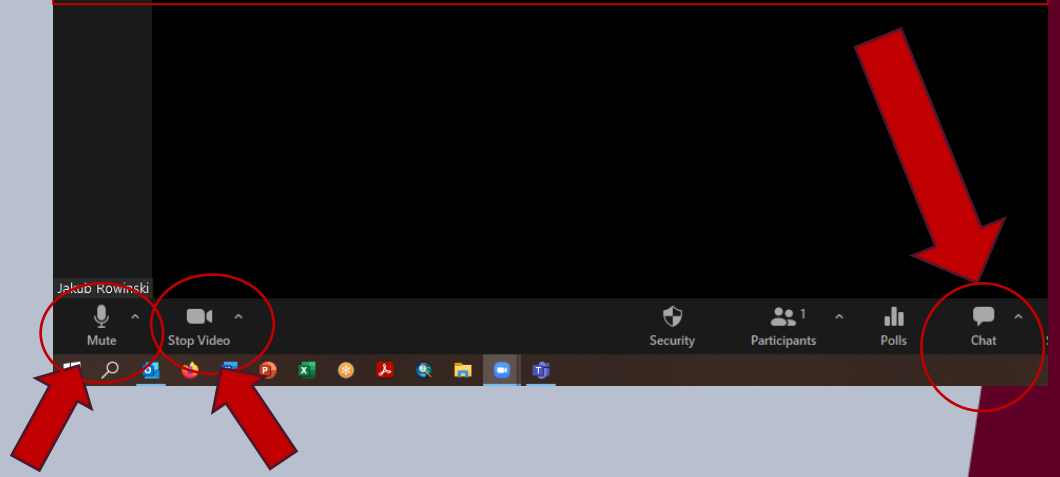
June 17 Freight Initiatives Committee Agenda

- Roll Call of Members
- Approval of Minutes
- Update on NJTPA Freight Division Activities
- Presentations: Truck Routing and Curbside Management
  - Alison Conway, Associate Professor of Civil Engineering, The City College of New York
  - Kristen Scudder, Freight Program Manager, Delaware Valley Regional Planning Commission
  - Kevin Force, Supervising Planner, Hudson County Division of Planning
- Two-Minute Reports on Freight Activities from Committee Members
- Next Meeting: Monday, August 19, 2024
- Adjournment

Please use the Chat box to ask questions during the presentations and if requesting credits, please post your name and email, followed by either AICP or PE with your NJ PE license number



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NJTPA

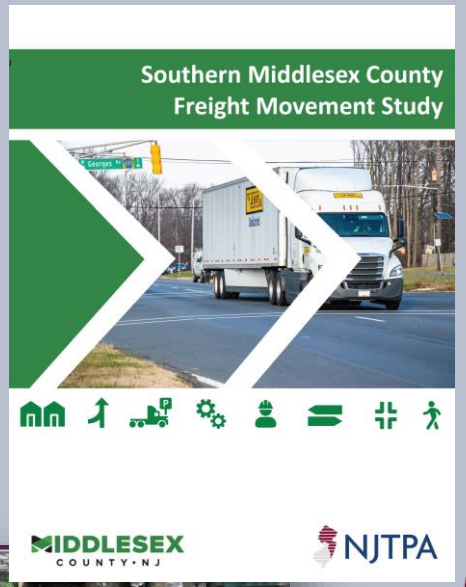
2050 Freight Industry Level Forecasts Update

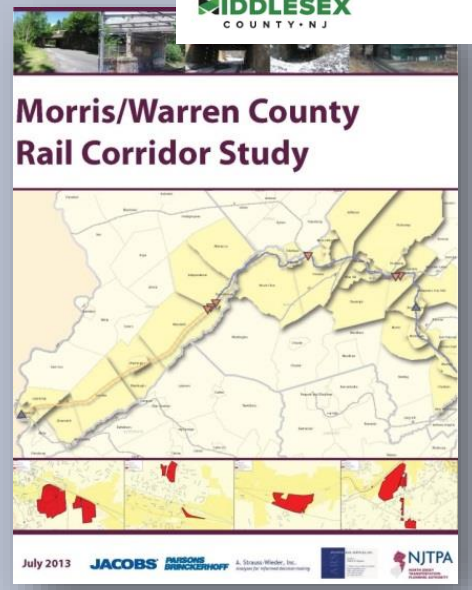
- Methodological Framework (Task 1) Completed
- Data Acquisition (Task 2) Underway
- FAF Disaggregation (Task 3) Underway
- June 2025 Completion

NJTPA

Freight Concept Development Program

- FY 2025 FCDP Studies
  - Southern Middlesex County North-South Truck Corridor Project in Cranbury and Monroe, Middlesex County
  - East Hanover Avenue Bridge Catenary Rail Clearance Project in Morris Plains and Morris Township, Morris County
- RFP Issued on June 12
- Proposals Due on August 7





NJTPA

Presentations

Truck Routing and Curbside Management

- Alison Conway, Associate Professor of Civil Engineering, The City College of New York
- Kristen Scudder, Freight Program Manager, Delaware Valley Regional Planning Commission
- Kevin Force, Supervising Planner, Hudson County Division of Planning

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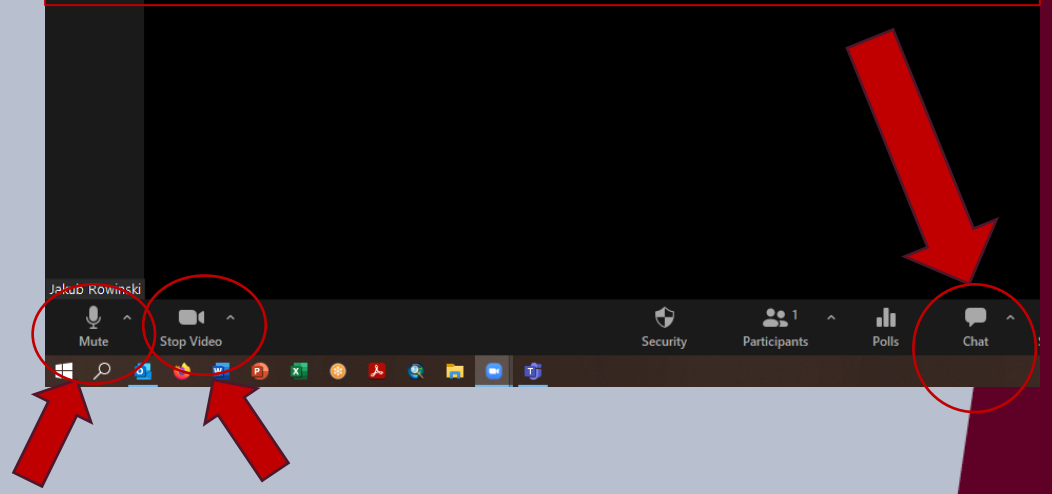


Please mute and turn off your video when not speaking.

NJTPA

Infrastructure Planning for Innovative E-Commerce Distribution

Alison Conway
Associate Professor of Civil Engineering

Grove School of Engineering
The City College of New York

NJTPA Freight Initiatives Committee - July 24, 2024

E-Commerce Evolution

- Rapid growth in on-demand deliveries
  - Food
  - Retail goods
- Recentralization of distribution
- Emergence of combined retail-distribution models

Lessons and Takeaways from Recent Work

NYC DOT

AIANY

Measuring the Social Effects of Urban Logistics Facilities Development:
The Case of New York City
(C. Tejada and A. Conway)

Research Questions

- What infrastructure is needed to support urban last-mile and micro-distribution operations?

- How do/can regulations enable/influence:
  - Development?
  - Operations?
  - Community impacts?

