

# Meaningful Making Impact



DTN Lisbon, Fall 2025

Zabe Bent, Development Studies, IGOT  
@ZabeBent

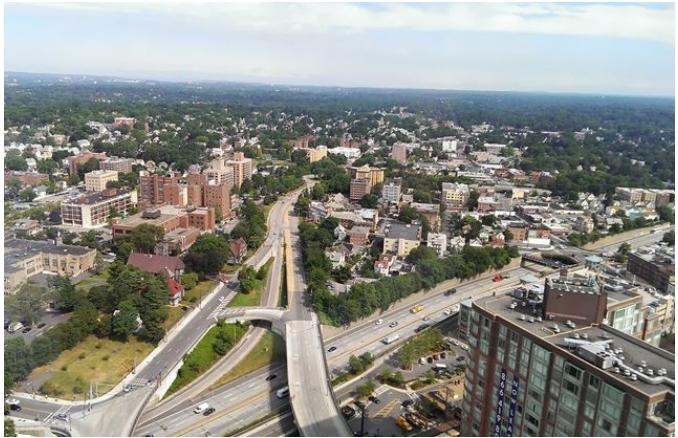
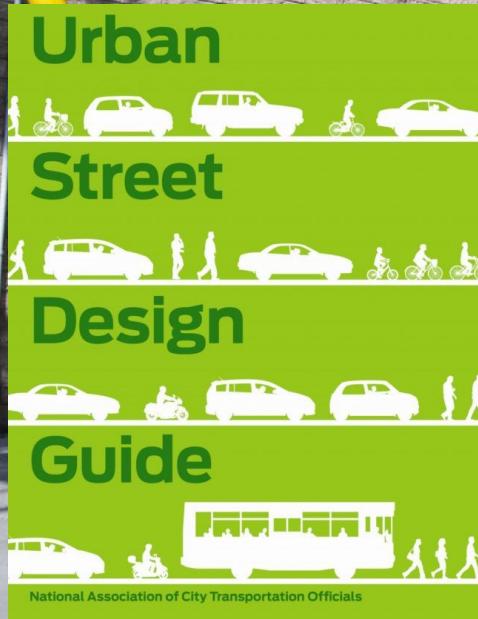




Image: Columbia Urban Design Lab





**BLUEPRINT FOR AUTONOMOUS CITY LIMITS**  
Setting Safe Speed Limits on Urban Streets

**Urban Bikeway Design Guide**  
National Association of City Transportation Officials

**Urban Bikeway Design Working Paper**

**Breaking the Cycle**  
Reevaluating the Laws that Prevent Safe & Inclusive Biking | June 2022

**Complete Connections**  
Building Equitable Bike Networks | March 2023

The collage includes several vertical panels and infographics. One panel shows a city street with buildings and infrastructure. Another panel has a blue background with white icons. A central panel for the 'Urban Bikeway Design Guide' features a yellow circle with a person on a bicycle. Other panels show icons for walking, cycling, and public transit like buses and trams. The overall theme is urban mobility and design.

## Who is in the room?

- planner
- engineer
- modeler
- designer
- policymaker

- agency staff
- consulting
- advocate
- community
- academic

- national
- state
- regional
- local



## Who is in the room?

- planner
- engineer
- modeler
- designer
- policymaker



## Who IS NOT in the room?

- agency staff
- consulting
- advocate
- community
- academic

- national
- state
- regional
- local

# THINKING IMPACT

- **WHY** are we pursuing this project?  
What outcomes are we trying to change?
- **WHO** is most helped? Most harmed?  
How does the policy/program/projects  
change their experience & outcomes?  
How do we ensure it addresses their needs?
- **HOW** do we partner with those excluded?
- **WHY** are we pursuing this project?  
What outcomes are we trying to change?



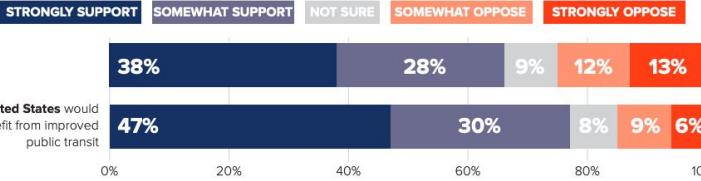
# What is your “why”?

- good at maths
  - good at coding
  - climate change
  - traffic safety
  - traffic management
  - love cars or trains
  - ...?
- personal
  - political





## IMPROVING PUBLIC TRANSIT the US v. my community



THE ROLE OF

# Transportation

IN PROMOTING PHYSICAL ACTIVITY



**TRAFFIC CALMING**  
Medians, speed bumps and other traffic-calming efforts can reduce the number of automobile crashes with pedestrian injuries by up to

**15%**



**PUBLIC TRANSPORTATION**

Public transit users take

**30%** more steps per day than people who rely on cars.

**Active Living Research**  
[www.activelivingresearch.org](http://www.activelivingresearch.org)

Sources: SIDEWALKS: Sallis J, Bowles H, Bauman A, et al. "Neighborhood Environments and Physical Activity among Adults in 11 Countries." *American Journal of Preventive Medicine*, 36(6): 484-490, June 2009. BIKE LANES: Dill J et al. Bicycling for Transportation and Health: The Role of Infrastructure. *Journal of Public Health Policy* (2009) 30, 595-570. doi:10.1057/jphp.2008.56). TRAFFIC CALMING: Bunn F, Collier T, Frost C, et al. "Area-Wide Traffic Calming for Preventing Traffic Related Injuries." *Cochrane Database of Systematic Reviews* (1), January 2003; Elvik R. "Area-Wide Urban Traffic Calming Schemes: A Meta-Analysis of Safety Effects." *Accident Analysis and Prevention*, 33(3): 327-336, May 2001. PUBLIC TRANSPORTATION: Edwards R. "Public Transit, Obesity, and Medical Costs: Assessing the Magnitudes." *Preventive Medicine*, 46(1): 14-21, January 2008.

# Setting Goals

## UN SDG GOAL 11.2:

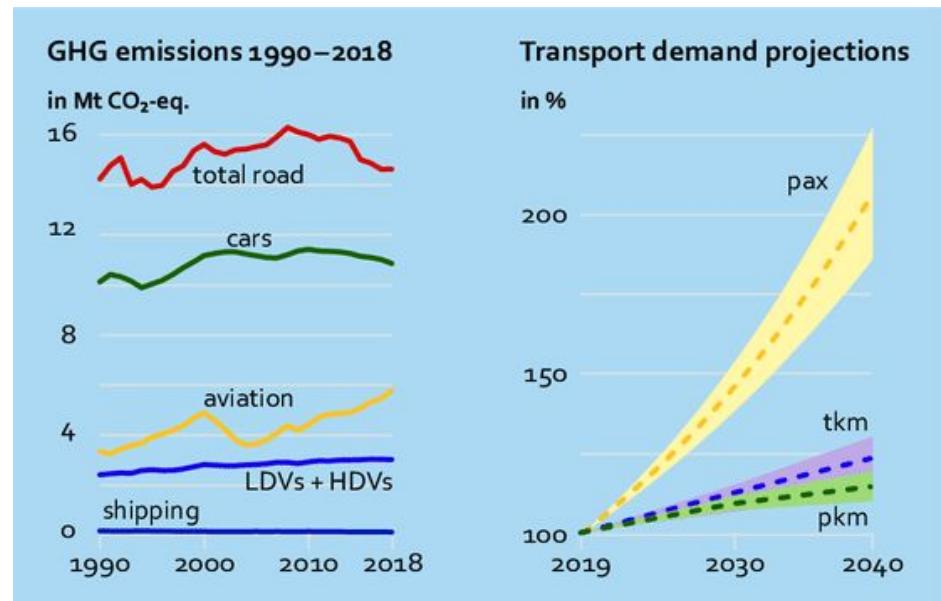
**by 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons**

# Focus on Why

transport generates as much as

# 28%

of Greenhouse Gas Emissions



IPCC

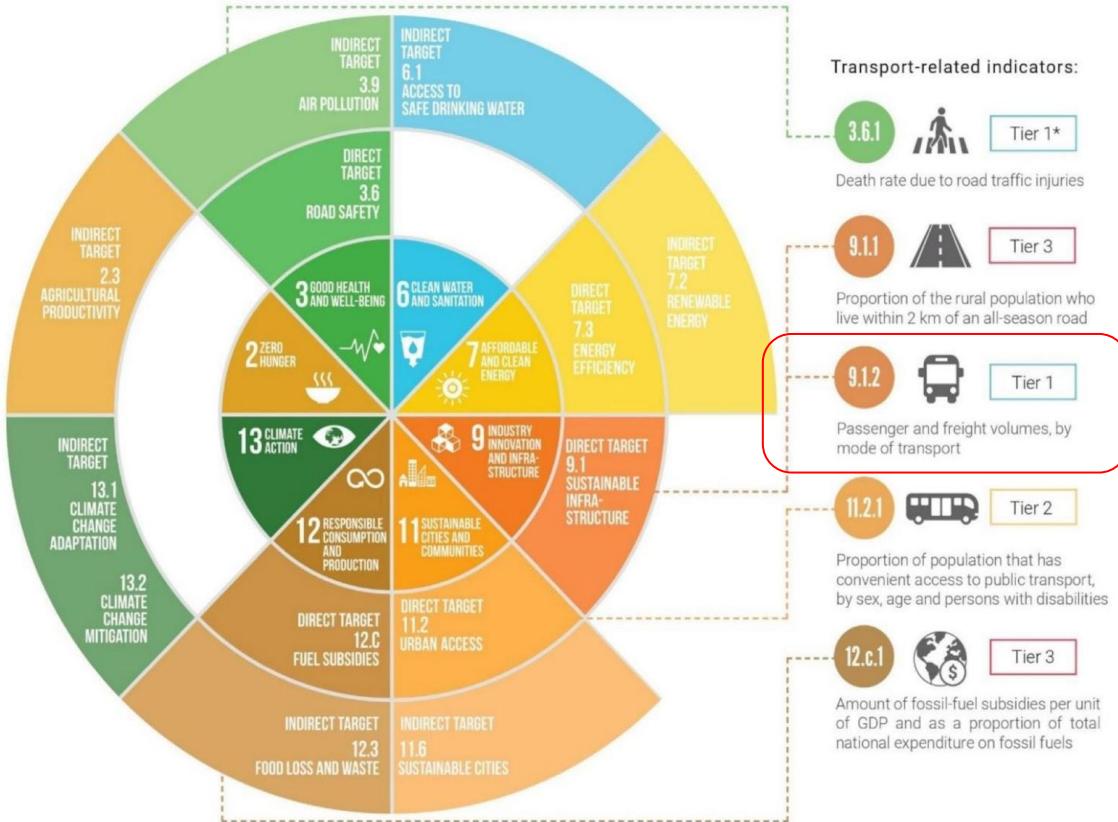


Figure i: Direct and indirect transport targets and indicators

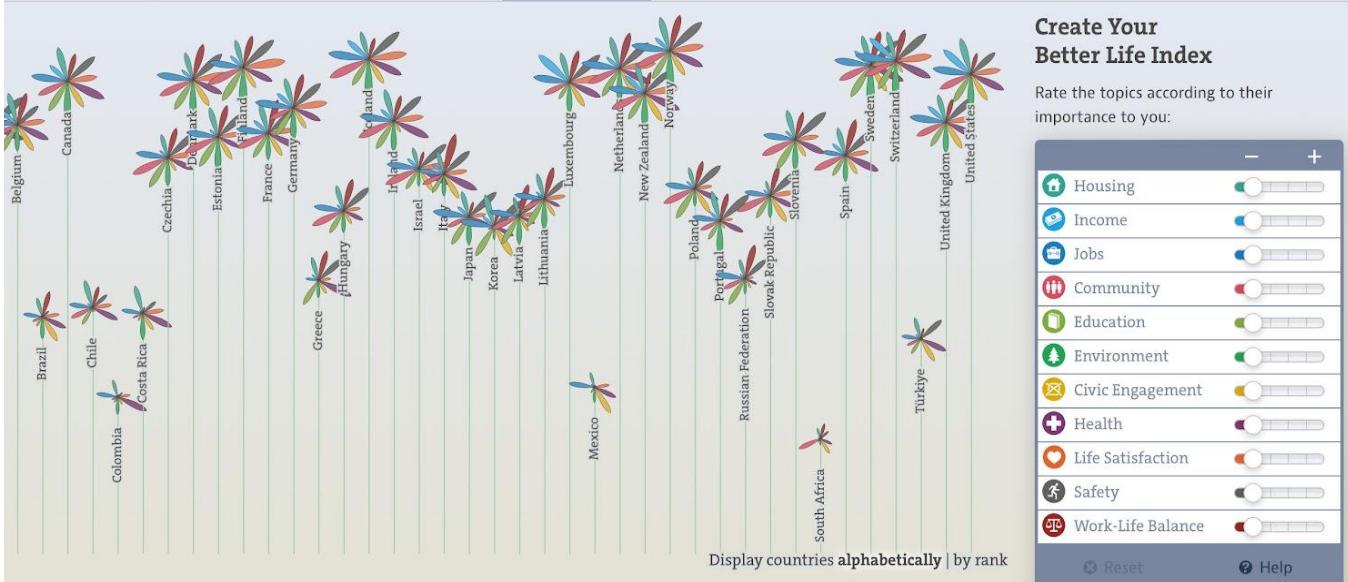
Index

Responses

Countries ▾

Topics ▾

FAQ



## Create Your Better Life Index

Rate the topics according to their importance to you:

+

	Housing	<input type="range" value="50"/>
	Income	<input type="range" value="50"/>
	Jobs	<input type="range" value="50"/>
	Community	<input type="range" value="50"/>
	Education	<input type="range" value="50"/>
	Environment	<input type="range" value="50"/>
	Civic Engagement	<input type="range" value="50"/>
	Health	<input type="range" value="50"/>
	Life Satisfaction	<input type="range" value="50"/>
	Safety	<input type="range" value="50"/>
	Work-Life Balance	<input type="range" value="50"/>

✖ Reset    ? Help

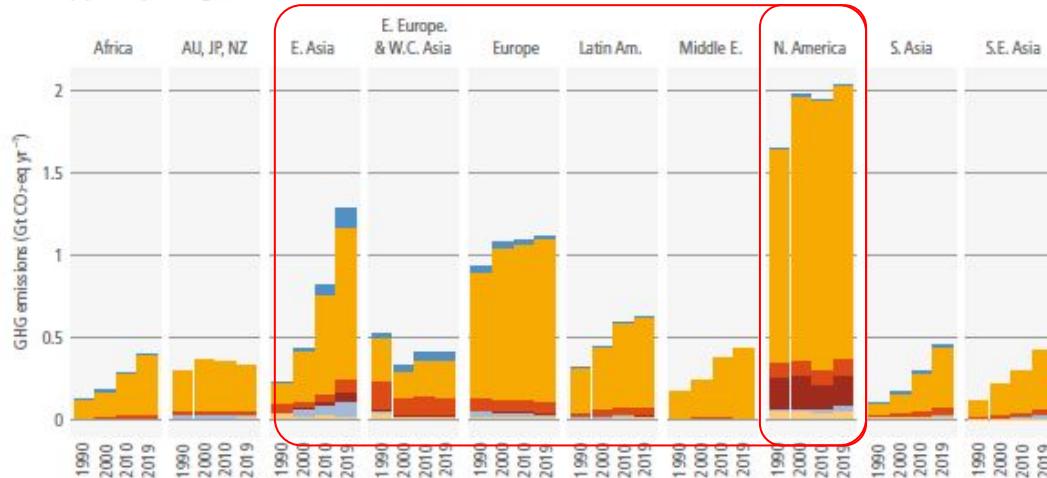
➡ Gender differences

⬇ Compare with others

↗ Share your index

???

(b) Transport regional GHG emissions trends



IPCC Ch 10 Transport. In IPCC, 2022: Climate Change 2022: Mitigation of Climate Change  
<https://www.ipcc.ch/report/ar6/wg3/chapter/chapter-10/>

# STREETS



Largest network of continuous public space



ONE OF OUR BIGGEST ASSETS IN CITIES!

# Multimodal streets are efficient streets

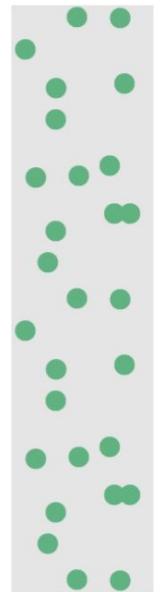
CAR LANE



BIKE LANE



SIDEWALK



TRANSITWAY



600 -  
**1,600**  
people  
per hour

**7,500**  
people  
per hour

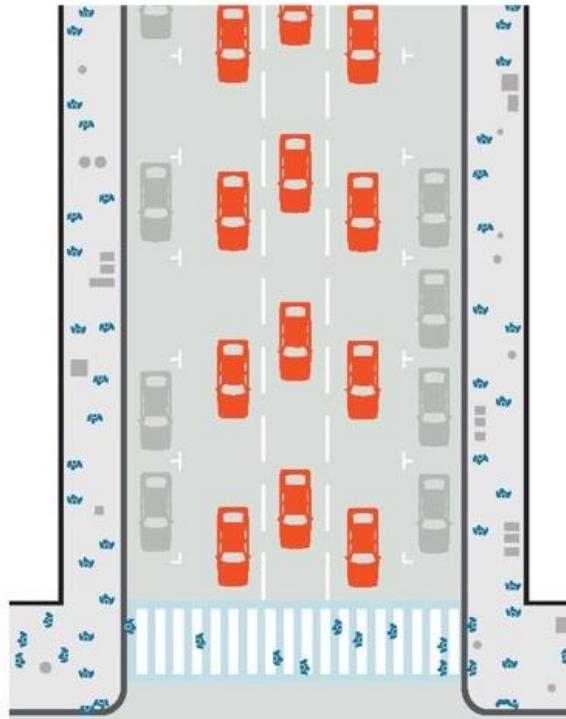
**9,000**  
people  
per hour

**10,000 -  
25,000**  
people  
per hour

Image: NACTO

# Success depends on how you allocate space

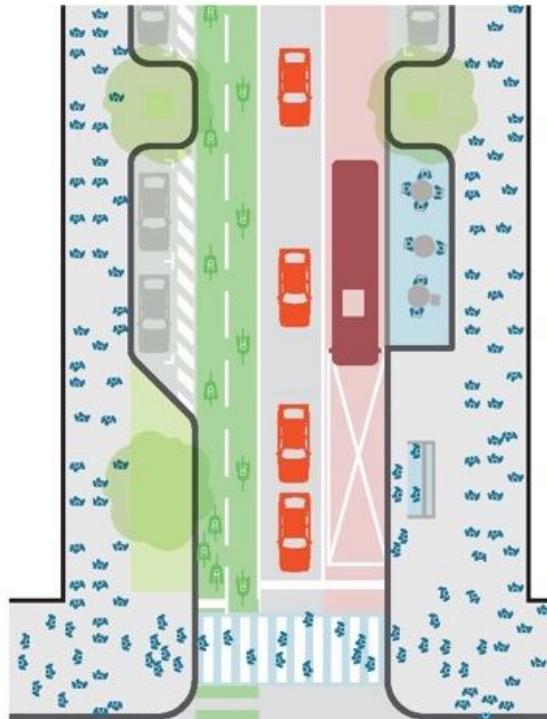
Car-Oriented Street



**12,300  
people/ h**

Total capacity:

Multimodal Street



**30,100  
people/ h**

Total capacity:

**x 2.4  
people**

Image: NACTO



Image: NACTO



Image: NACTO



Image: NACTO

A wide-angle photograph of a multi-lane road. In the foreground, a yellow school bus is driving away from the viewer. Behind it, several cars are following. The road has multiple lanes separated by dashed white lines and yellow center lines. On the left side, there's a grassy area with some trees and utility poles. On the right side, there's a sidewalk and a parking lot where several cars are parked. The sky is overcast.

So, why do we keep building roads  
like this?

Or this...



Or this...













which we could be building this.



