

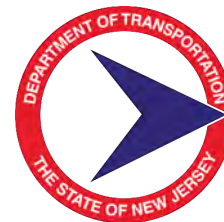


# New Jersey Complete Streets Training

**Oct 10, 2022 (North)**

**Oct 20, 2022 (Central)**

**Oct 27, 2022 (South)**



**Michael Baker**  
INTERNATIONAL



**N | V | 5**

# Course Overview

You are here!



WHY

## Module 1: Benefits

- Basics
- Costs & Benefits
- Emerging Trends

WHAT

## Module 2: Planning

Engagement &  
Visioning  
Planning & Zoning  
Policies  
Performance Measures

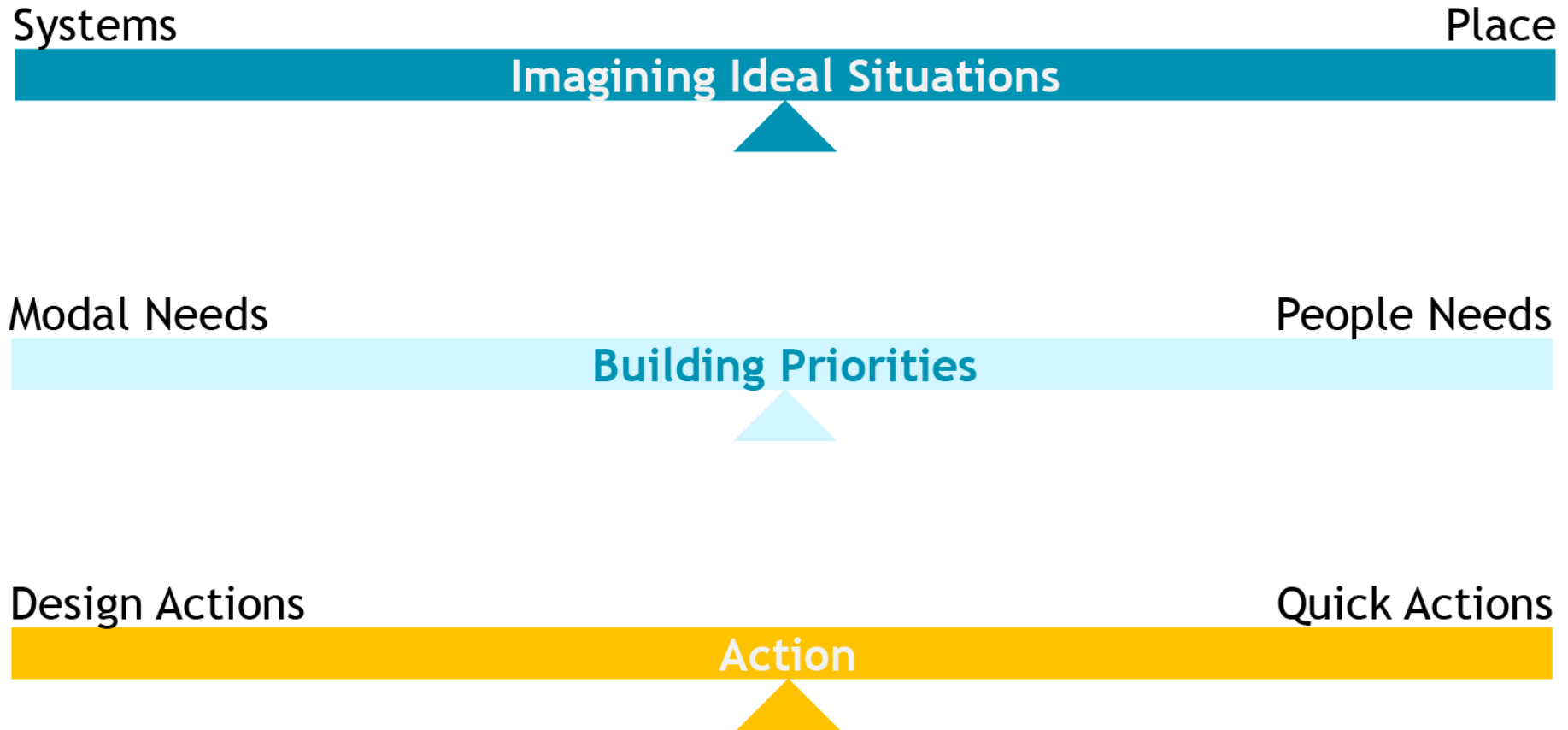
HOW

## Module 3: Design

- Assessment
- Typologies &  
Design Elements
- Group Exercise

## Wrap-Up

# A Balanced Approach to Action



# Placemaking/Streets as Places

D.A.D.  
Decide,  
Announce,  
Defend.



## PROJECT-DRIVEN PROCESS

PROBLEM/SOLUTION  
DEFINED



IDENTIFY CONSTRAINTS



DESIGN TO AVOID  
CONSTRAINTS



EVALUATE DAMAGES OF  
CONSTRAINTS



MITIGATE DAMAGES OF  
CONSTRAINTS



GET ENVIRONMENTAL  
APPROVALS



DESIGN



BUILD

## Negative Outcomes

Narrow Goals

Crisis Driven, Politically  
Initiated

Angry/Reactive  
Community Meetings

Expensive

Static & Placeless Designs

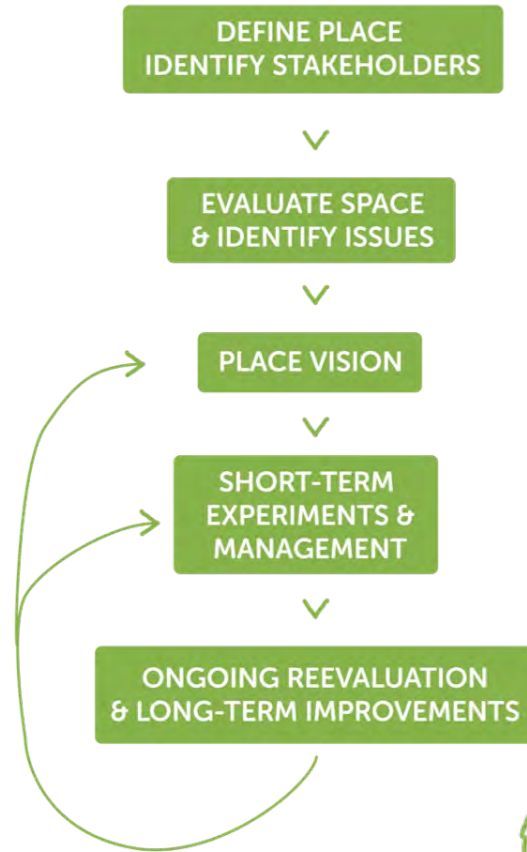
PUBLIC INPUT

PUBLIC INPUT

# Placemaking/Streets as Places

P.O.P.  
Public  
Owns the  
Project.

## PLACEMAKING PROCESS



**Stakeholders Roles**  
advise/suggest  
bring additional resources  
implement & maintain

**Experts Roles**  
inform  
facilitate  
design & implement





# Placemaking/Streets as Places





# Prioritization: Safety, Comfort, Equity

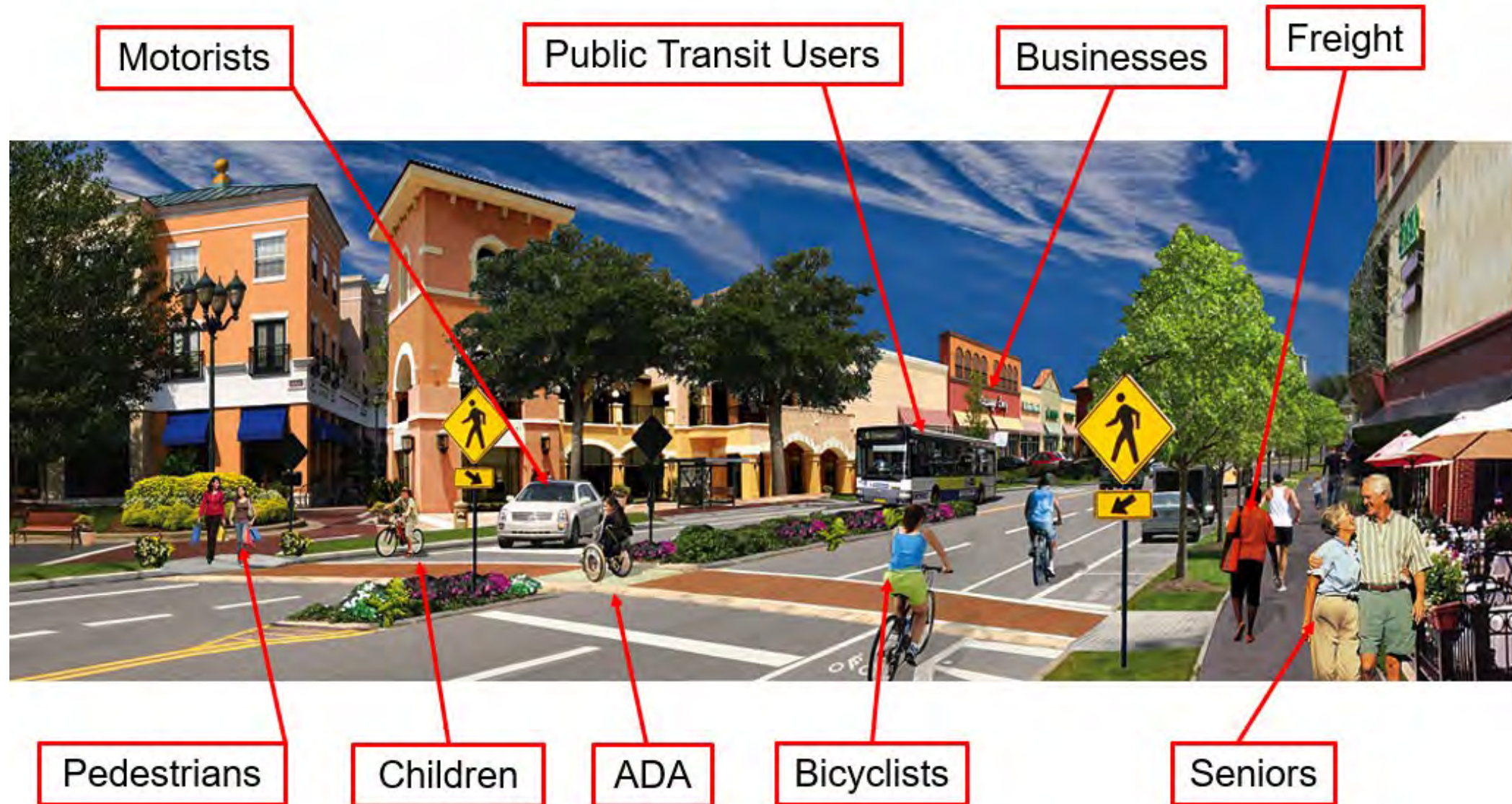


Diagram of a complete street. Photo credit: [AARP](#)



