TRANSPORTATION DIVISION

Land Use Academy
January 2022

NYC PLANNING

Today's Learning Goals

- Understand the role of the Transportation Division
- Understand the technical skills of the Division
- Understand the Division's role in policy discussions
- Understand the benefits of the Division's involvement in neighborhood planning efforts
- Understand the Division's role in ULURP applications with transportation, parking, loading or internal street components

TD Planning Objectives

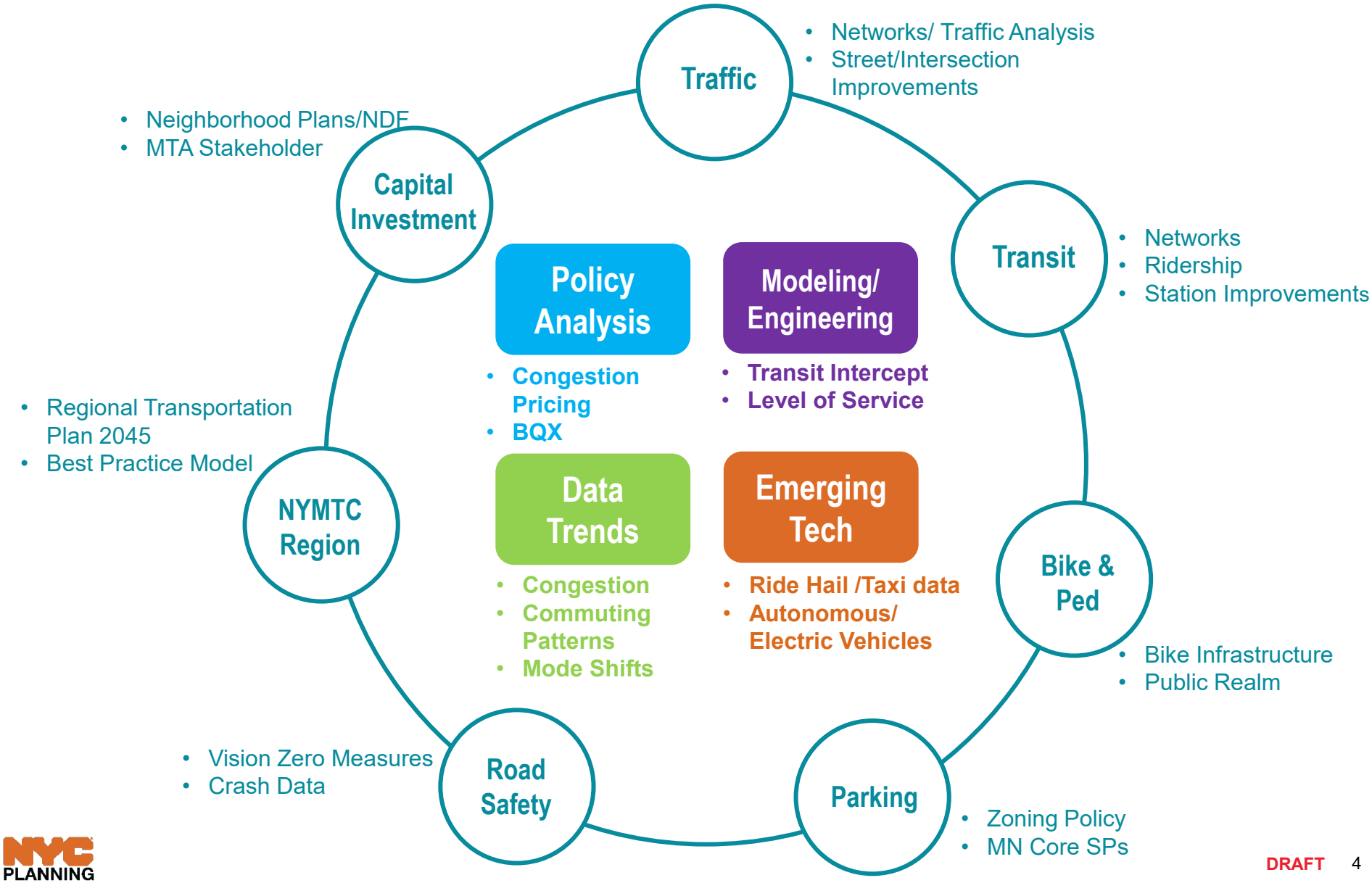
TD Transportation Planning Objectives

- Improve safety and efficiency of transportation networks
- Increase mobility of people and accessibility of places
- Enhance public realm
- Improve access to housing and jobs
- Analyze transportation impacts of environmental review
- Assist with site plans and technical requirements of ULURP
- Assist with parking requirements of zoning
- Improve integrity and usability of transportation planning data

Encompass all Aspects of Mobility

- Subway system (part of most people's commute)
- Bus network
- Regional rail
- Traffic congestion
- Traffic safety
- Pedestrian and bike infrastructure
- Taxis and app-based for-hire vehicles
- Emerging modes (bike-share, micromobility, e-vehicles, ferry)

Transportation Division Work Scope



Transportation Division Expertise and Activities

NYC Land Use Policy

- Provide technical support and expertise in the area of transportation for a specific site or at the neighborhood level

City and Regional Trends and Research

- Analyze transportation related datasets that can inform the decision-making process on policy issues and development density levels

Collaborative Projects

- Collaborate with other divisions and government agencies as DCP develops projects and proposals details

Transportation Division Expertise and Activities

NYC Land Use Policy

- Transportation impact analysis
- Technical analysis
- Rezonings
- Citywide and neighborhood studies
- Private applications
- Parking policy
- Freight policy
- Manhattan core parking special permits

Workflow for Transportation Studies

1. **Background research and meeting with DCP borough planner**
   - Determine if previous transportation studies or counts were done in study area
   - Understand DCP's goals for land use actions

