



NYC Pedestrian Mobility Plan

NYMTC Brown Bag Lunch Presentation 11/2/23

Thank you to NYMTC

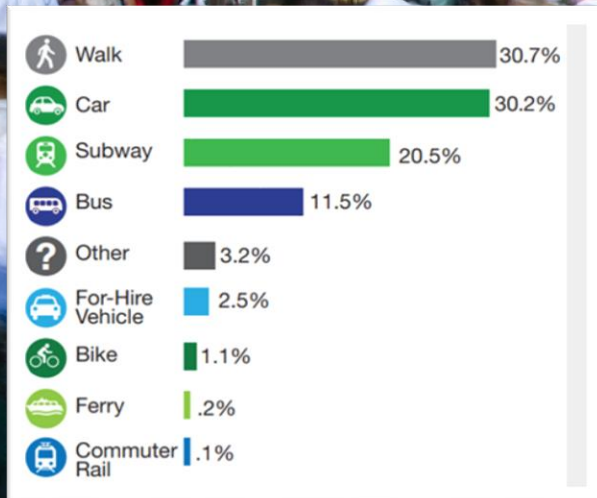
Thank you to NYMTC for funding the Pedestrian Mobility Plan over the last four years!



Why a Pedestrian Mobility Plan?

Walking is New York's Largest Mode

31% of trips are walking only,
and the start and end of every trip involves walking

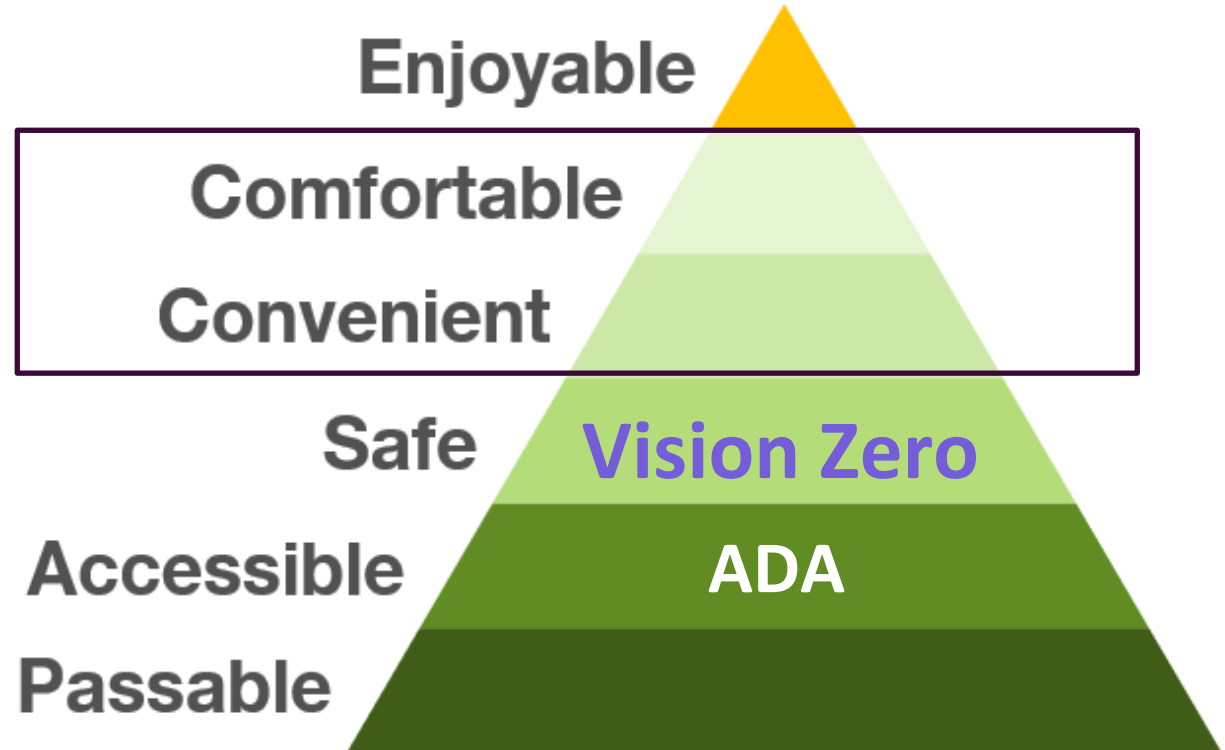


New York City Mobility Report, August 2019

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Pedestrian Hierarchy of Needs

- There are existing metrics for Vision Zero and ADA and a focus on public space
- The Pedestrian Plan aims to support walking as a mode share by developing metrics for pedestrian Comfort and Convenience
- This will lead to uniformity and design standards for pedestrian facilities



NYC Pedestrian Plan

- Aims to make **walking more desirable** and **increase walking mode share**
- **Categorizes streets** based on pedestrian generators; street categories have **corresponding design guidelines**
- Seeks to **develop projects** that increase pedestrian comfort and convenience, and **prioritize** projects based on safety, equity, and pedestrian demand

