

Coney Island/Gravesend Sustainable Development Transportation Study

NYMTC Brown Bag Presentation
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NYCDOT, Traffic Planning



Study Background

- Development Pressures/Discretionary Actions
 - Home Depot (Cropsey Avenue) – 2000
 - MCU Park (formerly Keyspan Park) – 2001
 - Oceana – Residential Development (approx. 900 DUs)
- Anticipated growth from new developments
- Observed congestion accessing the peninsula
- Community request to address congestion
- Need to coordinate planning initiatives in the area

Sustainable Development – a definition...

“(It) is development that delivers basic environmental, social, and economic services to all, without threatening the viability of the ecological and community systems upon which these services depend.”

The Local Agenda 21 Planning Guide, UNEP

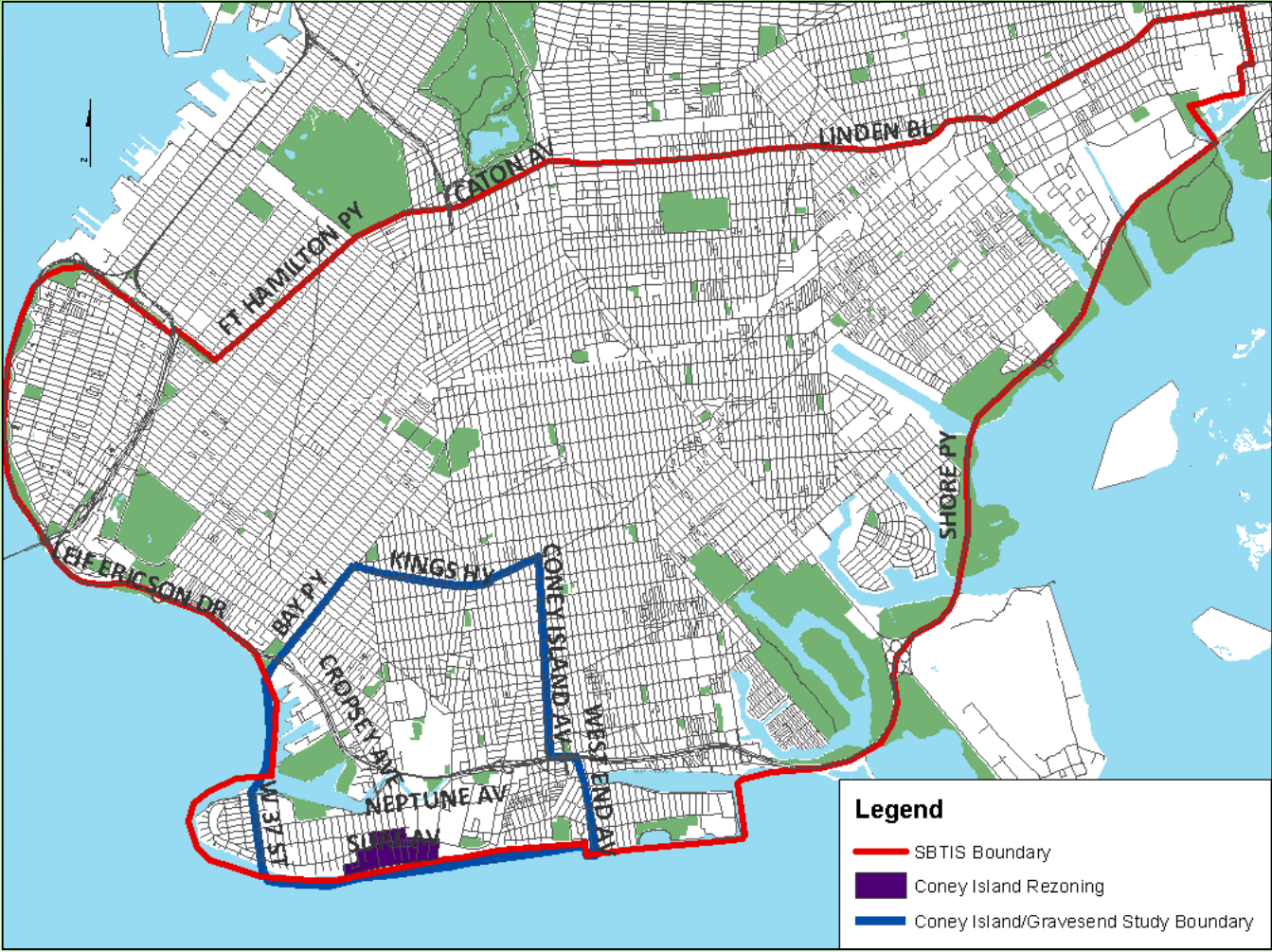
Study Goal

To develop and implement a plan that supports growth, is compatible with community needs, addresses community concerns, and promotes mobility and safety.

Study Objectives

- To examine the spatial distribution and intensity of land uses and its implication for transportation
- To identify the travel and traffic characteristics
- To analyze the existing and future traffic and transportation conditions
- To develop recommendations to reduce vehicular congestion, improve safety, and facilitate public transit/alternative modes
- Facilitate cooperation among communities and agencies.

