



ABE30: Transportation Issues in Major Cities Annual Meeting

January 9th, 2018

Marriott Marquis, Liberty M (M4)

Housekeeping

- In an emergency, dial [202-824-9667](tel:202-824-9667) (or 59667 on a house phone) to reach the Marriott Marquis' security department. Do not call 911, as the hotel can respond more quickly and can better direct first responders to where they're needed. We recommend you add this number to your contact list now, so you won't need to look for it later.
- Have an exit plan. Please take a moment to familiarize yourself with the route to the nearest exit from this room.
- If an alarm sounds, please end your event immediately and evacuate the building. The escalators located in the center of each floor can be used to access the main lobby and exits. Additional stairs are located behind the elevators at each end of the main hallway on each level.
- In case of evacuation, attendees should gather on the lawn of the Carnegie Library, across the street from the main entrance to the Convention Center. (If blocked by construction fence, walk left to access the lawn on the 7th Street side of the library.)

Housekeeping

National Academies of Science Harassment Free Policy

The National Academies of Sciences, Engineering, and Medicine and the Transportation Research Board are committed to the values of diversity, honesty, civility, and respect for each person as an individual in all of our activities and undertakings. We look to you, as a participant in the TRB Annual Meeting, to be our partner in this effort. You can help us maintain an environment that's free of harassment and intimidation by not committing harassing acts, not tolerating or ignoring those of others, and by avoiding knowingly placing others in situations where they may be harassed. If you feel you have been harassed or are aware of a situation involving the harassment of someone else, please do not hesitate to call [202-286-0661](tel:202-286-0661), a special Harassment Report number, during the dates of January 6–15. (In an emergency, you still should call Security, in the Marriott at [202-824-9667](tel:202-824-9667), or in the Convention Center at [202-249-3333](tel:202-249-3333), or if elsewhere call 911.)

Agenda

8:00 | **Welcome and Introductions** | Steve Buckley, ABE30 Committee Chair

8:10 | **Update on TRB Initiatives** | Bill Anderson

8:20 | **Sub-Committee Updates**

Communications | Stephanie Dock

Paper Reviews | Julia Salinas

Webinars | Ivana Tasic

Annual Meeting Organization | Fred Dock/Jamie Parks

Research | Wes Marshall

2018 Initiatives | Steve Buckley

8:50 | **Update on NACTO Initiatives** | Linda Bailey

9:20 | **BREAK**

Agenda

Guest Presenters

9:30 | **Federal Update** | Jeff Davis

9:50 | **Bicycle Lanes and Business Success: A SF Examination** | Joe Poirier

10:10 | **Curbside Pilots for TNCs** | Benito Perez

10:30 | **Green Book Update for Multimodal, Performance-Based Design & Impacts of CVs/AVs on State and Local Transportation Agencies** | Ray Derr

10:50 | **Presentation by Waymo** | Tim Papandreou & Ellie Casson

11:10 | **Open Floor** | All

11:10 | **Closing Remarks** | Steve Buckley

11:15 | **Adjourn**

Steve Buckley

Welcome and Introductions

Bill Anderson

Update on TRB Initiatives

Sub-Committee Updates

Stephanie Dock

Communications

Communications

- Twitter account started last year: @TRBCities
 - Thank you to Matt Kroneberger!
- Blog: hope to start this year
 - Keep the conversation going outside our meetings
 - Announcements will still be sent via Google Group
- Other ideas to follow...
 - What would you like to see?
 - Get involved: we have a communications subcommittee – email Stephanie, stephanie.dock@gmail.com

Julia Salinas

Paper Reviews

PAPER REVIEW

- Received 27 paper submissions
- 97 reviewers provided at least 3 reviews for each paper
 - THANK YOU!
- Paper recommendations
 - 7 papers for poster sessions
 - 6 papers for presentation
 - 3 papers for publication
- Currently working with authors on re-reviews for publication

PAPER REVIEW

WANTED:
Co-Paper Review Coordinator

Come talk to Julia

Ivana Tasic

Webinars

2018 Webinars

- Web # 1: Next Generation Cycling Solutions
 - Gabe Rousseau (FHWA)
 - Daniel Koifler (Bike Citizens)
 - Michael Koucky (City of Gothenburg)
- Web # 2: Urban Freight in Major Cities (I will try my best to involve some practitioners here as well)
 - Sonke Behrends (Chalmers University of Technology)
 - Sarah Hernandez (U of Arkansas, to be confirmed)
 - Alison Conway (City University of New York, to be confirmed)
- Web # 3: Still working on potential topics

Fred Dock

Annual Meeting

Annual Meeting Organizing

- Podium Sessions
 - Real-Time CEO Decision Making: Response to War Game Winner's Pitch
 - Co-Sponsors: ABC10 / ABC20 / ADA10 / ADD10
 - Emerging Policies in City Transportation
 - Co-Sponsor: ABC10
 - Economic, Social, and Environmental Sustainability in a Future of Transformative Transportation Technologies
 - Co-Sponsors: ADD40 / ABC10 / ADB30 / ADC20 / ADD20 / AHB30
 - Repurposing and Resizing Our Infrastructure: Responsible Investment for the New World
 - Co-Sponsors: ABC10 / ADD10
 - Evacuating Pedestrians and Carless Individuals During Disasters
 - Co-Sponsor: ABR30 / ABE60

Annual Meeting Organizing

- Podium Sessions (cont.)
 - Reorganizing for Effectiveness: Changing City DOTs
 - Co-Sponsors: ADD50
 - Planning Process and Environmental Justice
 - Co-Sponsors: ABC10 / ADD10
- Workshops Co-Sponsored by ABE30
 - Curbed Enthusiasm: Multimodal Planning, Operations, Enforcement, and Design to Optimize Curb Resources
 - Co-Sponsors: ABC10 / ABC20 / ABC30
 - War Games Come to TRB: May the Best Plan for Connecting Technology and Policy Win
 - Co-Sponsors: ABC10 / ABC20 / ADA10 / ADD10

Annual Meeting Organizing

- Workshops Co-Sponsored by ABE30 (cont.)
 - Disruptive Technologies: Impacts on Transportation Revenues
 - Co-Sponsors: ABC10 / ABC20 / ABC30
 - Big Data Applications and Methods in Transportation
 - Co-Sponsors: ABJ30 / ABJ50 / ABJ60 / ABJ70 / ABJ95 / ADB40
- Poster Session
 - Transportation Issues in Cities
- A BIG Thank You! to all involved in the program

Wes Marshall

Research

TRB Committee on Transportation Issues in Major U.S. Cities | ABE30

Research Subcommittee Coordinator:



Wes Marshall, PhD,
University of Colorado
Denver

Critical Issues for Strategic Plan Update

1. New Urban Metrics
2. Reallocation of Public Right-of-Way
3. Emerging Mobility Services & Technologies
4. Harnessing “Big Data”
5. Revenue Replacement Strategies
6. Mitigating Societal Consequences of Transportation Disruptions
7. Addressing Historical Inequities

Please email further suggestions /
comments over the next week...

Wes Marshall, PhD, PE
wesley.marshall@ucdenver.edu

Steve Buckley

2018 Initiatives

Linda Bailey

Update on NACTO Initiatives



NACTO 2017 & 2018

January 8, 2018 — Washington, DC



Activate Windows

Go to Settings to activate Windows.

Growing a Roster of Cities in the Lead



Publishing Resources that Cities Can Use

Urban Street Stormwater Guide



Metropolitan Department of City Transportation (MCTD)

Urban Street Stormwater Guide

June 2017



Blueprint for Autonomous Urbanism, Module 1

October 2017



Bringing Equitable Bike Share to Bed-Stuy

March 2017



Designing for All Ages & Abilities: Contextual Guidance for Selecting High-Comfort Bicycle Facilities

December 2017

Activate Windows
Go to Settings to activate Windows.

Setting Up for Success & Accelerating Change

- Transit Program Accelerators in:
 - *Cambridge*
 - *Indianapolis*
 - *Oakland*
 - *Denver*
- Leadership NACTO
- Green Light for Great Streets



What can city DOTs / DPWs build using in-house or on-call construction crews?