2. **Data collection and maps to identify key locations**
   - Crash Locations
   - Transportation networks
   - Google Maps (real-time traffic, road configuration)
   - Major land uses (existing and proposed)
   - Future capital projects

3. **Field visit(s) to key locations and corridors**
   - Observe auto, pedestrian and bike behaviors at key locations
   - Visit study area at peak periods to determine where LOS counts should be done

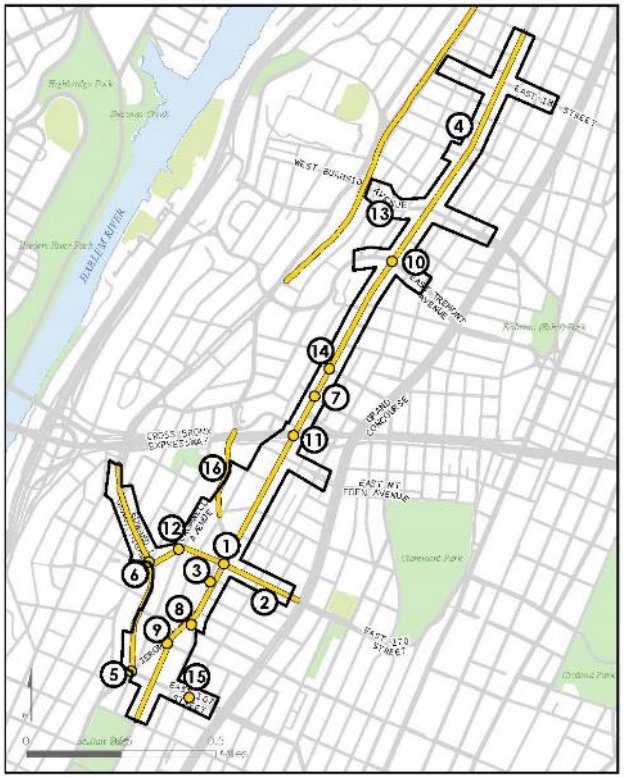
4. **Additional research (if needed)**
   - Conduct field work and traffic counts
   - Perform traffic modeling, simulation, and LOS analysis
   - Host charrette(s) for community input
   - Research CTPP Census Data

5. **Preliminary recommendations**
   - Identify key locations for roadway or network improvements
   - Meet as needed with DCP divisions, operating agencies, community to discuss recommendations

6. **Final recommendations**
   - Document final recommendations, including drawings for intersection improvements
   - Provide next steps

Neighborhood Study: Jerome Avenue Rezoning

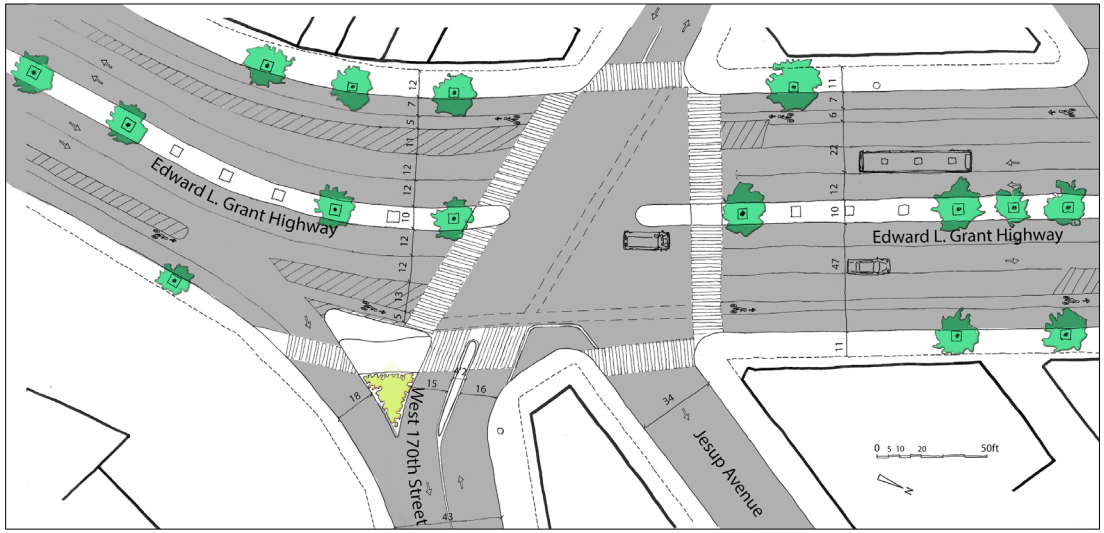
Transportation study areas of focus:



- Complementary to the neighborhood study
- Emphasis on pedestrian environment
  - Traffic calming
  - Walkability
  - Plaza space
- “Under the El” treatments
- Work with irregular street geometry and hilly terrain