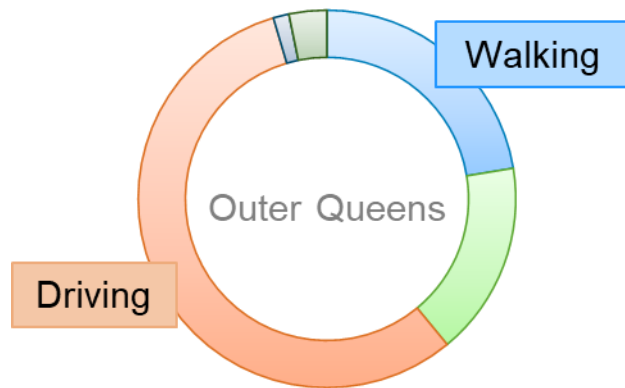


Flushing Ave

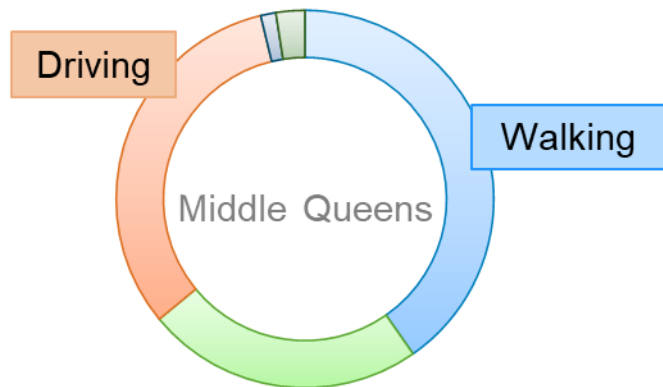
Mode Share and Barriers to Walking

Walking Mode Share

Mode share % varies greatly citywide
and is dependent on many factors

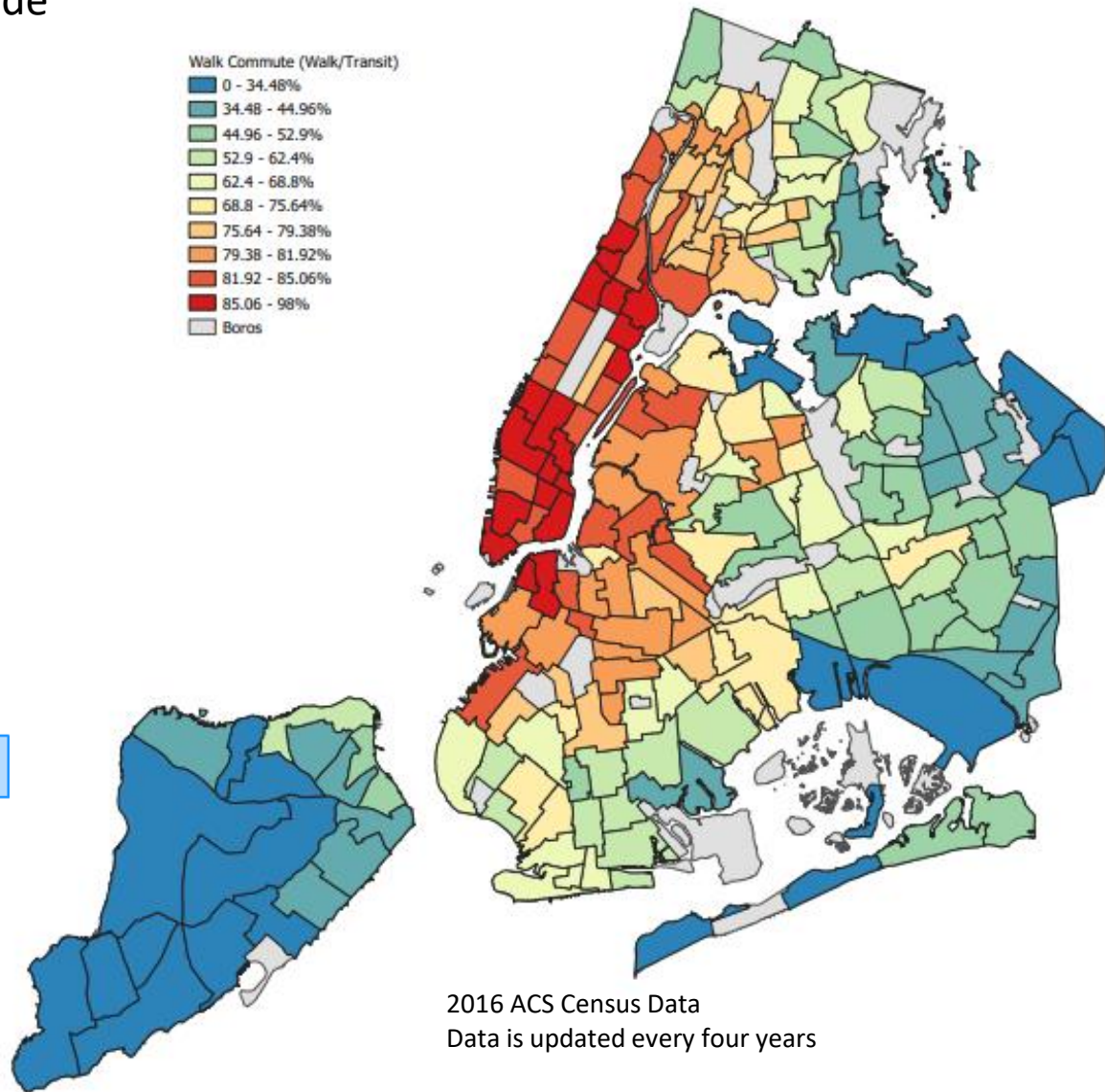
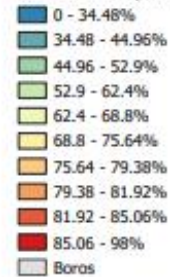


■ Walk ■ Transit ■ Private Vehicle ■ Bike ■ Other



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Walk Commute (Walk/Transit)