# Prioritization: Safety, Comfort, Equity

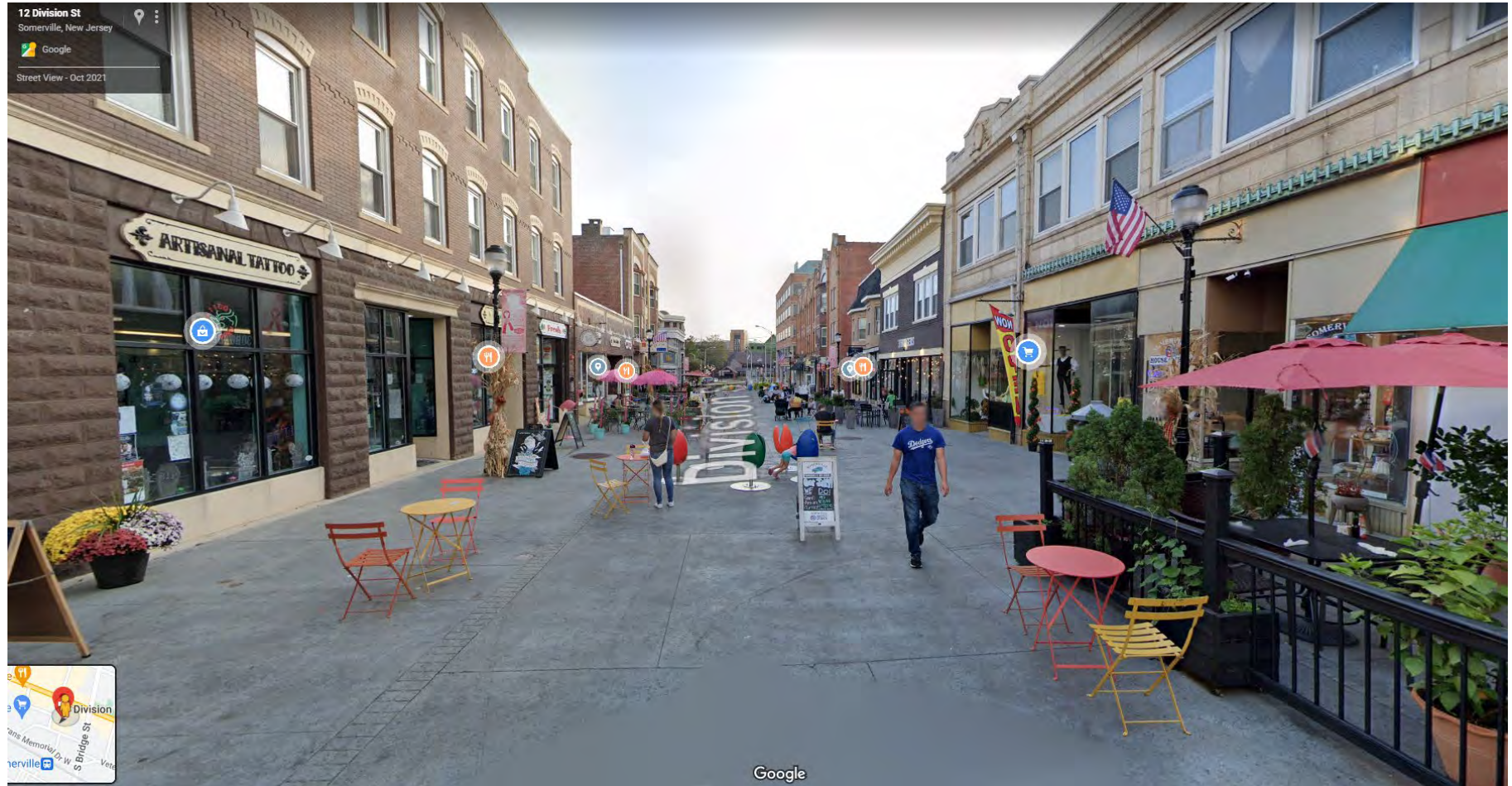
- Who is prioritized here?





# Prioritization: Safety, Comfort, Equity

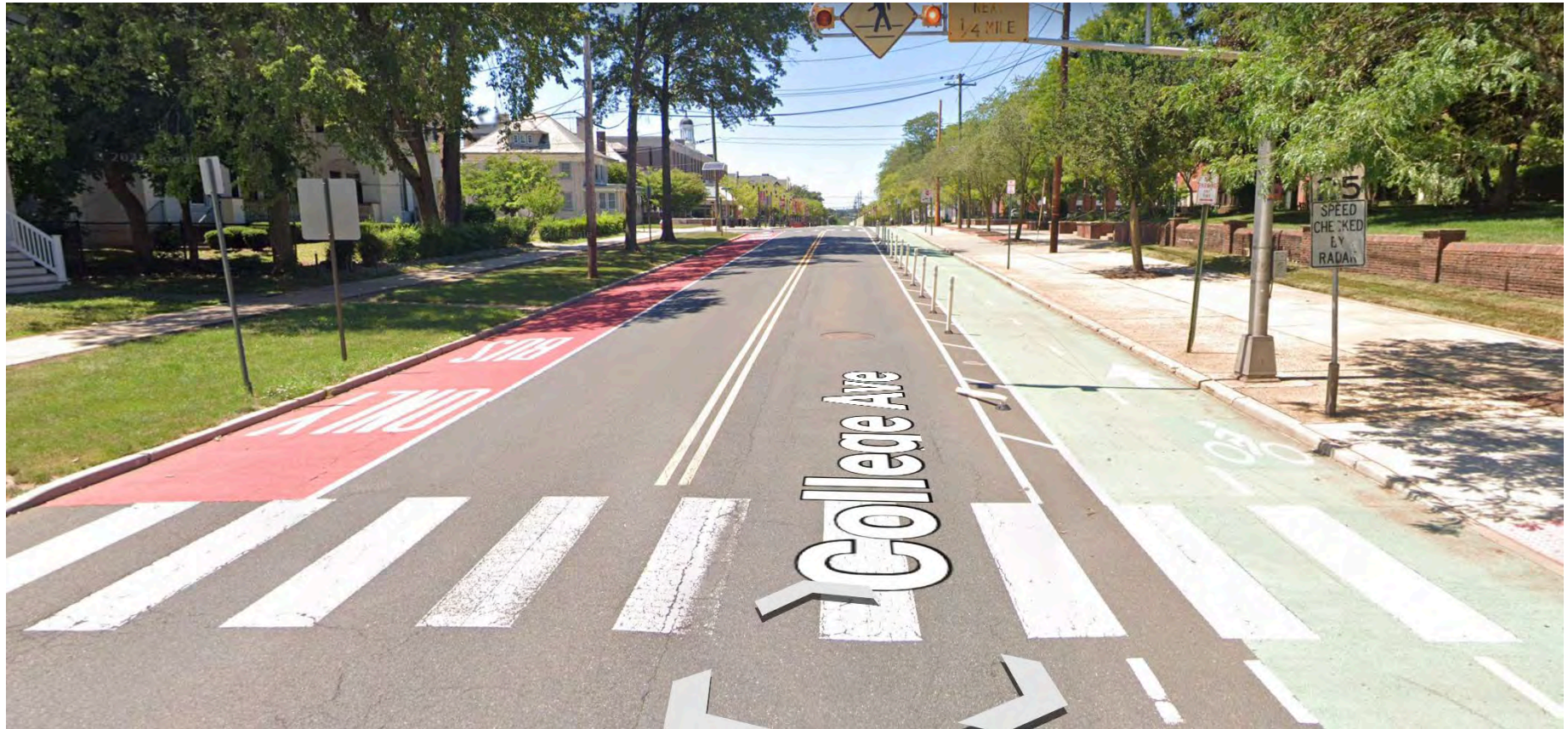
- Who is prioritized here?





# Prioritization: Safety, Comfort, Equity

- Who is prioritized here?





# Prioritization: Safety, Comfort, Equity

- Who is prioritized here? Who is comfortable here?





# Prioritization: Safety, Comfort, Equity

- Who is prioritized here? Who is comfortable here?





# Poll Time



## Who is prioritized here?

Go to [menti.com](https://menti.com)

Type code: 4456 8174

# Module 2: Planning & Placemaking



**Engagement & Visioning**

Planning & Zoning

Policies

Performance Measures



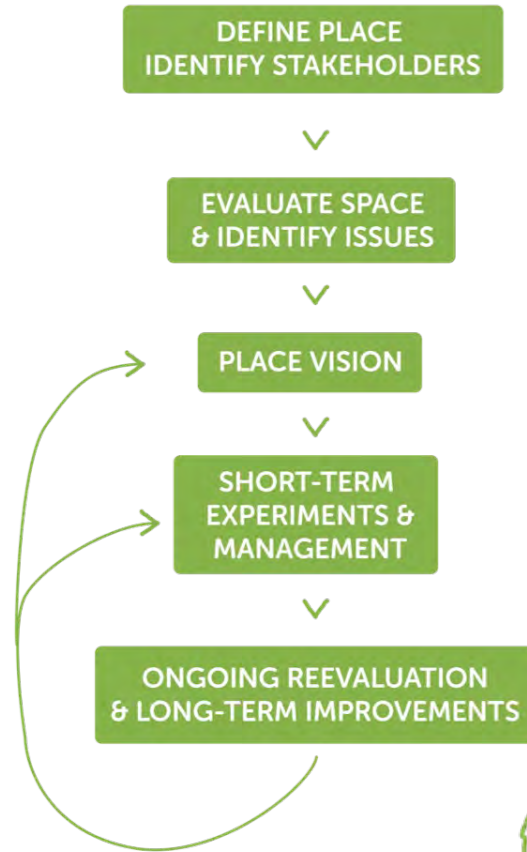
## Community Collaboration



# Community-led Planning

P.O.P.  
Public  
Owns the  
Project.

## PLACEMAKING PROCESS



**Stakeholders Roles**  
advise/suggest  
bring additional resources  
implement & maintain

**Experts Roles**  
inform  
facilitate  
design & implement



# Engaging the community

## To plan, develop, and design projects

- Meet with stakeholders and partners
- Benefit from local knowledge and experience

Stories are data  
with a soul.