Sub-Regional Context



Southern Brooklyn Transportation Investment Study

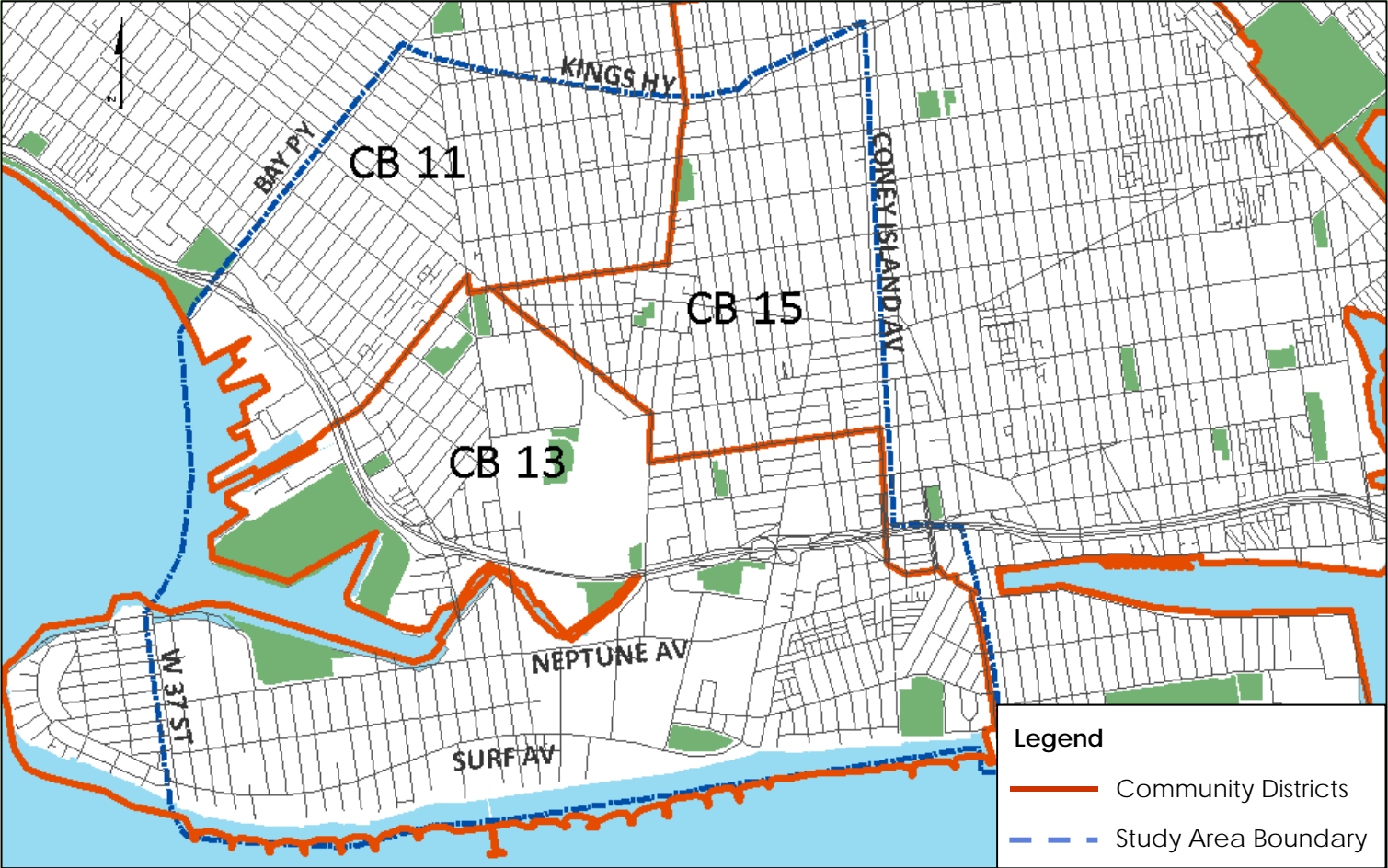
Scenarios

- Bus Priority Measures
- Passenger Ferry Service
- Grade Separation (Flatbush Ave/Ave I)
- JFKIA Truck Freight Ferry
- Subway Improvements
- Downtown Brooklyn Regional Bus Terminal
- Bus Rapid Transit
- Non-motorized modes

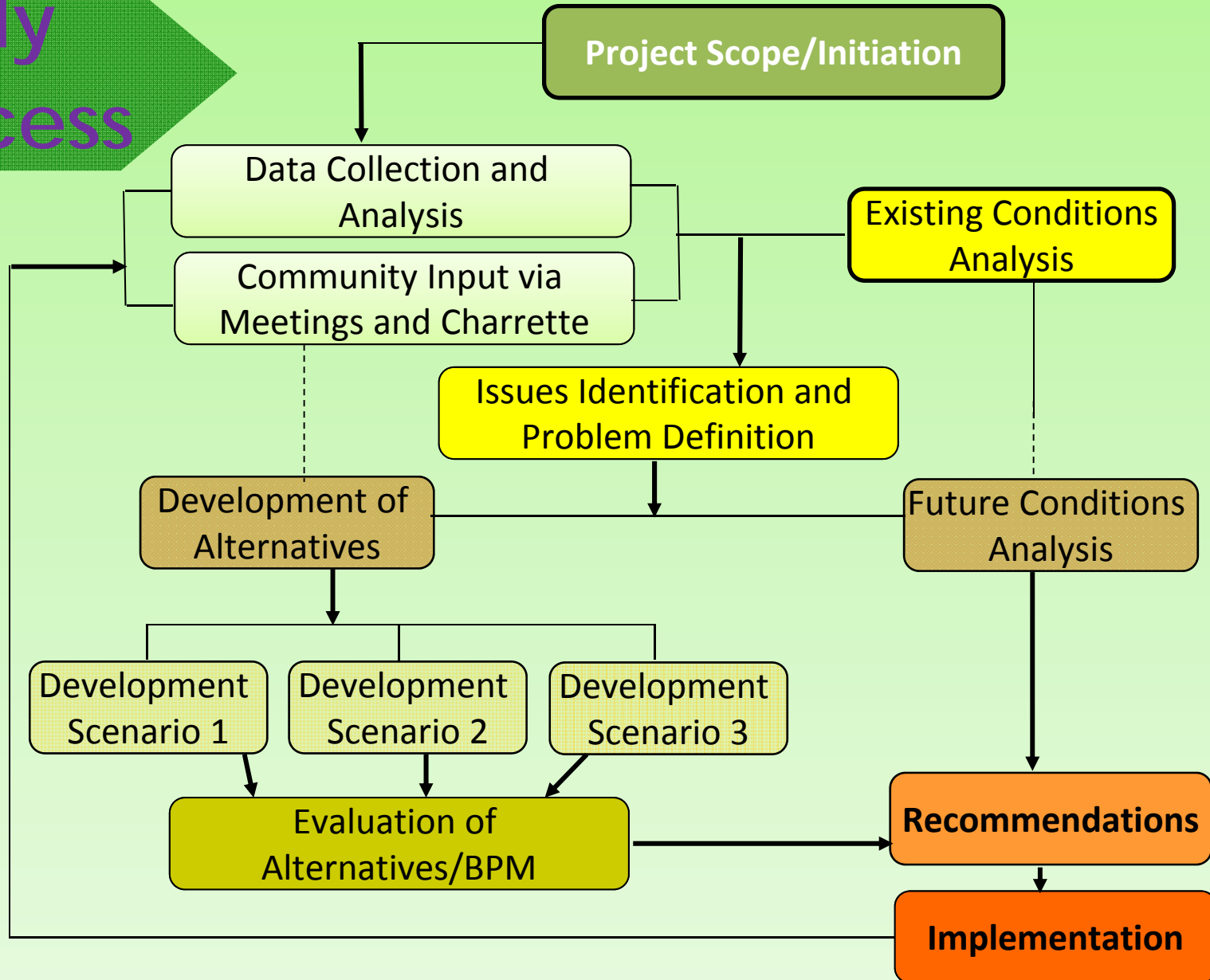
Goals

- Improve efficiency of region's transportation system for travel within the study area and beyond
- Expand/extend the existing transit system to underserved, unserved, and growing areas
- Improve existing transportation systems to encourage more efficient movement of people and goods
- Manage system-wide congestion
- Improve quality of life and address environmental issues.

