

PROPOSED TIER 1 TAZ SYSTEM

2010 NYBPM and TH-TDFM Updates

Zone Systems in BPM

- Three developed systems
- Tier 0 / NYMTC NYBPM 2005:
 - Total zones = 3697; Internal zones = 3586;
 - External zones = 111; Special Generators = 4(NY) + 7(NJ)
- Tier 1 / TH-TDFM:
 - Total zones = 3924; Internal zones = 3813
 - External zones = 111; Special Generators = 4(NY) + 7(NJ)
- Tier 2 / (?):
 - Total zones = 3629; Internal zones = 4518
 - External zones = 111; Special Generators = 4(NY) + 7(NJ)

Special Generators

New York

- South Brooklyn Marine Terminal
- Red Hook Marine Terminal
- JFK Airport
- Stewart Airport
- Howland Hook

New Jersey

- Newark Airport (1 + 1added)
- Port Elizabeth
- Port Newark
- Port Jersey (added)
- MOTBY (added)

added "Park and Ride":

- Vince Lombardi PNR
- North Bergen PNR

Latest inputs for updating the BPM Zone System:

- Comments from PANYNJ
 - NJ zones should be built from NJTPA zones or their aggregations
 - In some parts of Newark, NYBPM zones are smaller than NJTPA – they should be aggregated to match NJTPA zones
 - In Outer-NJ area, keep NJTPA details near transit stations and aggregate away from transit stations
- 2010 Census Tracts definitions
 - TAZ in NY area are currently based on the 2000 Census tract boundaries
 - 2010 vs. 2000 Census Tracts

Finalize Tier 1 Zone System for both TH-TDFM and NYBPM 2010 Model Updates

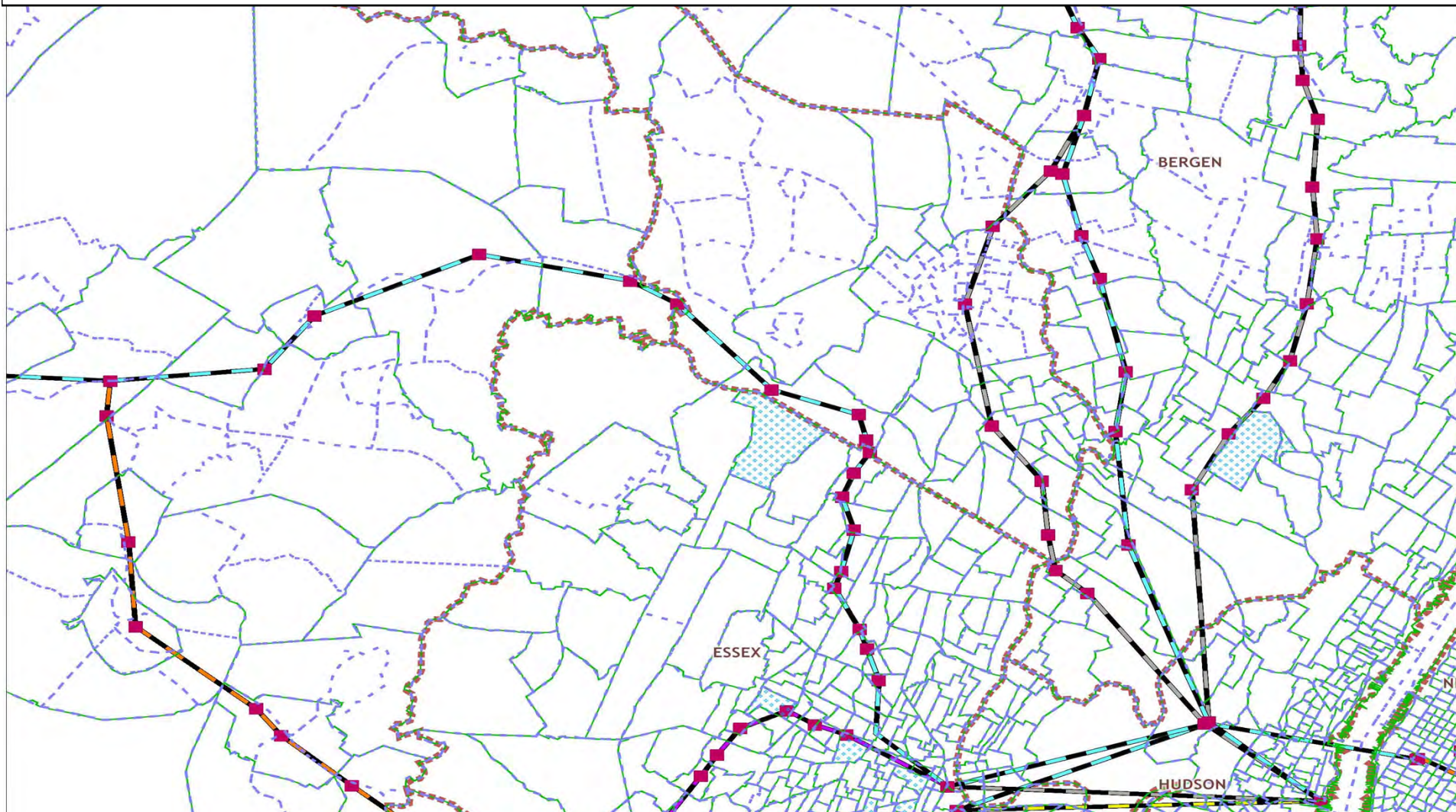
- I. Review NYBPM Tier1 Zone system in New Jersey
 - Review TAZ borders of NYBPM vs. NJTPA in NJ area
 - Review TAZ size of NYBPM vs. NJTPA in NJ area
 - Aggregated NYBPM TAZ in NJ Prime and Outer areas
- II. Review NYBPM Tier 1 Zone system in New York
 - Review 2010 vs. 2000 Census Tracts in NY area
 - NYBPM Tier 1 TAZ vs. 2000 Census Tracts in NY area
- III. Review NYBPM Tier 1 Zone system in Manhattan
 - Evaluate and select TAZ zones for split in Manhattan
 - Recommendations on split existing TAZ in Manhattan

Finalize Tier 1 Zone System for both TH-TDFM and NYBPM 2010 Model Updates

I.

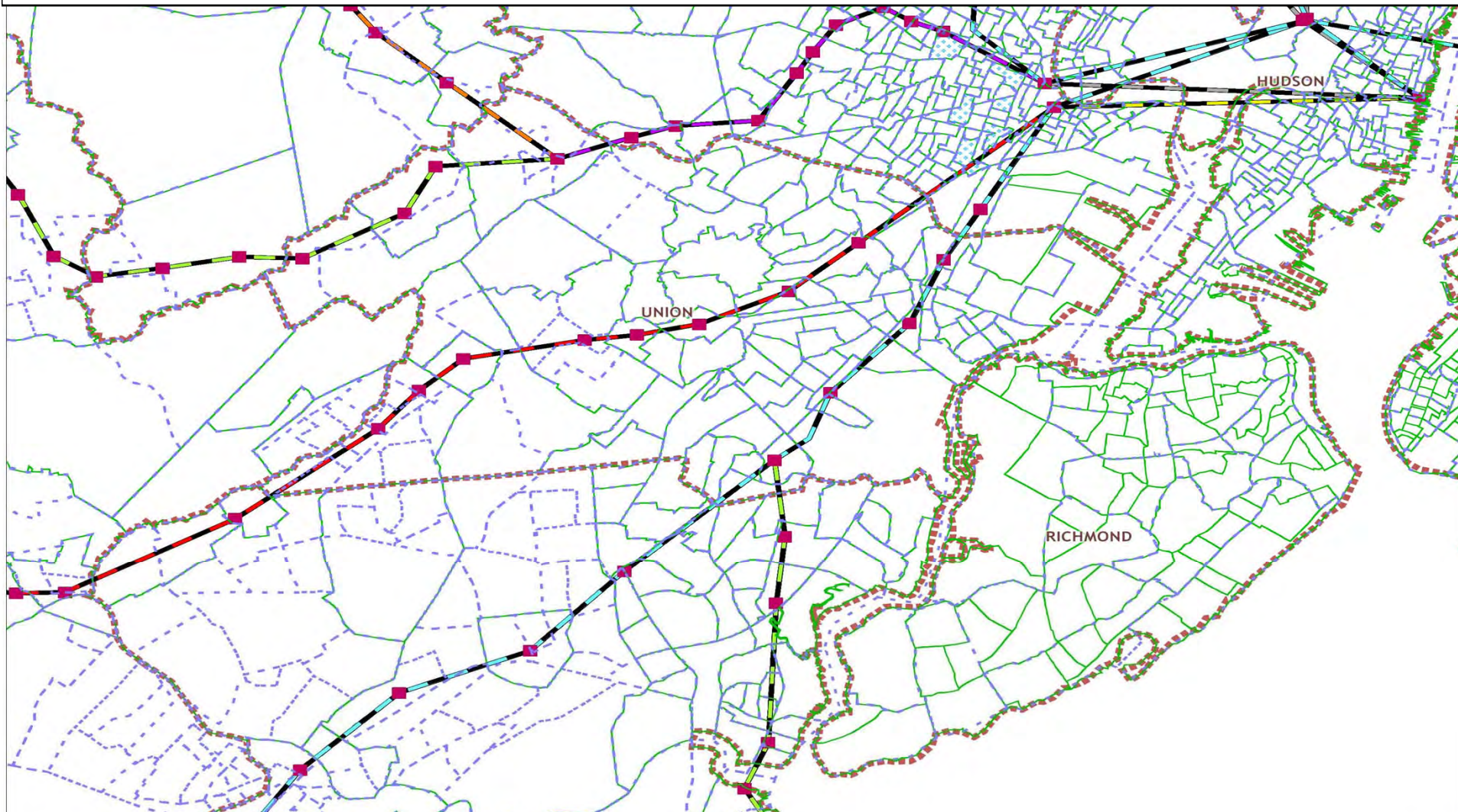
- Review NYBPM Tier1 Zone system in New Jersey
 - Review TAZ borders of NYBPM vs. NJTPA in NJ area
 - Review TAZ size of NYBPM vs. NJTPA in NJ area
 - Aggregated NYBPM TAZ in NJ Prime and Outer areas