Paterson, NJ



Newark, NJ



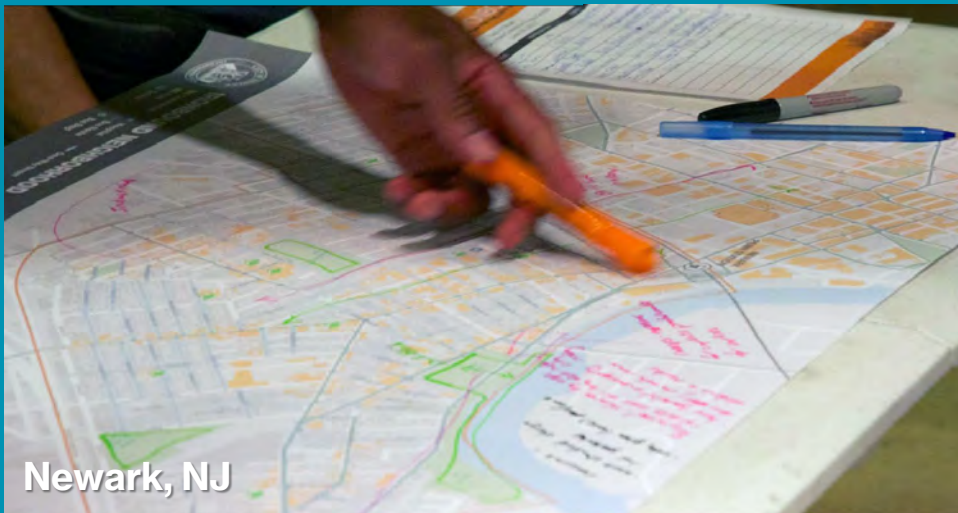
Somerville, NJ



# Listen to stakeholders

## To plan, develop, and design projects

- Overcome skeptics and doubt
- Establish trust and build support
- Explain benefits of new and unfamiliar projects



Newark, NJ



Fort Lee, NJ



# Collaborating to Expand the Possible

## Committees and Boards

Transportation Coordinating Committees  
Traffic Safety Committees  
Complete Streets Committees



## Partnerships and Events

Bike Safety Rodeo, Bartle Elementary  
School in Highland Park  
Trail or Treat, Lawrence Hopewell Trail



## Demonstration Projects

Henry Hudson Trail - missing link  
demonstration project - in Keyport





# Committees and Boards

## Chatham Borough Traffic Committee





# Partnerships, Popups, and Events



Princeton, NJ

A pilot **parklet installation** led to the seasonal conversion of parking spaces on Witherspoon Street in Princeton



Paterson, NJ

The **Ride Out for Unity event** in Paterson brought together teens, local bike clubs, and the City's Community Policing Division



Collingswood, NJ

Volunteers preparing for a **demonstration project** showing an **advisory bike lane** and **curb extensions** on Atlantic Avenue in Collingswood



Jersey City, NJ

A pilot program with Oonee Pod **bicycle parking station** at Journey Square created an expanded and permanent secure bicycle parking system with Oonee in Jersey City



# City of Paterson

## Ride Out for Unity



Paterson Police Community Policing Division, Unity Foundation,  
Wheel Up Inc., Brothers United & Bomb Squad presents

## RIDE OUT FOR UNITY

A FREE COMMUNITY EVENT Calling All Bikers!  
PARENTAL CONSENT REQUIRED IF UNDER 18

**Saturday, October 16, 2021 • 11am - 4pm**  
**Skateboard Park, 99-105 21<sup>st</sup> Ave, Paterson NJ**  
RAINDATE: OCTOBER 17TH

SPREADING AWARENESS ON SOCIAL ISSUES: ALCOHOL & DRUG ADDICTION • CANCER  
GUN VIOLENCE • MENTAL HEALTH • SUICIDE AWARENESS

*Plus Special Guests*  
DJ SK • SLV Sounds • Teenstobeheard • RespectMyLife • BUDS  
Small Business NJ • Paterson Smiles • Soul Empowered Women

**FOR MORE INFO, CALL: (973) 703-2387 OR (862) 571-8577**

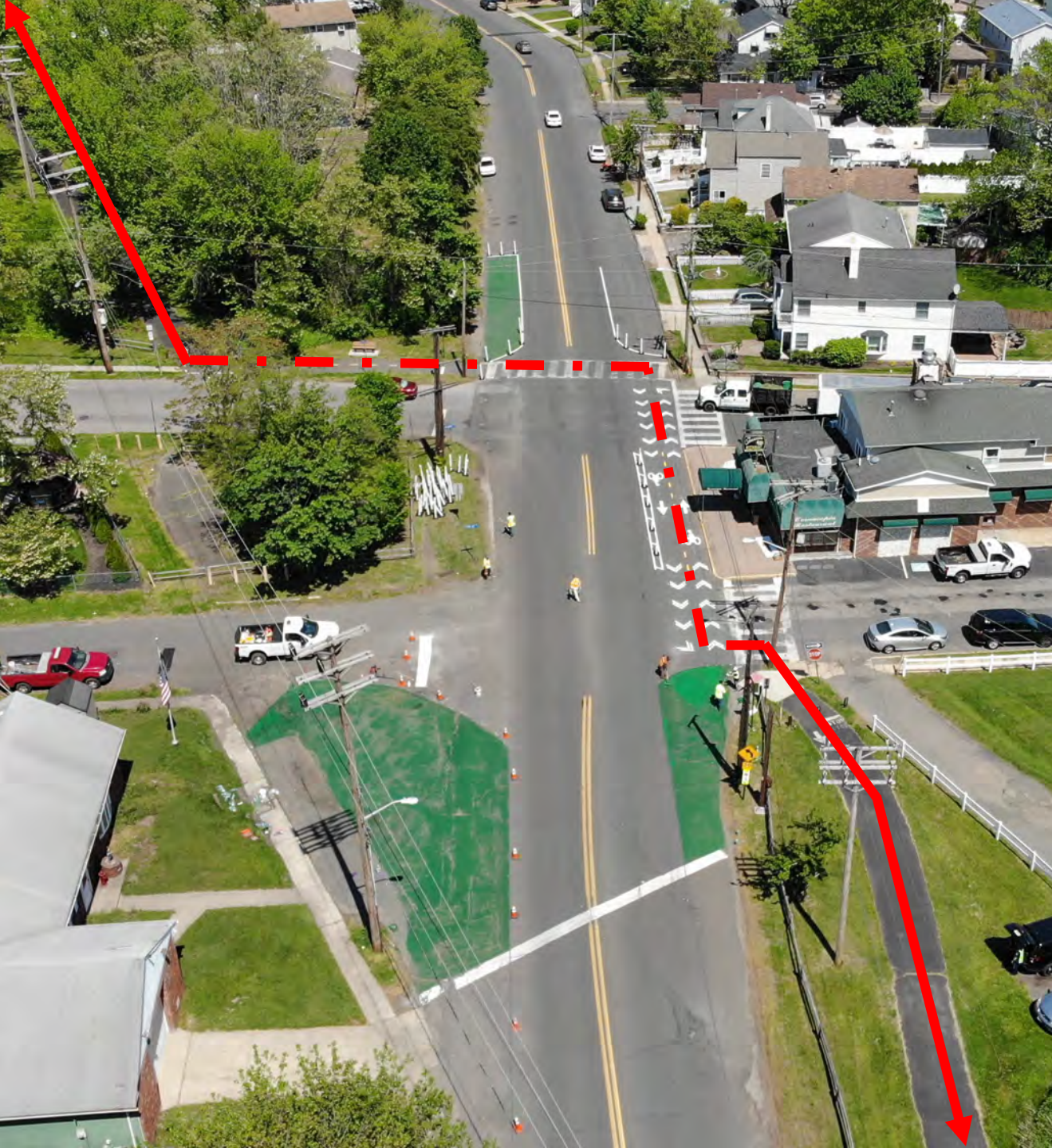
Logos: Unity, SAFE KIDS, St. Joseph's Health, AAA Northeast, Paterson Police, and others.













# Define Vision and Goals

## Montclair, NJ:

“A commitment to creating a comprehensive, integrated, connected street network that safely accommodates all road users of all abilities and for all trips.”



## Hoboken, NJ :

“...the full integration of all modes of travel in the design of streets and highways will increase the...efficiency of the road network, reduce traffic congestion by improving mobility options, limit greenhouse gases, improve air quality, and enhance the general quality of life.”

# Module 2: Planning & Placemaking



Engagement & Visioning

**Planning & Zoning**

Policies

Performance Measures

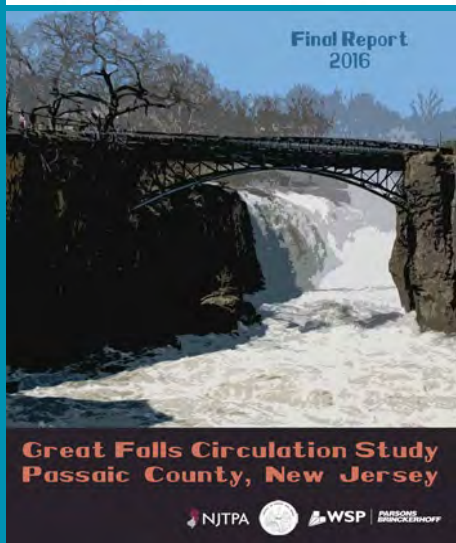


## Leveraging Plans & Ordinances



# Leverage Investments in Planning Plans, Studies, Guides, Ordinances

- **Vision Zero Plans** discrete actions and strategies to eliminate traffic deaths.
- **Bicycle and Pedestrian Master Plans** municipal and county plans, focused on safety, mobility, equity, and access.
- **Corridor and Area Plans** prioritize capital needs and improvements, i.e. corridors, school access, trails, parking.
- **Zoning Ordinances** include standards for implementation, enable Complete Streets



# Vision Zero: Jersey City

## Prioritize Vulnerable Users

- Cost-effective and strategic approach
  - Focus on fatalities and severe injuries
  - High-Injury Network
  - Data-driven approach
  - Prioritizes safety
- Targets areas of greatest need
  - 61% of fatal crashes
  - 55% of all crashes
  - 14% of roadway mileage
  - 31 total roadway miles





# Chat Time



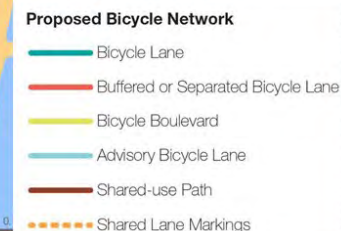
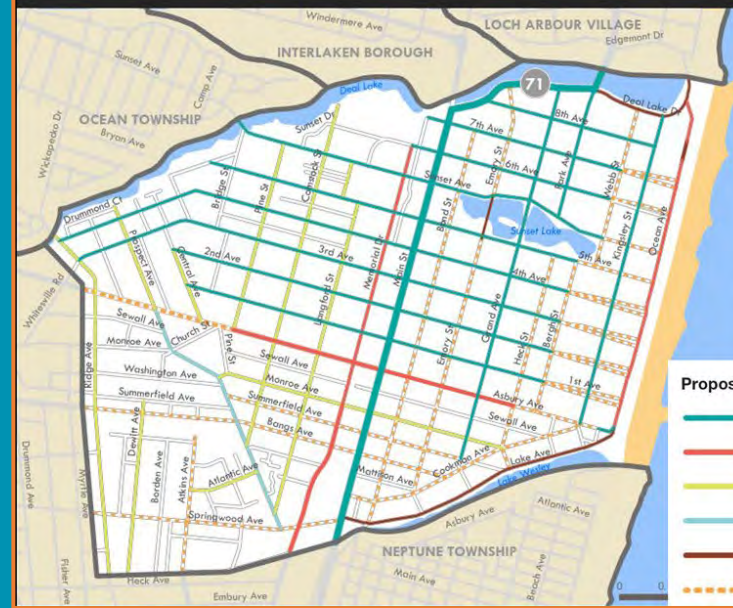
**Does your community have a  
Vision Zero plan?**

**\*\*\*\*Type your answer in the chat box!**  
***(Yes!, No., Not Sure., Working on it!)***

# Pedestrian and Bicycle Plans

## Municipal Master Plan

- Establish rationale for action
- Safety is a shared responsibility
- Low-cost local projects and strategies
- Enhance capital projects with safety improvements





# Pedestrian Safety and Mobility

## Multilane State Highway – Main Street









# Corridor and Subarea Plans

## Data-driven analysis identified need for Road Diet Concept





# After construction

Course Correction:  
**Just Do it!**



**passaic COUNTY NEW JERSEY**

## SPRUCE STREET BRIDGE PROJECT

### *Ribbon Cutting Ceremony*

- The Spruce Street Bridge Project included the rehabilitation of the bridge; upgrades at the intersection of Wayne Ave. & Totowa Ave. and improvements along Front Street
- Repaved and restriped the roadway between Paterson Ave and the bridge
- Sidewalk replacement; additional street parking; ADA-compliant curb ramps; new traffic signals; added one way traffic pattern; new & improved pedestrian crossing signals

Construction Cost - \$5.8 Million (exact number to be determined after final change order add/deletes).  
Majority of Construction Costs funded by NJDOT Local Bridge Future Needs Grants (2014, 2015, 2017, 2018, and 2020)

Design Consultant  
WSP USA, Inc.