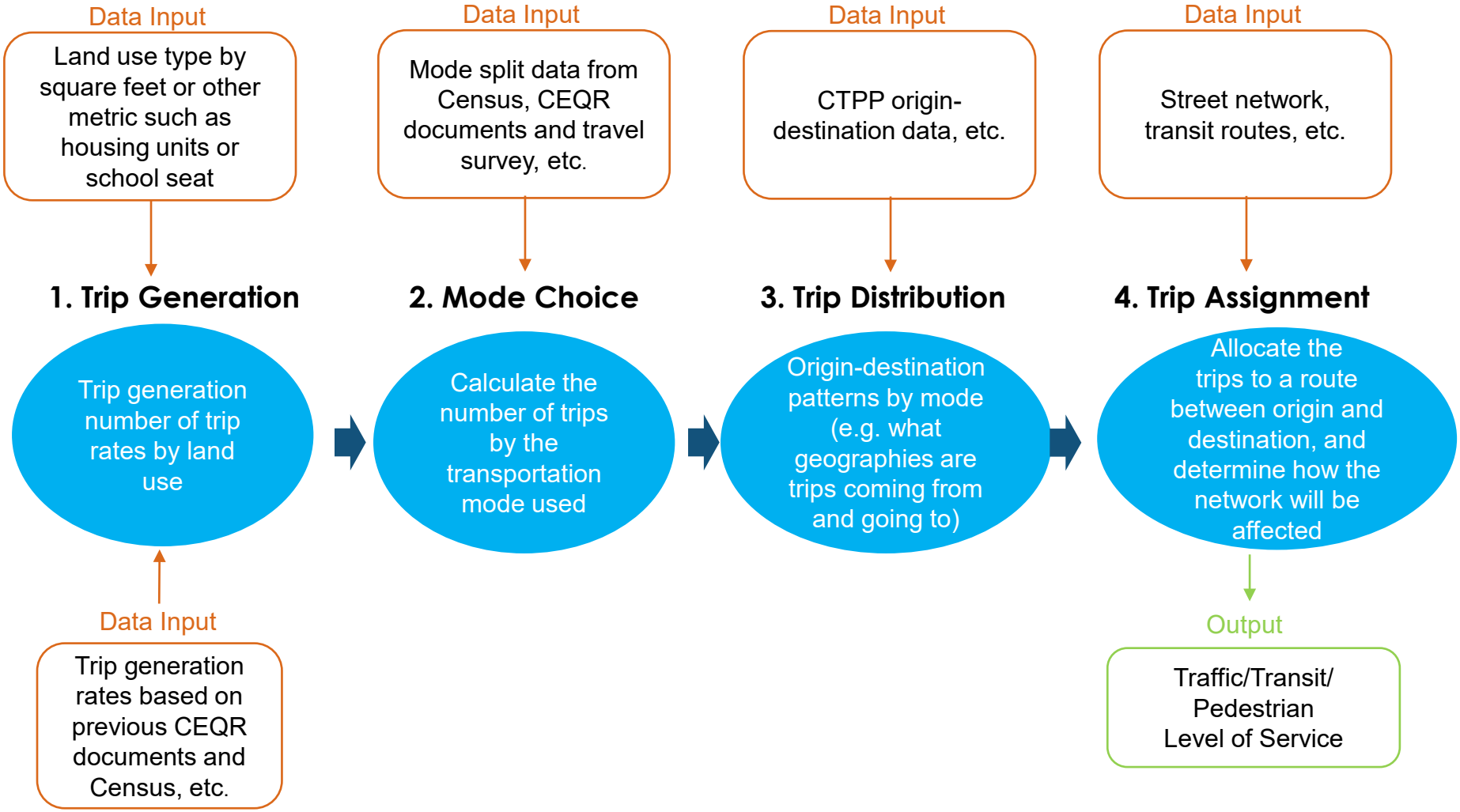
Neighborhood Study: Jerome Avenue Rezoning

- Pedestrian safety measures and amenities added
- Bike route converted to a parking-protected lane.



Transportation Analysis for New Development

4-Step Framework



Technical Analysis Examples

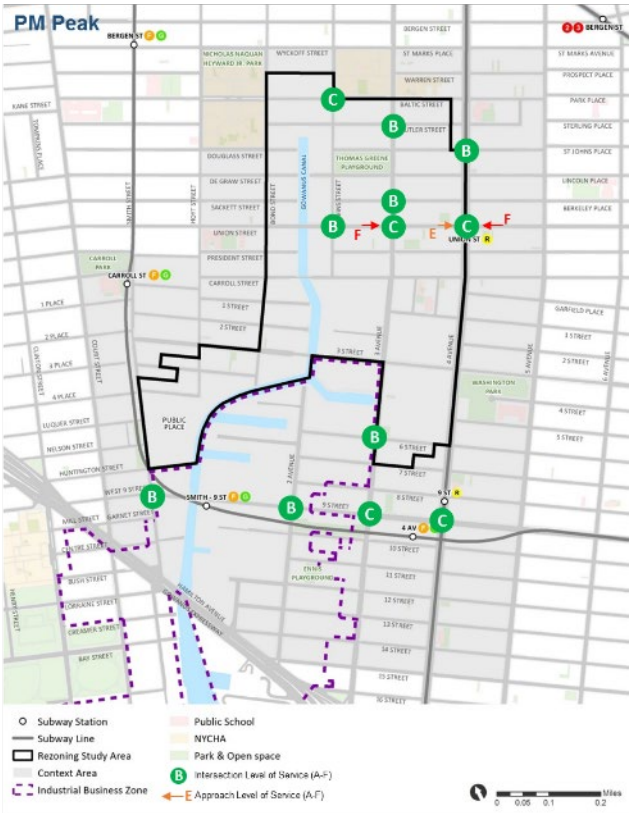
Traffic Engineering

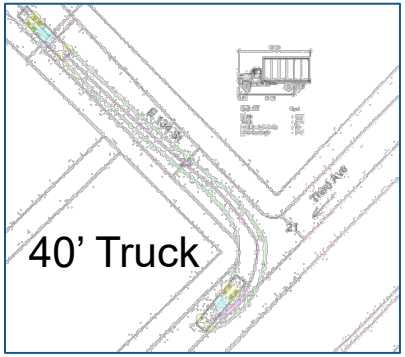
- We work with consultants to perform traffic counts
- Highway Capacity Software (HCS)
  - Level of service (LOS) analysis for individual intersections
- Synchro - traffic modeling and simulation
  - Assess the performance of a transportation system
  - Produce visual demonstrations of present and future scenarios.