Commuter Rail



TAZ: Tier 1 (Solid Green) & NJTPA (Dashed Violet)

Commuter Rail

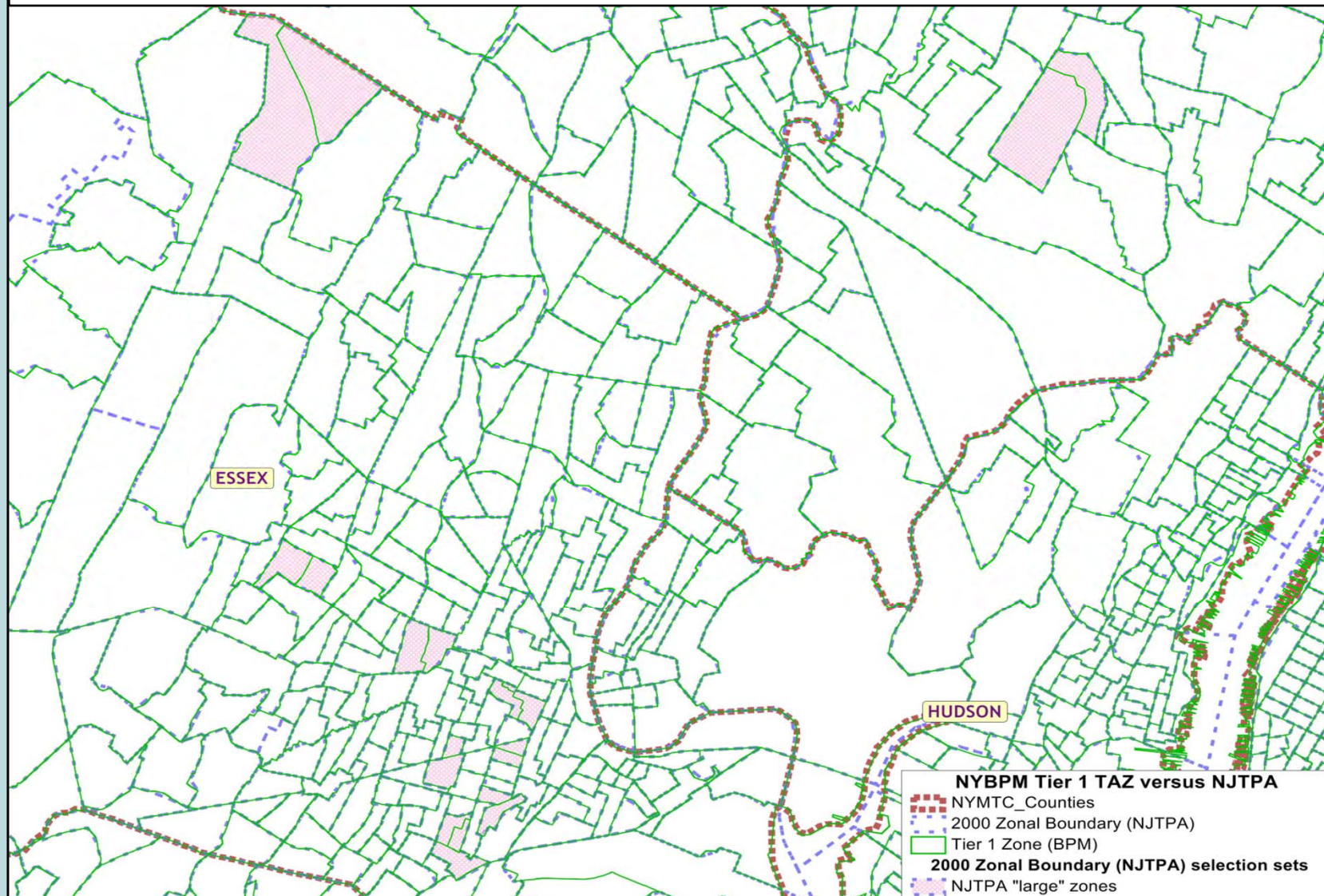


TAZ: Tier 1 (Solid Green) & NJTPA (Dashed Violet)

Latest inputs for updating the BPM Zone System:

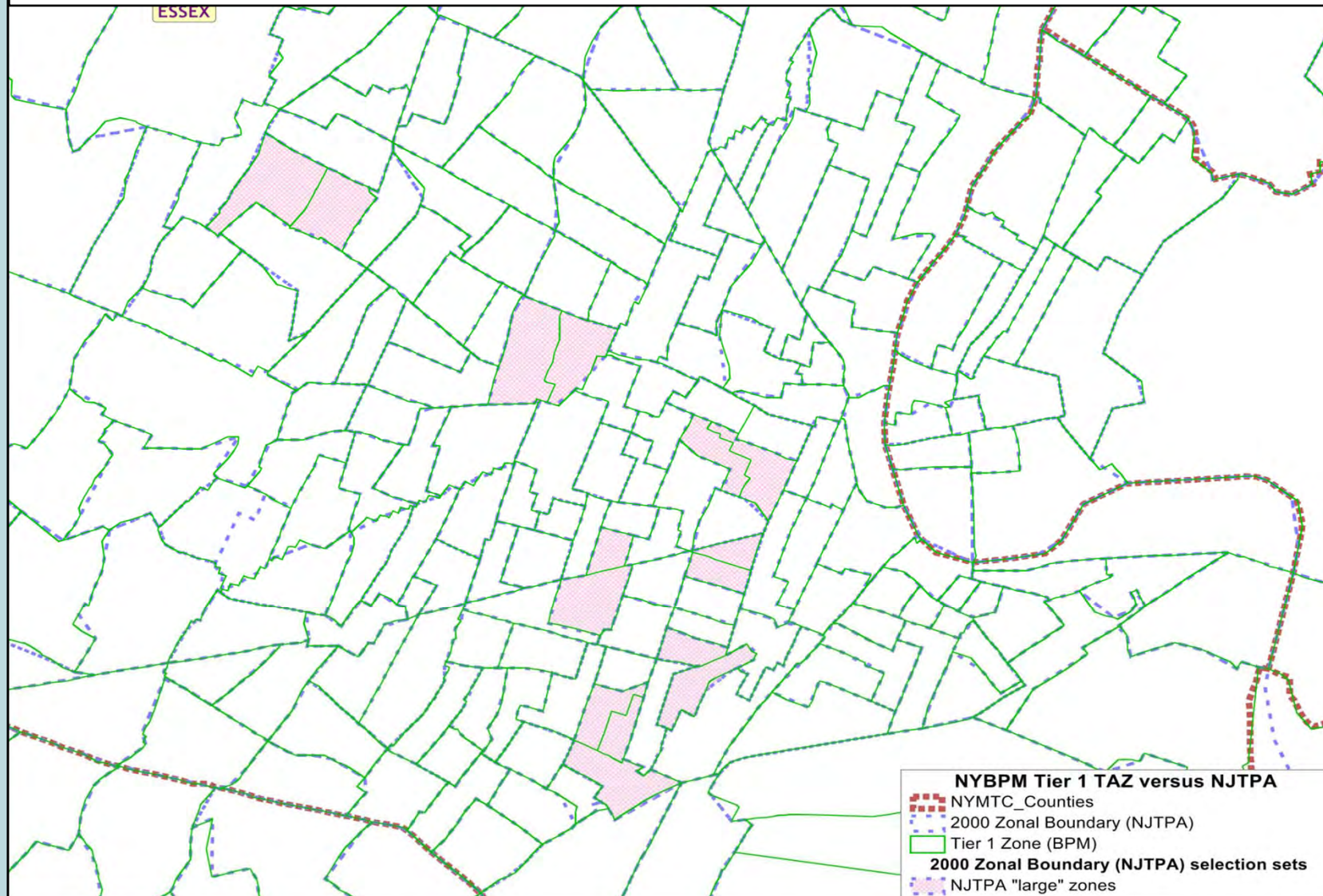
- Comments from PANYNJ
 - NJ zones should be built from NJTPA zones or their aggregations
 - In some parts of Newark, NYBPM zones are smaller than NJTPA – they should be aggregated to match NJTPA zones
 - In Outer-NJ area, keep NJTPA details near transit stations and aggregate away from transit stations (?) – Do not change this time
- 2010 Census Tracts definitions
 - TAZ in NY area are currently based on the 2000 Census tract boundaries
 - 2010 vs. 2000 Census Tracts