Contractor  
Grade Construction  
County Project Engineers  
Michelle Babola and Tom Enright  
County Inspector  
Tim Krasner



# Chat Time



**Has your community/county modified an infrastructure project to include Complete Streets elements?**

**\*\*\*\*Type your answer in the chat box!**  
***(Yes!, No., Not Sure., Working on it!)***



# The Zoning Ordinance

- Sidewalk Standards
- Bicycle Parking
- Loading Zones
- Pedestrian Circulation in Off-Street Parking
- Street Tree Requirements
- Micromobility/Curb Management
- Stormwater Regulations

## Case Example: Borough of Metuchen

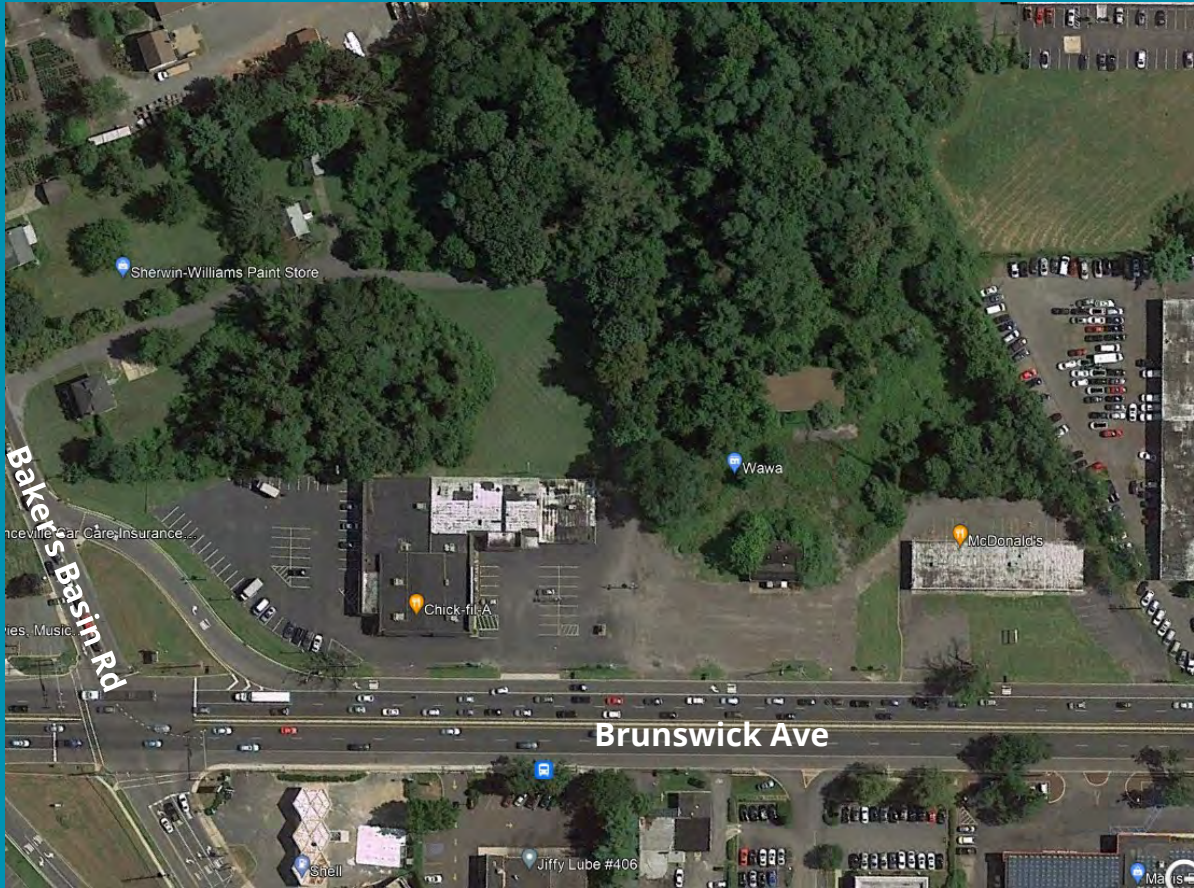
- Amended design standards and sidewalk requirements in Land Development Ordinance





# The Power of Land Development Review

## Lawrence Township, NJ



2013



2021 (constructed in 2015)



# Chat Time



**Do you have zoning ordinances that support Complete, Green, & Equitable Streets during development review?**

**\*\*\*\*Type your answer in the chat box!**  
*(Yes, No, I wish...)*



# Module 2: Planning & Placemaking



Engagement & Visioning  
Planning & Zoning  
**Policies**  
Performance Measures

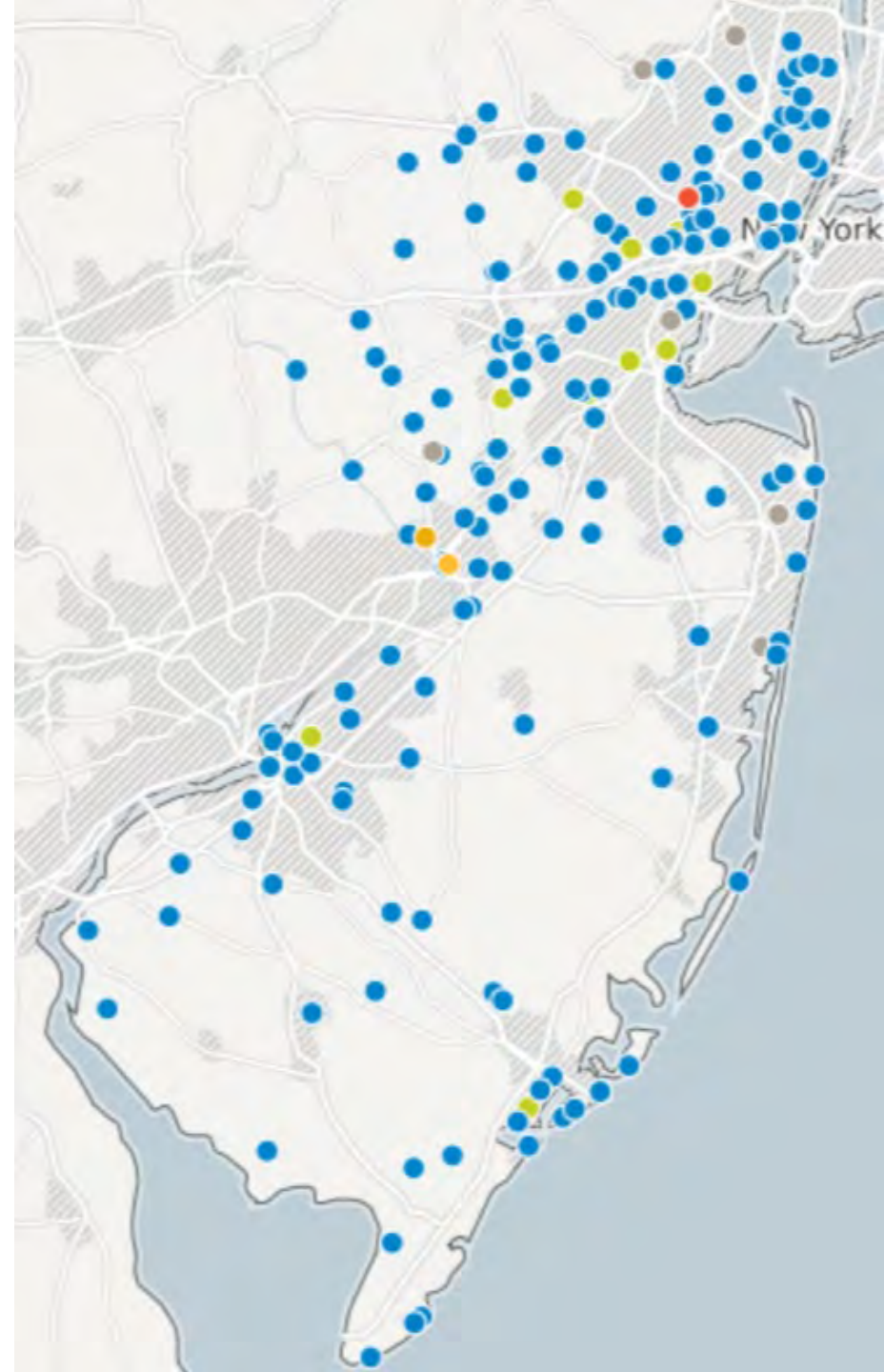


## Complete Streets Policies



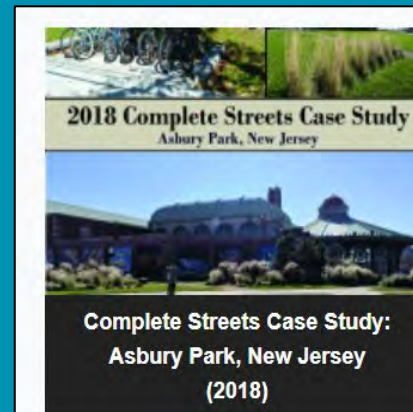
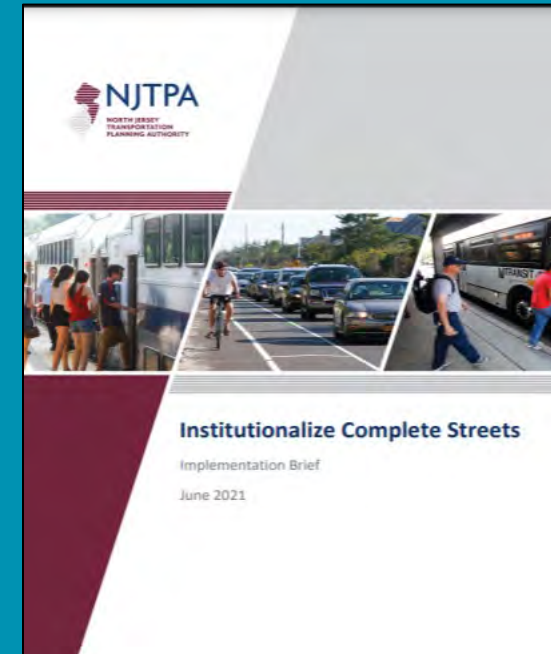
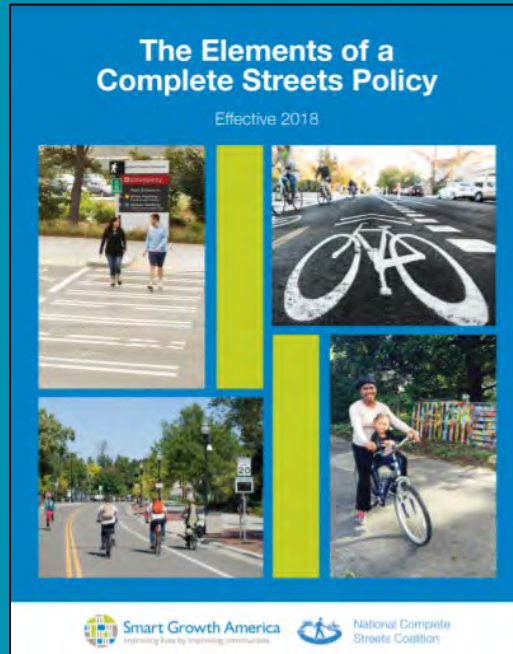
# CS policy adoption

