulevard; thus, the four-lane section will be carried through the entire 1.8-mile project.

The reduction in the roadway footprint (approximately 60 ft. [18.2 m] curb-to-curb) has two immediate benefits. Crossings for bicycles and pedestrians are shorter, and narrower lanes will encourage reduced vehicle speeds (35 miles per hour current and proposed). The center TWLTL will likely not be eliminated wholesale, as access to existing businesses will benefit from its retention. Driveway consolidation will be pursued in the next phase of development. A design concept with a center median was laid out, but the need to accommodate U-turns resulted in more property impacts and right of way requirements.

With a baseline roadway width, GDOT sought opportunities to improve bicycle and pedestrian safety, connectivity, and comfort. Wider, 6 to 8-ft. (1.8 to 2.4 m) sidewalks will be pursued throughout the corridor. A 10-ft. (3 m) side path along the north side of the roadway will accommodate bicyclists of all comfort levels–more experienced riders may still share the road with vehicles—and connect to the Downtown Greenway, which crosses West Gate City Boulevard at the east end of the project.

Another objective of the streetscape concept was to identify areas along the corridor where aesthetic enhancements may be pursued. These areas were identified in the conceptual designs and will be considered for various treatments consistent with the corridor, including but not limited to hardscaping, landscaping, and bus shelter upgrades.

Moving Forward

The project team learned a lot from the feasibility study process, and public and stakeholder input has been critical to its advancement. The study produced design recommendations and productive relationships with stakeholders and the community that will continue to inform the project’s development, including the potential to partner with UNCG to investigate West Gate City Boulevard as a Smart Corridor demonstration project.

The corridor is currently in transition, and exciting developments are ongoing. The vision established more than a decade ago and strengthened by city zoning is being realized through private and public redevelopment. The improvements proposed by the city will tie it all together, creating a safer and more inviting streetscape that will strengthen existing investments and attract others. Improved multimodal components will connect Downtown Greensboro, UNCG, and the Greensboro Coliseum Complex.

The city is prepared to redefine West Gate City Boulevard to more evenly distribute the public right of way among all users. West Gate City Boulevard is poised to become Greensboro’s gateway for the 21st century.

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Deniece Conway, P.E. (M) is a transportation engineer for the City of Greensboro Department of Transportation in Greensboro, NC. She has almost 20 years of experience in traffic engineering and transportation planning and currently manages various streetscape and road widening projects. She received a bachelor’s degree in Civil Engineering from North Carolina A&T State University.

Tyler Meyer, AICP (M) has been the transportation planning division manager for the City of Greensboro Department of Transportation since 2001 and the chair of the Metropolitan Planning Organization Technical Coordinating Committee since 2009. His specialties include working with Metropolitan Planning Organization (MPO) Boards, metropolitan and state transportation plans, Transportation Improvement Program management, oversight of locally administered federal/state funded project programs, prioritization of multimodal transportation needs, transit funding and operational strategies, and pedestrian and bicycle planning. He is a previous president of the North Carolina Association of MPOs (NCAMPO) and served on the Board of Directors for the national Association of MPOs (AMPO) for six years.

Adam Archual is a senior environmental planner and architectural historian with Gannett Fleming, Inc., located in Raleigh, NC. He has eight years of experience supporting and managing various planning efforts associated with the development of transportation projects for state DOTs, municipalities and planning organizations. Adam received a Bachelor of Arts from the University of Cincinnati in Anthropology and Geography as well as Masters of Heritage Preservation from Georgia State University.
Complete Streets and Goods Movement: The Canadian Experience

By David Kriger, P.Eng. (M) and Madhuri Seera, P.Eng. PTOE (M)

The efficient movement of goods is important for urban residents’ quality of life and economic prosperity. This means that goods movement must be well integrated with the movement of people. Complete Streets policies and guides aim to achieve this integration. Many cities have developed Complete Streets guides or policies and are now acting on their implementation—see Figure 1 for an example.