# What's working? What's not working? For whom?



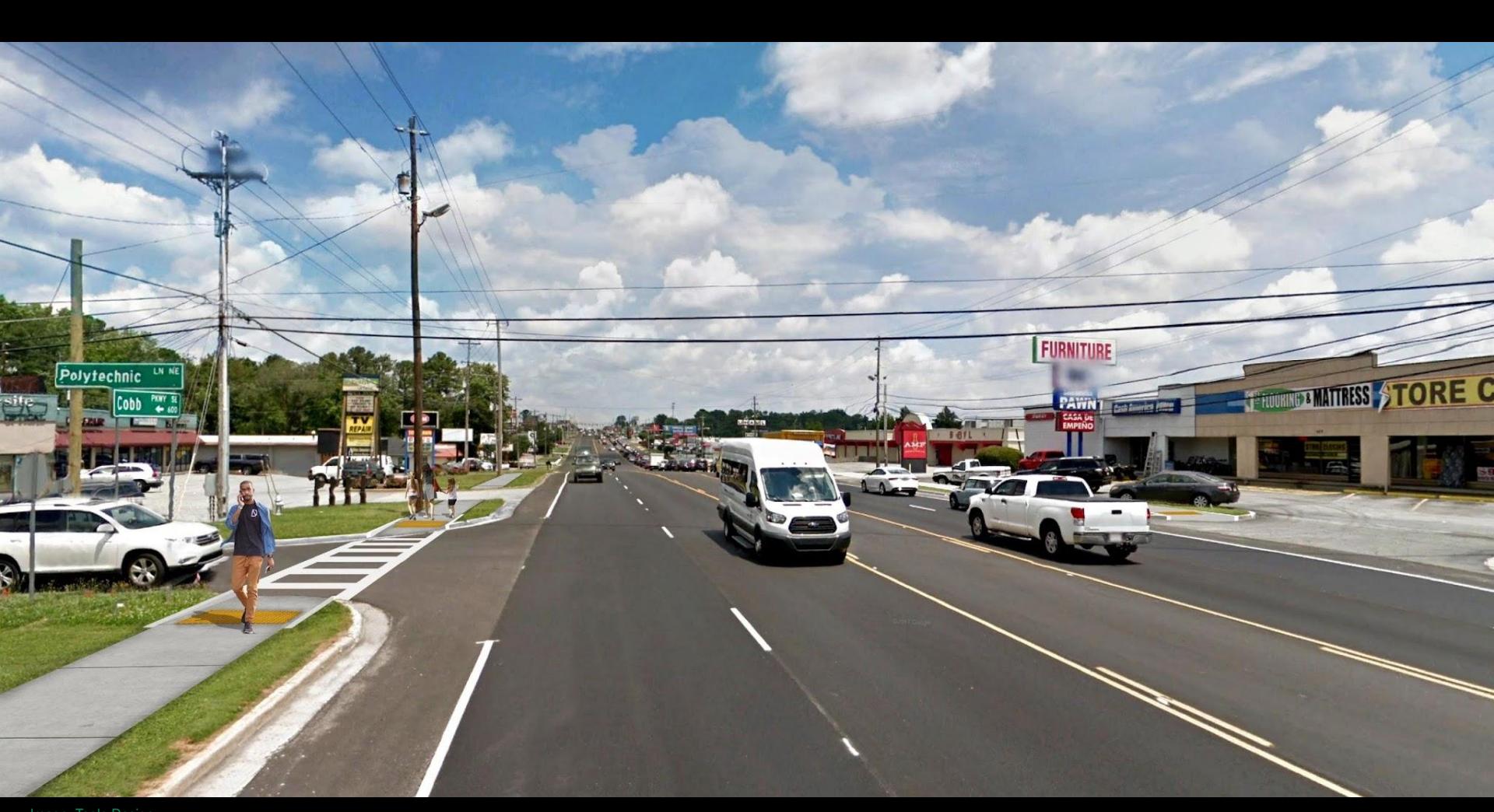


Image: Toole Design

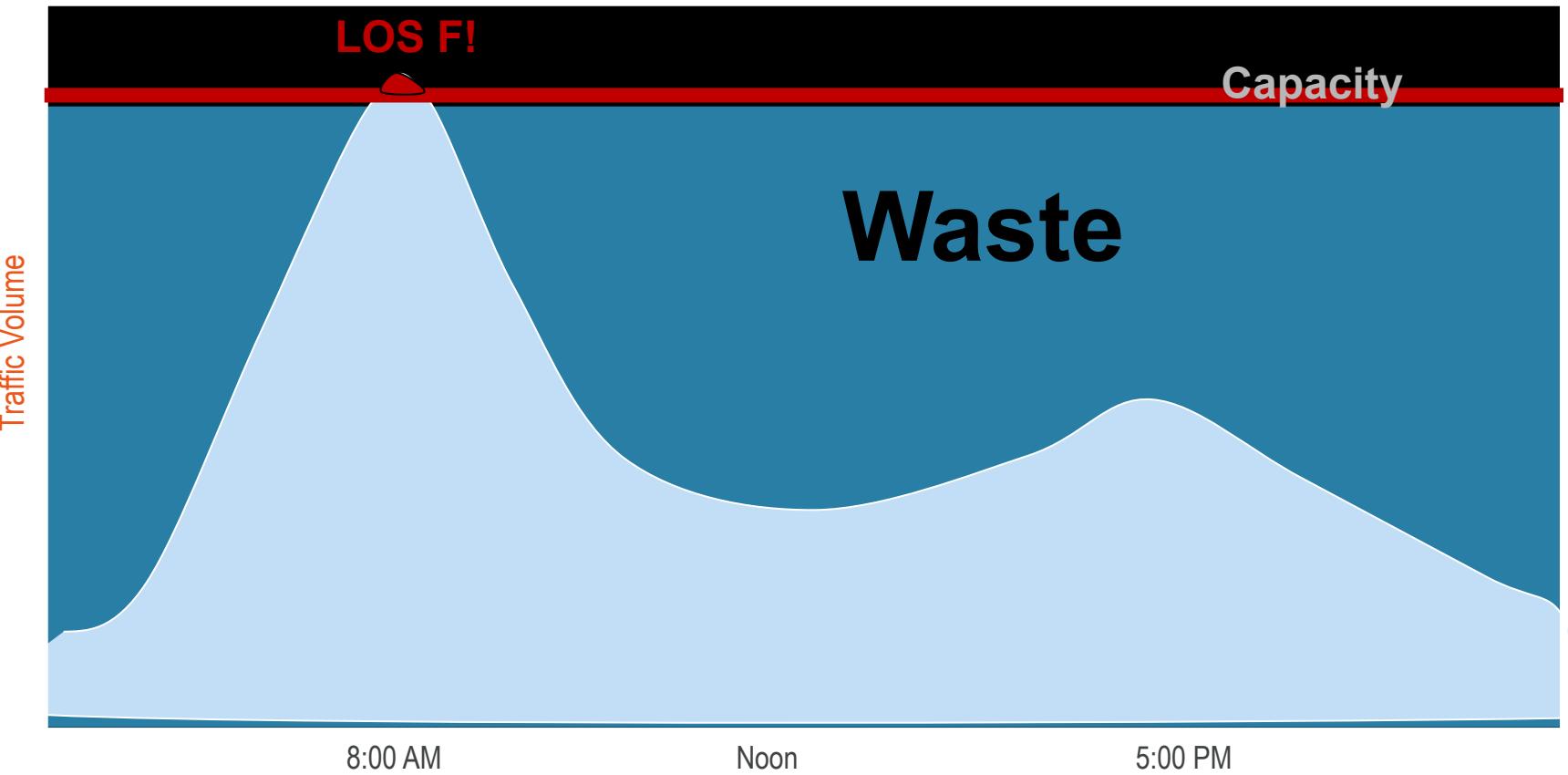


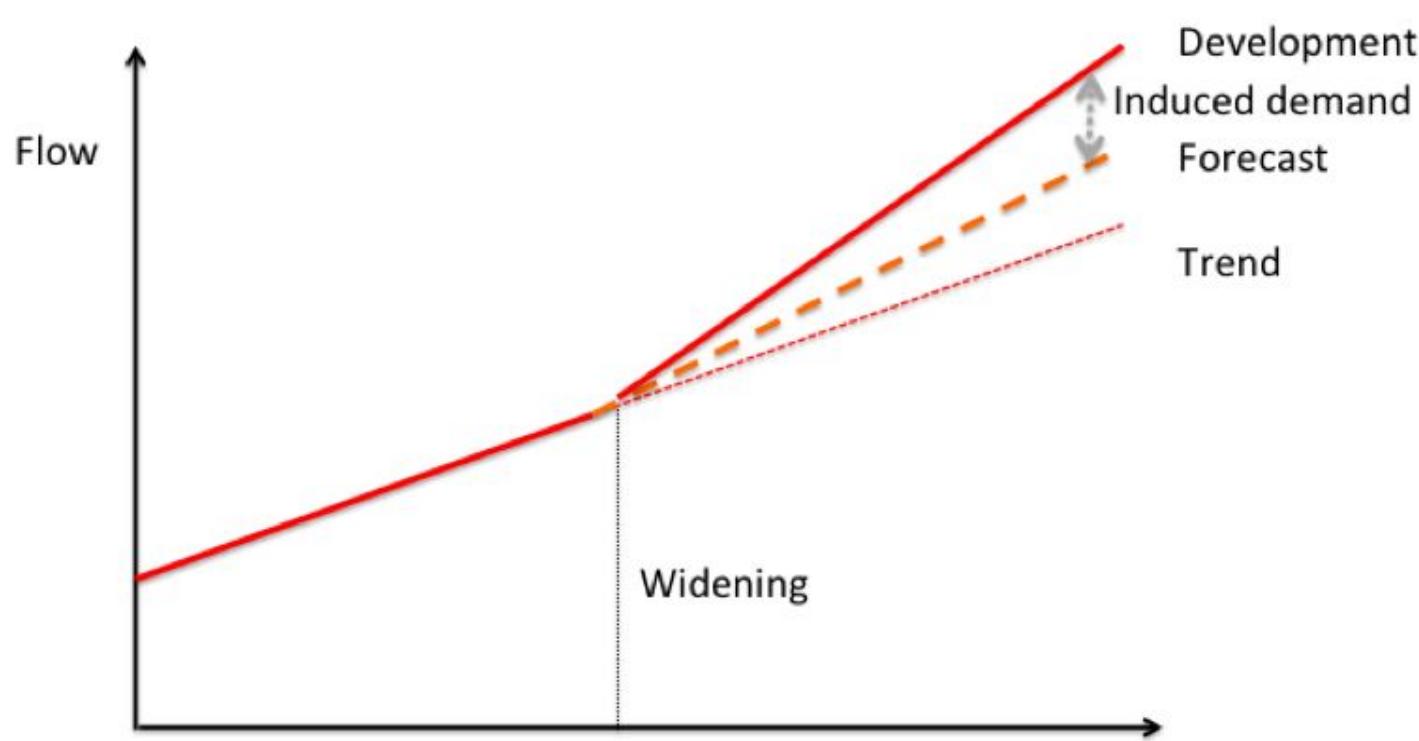
Image: Toole Design



A or F?

A or F?

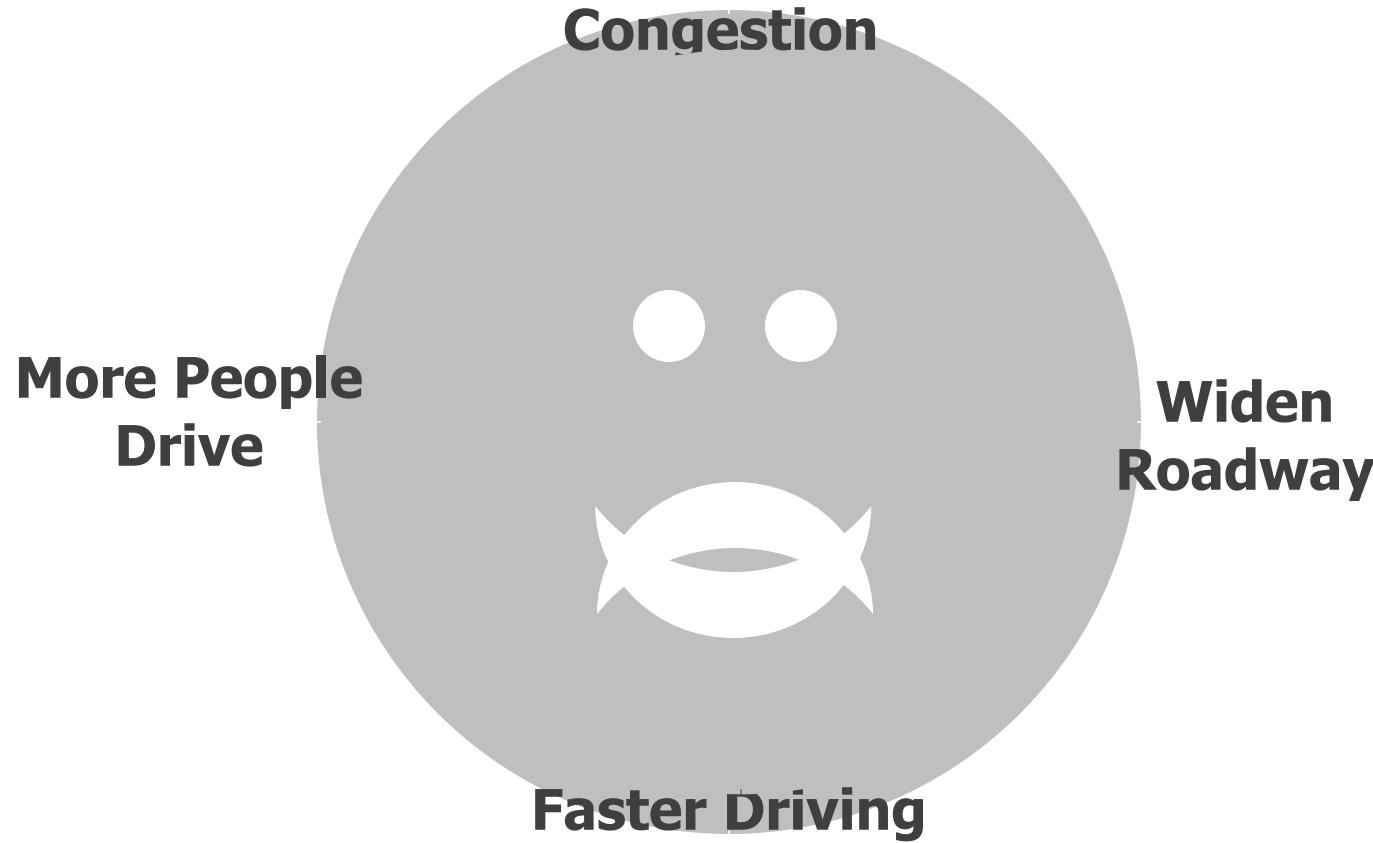




Downs, A. (2004). Still Stuck in Traffic. Washington DC, Brookings Institute.

Speck, J. (2018). Understand Induced Demand. In: Walkable City Rules. Island Press, Washington, DC.  
[https://doi.org/10.5822/978-1-61091-899-2\\_27](https://doi.org/10.5822/978-1-61091-899-2_27)

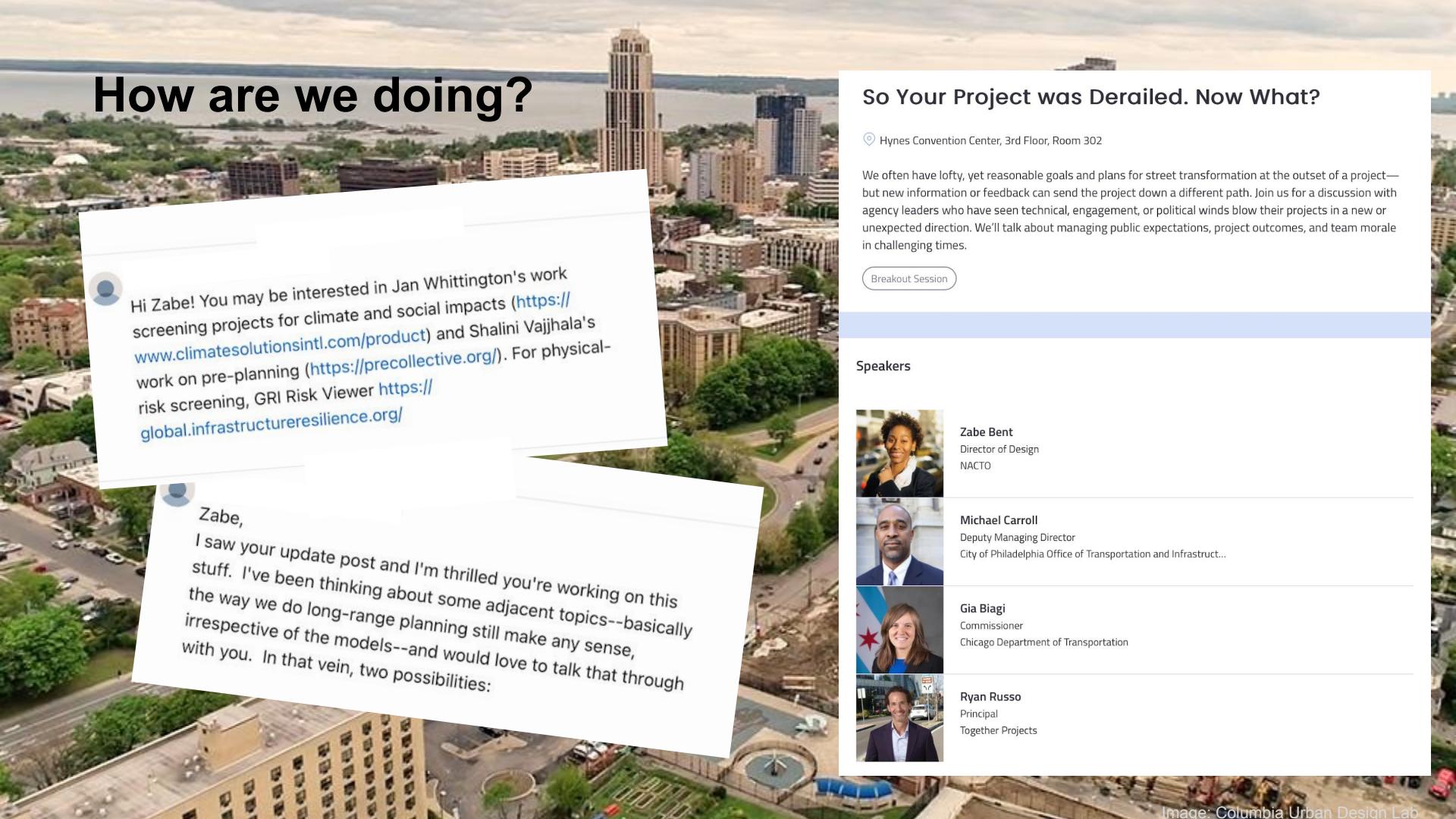
Yet, we keep building...