Setting a Vision for Emerging Challenges

- **Equity in Bike Share**

- *Bike Share in the US 2010–16 report*
- *Dockless Bike Share resources*

- **Technology & Transportation**

- *“SharedStreets” data standards*
- *Tech & Transpo working group*
- *City Data Sharing Principles*

- **Better Buses papers**

- *Better Boarding, Better Buses*
- *Curb Appeal*
- *Structure of Success*



Activate Windows
Go to Settings to activate Windows.

Global Designing Cities Initiative

- Trainings for over 1,000 practitioners
- Over 50 presentations in 22 cities
- 2 permanent & 14 interim projects
- Intensive partnerships with:
 - *Addis Ababa, Ethiopia*
 - *Bogotá, Colombia*
 - *Fortaleza, Brazil*
 - *Mumbai, India*
 - *São Paulo, Brazil*
- Launching “Streets for Kids” program



#NACTO17: Bringing Cities Together in Chicago

- 800+ attendees from 125+ cities
- 2,000+ tweets seen by 1.9 million people
- 40+ unique WalkShops
- 32 highly-curated sessions
- 98% of attendees rated the overall conference excellent or very good



NACTO in the News

The New York Times



The Washington Post



THE WALL STREET JOURNAL.

THE GLOBE AND MAIL*

theguardian

WIRED

GOVERNING
THE STATES AND LOCALITIES

Slate

The
Economist



REUTERS



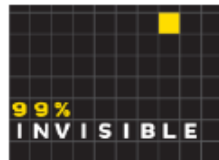
STREETSBLOG

CAR AND DRIVER



CITYLAB

Vox



THE TIMES OF INDIA

NEXT
CITY

EL TIEMPO

Activate Windows
Go to Settings to activate Windows.

ESTADÃO

Here's to a great new year in 2018!



Activate Windows
Go to Settings to activate Windows.

Envisioning Great Cities with AV Technology

Linda Bailey



**Major shift in
US cities:
Singular goal
of vehicular
movement is
giving way...**



... to streets that
serve many
purposes.



**AVs carry
many
promises**

**...what does
the path
look like?**

Reduce traffic violence?

Decrease carbon footprint?

Free up public space?

Decrease travel costs?

Decrease vehicle
ownership?

Decrease congestion?

Do
“driverless”
cars mean a
people-less
city?



U.S. Department of Transportation
Federal Highway Administration


What's happening today?

Federal Automated Automated Vehicle Policy

Issues:

1. Federal Preemption of State and Local Authority
 2. AV compliance with local rules of the road
 3. Data sharing
 4. Vehicle safety exemptions
-

NACTO supports automated vehicle policies and regulations designed to:



- » Promote safety for all street users
- » Reduce environmental impacts of vehicle travel
- » Support the future vision of cities as great places to live, work, and play
- » Rebalance the right-of-way
- » Support public transit
- » Improve mobility for all

www.nacto.org/policy

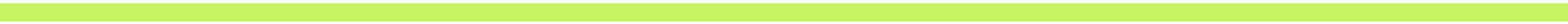
Making Automated Vehicles Work for Cities