Zoning in NYC

- As-of-right zoning

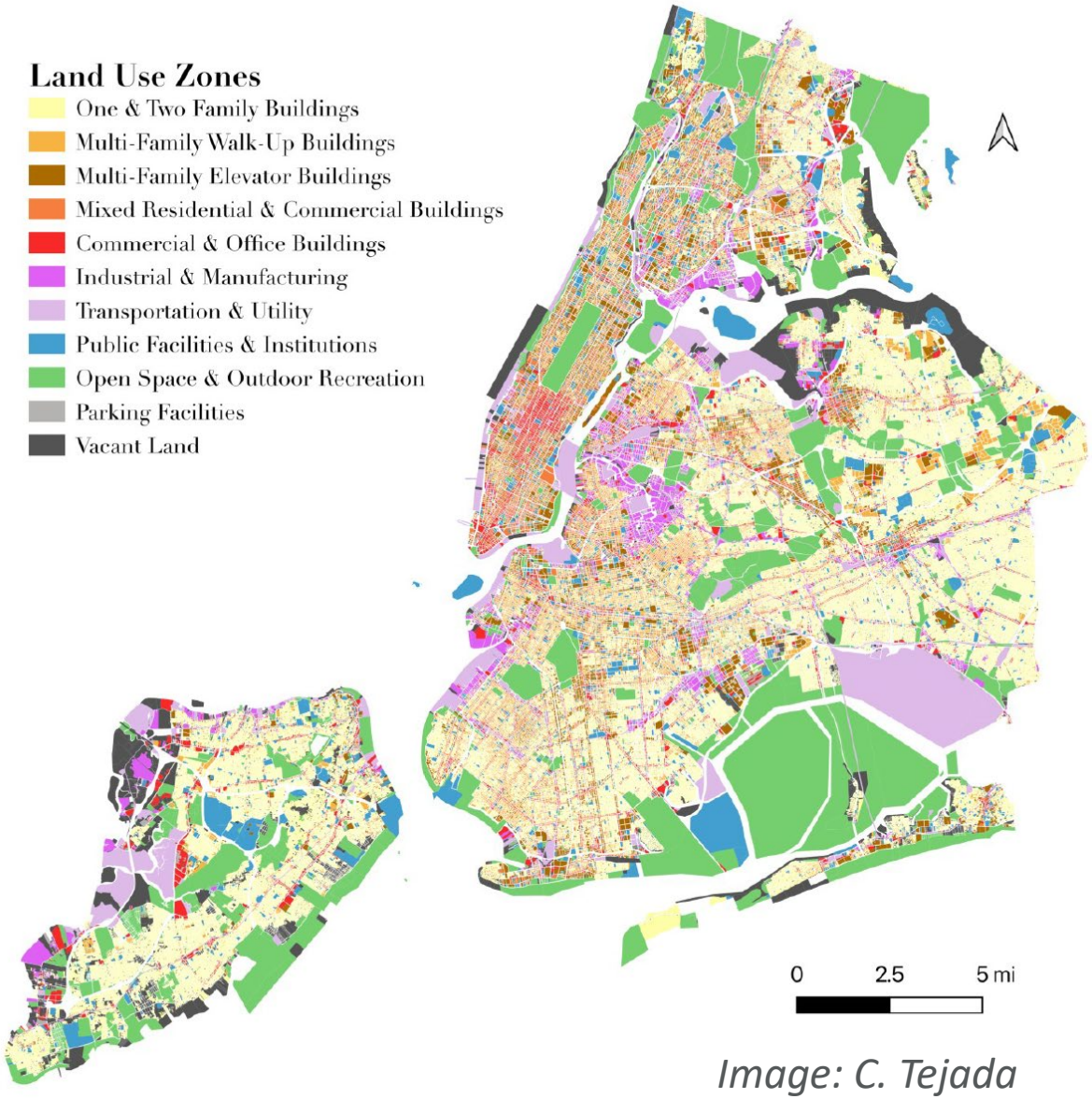


Image: C. Tejada

Zoning in NYC

- As-of-right zoning

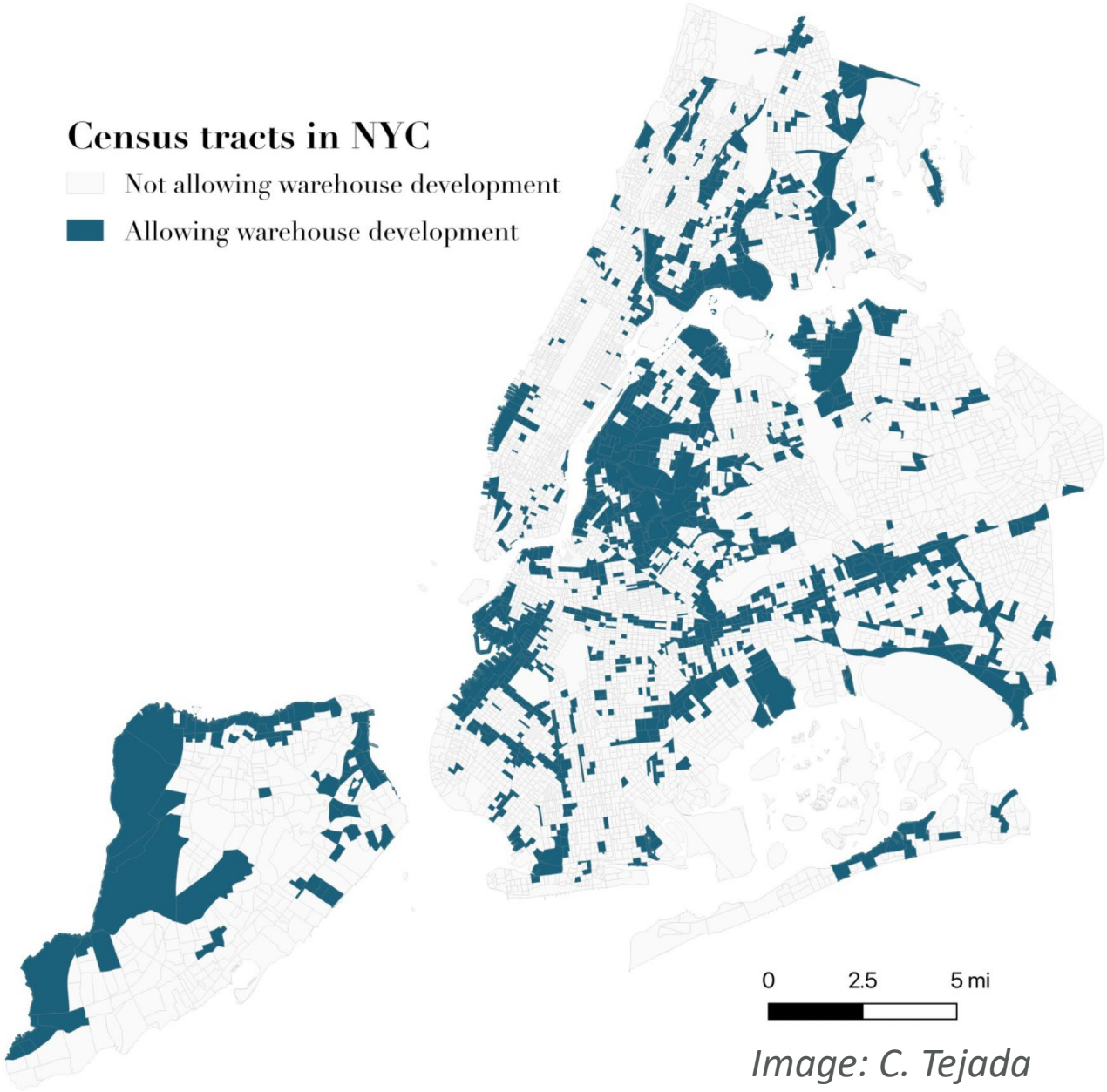


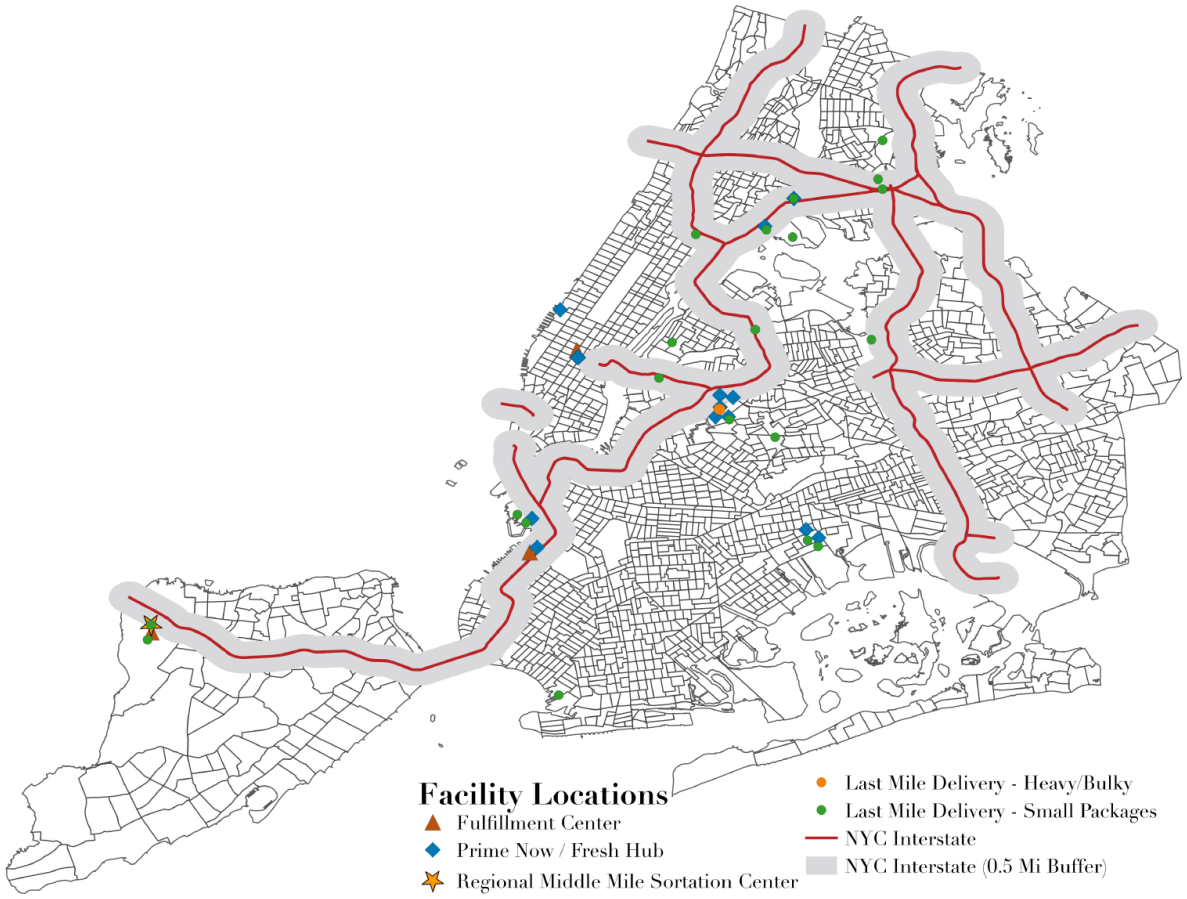
Image: C. Tejada

City of Yes
(*approved by city council this week*)

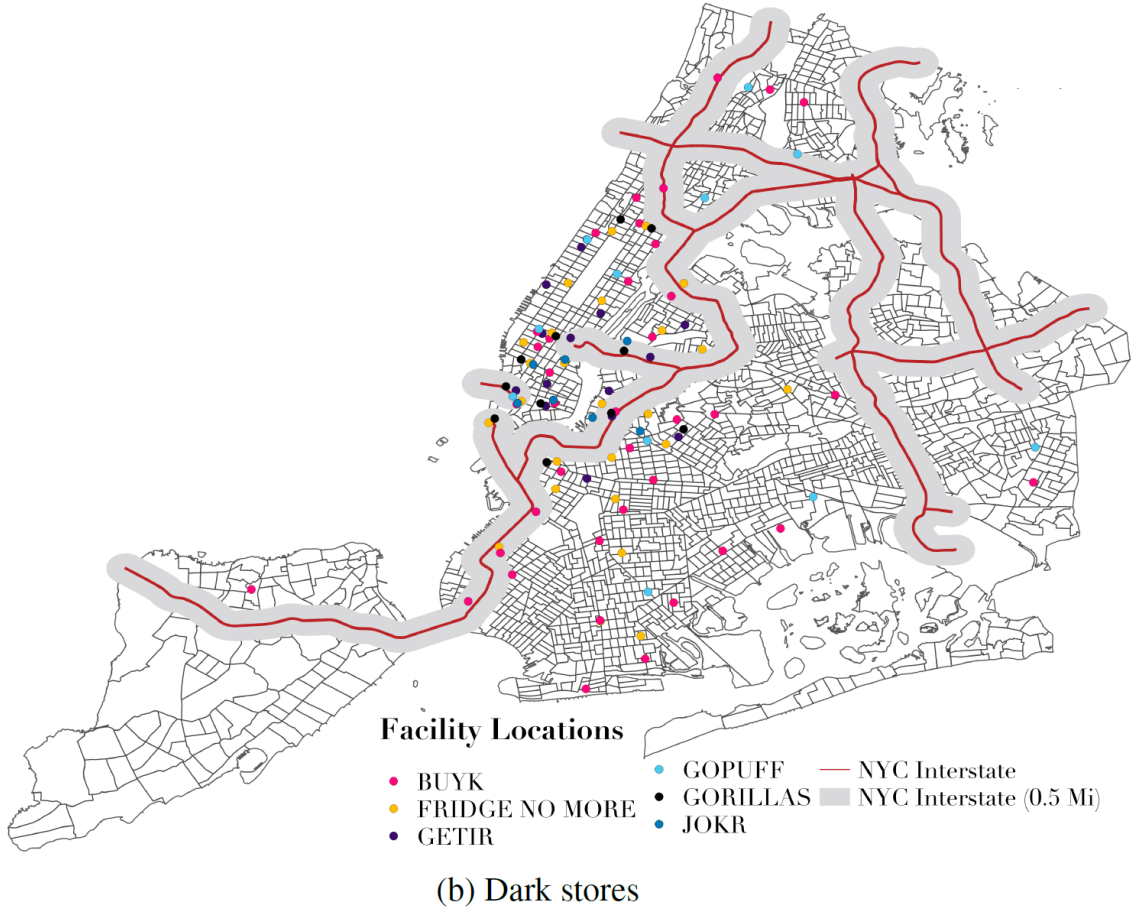
- Micro-distribution in commercial districts
- Flexible use of private parking garages

- Loading regulation waiver for existing buildings
- Special permit for last-mile facilities

Amazon Distribution Facilities (2021)



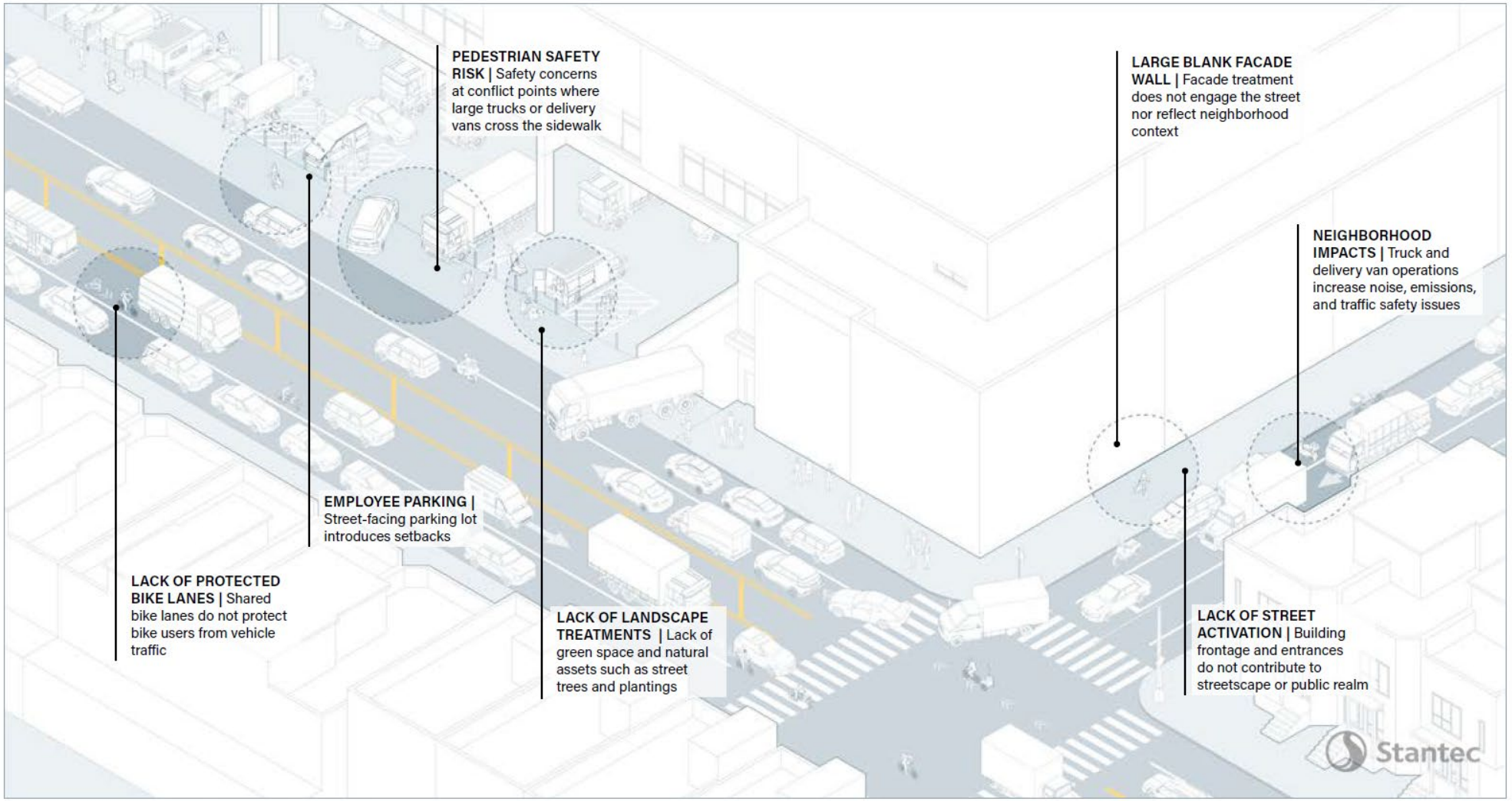
Dark Stores (2021)



(b) Dark stores

Images: C. Tejada

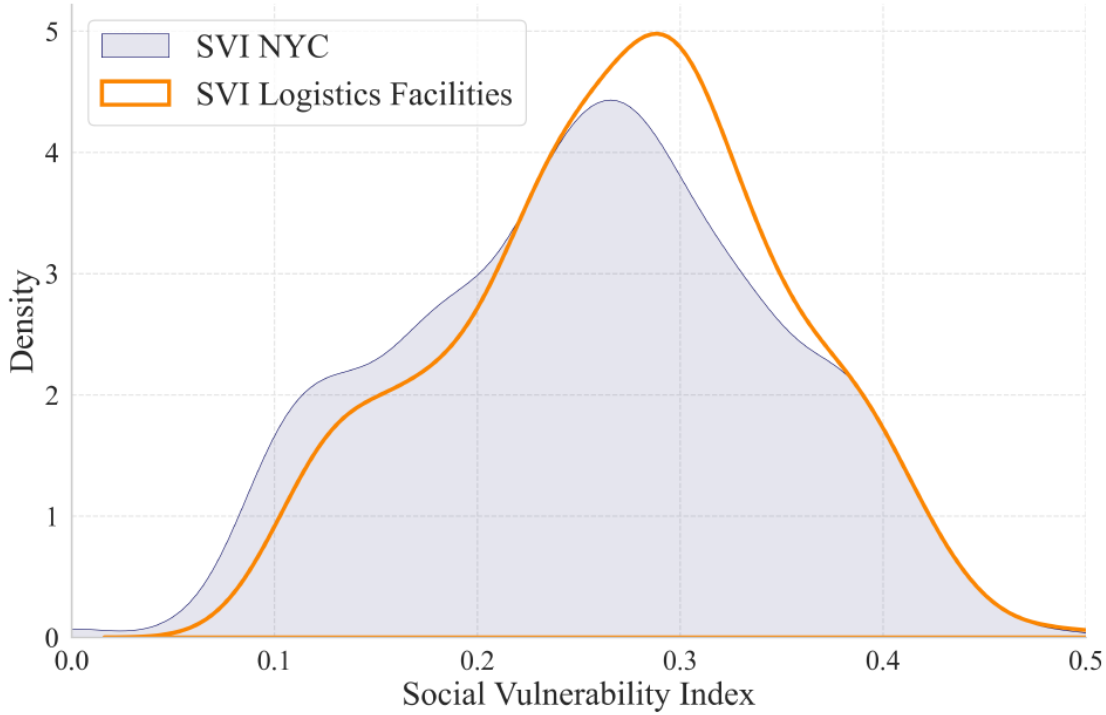
Community Concerns



AIANY (Image by Stantec)