- NJDOT policy adopted in 2010
- 181 policies as of 3/2022 (173 local; 8 county)
- NJ has second most policies of any state
- About 1/3 of municipalities and counties have policies
- These jurisdictions cover more than half of the state's population





# No shortage of guides and case studies





# CS policy best practices

## Complete & Green Streets For All (2019)



- Comprehensive New Jersey-specific guide
- 10 key elements of a model policy
- Emphasizes equity, sustainability, and resilience
- Model policy adoption provides municipalities with Sustainable Jersey points





# Elements of CS policy

1. Defines local **Vision & Intent**
2. Benefits **all users** equitably
3. Applies to **all projects**
4. Sets clear and accountable procedures for **exemptions**
5. Requires **coordination** between government and partner agencies
6. Directs the use of best practices **design** criteria, guidelines, and checklists
7. Considers the community's **land use** and **transportation** needs
8. Establishes **performance standards**
9. Provides **criteria** for prioritizing and implementing Complete Streets
10. Includes specific **next steps** for policy implementation

# CS Checklist

- Practical tool used to identify CS elements and deficiencies early in a project's lifecycle
- Used to gather CS data to ensure project achieves relevant CS goals
- Applicable to land development applications, roadway projects, including maintenance

## Complete Streets Checklists

CONCEPT  
DEVELOPMENT

PRELIMINARY  
ENGINEERING

CONSTRUCTION

MAINTENANCE

### Maintenance Checklist

ITEM TO BE ADDRESSED	CHECKLIST CONSIDERATION	YES	NO	N/A	REQUIRED DESCRIPTION
STREET CLEANING	Does the street cleaning include the shoulder or roadway to the curb?				
	Are the sidewalks cleaned on a regular basis?				
SNOW REMOVAL	Does snow plowing block or push snow into crosswalks, blocking clear access?				
	Does the Municipality or County shovel out crosswalks or enforce residential requirements to clean snow from the crosswalk right of way?				
RE-STRIPING	Can additional road uses be supported and/or safety improved by reconfiguring lanes within the same roadway width? <b>Examples include (but are not limited to):</b> <ul style="list-style-type: none"><li>• Lane narrowing</li><li>• Lane reconfiguration</li><li>• Lane reduction (road diet)</li><li>• On-street bicycle parking</li><li>• High-visibility crosswalks</li><li>• painted curb extension, etc.</li></ul>				



# Exemptions

**Monmouth County Complete Streets Policy allows exemptions for Scenic Byways and low volume roadways (<1,000 AADT)**

*Clear criteria, clear process and clear documentation.*



*Upper Freehold, NJ*

# Poll Time



**Does the community you live in  
have a Complete Streets Policy?**



# How to advance CS in your community

- Adopt/review/update CS policy
- Develop or update CS Checklist
- Establish CS Committee or similar entity
- Review and clarify roles, responsibilities, and procedures related to CS implementation
- Track success and report annually
- Document CS integration with project development/design
- Document and publish CS exceptions


# Module 2: Planning & Placemaking



Engagement & Visioning

Planning & Zoning

Policies

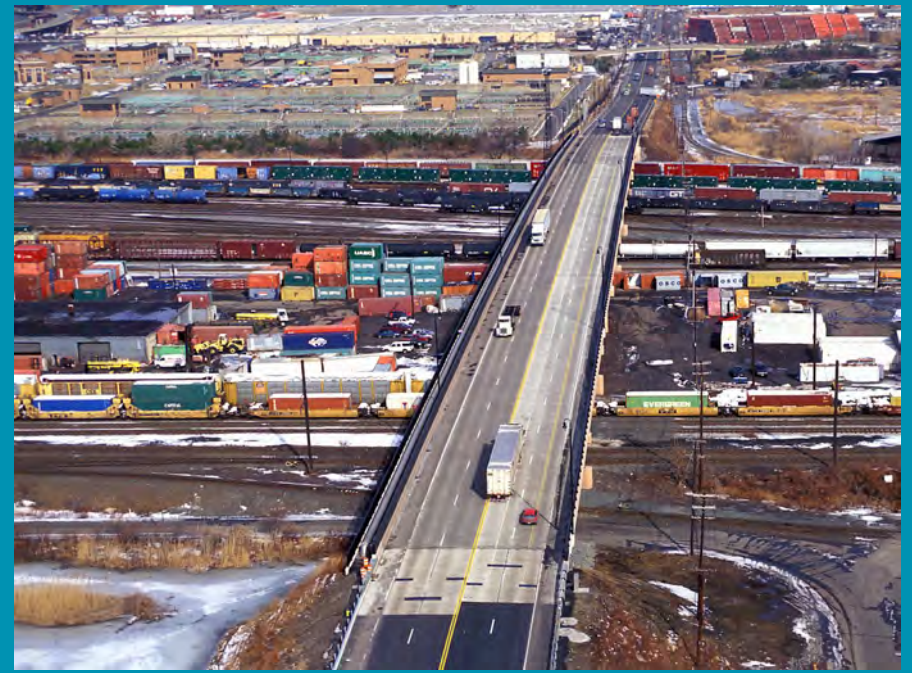
**Performance Measures** 

## Measuring Success



# Performance Measures

- Traditional Measures
  - Bridge and pavement conditions
  - Intersection performance
  - Level of service
  - Vehicle throughput
  - Queue length
  - Vehicle delay
  - Asset management
  - NJDOT Management Systems



# Performance Measures

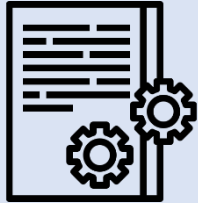
- Complete Measures
  - Crash reduction
  - Speed reduction
  - Economic development and job creation
  - Multimodal LOS
  - Bicycle Level-of-Traffic-Stress (LTS)







Advisory Body



Plans & Practices



Benchmarks/  
Reporting



Checklists

# Model Policy: Accountability

- a. Mileage by of new and existing **bicycle** infrastructure including in **Priority Communities**
- b. Linear feet (or mileage) of new and existing **pedestrian** infrastructure
- c. Number of new and existing **ADA-compliant** infrastructure
- d. Number of new **street trees**
- e. Number of **green street** practices (*e.g., rain gardens, bioswales, permeable pavement*)
- f. Number of pedestrian and bicycle **lighting** improvements.
- g. Bicycle and pedestrian **counts**
- h. Commute **mode** percentages (*e.g., drive alone, carpool, transit, bicycle, walk*)
- i. The number and percentage of designated **transit stops** accessible via sidewalks and curb ramps
- j. The number, locations, and causes of collisions, **injuries**, and **fatalities** by each mode of transportation
- k. The percentage of **children walking or bicycling** to school

# Measuring Safety

## Multilane Arterial Roadway

- Road Diet Project
- Valley Road, Wayne Township
- Added bicycle lanes and clearly marked pedestrian crossings
- Crashes reduced by one-half with FSI crashes reduced by 60%



**BEFORE**



**AFTER**

Wayne Township, NJ



# Measuring Economic Benefits

## South Park Street, Montclair, NJ



**Before:**

- 50% occupancy

**After:**

- 100% occupancy
- Six national retailers
- Vibrant and active streetscape



# Measuring Vision Zero

30 Vision Zero

## Manhattan First and Second Avenues

BEFORE



**Bus Lane**  
Dedicate lane for buses

**Crosswalks**  
Add crosswalks where pedestrians want to cross

**Lane Designation**  
Clarify who belongs where

**Pedestrian Safety Islands**  
Shorten the crossing distance

**Parking Protected / Buffered Bicyclist Lane**  
Provide greater separation between users reducing conflict



AFTER

Where the DOT has made changes, fatalities are down 34%.

Action Plan

31 Street Design and Regulation

## Bronx Macombs Road, University Avenue to Jerome Avenue

BEFORE



AFTER

**Crosswalks**  
Add crosswalks where pedestrians want to cross

**Pedestrian Safety island**  
Shorten the crossing distance

**Extend Medians**  
Build out existing medians to tighten up the intersection and create a continuous path for pedestrians

On Macombs Road, redesign led to 41% fewer crashes with injuries.

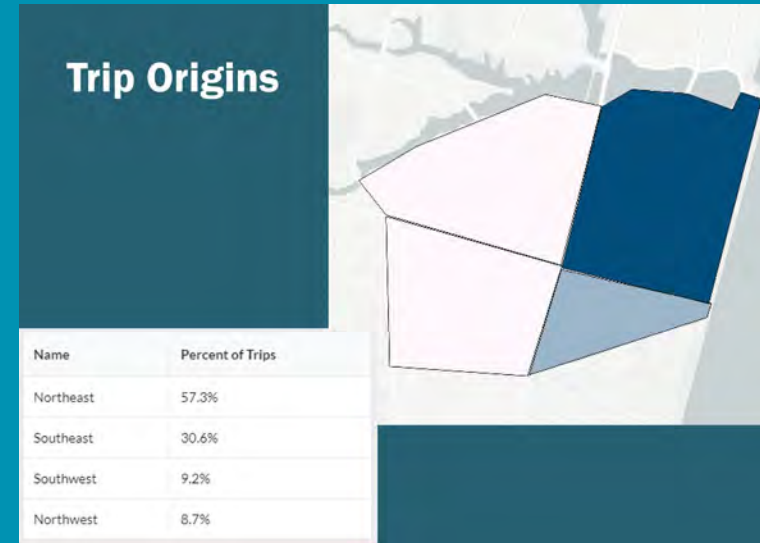
City of New York

[nyc.gov/VisionZero](http://nyc.gov/VisionZero)