Tiers of Walking Needs

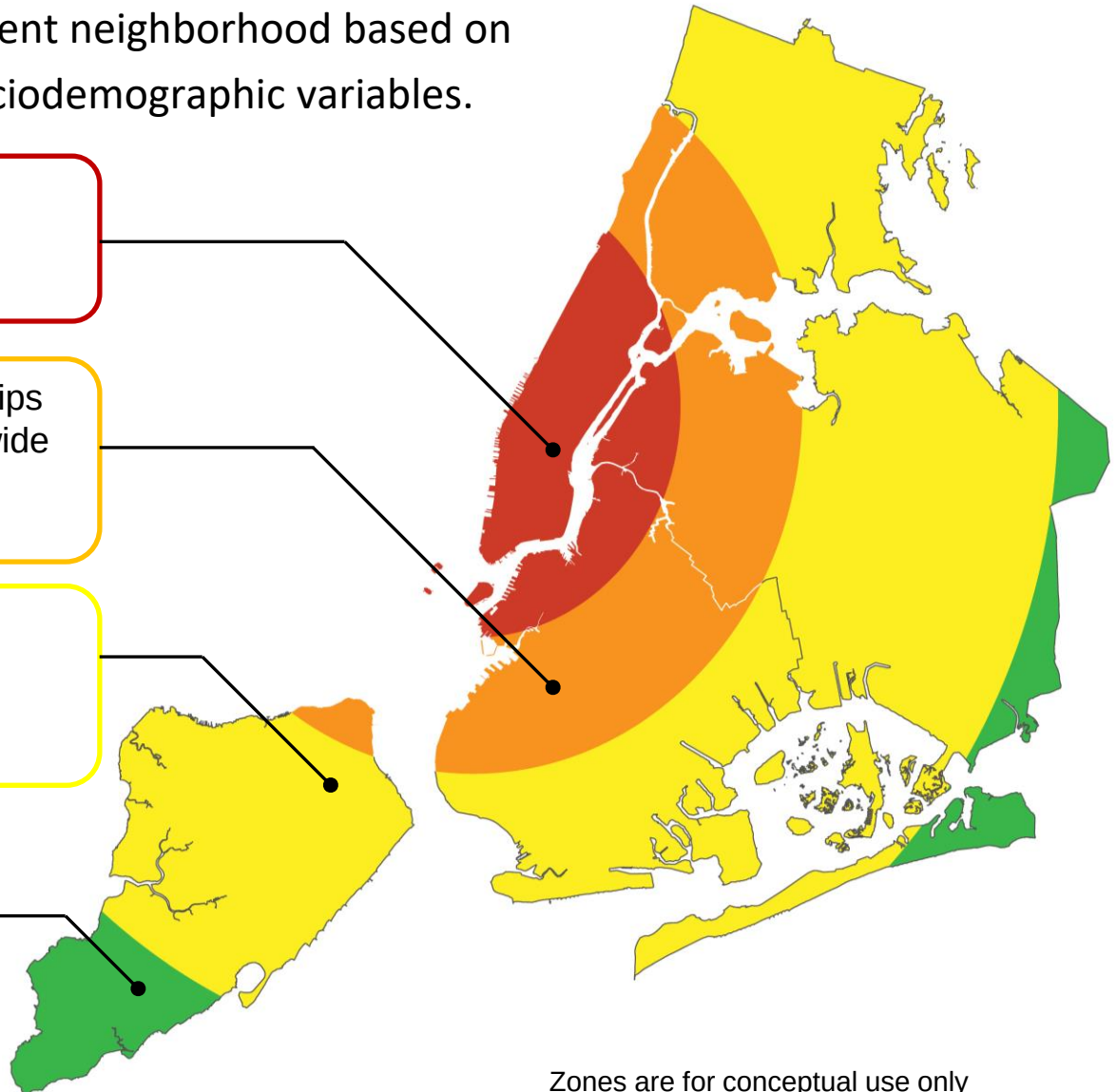
Different walking goals for different neighborhood based on rates, geographic factors and sociodemographic variables.

Reduce pedestrian congestion by ensuring the right of way allocations reflect the modal split of users

Increase the number of pedestrian trips taken in NYC in furtherance of city-wide health and emission reduction goals

Ensure pedestrian infrastructure is safe, comfortable and reflects the needs of our diverse NYC users

Guide the development of a fully built out pedestrian network



Zones are for conceptual use only

Physical Barriers to Walking

- The Ped Plan has mapped some barriers to walking; including missing sidewalks, sidewalks that lack adequate width, and lack of crossing
- The different barriers have a mix of physical and policy solutions

Missing sidewalks



Sidewalk with insufficient width



Sidewalks with adequate width but internal obstructions restrict movement



Lack of crossings on multi-lane streets

Project Solutions

New sidewalks



Expanded sidewalks in paint or concrete



Reconstruct sidewalk and remove obstructions



Added crossings



Pedestrian Demand Map

Pedestrian Facility Standards

- Long been **left out of modelling**, design requirements and planning
- Doesn't function like other modes where the point is almost solely getting from point A to B so it is more **difficult to analyze**
- The sidewalk **lacks the more stringent design and LOS requirements** enjoyed by other modes
- Through street categorization based on pedestrian demand, we can develop targeted design guidelines for our sidewalks