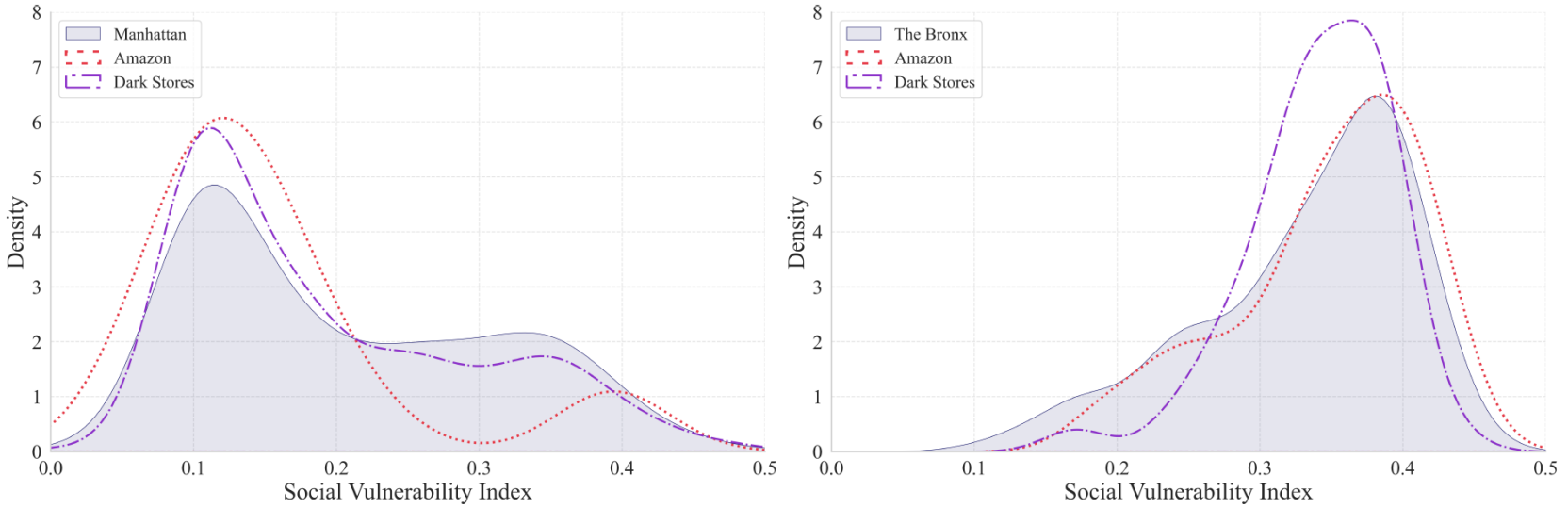
Equity of Impacts

Category	Variables
Socioeconomic Status	Poverty level No high school Unemployment No health insurance
Household Characteristics	65 years and older 17 years and younger Civilian with disability Limited English proficiency
Racial and Ethnic Minority Status	Hispanic or Latino (any race) Black or African American (not Hispanic or Latino) Asian (not Hispanic or Latino) American Indian or Alaska Native (not Hispanic or Latino) Native Hawaiian or Pacific Islander (not Hispanic or Latino) Two or More Races (not Hispanic or Latino) Other Races (not Hispanic or Latino)



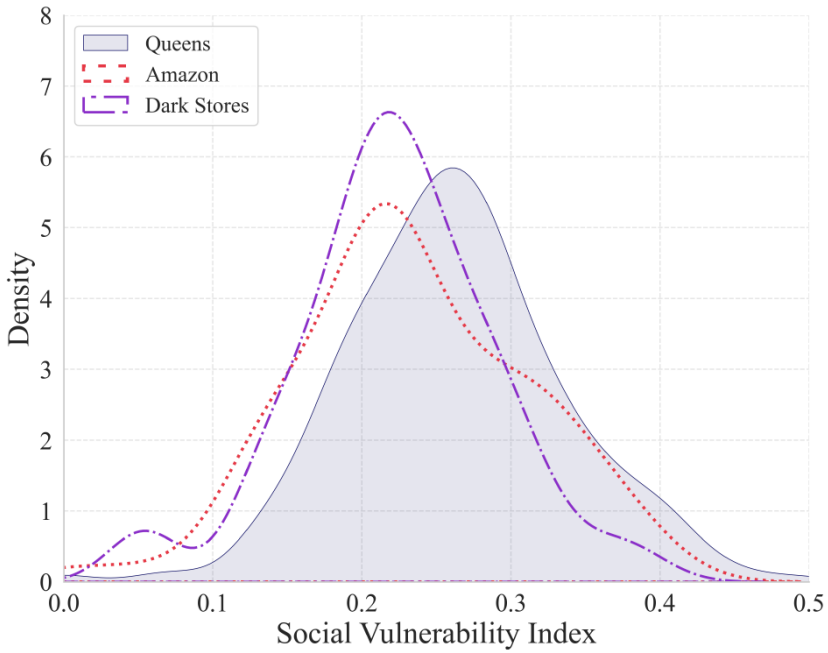
Tejada and Conway

Equity of Impacts

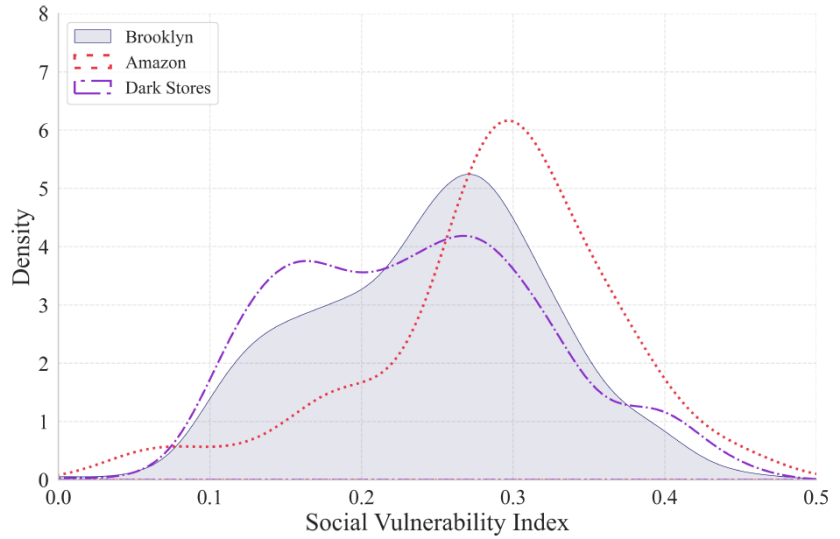


(a) Manhattan

(b) The Bronx



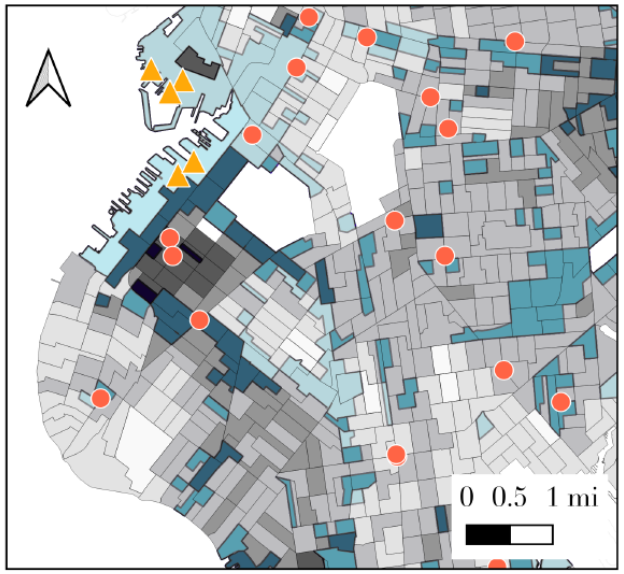
(c) Queens



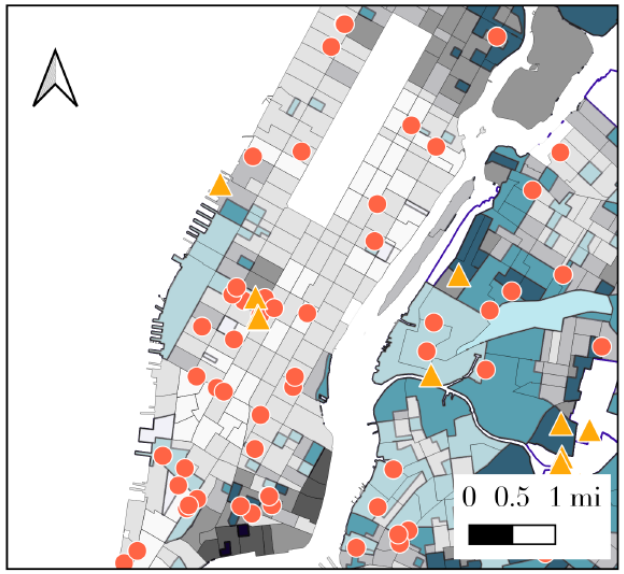
(d) Brooklyn

Images: C. Tejada

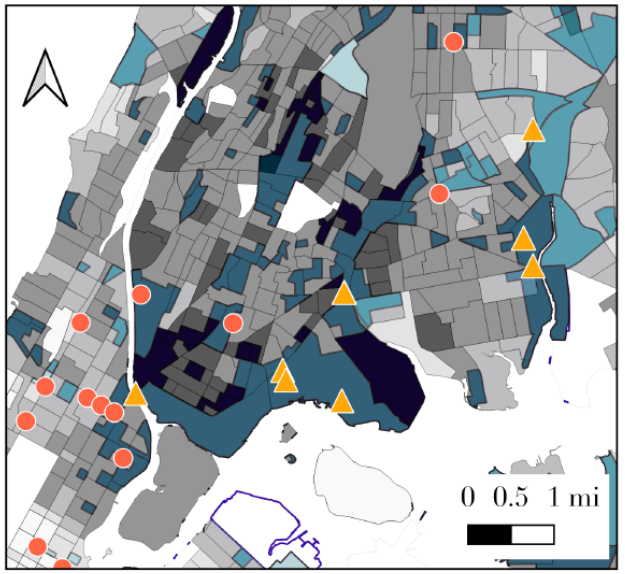
Equity of Impacts



Brooklyn
(Red Hook, Sunset Park, Bay Ridge)



Manhattan - Queens
(Midtown, Hunters Point)



The Bronx
(South Bronx, Hunts Point)

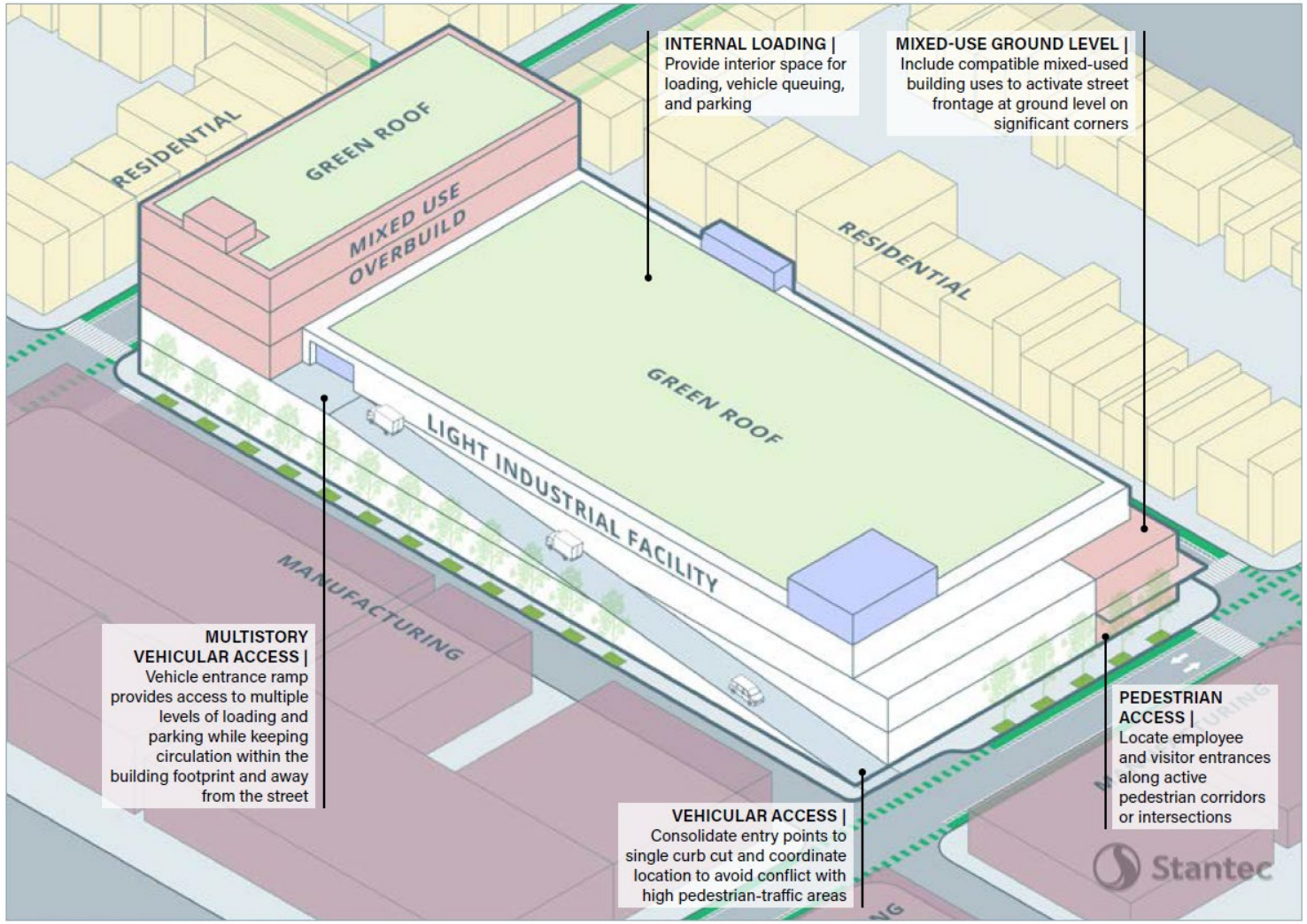
Amazon Facilities
Dark Stores

SVI in CT allowing Logistics Facilities
No SVI Data
0 - 0.1
0.1 - 0.2
0.2 - 0.3
0.3 - 0.4
0.4 - 0.5