Tier1 TAZ in New Jersey



Proposed TAZ Split based on Auto Trip Ends

TAZ Selection by Highway Trips



Proposed TAZ Split based on Auto Trip Ends

Aggregated zones in NJ

- 21 BPM zones aggregated in P-NJ and O-NJ into
- 10 zones matching NJTPA zones

Finalize Tier 1 Zone System for both TH-TDFM and NYBPM 2010 Model Updates

II.

- Review NYBPM Tier 1 Zone system in New York
 - Review 2010 vs. 2000 Census Tracts in NY area
 - NYBPM Tier 1 TAZ vs. 2000 Census Tracts in NY area

2010 over 2000 Census Tracts



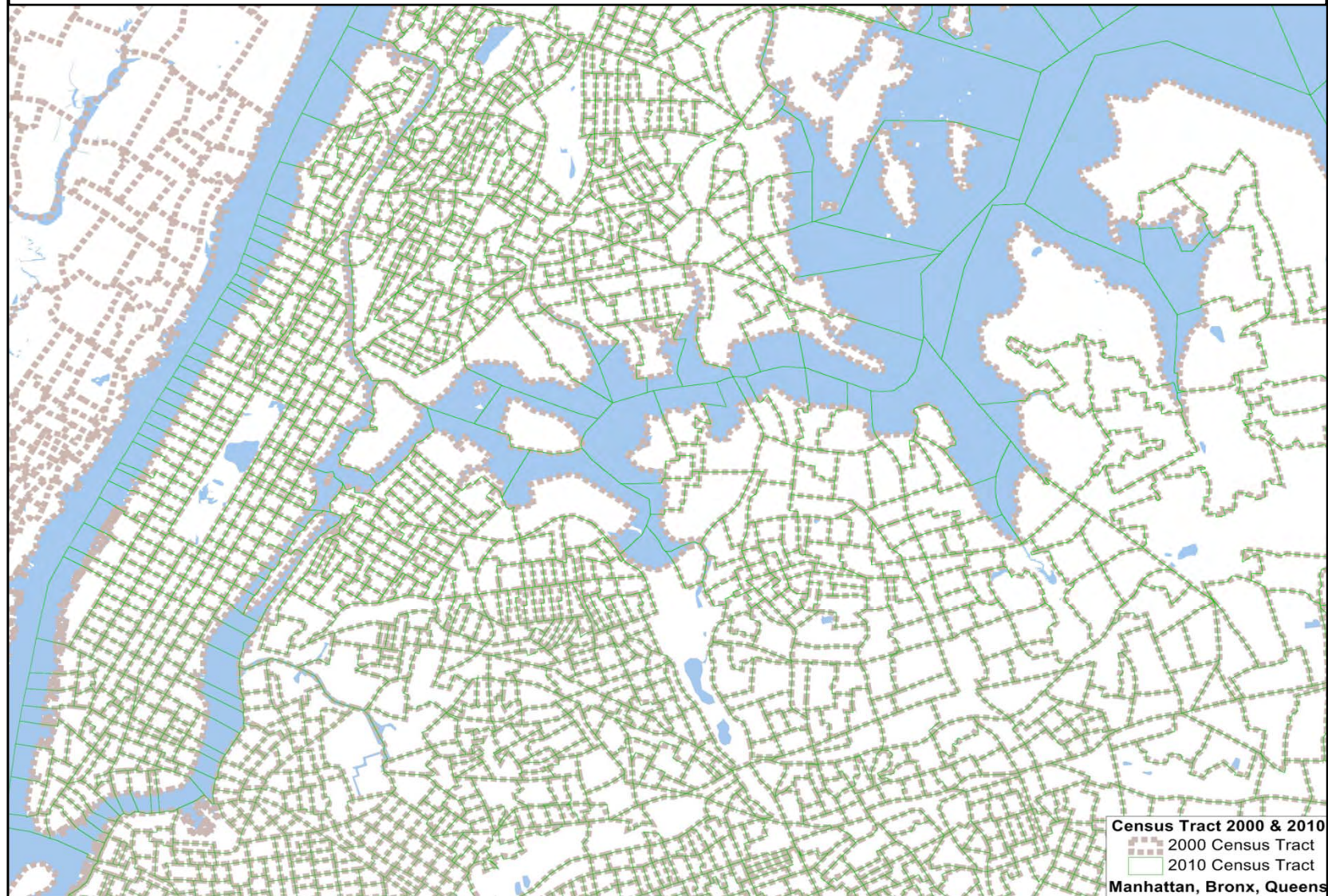
New York City

Tier1 TAZ and 2010 over 2000 Census Tracts