# How are we doing?



# How are we doing?



Hi Zabe! You may be interested in Jan Whittington's work screening projects for climate and social impacts (<https://www.climatesolutionsintl.com/product>) and Shalini Vajjhala's work on pre-planning (<https://precollective.org/>). For physical-risk screening, GRI Risk Viewer <https://global.infrastructureresilience.org/>

Zabe,  
I saw your update post and I'm thrilled you're working on this stuff. I've been thinking about some adjacent topics--basically the way we do long-range planning still make any sense, irrespective of the models--and would love to talk that through with you. In that vein, two possibilities:

## So Your Project was Derailed. Now What?

Hynes Convention Center, 3rd Floor, Room 302

We often have lofty, yet reasonable goals and plans for street transformation at the outset of a project—but new information or feedback can send the project down a different path. Join us for a discussion with agency leaders who have seen technical, engagement, or political winds blow their projects in a new or unexpected direction. We'll talk about managing public expectations, project outcomes, and team morale in challenging times.

Breakout Session

### Speakers



**Zabe Bent**  
Director of Design  
NACTO



**Michael Carroll**  
Deputy Managing Director  
City of Philadelphia Office of Transportation and Infrastructure



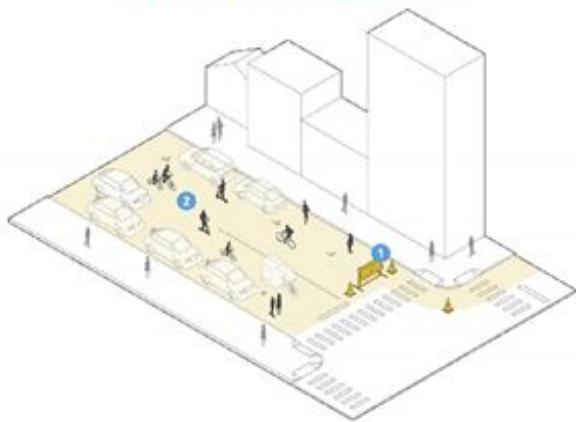
**Gia Biagi**  
Commissioner  
Chicago Department of Transportation



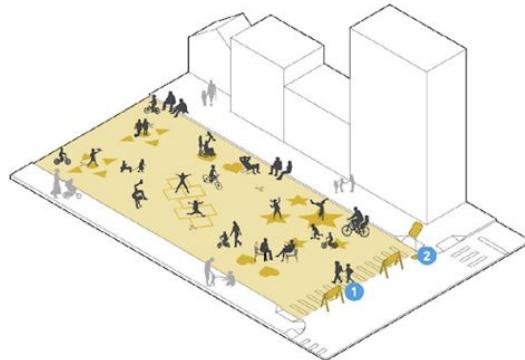
**Ryan Russo**  
Principal  
Together Projects

What can you do with more street space? With slower speeds?

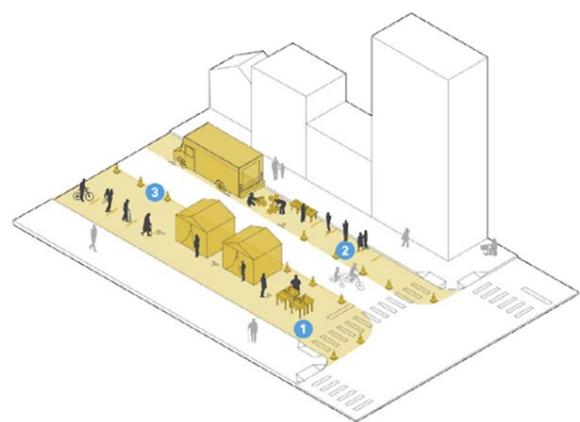
### Slow Streets



### Open/Play Streets



### Critical Services



# US traffic deaths down in 2023 but remain above pre-pandemic levels

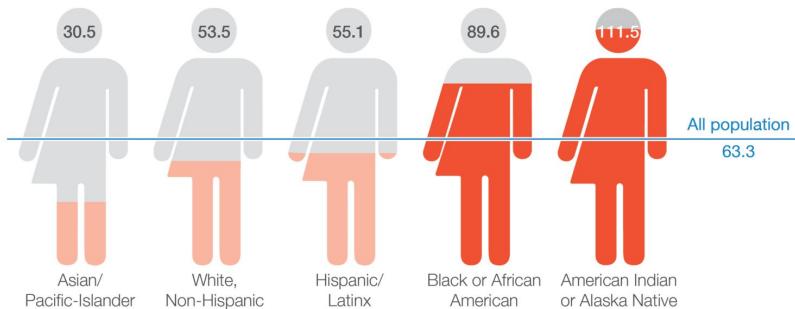
By David Shepardson

September 28, 2023 12:59 PM EDT · Updated September 28, 2023

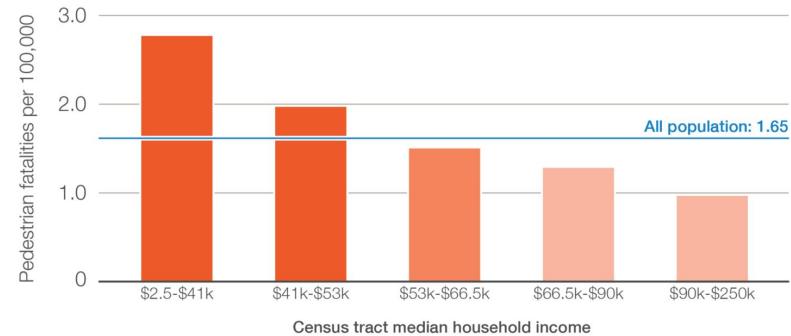


## The burden is not shared equally

Relative pedestrian danger by race and ethnicity  
(2010-2019)



**People walking in lower-income areas are struck and killed at much higher rates.** People walking in wealthier neighborhoods are killed at far lower rates



## Statistics on Car Crashes Caused by Human Error

The statistics surrounding car crashes and human error are alarming. According to the National Highway Traffic Safety Administration, approximately 94% of all car crashes are attributed to human error. This statistic underscores the critical importance of driver behavior in road safety. It's important to note that this doesn't mean that human error is the only factor in 94% of crashes. That is, the critical reason for the crash—the last event in the chain of events leading to the collision—was attributed to human error 94% of the time. In most cases, there are many other factors that play a role as well.

## Common Types of Human Errors Leading to Car Crashes

Various types of human errors frequently

E

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Weekly edition The world in brief War in the Middle

Finance & economics | Ascension, for some

## How AI will divide the best from the rest

Optimists hope the technology will be a great equaliser. Instead, it looks likely to widen social divides

Share



ILLUSTRATION: RICARDO REY

U.S. DOT

## U.S. DOT Orders Review of All Grants Related to Green Infrastructure, Bikes

U.S. Department of Transportation Secretary Sean Duffy is coming for our bike lanes – and the time to act is now.



By Gersh Kuntzman

12:00 AM EDT on March 12, 2025



Photo: Gersh Kuntzman

U.S. Department of Transportation Secretary Sean Duffy has ordered officials to stop action on all Biden-era discretionary grants to build bike lanes and other "green infrastructure" so the agency can review the project for possible removal.



People don't put themselves at risk without a reason.  
It's impossible to make a good decision  
if the infrastructure doesn't let you.



**50%** of people on bikes  
were riding on the sidewalk



**3%** of people on bikes  
ride on the sidewalk

# Anticipate Political Valleys

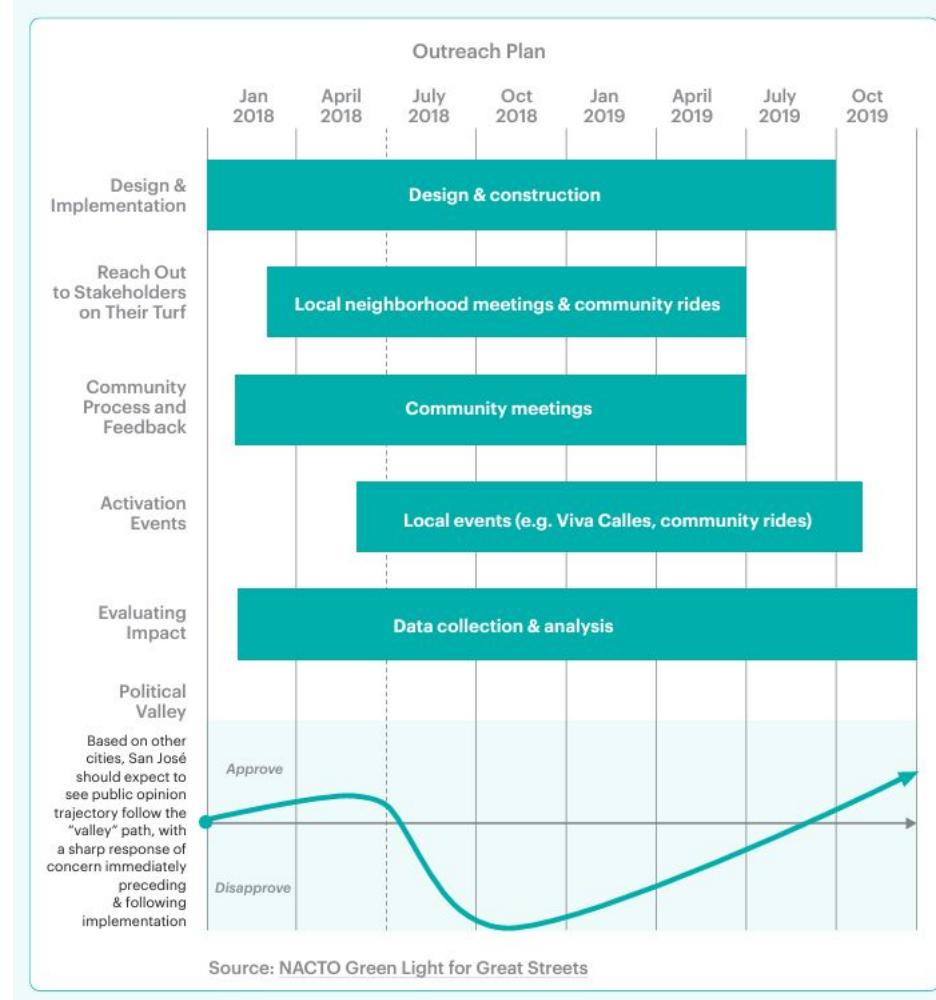


Image: NACTO

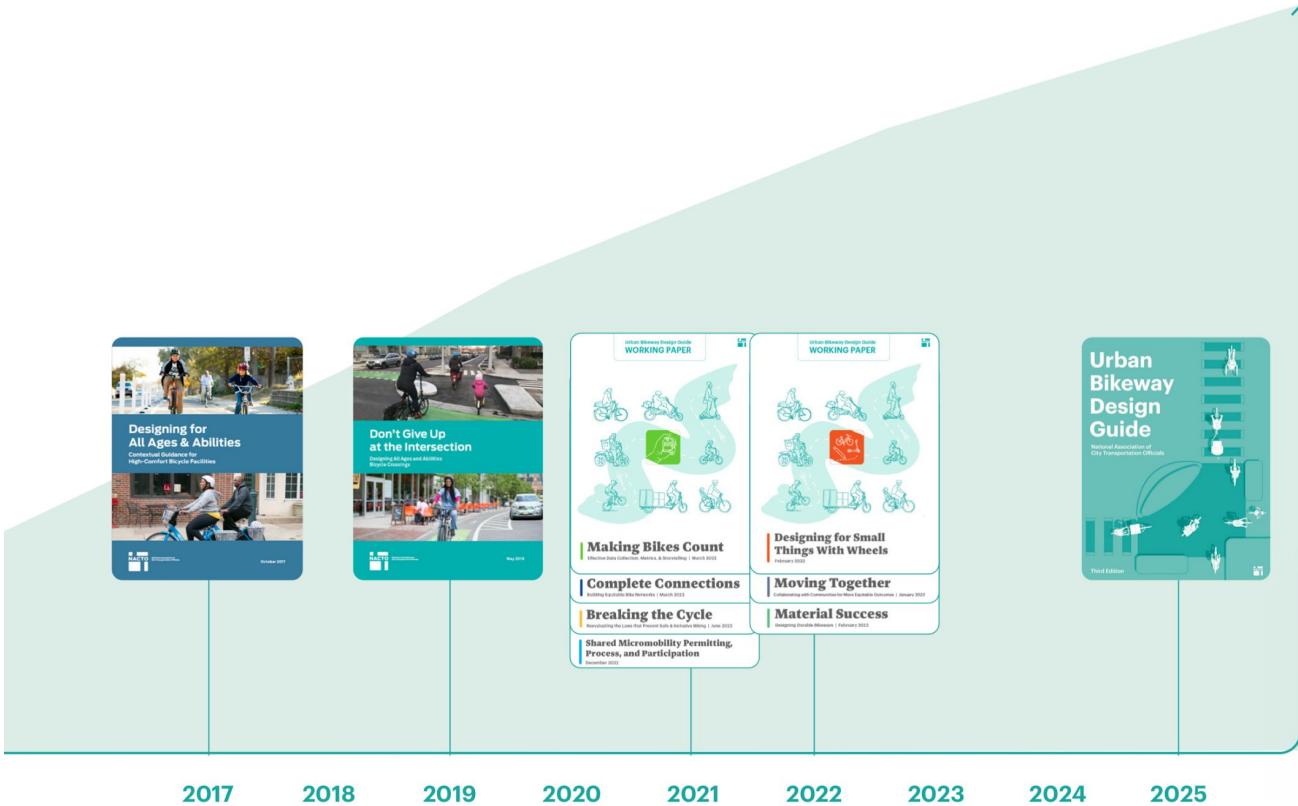


Image: NACTO Urban Bikeway Design Guide

**BIKeway DESIGN VEHICLE**

Bikeway use is growing in tandem with the diversity of devices, in size and speed, being used. This growth requires new thinking about street and bikeway design. When designing bikeways, the most common devices fit into one of four operational categories:

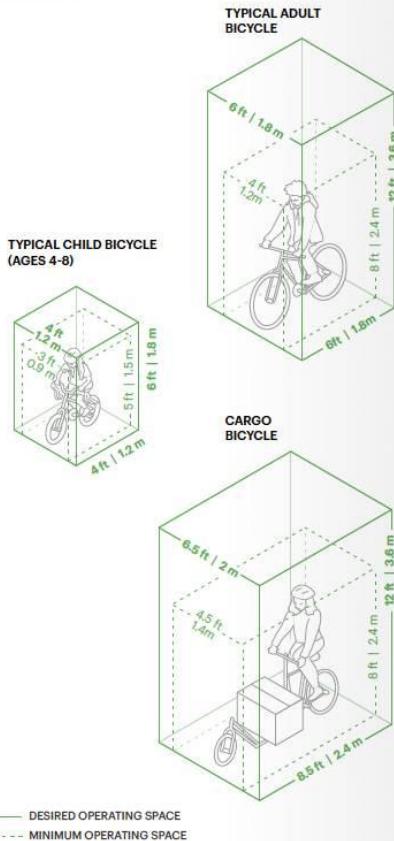
- **Mini devices:** Electric and non-electric scooters, skateboards, rollerblades, and other devices under 20 in (50 cm) wide that are typically used while a person is standing upright

- **Typical bikes:** Electric and conventional upright bikes and tricycles, as well as recumbent bikes, hand cycles, and any wheeled devices up to 2.5 ft (0.8 m) wide

- **Cargo bikes:** Electric and conventional bikes and tricycles between 2.5-3 ft (0.8-0.9 m) wide that have an extended wheelbase or that are pulling a trailer

- **Extra-large bikes:** large freight tricycles, pedicabs, and other devices between 3 ft (0.9 m) and typically up to 4.5 ft (1.4 m) wide

Devices from all of these categories should be expected in any bikeway. Designers should provide appropriate width and turning space for the longest and widest device possible.

**RIDEABLE WIDTH**

In shared environments like bike boulevards, rideable width is the amount of space people on bikes and other mobility devices need to move safely. Any space allocation or curb extension must take into account the specific width requirements of each device type.

As bikeway use grows, designers must use a more diverse set of tools and a wider variety of widths to meet new operational needs such as platooning, riding alongside, and passing. Wide plazas and shoulders are comfortable accommodations for all users. Wide protected bikeways are valuable for safety.

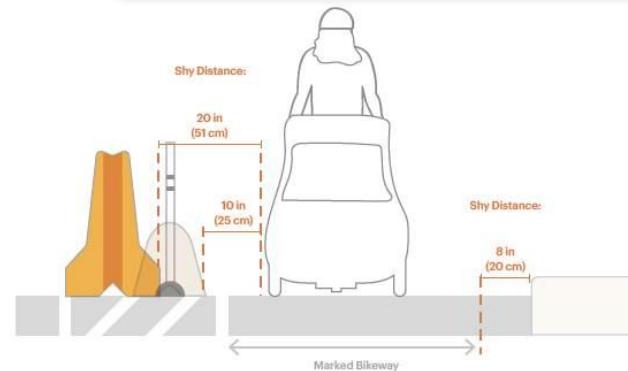
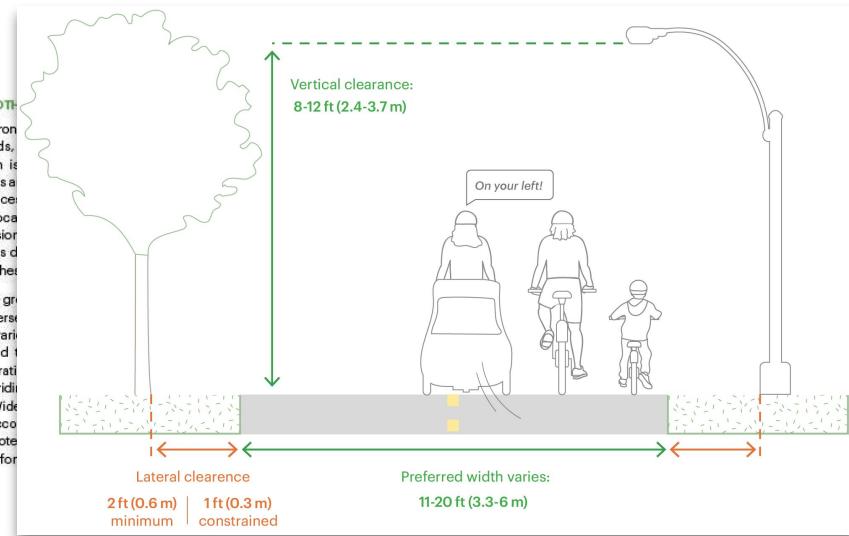
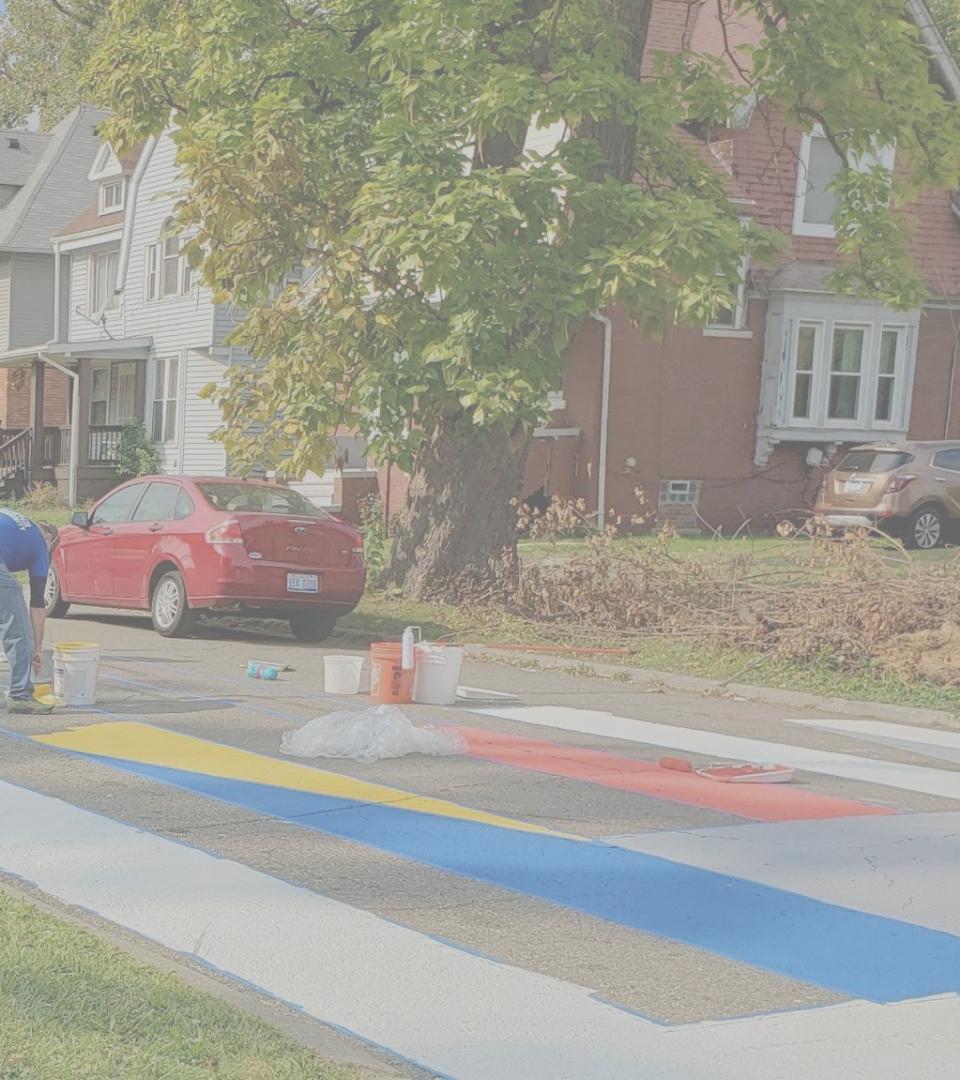


Image: NACTO Urban Bikeway Design Guide

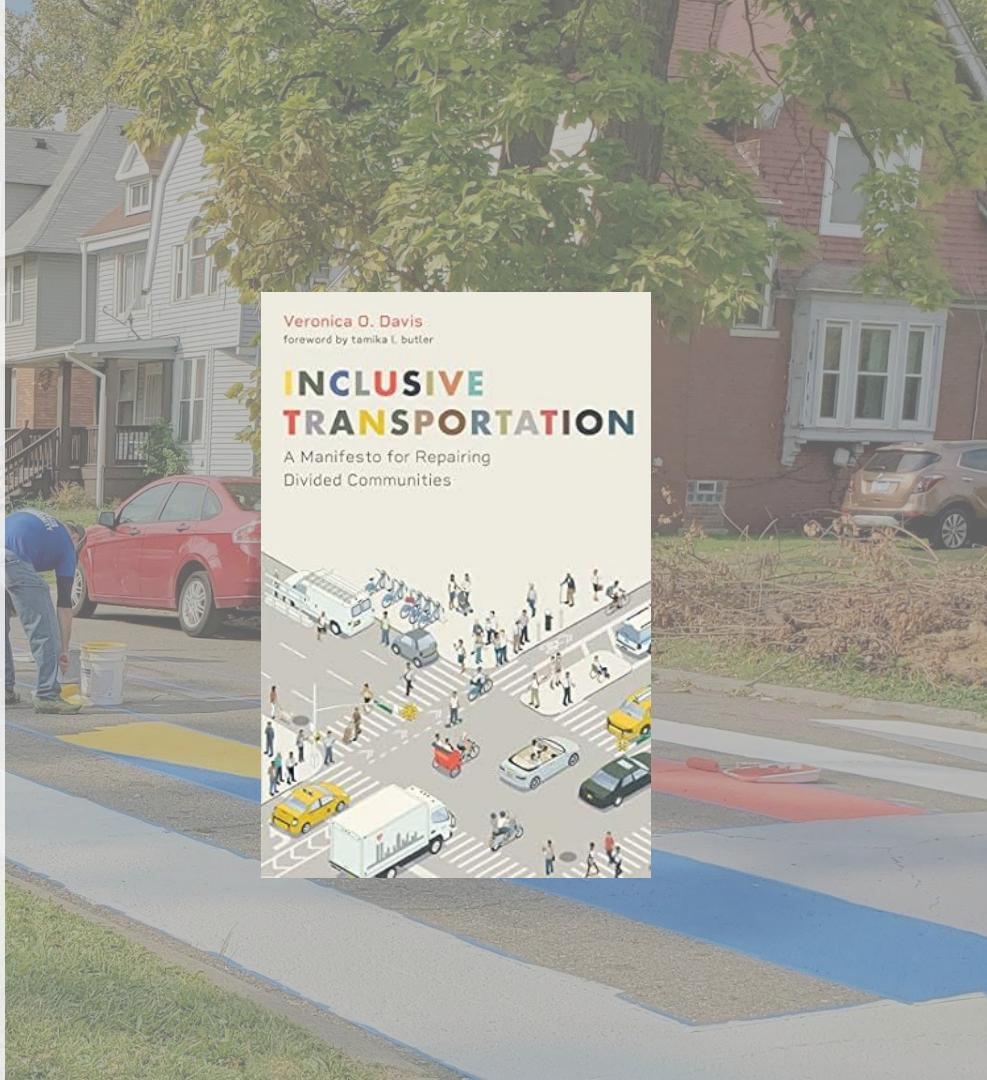
# Key concepts:

- how a bill becomes a law
- how Federal spending works
- organizing institutional information makes work easier
- short- vs long-term changes the analysis & the approach
- communicating effectively will increase success



# Key concepts:

- how policy becomes law
- how local/national spending works
- organizing institutional information makes work easier
- short- vs long-term changes the analysis & the approach
- communicating effectively will increase success
- understanding context can improve trust



# To keep in mind:

- project management work is critical
- learn the acronyms but use them sparingly
- know your role & your partners' roles
- when to navigate politics
- ask who is not in the room



# To keep in mind:

- project management work is critical
- learn the acronyms but use them sparingly
- know your role & your partners' roles
- when to navigate politics
- ask who is not in the room
- use your powers -- for good!