SVI in NYC
0 - 0.1
0.1 - 0.2
0.2 - 0.3
0.3 - 0.4
0.4 - 0.5

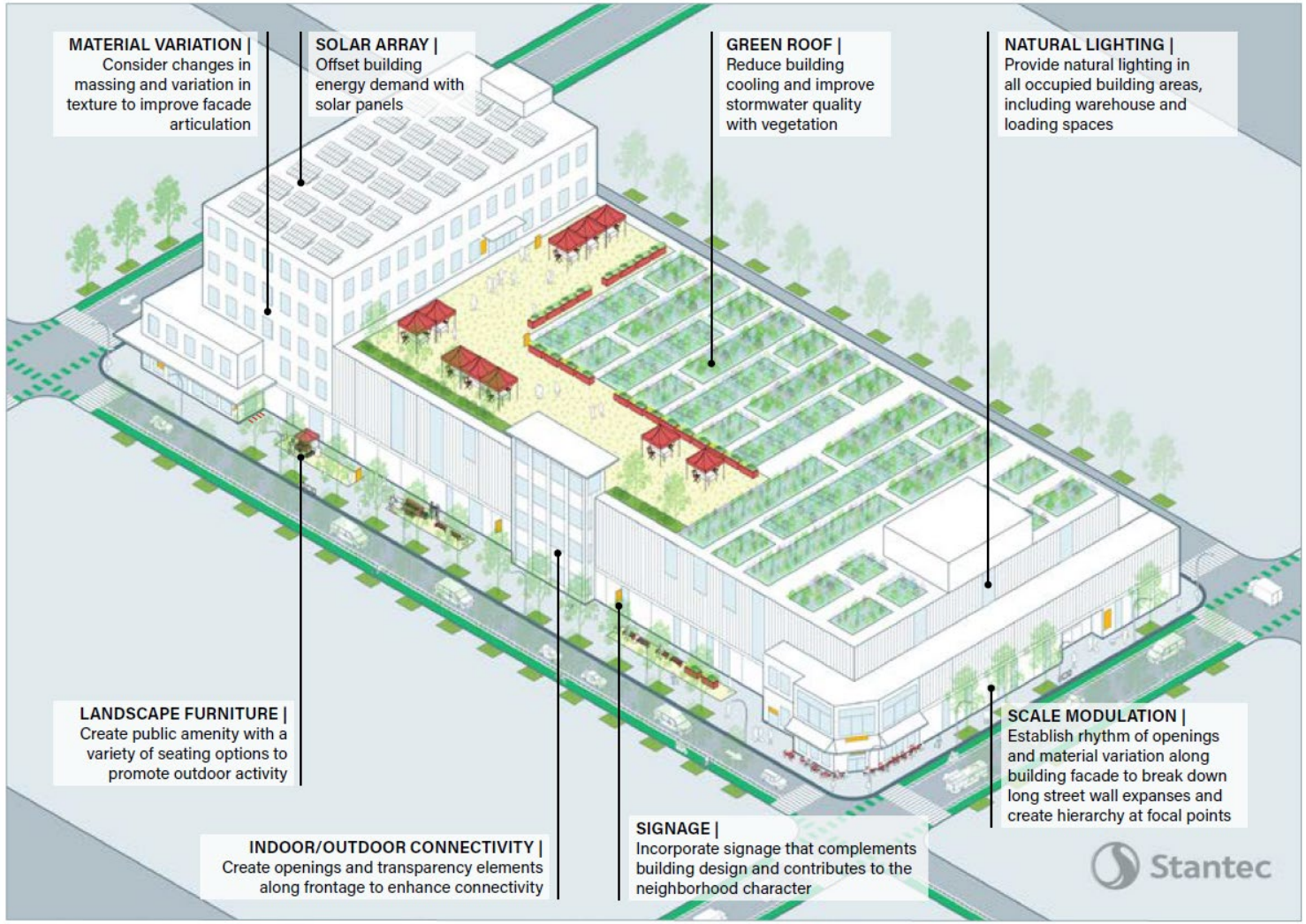
Images: C. Tejada

Community Friendly Building Features



AIANY (Image by Stantec)

Community Friendly Building Features



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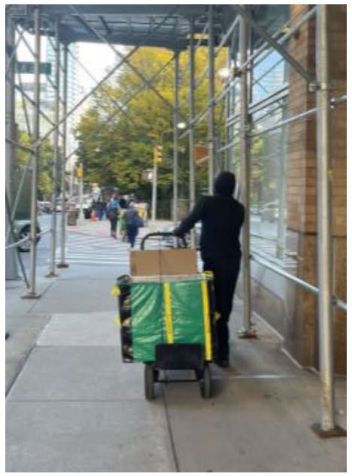
Micro-Distribution Modes



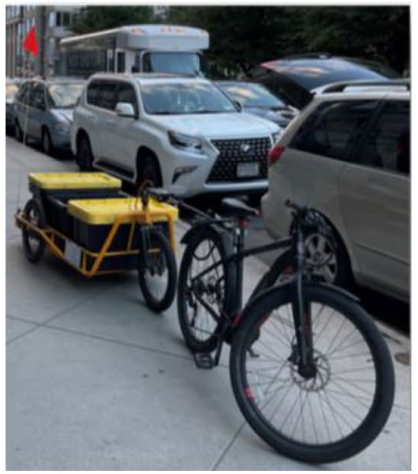



Image from NYC Department of Transportation (2023). Microhubs Pilot: Recommendations for distributing goods via sustainable modes of transportation. Prepared in Response to Local Law 166 (2021).

NYC DOT

Operational Issues

- Network
  - Permitted use
  - Size and weight
  - Safety
  - Parking and loading
- Facilities
  - Permitted use
  - Weather protection
  - Goods security
  - Worker safety
  - Battery charging
  - Transit and bike access

NYC DOT

Thanks! Questions?

aconway@ccny.cuny.edu

Acknowledgements

Carla Tejada

Sam Schwartz Engineering

NYC DOT

AIANY

Stantec

Freight and Complete Streets

NJTPA Freight Initiatives Committee

June 17, 2024

Kristen Scudder
DVRPC Freight Program

dvrpc

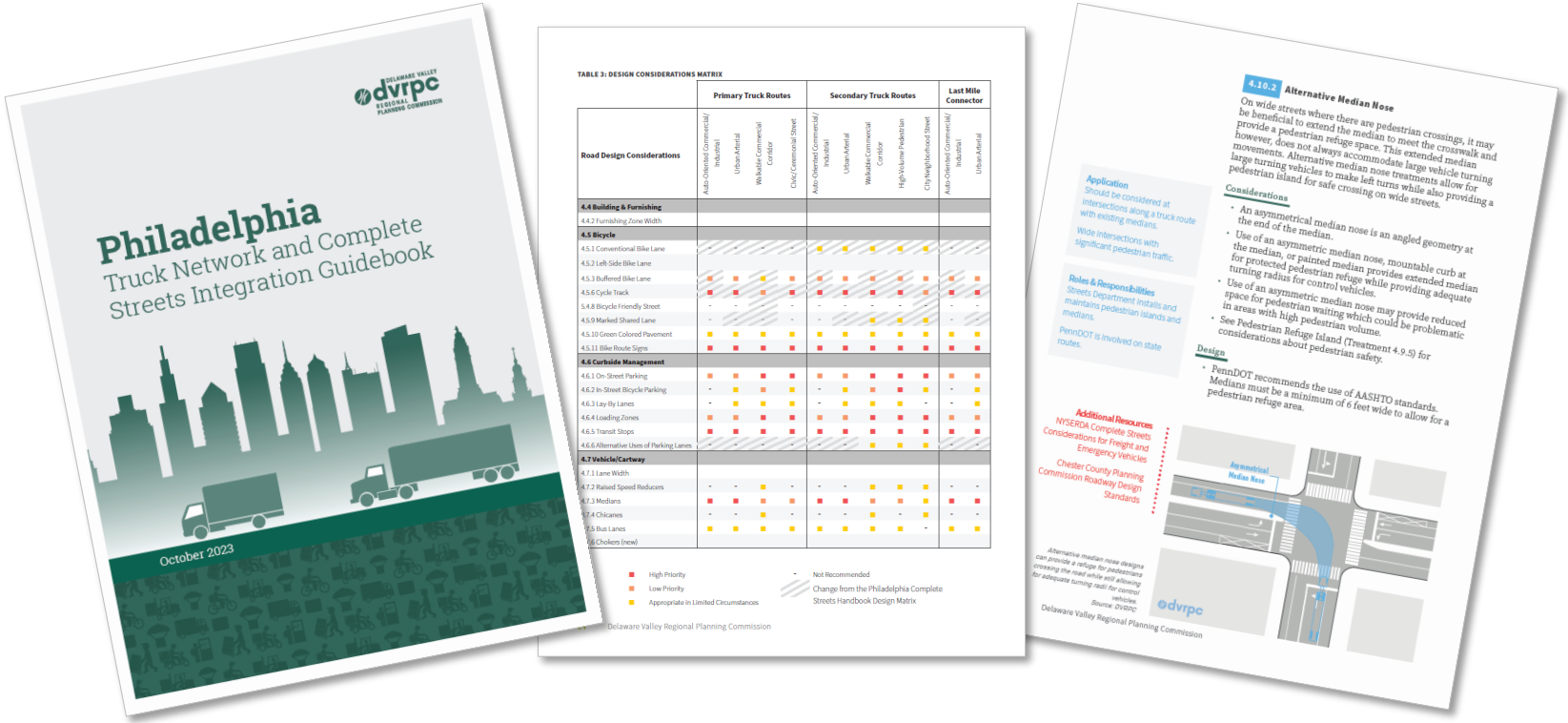
DVRPC

The Delaware Valley Regional Planning Commission is the federally designated Metropolitan Planning Organization (MPO) for a diverse nine-county region in two states: Bucks, Chester, Delaware, Montgomery, and Philadelphia in Pennsylvania; and Burlington, Camden, Gloucester, and Mercer in New Jersey.

dvrpc

Failure to incorporate freight considerations not only impacts the performance of the network for trucks but can have substantial safety and quality of life impacts for other users.

Freight and Complete Streets Guide



Defining a Truck Network

01

Preliminary Screening

Understand key generators and connectivity.
Preliminary network matched to existing classification system.

02

Data Evaluation

Quantify route segment activity.
Confirm route segment role/use.

03

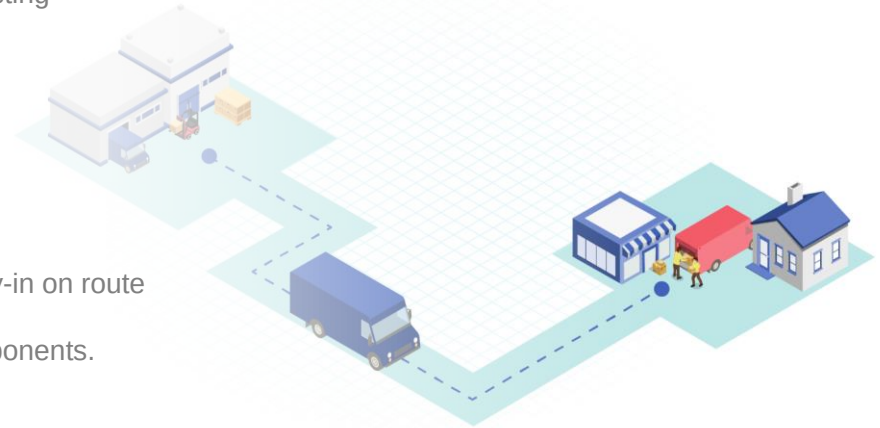
Review & Adoption

Educate the public and promote buy-in on route designation.
Formally adopt the truck route components.

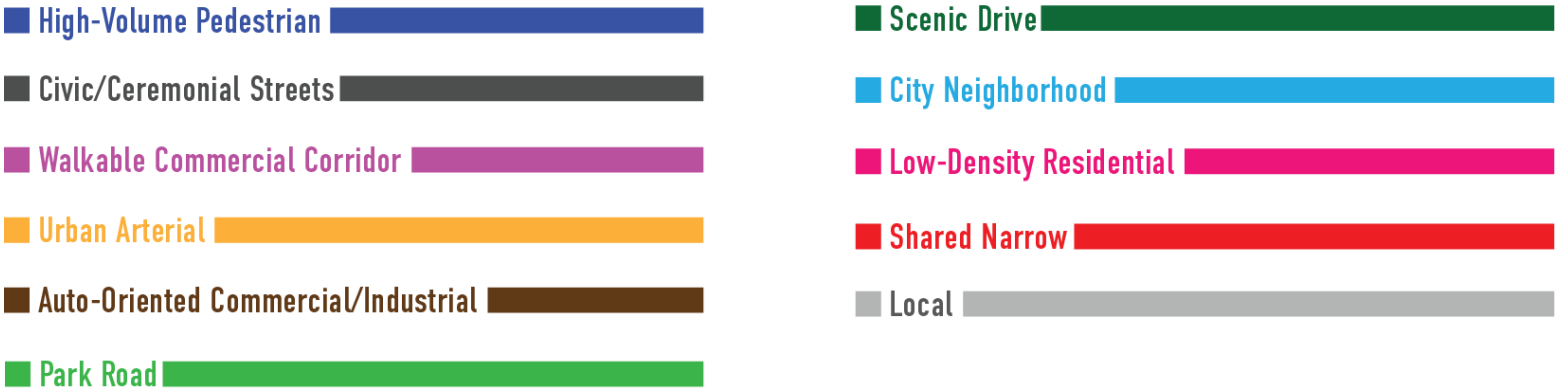
04

Application

Communicate new route designation to key stakeholders.
Incorporate improvements/considerations for truck freight.