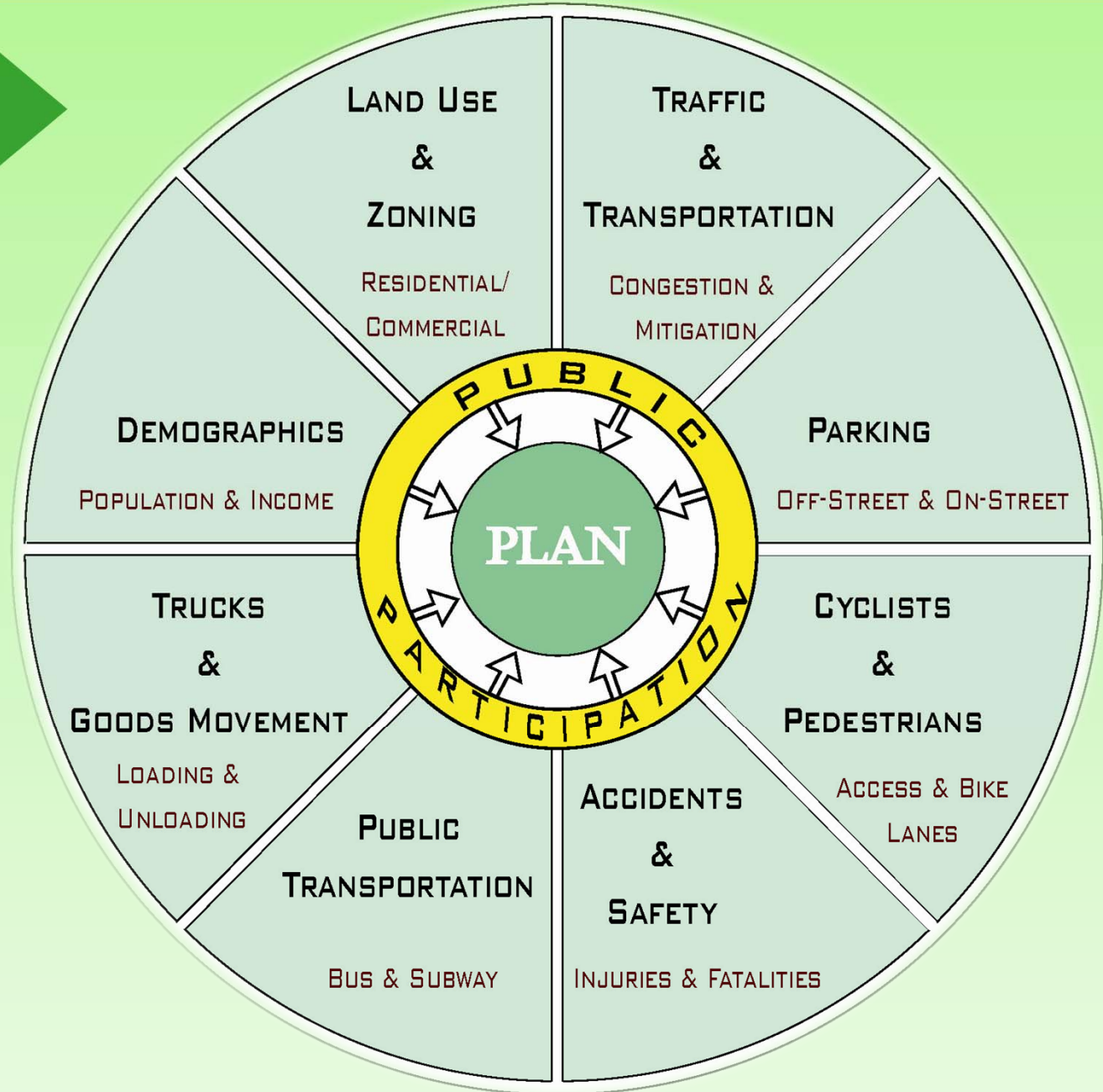
Study Area



Study Process



Planning Inputs



Existing & Future Analysis - Traffic & Transportation

- Bus/Subway service supply/demand
- Traffic Capacity
 - Intersection Analysis – 53
 - Corridor Analysis – 14
 - Pedestrian Analysis – 32
- AM, Midday, PM, and Saturday Midday Peak Hours
- Summer counts at selected locations

Public Participation – Stakeholders and Process

- Elected Officials
- Community Boards 11, 13, & 15
- Civic Associations
- General Public

- Technical Advisory Committee
- Visioning sessions
 - Identify issues and any problem locations
- Progress Meetings

Community Issues

- Provide a new exit from Belt Parkway between Cropsey Avenue and Ocean Parkway
- Improve bus service in the area linking all communities on the peninsula and other key destinations
- Provide ferry service to the Rockaways and Manhattan
- Enhance commercial development around Stillwell Avenue station

Future Conditions Analysis (2015/2025)

- Scenarios
 - Four transportation
 - Three land use
(BPM)
- Traditional Analysis
(HCS)

Transportation & Land Use Scenario Matrix

<div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">TRANSPORTATION</div> <div>LAND USE →</div> </div>	1 Current Trend	2 Moderate Development	3 Significant Development
1 Current Programmed Projects			
2 Transportation Management Strategies			
3 Transit Focused Improvements			
4 Major Roadway Improvements			

Transportation Scenarios

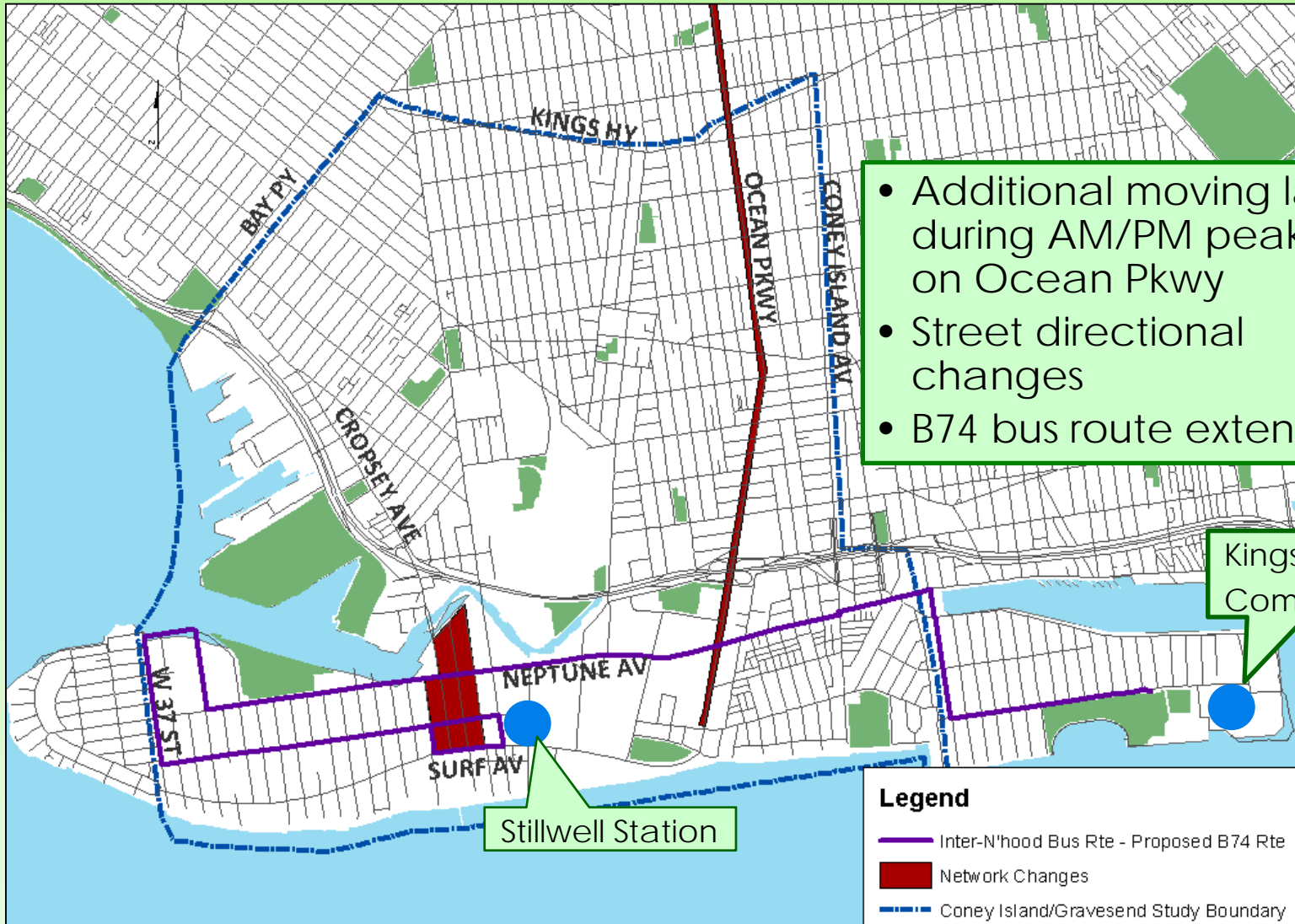
	LAND USE →	1	2	3
TRANSPORTATION ↓		Current Trend	Moderate Development	Significant Development
1 Current Programmed Projects			<ul style="list-style-type: none"> Ferry service between Coney Island and the Rockaways and/or Manhattan Inter-Neighborhood Transit (Bus service between Coney Island, Brighton Beach, and Manhattan Beach) 	
2 Transportation Management Strategies	EXAMPLES →			
3 Transit Focused Improvements				
4 Major Roadway Improvements	EXAMPLE: →		<ul style="list-style-type: none"> New Belt Parkway exit ramp at Stillwell Avenue 	