# Measuring (Shared) Mobility

## Asbury Park, NJ



**SPIN** ELECTRIC  
SCOOTER SHARING  
PILOT PROGRAM

operated by  
**Zaaster**

**FIRST MONTH REPORT**  
August - September 2,

**UNIQUE RIDERS**

**5,806**

**TOTAL TRIPS**

**15,169**

Median Trip Duration: 12.2 minutes

Median Trip Distance: 0.51 miles

Average # of trips per scooter per day: 4.7

Median Trip Duration

Median Trip Distance

Average # of trips





# Measuring Place Value





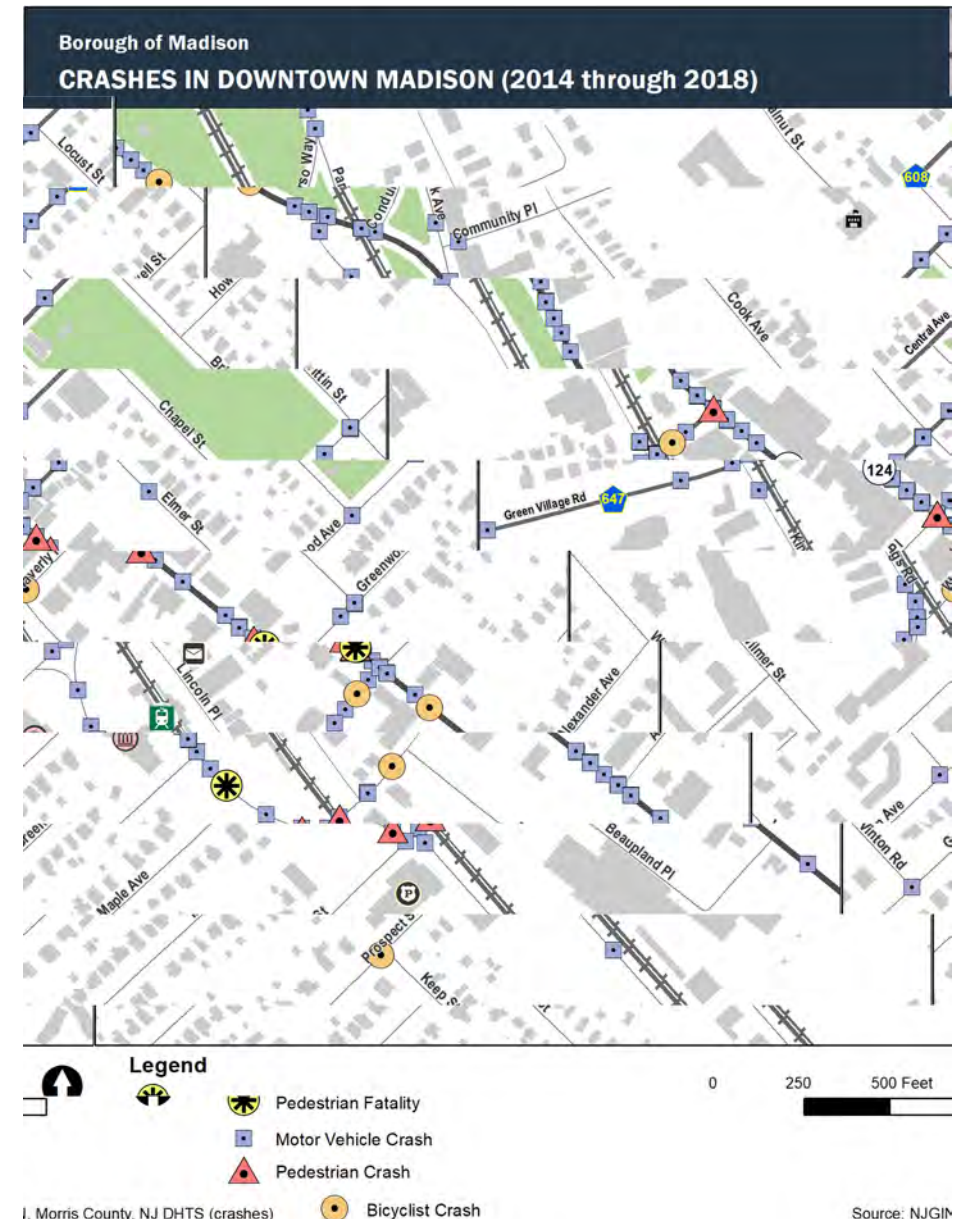
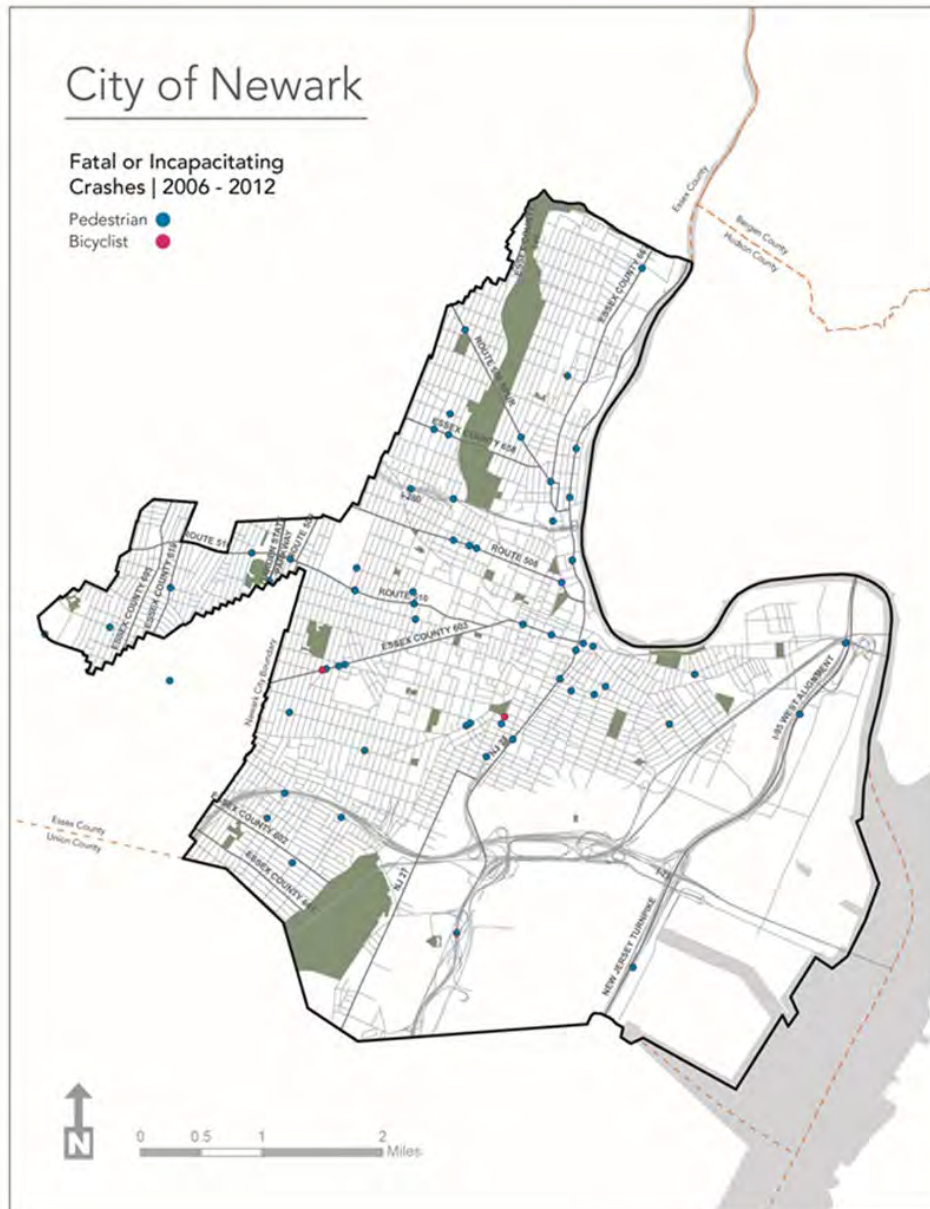
# Planning for Safety and Vulnerable Users

## Prioritize Areas of Safety Risk

- Crash mapping and analysis
- Hot spot crash locations
- High Injury Networks
- NJDEP Environmental Justice Mapping Tool