PHILADELPHIA COMPLETE STREETS DESIGN HANDBOOK: STREET TYPOLOGIES



Freight Integration

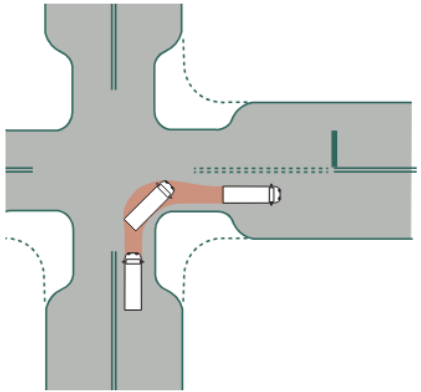
Appropriate Typology Combinations

TRUCK NETWORK CLASS	COMPLETE STREETS TYPE
LIMITED ACCESS HIGHWAY	N/A
PRIMARY TRUCK ROUTE	Auto-Oriented Commercial/Industrial Urban Arterial Walkable Commercial Corridor Civic/Ceremonial Street
SECONDARY TRUCK ROUTE	Auto-Oriented Commercial/Industrial Urban Arterial Walkable Commercial Corridor High-Volume Pedestrian City Neighborhood Street
LAST-MILE CONNECTOR	Auto-Oriented Commercial/Industrial Urban Arterial

Design and Control Vehicles

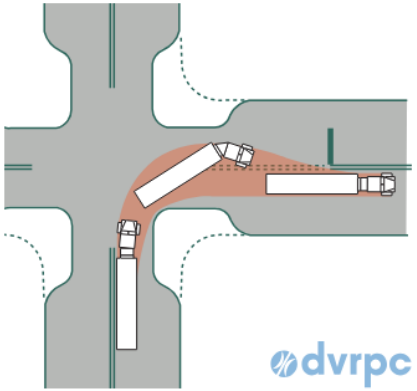
DESIGN VEHICLE

- frequent user of a given street
- dictates the minimum required turning radius
- can turn using one incoming and one receiving lane



CONTROL VEHICLE

- infrequent, larger user of a given street
- road accommodates these vehicles
- can turn using multiple lane spaces



Source: DVRPC and NACTO

TABLE 2: PROPOSED DESIGN AND CONTROL VEHICLE RECOMMENDATIONS

FREIGHT CLASS	COMPLETE STREETS STREET TYPE	FUNCTIONAL CLASSIFICATION (DEFINED IN COMPLETE STREETS HANDBOOK)	TYPICAL LAND USE (DEFINED IN COMPLETE STREETS HANDBOOK)	DESIGN/ CONTROL VEHICLES
LIMITED ACCESS HIGHWAY	N/A			DV: WB-67
PRIMARY TRUCK ROUTE	Auto-Oriented Commercial/ Industrial	Major or Minor Arterial or Collector, others as selected	Automobile services, drive-ins, "big box" retail and shopping centers, industrial.	DV: WB-62
	Urban Arterial	Major or Minor Arterial	Commercial, mixed use, higher-density residential (R10+).	DV: WB-62
	Walkable Commercial Corridor	Major Arterial or Collector	Retail, commercial mixed use, residential, some institutional.	DV: WB-40 CV: WB-62
	Civic/ Ceremonial Street	Major Arterial	High density, governmental, cultural, institutional, and retail.	DV: WB-40 CV: WB-62
SECONDARY TRUCK ROUTE	Auto-Oriented Commercial/ Industrial	Major or Minor Arterial or Collector, others as selected	Automobile services, drive-ins, "big box" retail and shopping centers, industrial.	DV: WB-62
	Urban Arterial	Major or Minor Arterial	Commercial, mixed use, higher-density residential (R10+).	DV: WB-50 CV: WB-62
	Walkable Commercial Corridor	Major Arterial or Collector	Retail, commercial mixed use, residential, some institutional.	DV: WB-40 CV: WB-62
	High-Volume Pedestrian	Major and Minor Arterial	Commercial, mixed use, higher-density residential (R10+)	DV: WB-40 CV: WB-50
	City Neighborhood Street	Minor Arterial or Collector	Commercial, mixed use, higher density residential (R10+).	DV: WB-40 CV: WB-50
LAST MILE CONNECTOR	Auto-Oriented Commercial/ Industrial	Major or Minor Arterial or Collector, others as selected	Automobile services, drive-ins, "big box" retail and shopping centers, industrial.	DV: WB-62 / WB-67
	Urban Arterial	Major or Minor Arterial	Commercial, mixed use, higher-density residential (R10+).	DV: WB-62 / WB-67

Source: DVRPC

Design Considerations Integration

TABLE 3: DESIGN CONSIDERATIONS MATRIX

Road Design Considerations	Primary Truck Routes				Secondary Truck Routes					Last Mile Connector	
	Auto-Oriented Commercial/ Industrial	Urban Arterial	Walkable Commercial Corridor	Civic/ Ceremonial Street	Auto-Oriented Commercial/ Industrial	Urban Arterial	Walkable Commercial Corridor	High-Volume Pedestrian	City Neighborhood Street	Auto-Oriented Commercial/ Industrial	Urban Arterial
4.5 Bicycle											
4.5.1 Conventional Bike Lane	-	-	-	-						-	-
4.5.2 Left-Side Bike Lane											
4.5.3 Buffered Bike Lane											
4.5.6 Cycle Track											
5.4.8 Bicycle Friendly Street	-	-	-	-	-	-	-	-	-	-	-
4.5.9 Marked Shared Lane	-	-	-	-	-	-				-	-
4.5.10 Green Colored Pavement											
4.5.11 Bike Route Signs											

- High Priority
- Low Priority
- Appropriate in Limited Circumstances
- \- Not Recommended
- Change from the Philadelphia Complete Streets Handbook Design Matrix

Design Considerations Integration

TABLE 3: DESIGN CONSIDERATIONS MATRIX

	Primary Truck Routes				Secondary Truck Routes					Last Mile Connector	
Road Design Considerations	Auto-Oriented Commercial/ Industrial	Urban Arterial	Walkable Commercial Corridor	Civic/ Ceremonial Street	Auto-Oriented Commercial/ Industrial	Urban Arterial	Walkable Commercial Corridor	High-Volume Pedestrian	City Neighborhood Street	Auto-Oriented Commercial/ Industrial	Urban Arterial
4.10 Truck Turning Movement (New)											
4.10.1 Parking Restrictions at Intersections	■	■	■	■	■	■	■	■	■	■	■
4.10.2 Alternative Median Nose	■	■	■	■	■	■	■	■	■	■	■
4.10.3 Recessed Stop Lines	■	■	■	■	■	■	■	■	■	■	■
4.10.4 Mountable Curbs	-	-	■	■	-	-	■	■	■	■	■
4.10.5 Delineated Conflict Areas	■	■	■	■	■	■	■	■	■	■	■

■ High Priority
■ Low Priority
■ Appropriate in Limited Circumstances
- Not Recommended
Change from the Philadelphia Complete Streets Handbook Design Matrix

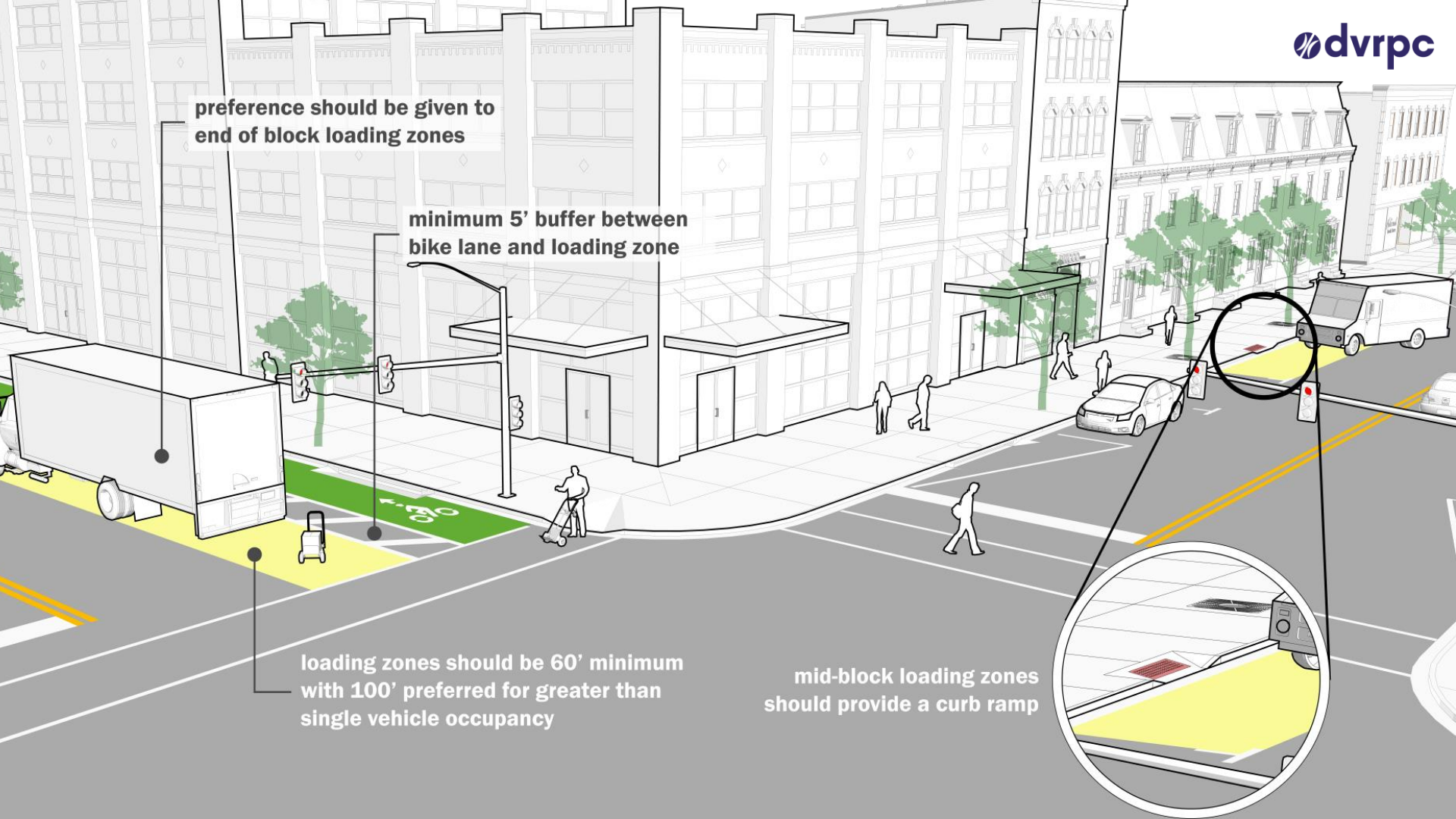
4.6.4 Loading Zones

Application:

- Appropriate on many street types provided that desired operating speeds are 35 mph or lower.
- Generally not appropriate on Lower Density Residential Streets (3.9), Park Roads (3.6), Scenic Drives (3.7), Shared Narrow Streets (3.10) or Local Streets (3.11) in residential neighborhoods.

"Loading zones should be located, designed, and enforced to limit interference with pedestrian and bicycle traffic."

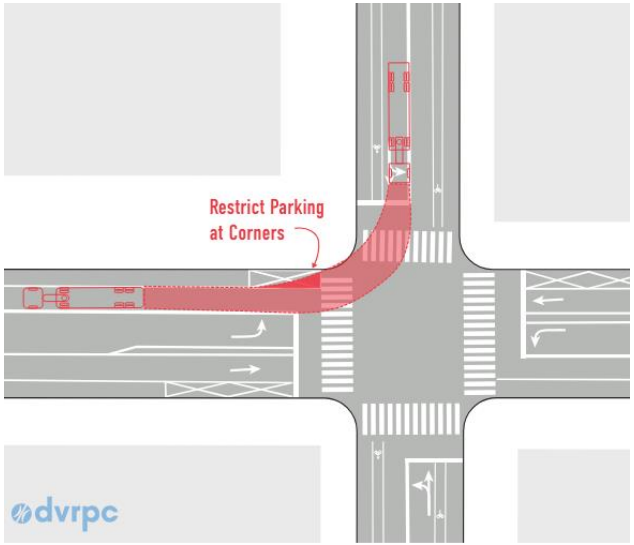
"... wide trucks may intrude into adjacent sidewalks, bike facilities, or travel lanes when loading/unloading."


dvrpc
preference should be given to end of block loading zones
minimum 5’ buffer between bike lane and loading zone
loading zones should be 60’ minimum with 100’ preferred for greater than single vehicle occupancy
mid-block loading zones should provide a curb ramp