Land Use Scenarios

LAND USE	1	2	3
TRANSPORTATION	Current Trend	Moderate Development	Significant Development
1 Current Programmed Projects			EXAMPLES:
2 Transportation Management Strategies			
3 Transit Focused Improvements			
4 Major Roadway Improvements			

- Full build out vacant lots under current zoning
- Rezoning proposal to increase density (Coney Island Rezoning)
- Increased amusement/recreational facilities, hotel and commercial uses

Network Changes Modeled/BPM



- Additional moving lane during AM/PM peak hour on Ocean Pkwy
- Street directional changes
- B74 bus route extension

Kings Boro Comm Coll.

Stillwell Station

Legend

- Inter-N'hood Bus Rte - Proposed B74 Rte
- Network Changes
- - - Coney Island/Gravesend Study Boundary

Coney Island Rezoning+ Land Use Scenario 3

EIS Proposal

- Residential - 2,408 units
- Entertainment - 251,500 gsf
- Themed, Destination, and Local Retail - 655,630 gsf
- Hotel - 606 rooms
- Amusement Park (Active) - 261,360 gsf
- Amusement Park (Passive) - 3.0 acres
- Parking - 6,830 to 8,830 accessory spaces

In-Fill Development

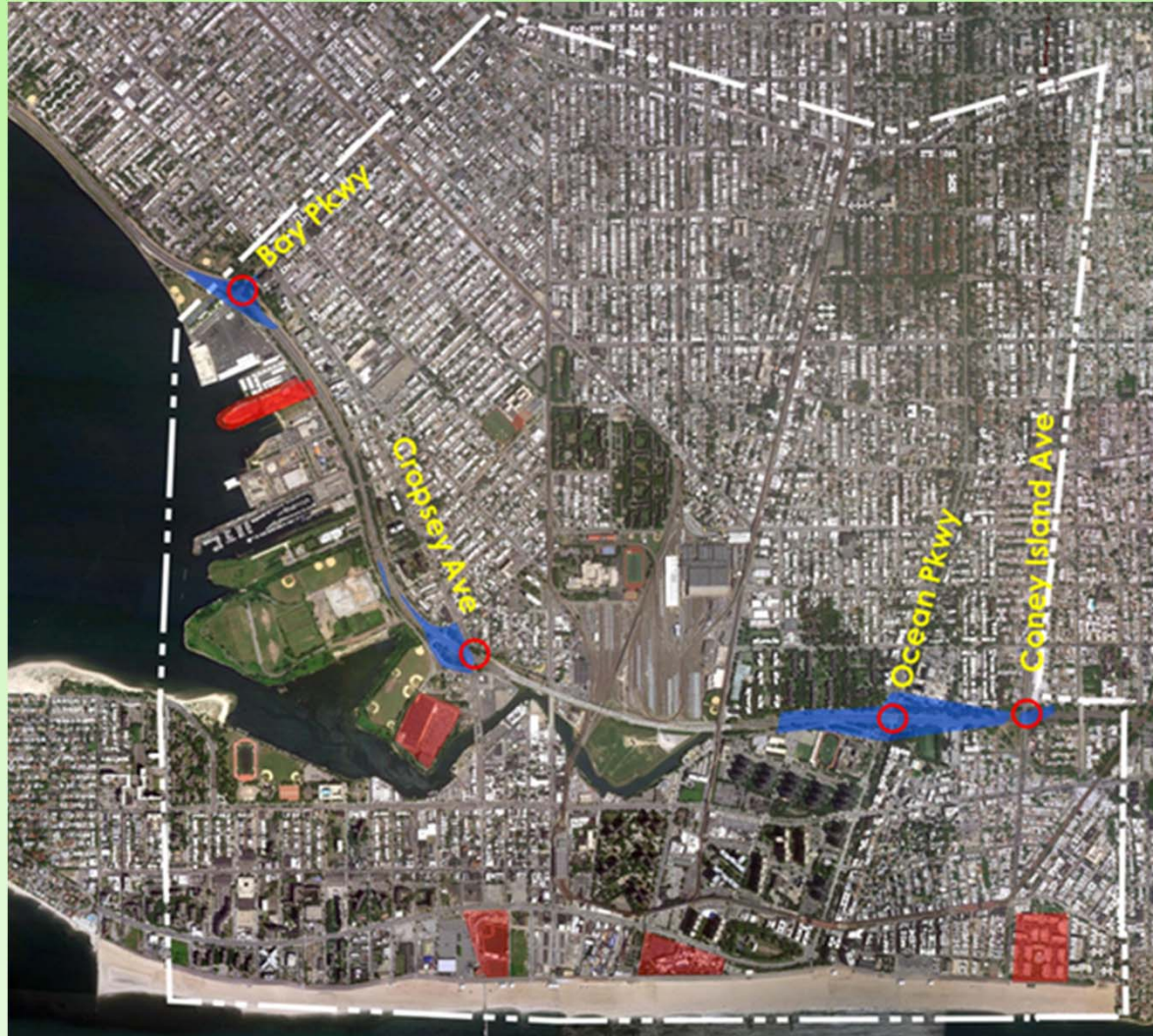
- Full build out of vacant lots
- Increased Amusement/Recreational Activities

Existing/Future Conditions Analyses

Findings

- Significant growth in Coney Island and steady growth with minor land use changes outside rezoned area
- Parking shortfall in areas where commercial and amusement activities are concentrated – Brighton Beach Ave, 86 Street, Surf Ave, and Kings Highway
- High pedestrian volumes in commercial and entertainment areas – Surf Avenue, Brighton Beach Avenue, 86th Street, etc.
- Fairly accessible public transportation (bus and subway)
- Existing traffic - 35% of intersections had **LOS D** or worse during one or more peak hours
- Future traffic - more than 50% of intersections would operate at **LOS D** or worse during one or more peak hours.