This is why I'm hot  
@velaparatodo

Replying to [@zabebent](#)

I thought that there was a mythical "policy comptroller." Very few agencies actually enforce policy goals - Especially if developed by a previous administration. As a practitioner it is up to you to know which goals are most relevant, and to align project outcomes with said goals

An aerial photograph of a city skyline, likely New Haven, Connecticut. The foreground shows a mix of residential buildings, green spaces, and a construction site. In the middle ground, there's a large area of mixed-use development with several high-rise buildings. The background features a wide river or harbor under a cloudy sky.

Thank you!  
Questions?

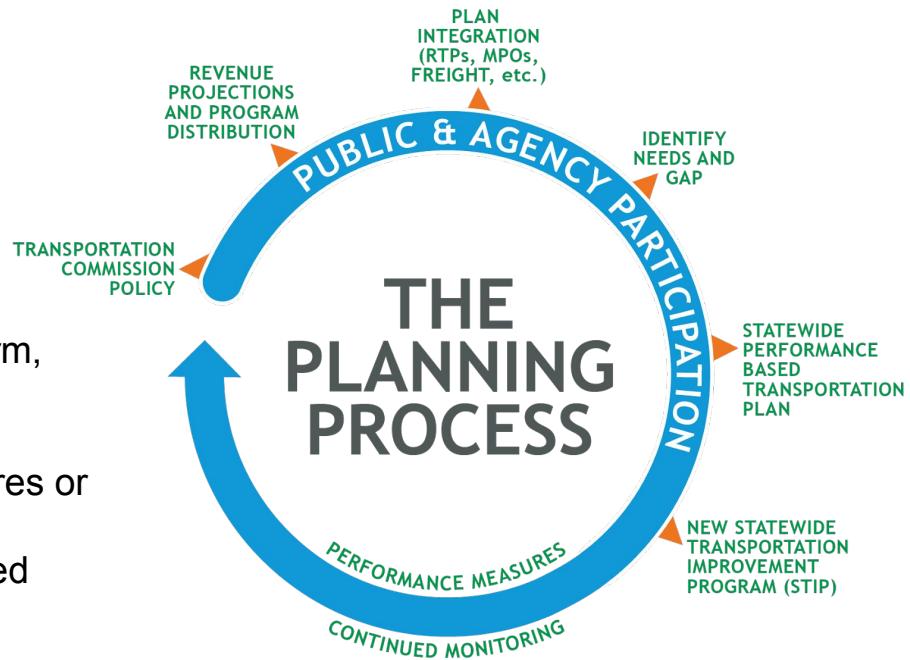
@ZabeBent



# So, why is this so hard to change?

## Problem

Mobility projects underperform, contributing to unmet goals  
Most interventions focus on performance/ impact measures or analysis tools  
Visioning not fully represented





Connecticut (*credit: CTDOT*)



New York City (*credit: NYCDOT*)

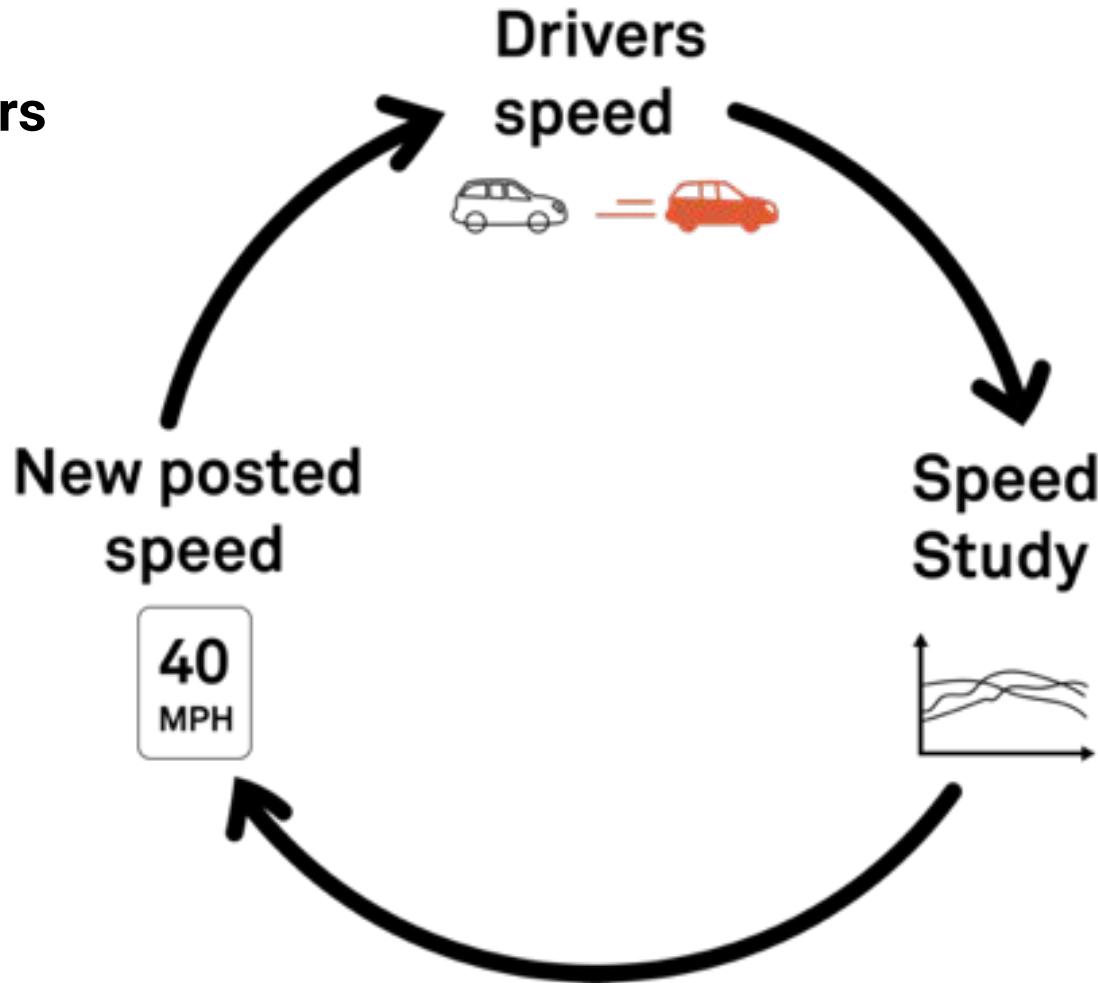
1930s 1940s 1950s 1960s 1970s 1980s 1990s 2000s 2010s

Sadly, during the last 100 years, people have become an afterthought.



It's time for change.

**Our system  
rewards drivers  
who speed.**



# THE EFFECT OF VEHICLE SPEED ON PEDESTRIAN FATALITIES



5% chance of pedestrian fatality



45% chance of pedestrian fatality



85% chance of pedestrian fatality

Source: Billing Speed and Safety Lines, U.S. Dept. of Transportation, London, England. See also Linger, Rubeluk, Motor-Vehicle Accident Reconstruction and Cause Analysis, Rowman Editors, Chichester, VA, The Monac Company, 1990, p. 65.

Urban Arterials:

57% of urban traffic fatalities

2/3 of walk & bike fatalities

But only 15% of the urban road network

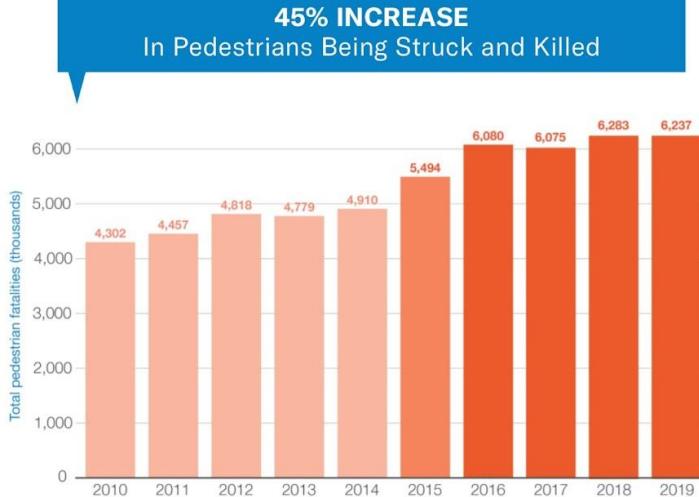


Image: NACTO

**15% of streets, but 73% of deaths**

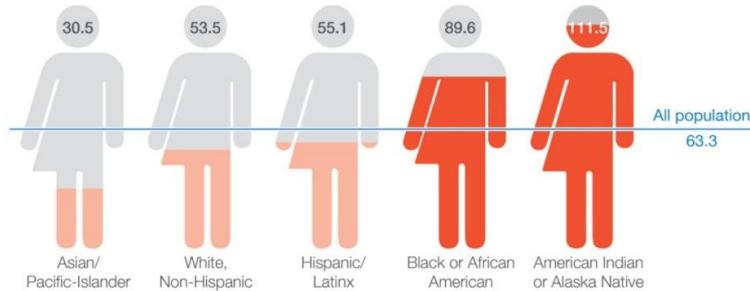


The risk of fatality from dangerous street design is not evenly distributed.



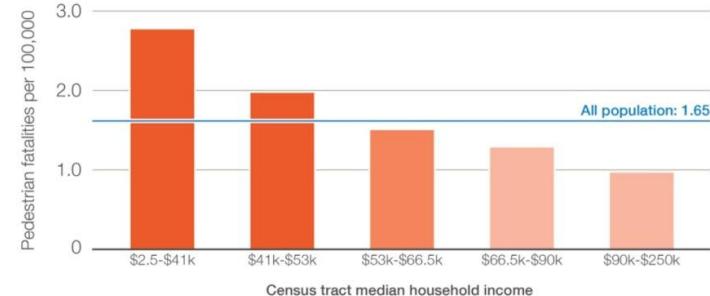
## THE BURDEN IS NOT SHARED EQUALLY

Pedestrian Danger by Race and Ethnicity

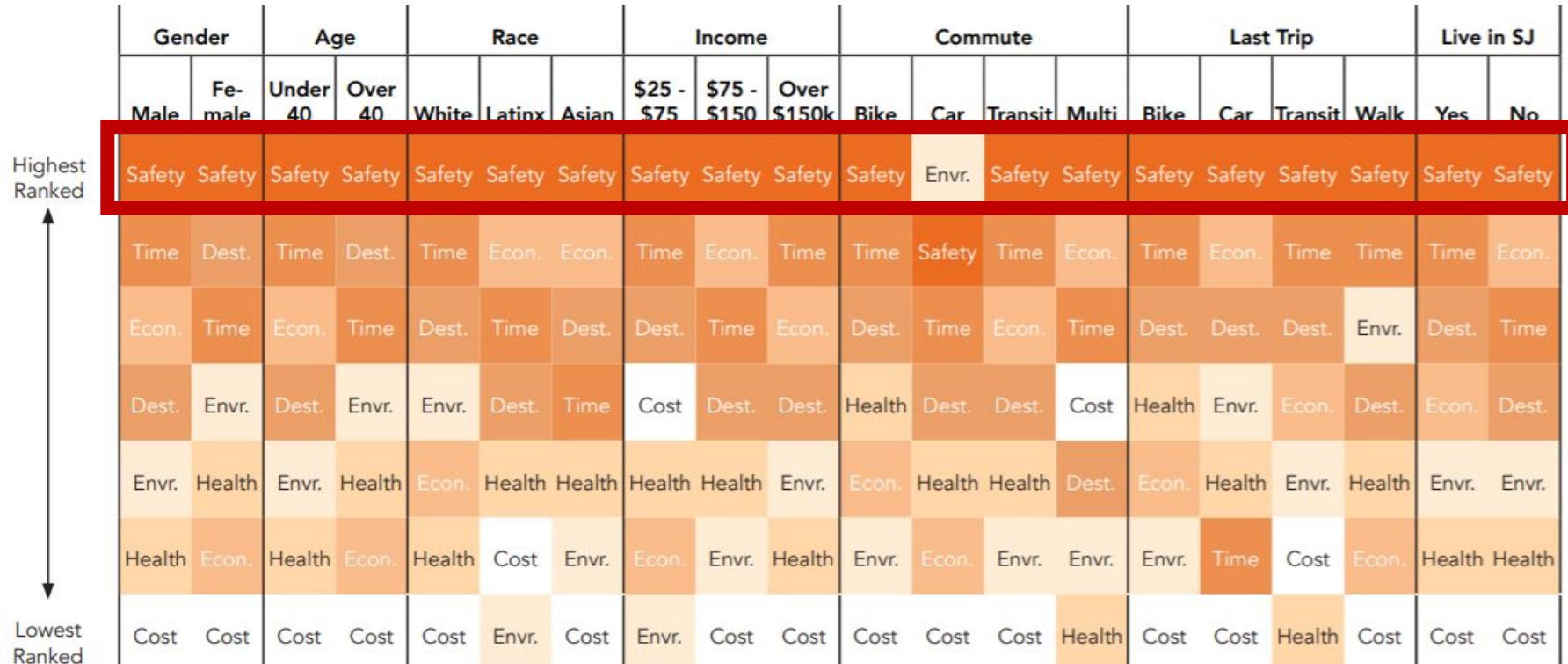


## LOW-INCOME PEOPLE

Are Struck and Killed at Much Higher Rates



# People want Safety, Safety, Safety!



**Legend:**

Safety	Time Savings	Access to Destinations	Economic Savings
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# NHTSA Early Estimates Show Record Increase in Fatalities Nationwide