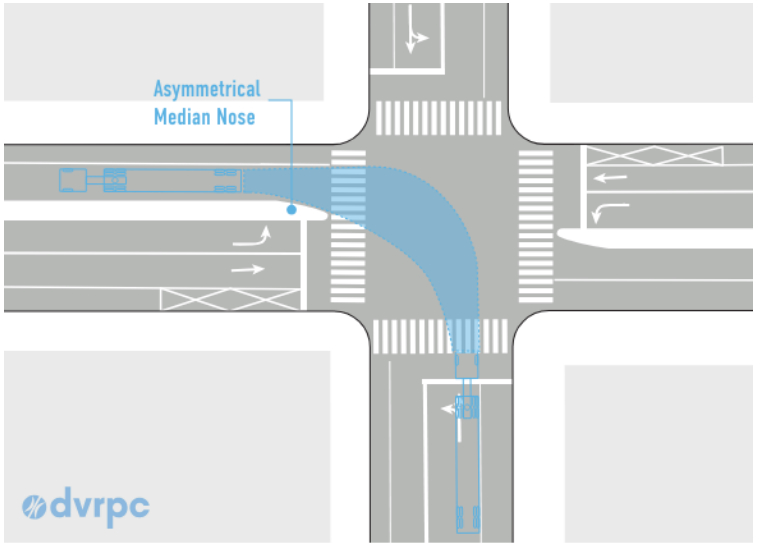
New Considerations

Truck Turning Movements

4.10.1 Parking Restrictions at Intersections



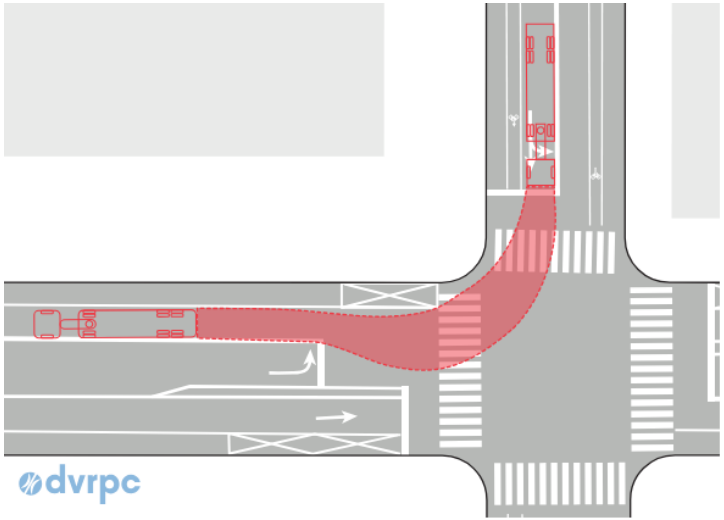
4.10.1 Alternative Median Nose



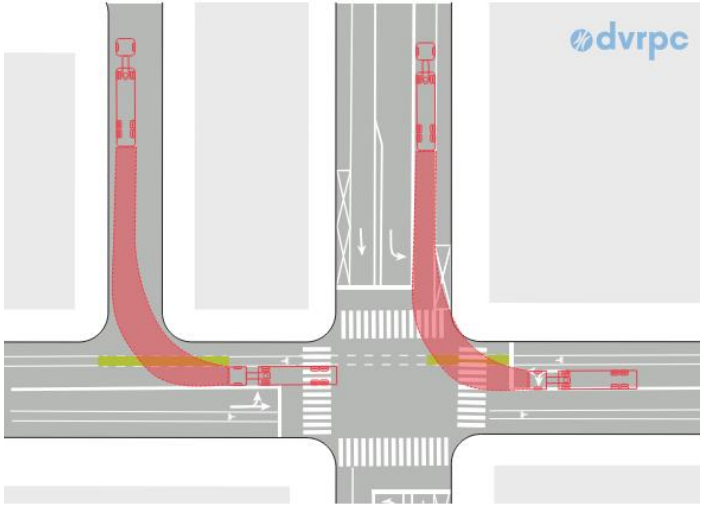
New Considerations

Truck Turning Movements

4.10.1 Recessed Stop Lines

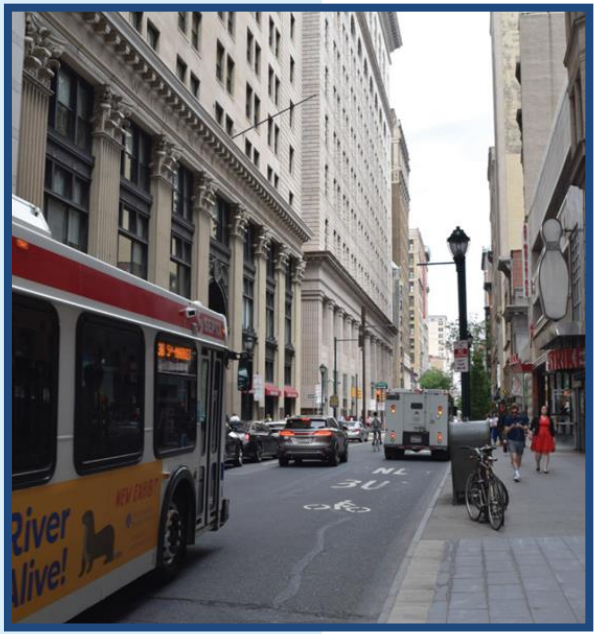


4.10.1 Delineated Conflict Zones



Next Steps

- Philadelphia Industrial Market and Land Use Strategy Study and Report- Street typology diagrams
- Implementation on projects and in processes
- Transferable design recommendations to other counties and street types



THANK YOU

Kristen Scudder
Freight Program Manager
Delaware Valley Regional Planning Commission
kscudder@dvrpc.org

dvrpc

HUDSON COUNTY TRUCK ROUTES ASSESSMENT

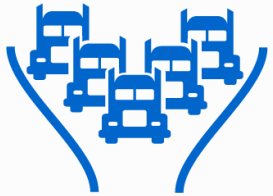
North Jersey Transportation Planning Authority

Freight Initiatives Committee Meeting

June 17, 2024

Purpose & Need

Enhance the efficient movement of trucks through Hudson County and support the trucking industry through infrastructure improvements and policy recommendations, while reducing negative impacts to traffic, safety, and our communities.



Need

- Congestion
- Emission/noise levels
- Crashes
- Pavement/bridge wear
- Roadway design/geometries
- Community impacts

Goals

Develop policy, regulatory, and infrastructure recommendations to:

- Improve truck flow
- Reduce negative community impacts

Data Assessment

Mobility and Efficiency

Data:

- Truck origin-destination
- Truck route data
- Local delivery demand
- Curb management strategies

Road Conditions

- Pavement conditions
- Bridge conditions
- Maintenance schedules

Safety

- All crashes and individual truck crash locations
- Travel patterns and speed

Hudson County Trucking Study

Data Assessment

Data:

Community Impacts

- Vulnerable populations
- Emissions
- Noise

Economic Activity and Value

- Freight activity
- Economics
- Trucking facilities & business districts

Requires Stakeholder Input

Literature review and case studies

- Preferred network and industry needs
- Deliveries and curb management
- Technology and best practices

Hudson County Trucking Study

Public Engagement Plan

What/Why

- Provide education/share info about freight trucking and its role in Hudson County
- Identify best practices and challenges faced by the trucking industry
- Understand effects/impacts on residents and businesses
- Facilitate an inclusive dialogue

How

- Branding
- Social media
- TAC meetings
- Freight Forums
- Public meetings
- Newsletter
- Survey
- Website *hcnj.us/trucking-study*

Virtual Freight Forums

September 21: Policy & Economy Forum

September 27: Local Deliveries

September 27: Warehousing & Distribution

Key Issues

- Infrastructure and geometry (upgraded signage, striping, signals, adding capacity and breakdown lanes)
- Parking access (both municipal parking and loading zones)
- New technologies of interest, but cost prohibitive

Virtual Public Information Meetings

November 3, 2022, March 8, 2023

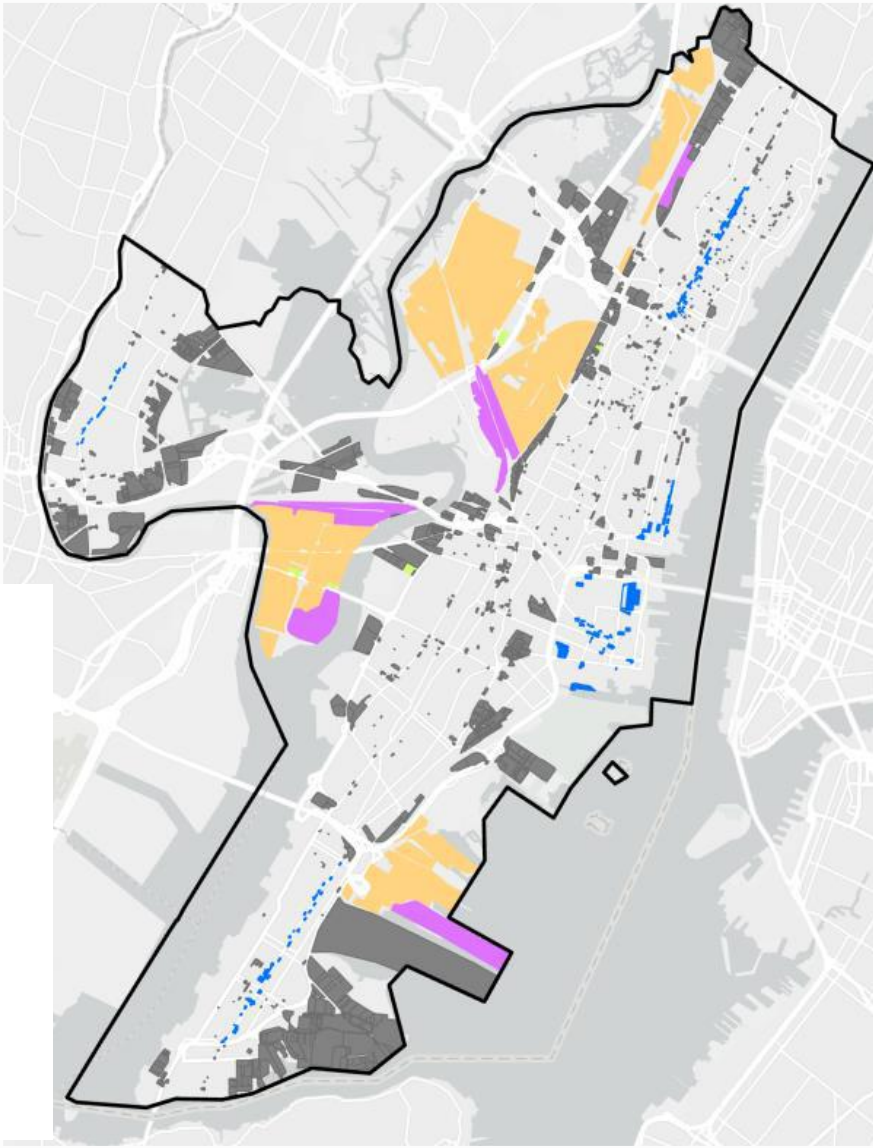
Key Issues

- Large delivery trucks using local streets as cut-throughs
- Trucks are in restricted areas, enforcement is critical
- Disconnect in “no truck” signage vs. actual restricted areas
- Trucks are double parking, crosswalks and bike lanes are blocked, loading zones are needed

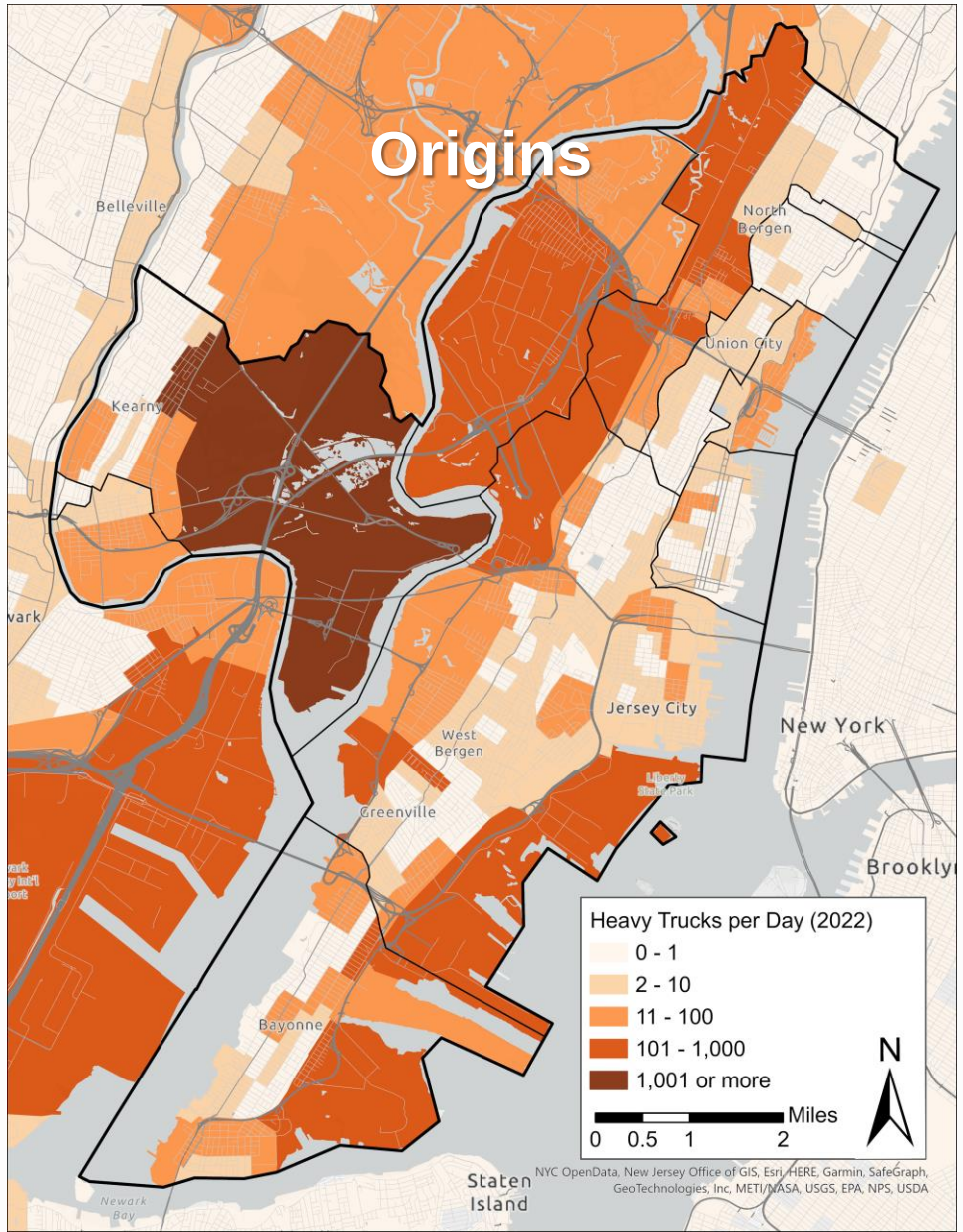
Data Analysis, Findings, Recommendations