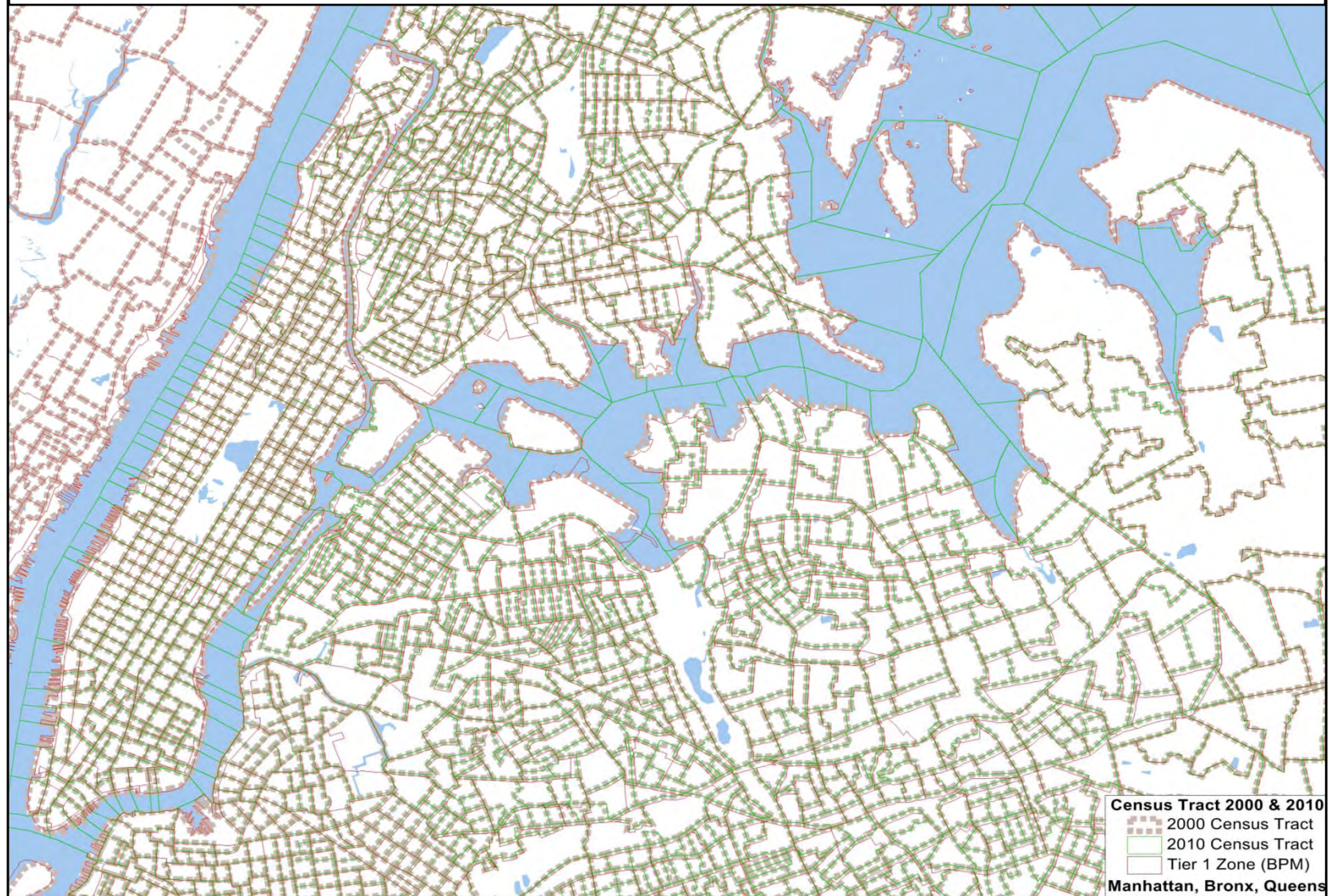
New York City

2010 over 2000 Census Tracts



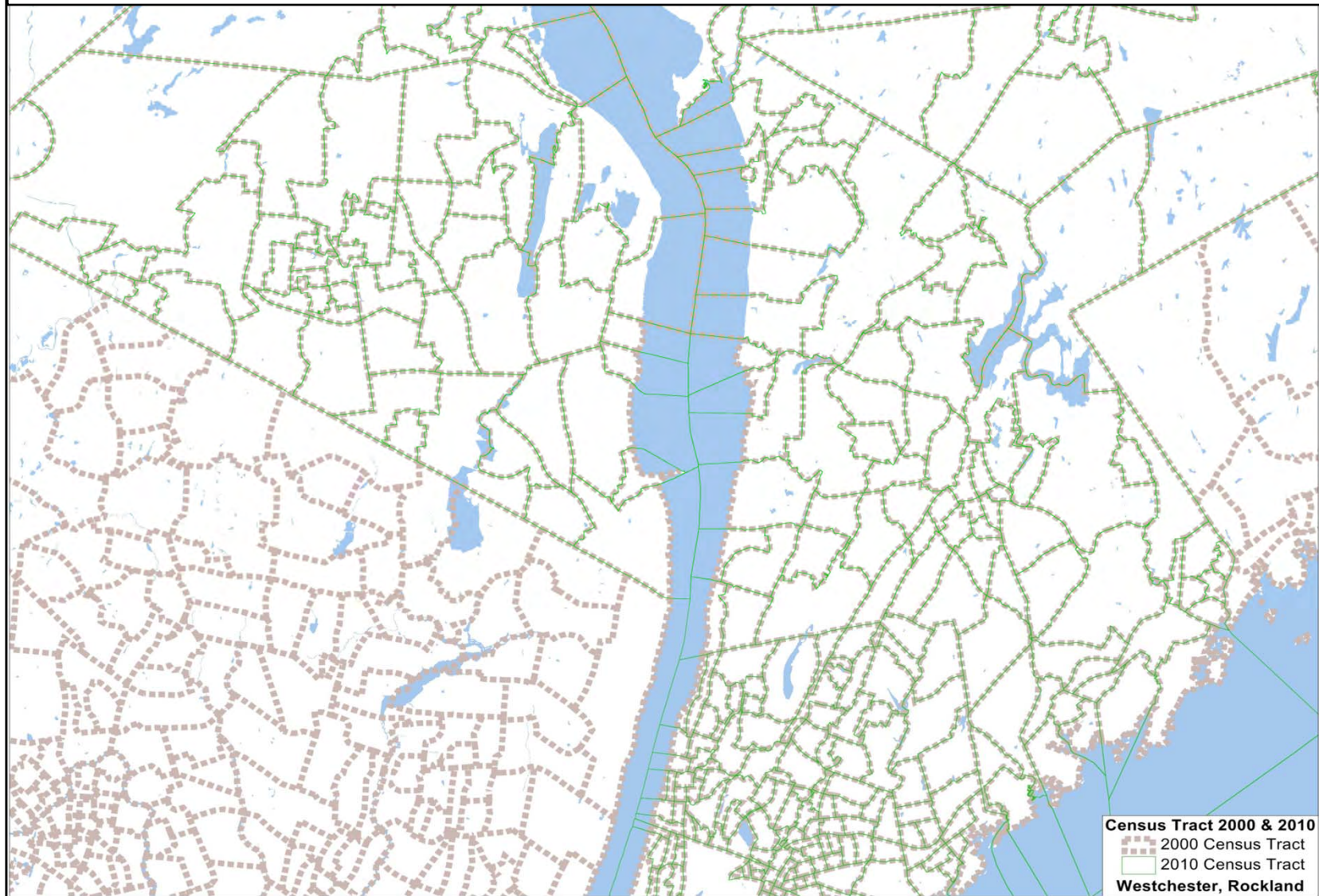
Manhattan, Bronx, and Queens

Tier1 TAZ and 2010 over 2000 Census Tracts



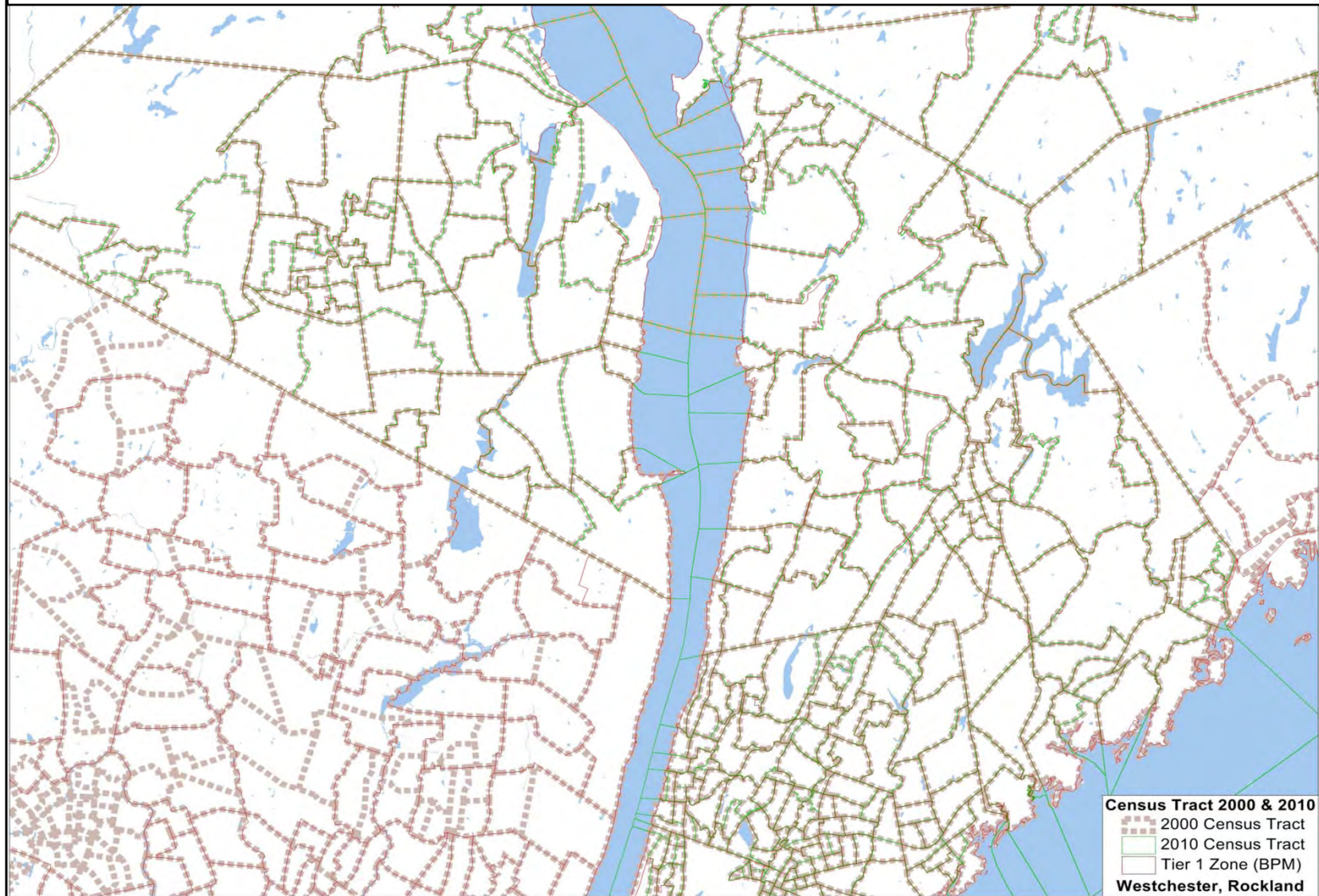
Manhattan, Bronx, and Queens

2010 over 2000 Census Tracts



Rockland and Westchester

Tier1 TAZ and 2010 over 2000 Census Tracts



Rockland and Westchester

Finalize Tier 1 Zone System for both TH-TDFM and NYBPM 2010 Model Updates

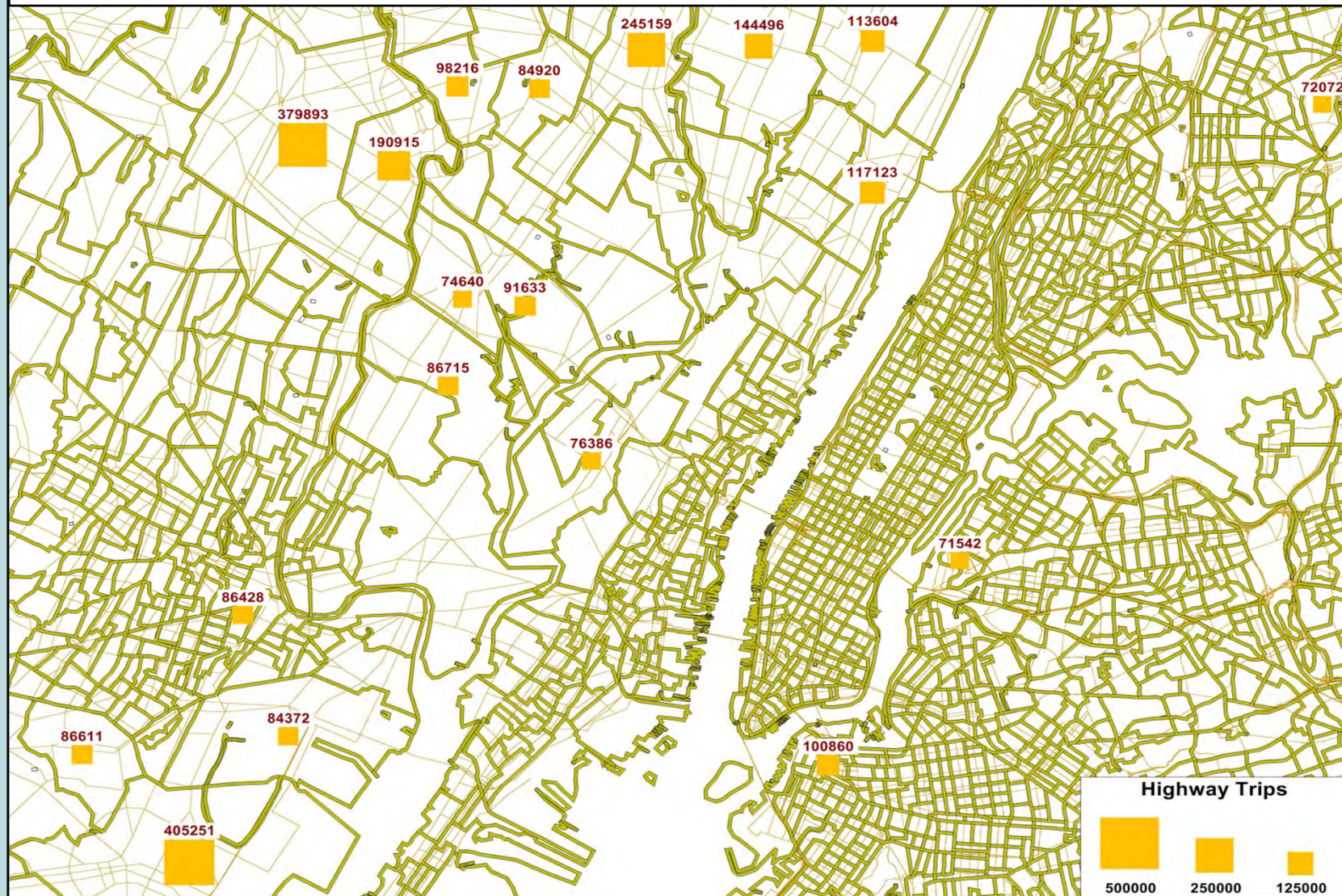
III.

- Review NYBPM Tier 1 Zone system in Manhattan
 - Evaluate and select TAZ zones for split in Manhattan