Design for Safety

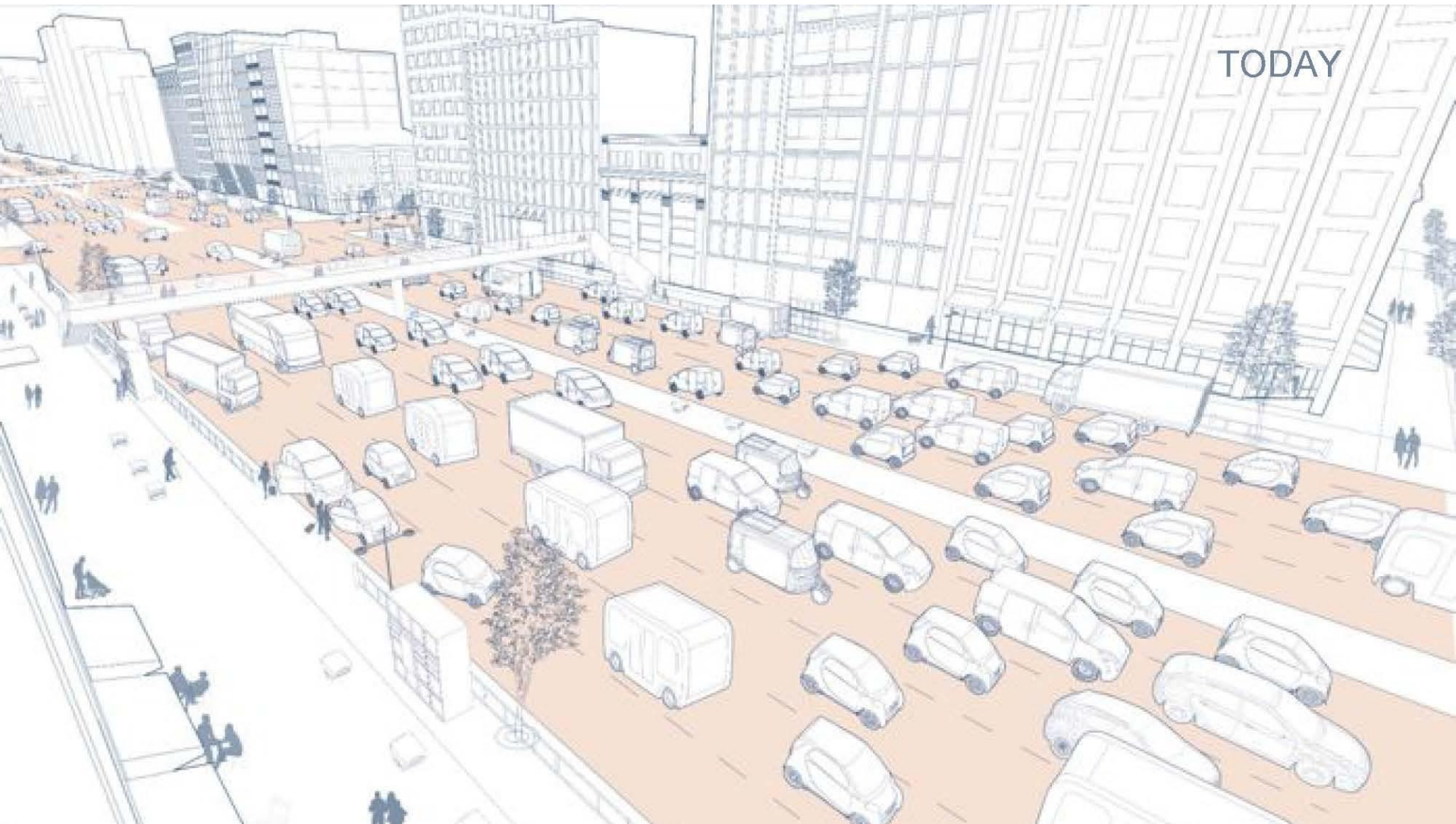
Data Foundations

Move more People with Fewer Vehicles

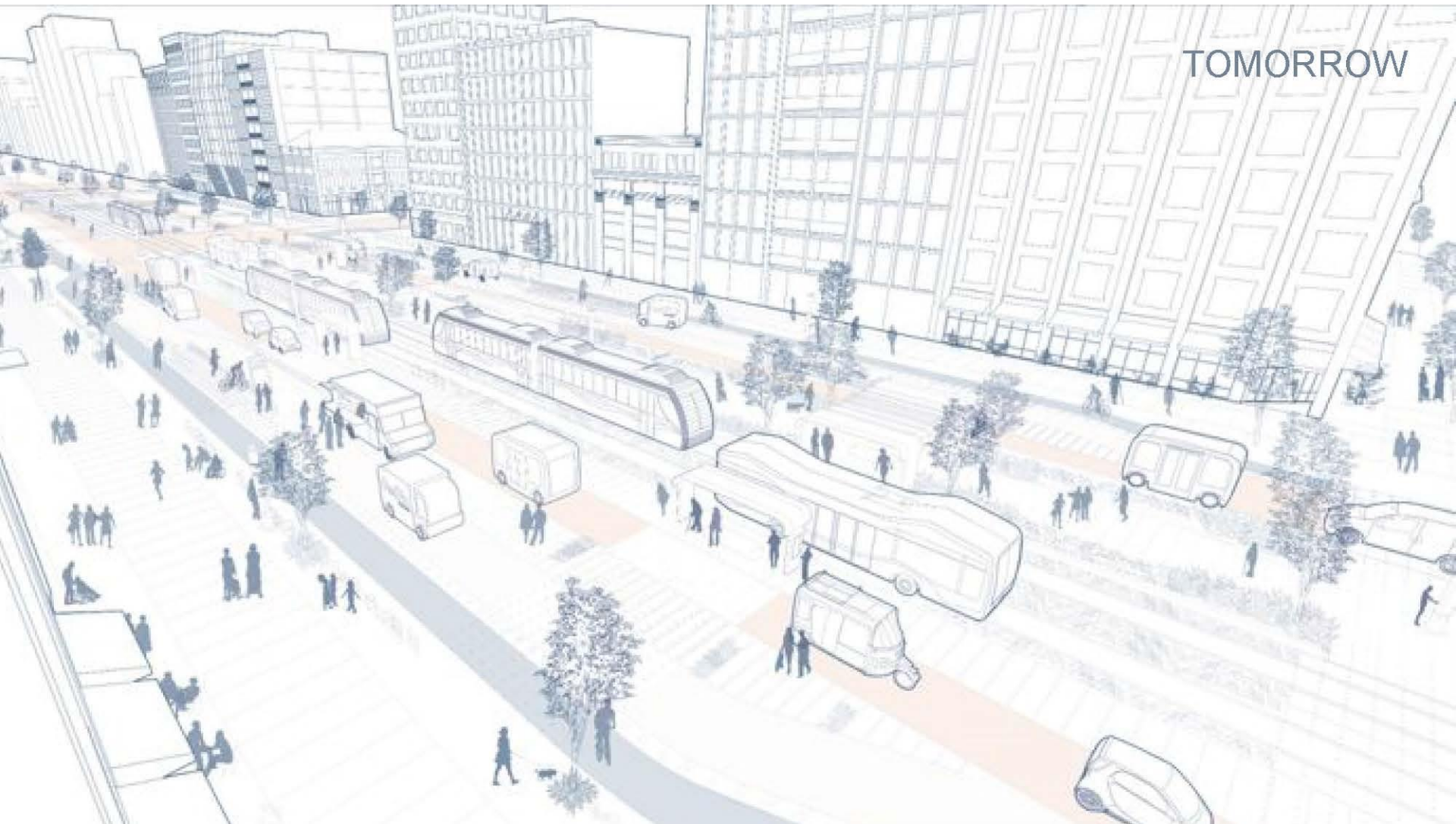
Coding the Curb



TODAY



TOMORROW



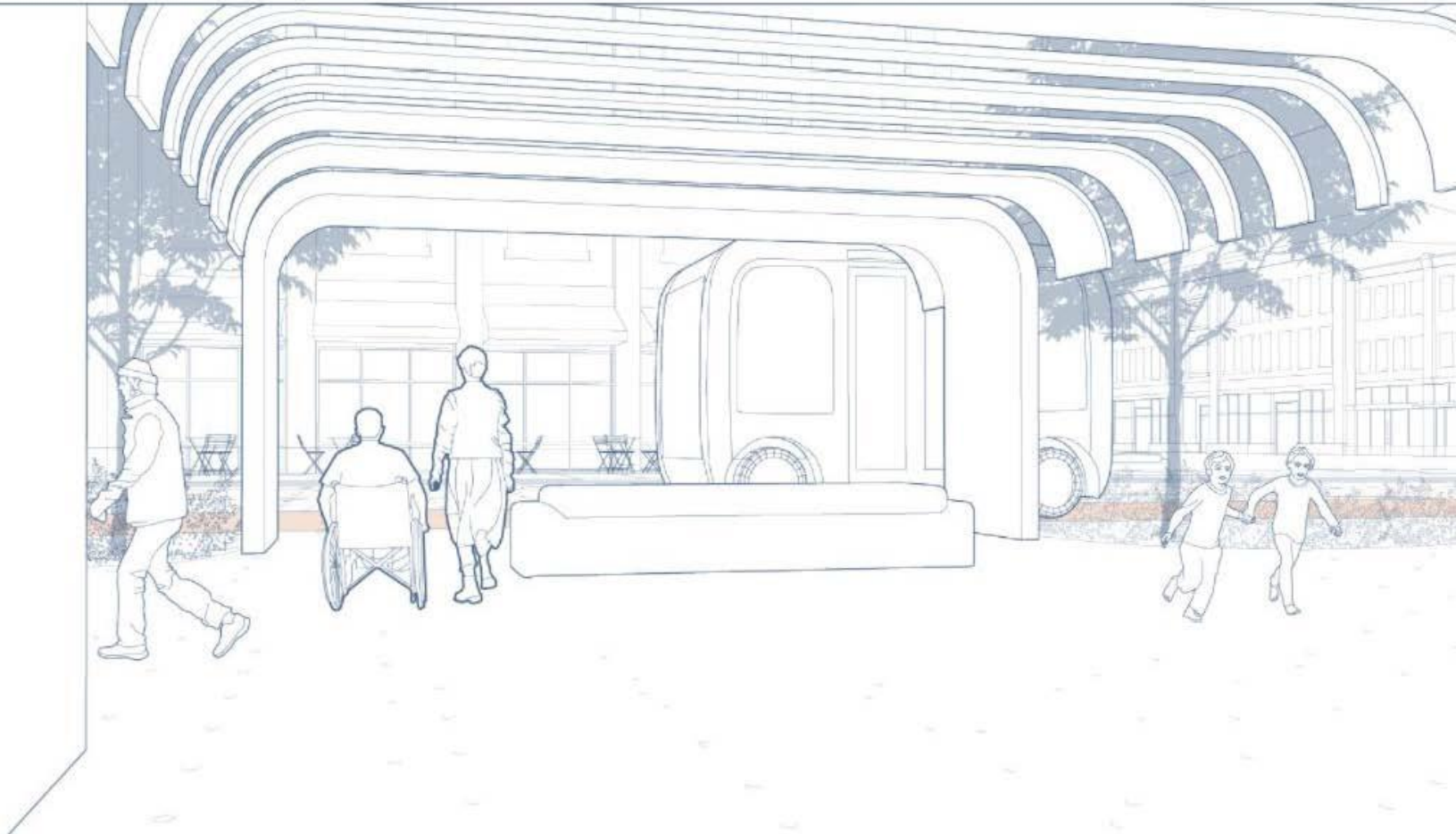
1. Improving Safety



1. Improving Safety



1. Improving Safety



1. Improving Safety

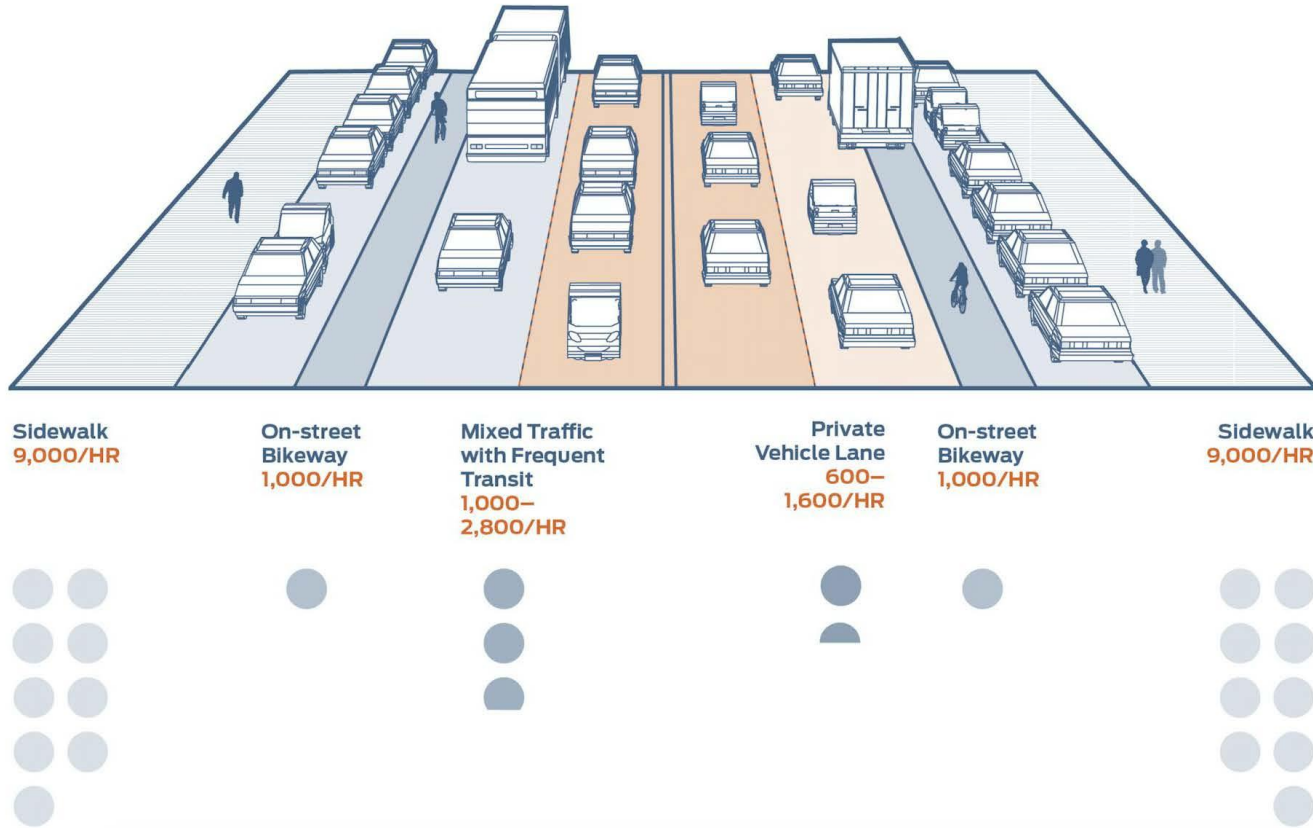


2. Sharing Data