A review of selected Canadian Complete Streets schemes and a follow-up survey suggests that goods movement is considered, but at varied levels. This matters because it impacts how well couriers, truckers, and businesses respond to the implementation of a Complete Street, which in turn impacts how curbside space is allocated, planned, implemented, and ultimately how well a Complete Street manages goods movement.

Why is this important?
Road vehicles are by far the dominant mode used for urban goods movement, so spaces must be provided on- or off-street for loading and unloading.

These spaces must also accommodate the rapid growth in on-demand, quick in-and-out courier and express deliveries to both residences and businesses, increasingly on a 24/7 basis. This is driven in large part by the growth in e-commerce. Other users include independent couriers and service and repair vehicles, which often require close access to a site.

Figure 1. Cycle tracks and loading spaces on Simcoe Street, downtown Toronto, Ontario, Canada. Note that cycle tracks are on both sides of this one-way street.
These needs must compete with other demands for curb space. One consequence is increased conflicts between trucks and vulnerable road users (VRUs). Another consequence is that delivery vehicles often have to circulate to find a space, thereby adding to congestion and delivery costs. For time-sensitive deliveries, such as restaurant meals, drivers must often park illegally, potentially incurring fines.

Despite the benefits that a Complete Street can offer as an attractive and safe shopping and entertainment milieu, adjoining businesses and restaurants are often concerned how loading and unloading will be impacted. From the authors’ experience, these concerns can result in a resistance to implementing a Complete Streets project from businesses. The economic realities of the competitive trucking and courier industries also play into how drivers and transporters react to a Complete Streets scheme. As a result, how a Complete Streets policy or guide treats these topics can help anticipate and address potential problems.

Several guides describe approaches to safely manage the movement of trucks and other large vehicles for a range of Complete Street design contexts—the National Association of City Transportation Officials’ (NACTO) Urban Street Design Guide and the City of Toronto’s Curb Radii Guideline are examples. However, in the authors’ experience, not all Complete Streets guides speak explicitly to these approaches.

Many cities have implemented curbside management measures and measures to improve the safety of VRUs. Some references have recently become available:

- The 2018 ITE Curbside Management Practitioners Guide offers strategies to manage access to loading/unloading zones as well as ways to reduce or spread the demands for deliveries.
- A 2019 guide elaborates on Complete Streets design and management measures specific to the operations of goods movement and emergency vehicles. The guide includes a review of international best practices. Among other consequences, speaking to goods movement the guide points out that the failure to account for these operations often results in unanticipated navigation and parking challenges, conflict, and associated congestion and emissions impacts. The guide addresses designs that are appropriate for the context, accommodation of large vehicle turns, conflict reduction between trucks and VRUs, and adequacy of loading, parking and delivery space, among other topics.
- A 2018 Canadian guide focuses on ways to improve safety for VRUs around heavy vehicles. It presents a number of best practices for intersection design, traffic control, and roadway and cycling infrastructure, among other topics.

The authors have found it is not always clear how Complete Streets guidelines incorporate goods movement measures as an important element in the development of guidelines.

Various sources track the progress of Complete Streets initiatives in Canada. From these sources, the authors identified nine candidate municipalities and then reviewed their Complete Streets policies, guides, and design manuals. From east to west, the cities were:

- Halifax, Nova Scotia
- Ottawa, Ontario
- Toronto, Ontario
- Vaughan, Ontario
- London, Ontario
- Saskatoon, Saskatchewan
- Calgary, Alberta
- Edmonton, Alberta
- Vancouver, British Columbia

The cities were selected to provide diverse perspectives in terms of population, ranging from 247,000 (Saskatoon) to 2,732,000 (Toronto); type of Complete Streets initiatives, ranging from policies to design manuals; geographic distribution across the country; location within the urban area (central cities in a larger metropolitan region, uni-cities and suburban cities); and economic structure.

**Review of Goods Movement in Complete Streets Policies and Guides**

The nine cities’ Complete Streets documents range from policy statements to detailed multipart design and implementation manuals. Five policies and guides were developed in the past three years, and at least one of the oldest (from 2014) is being considered for a possible update.