 - Recommendations on split existing TAZ in Manhattan

Purpose and Criteria for zone split

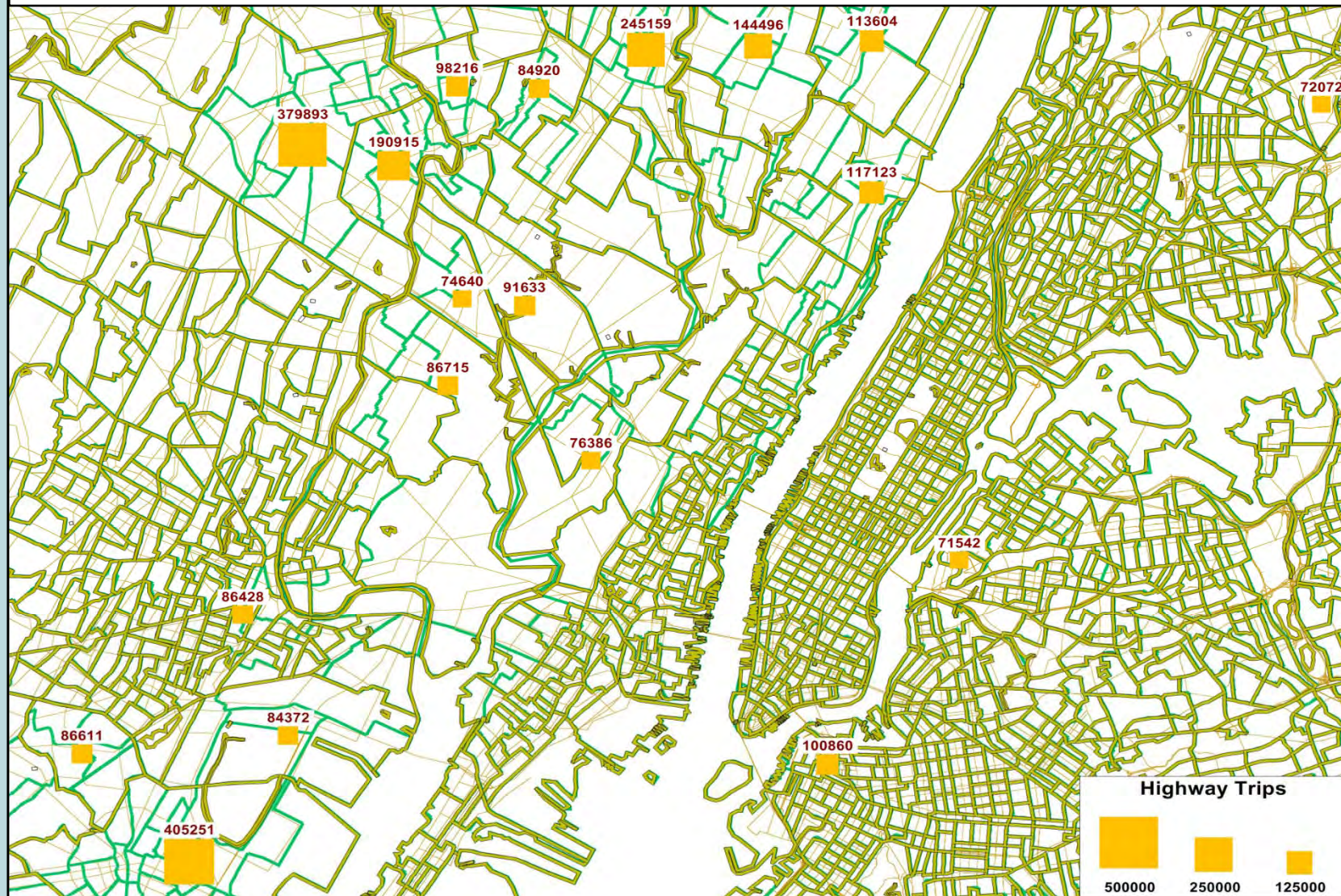
- What we achieve by zone split
 - More realistic representation of land use
 - Better distribution of traffic on local street network
 - Better representation of access to transit network
- Criteria for selecting zone to split
 - Large number of auto trips (~25,000+ in Manhattan)
 - Large number of person trips (~70,000+ in Manhattan)
 - Abnormally large size does not correspond to land use structure
- Evaluation based on number of future year trips