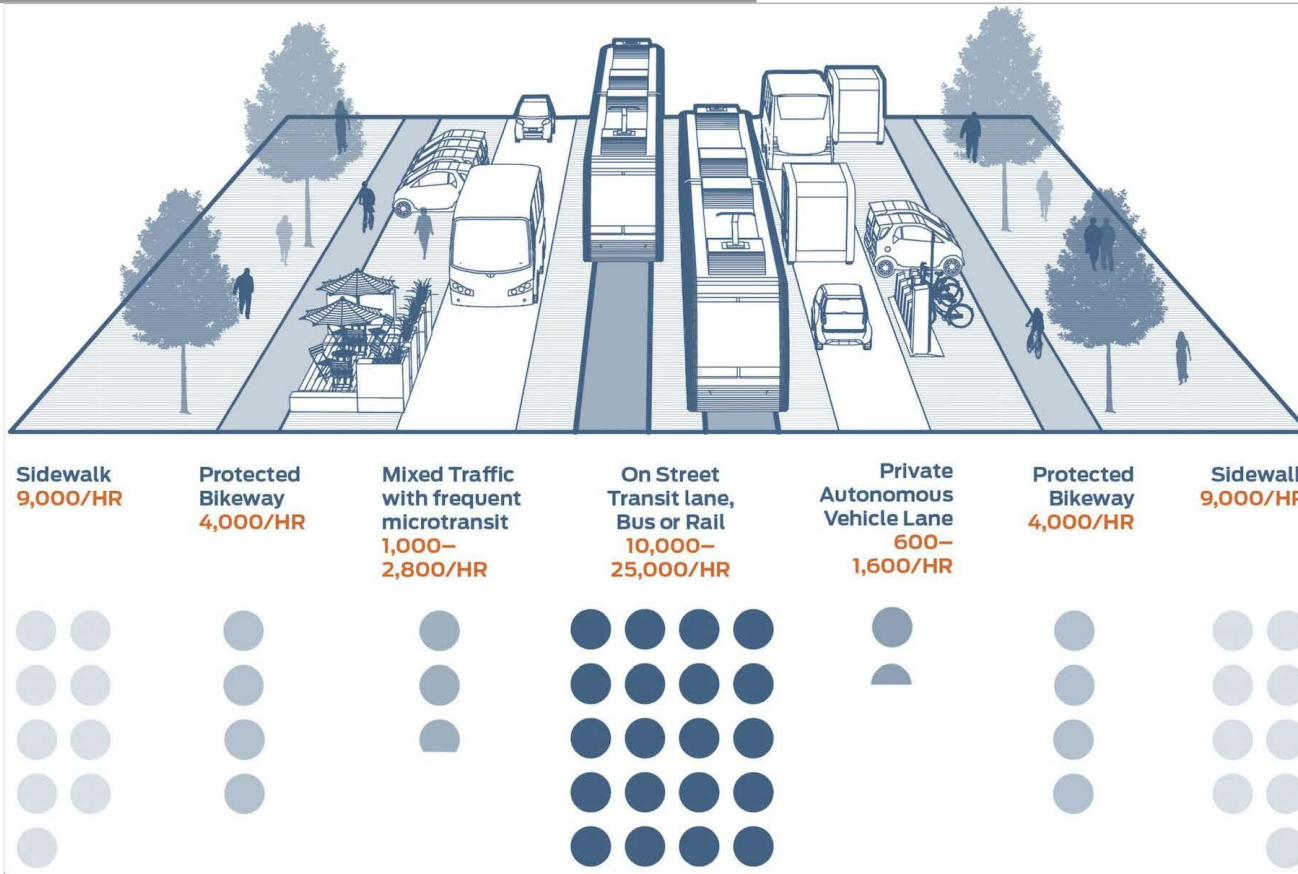
Manage Streets in Real Time



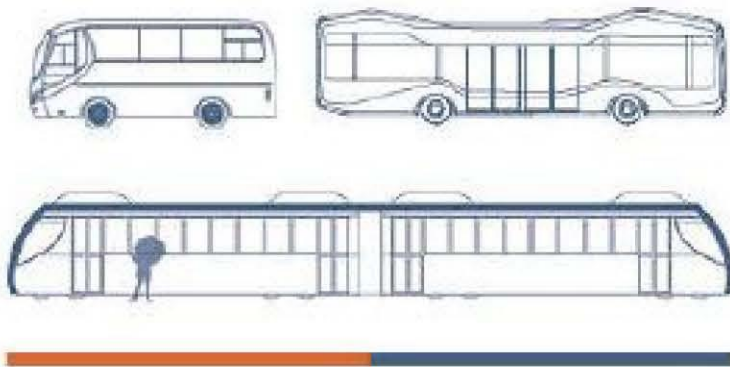
3. Move More People With Fewer Vehicles



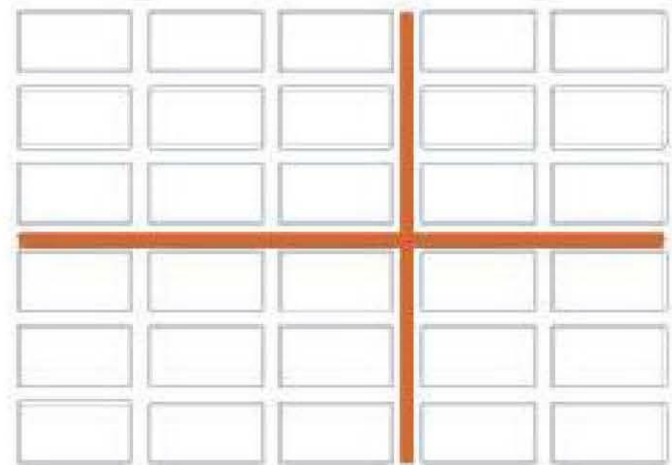
3. Move More People With Fewer Vehicles



3. Expanding Transit



Local Bus | Rapid Bus
Metro or Subway | Light Rail |
Regional Rail



Fixed Route

Fixed

1



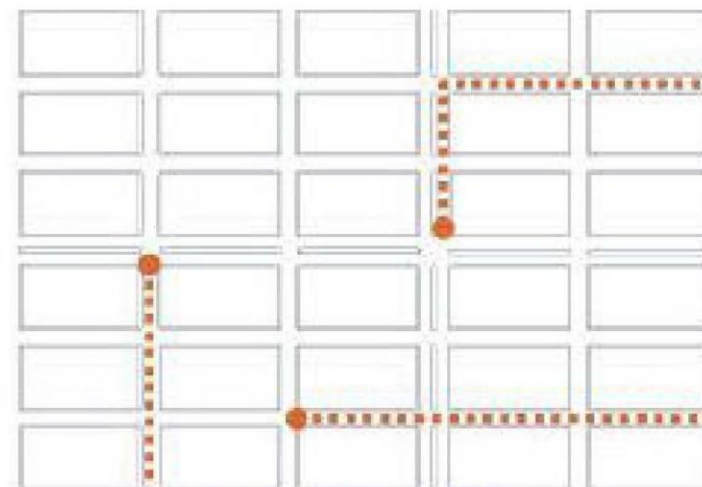
.....