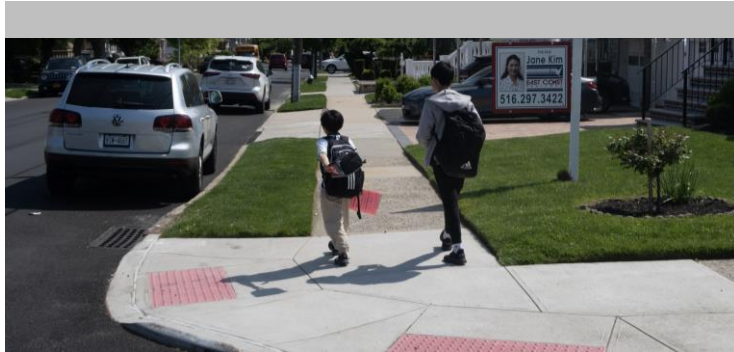
Sidewalks Have Many Uses

- Sidewalks function as more than just corridors for transportation
- In a dense, urban environment, our sidewalks are also meeting spaces, restaurants, storefronts, green space, or a place to people watch
- While these uses are part of what makes a city attractive, we want to make sure there is space for the movement of pedestrians
- In order to ensure that our sidewalks accommodate their most basic use of walking, we must first understand the pedestrian demand on different types of streets



Pedestrian Demand Map

Baseline



Community Connector



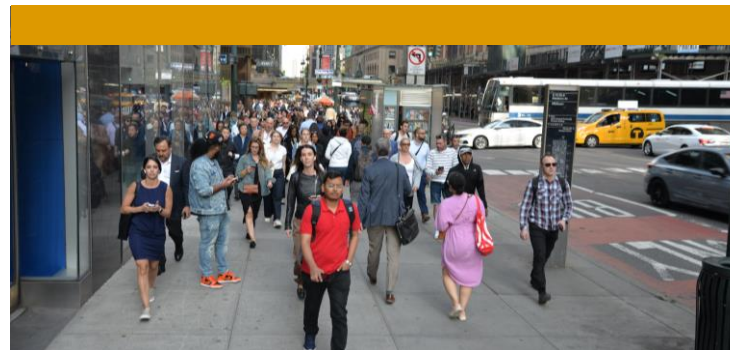
Neighborhood Corridor



Regional Corridor



Global Corridor



Pedestrian Demand Map

Global Corridor

- Corridors that meet multiple criteria in the Regional category

Regional Corridor

- High sq. ft. of office space per 100' (DCP)
- High sq. ft. of retail per 100' (DCP)
- High number of restaurants per 100' (DOHMH)
- High Ridership Subway Stations (MTA)

Neighborhood Corridor

- Medium sq. ft. of retail per street mile (DCP)
- Medium number of restaurants per street mile (DOHMH)
- High Enrollment Schools Frontages (DOE/DOT)
- Major Parks (DPR/DOT)
- Other Subway Stations (MTA)

Community Connector

- Remaining Restaurant and Retail Streets
- Remaining School Frontages (DOE/DOT)
- Minor Parks (DPR/DOT)
- Regional Rail (MNR, LIRR, SIRR)

Baseline

- All remaining streets

Office Classification

- Medium: 100K-500K sq. ft. of office per 100' of street
- High: 500K+ sq. ft. of office per 100' of street

Retail Classification

- Medium: 3,500-7,500 sq ft of retail per 100' of street
- High: 7,500+ sq ft of retail per 100' of street

Restaurant Classification

- Medium: 1-2.25 restaurants per 100' of street
- High: 2.25+ restaurants per 100' of street

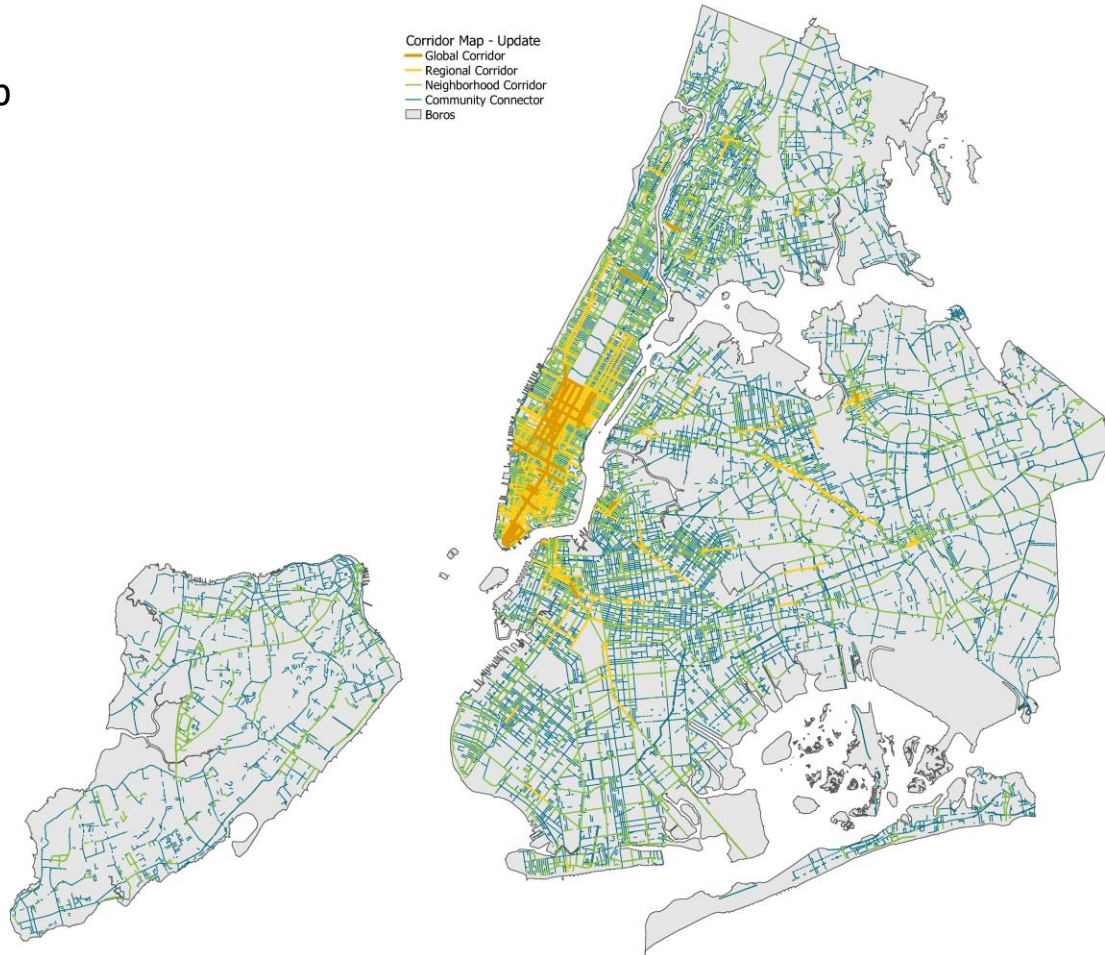
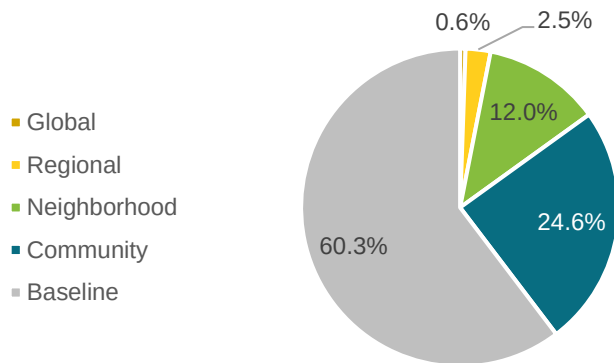