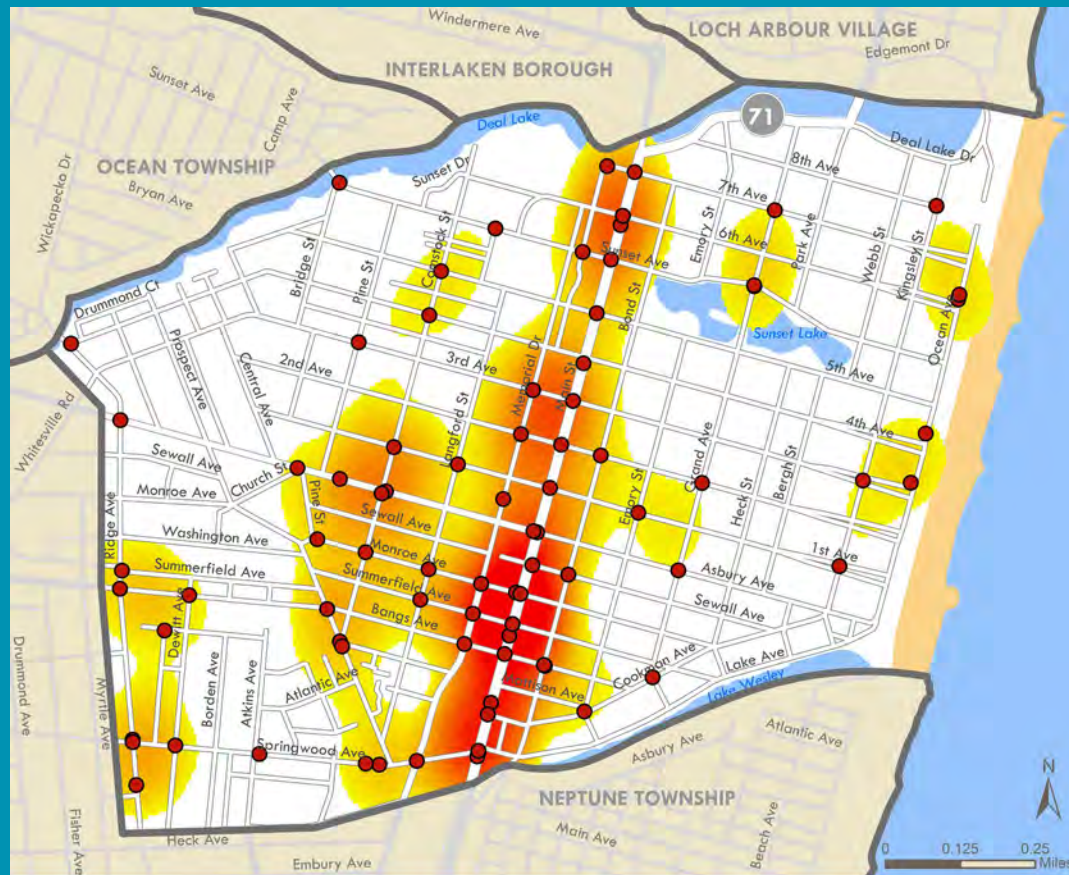


# Crash Mapping





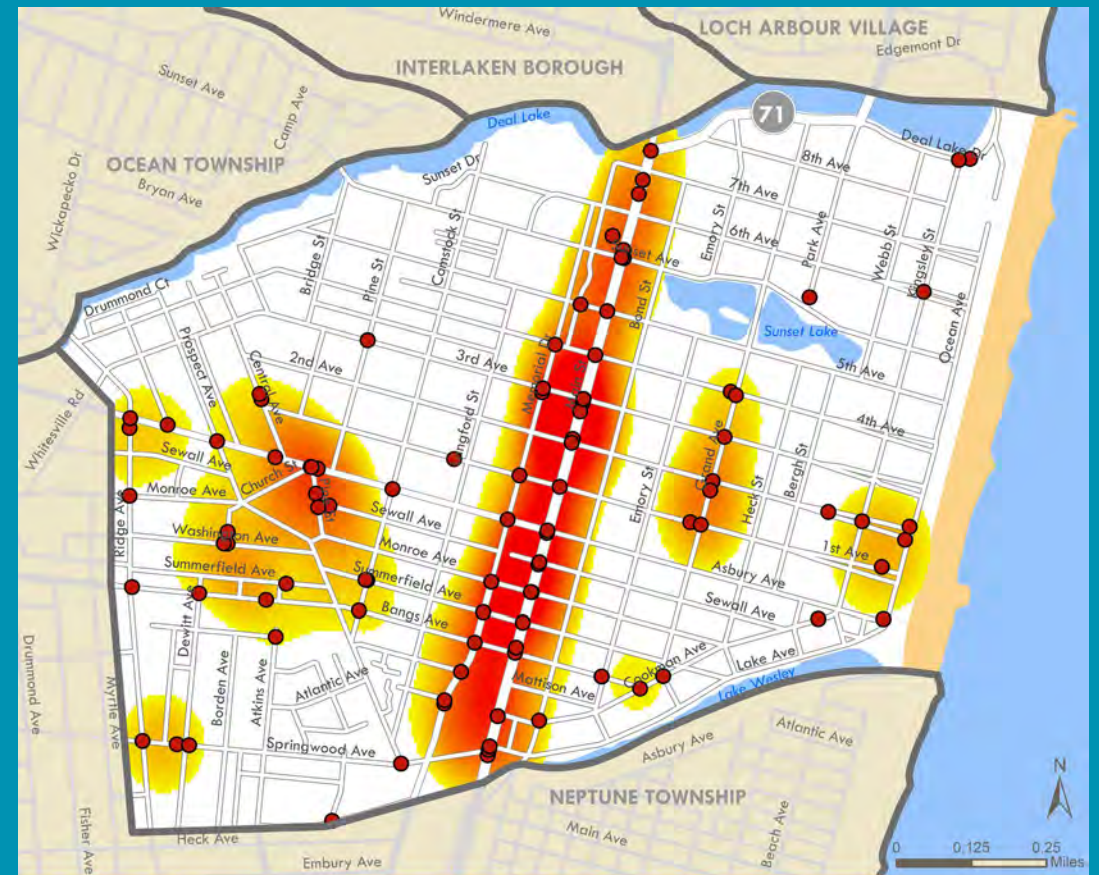
# Crash Hot Spots



MAP 3 - BICYCLE CRASH LOCATIONS AND CONCENTRATIONS (2011-2016)

- Bicycle Crash
- High Concentration of Crashes
- Low Concentration of Crashes

The largest concentration of bicycle crashes can be seen along Main St, especially in the southern section of the City. While ridership along the boardwalk and near the waterfront is substantially higher than elsewhere in the City, the same concentration of bicycle crashes are not seen in these areas.



MAP 4 - PEDESTRIAN CRASH LOCATIONS AND CONCENTRATIONS (2011-2016)

- Pedestrian Crash
- High Concentration of Crashes
- Low Concentration of Crashes

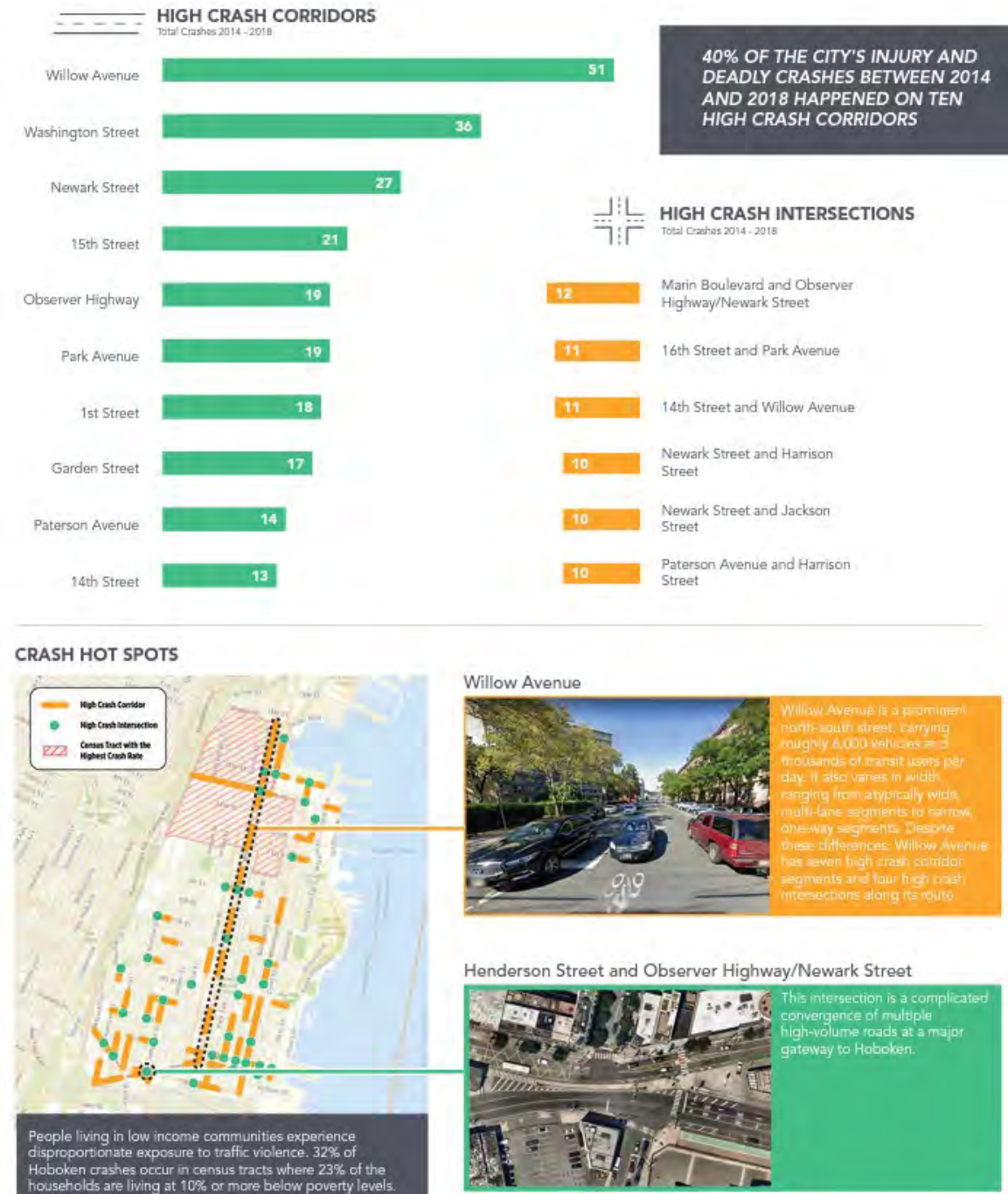
The largest concentration of pedestrian crashes can be seen along Main St, with additional clusters along Asbury Ave and Grand Ave. Crash concentrations are located along the roadways with the highest volumes and vehicle travel speeds in the City.



# High Injury Networks

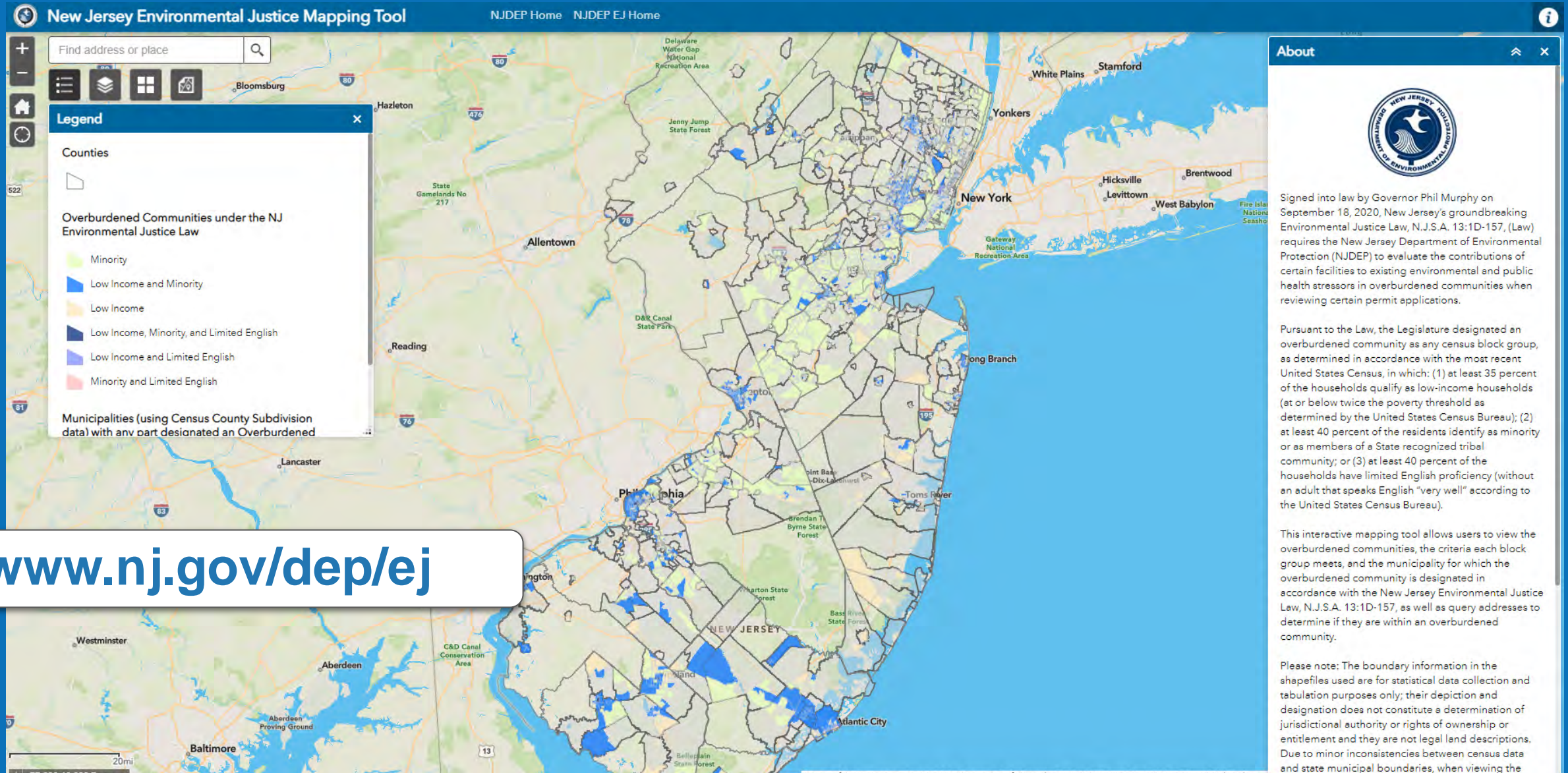
## Prioritize Risk and Vulnerable Users

- **Cost-Effective**
- **Strategic Approach**
- **Target Safety Improvements to Greatest Need**
  - 40% of all serious crashes
  - 10 high-crash corridors
  - 51 crashes on one street