Auto Trips by TAZ Tier 0



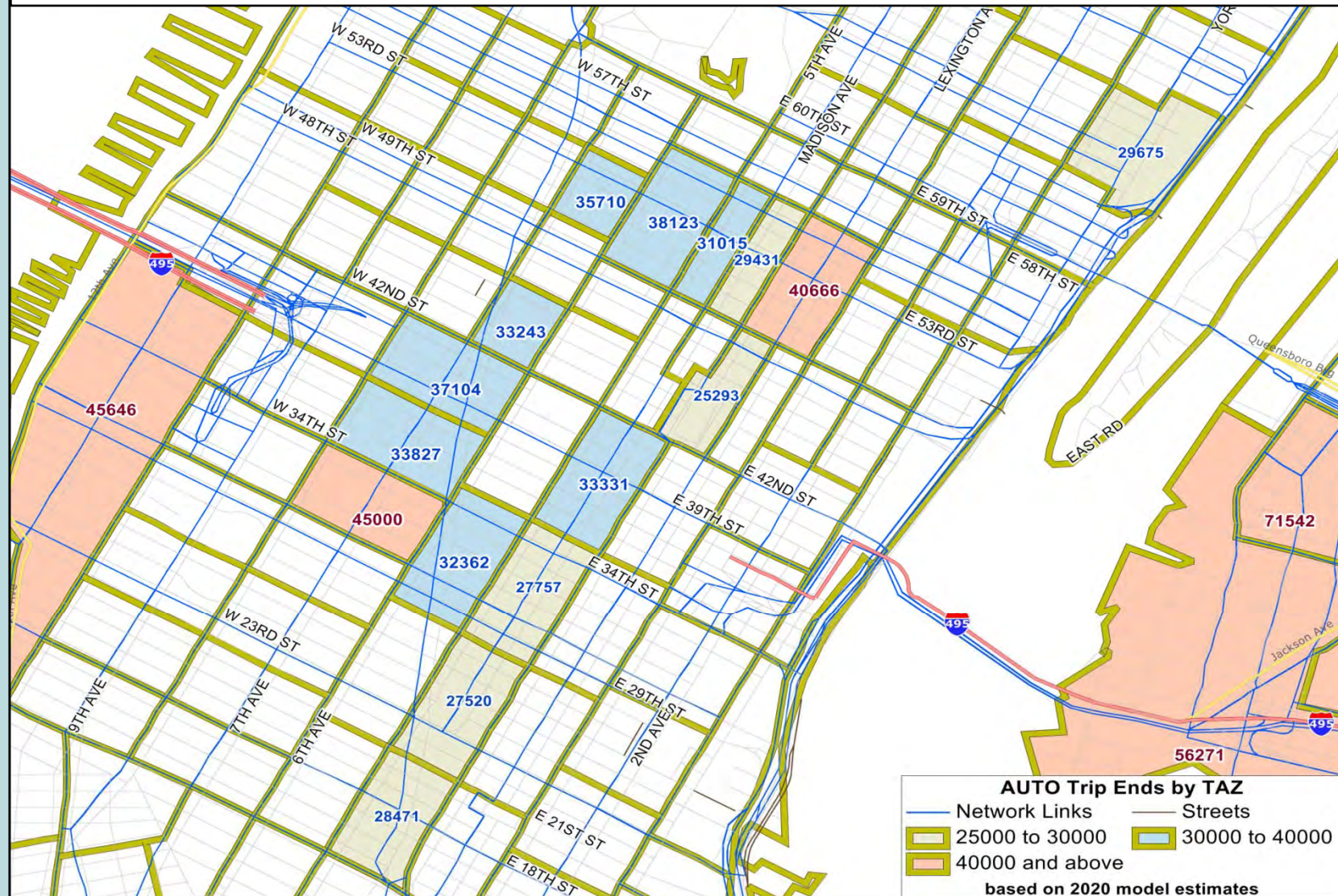
Zones with highest number of Trips

Auto Trips by TAZ Tier 0 over Tier 1



Zones with highest number of Trips

TAZ Selection by Highway Trips

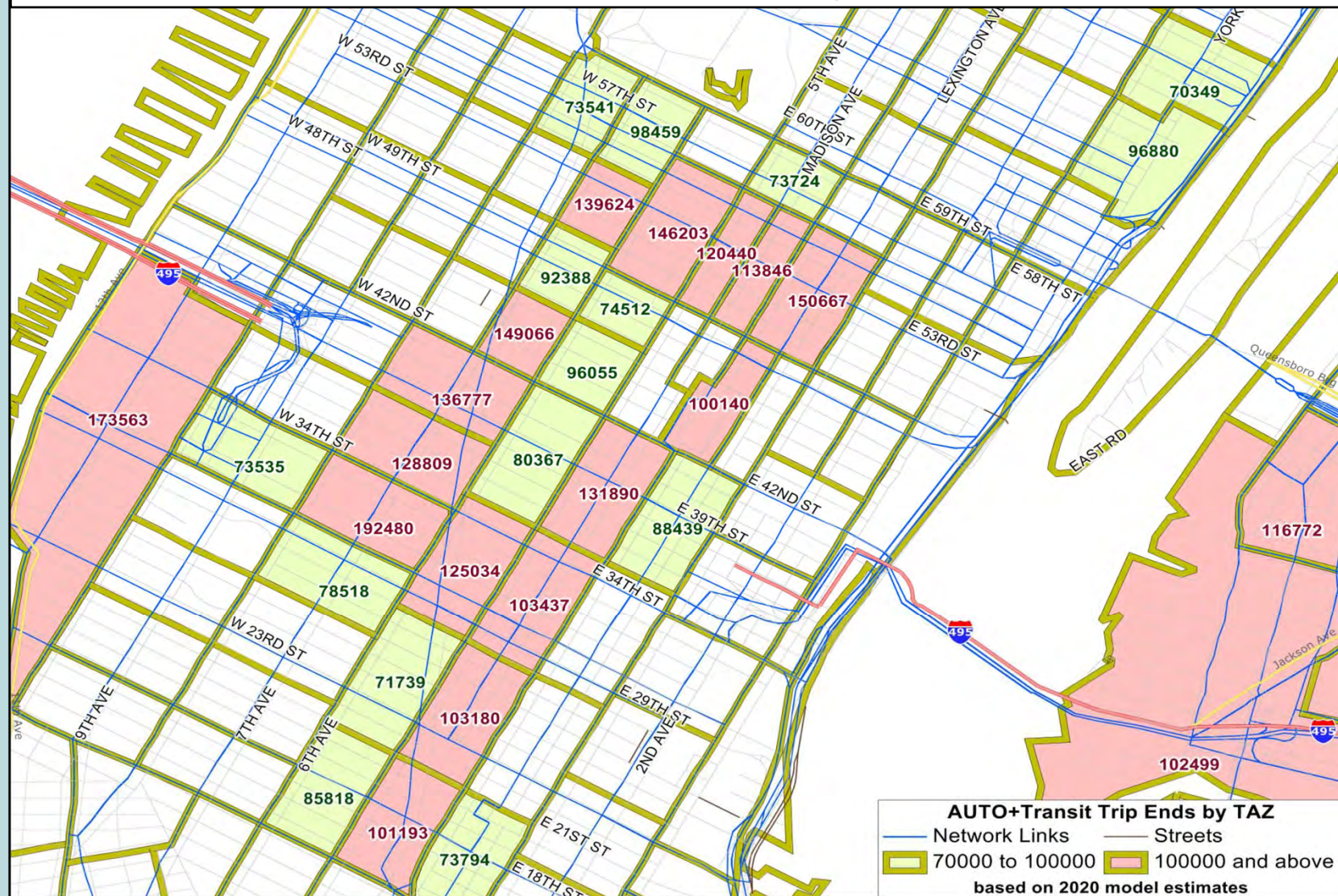


Zones considered for Split

Transit and Auto trips

- Using Auto Trip Ends for evaluation
- How different is distribution of Total (Transit and Auto) Trip Ends by TAZ?