3. Expanding Transit



Bike Share | Microcar Share
Scooter Share



Hub-to-Hub

3. Expanding Transit

Flexible

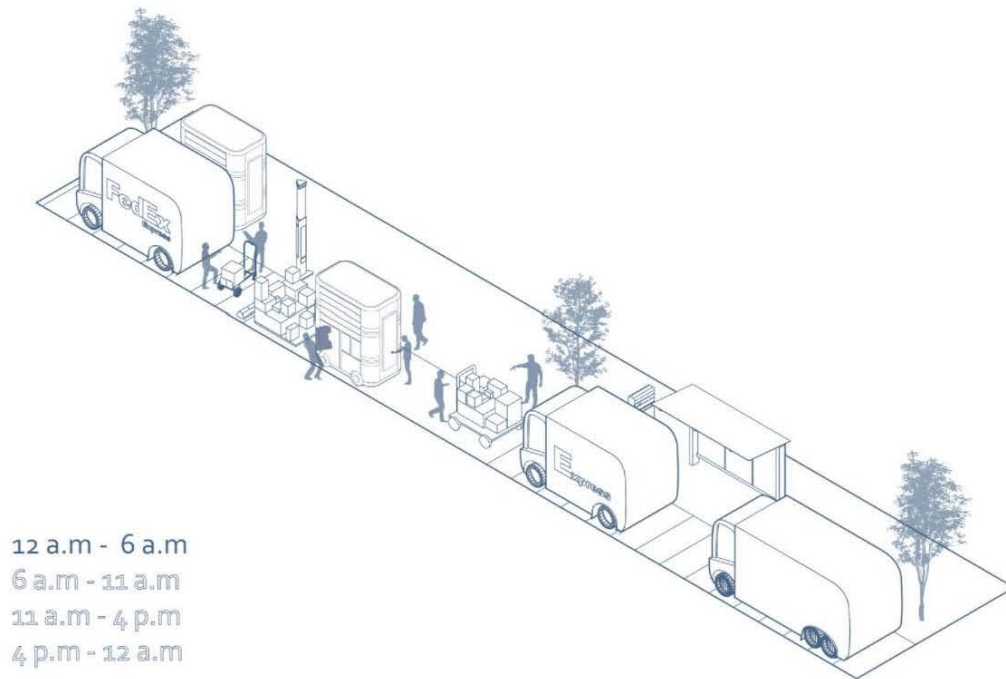


Personal Bike | Walking | For-Hire
Vehicle | Point-to-Point Car Share

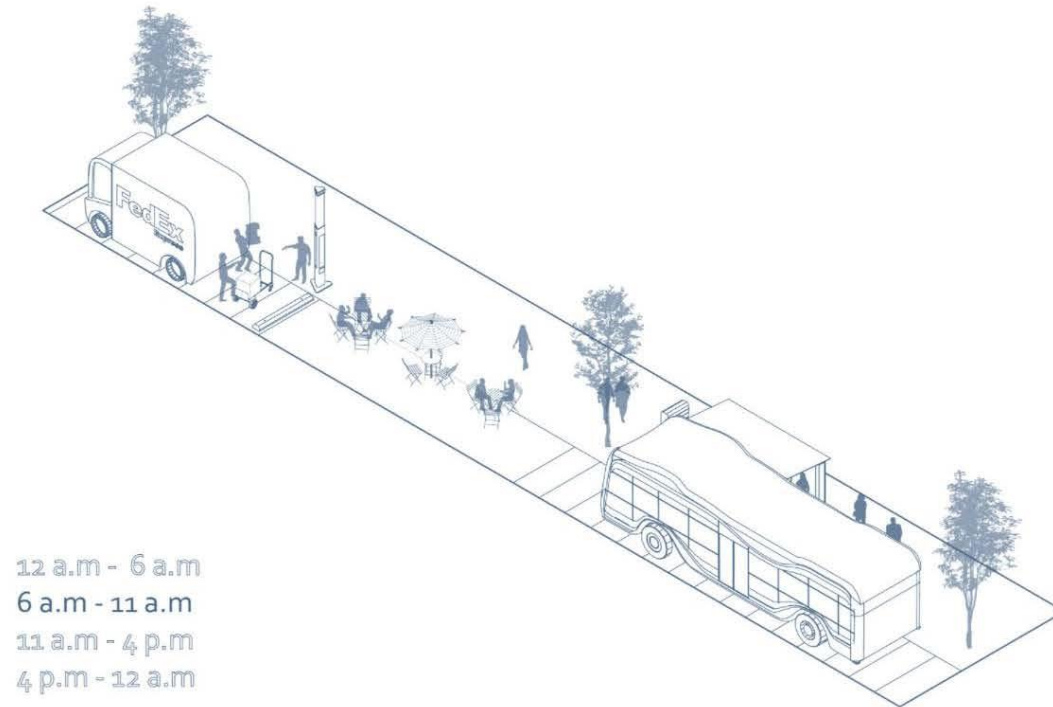


Door-to-Door

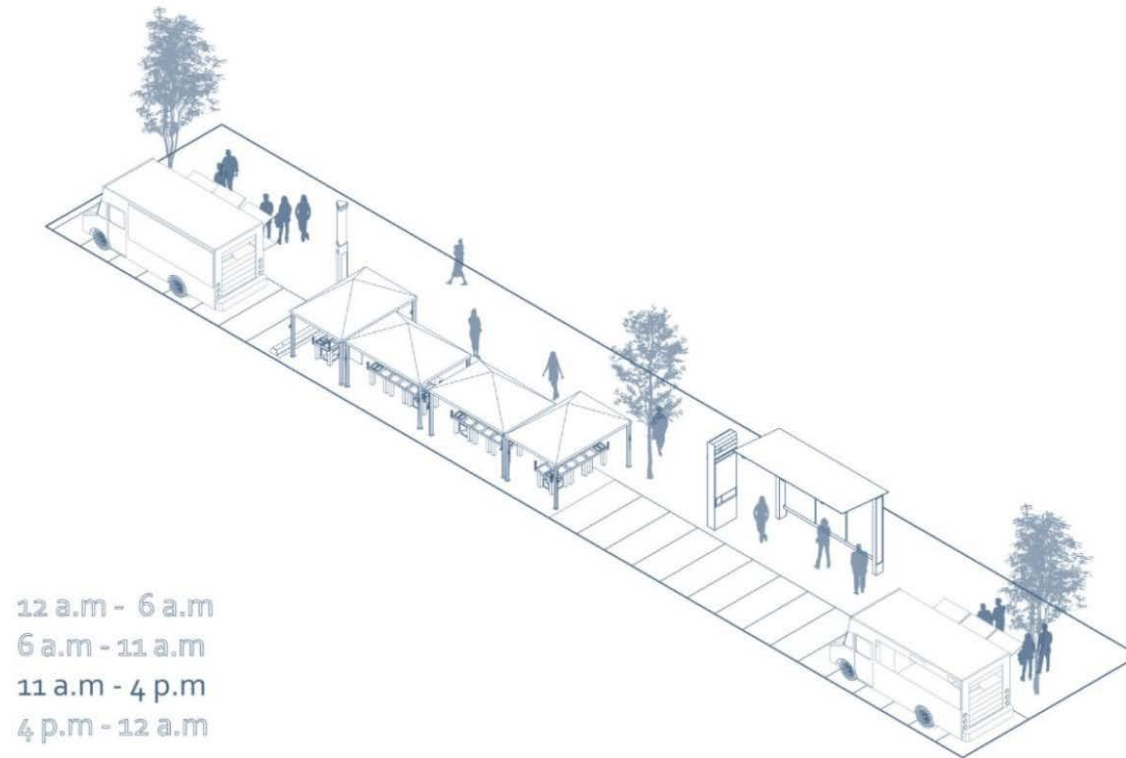
4. Coding the Curb



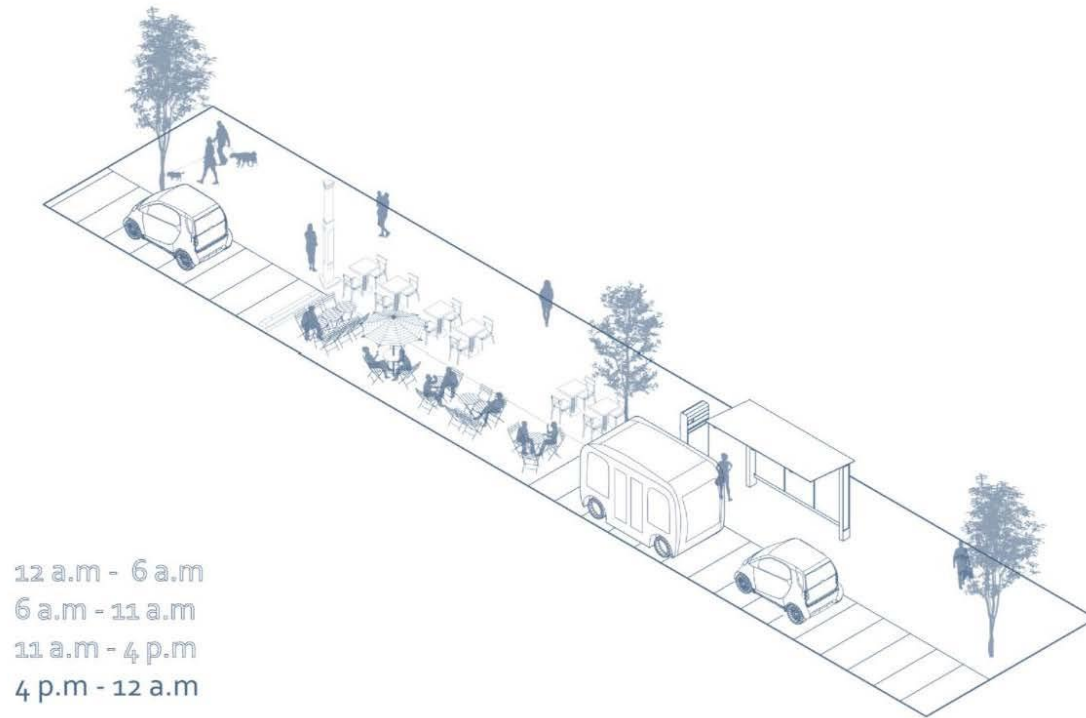
4. Coding the Curb



4. Coding the Curb



4. Coding the Curb



Making Automated Vehicles Work for Cities

Improving Safety

Sharing Data

Expanding Transit

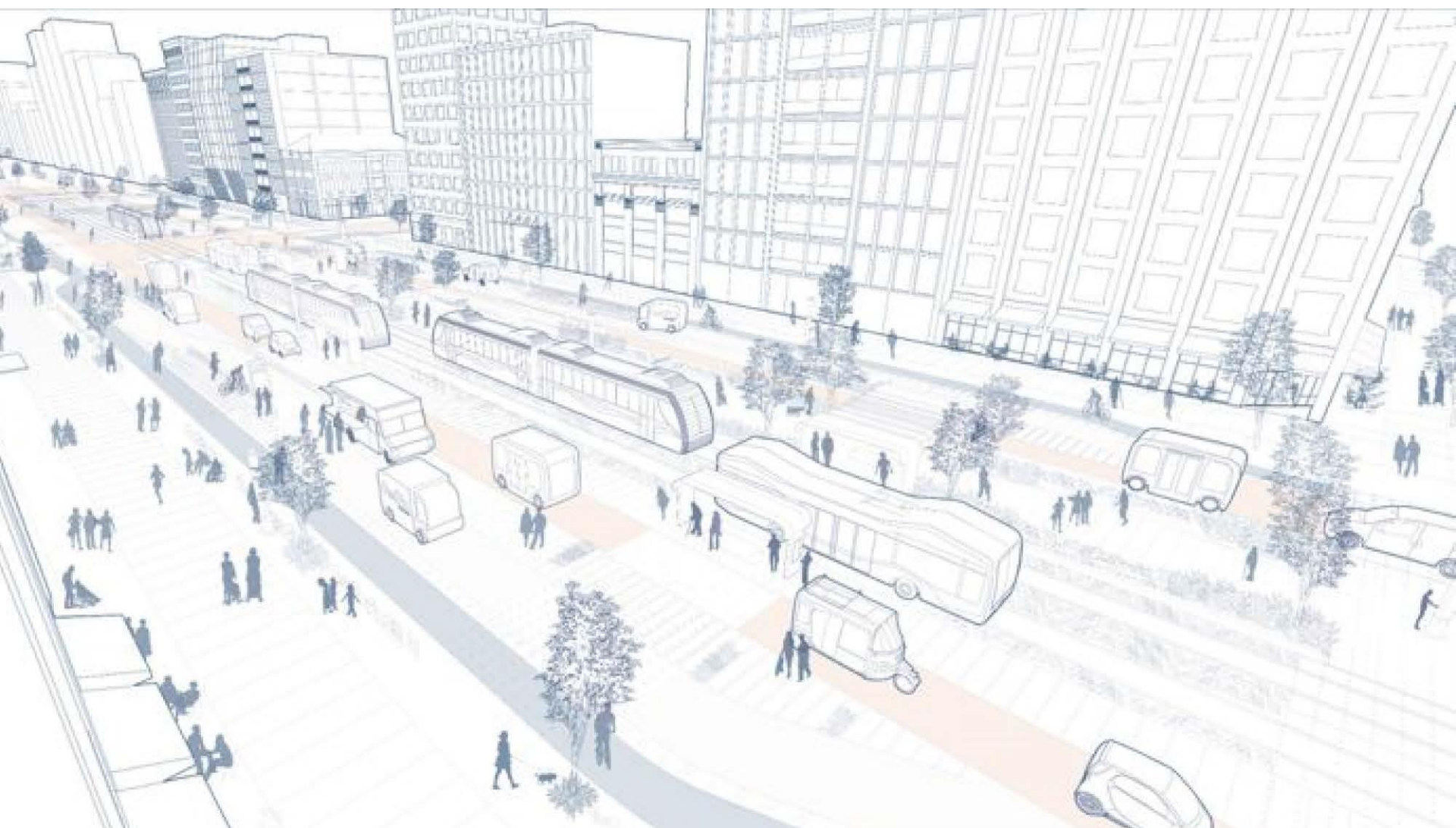
Coding the Curb



lbailey@nacto.org











Linda Bailey
lbailey@nacto.org

www.nacto.org/blueprint

Break – Resume at 9:30

Guest Speakers

Jeff Davis

Federal Direction

Joe Poirier

Bicycle Lanes and Business Success



Bicycles & Business: A San Francisco Examination in Three Case Studies

Presented by:
Joseph Poirier

January 2018

Presentation Outline

- Problem Statement
- Literature Review
- Data Sources
- Methodology
- Analysis
- Discussion
- Implications
- Shortcomings
- Questions, Comments, and Critiques

Problem Statement

- Bicycle lane implementations are controversial
- Little research on economic impact of bicycles