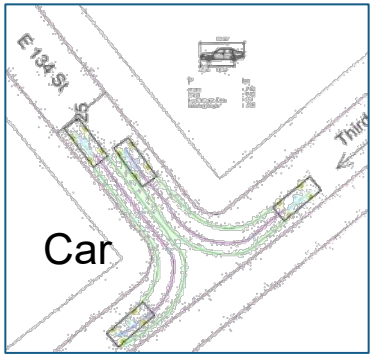
Transportation Engineering

- AutoCAD and AutoTURN to determine technical feasibility
- Review parking garage layouts and site planning
- Manhattan Core off-street parking special permits
- Pedestrian analysis
- Utilization for buses

Gowanus Intersection Level of Service Analysis







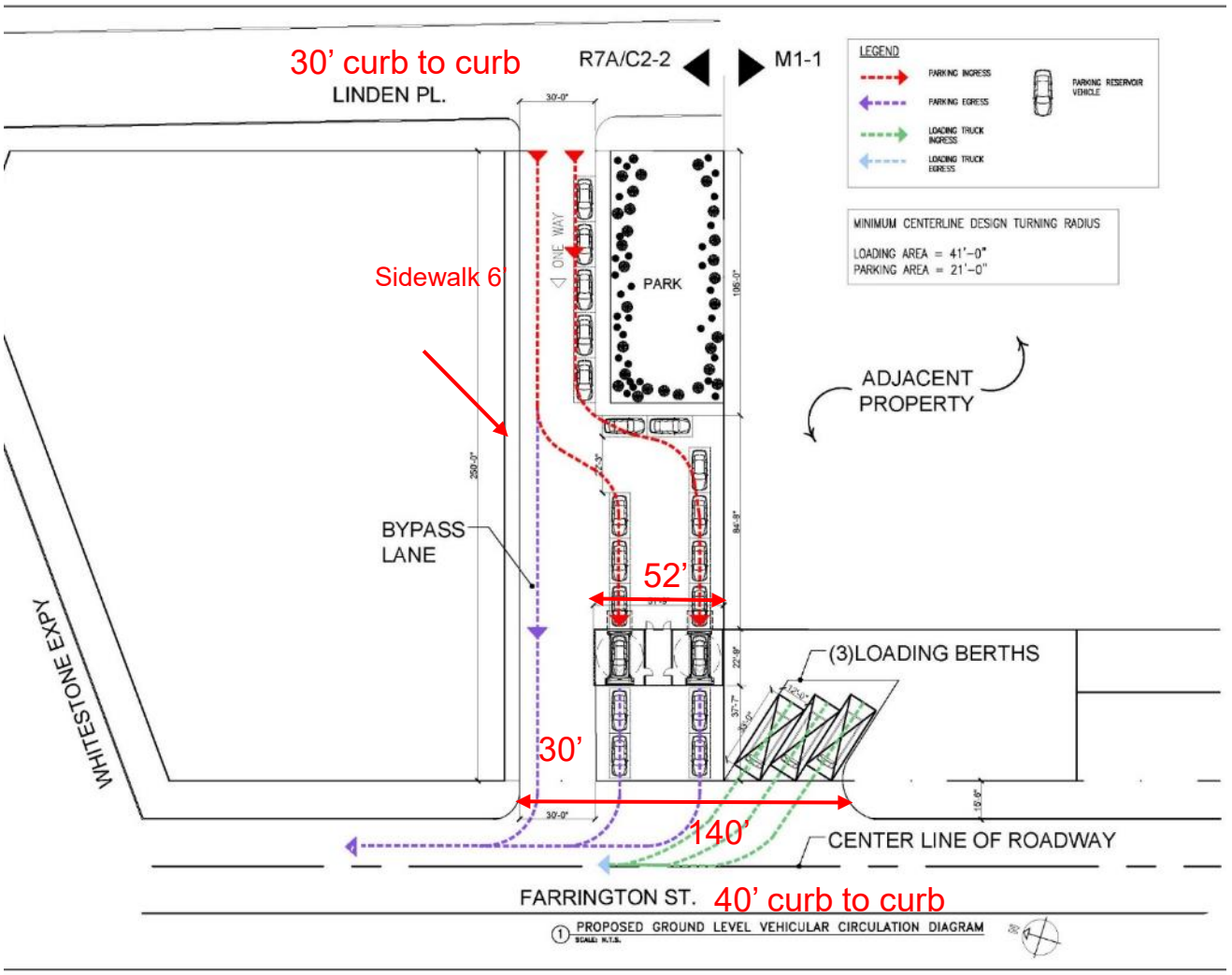
AutoTurn Analysis: 40’ Truck vs Car

Site Planning Example: Whitestone Lanes Automated Parking

Concerns and Questions:

1. Massive curb cut
   - ~140 ft. wide
   - Pedestrian safety concerns
- Purpose of the bypass lane?
- Potential to consolidate and condense the ingress and egress lanes?
- Potential to move the loading berths further south?

2. Truck loading
- When? How often?
- Potential conflicts with the traffic on Farrington?
- How does truck loading serve the two separate commercial uses?