Share:



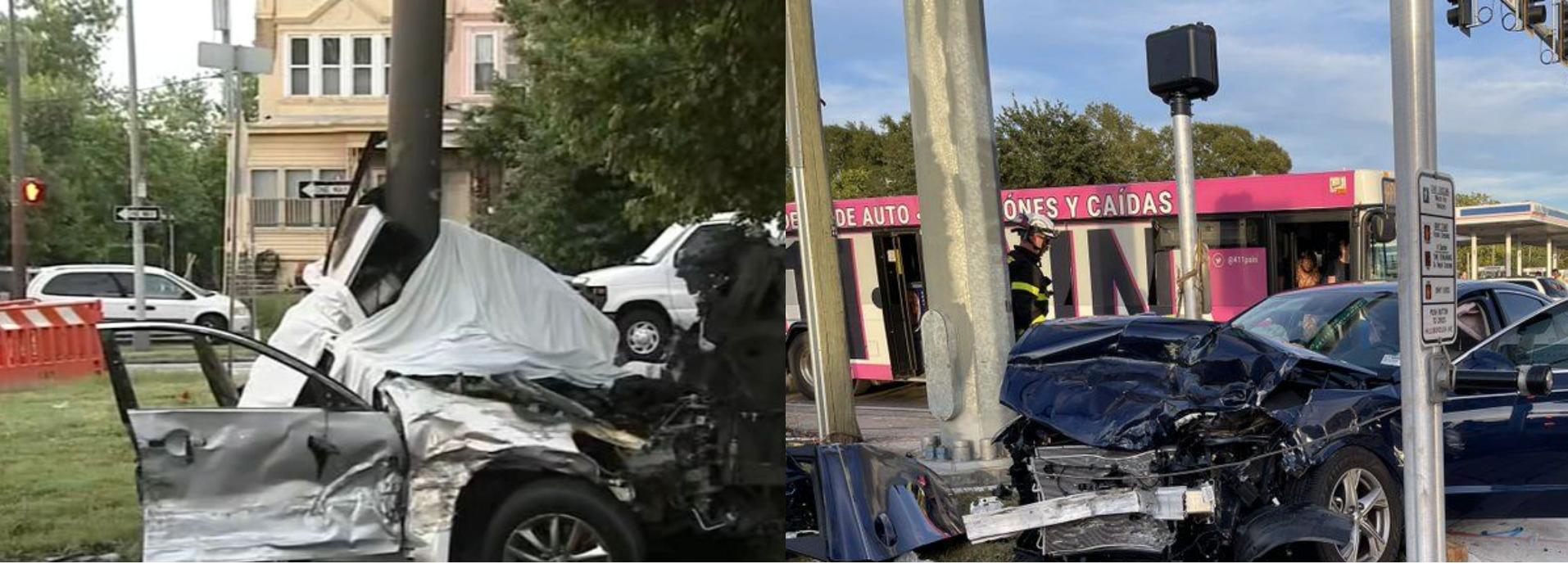
August 17, 2022 | Washington, DC

The National Highway Traffic Safety Administration today released its [early estimates of traffic fatalities for the first quarter of 2022.](#)

NHTSA estimates that 9,560 people died in motor vehicle traffic crashes in the first quarter of 2022.

This is an increase of about 7% as compared to the 8,935 fatalities projected for the same quarter in 2021. This would be the highest number of first-quarter fatalities since 2002.

According to NHTSA's early estimates, the fatality rate for the first quarter of 2022 increased to 1.27 fatalities per 100 million vehicle miles traveled, up from the projected rate of 1.25 fatalities per 100 million vehicle miles in the first quarter of 2021.