Corridor category designations in Downtown Brooklyn

Pedestrian Demand Map

- The majority of the city is comprised of baseline and community connectors
- The remaining 15% of the city is made up of Neighborhood, Regional, and Global Corridors
- The Pedestrian Corridors Category map informs a set of design guidelines

Citywide Rankings



Design Guidelines

Anatomy of a Sidewalk

Furnishing Zone: The section of the sidewalk between the curb and walk lane that does not accommodate pedestrian movement, in which amenities can be placed.

Walk Lane: The portion of the sidewalk that accommodates pedestrian movement. This includes a clear path and can also include appropriately spaced amenities that allow for pedestrian movement between them.

Clear Path: The portion of the walk lane that is free from amenities for uninterrupted pedestrian flow.

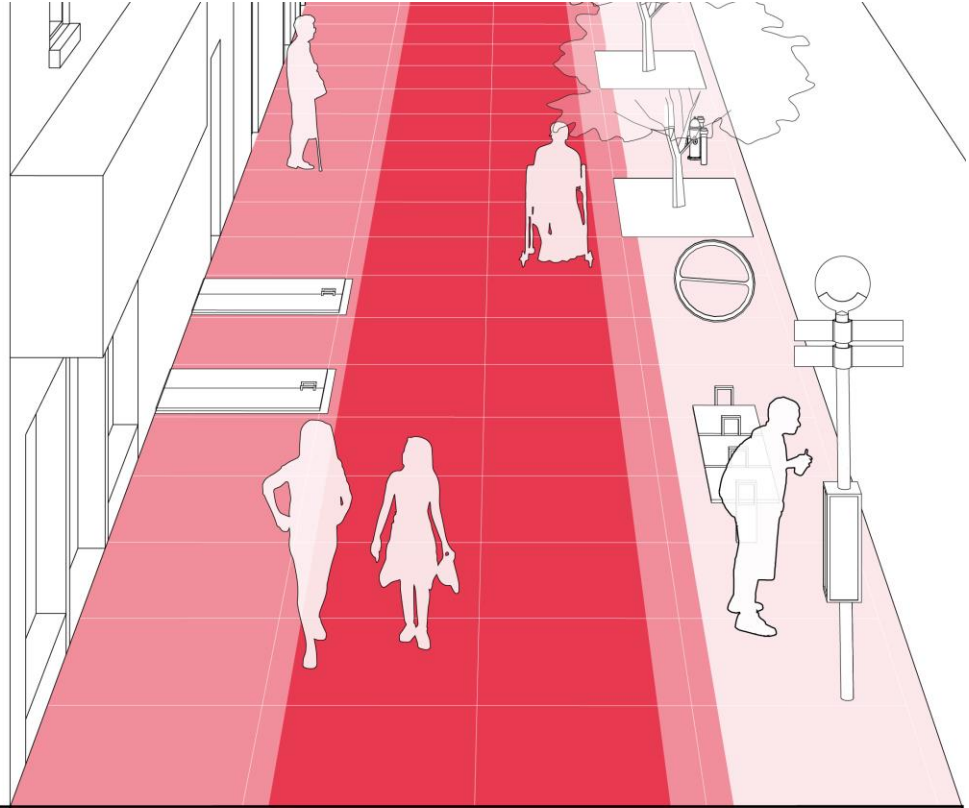
**Furnishing
Zone**

Clear Path

Walk Lane

Sidewalk Guidelines

The recommended width of the sidewalk varies by Corridor Category based on functional use