Transportation Division Expertise and Activities

City and Regional Trends and Research

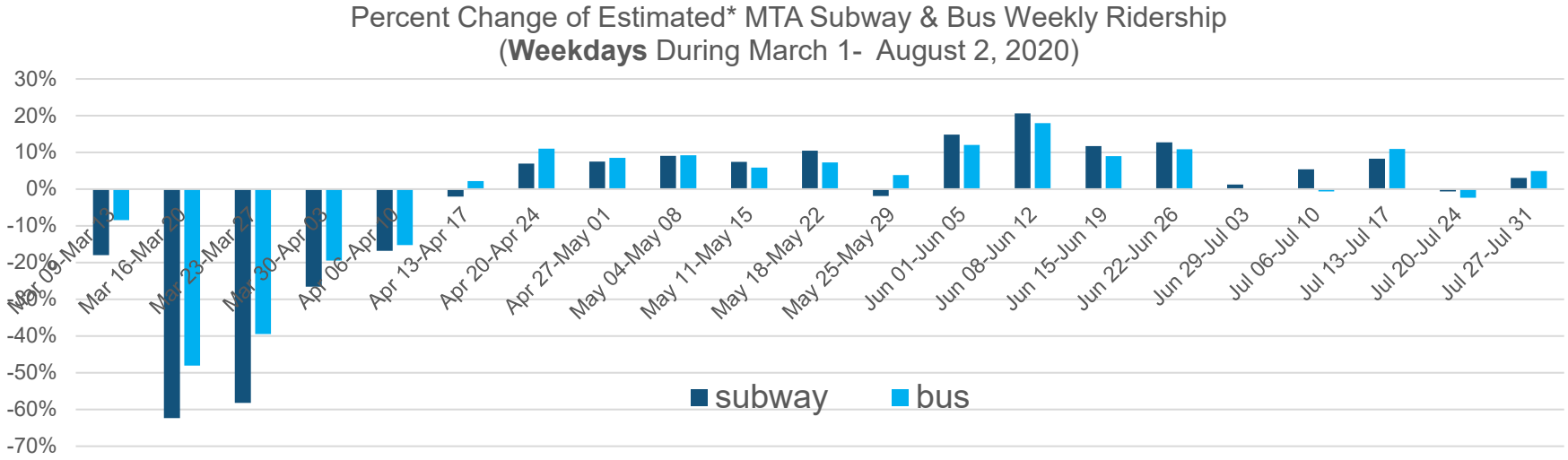
- Commuting patterns
- Transit accessibility
- Population trends
- Public transportation
- Roadway congestion and safety
- Bike, pedestrian, ferry studies
- App-based for-hire vehicles
- Autonomous, electric vehicles
- Micromobility
- Accessibility/ ADA studies

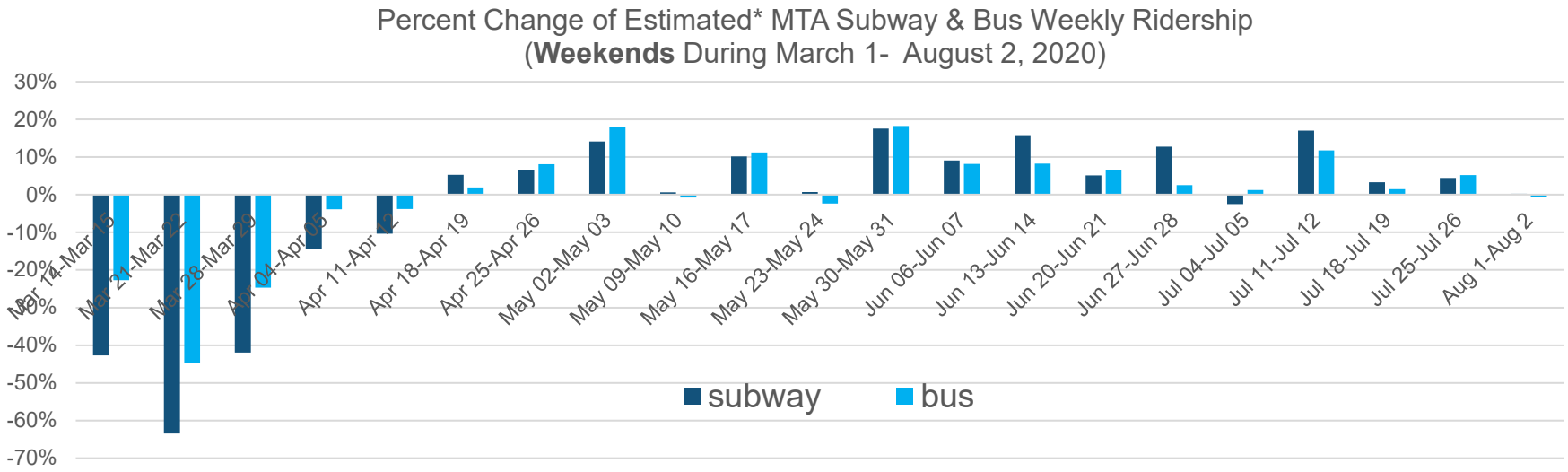
Dataset Stewardship

We collect, compile, update and process transportation-related datasets, and ensure that they are formatted for use by the rest of the agency.

Transit	Bike and Ped	Road Safety	Parking	Other
• Subway lines and stations • Bus routes and stops • Ridership by mode • Station ADA accessibility • Rail, PATH, AirTrain, Ferry, etc.	• Bike Routes • Bike racks • Citi Bike • Bike Counts • Pedestrian Counts • City bench locations	• Crash data • Vision Zero safety measures	• On street parking regulations • Off Street parking facilities	• Truck Routes • Wayfinding signage • Traffic Counts

Data Analysis: Covid Trends
MTA Subway & Bus System-wide Ridership Changes

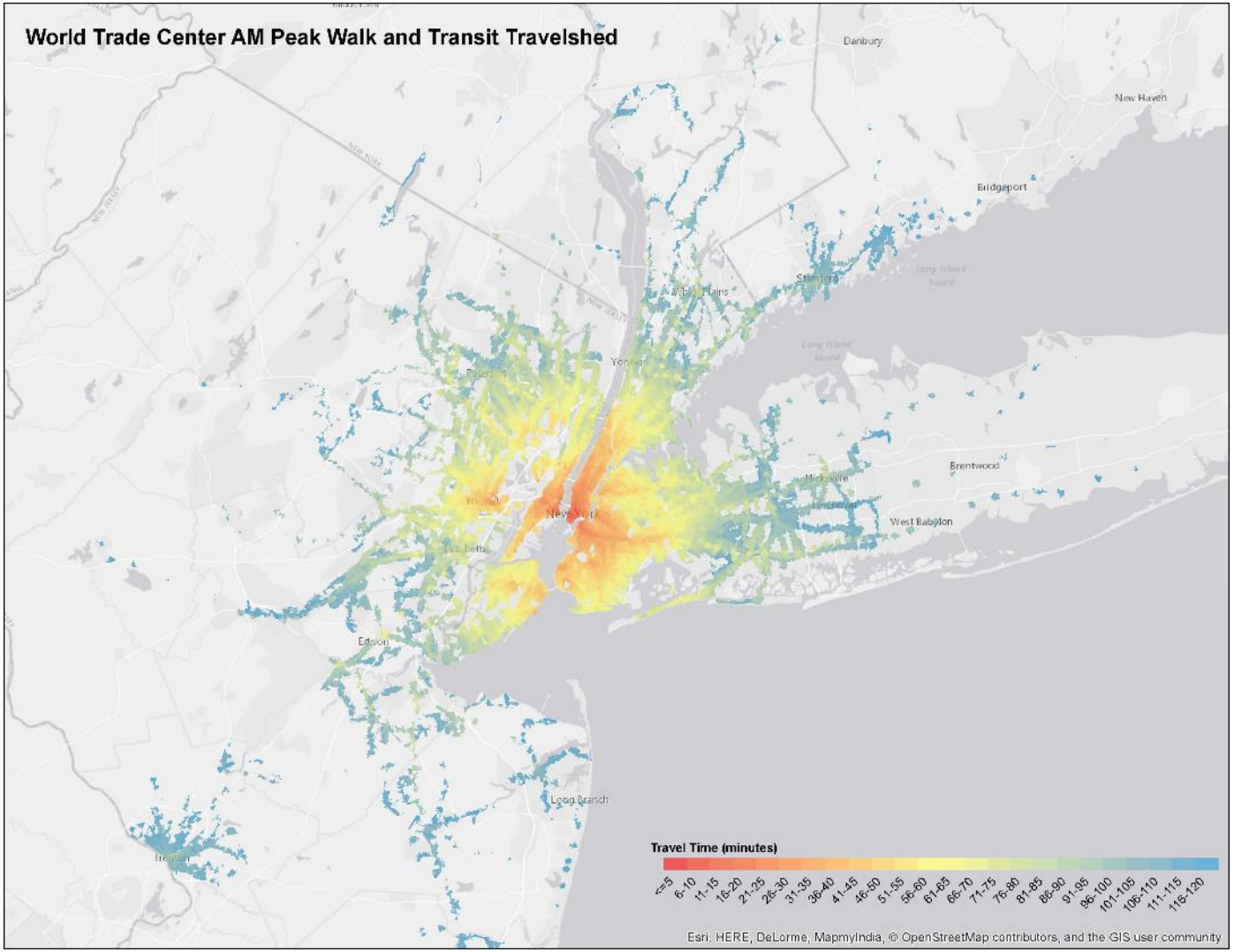




During the week of 7/27, weekday ridership for both subway and bus were up slightly, while weekend ridership was down.

*From the MTA: Current bus ridership figures are estimated from models that use MetroCard and OMNY swipes and taps and Automatic Passenger Counter data that is available on a portion of our bus fleet. These figures are indicative of ridership but not a precise count. Figures from recent days may be revised as reconciliation processes are carried out. Data sources: MTA (https://new.mta.info/coronavirus/ridership)

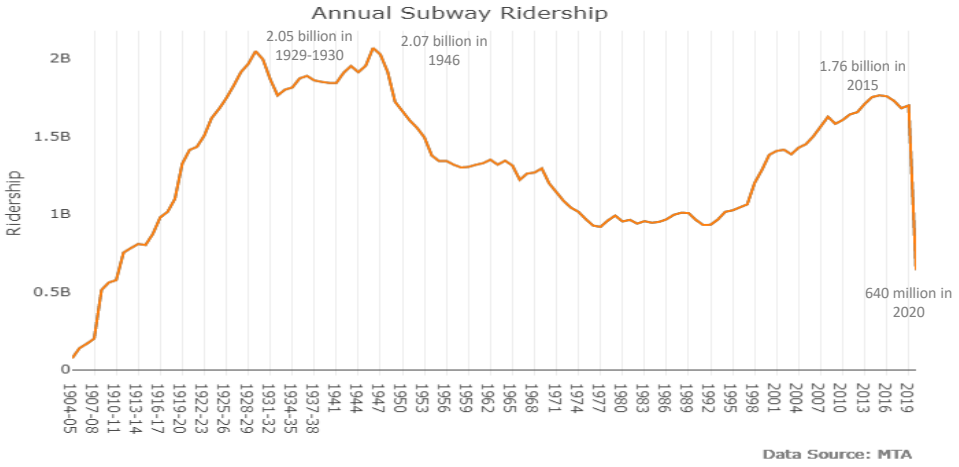
Data Analysis:
Regional Travel Shed – World Trade Center 2017