Developments and Congestion



Main Planning Recommendations

- Roadway/Intersection Capacity Enhancements
- Street directional changes
- Redesign Signals (Timing and Phasing Plans)
- Installation of Bicycle Facilities
- Signs and Marking Changes
- Parking Regulation Changes
- Safety Improvements

Project Development & Implementation

- Bay Parkway & Cropsey Avenue
- Neptune Avenue & Cropsey Ave/West 17th Street

Bay Pkwy b/w Belt Pkwy WB & Cropsey Ave

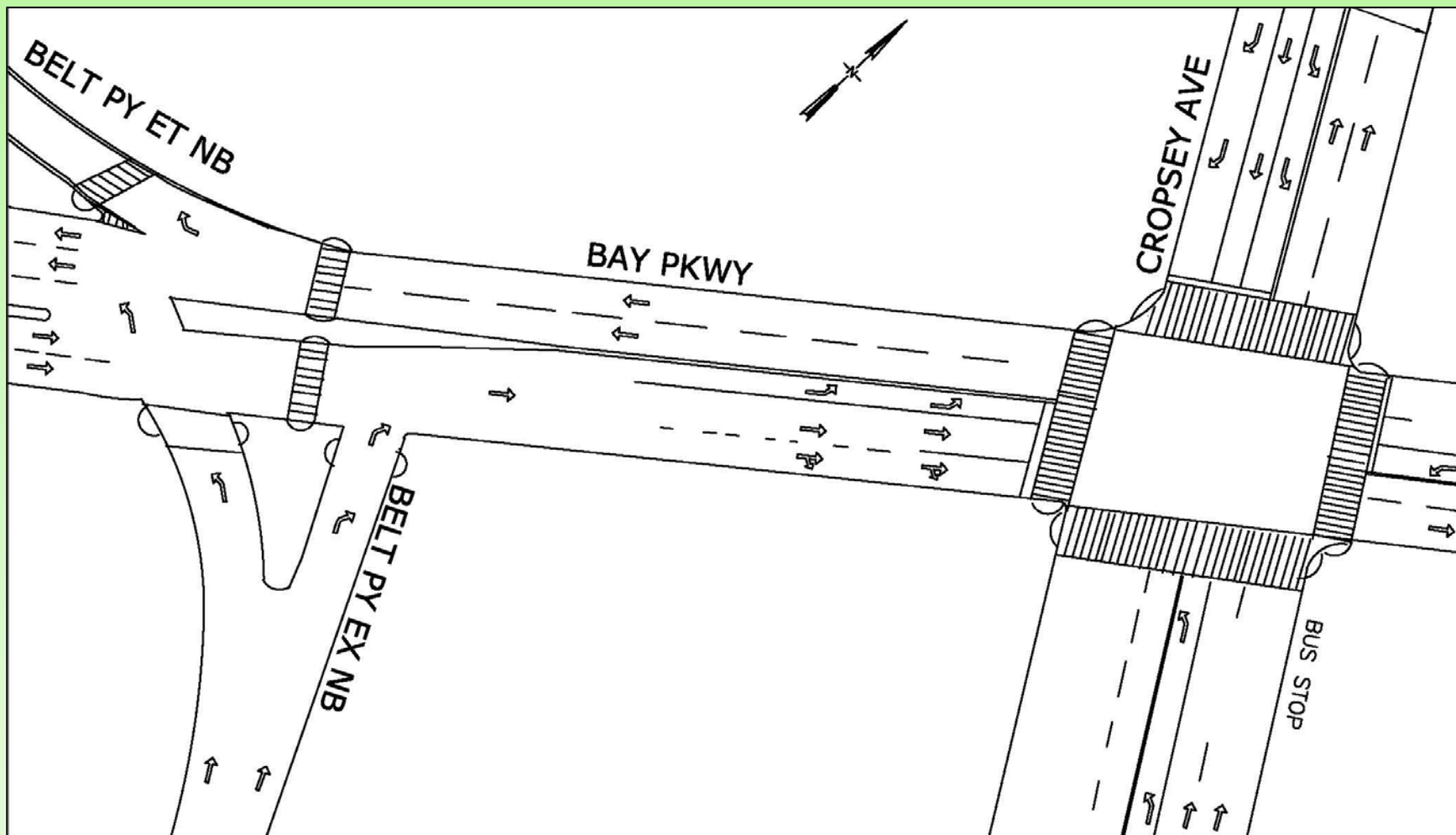
Problems:

- Congestion
- Geometric constraints
- Traffic controls (signal coordination)

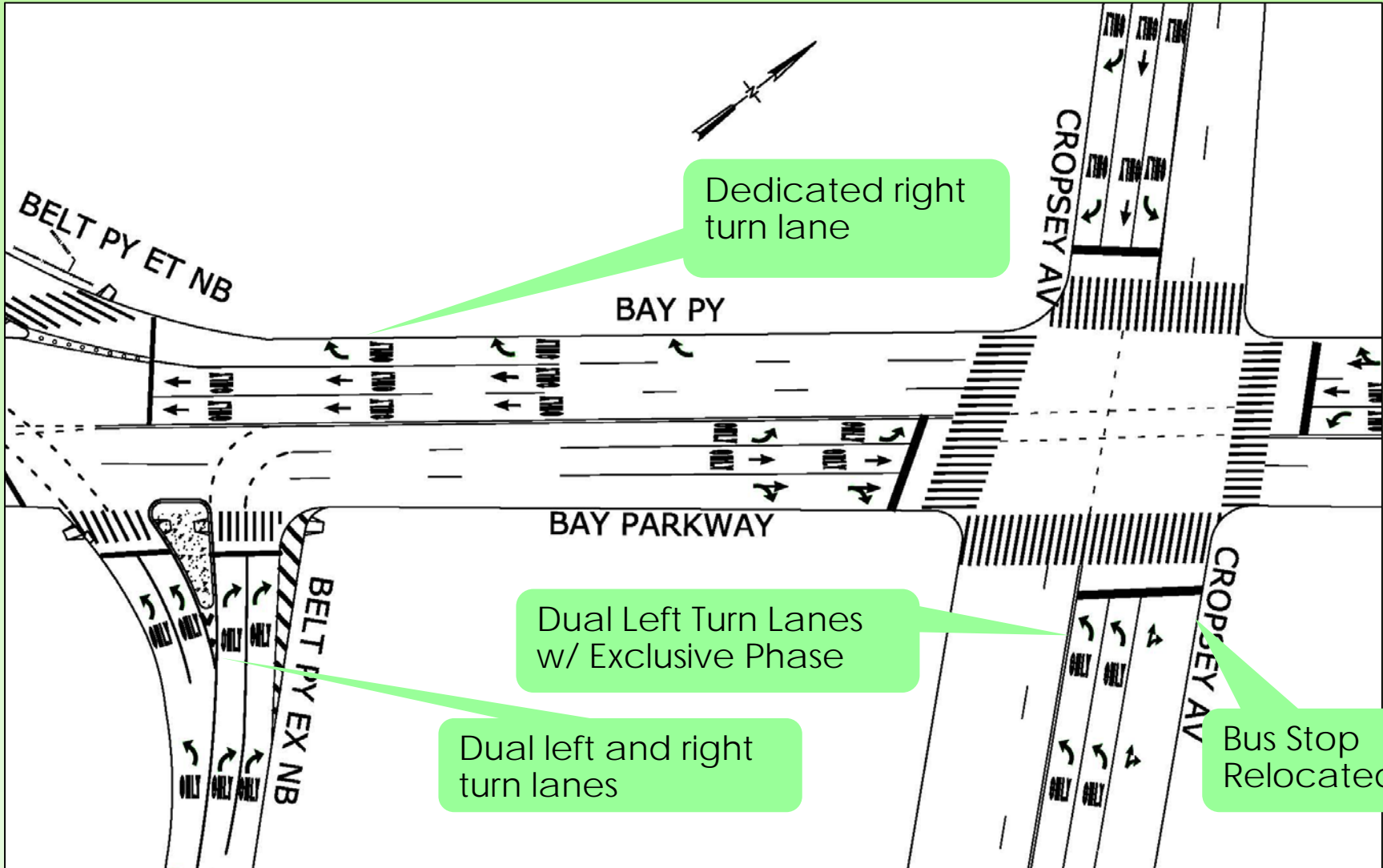
Solution:

- Roadway changes
- Signal redesign
- Signs and markings

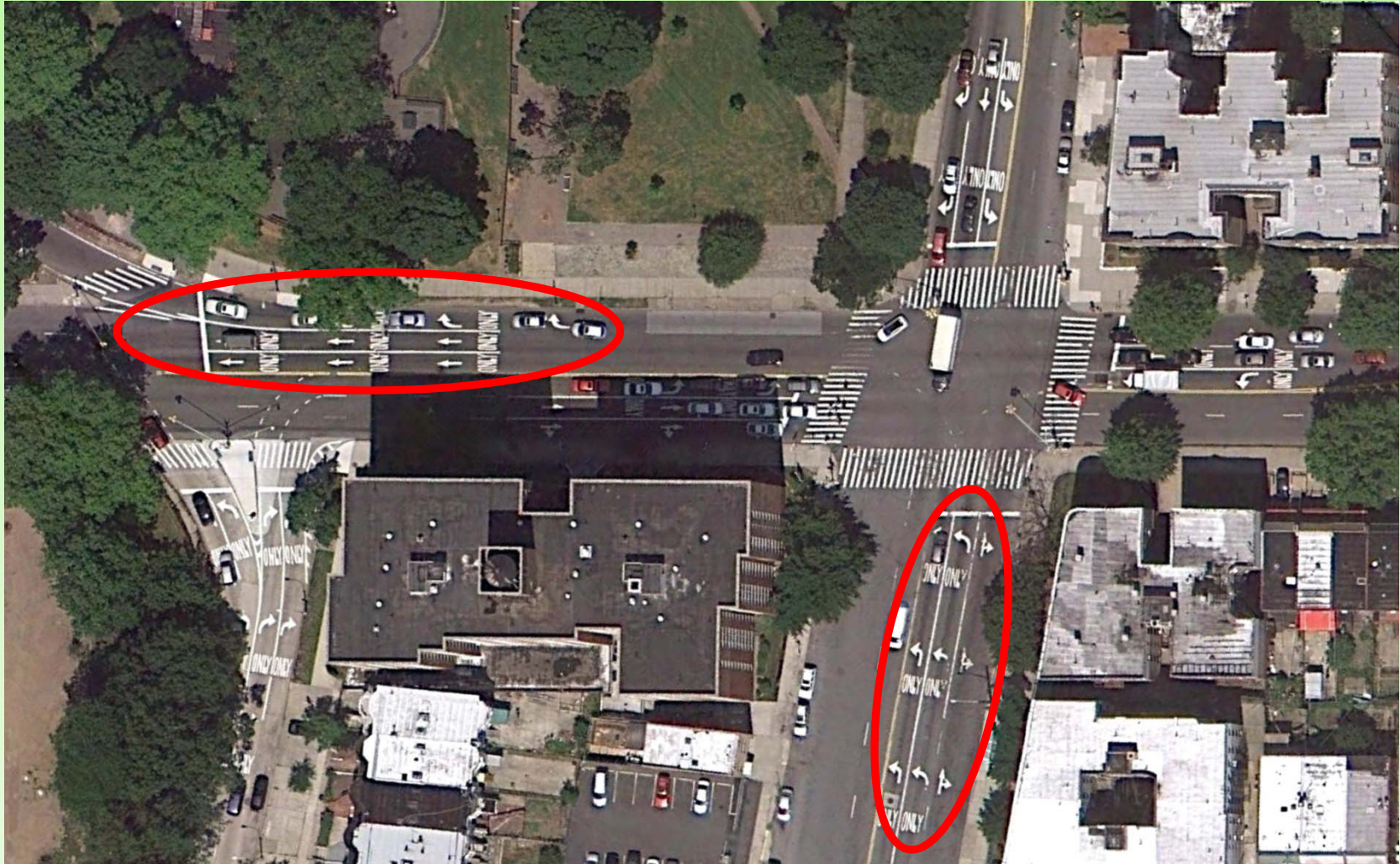
Bay Pkwy b/w Belt Pkwy WB & Cropsey Ave Existing



Bay Pkwy b/w Belt Pkwy WB & Cropsey Ave Proposed/Implemented



Bay Pkwy b/w Belt Pkwy WB & Cropsey Ave Proposed/Implemented



Bay Pkwy b/w Belt Pkwy WB & Cropsey Ave



Bay Pkwy SB at Belt Pkwy WB Entrance



Bay Pkwy Looking North



Neptune Ave & Cropsey Ave/West 17 St

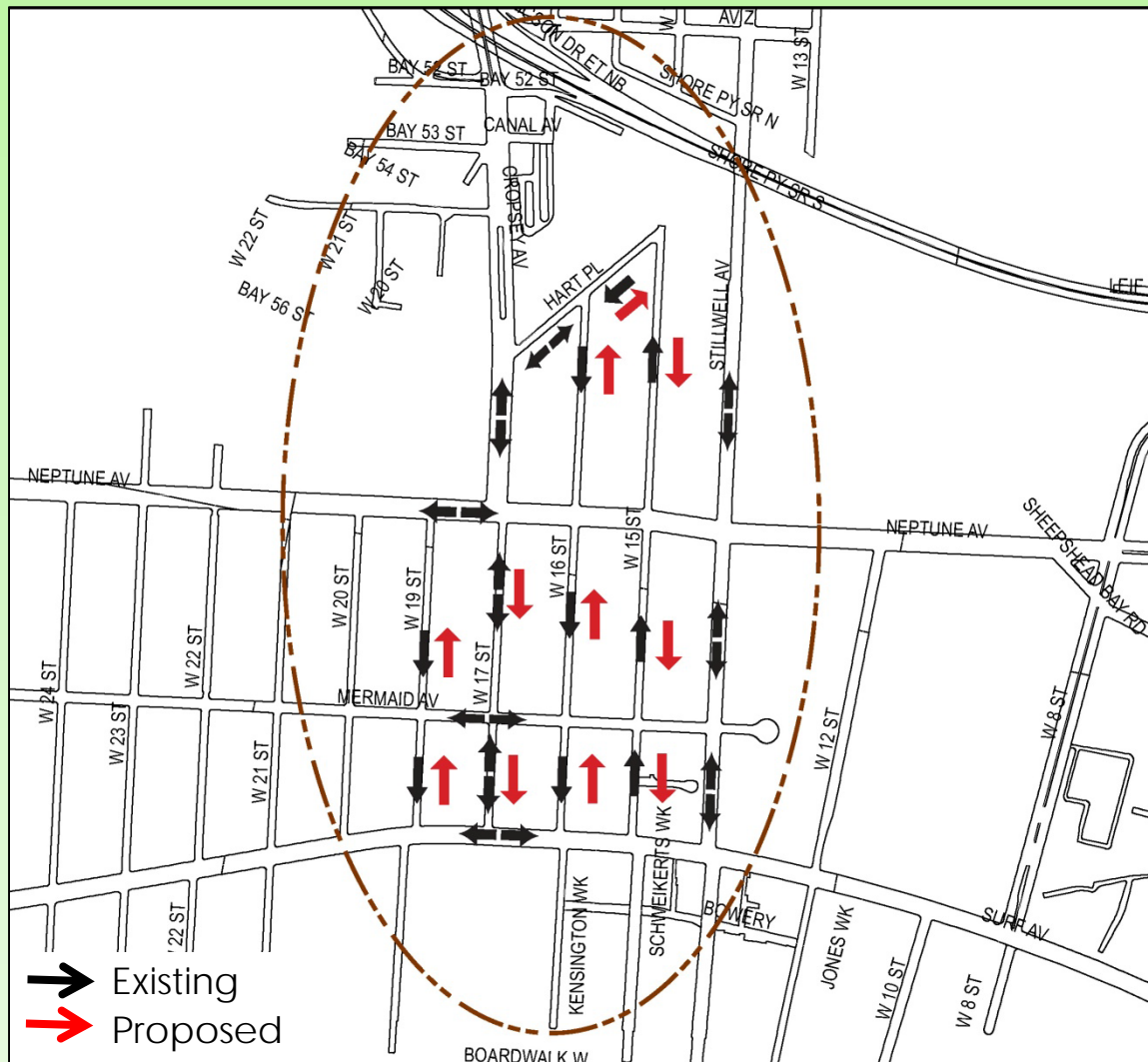
Problems:

- Congestion
- Pedestrian Safety

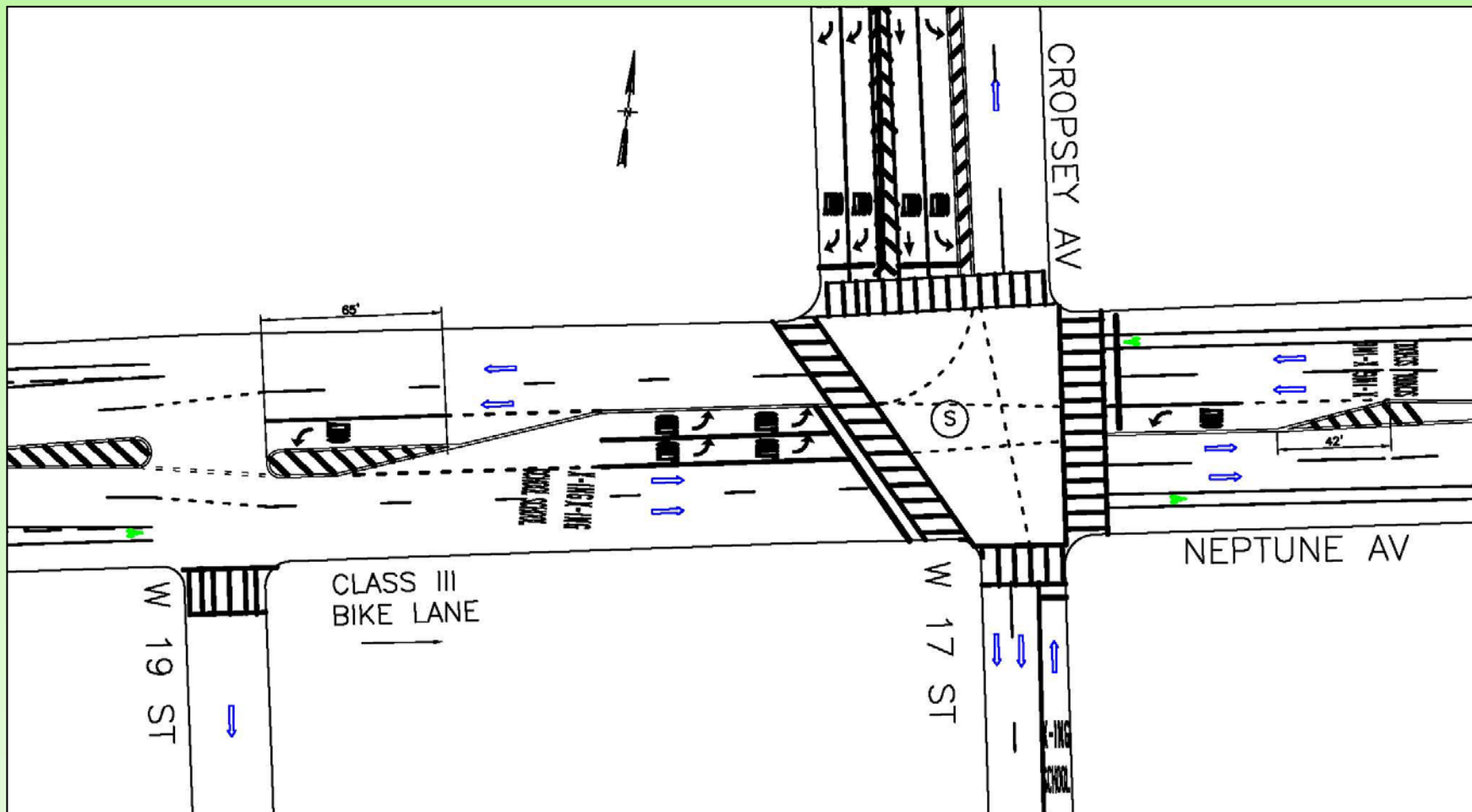
Solutions:

- Street direction changes
- Signals redesign
- Restriping

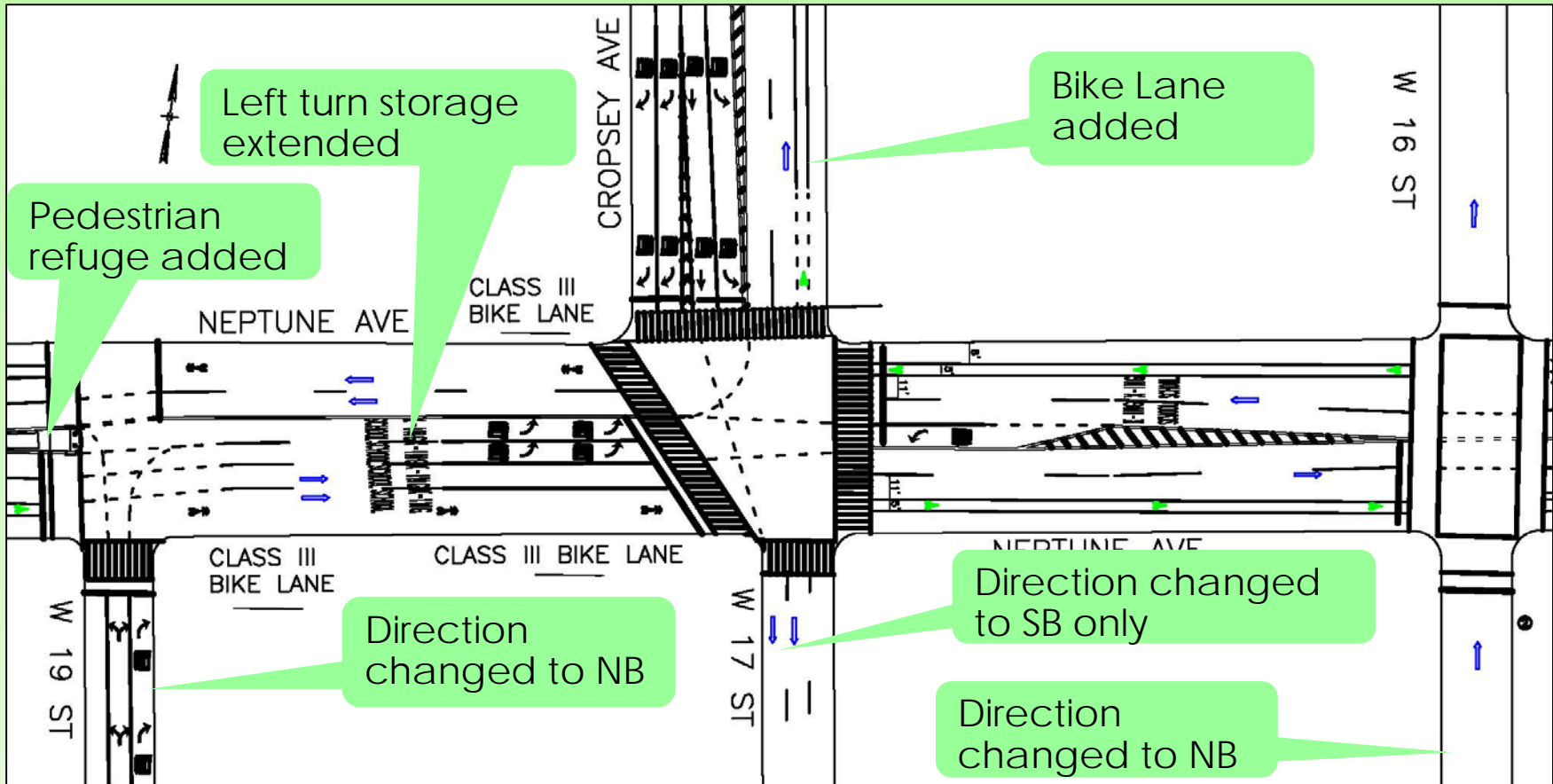
Neptune Ave & Cropsey Ave/West 17 St Street Directional Changes



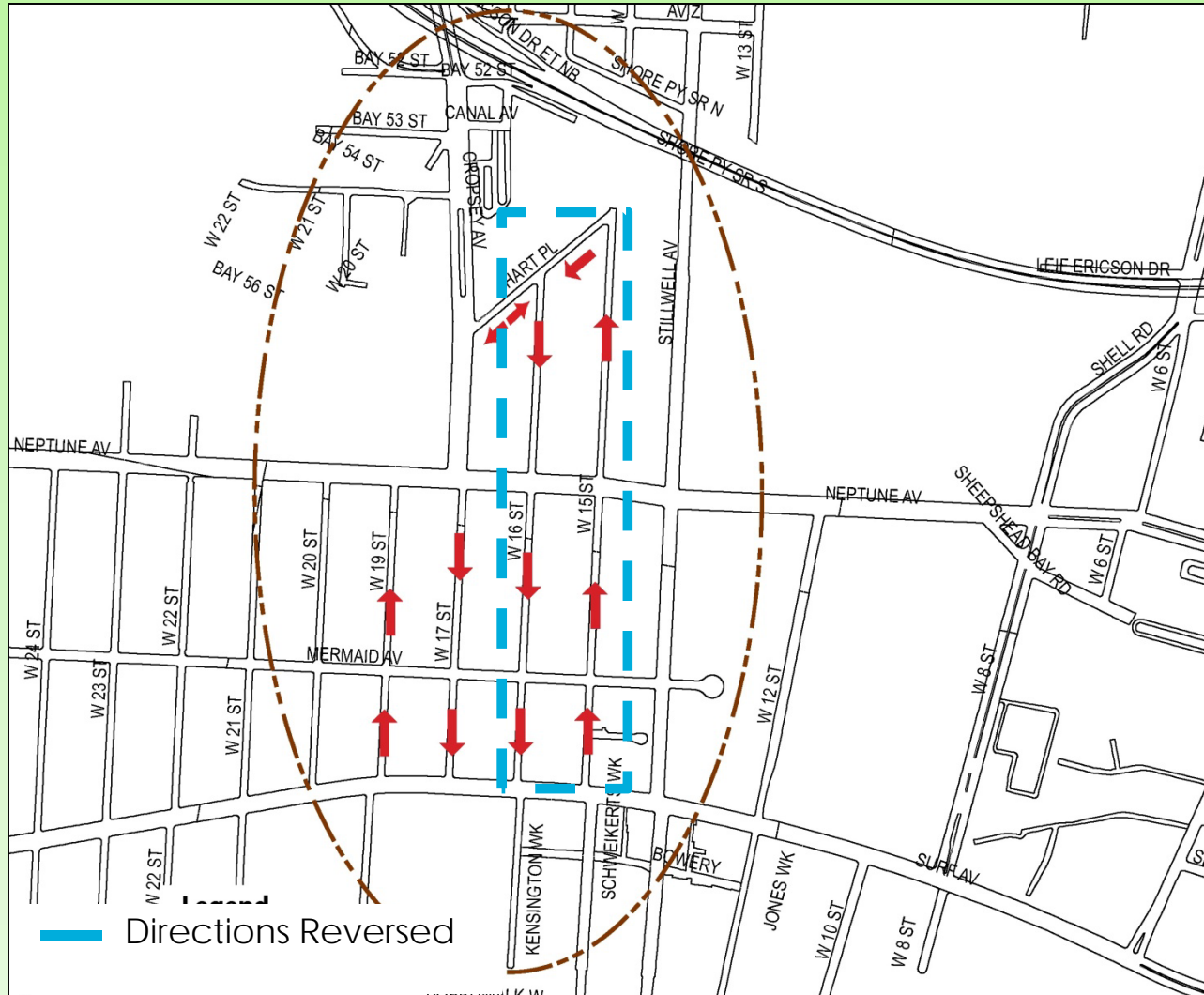
Neptune Ave & Cropsey Ave/West 17 St Existing



Neptune Ave & Cropsey Ave/West 17 St Proposed



Neptune Ave & Cropsey Ave/West 17 St Post Implementation



Neptune Ave & Cropsey Ave/West 17 St

BEFORE



Cropsey Avenue Looking North

AFTER



BEFORE



West 17th Street Looking South

AFTER



Challenges...

- Planning process
- Community support & opposition
- Constrained network configuration
- Transportation modeling
- Simulating the optimization of the land use/transportation mix
- Challenges resolving long-term and short-term objectives

Conclusions...

Public Participation

- support and opposition

Traffic congestion and the need to:

- