



# INSTITUTE OF TRANSPORTATION ENGINEERS

## SOUTHERN CALIFORNIA SECTION

# NEWSLETTER

2019 – 2020, Issue No. 5

April-May 2020

## President's Message

*Sowmya Chandrasekhar, PE, TE, PTOE*



Oh, how much has changed since the last time I sat down to write a President's message. Hope you and your loved ones are safe as we wade together through these uncharted waters.

Due to the current pandemic, we had to cancel our March Tri-Section Joint Workshop that is hosted annually along with RSBITE and ITE San Diego Sections at San Juan Capistrano. Our theme for this year's workshop was centered around the ITE Transportation Achievement Awards.

As a quick recap, the following projects were nominated on behalf of our Section:

- Safety Council Nominee: **City of Santa Clarita**, Exclusive Pedestrian Crossing Cycle by Time of Day Project
- Planning Council Nominee: **Port of Long Beach**, An Experience with 9th Street Closure
- TSMO Council Nominee: **City of Arcadia**, Transit Signal Priority
- Traffic Engineering Council Nominee: **City of Santa Clarita**, Give Me Green

I am very happy to share that all four of these projects from our Section were selected in their respective categories by ITE Western District to be submitted to ITE International for awards consideration. Congratulations to all the nominees!

In order to present an opportunity to these nominees to still showcase their projects, our Section has worked with RSBITE and ITE San Diego Sections to move the originally planned in-person workshop to a virtual meeting format. We will be hosting two FREE webinars in the next two weeks and hope you could join us for either or both! Thanks to our sponsors for this event – **Bosch, Iteris, and Traffic Guru**. Thanks to **Michael Baker International** for graciously offering to host these webinars! We have also invited the two candidates running for the Western District Secretary/Treasurer positions to briefly introduce themselves during our webinar on May 20<sup>th</sup> (candidate statements are included in this newsletter). Please remember to **VOTE** for our Western District Candidates!

Speaking of elections, it is almost time to choose your next ITE SoCal Section Board! We will be announcing the candidates for the Treasurer position in the coming week and send an email with voting ballots to current ITE members in our Section by May 18, 2020. Please ensure that your email with ITE International is up-to-date.

Keeping the safety of our members as our top priority, the Board has decided to not host any in-person meetings for the next few months. This means that our Annual Student Chapter Presentations Night co-hosted with OCTEC and June Joint Meeting with ITS CA Southern Section would also be held virtually. So, for the first time ever, the incoming Board will be sworn in virtually during our June Business Meeting! Please save the dates for these upcoming Section events:

- ✓ June 17, 2020 – Annual Business & Joint Meeting with ITS CA  
11:00 AM to 12:30 PM
- ✓ June 24, 2020 - Student Chapter Presentation Night  
5:00 to 7:00 PM

Hope you all can join us from the comfort of your homes/offices!

Last, but never the least, thanks to our sponsors of this newsletter issue - **Econolite, Kimley-Horn and Associates, South Coast Lighting, and Transoft Solutions.**

### Upcoming ITE SoCal Events

#### Joint Webinars with RSBITE/ San Diego Sections

**Thursday, May 14, 11:00 am**

<https://2020-rsbite-itesocal-itesandiego-joint-webinar.eventbrite.com>

**Wednesday, May 20, 11:00 am**

<https://2020-rsbite-itesocal-itesandiego-joint-webinar2.eventbrite.com>

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[www.socalite.org](http://www.socalite.org)

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### Brief Look Ahead

- ✚ June 28<sup>th</sup>-July 1<sup>st</sup>, Western District Annual Meeting, [www.westernite.org](http://www.westernite.org)
- ✚ August 9<sup>th</sup>-12<sup>th</sup>, International Annual Meeting, [www.ite.org](http://www.ite.org)
- ✚ September 25<sup>th</sup>, California Infrastructure Symposium, Hilton Arden West, Sacramento, [www.caisregion9.org](http://www.caisregion9.org)

### May 2020 Legislative Analysis

Tyler Lindberg (Iteris, Inc)



Inside the Assembly Chambers  
(Photo Credit: David Schwegel)

**SB 1351** (Beall) – SB 1351 would require each transportation planning agency and county transportation commission with multiple transit agencies within its jurisdiction to update every four years the rules and regulations concerning transfer policies, payment methods, and other relevant policy changes to ensure that coordinated service exists between agencies. SB 1351 would also place limits on the Director of Transportation from allocating an amount of greater than 5% of a transportation agency's annual revenues toward planning and programming purposes. (Status: Senate Committee)

**SB 1291** (Committee on Transportation) – SB 1291 would provide that an MPO and/or other transportation planning agencies would not need to submit a list of projects for the Federal Transportation Improvement Program (FTIP) to

the state, and the Department of Transportation would not be required to submit an aggregated FTIP list to the Secretary for 2020. (Status: Senate Committee)

**AB 1992** (Friedman) – AB 1992 would establish a new program to fund climate change adaptation planning for transportation impacts, data collection, analysis, and modeling. AB 1992 would also require the Department of Transportation and the California Transportation Commission to update the Asset Management Plan to address forecasted transportation infrastructure impacts from climate change. AB 1992 was recently amended with revised guidelines that all preparations of regional transportation plans include the forecasted impacts of climate change on transportation infrastructure. (Status: Assembly Committee)

**AB 2262** (Berman) – AB 2262 would require every Sustainable Communities Strategy (SCS), required by law to be prepared by each Metropolitan Planning Organization (MPO), to include a zero-emission vehicle readiness program. AB 2262 has been amended to clarify that the zero-emission vehicle readiness program shall include: assessment of vehicle-charging infrastructure needs, identification of suitable vehicle-charging locations, and assessment of zero emissions vehicle needs for businesses, residences, and low-income populations. (Status: Assembly, First Hearing)

**SB 1363** (Allen) – SB 1363 would mandate the State Air Resources Board to provide each region with greenhouse gas emission reduction targets for the 2045 and 2050 planning horizons by no later than 2022. Language in bill has been updated with vehicle miles traveled (VMT) language pursuant to SB 743. (Status: Senate Committee)

### Estimating Traffic Volumes under COVID-19

Kittelson & Associates, Inc.

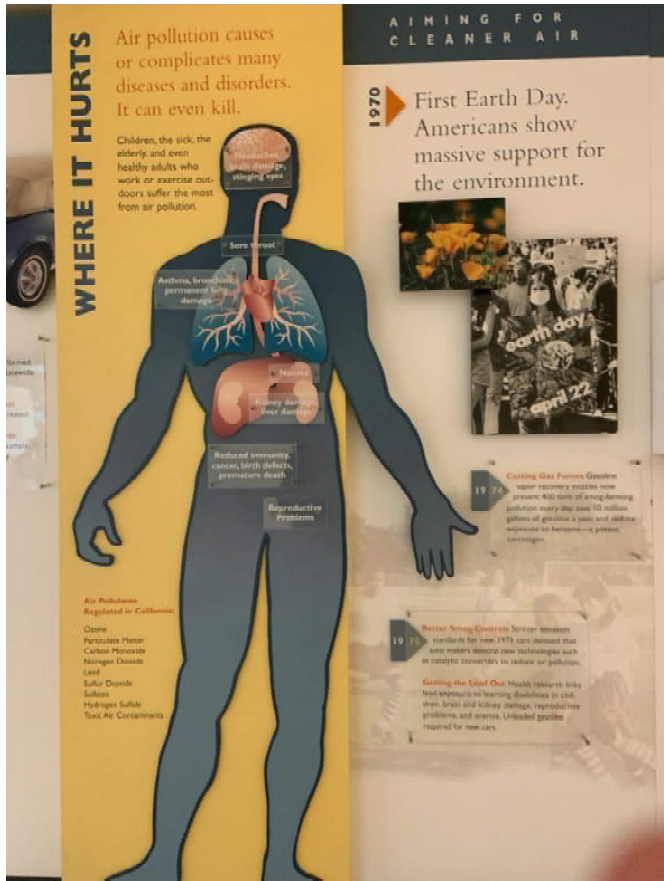
The COVID-19 pandemic has developed so rapidly that there has been very little opportunity for preemptive planning. While social distancing is important for slowing the spread of COVID-19, it



has caused abrupt and dramatic changes to travel patterns across all modes.

Kittelson & Associates, Inc. has prepared a white paper, "Estimating Traffic Volumes Under COVID-19 Pandemic Conditions," that addresses a question on the minds of many practitioners right now: How can important projects that rely on field-collected volume data continue? The white paper identifies four actionable steps for developing reasonable estimates of existing and future travel demand that reflect typical conditions, are acceptable to public officials, and are defensible by transportation engineering consultants. See the "Estimating Traffic Volumes Under COVID-19 Pandemic Conditions" white paper at the end of this newsletter.

**Gearing Up for the New VMT Metric**  
 David M. Schwegel, PE (APEX Civil Engineering)



"The Air We Breathe" Exhibit inside the CalEPA Building in Sacramento (Photo Credit: David Schwegel)

On Thursday, April 16, ITE held a webinar on "SB 743 and the San Diego Regional Guidelines". SB 743 was approved by the Legislature during the Fall Quarter of 2013; and replaces Level of Service (LOS) with the Vehicle Miles Traveled (VMT) metric as the significance criteria for development projects to reduce VMTs and Greenhouse Gas Emissions (GHGs). There were around 115 sites that logged into the webinar throughout North America. Presenters included Erik Ruehr (VRPA Technologies), KC Yellapu (LLG Engineers), Katy Cole (Fehr & Peers), and Minjie Mei (City of Santee).

Ten takeaways are as follows:

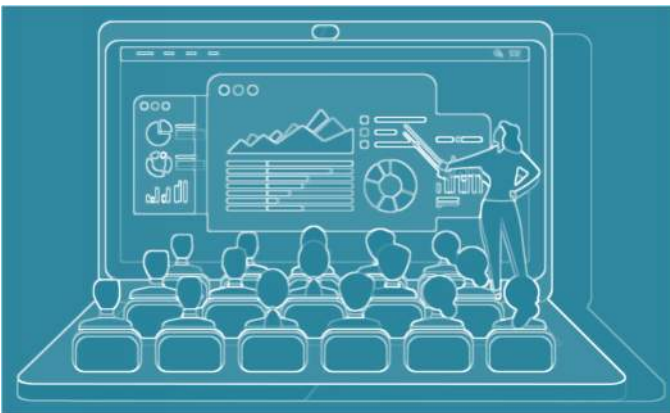
1. The Governor’s Office of Planning and Research (OPR) has been working on new California Environmental Quality Act (CEQA) Guidelines since 2013.
2. SB 743 was incorporated into CEQA in December 2018 with a required implementation of July 1, 2020 even though the plaintiff in Citizens for Positive Growth vs. City of Sacramento was hoping for an earlier implementation.
3. Early SB 743 Adopters include the Cities of Pasadena, San Francisco, Oakland, Los Angeles, San Jose, and Elk Grove, among others.
4. Caltrans has Guidance Documents on its website: [Caltrans SB 743 Implementation](#).
5. LOS analyses will continue to be required for National Environmental Policy Act (NEPA) documents.
6. ITE San Diego’s Transportation Capacity and Mobility Task Force, formed to discuss the implementation of SB 743 among other topics, includes Caltrans, San Diego Association of Governments (SANDAG), San Diego County, cities, consultants, and other stakeholders.
7. The Basic VMT Formula is Trip Generation multiplied by Trip Length, with Trip Length being compared to averages for the region and obtainable from sources such as the California Statewide and SANDAG Travel Demand Models, and running the appropriate model for the with and without project scenarios to obtain the project’s Net New VMT.
8. The three fundamental steps for VMT Estimation for development projects are: (1) Calculation of Daily Project Trips, (2) Selection

of VMT Analysis Methodology and Calculation of VMT, and (3) Determination of Level of Significance and Mitigation Measures (if any).

9. While the Standard of Significance is around 85 percent of the Regional VMT, lead agencies may set their own VMT metrics and thresholds.
10. Mitigation options include: (1) Reducing the Trip Generation through measures such as Travel Demand Management (TDM); and (2) Reducing the Trip Length through measures such as bringing residential, retail, commercial, and office uses closer together.

For more information on the statewide implementation of the New VMT Metric including the California Statewide Travel Demand Model, Reference Documents, and Sample Traffic Impact Study Guidelines, go to: [NorCal ITE SB 743](#).

### Rescheduled ITE SoCal and OCTEC Student Presentation Night



**NEW DATE: June 24, 2020**

In light of the current conditions, the Annual Student Presentation Night hosted by ITE Southern California and the Orange County Traffic Engineering Council (OCTEC) will be moved to June 24, 2020 in a virtual presentation format. This decision was made through the collaboration of ITE SoCal, OCTEC, and the feedback of the ITE Student Chapter Leadership groups.

With the event accessible to anyone with internet service, all transportation professionals are encouraged to sign on and support the Student

Chapters from the comfort of their home/work offices. We expect the highest attendance numbers yet! Event details to follow.

### Highlights from *ITE Spotlight*

Here are some highlights from *ITE Spotlight* dated April 22, 2020:

- ITE Policy Revisions: [Policy Revisions Web Page](#)
- Updates to ITE COVID-19 Resources: [COVID-19 Resources Page](#)
- ITE Virtual Roundtable Discussions: [Virtual Drop In Sessions Page](#)
- ITE Clearance Interval Recommended Practice: [Technical Resources: Signal Change and Clearance Intervals](#)
- Call for Webinar Proposals: [ITE Professional Development: Webinar Submissions](#)
- Communicating Technical Topics to Non-Technical Audiences: Who Are They Really and What Do They Care About: Wednesday, May 13, 11:00 am to 12:00 pm PT: [Course Information](#)
- May 2020 issue of *ITE Journal*: [ITE Journal](#)

For more ITE news, check your email inboxes for the latest issue of *ITE Spotlight*.

### Links from Recent ITE SoCal Emails

#### Caltrans TAF/TAC Implementation Documents

available until Monday, June 15:

[Caltrans SB 743 Implementation](#)

#### Governor's Office of Planning and Research

[Problems with LOS](#)

[Benefits of VMT](#)

[Full Counting of VMT](#)

#### California Air Resources Board

[Connecting VMT and Climate Goals](#)

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Though much has changed in the world over the last few weeks, Kimley-Horn's commitment to exceptional client service has not. As we planned, many of us are working from home and are efficiently delivering on our commitments. While we miss our personal interaction with you and our office mates, we wanted you to know that we're continuing to stay connected. We're now able to collaborate to serve you from over 4,000 locations—many with an office size of one. From all of us at Kimley-Horn, thank you for your continued support of our firm and our people. If there's anything we can do for you or for your organization, please know we are fully operational and standing shoulder to shoulder (virtually) with you. We'll all get through this together!







Announcing Version 6.0



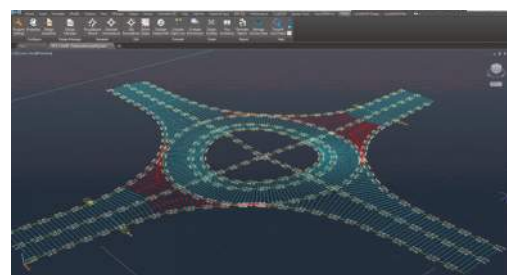
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## The Fixing America's Surface Transportation (FAST) Act Expires September 30, 2020.

### WHAT IS THE FAST ACT?

FAST Act is the current authorizing legislation for federal surface transportation programs

### Why is this important?




- Safe & resilient mobility infrastructure requires a predictable, dependable, and adequate source of funding
- The FAST Act supplemented Highway Trust Fund revenue with general funds. If not renewed, funding levels would substantially drop to what the Highway Trust Fund alone could sustain
- This is the opportunity to advocate for new approaches to transportation policy and funding

### What can I do?

- Read the [ITE Reauthorization Principles](#) and the ITE-sponsored FAST Act white papers (coming March 2020)
- Educate key decision makers in your region to the importance of dependable transportation funding
- Be the professional voice of the transportation industry by staying up to date on this topic
- Talk to your colleagues, family, and friends about why dependable transportation funding matters



### ITE Reauthorization Principles

-  Establish a new safety program consistent with a Vision Zero philosophy
-  Increased and sustainable funding, with an emphasis on metropolitan areas
-  Support for the research and deployment of new and emerging technologies



The Reauthorization Task Force is comprised of senior ITE Leaders whose goal is to ensure our voice reflects a future where transportation funding improves the safety and mobility of all users

# ESTIMATING TRAFFIC VOLUMES UNDER COVID-19 PANDEMIC CONDITIONS

APRIL 2, 2020

## Introduction: There's No Traffic!

We [recently shared](#) our view that the progression of transportation projects should not be stymied by an inability to collect field data representative of normal conditions. We offered broad ideas responding to a question on the minds of many practitioners: How can important projects that rely on field-collected volume data continue?

### How can important projects that rely on field-collected volume data continue?

This white paper expands on the themes and ideas shared in that article, identifying tools, resources, and methods for practitioners to consider in developing reasonable estimates of existing and future travel demand.

While important to slow the spread of the COVID-19 pandemic, a prolonged period of social distancing gives rise to several challenges for transportation professionals:

- / Important field-based data collection activities such as road tube counts, intersection turning movement counts, and origin-destination surveys will not yield usable estimates of non-pandemic traffic conditions during this period of disruption.
- / At least some amount of permanent travel demand/pattern change seems likely to remain after the pandemic has run its course. Both individuals and institutions have opportunities and incentives to learn from the distance

learning and remote work experiences that have been forced upon them by the pandemic. Both groups can be expected to try to minimize their future risks by implementing some permanent behavioral changes with respect to when, where, why, and how they travel. Initial anecdotal commentary seems to support this prediction.

- / The pandemic has already been so disruptive to the national and world economies that a recession of some duration is expected. Recessions as well as overheated economies probably have little effect on 20-year forecasts, but they can significantly affect travel demand forecasts within the 0-5 year timeframe.

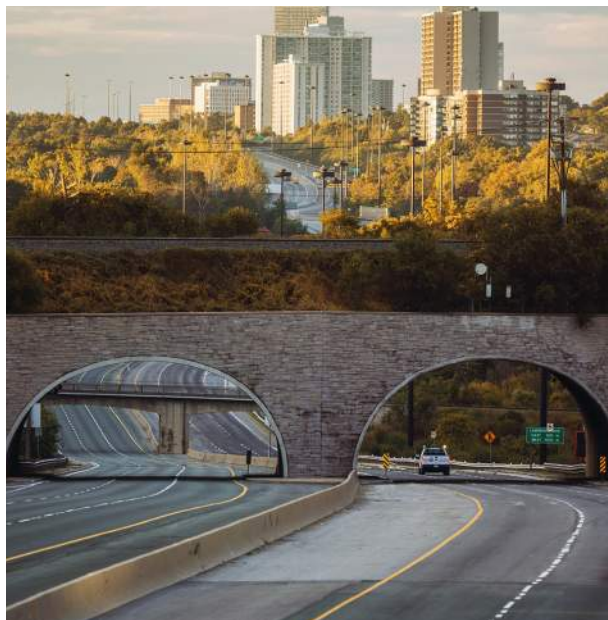
Despite these issues, compelling safety, health, and economic reasons remain for transportation agencies to continue moving forward on planning, design and operations projects to every extent possible. Even where “shelter in place” and “stay at home” orders have been issued, transportation is recognized as an essential service that must be maintained. Thus, continuing forward progress is necessary even on projects that rely on field-collected volume data and short-term volume forecasts.

Credible and reproducible methods and procedures are needed that will allow transportation professional to achieve this objective. When time is of the essence, the innovative use of already-available tools and resources is usually the most effective path to achieve such an objective. This approach is also a hallmark of how the transportation profession has addressed unexpected issues in the past. It therefore represents an opportunity to once again meet community and public needs in a timely manner.

# 4 Steps to Developing Proxy Volume Estimates

The following sections present guidance and some example methods for developing proxy estimates of existing and short-term future demand projections in an environment of pandemic-related disruptions.

The initial guidance provided here will result in reasonable demand projections that can be verified or fine-tuned under post-pandemic conditions. Additional modifications and enhancements to this guidance are likely to improve its veracity. [Such suggestions are encouraged](#) from every corner of the profession, because it is through this level of collaboration that the knowledge and expertise contained within the profession becomes greater than the sum of its individual parts.



Through [collaboration](#), knowledge and expertise within the profession become greater than the sum of their individual parts.

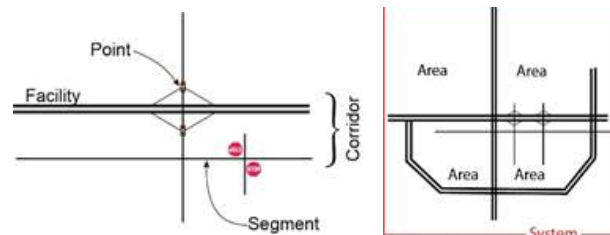
## 1 Establish Project Context and Data Needs

The answers to these initial questions will facilitate the identification of the most appropriate tools and resources for each individual project:

### WHAT TYPE OF ANALYSIS IS BEING CONDUCTED?

The type of analysis being conducted is a critical determinant for the type of data that will be needed. Six types of roadway system elements have been defined in the *Highway Capacity Manual*, each of which is associated with its own set of data needs:

- / Points
- / Segments
- / Facilities
- / Corridors
- / Areas
- / Systems



### WHAT MODAL CONSIDERATIONS NEED TO BE ADDRESSED?

Motor vehicles, transit, freight, pedestrians, and bicycles are all integral to an efficient and effective transportation system and most projects should be assessing the deficiencies and needs associated with each of these travel modes.

### WHAT TYPE OF DATA IS NEEDED?

Most traffic analyses need to take account of the physical, demand, supply, and operational/control characteristics of the roadway elements being analyzed. It is the demand-related data that is most significantly affected by the current pandemic. There are several different types of demand data that could be needed for a project analysis, each of which might also be sub-stratified by travel mode:



- / Directional demand (for example, link volumes)
- / Travel patterns (for example, trip distribution characteristics)
- / Turning demand (for example, intersection turning movements by approach)
- / Traffic stream composition (for example, truck percentages as well as demand distributions across all travel modes)
- / Demand generating characteristics (for example, the trip generating characteristics of particular land use types, such as resort/holiday)

### WHAT ARE THE CRITICAL ANALYSIS TIME PERIODS?

Demand characteristics are known to have important variations according to season of the year, day of the week, hour of the day, and 15-minute periods within each hour. Rules of thumb already exist for converting demand data from one time period into another but it is still important to be mindful of these differences in the context of the data resources available to a particular project.

## 2 Coordinate with Appropriate Agencies

Perhaps now more than ever, coordination with impacted agency partners is essential to secure acceptance of the methods to be used to develop proxy demand projections. In addition to setting up a successful project outcome, new information may be discovered through the coordination process. Up-front actions that can be taken during an early coordination phase include:

- / Develop a scope-of-work to secure agency consensus with the process before performing analyses. (case-by-case)
- / Identify example case studies or validation of other data collection efforts to establish confidence and partnership in the project review and approval process.

- / It will be important to explore all available resources with agency partners during the scoping process. Some agencies may collect and disseminate data through different staff or departments so all avenues should be explored as data sharing opportunities may not be fully understood internal to a given partner agency.

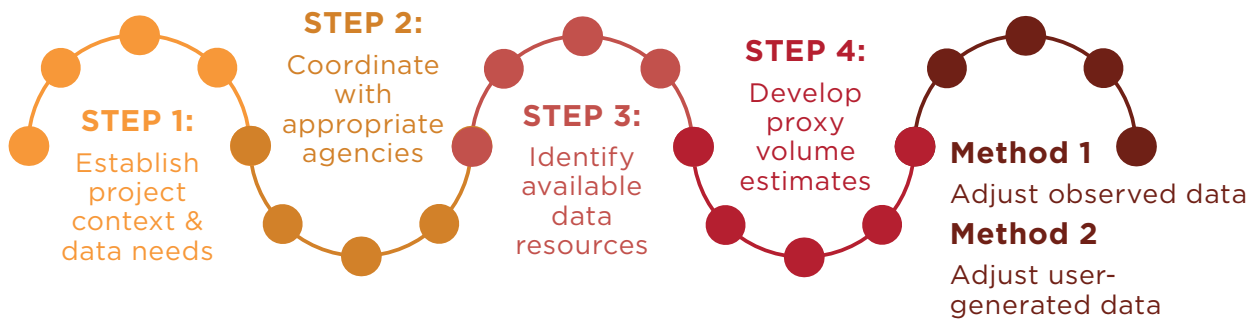
## 3 Identify Available Data Resources

A variety of historical data resources is potentially available to a project, some or all of which may be useful to achieving a reasonable demand projection. This includes “externally-observed” data obtained from traditional roadside data collection tools and techniques such as manual turning movement counts, embedded roadway sensors and video data analytics. It also includes “user-generated” data that is increasingly available from emerging technologies such as connected vehicles (CVs). These data sources can be used, independently or in combination, to produce reasonable traffic volume estimates under a normal design time period (i.e., non-pandemic environment). Depending on the age, type, and location of the data it can be converted into reasonable estimates of baseline traffic demand through the considered use of historic growth rates, scaling factors, seasonal adjustments, directional or peak hour splits, and turn movement and origin-destination patterns.

### DISCOVERING EXTERNALLY-OBSERVED DATA

There is a wealth of historical data available from standard resources that can be used to predict demand levels and patterns under non-pandemic conditions:

- / Traffic Data Collection Companies are present or active in virtually all communities throughout the U.S. These companies collect and reduce transportation data using video surveillance cameras, road tubes, manual counters, and even drones. Traffic data is typically collected for public and



private sector projects, so discovering if data is accessible may take some consultation with these end-users. Some data providers make their historic data available through web-based formats (see an example from Quality Counts here: <https://data.qualitycounts.net/>). If you are a data provider, read to the end of this white paper for an opportunity to add your database to our online toolkit.

/ Public Agencies often operate their own independent traffic count programs with databases accessible to the public via the web. For example, the Oregon State Department of Transportation (ODOT) posts online records of annual traffic volumes and growth trends along all highways in the state, including freeways and ramp terminals, as well as vehicle classification reports and permanent automatic traffic recorder station information that can identify unique seasonal patterns: <https://www.oregon.gov/odot/Data/Pages/Traffic-Counting.aspx>.

**Public transportation studies contain a wealth of traffic count data. Discovering this data may take some time and effort.**

/ Other agencies like the California Department of Transportation (Caltrans) provide similar resources, plus real-time data on travel time, vehicle hours delay, and vehicle-miles-traveled (VMT) on the state system: <http://pems.dot.ca.gov/>

/ Much traffic count data is contained in published transportation studies, however, it may be sitting idly on a shelf or digital file within a public agency or private firm. Discovering this data may take some effort. Potential resources include but are not limited to:

- **Long-Range Transportation Plans (LRTP)/Transportation System Plans (TSP)** are prepared or updated about every 5 years for many large cities and counties throughout the U.S. These plans typically rely on the collection of traffic counts along roadways or at major intersections (collector level or higher) to prepare long-range travel demand forecasts and operations analyses. Raw traffic count data may even be documented in a TSP report appendix placed online, or available by request through the public agency or private consulting firm. Some agencies have integrated this data with GIS databases that can be queried (for example, see the transportation data layers available at <https://www.portlandmaps.com>).
- **Corridor Plans and Capital Improvement Design Plans** typically document the collection and analysis of traffic count data. Depending on the project, the base traffic data may or may not be readily available (technical project details may not be well publicized but perhaps can be secured through the preparing agency or project manager).

- **Transportation Impact Studies (TIS)** that accompany many land development applications often include a treasure trove of local information. These studies routinely contain traffic count data and may be kept on file at public agencies, through a web-based query search, or available by request through the study author.

/ Advanced Traffic Controllers (ATCs) are able to collect many metrics including demand-related information as detailed as lane-by-lane approach volumes. Older traffic signal controllers are not always able to provide this type of demand-related data and so the availability of such information is dependent on location.

### DISCOVERING USER-GENERATED DATA

Emerging technologies are developing quickly and the data that can be accumulated from CV's, Bluetooth readers, and probes is already providing much value to practicing professionals.

Traffic data aggregators (such as [StreetLight](#), [Moonshadow](#), [Wejo](#) and [Inrix](#)) collect these types of data from numerous different sources, combine them with externally-observed data as it might be available, and then sell the results in various easy-to-use formats. When using these data sources it is important to distinguish the components that make up a particular set of observations so that it aligns appropriately with the project needs. Recent expansions have allowed this data to work in smaller areas. For example, data from probes such as cell phones is typically collected at time intervals of a minute or more; this can be quite adequate for estimating travel patterns but may not be sufficient resolution to estimate approach volumes at an intersection.

User-generated data is increasingly available from emerging technologies such as connected vehicles.

## 4 Develop Proxy Volume Estimates

The ability to develop proxy volume estimates will be driven by the specific project characteristics and data availability as described above. Multiple methods and tools are available to develop reasonable demand projections from these resources, two of which can be described as follows:

### METHOD 1: ADJUSTMENTS TO OBSERVED DATA

/ Historical demand data that has been collected at the same location over multiple time intervals or years can be extrapolated to the desired timeframe on the basis of observed trendlines. The results can be further refined through the application of accepted and/or historically observed adjustment factors that account for seasonal, daily, and hourly variations. This approach is usually not applicable to situations where trip distribution patterns are required.

/ Reasonable demand projections can also be produced even when only a single historical observation is available. If the available historical observation is recently collected it can be used without any further modification beyond the seasonal, daily, and hourly variations noted above. When this is not the case then general trend data obtainable from nearby locations can be assumed to apply. This approach is applicable to all the types of demand data identified earlier.

### METHOD 2: ADJUSTMENTS TO USER-GENERATED DATA

/ Historical data obtainable from third party aggregators can be used to estimate travel patterns and trip distributions but almost always requires the use of scaling factors when demand levels are required. This is because the aggregated data usually represents just a sampling of the underlying demand. Appropriate scaling factors can be obtained from nearby locations where observed and user-generated data were



collected at the same time (for example, at a permanent count station, in the vicinity of an ATC controller, or wherever a manual count was conducted). This approach is applicable to all types of demand data identified earlier.

There may be a need to supplement the two methods described above to reflect localized land use considerations. For example, development activities that have occurred since historic counts were completed and/or unique local land uses not in operation at the time of historic traffic counts (e.g. closed schools, churches, event centers, or other establishments) may need to be accounted for. In such instances, volume adjustments can be made following the traditional four-step modeling process and using trip generation estimates developed for the dormant land use(s) with data from resources such as the [Trip Generation Manual](#) published by the Institute of Transportation Engineers.

### FURTHER CONSIDERATIONS

It was noted in the introduction that the ongoing disruptions are likely to result in long-term changes to pre-pandemic travel patterns and demand levels. Some of these changes will be temporary (for example, the effects of an anticipated recession) while others are likely to be permanent (for example, a higher proportion of distance learning and work-at-home activities). In both cases the effects are expected to have a dampening effect on pre-pandemic vehicular and transit demand levels. The estimation methods described above are therefore believed to be conservative; that is, they are more likely to overestimate than to underestimate post-pandemic and short-term demand levels. Because of this, it will be desirable wherever possible to incorporate into each project a post-pandemic data collection and assessment component so the analysis results, findings and recommendations can be adjusted and fine-tuned as appropriate.

It is still unclear what the short-term and long-term effects of the current disruption will be on pedestrian and bicycle demand levels. It is not expected that any changes will be so significant as to challenge the capacity of individual facilities or eliminate the need

for previously-identified investments. Even so, continued close monitoring of these travel modes will be an important part of any post-pandemic assessment.

## Conclusion

While the current health and economic situation is in many ways unprecedented, the transportation industry has long relied on sound engineering judgment, a look to the past, and creative technology applications to chart new paths forward. Application of historic data, adjustment factors, and safety factors has proven effective in the past and, combined with availability of recent innovations in available network database information, presents a powerful tool for moving transportation projects ahead in uncertain times.

## Collaborate With Us!

We're working to curate an online database of tools for others in the industry to utilize during the COVID-19 pandemic.

We have seen a number of innovative approaches and policies developed since we first published [our article](#) on this topic.

Will you collaborate with us to move the transportation industry forward during COVID-19? If you have information or examples in response to the questions below, please [share it with us here](#). We'll curate the information online for others to learn from.


- / What other tools, methods, or procedures are being used to develop proxy traffic estimates?
- / Do you have good examples of developing proxy counts over the month to complete your analysis?
- / Does your organization have historical on-line counts for people to access? If so, please send us the link to post.
- / How have public policies changed in response to COVID-19?



# KIMBERLY E. LEUNG, P.E., T.E.

Candidate for ITE Western District Secretary-Treasurer

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 kimberly.leung@sfmta.com

## KEY GOALS

### (01) STUDENT INITIATIVES

Support and expand programs for the development and mentorship of the next generation of young professionals

### (02) MEMBER EXPERIENCE

Increase access to ITE programs for members, particularly those from smaller Sections and the public sector, through online streaming of the District Annual Meeting's keynote and technical sessions

## LEADERSHIP EXPERIENCE

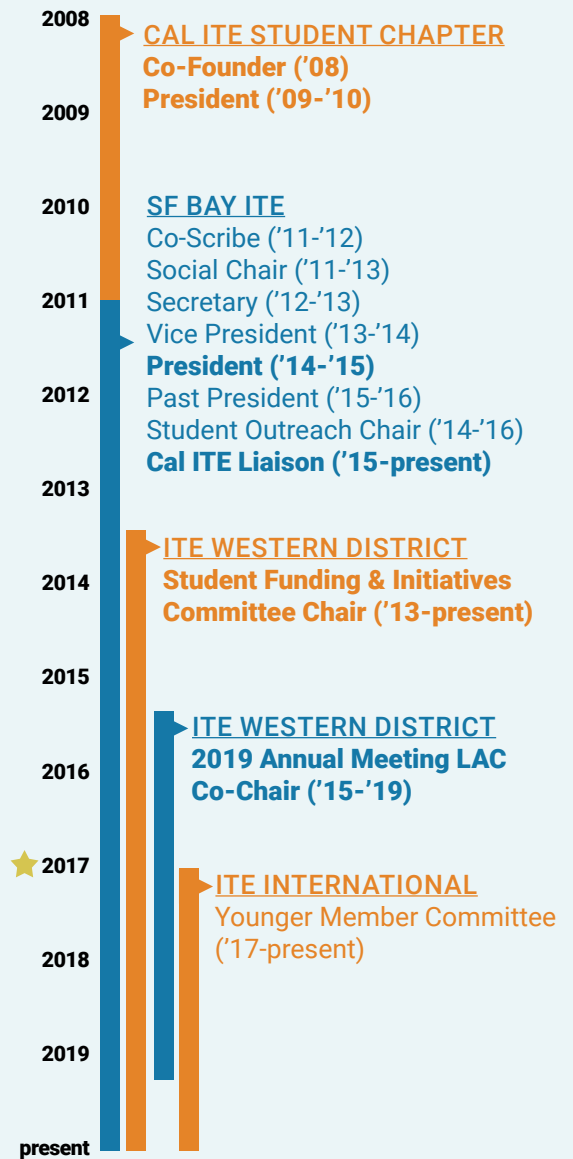
I have been involved with ITE since co-founding UC Berkeley's Cal ITE chapter in 2008. I served as Student Chapter President in 2009 and continue to encourage student interest in the profession as the District's Student Funding and Initiatives Committee Chair and as Cal ITE's Professional Liaison. I finished my term as SF Bay ITE President in 2015, upon which the Section received ITE International's Section Activities Award for the first time. Most recently, I co-chaired the 2019 Western District Annual Meeting, a four-year planning effort that culminated in the first District meeting in Monterey, CA.

## PROFESSIONAL EXPERIENCE

I am an Engineer at the San Francisco Municipal Transportation Agency where I lead a team of engineers and planners focused on bicycle, pedestrian, and traffic calming projects. I am a California-licensed Professional Engineer and Traffic Engineer with over eight years of experience. I graduated from UC Berkeley with an MS in Transportation Engineering and a BS in Civil and Environmental Engineering.

*I am grateful that the SFMTA fully supports my longstanding commitment to ITE, and I hope to have your support and the opportunity to serve the District.*

## ITE INVOLVEMENT



### ★ 2017 Honors & Awards

- ITE International Rising Star Program Award
- Western District Young Professional Achievement Award
- SF Bay ITE Professional of the Year

ITE WESTERN DISTRICT

# I LIKE PAT

#PAT4ITE



## Vote Pat Marnell for Western District ITE Secretary Treasure

ITE MEMBER SINCE: 2006

### ITE POSITIONS HELD

- *Oregon Section Past President* (2019- Present)
- *Oregon Section Western District Representative* (2019- Present)
- *Western District Technical Committee Member* (2018-Present)
- *Oregon Section President* (2018-2019)
- *QUAD Conference Co-Chair* (2017-2019)
- *Oregon Section Vice President* (2017-2018)
- *Oregon Section Secretary/Treasurer* (2016-2017)
- *Oregon Section Traffic Bowl Chair* (2014-2016)
- *Oregon Section Scribe* (2013-2016)
- *OSU Student Chapter Treasure* (2012-2013)
- *OSU Student Chapter Treasure* (2006-2008)

### AWARDS & RECOGNITIONS

- *ITE Western District's Young Professional Achievement Award* (2019)
- *Bill Kloos Scholarship: Kloos Second* (2012-2013)
- *Eagle Scout* (2003)

### EDUCATION

- *MS, Civil Engineering*  
Oregon State University
- *BS, Civil Engineering*  
Oregon State University

### PE REGISTRATIONS

- OR, WA, MT

In so many parts of life we are asked to choose a team. We are business competitors; we represent public or private interests; and we support the red or the blue team. For me ITE is a world where I don't have to pick a side. It is a place where people come together as a community of transportation professionals with the common goal of improving that community. That makes ITE is a unique organization that I am happy to lend my time and effort to.

**I ask for your vote so that I can continue & increase my service to ITE.**

Since I first got involved in 2006, ITE has been a major part of my life and career. ITE has helped me developed as a professional and build relationships with a diverse group of dedicated professionals.

**I ask for your vote so that I can give back to the organization that has given me so much.**

In this first election of the newly redistricted Western District our membership has a choice to make about the representation of the five states in Western District.

**I ask for your vote to better represent all the Western District states.**



<https://marnellp.wixsite.com/VoteforPat>



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@Marnell\_Pat







FREE WEBINARS

## INNOVATIVE PROJECTS OF SOUTHERN CALIFORNIA: 2019-2020

*Showcasing the Nominees of ITE Transportation Achievement Awards from Our Region*

### Webinar 1:

**DATE:** Thursday, May 14, 2020

**TIME:** 11:00 AM to 12:30 PM

**REGISTER:** <https://2020-rsbite-itesocal-itesandiego-joint-webinar.eventbrite.com>

### Program

- 11:00 AM | Welcome & Book-keeping
- 11:10 AM | **Escondido Creek Bikeway: Missing Link Project**  
Miriam Jim, City of Carlsbad
- 11:30 AM | Sponsor Presentation - Iteris
- 11:35 AM | **Exclusive Pedestrian Crossing Cycle by Time of Day Project**  
Noely Serrato, City of Santa Clarita
- 11:55 AM | Sponsor Presentation - Traffic Guru
- 12:00 PM | **Guidelines for TIS in the San Diego Region**  
Erik Ruehr, VRPA Technologies
- 12:20 PM | Q&A

### Webinar 2:

**DATE:** Wednesday, May 20, 2020

**TIME:** 11:00 AM to 12:30 PM

**REGISTER:** <https://2020-rsbite-itesocal-itesandiego-joint-webinar2.eventbrite.com>

- 11:00 AM | Welcome & Book-keeping
- 11:10 AM | Get to know your Western District Secretary/  
Treasurer Candidates
- 11:15 AM | **An Experience with 9th Street Closure**  
Rajeev Seetharam, Port of Long Beach
- 11:35 AM | Sponsor Presentation - Bosch
- 11:40 AM | **An Advanced Signal Priority System with No New Infrastructure**  
Avery Rhodes, Fourth Dimension Traffic Developers
- 12:00 PM | **CVAG Regional Traffic Signal Synchronization Program -  
Building A Smart Transportation Region**  
Carlos A. Ortiz, ADVANTEC Consulting Engineers
- 12:20 PM | Q&A

*Thank you to our sponsors!*



**BOSCH**

Invented for life

## Speaker Biographies

### Escondido Creek Bikeway: Missing Link Project | Miriam Jim, City of Carlsbad

Miriam Jim is a Senior Engineer with the City of Carlsbad, a registered Civil and Traffic Engineer in California with 14 years of experiences in both the public and private sectors. She is experienced in traffic engineering design and operation and has worked on projects of various sizes, ranging from local traffic management projects to multi-million-dollar freeway and transit improvement projects. She recently joined the City of Carlsbad in their traffic and mobility division. Prior to that, Miriam was an Associate Engineer with the City of Escondido and served as the Project Manager for the Escondido Creek Bikeway Missing Link Project overseeing the design and construction of the project. She is the Meeting Location Chair of the San Diego ITE Chapter responsible for venue and meal arrangements for different local ITE events.

### Exclusive Pedestrian Crossing Cycle by Time of Day Project | Noely Serrato, City of Santa Clarita

Noely Serrato has a bachelor's degree in Materials Science Engineering from the University of California, Irvine, and over two years of experience in traffic engineering. Over the last year, Ms. Serrato has been working in the City of Santa Clarita's Traffic and Transportation Planning division. She is currently working on the City's first Integrated Corridor Management program, which is set to optimize traffic operations during major unforeseen traffic events.

### An Experience with 9th Street Closure | Rajeev Seetharam, Port of Long Beach

Rajeev Seetharam is the Port of Long Beach's Senior Traffic Engineer responsible for managing and directing the Traffic Engineering team of the Engineering Design Division. Rajeev is in charge of the day-to-day operation of existing roadway traffic systems within the Port of Long Beach. Rajeev has 17 years of experience in traffic engineering, traffic operations and urban transportation planning. Rajeev started off working in private consulting for several years before moving on to the public agency side. Rajeev is a Registered Professional Civil Engineer and Traffic Engineer in the State of California. Rajeev is also an Adjunct Faculty at University of Southern California. Rajeev has a Master's Degree in Civil Engineering with specialization in Traffic Engineering and Transportation Planning from the University of Alabama in Huntsville and his Bachelor's Degree is in Transportation Engineering from Bangalore, India.

### Guidelines for TIS in the San Diego Region | Erik Ruehr, VRPA Technologies

Erik Ruehr is Director of Traffic Engineering in the San Diego office of VRPA Technologies. He holds Bachelor and Master's degrees in Civil Engineering from the University of Michigan and is a registered Civil Engineer and Traffic Engineer in California. From 2014 to 2019, Erik served as chair of the California SB 743 Task Force for ITE's Western District. He is currently chair for the San Diego Section's Transportation Capacity and Mobility Task Force which was responsible for preparing the San Diego Regional Transportation Impact Study Guidelines.

### An Advanced Signal Priority System with No New Infrastructure | David Etherington, Connected Signals, Inc.

After getting his PhD in Artificial Intelligence from UBC in 1986, David joined AT&T Bell Labs' AI Principles Research Department, in Murray Hill, NJ. In 1994, he left to cofound the U. Oregon's Computational Intelligence Research Laboratory, which he directed for many years. In 1998, he cofounded On Time Systems, which developed optimized solutions to routing and scheduling problems, including the flight-plan optimization software that routed most of the USAF's cargo missions, saving approximately 20M gal. of fuel annually.

### CVAG Regional Traffic Signal Synchronization Program - Building A Smart Transportation Region |

#### Mr. Carlos A. Ortiz, PE,TE, PTOE, ADVANTEC Consulting Engineers

Mr. Carlos Ortiz is the Chief Operating Officer and Principal at ADVANTEC Consulting Engineers. He has 30 years of experience, exclusively in the field of ITS, smart mobility, connected/automated vehicles (CAV), smart cities, system engineering, and traffic engineering. Mr. Ortiz serves on the ITE International Board of Direction as Western District International Director. Mr. Ortiz serves on ITE's Transportation Systems Management and Operations Council (TSM&O), ITE Transportation Consultants Council, ITE's Advocacy Committee, and ITS California Board of Direction.