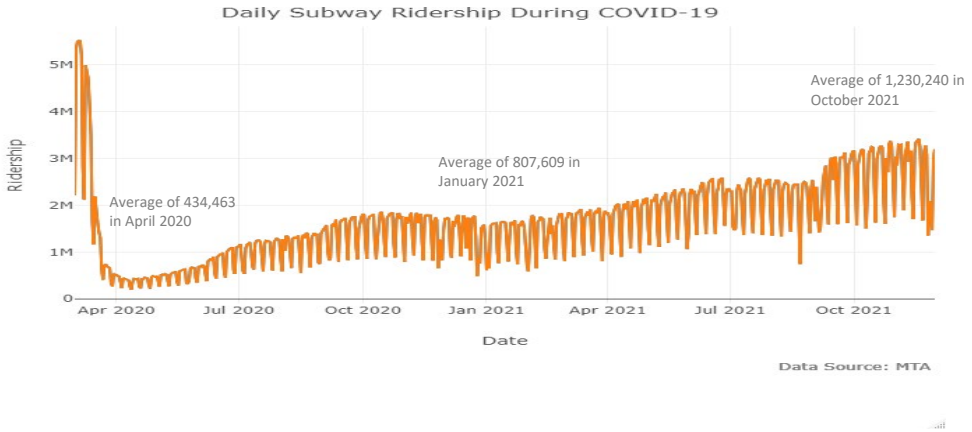


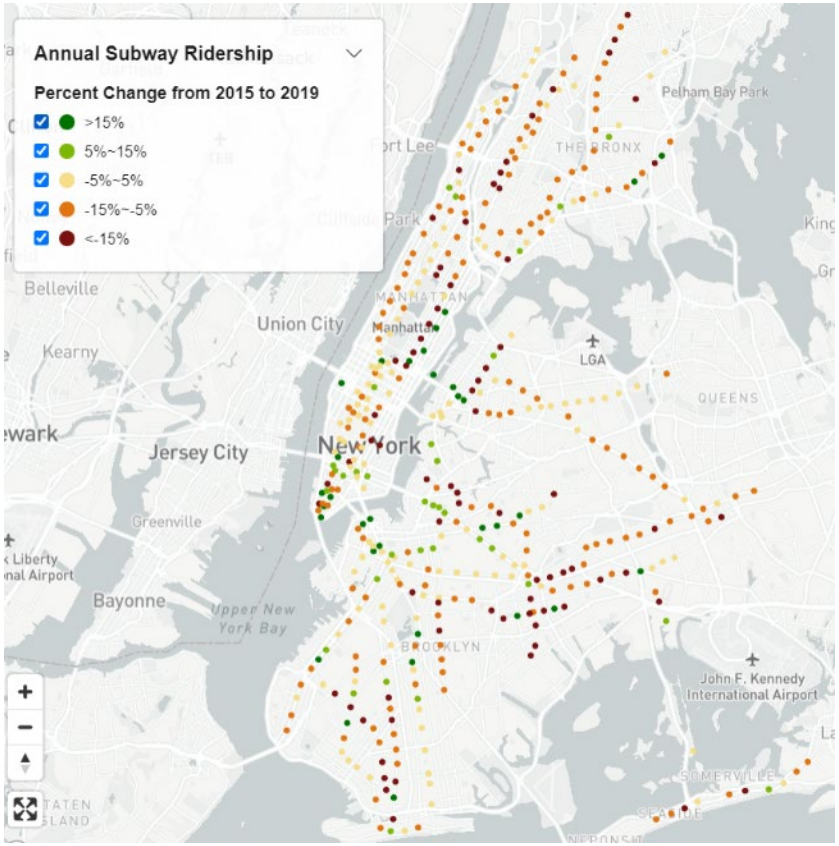
Transit Travelshed tool can be found at: [Transit Travelshed (nycplanning.github.io)]

Data Analysis: Subway Ridership Trends

- In 2015, subway ridership reached a historical high point. However, 2016 saw the first subway ridership dip since 2009.
- In 2020, due to the pandemic, the subway ridership went down dramatically to the level in 1910s