The policies, guides, and design manuals were reviewed from the perspective of how they incorporated goods movement. Each document considers loading and goods movement explicitly, but the approaches vary. All documents recognize the need to accommodate all modes, albeit according to modal priorities that are deemed appropriate for a given location and context. Key points include:

- Calgary and Edmonton’s design guides give heavy trucks the highest priority only on arterials and local streets within industrial areas. Figure 2 shows Calgary’s standard cross-sections for industrial arterials and streets, which include sidewalks and multiuse pathways as well. Calgary’s guide identifies trade-offs in design according to the percentage and volume of large trucks in the traffic mix.
- Edmonton’s guide distinguishes different types of trucks and other vehicles by street classification.
- Saskatoon distinguishes priorities according to facility type, although it notes the importance of accommodating pedestrians even in industrial areas.
Halifax and Ottawa have established multimodal level of service (LOS) targets for different modes according to intersection and road geometries and operations, urban/rural context and designation as a truck route. Halifax’s targets range among LOS C, D, and E. Ottawa’s truck LOS targets range among LOS B, C, D, and E. London’s Complete Streets Design Manual uses varying treatments to serve different needs, including appropriate curb radii where large trucks must be accommodated, the need to accommodate on-street loading where off-street space or laneways are not available, and laybys to accommodate package (express) deliveries.

In sum, the review indicated that the municipalities had developed thorough, well-articulated guidance and design manuals, although the content and emphases varied. The guides and manuals took into account best practices by others, notably including the NACTO guides, and were based on stakeholder consultation. However, the level of detail to which goods movement had been considered was not clear—in particular, the importance given to goods movement, specific measures to protect bicyclists, how fast-growing demands for short-term deliveries were accommodated, how goods movement stakeholders provided input, and how their concerns were addressed.

Aims of Complete Streets Initiatives Regarding Goods Movement

- Reduce conflicts with VRU
- Reduce conflicts with transit
- Manage truck circulation
- Use smaller trucks
- Use low-carbon vehicles
- Manage on-street loading / parking
- Promote off-street loading / parking
- Manage courier pick-up / delivery
- Trucks, couriers, etc. not explicitly defined
- Basis for developing truck LoS
- Other

![Figure 2. Design standards for industrial arterials (top) and industrial streets (bottom), Calgary (dimensions in meters).](image)

![Figure 3. Aims of Complete Streets initiatives regarding goods movement.](image)
Survey
To address these questions, a survey was conducted among the nine municipalities in July 2020. Some of the respondents preferred to remain anonymous.

Policy
All except one city have Complete Streets policies or guidelines, and that city intends to build on its streetscape manual to develop a policy soon.

The aims and priorities of Complete Streets initiatives varied with respect to goods movement. Figure 3 shows that reducing conflicts with VRUs was the most frequent response and, generally, the top-ranked of 10 responses. Managing on-street loading and truck parking was second-most frequently cited and also the second and third ranked aim. An equal number of respondents (five of eight) noted that trucks, couriers, and other commercial vehicles were not explicitly distinguished from other vehicles in their Complete Streets policies and guides. Vancouver cited the desire to improve travel time reliability for both transit and goods movement as its top priority (under “other.”)

Some respondents noted that their freight strategies spoke more explicitly to goods movement than their Complete Streets policies and guides. The use of low-carbon vehicles and the promotion of off-street loading and truck parking to help manage on-street demand were not cited—in other words, these topics would be addressed by other policies, guides, or regulations.

Respondents identified current or planned goods movement measures that support their Complete Streets policies and guides. As shown in Figure 4, time-of-day regulations for deliveries was cited most frequently, followed by managing the supply, location, and dimensions of on-street loading spaces, bicycle lane configurations (including physical separation from the road lane and adequate width for cargo bikes), and the use of alleys for loading. The provision of on-street courier spaces, the relocation of on-street loading zones to nearby streets, and development approval requirements (such as shared off-street loading spaces) were also cited. Toronto and Vancouver had implemented or were considering all 12 of the categories offered in the survey. Several respondents noted that their measures were not specifically tied to Complete Streets initiatives.

E-Commerce/Deliveries
To accommodate short-duration courier and express deliveries on Complete Streets, Toronto and Ottawa have designated on-street locations for short-term parking. Ottawa also noted that the zoning for many major office complexes requires on-site short-term parking. London and Halifax noted that short-term deliveries could be made in “No Parking” areas. Vancouver noted that couriers in licensed commercial vehicles could stop in commercial loading zones, commercial lanes and (until noon) passenger zones for up to 30 minutes to load or unload materials or use a metered space for free before 10:30 a.m. local time (except where otherwise prohibited). The other four municipalities had no specific provisions for short duration loading other than the use of general loading spaces.

Interaction with Bicycle Lanes
Seven municipalities had implemented protected bicycle lanes, using concrete barriers and flex-posts in order to minimize truck-bicycle conflicts on Complete Streets. Edmonton implemented cycle tracks on the boulevard. To avoid truck encroachment, Halifax is upgrading several painted bicycle lanes to protected lanes. Other treatments included signage and pavement markings (some for new truck loading spaces), and the imple-
mentation of multiuse bicycle/pedestrian pathways or off-street facilities on key arterials. Some municipalities used several of these measures, according to their Complete Streets hierarchy. Toronto significantly increased the fine for encroachment coupled with increased police enforcement as another response.

Municipalities were asked if there were any circumstances under which bicycles lanes could be used for loading. Eight respondents noted that this was not permitted at any time, although Ottawa noted limited exceptions for such purposes as the loading and unloading of transit, school buses, taxis, and accessible parking (but not for goods movement). Toronto noted a pre-existing right-of-use that permitted trucks to access the bicycle lane in front of a downtown office tower; however, the bicycle lane is being reconfigured to the opposite side of the street.

**Industry Engagement and Uptake**

Only two municipalities noted that they had targeted engagement with the goods movement industry (truckers, couriers, etc.) during the development of their Complete Streets initiatives, although another five municipalities had engaged adjoining businesses. Five municipalities had public consultation meetings that were open to everyone but not otherwise specifically targeted to goods movement stakeholders. One municipality did not hold any consultation with goods movement stakeholders.

In response to its outreach, London ensured that details regarding curbside parking and loading were included in its Complete Streets Design Manual to support local businesses. More broadly, other municipalities have recommended the development of freight advisory groups to work with stakeholders on issues and studies, although only Calgary had implemented its own advisory group.

Respondents gauged their expectations of how they wanted goods movement stakeholders to react when a Complete Street was implemented. As shown in Figure 5, the most frequent and top-ranked expectation was that trucks and couriers would use the designated loading and parking spaces and avoid illegal activities. The next most important were the use of smaller vehicles, avoidance of deliveries at certain times of day, and use of nearby streets for loading, followed by the use of low-carbon vehicles and making deliveries off-street. Using another route ranked lowest on the list.

Industry responses to the Complete Street included adoption to the new routes and delivery times, avoidance of routes with designated bicycle lanes, and avoidance of central business district (CBD) deliveries during the commuter peaks. In response to business and property owner concerns, Halifax and Toronto added loading zones on adjoining streets. Calgary realigned the cycle tracks towards and away from the curb to accommodate loading zones in front of certain buildings in the CBD.

**Going Forward**

Four municipalities planned to update existing Complete Streets policies and guides or, in one case, to develop a new policy. However, one municipality’s forthcoming goods movement strategy will recommend that its Complete Streets guide be revised to better account for goods movement. The other five municipalities considered their policy or guide to be current. None had plans to make changes specific to goods movement, although Edmonton and Calgary were considering curbside management strategies to manage trucks and other vehicles. Some respondents suggested their Complete Streets policies could eventually be complemented by formal limitations on truck sizes in certain areas of their cities.

**Conclusions**

Several Canadian cities have developed Complete Streets policies and design guides. These policies and guides are comprehensive, well-

![Expectations of Industry Response to a Complete Street Implementation](image-url)
articulated, and based on best design practices. Goods movement is considered, and the described treatments can serve as examples for other cities. However, the approaches vary, as do the specific aims they are intended to meet, and it is not always clear how well they reflect how goods movement operations are accommodated.