**52%** of urban arterials in the U.S.  
are state-owned



75% border low-income neighborhoods

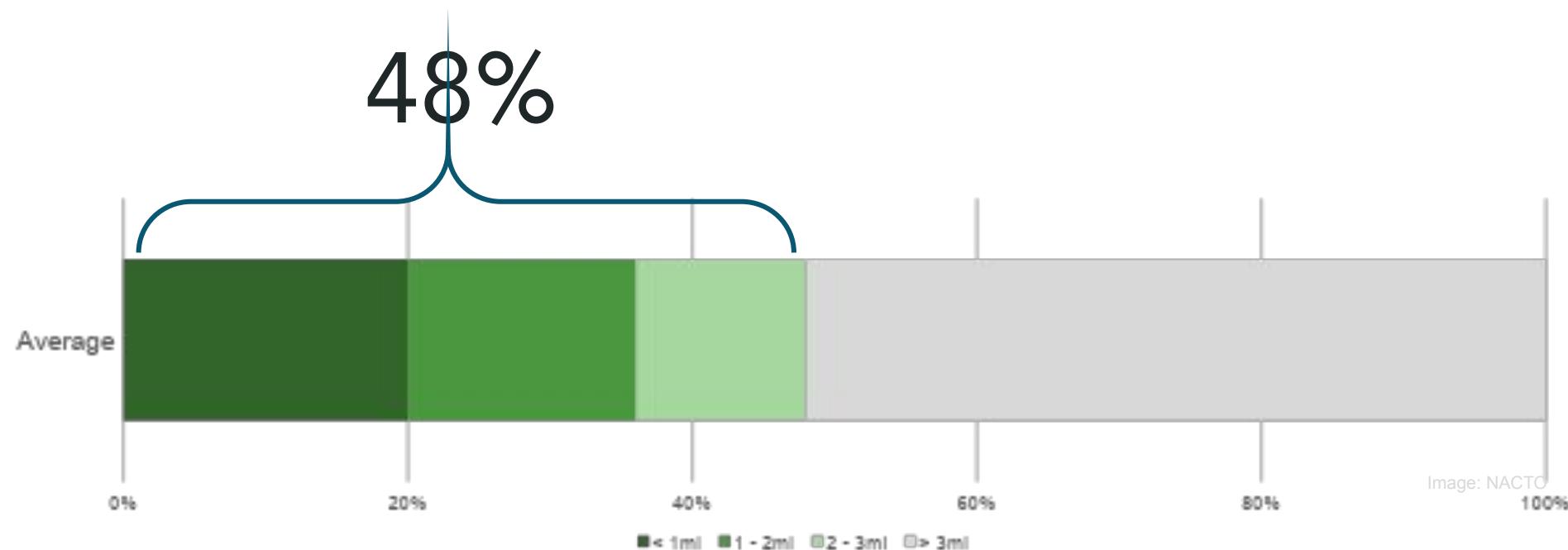
### DISCONNECTED NETWORK



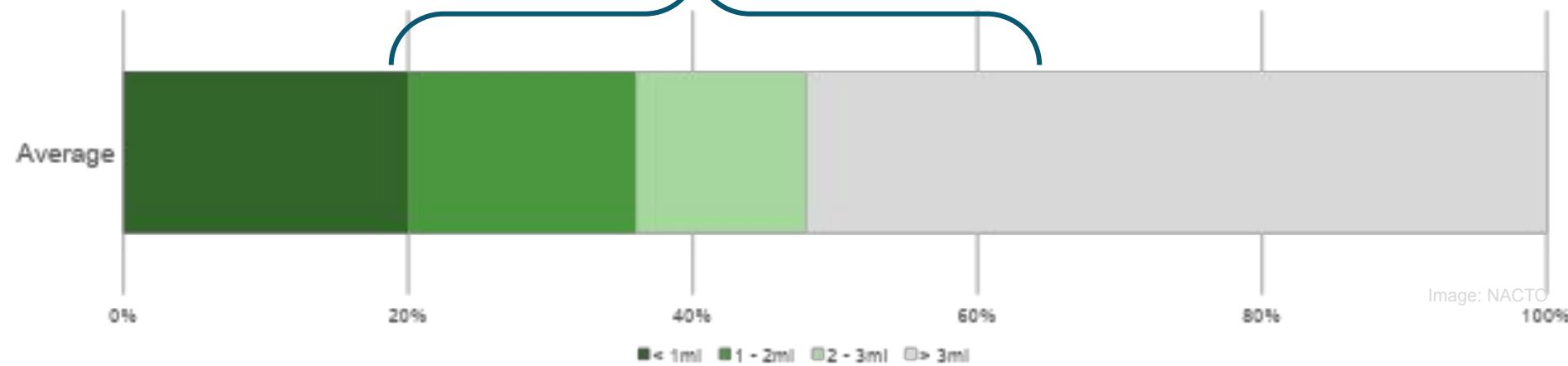
### CONNECTED NETWORK



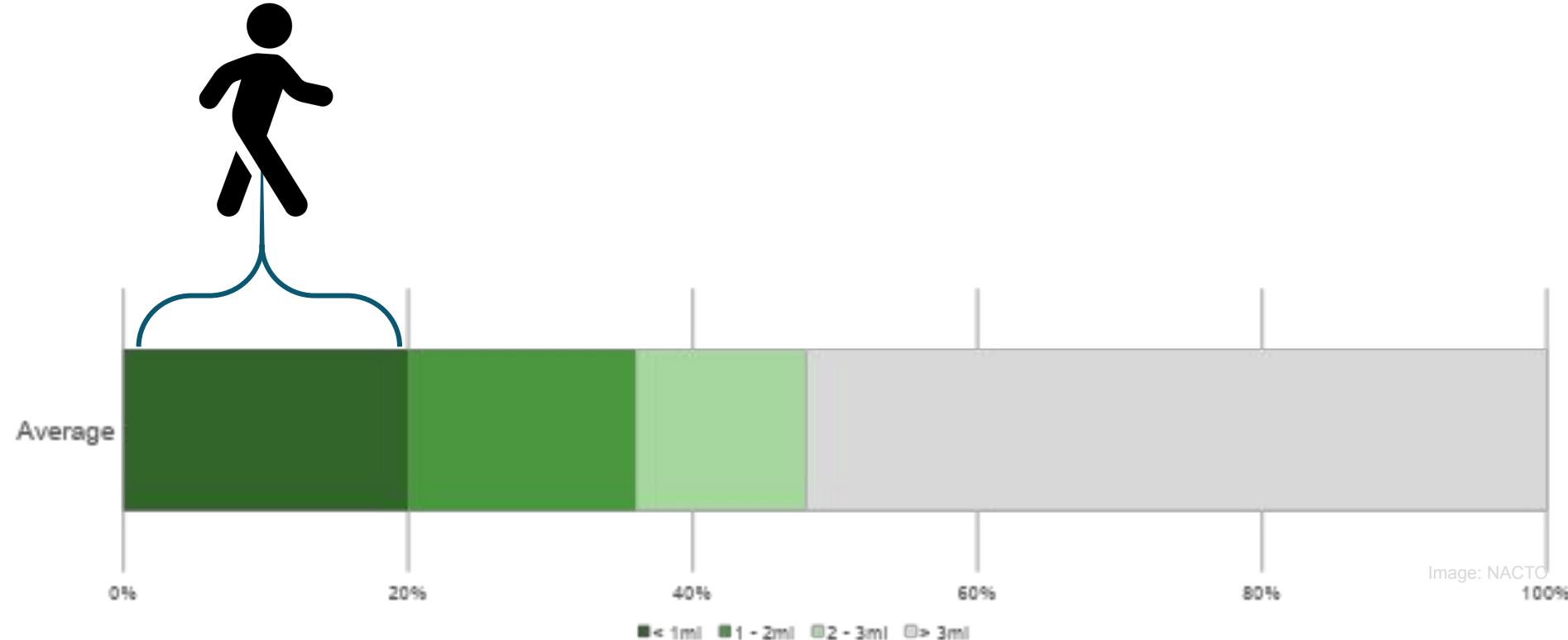
Many US car trips are under 3 miles



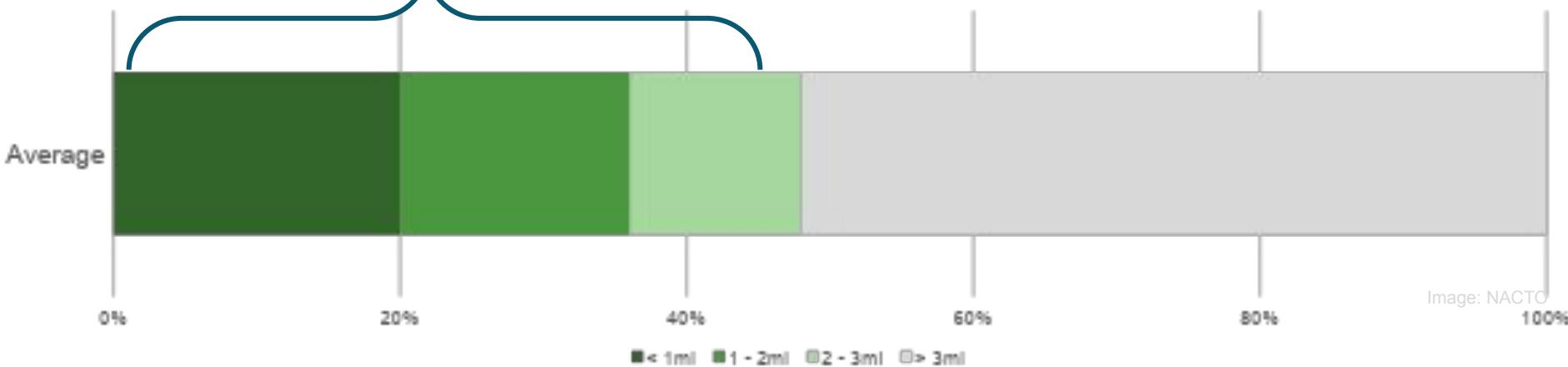
Many US car trips are under 3 miles



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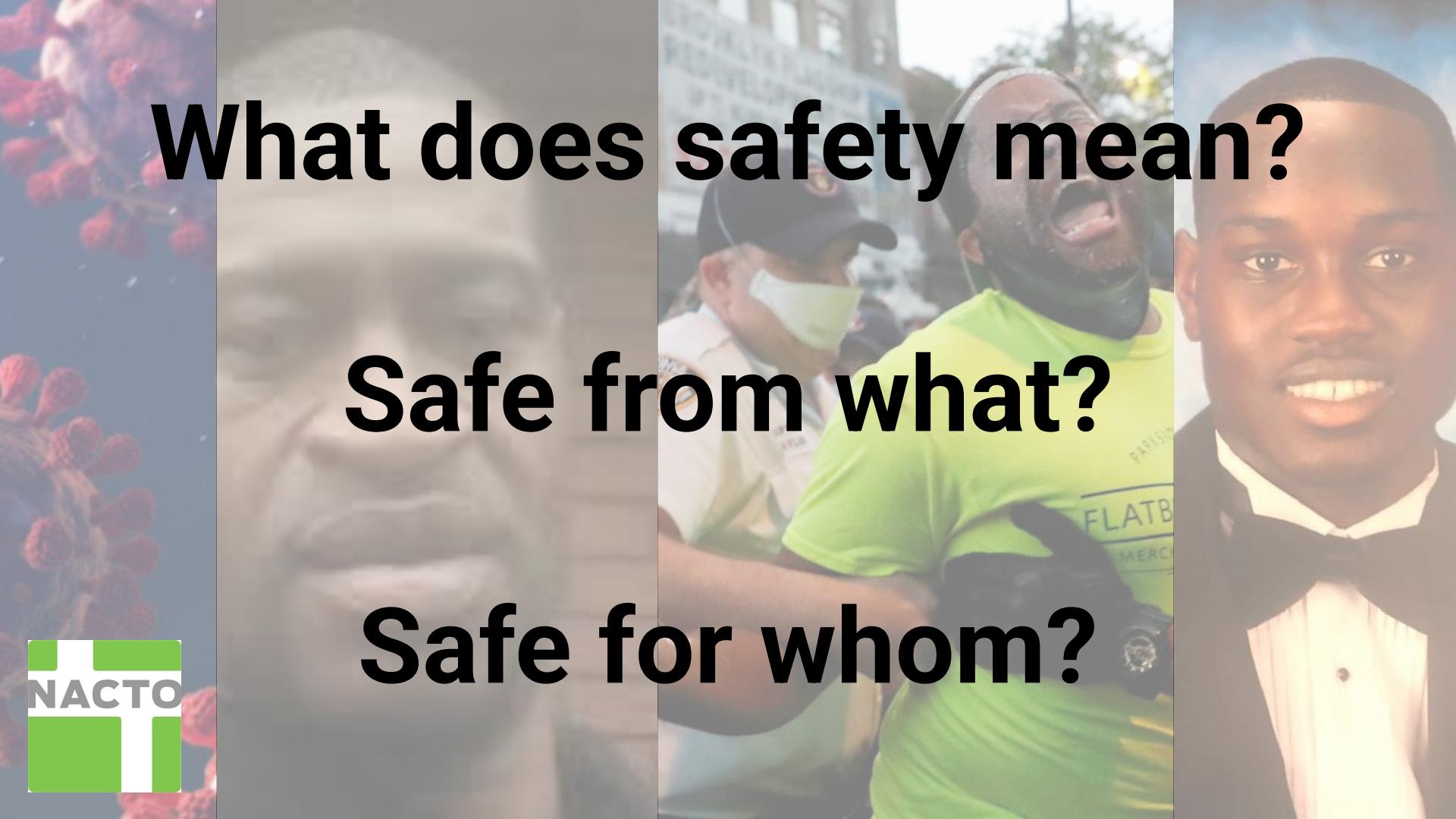
"If we can legislate hurt and harm, then we can legislate equity and justice." - [@RepPressley](#) speaking now at [#NACTO2022](#)





SPEED  
LIMIT  
**35**

BICYCLERS  
MAY USE  
SIDEWALK  
BIKE PATH



# What does safety mean?

Safe from what?

Safe for whom?





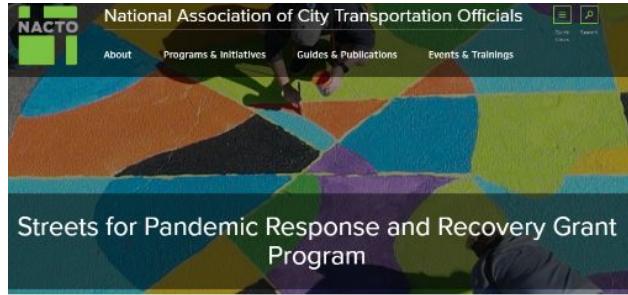
We Did It Joe!  
@PatrickOfToday

...

## Four Wednesdays in January

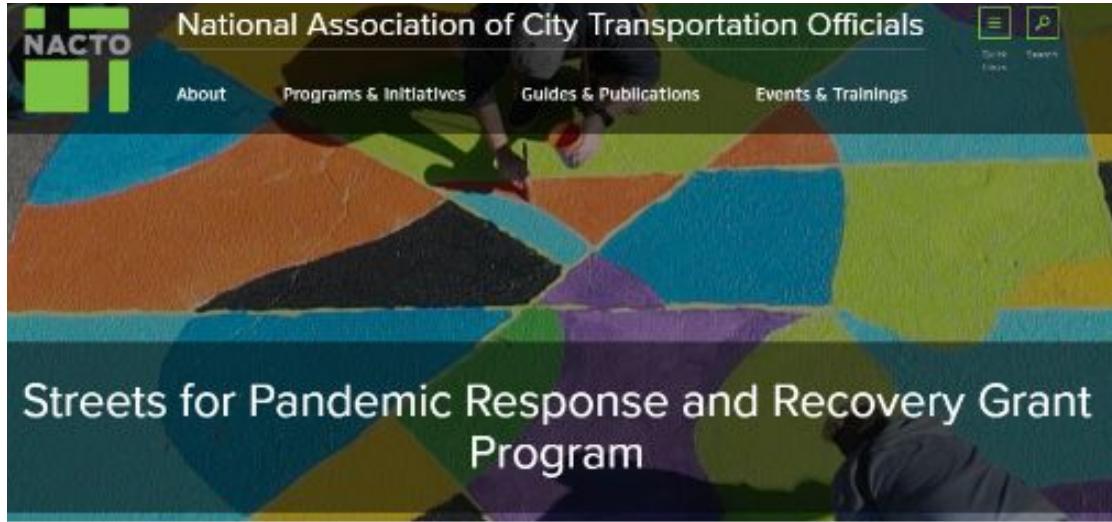


- listen, determine the route problem & best solution(s)
- build trust, communication, relationships to improve stewardship and project outcomes
- more than just the project: meet people where they are, see the whole person and community
- collaborative work (community orgs), engagement in all projects regardless of size or place



Zabe Bent | Director of Design  
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May 2021



**THANK YOU!**

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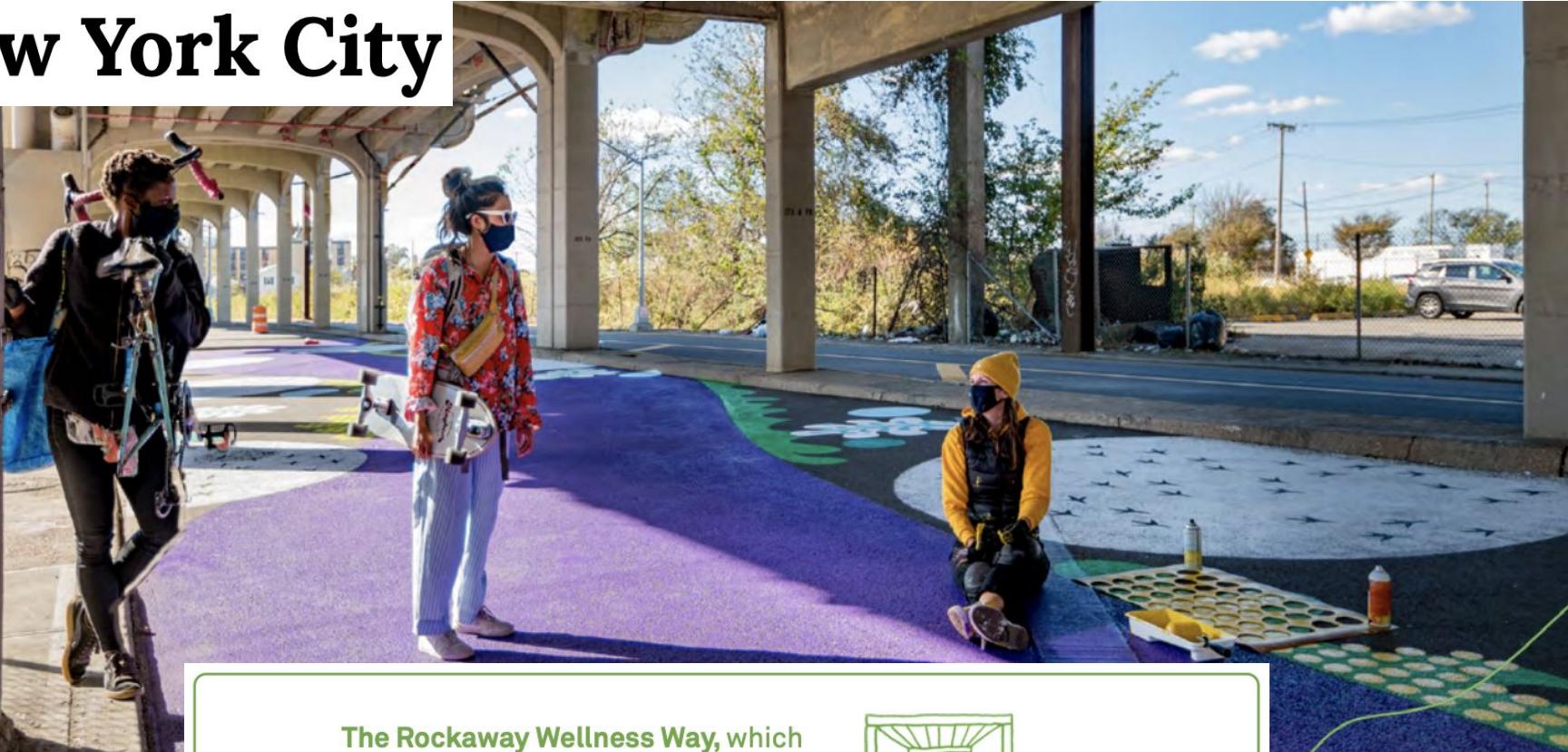
May 2021

What do you need to advance this work?



- What are the most pressing mobility & accessibility issues for your cities?
- What are your greatest impediments to implementing safe, sustainable, equitable mobility?
- How can you incorporate shifting needs into your core workplan?

# New York City



The Rockaway Wellness Way, which provides space for food distribution, outdoor COVID-19 testing, and information exchange