Merchants roll out complaints against Eighth Ave. bike lane

Church, Strip Club Don't Want M Street Bike Lane

**San Jose Merchants Object to Parking Removal
for Bike Lanes on Park Ave**

Merchants fret bike plan will take parking

News > Transport

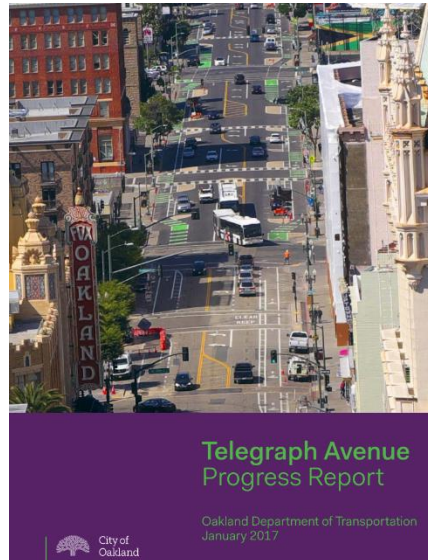
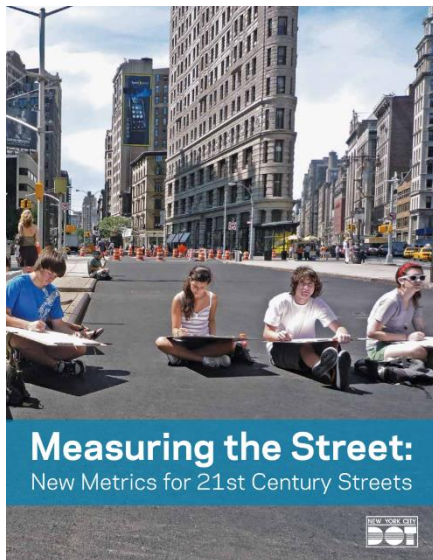
**Business owners' anger at Enfield cycle
route that will 'destroy high streets'**

Merchants wary of bike lane plan

**South Broadway business owners upset over new
bicycle lane**

Literature Review

- Research is primarily survey-based
- Only three reports using sales data
- Only one report with defensible methodology



Municipal DOT
Reports



University
Report

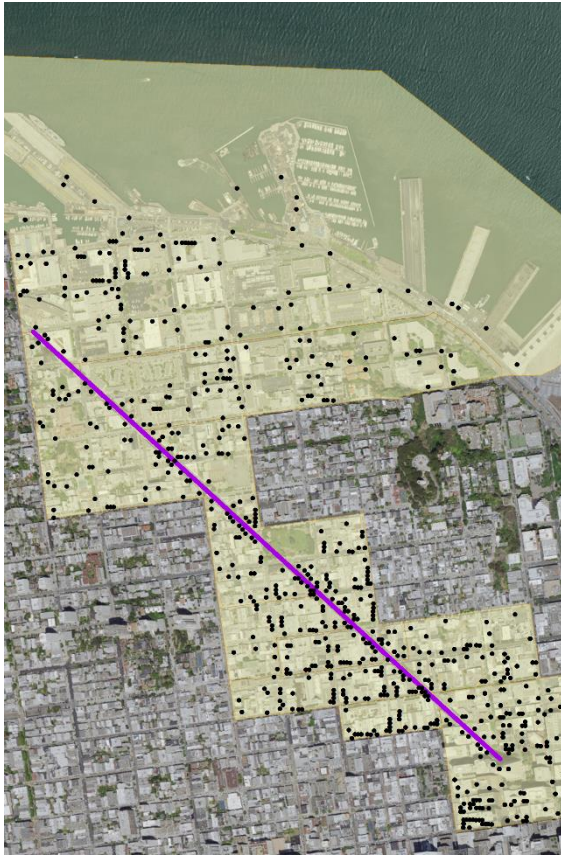


Methodology

- Identify Case Study Areas
 - Bicycle lane intervention
 - Temporal requirements (1992-2011)
 - Establishment density
- Keep only permanent establishments
- Drop outliers
 - > \$50,000,000 annual revenue
 - Zero or one employees

Methodology

Columbus Avenue



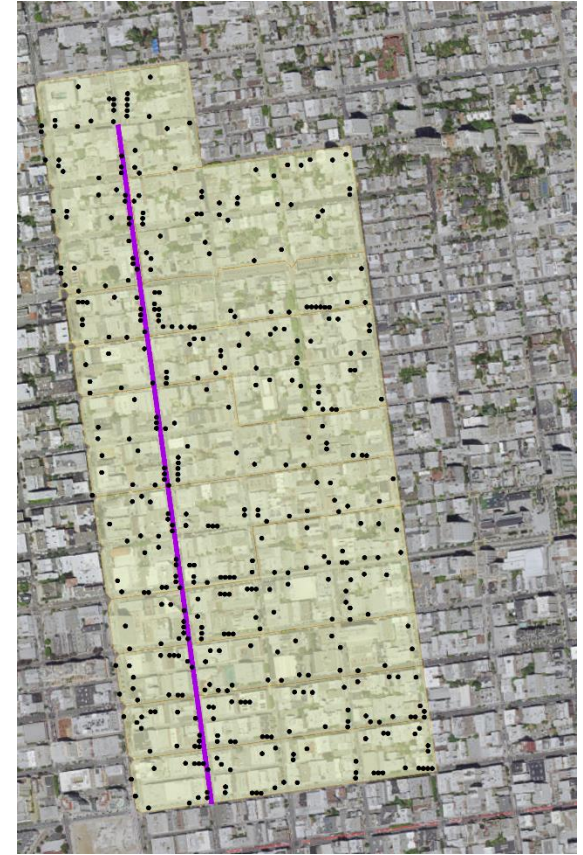
1,368 Establishments

Valencia Street



1,179 Establishments

Polk Street



857 Establishments

Methodology

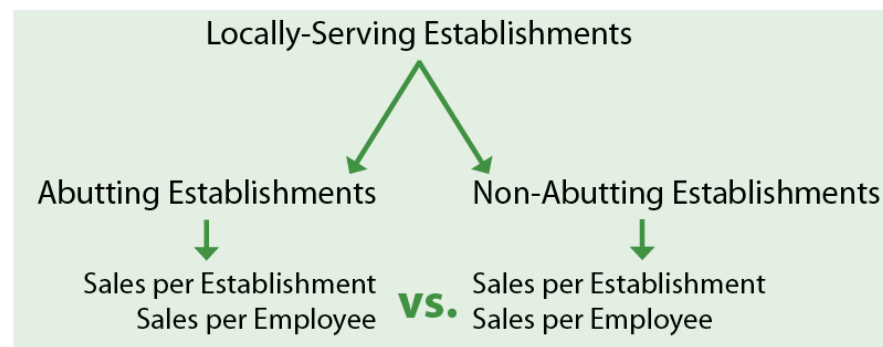
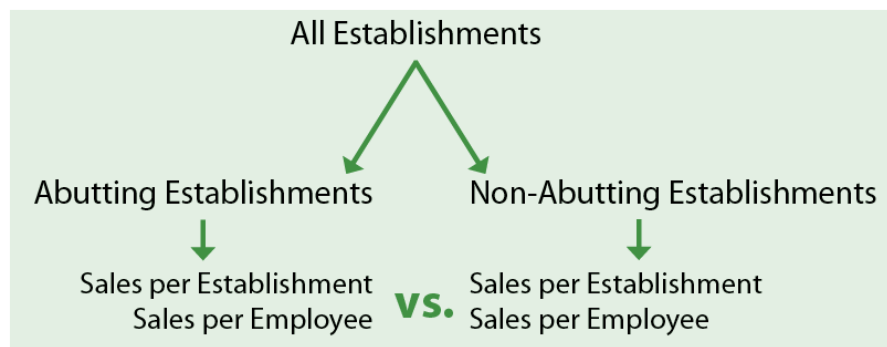
■ Subset Businesses

- Abutting and non-abutting
- All establishments and local-serving establishments



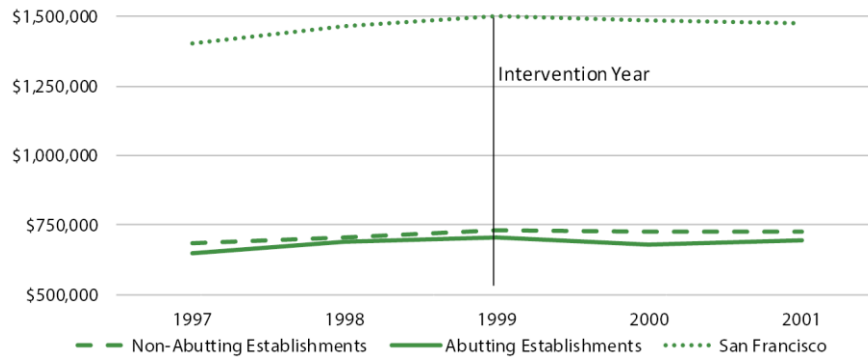
Methodology

- Compare abutting establishments to non-abutting establishments on two performance metrics
 - Sales per establishment
 - Sales per employee

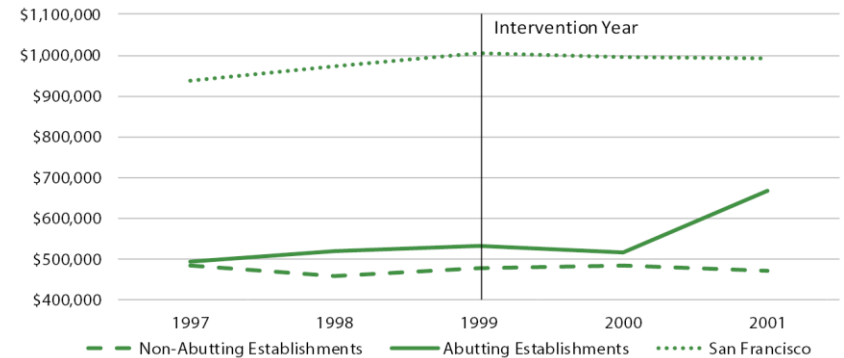


Analysis – Valencia Street

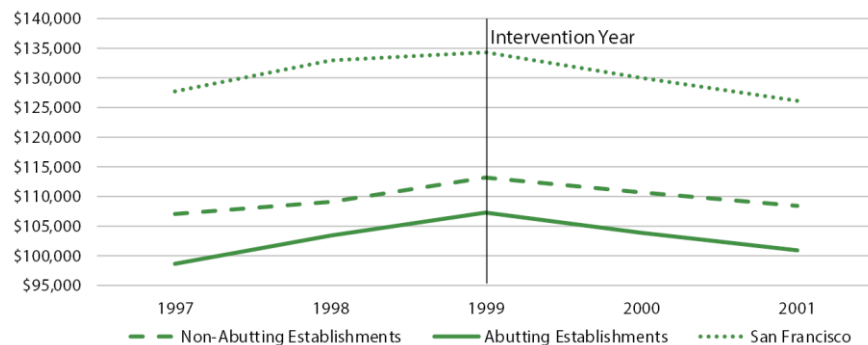
Average Annual Sales per Establishment, All Establishments



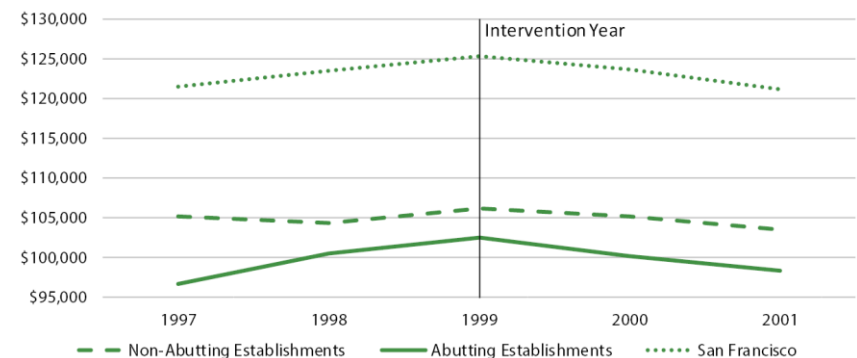
Average Annual Sales per Establishment, Local-Serving Ests.



Average Annual Sales per Employee, All Establishments



Average Annual Sales per Employee, Local-Serving Ests.



Analysis – Valencia Street

Change Over Time Statistics, All Establishments

	<i>Sales per Employee</i>		<i>Sales per Establishment</i>	
	Non-Abutting Establishments n = 955	Abutting Establishments n = 224	Non-Abutting Establishments n = 955	Abutting Establishments n = 224
1997	\$106,918.88	\$98,604.99	\$686,959.06	\$650,600.75
1998	\$109,133.61	\$103,444.20	\$703,771.31	\$689,238.06
1999	\$113,244.53	\$107,176.60	\$730,840.25	\$703,222.38
2000	\$110,713.34	\$103,814.84	\$726,363.00	\$680,285.69
2001	\$108,398.30	\$100,899.24	\$724,195.25	\$697,098.81
Dollar Change	+\$1,479.41	+\$2,294.25	+\$37,236.19	+\$46,498.06
Percentage Change	+1.38%	+2.33%	5.42%	+7.15%
Difference in Abutting Establishment Performance		+0.94%		+1.73%

Change Over Time Statistics, Locally-Serving Establishments

	<i>Sales per Employee</i>		<i>Sales per Establishment</i>	
	Non-Abutting Establishments n = 78	Abutting Establishments n = 73	Non-Abutting Establishments n = 78	Abutting Establishments n = 73
1997	\$105,208.60	\$96,596.98	\$484,996.69	\$494,098.38
1998	\$104,240.78	\$100,493.15	\$459,009.22	\$519,213.59
1999	\$106,176.93	\$102,473.74	\$476,443.84	\$532,039.56
2000	\$105,087.21	\$100,216.79	\$484,456.06	\$517,739.13
2001	\$103,488.13	\$98,337.82	\$470,281.31	\$668,511.13
Dollar Change	-\$1,720.47	+\$1,740.84	-\$14,715.38	+\$174,412.75
Percentage Change	-1.64%	+1.80%	-3.03%	+35.30%
Difference in Abutting Establishment Performance		+3.44%		+38.33%

Analysis – All Study Areas

- One strong negative result
- Two strong positive results

Abutting All Establishment Performance Over Five-Year Period vs. Non-Abutting All Establishments

	Sales per Establishment	Sales per Employee
Valencia Street	+1.73%	+0.94%
Columbus Avenue	-15.11%	+0.09%
Polk Street	-5.77%	-1.02%

Abutting Local-Serving Establishment Performance Over Five-Year Period vs. Non-Abutting Local-Serving Establishments

	Sales per Local-Serving Establishment	Sales per Local-Serving Employee
Valencia Street	+38.33%	+3.44%
Columbus Avenue	+5.86%	-4.08%
Polk Street	+21.56%	+4.33%

Discussion

- In all results, only one strong negative outcome
- The greatest magnitude (+) results for local-serving establishments
- Discrepancy between 'all establishment' and 'local-serving establishment' performance means:
 - Not all establishments experience bicycle lane interventions the same way
 - Bicycle lanes are likely not 'good for all business'

Implications

- Planners should understand mix of business
- Bicycle routes through areas with local-serving businesses?
- More honest advocacy

Shortcomings

- Self-selection bias
- Cyclist travel pattern assumptions
- NETS data error
- Survival bias
- No parking data

Thank You!



Joseph Poirier

Seattle, WA
jpoirier@nelsonnygaard.com

Benito Perez

Curbside Pilots for TNCs

Ray Derr

Green Book Update

Tim Papendreu & Ellie Casson

Presentation by Waymo

Open Floor

Steve Buckley

Closing Remarks

Committee Leads

Presiding Officer

Stephen Buckley, P.E. | WSP/Parsons Brinckerhoff | buckley@pbworld.com

Communications

Stephanie Dock | District DOT | Stephanie.dock@dc.gov

Paper Reviews

Julia Salinas | LA County Metro Transportation | salinasju@metro.net

Committee Leads

Webinars

Ivana Tasic | Trafficlab Utah | ivanat@trafficlab.Utah.edu

Annual Meeting Organization

Fred Dock | City of Pasadena | fdock@cityofpasadena.net

Jamie Parks | SFMTA | Jamie.parks@sfmta.com

Research

Wes Marshall | University of Denver | Wesley.marshall@ucdenver.edu

Thank You