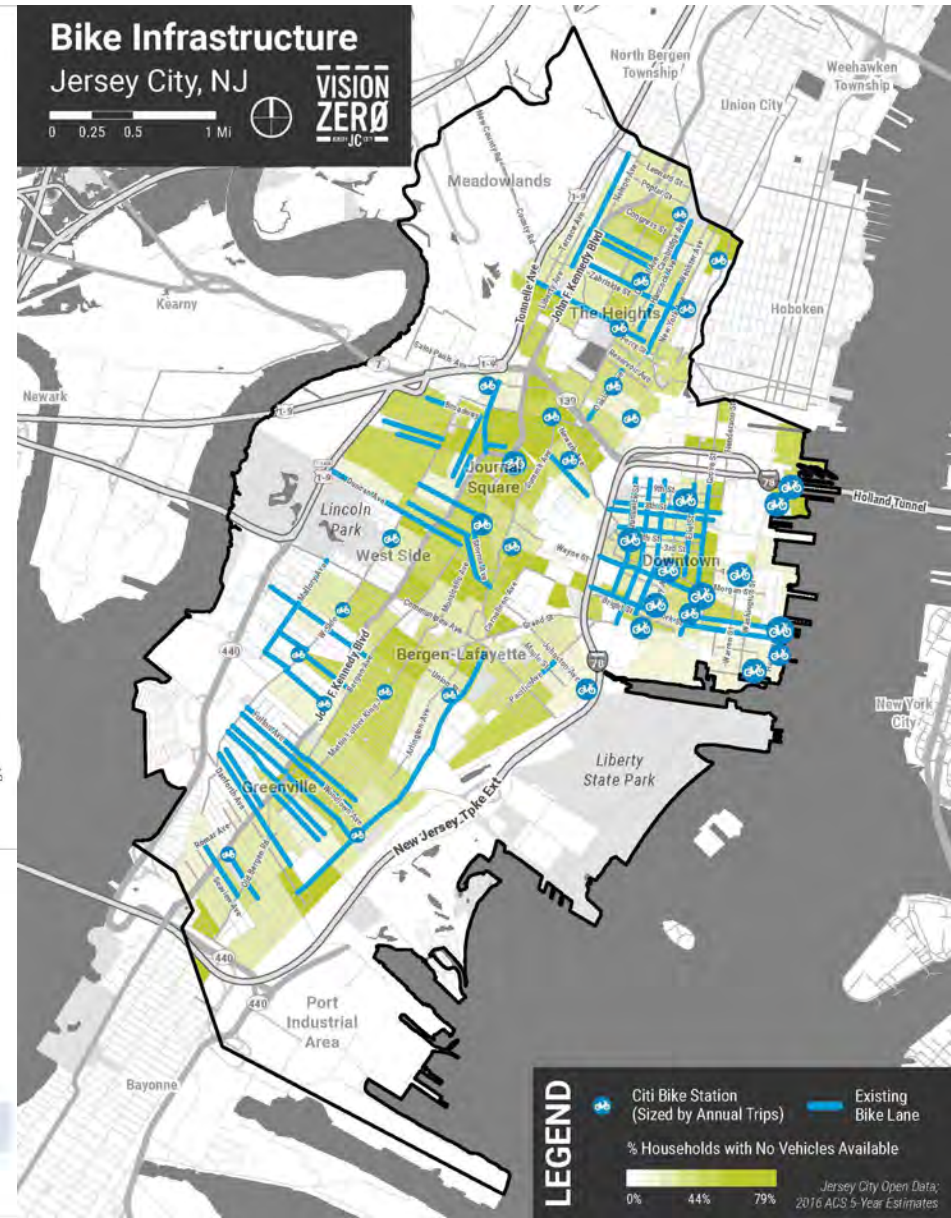
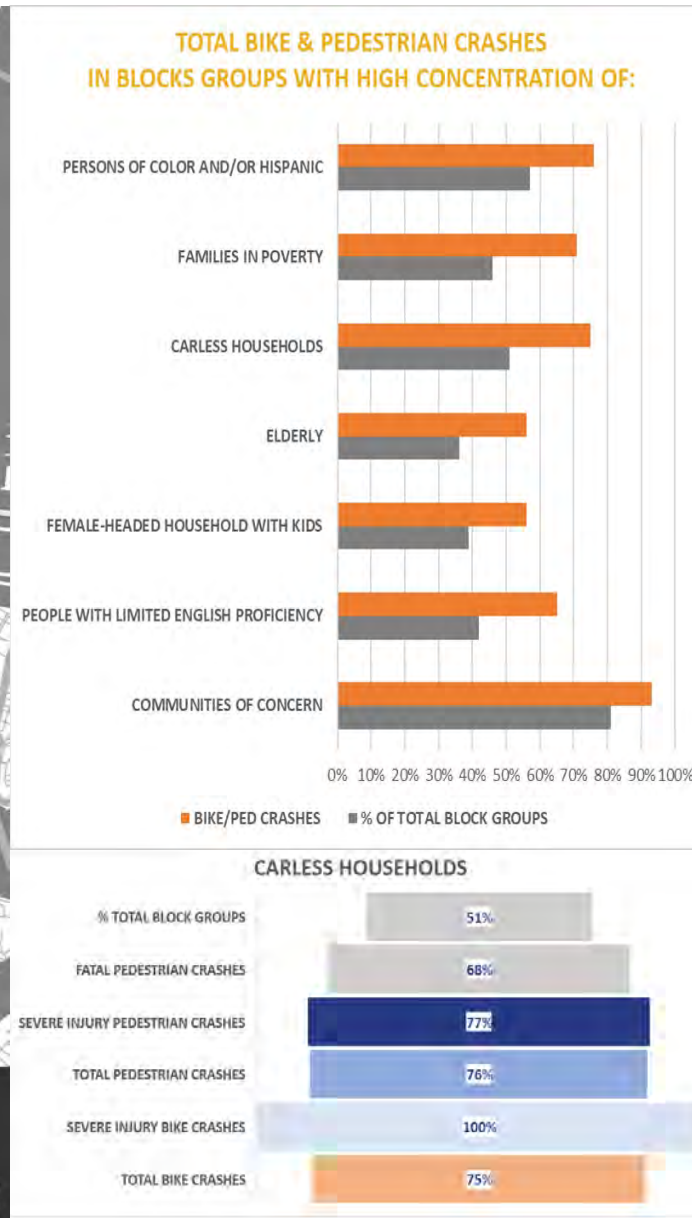
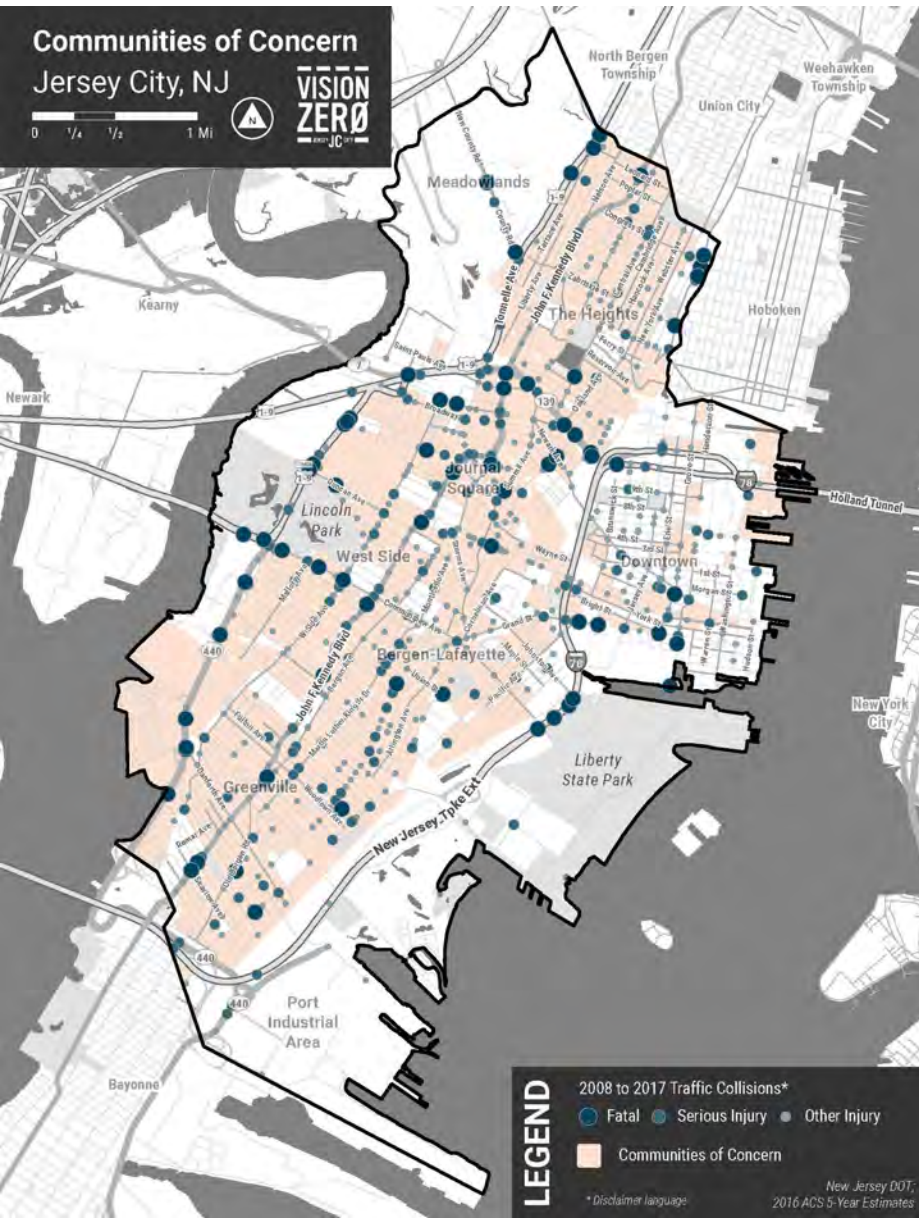


# NJDEP Environmental Justice Mapping Tool





# Safety, Equity, and Mobility





# Module 2: Planning & Placemaking



## Q&A & a-ha!

**Please type your questions into the chat.**

Our facilitators will answer them in the chat, or during the remaining presentations and group exercises.

# Break Time



**5 Minutes**