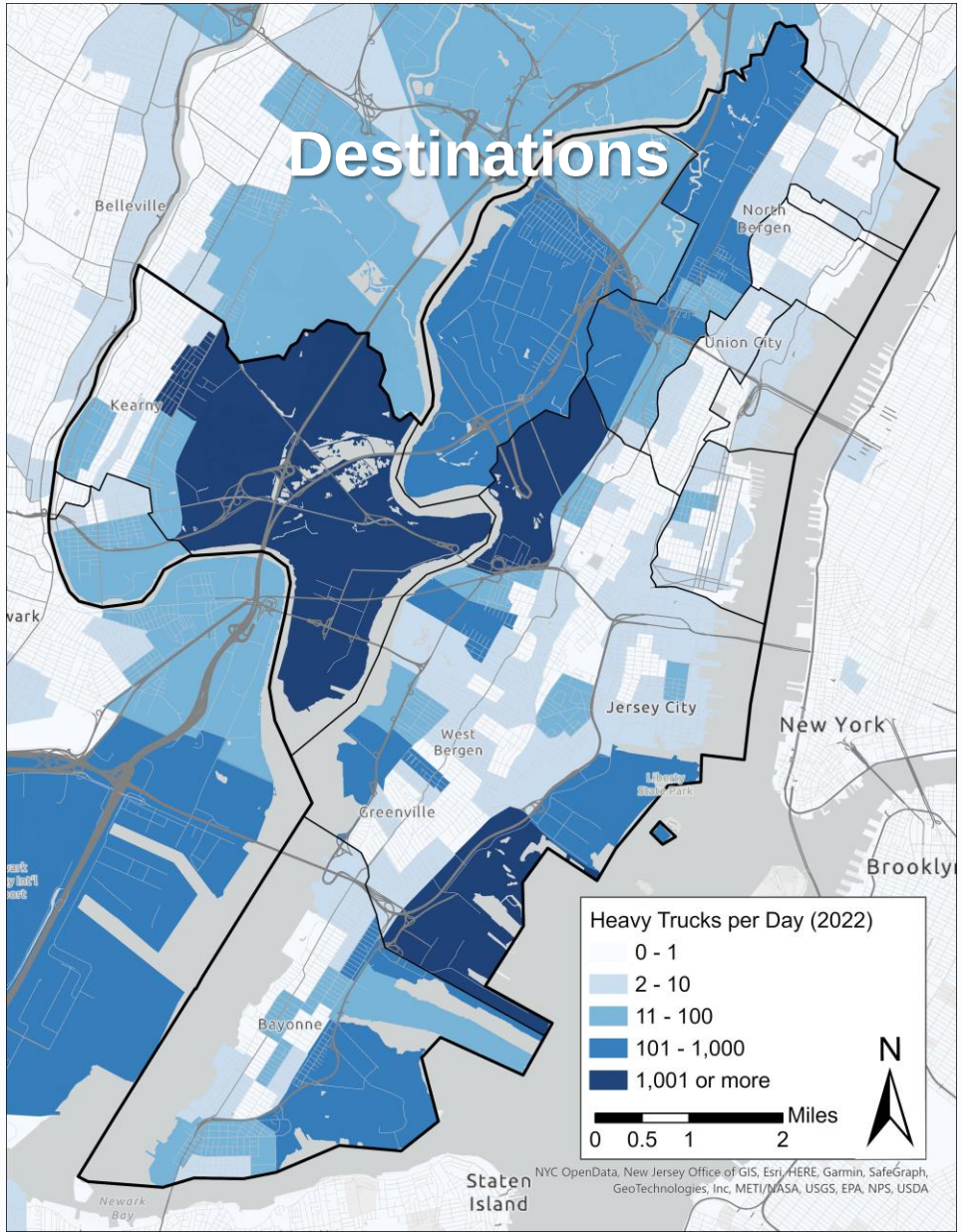
Truck Trip Generators

- Study region: All 2020 Census tracts in Hudson County
- Key trip generators and areas of interest
  - ✓ Intermodal facilities
  - ✓ Industrial districts
  - ✓ Warehousing areas
  - ✓ Commercial districts

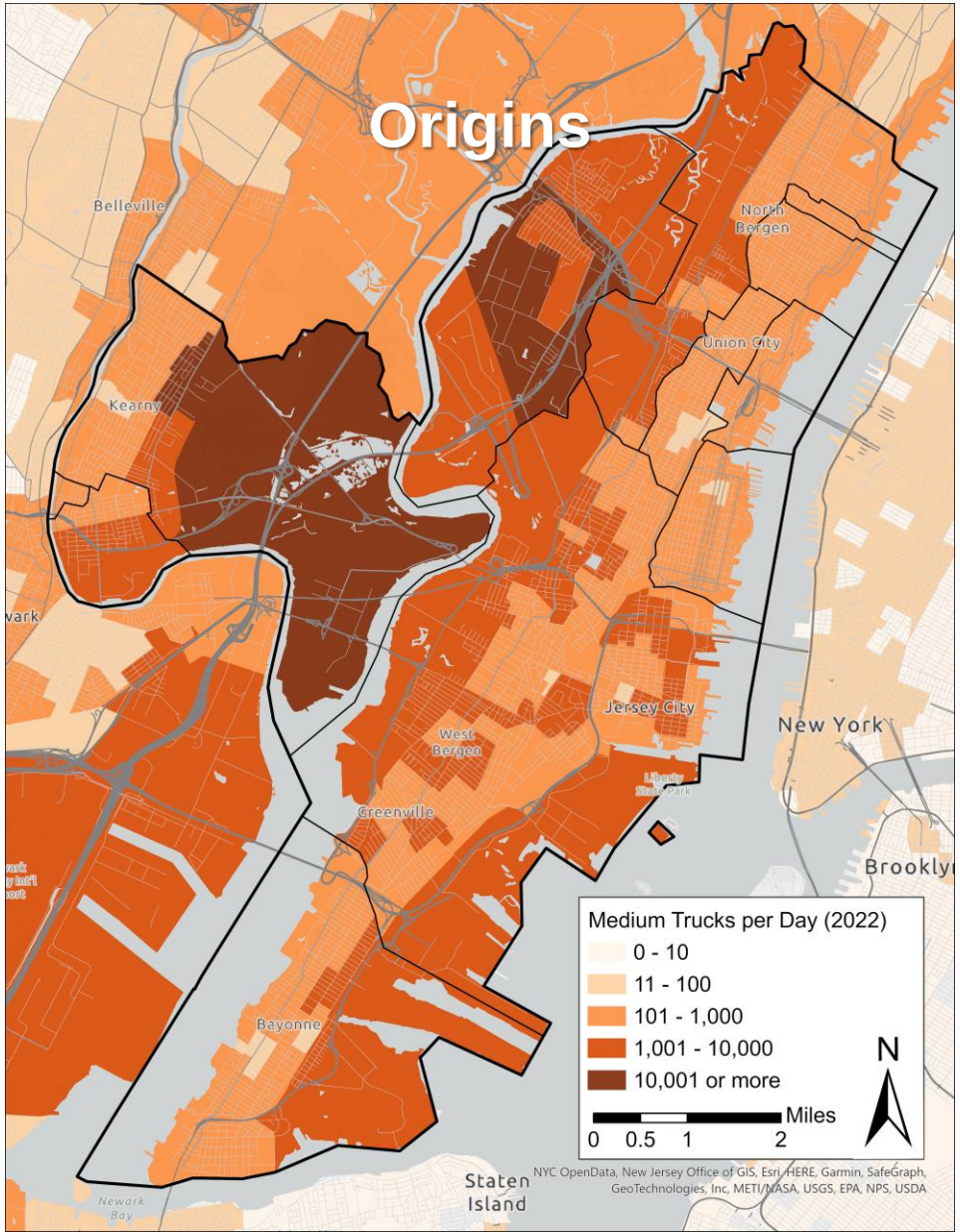


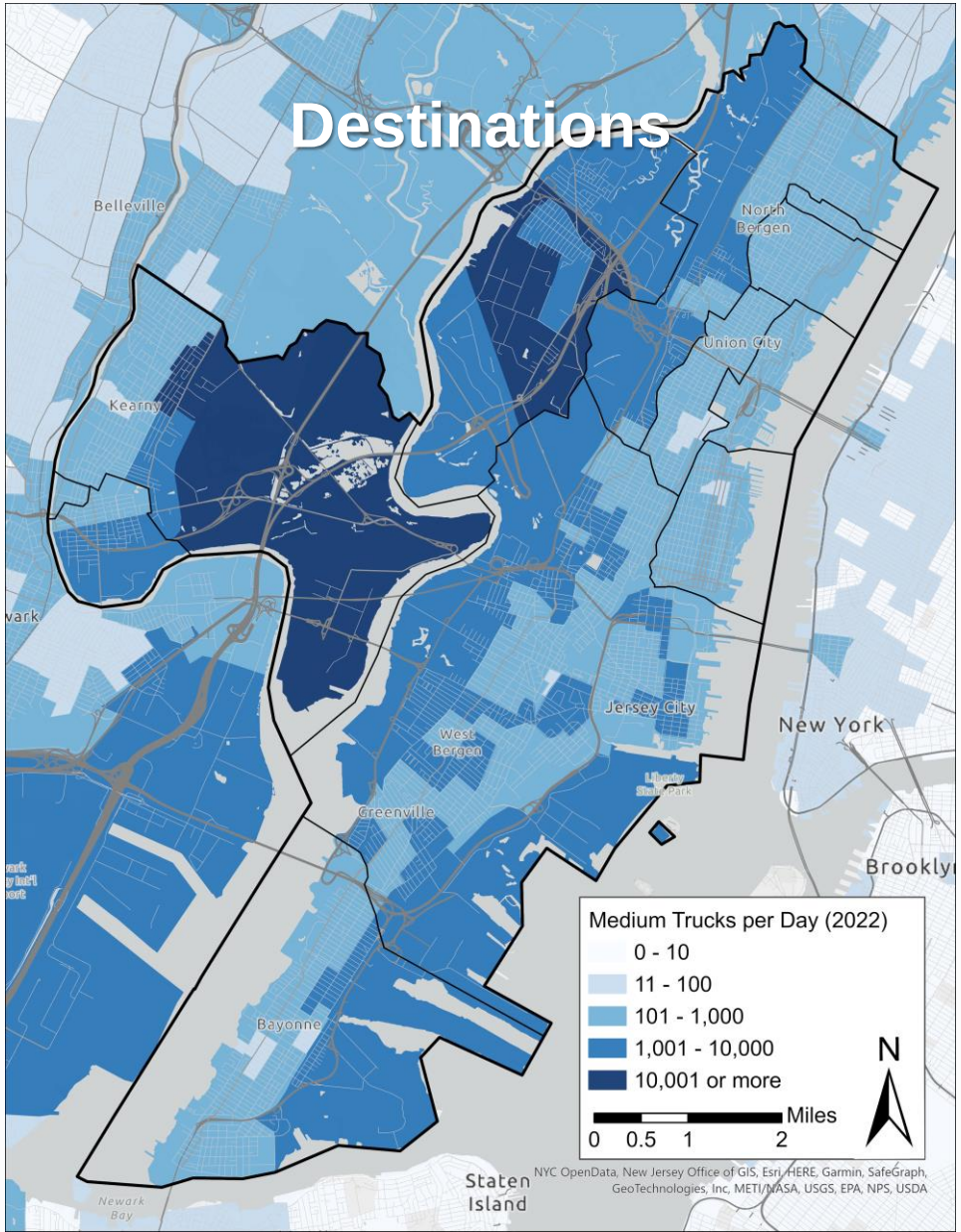
Heavy Truck Trip Patterns





Medium Truck Trip Patterns





Cut-Through Truck Traffic

Legend

- Cut-through truck routes to/from GCT
- Truck routes to/from GCT

(GTC: Global Container Terminals, Bayonne

Place Types

	Effectiveness
High	
Medium	
Low	

	Commercial	Commercial (Mixed Use)	Residential	Industrial
Curb Loading Zone				
Curb Demand Management				
Shared Space				
Off-Hour Delivery				
Delivery Consolidation				
Enforcement				
Outreach				
Technology and Innovation				

6) Designated Curb Loading Zones

- Quick deliveries or pick-ups
- Can reduce double-parking and congestion
- Loading zone vs parking depends on time of day
- Clear signage and/or designated pavement
- Uses apps and pricing

Commercial/Commercial (Mixed-Use)

Examples

- Harrison Ave and Frank Rodgers Blvd, Harrison
- Paterson Plank Road, Union City
- Kennedy Blvd, Jersey City
- Newark St, Hoboken

Effective Strategies

- Curb loading zones
- Curb demand management
- Shared space
- Enforcement
- Outreach

Residential

Examples

- Throughout Hudson County

Effective Strategies

- Improved signage, enforcement
- Low-cost approaches to daylight intersections
- E-Cargo bikes
- Consolidated delivery sites

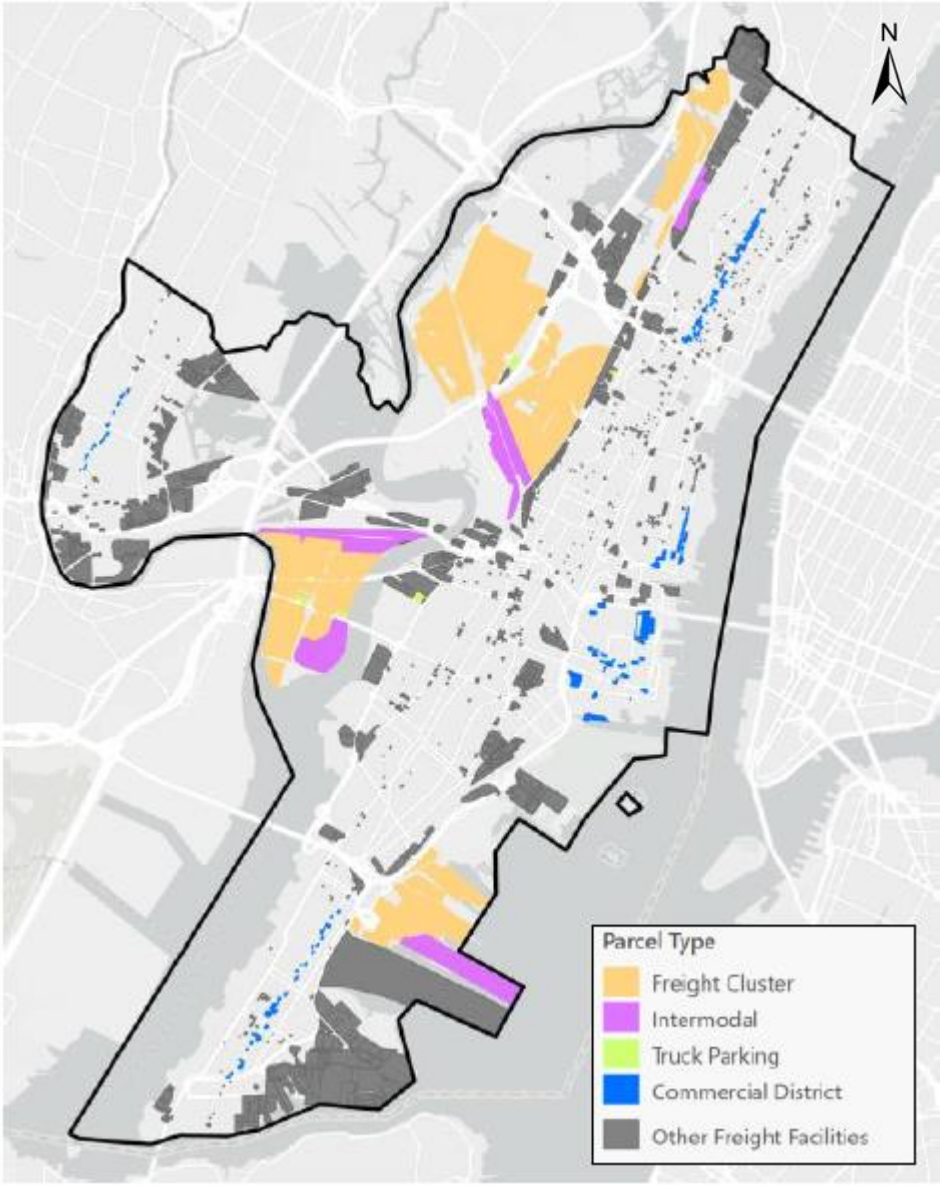
Industrial

Examples

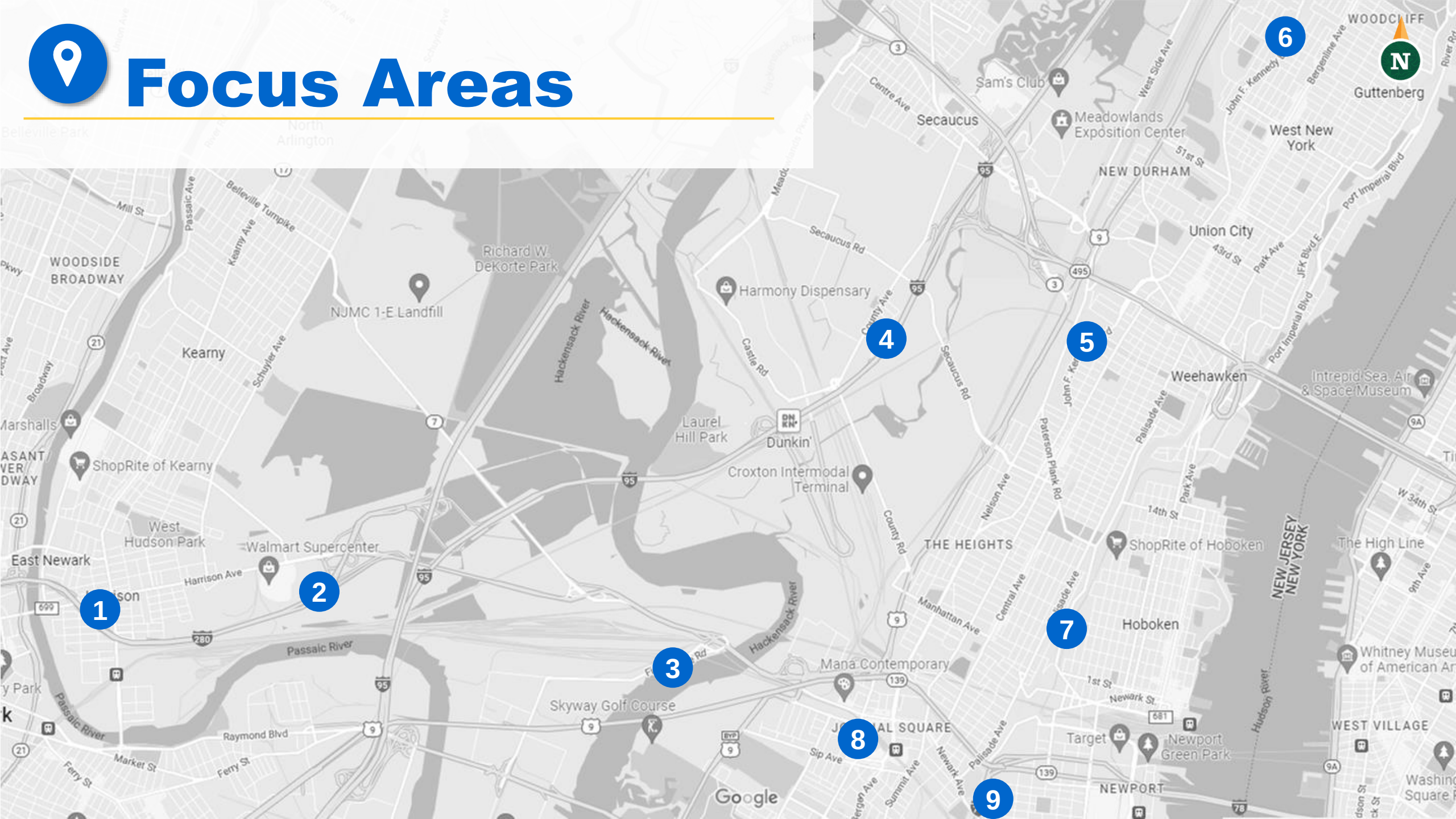
- Intermodal Terminals
- Freight Clusters

Effective Strategies

- Updated signage and wayfinding
- Geometric changes
- Engagement with other transportation agencies
- Truck parking and rest stops
- Public process for truck route changes
- Emissions, noise and equity



Focus Areas


1
2
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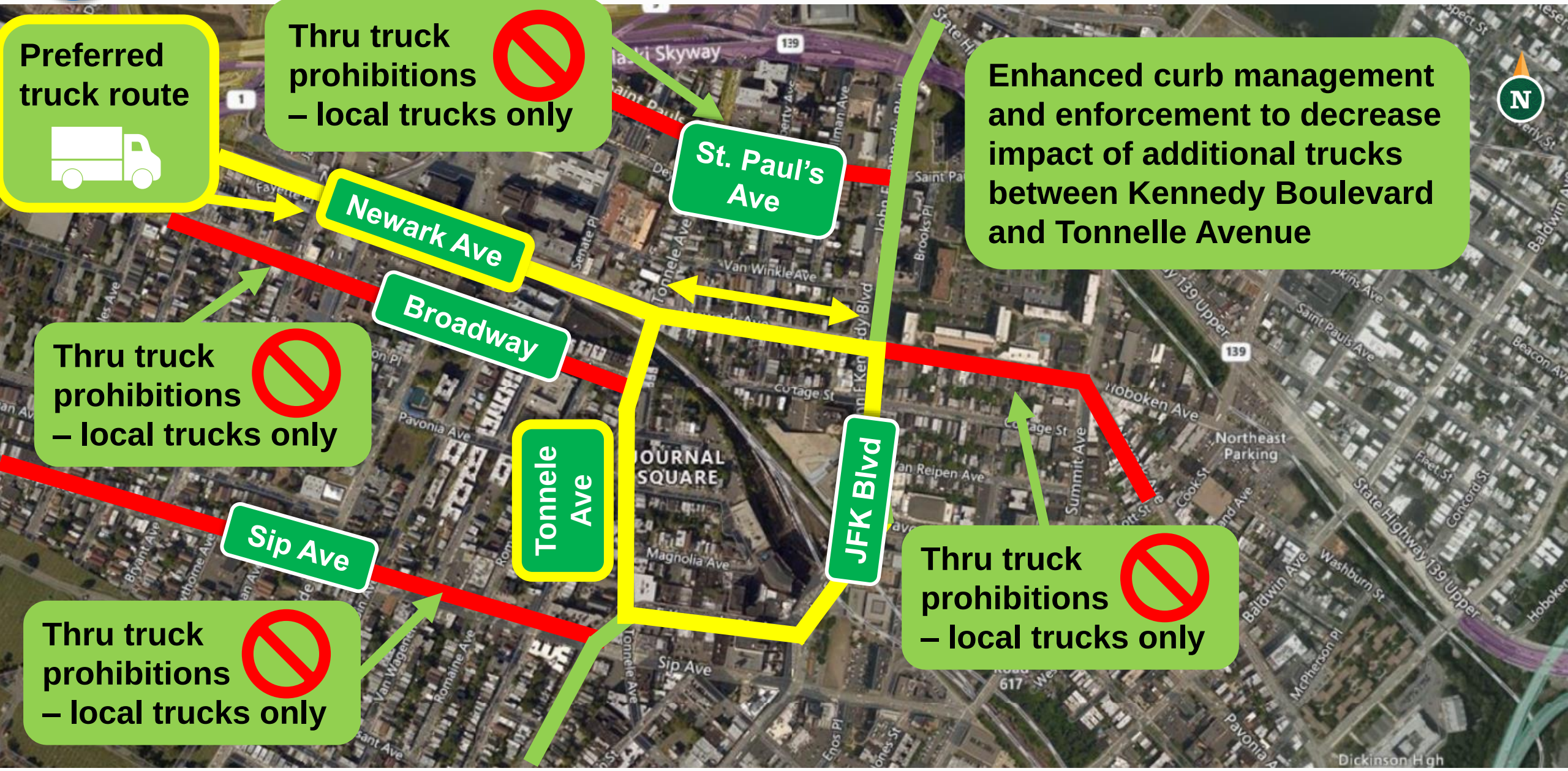
WOODSIDE BROADWAY
Kearny
NJMC 1-E Landfill
Richard W. DeKorte Park
Harmony Dispensary
Secaucus
Sam's Club
Meadowlands Exposition Center
Guttenberg
West New York
NEW DURHAM
Union City
Weehawken
Intrepid Sea, Air & Space Museum
ShopRite of Kearny
Laurel Hill Park
Dunkin'
Croxton Intermodal Terminal
West Hudson Park
Walmart Supercenter
East Newark
Harrison Ave
Passaic River
Skyway Golf Course
Mana Contemporary
THE HEIGHTS
ShopRite of Hoboken
Hoboken
The High Line
NEW JERSEY NEW YORK
Whitney Museum of American Art
WEST VILLAGE
Target
Newport Green Park
NEWPORT
Raymond Blvd
Market St
Ferry St
Hackensack River
Secaucus Rd
Castle Rd
Manhattan Ave
Newark St
1st St
14th St
Google

Focus Area 8 Findings

ISSUES

- Congestion
- Pavement
- Truck Routes
- Equity
- Emissions
- Noise

Focus Area 8 Final Recommendations



Thank You!

Contact

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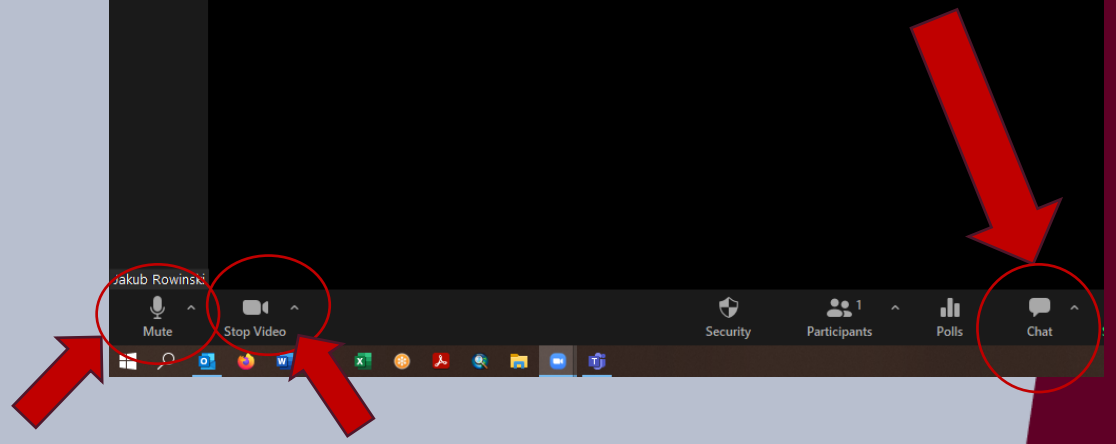
www.hcnj.us/trucking-study

June Freight Initiatives Committee

Please use the Chat box to ask questions during the presentations and if requesting credits, please post your name and email, followed by either AICP or PE with your NJ PE license number



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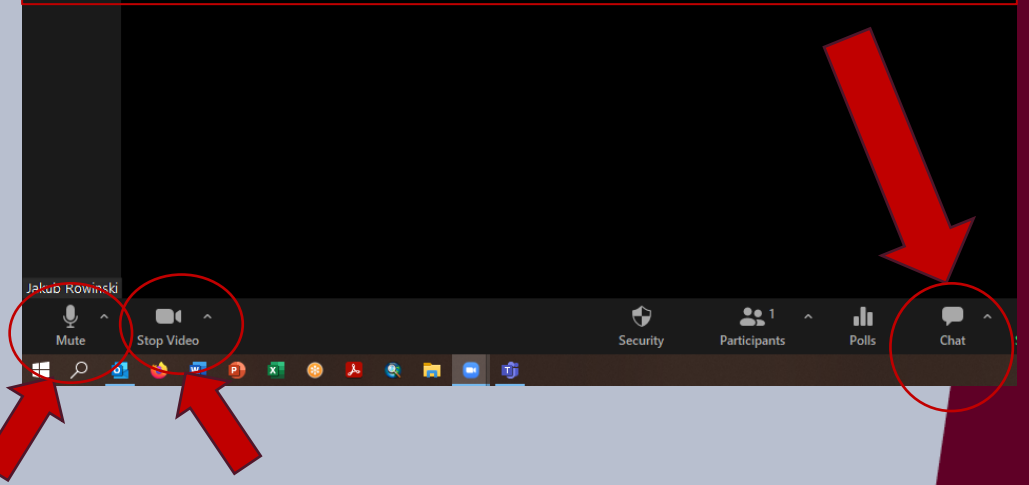
NJTPA

June 17 Freight Initiatives Committee Agenda

- Roll Call of Members
- Approval of Minutes
- Update on NJTPA Freight Division Activities
- Truck Routing and Curbside Management
- Two-Minute Reports on Freight Activities from Committee Members
- Next Meeting: Monday, August 19, 2024
- Adjournment

Please use the Chat box to ask questions during the presentations and if requesting credits, please post your name and email, followed by either AICP or PE with your NJ PE license number



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NJTPA