The (emerging) guidance suggests that fully understanding these operations, especially in light of growing competition for scarce curb space, ongoing concerns about VRU safety, and changing delivery demands, can be important in ensuring that a Complete Street is able to effectively manage goods movement.

To gain this understanding, the findings point to the importance of targeted consultation with goods movement stakeholders when the Complete Street is developed (perhaps including driver/business surveys and loading space occupancy surveys), and to a broader linkage with other ways to manage goods movement (i.e., through demand management, off-street loading treatments, and so on).

Acknowledgements
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References

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COVID-19: Impacts on Freight Transportation

By Daniel Haake, AICP, ENV SP, CMILT (M), HDR

Freight transportation delivers the goods that maintain our daily lives. However, most consumers are not concerned about how their products make it to the store or their doorstep — they just want it there on the shelf.

That all changed in March 2020, as the COVID-19 pandemic caused massive panic buying in the grocery, household goods and medical supply industry. Store shelves were empty. The unprecedented demand severely affected and broke supply chains. Many grocery stores maintain a very limited inventory and rely on distribution centers to supply them daily. Generally, these centers have one to four weeks of inventory, depending on the perishability of the product. With capacity created by the dramatic collapse of institutional demand, the supply chains of goods like milk and toilet paper could not shift quickly enough to meet increasing household demand.

As the nation shut down, e-commerce and home deliveries soared. The surge was so sudden and dramatic that Amazon limited deliveries to essential goods until their supply chain could adjust and demand normalized. Facing similar challenges, Target created a curbside pick-up program that helped the company grow online sales by 195% in the second quarter of 2020 alone.

So what does this mean for the transportation system? While overall traffic demand fell during the quarantine, truck travel remained relatively stable. However, freight travel patterns dramatically changed. Home deliveries replaced freight normally generated by major manufacturers and shopping centers. The long-term implications of this shift will remain uncertain until the nation emerges from the pandemic and demand normalizes.

As the nation stayed home, truck drivers headed out to restock store shelves and medical facilities. However, many drivers had difficulty finding meals, with restaurants closed along their routes. In response, the U.S. Department of Transportation (USDOT) encouraged states to allow food trucks to serve rest areas by temporarily waiving federal regulations prohibiting commercial activities on the interstate system. In beginning weeks of the crisis, food trucks fed many drivers who would have otherwise gone hungry.

Additionally, USDOT allowed trucks providing necessary provisions to exceed weight limits and hours of service (how long a driver can drive). While this surge was temporary, it shows the regulatory flexibility created by a focus on resiliency and disaster relief, changes brought on by lessons learned from Hurricane Katrina in 2005 and other natural disasters in the years since.

As commuting and other passenger travel decreased, critical freight bottlenecks across the country all but disappeared. In March 2020, the American Transportation Research Institute analyzed the nation’s top truck bottlenecks and found average truck travel speeds increased by as much as 25 miles per hour. This allowed much needed goods to be delivered to hospitals and markets in record time. Over the long-term, it raises the importance of passenger travel demand management initiatives as a freight planning tool.

As the crisis continues, the long-term impacts of the pandemic on the transportation system remain uncertain. Will consumers continue to demand at-home deliveries at current levels, or will they return to retail centers? Will employers continue to allow their staff to work from home after the pandemic ends, unintentionally creating what would be the largest travel demand management initiative ever undertaken? How will private sector supply chains react to the changing marketplace? Only time will tell.

Daniel Haake, AICP, ENV SP, CMILT (M) is a senior transportation planner with HDR in Indianapolis, Indiana. He is the chair of ITE’s Urban Goods Movement Standing Committee and TRB’s Trucking Industry Research Committee.
Guidelines for Determining Traffic Signal Change and Clearance Intervals

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Answer to “Where in the World?” on page 12: Downtown San Antonio, TX, USA. Photo courtesy of Holly Stowell.
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