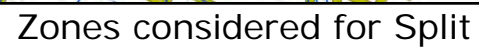
Auto and Transit Trips by TAZ



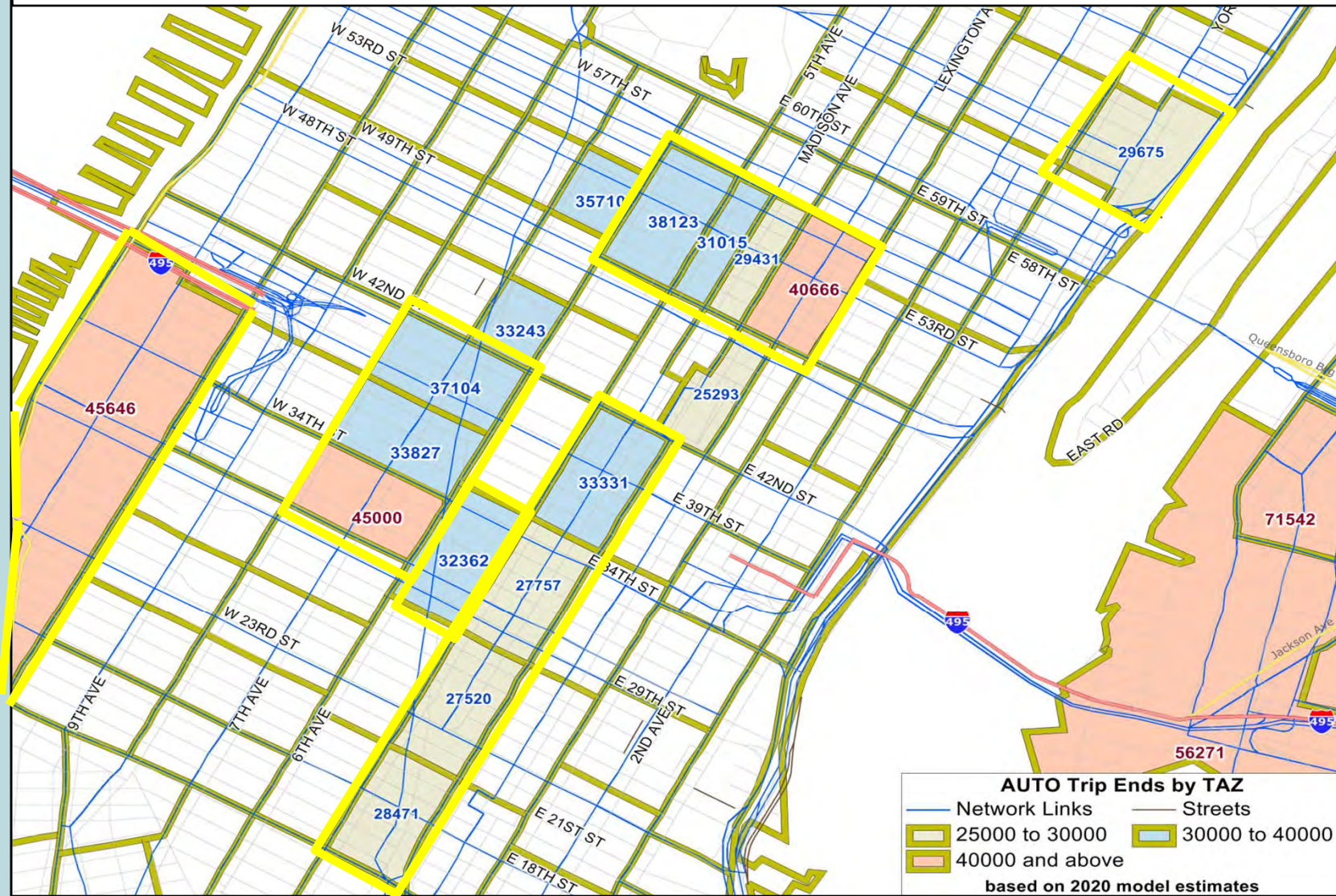
Zones with highest number of Trips

Transit and Auto trips

- Transit and auto trips in Manhattan generally correlate with each other
- Auto trips distribution define local traffic flows
- Transit trips - pedestrian flows

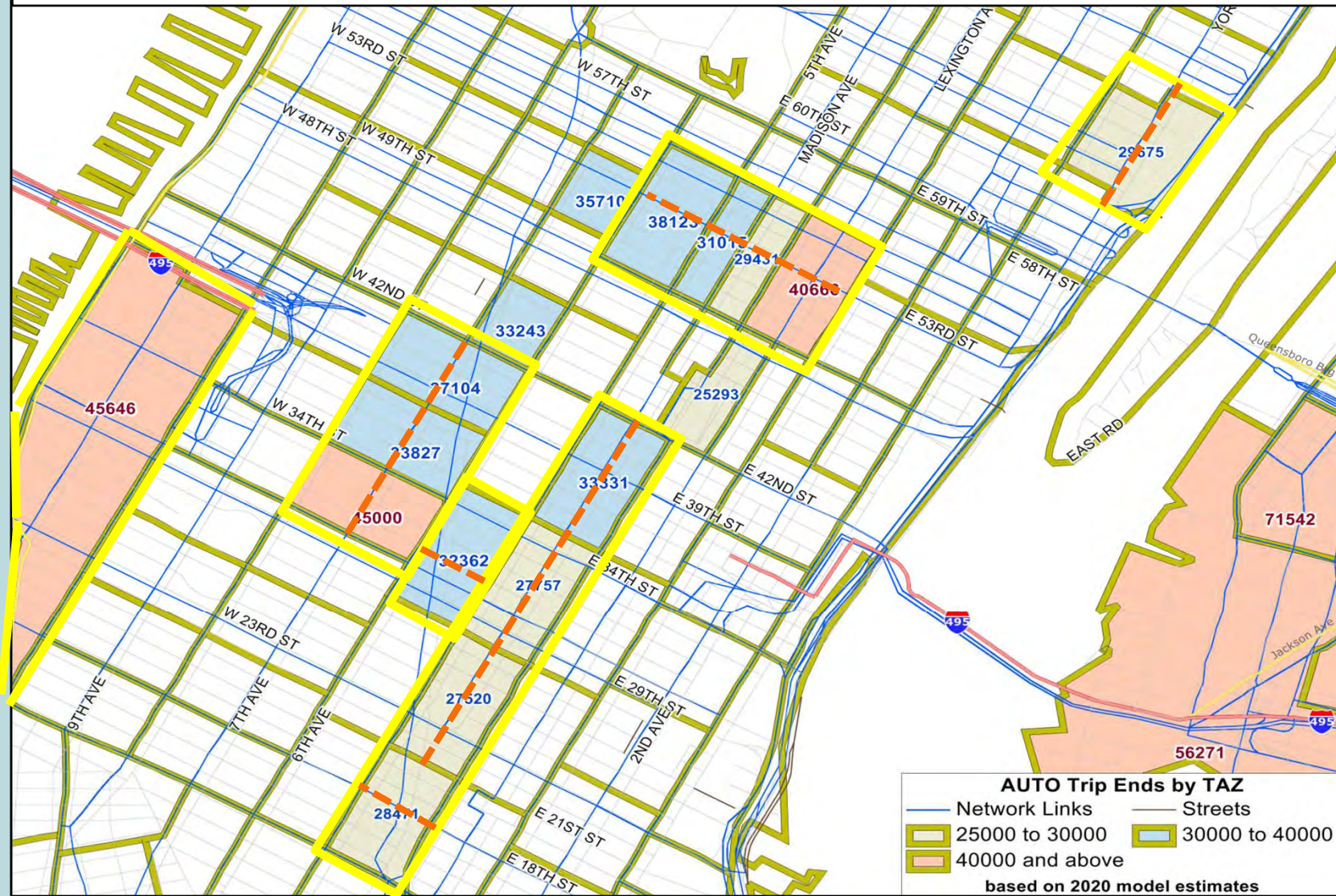


TAZ Selection by Highway Trips

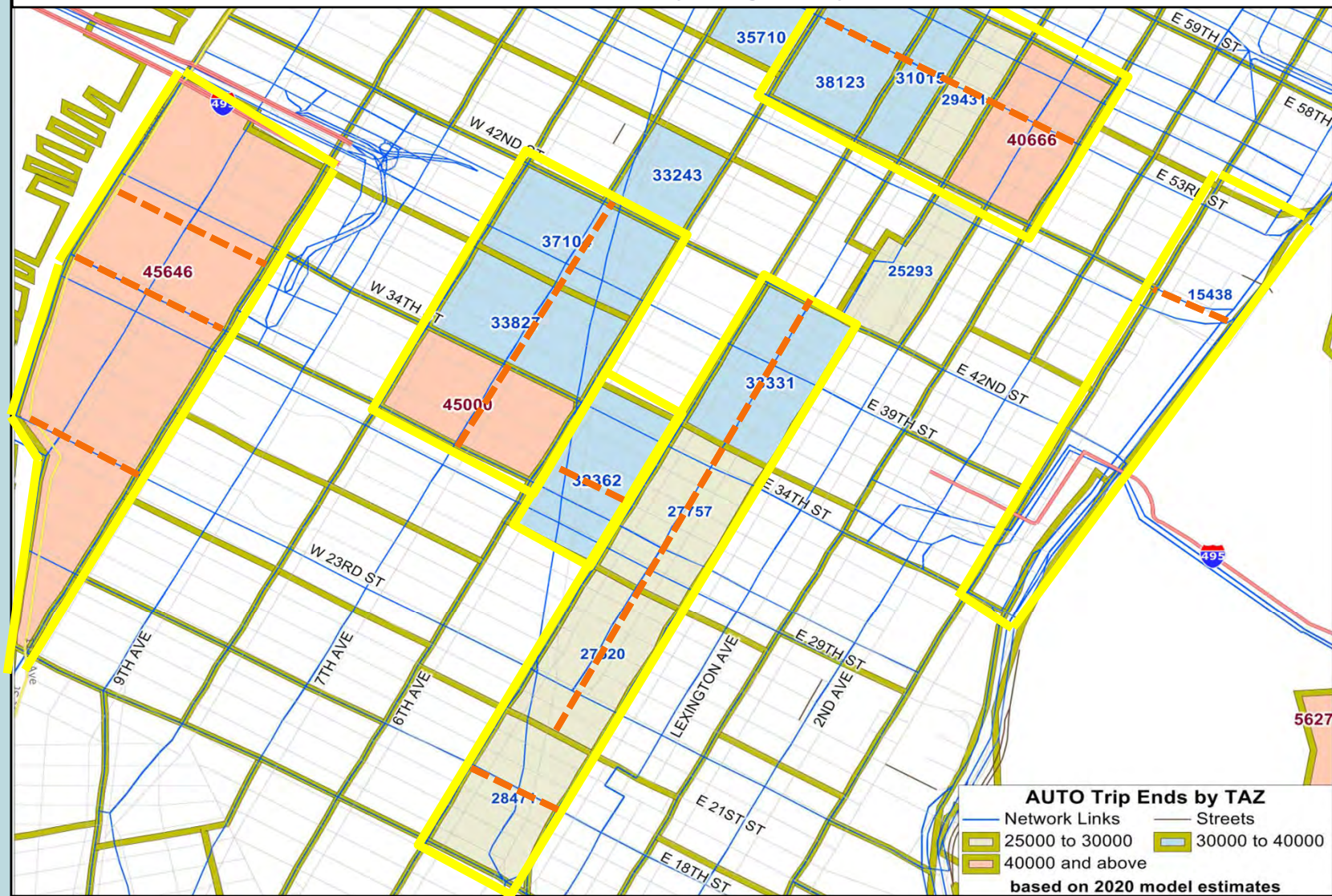


Zones selected for Split

TAZ Selection by Highway Trips



TAZ Selection by Highway Trips



Proposed TAZ Split based on Auto Trip Ends

What changed in Manhattan zone system?

- **Before Split:** 15 TAZ zones selected for split in Mid-town Manhattan based on number of auto trips, size and correspondence to underlying land use structure.
 - Total zones in Manhattan = 318
- **After Split:** 32 smaller TAZ zones in Mid-Town Manhattan replace larger zones. More realistically represent land use structure, highway/street network, and transit access/egress
 - Total zones in Manhattan = 325

MORE TAZ SPLITS IN NYC?

TAZ split candidates outside Manhattan

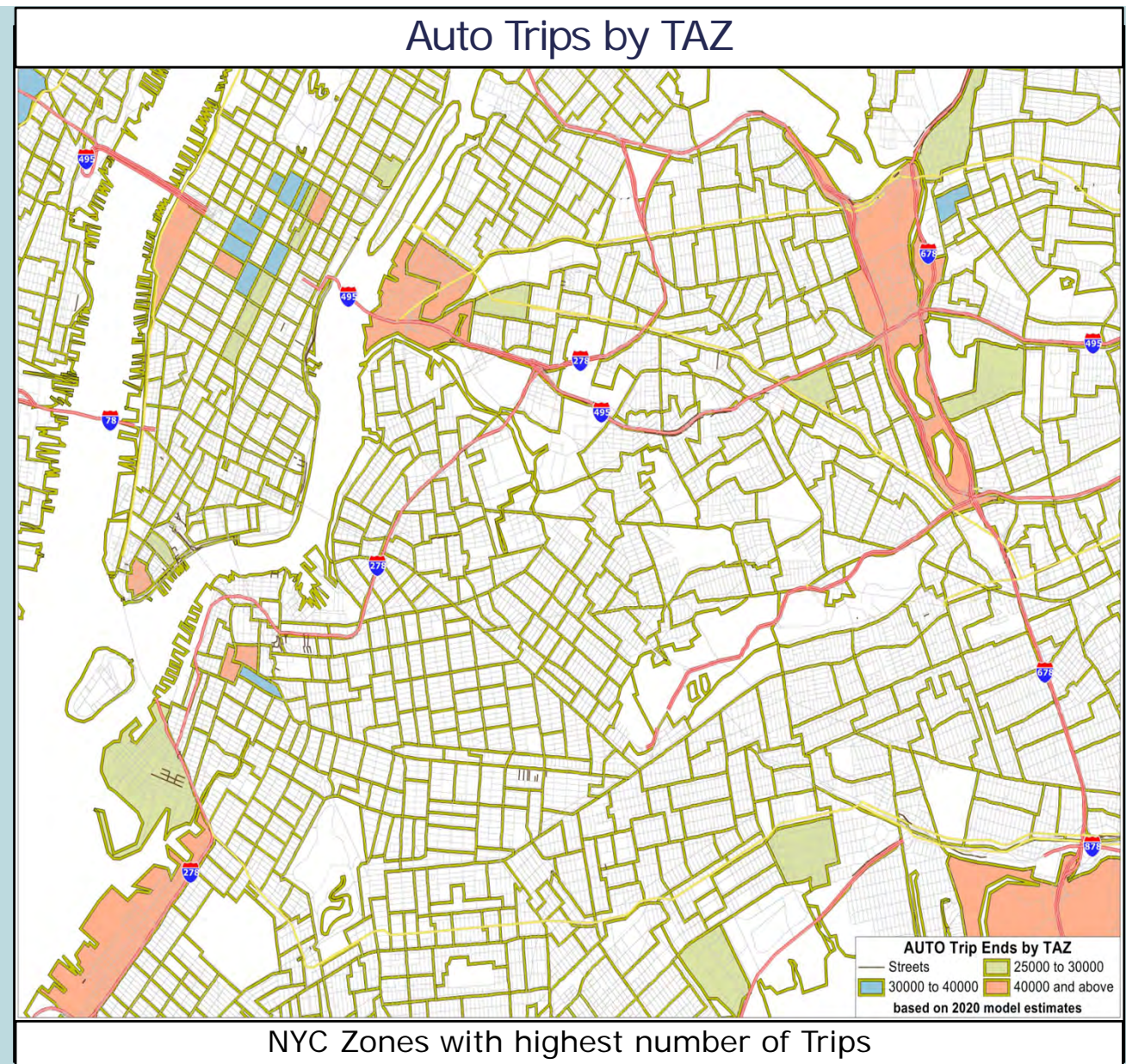
Other Potential Areas for TAZ Split in NYC

Queens:

- Long Island City,
- Willets Point;

Brooklyn:

- Downtown,
- Red Hook,
- Along 3rd Avenue



QUESTIONS ?