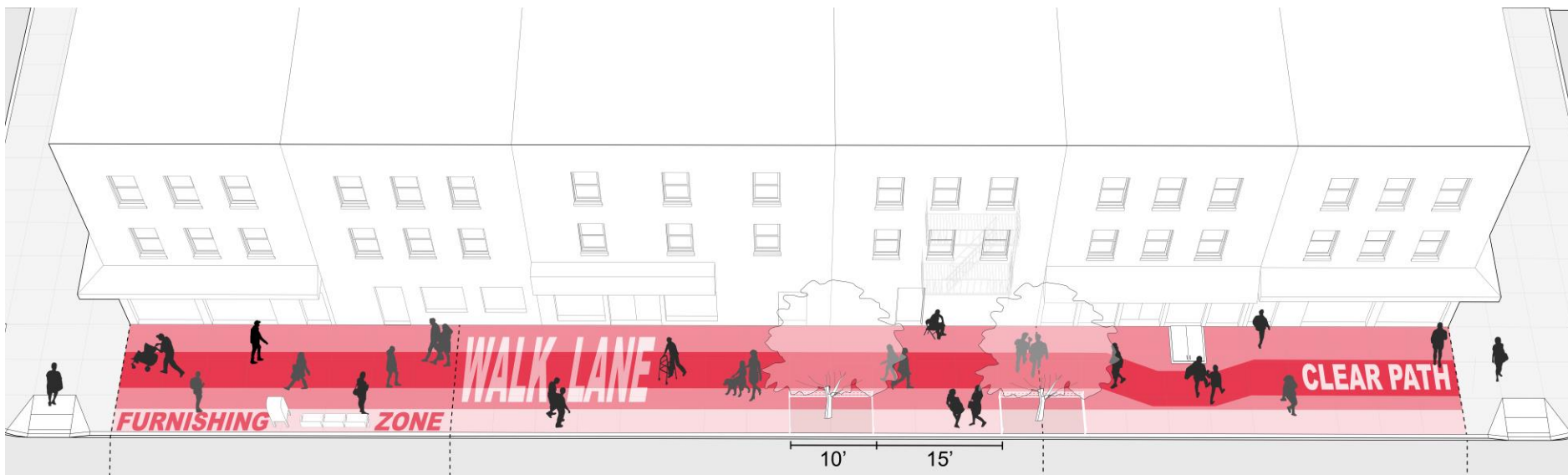
Corridor Category	Sidewalk Width	Walk Lane	Clear Path	Furnishing Zone
Baseline Street	8'+	5'	4'	3'
Community Connector	10'+	8'	5'	2'
Neighborhood Corridor	15'+	12'	8'	3'
Regional Corridor	20'+	15'	12'	5'
Global Corridor	25'+	20'	15'	5'

Amenities Zone

- Amenities enhance a streetscape and can enliven the pedestrian realm. However, they sometimes disrupt pedestrian movement.
- Since **walk lanes are where people are moving**, amenities can be present in this space but should be limited and spaced appropriately. Streetscape elements can be prioritized outside the walk lane.

The following guidelines ensure amenities in the walk lane do not obstruct pedestrian flow:

1. *Amenities are 10' or less long*
2. *Amenities are 15' or more from each other*



Infrastructure Mapping

Why more datasets?

Developing datasets related to pedestrian infrastructure can help guide the Pedestrian Unit workplan, but also alert internal units or external agencies to pedestrian priorities and potential design ideas.

Global Corridors

1% of NYC streets
are **Global Corridors**



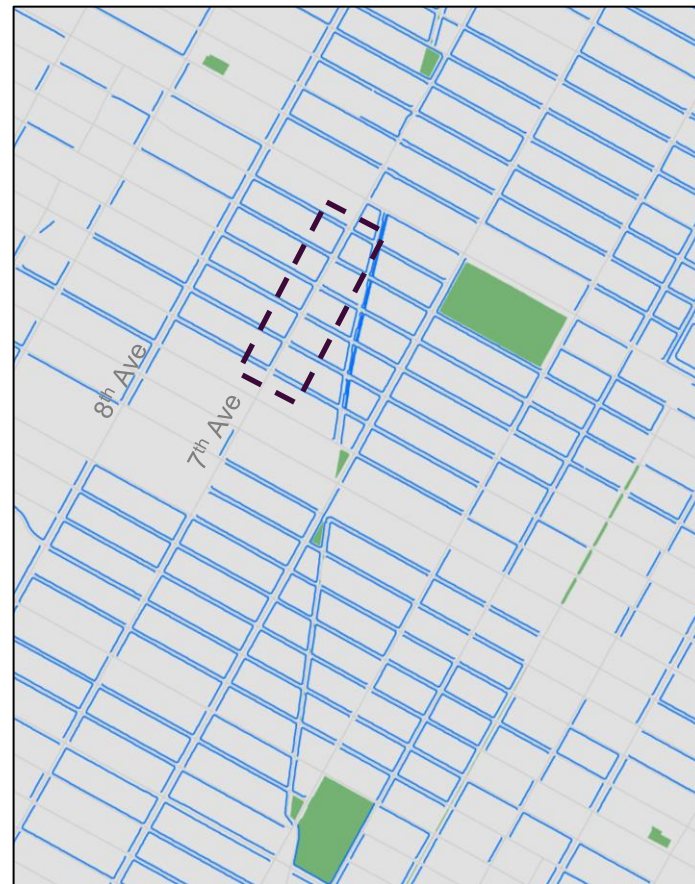
Pedestrian Demand Map Influence

The Pedestrian Demand Map and Design Guidelines can be used as a base for creating additional datasets.

- Narrow sidewalks based on the Pedestrian Mobility Plan Design Guidelines
- Curb extensions for extra standing space at corners



7th Avenue with painted sidewalk extension

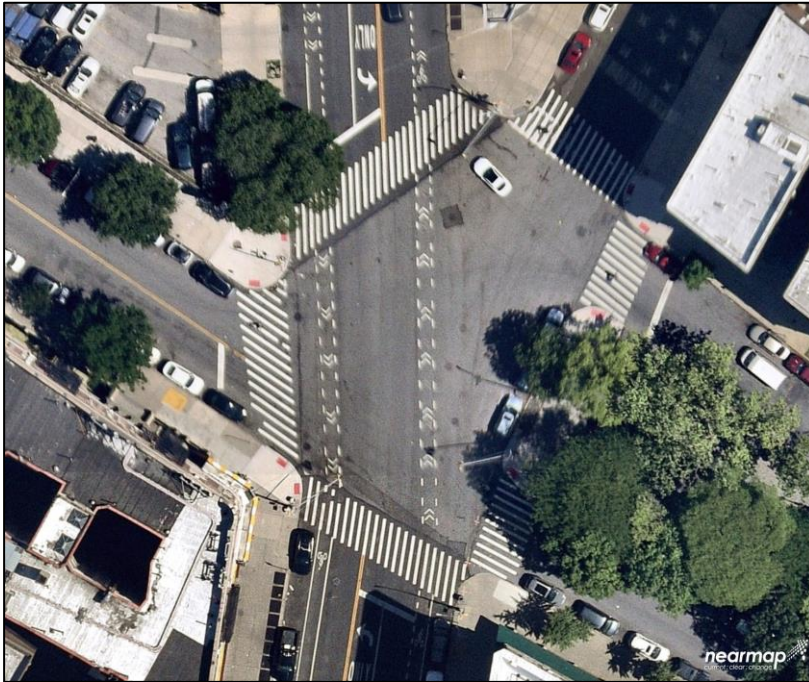


Map of narrow sidewalks based on design guidelines

Additional Datasets

Additional datasets we wanted to develop to understand where there are opportunities for improvement for pedestrian mobility

- Long crosswalk distances
- Missing sidewalks
- Complex Intersections (5 legged intersections)



Complex Intersection Before Photo

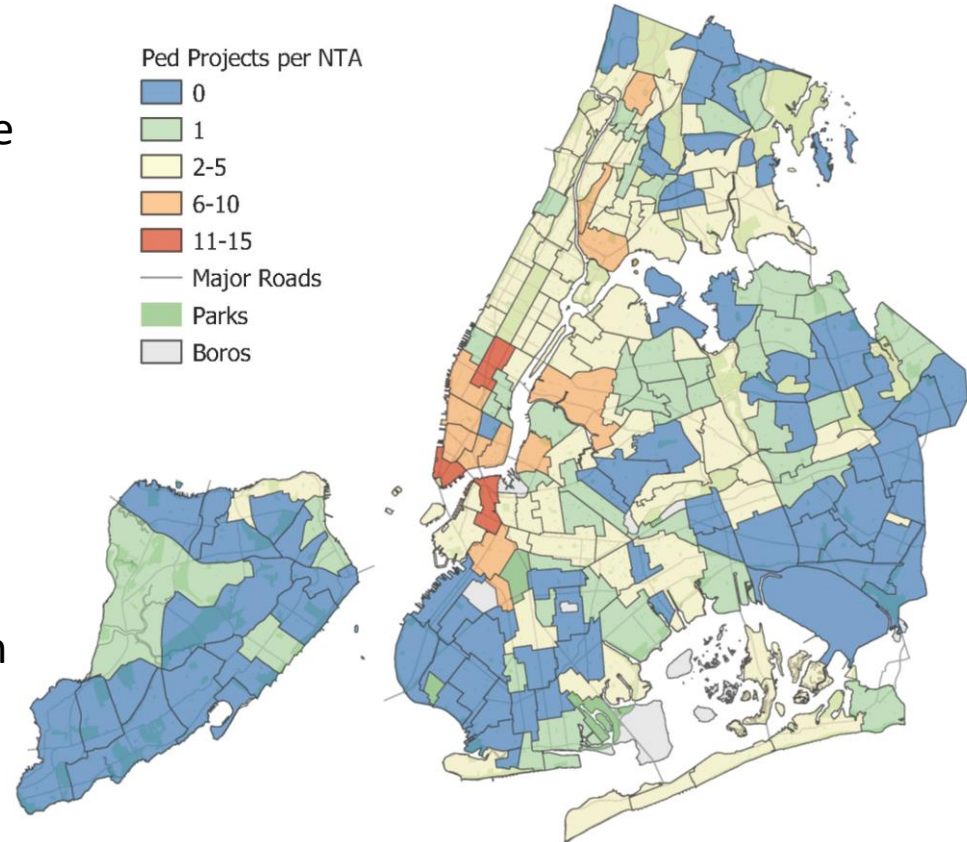


Complex Intersection After Photo

Project Identification

Historical Project Development

- The Pedestrian Unit project portfolio has traditionally been based on external requests rather than citywide comparative need
- Greatest source of external requests are ARTs cases; the Pedestrian Unit receives approximately 300 a year
- Developing a new approach could lead to more comprehensive planning for Pedestrian Unit projects and collaboration with other units and agencies
- Reach the Pedestrian Mobility Plan equity goal of creating a welcoming pedestrian network for all New Yorkers, while prioritizing communities that have been historically underserved by transportation infrastructure



Sources for Project Identification

There are four ways that the Pedestrian Unit identifies projects

Comprehensive Neighborhood Analysis

Project Scope Identified by Others

- Department of Environmental Protection watermain projects
- Other units work at DOT

Citywide Initiatives

- Department of City Planning Rezoning
- Mayoral Initiatives

Access to parks collaboration with Department of Parks and Recreation

- Sidewalk and crosswalks leading to park entrances
- Capital project coordination

Comprehensive Neighborhood Analysis

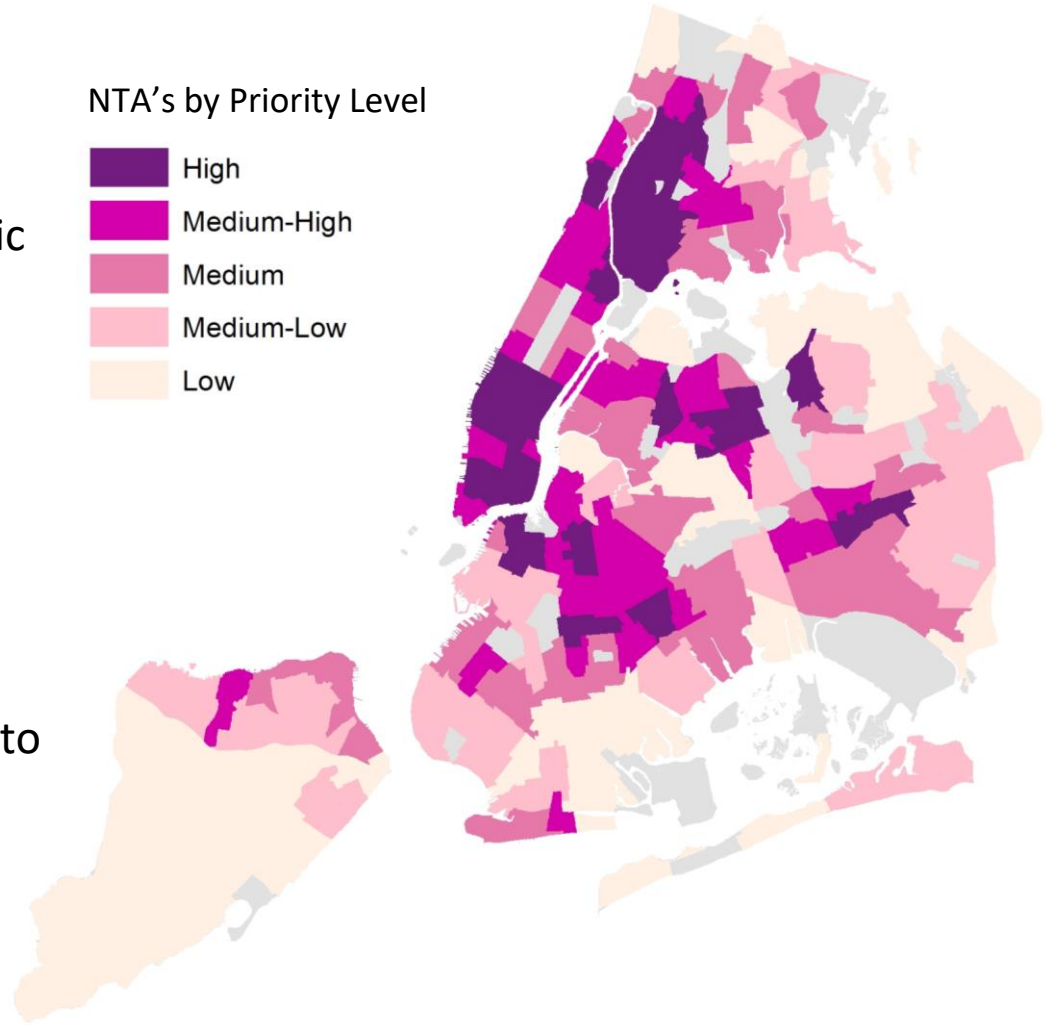
Analyze pedestrian and public realm opportunities at a larger scale.

City Planning has Neighborhood Tabulation Areas (NTAs) as a geographic boundary. Larger than census tract, smaller than community board.

Prioritize locations based on:

- NYC Streets Plan Equity Tiers
- Vision Zero Areas
- Auto-oriented Infrastructure (highway infrastructure and auto related land uses)
- Pedestrian Demand (neighborhood corridor or higher)

NTA's by Priority Level



Conclusion

A Unique Moment for Rethinking Pedestrian Needs

The Pandemic required a rethinking of how we use and manage our sidewalks, roadways, and public realm

The Climate Crisis, Black Lives Matter movement and Environmental Justice concerns frame how we prioritize upgrades to pedestrian Infrastructure.



34 Ave Open Street



Before Photo at Mosholu Parkway and Marion Avenue



After Photo at Mosholu Parkway and Marion Avenue

Pedestrian Mobility Plan Website

If you have any questions about the Pedestrian Mobility Plan, please contact Heidi Wolf at hwolf@dot.nyc.gov

Pedestrian Mobility Plan Website:

<https://www.nyc.gov/html/dot/html/pedestrians/pedestrian-mobility.shtml>

Pedestrian Mobility Plan Demand Map on NYC OpenData:

<https://data.cityofnewyork.us/Transportation/Pedestrian-Mobility-Plan-Pedestrian-Demand/fwpa-qxaf>

Thank you!



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