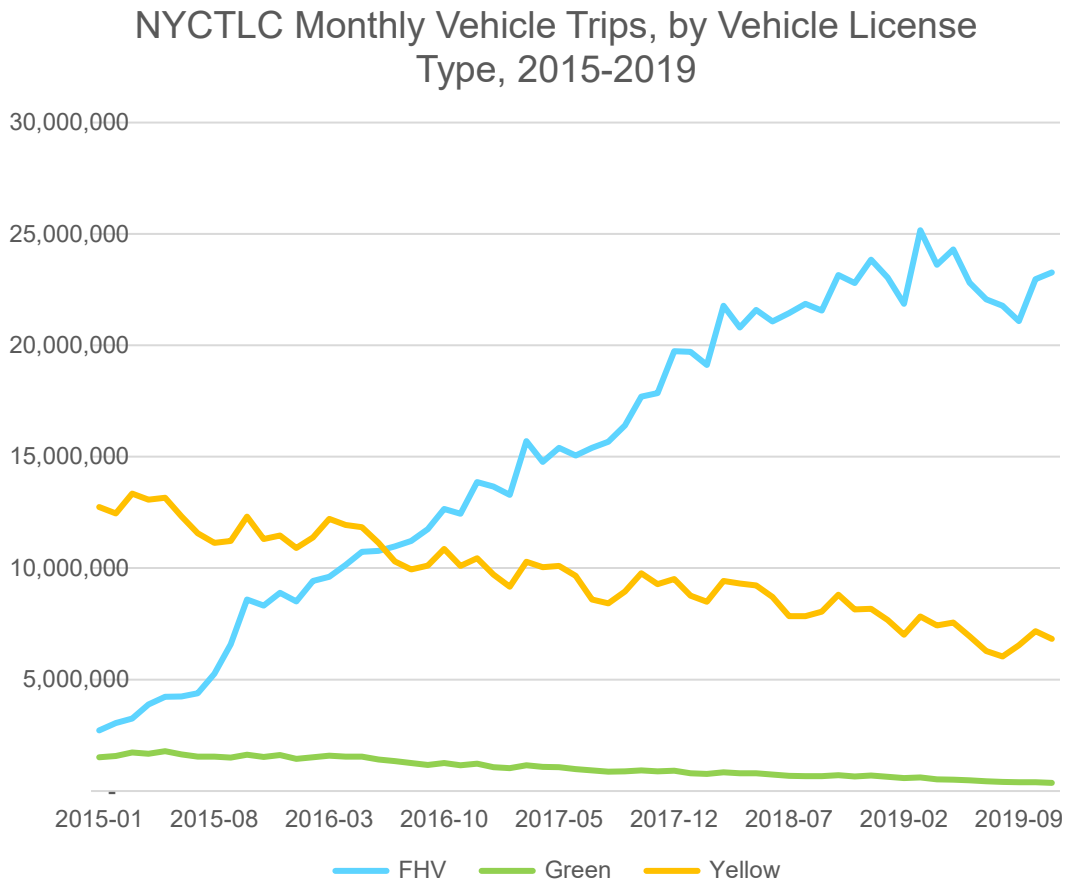




Data source: MTA and New York City Comptroller's "Beyond Rush Hour: COVID-19 and the Future for Public Transit: https://comptroller.nyc.gov/reports/beyond-rush-hour/

https://nycplanning.github.io/td-trends/subway/subway1519.html#10/40.7309/-73.9531

Data Analysis: Growth of App-based Ride Services



- In 2016, For-Hire Vehicle trips started to exceed Yellow taxi trips, and they continue to increase.
- In recent years, there has been an increase in shared (or "pooled") trips with services such as Uber Pool and Lyft Line which reduce the per-passenger cost of a trip.

Note: Trips do not equal ridership because they may be pooled

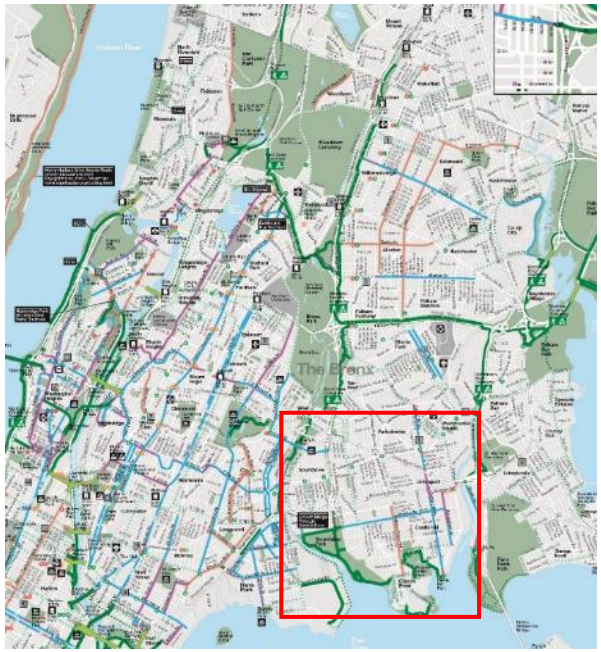
Source: NYCTLC

Ongoing Bike Projects

Increase access and bicycling as a mode of transportation

East Flatbush (Brooklyn)

Soundview (Bronx)



- Work with NYCDOT to expand the bicycle network in priority areas
- Perform initial site visits, suggest potential routes and lane configurations
- Typically work within Community Board boundaries
- Assist DOT with public outreach and route selection
- Final design done by DOT

Ongoing Micromobility Study

- Electric micromobility (e-bikes, e-scooters, electric cargo bikes, etc.) is gaining rapid adoption around the world and in New York City
- Small, lightweight modes that run on electric batteries at low speeds.
- Opportunities for
  - Congestion mitigation
  - Green house gas emissions mitigation
  - The creation of a more equitable transportation network by allowing for expansions in accessibility.

Transportation Division Expertise and Activities

Collaborative Projects within DCP

- Neighborhood plans and City-wide studies with Borough Offices
  - Embedded planners
    - Bronx: Yijun Ma
    - Brooklyn: Lise Dorestant
    - Manhattan: Conor Clarke
    - Queens: Abraham Abreu
    - Staten Island: Olga Olovyannikov
- Street design with Urban Design
- Travel shed studies with HED and population
- Strategic regional transportation planning projects with population, regional planning, borough offices
- Open Restaurant Text Amendment with regional planning and urban design
- ZFA (Zoning for Accessibility) with zoning

Transportation Division Expertise and Activities

Collaborative Projects outside of DCP

- Bike projects with CDOT
  - Neighborhood bike infrastructure planning studies
  - Last-mile bike mode-shift opportunities
- Mayor's jobs plan
  - Parking survey and freight research with CDOT
- Transit intercept research for Downtown Brooklyn and Long Island City with EDC
- NYMTC Committees including Safety and Best Practice Model (BPM)
- Serves as a consultant for NYMTC on the Regional Transportation Plan (RTP)
- Other interagency coordination: SDOT, MTA, DPR

Current and Future Research

- Ongoing Covid-19 travel trends and transit impacts
  - Story map of 2020 travel trends: https://storymaps.arcgis.com/stories/9ae470177d134f7fb42dac3ed61e37ad
- Employment and commuting patterns / relationship to established and emerging job centers / impacts of WHF on transit demand
- Car ownership patterns / relationship to parking policy and demographics
- Travel patterns for app-based ride services (Uber, Lyft)/ including “last-mile” mode shift opportunities; “pooled ride” trends; and relationship to subway ridership decline
- New technologies- autonomous cars, electric vehicles
- Changes in patterns of freight, loading, and movement of goods due to increase in e-commerce and Covid
- Establish framework to discuss the “15-minute/60-minute city” concept

How to Reach Us

Neighborhood Planning Studies and Site-specific Research

- Set up a meeting with us early on in the planning process (contact Jack Schmidt or Laura Smith).

Quick Response and Data

- For information on past studies we have done, contact Jack Schmidt.
- For transportation data, contact Karen Johnson.
- For traffic engineering issues, contact Olga Olovyannikov.

Transportation Division Contacts

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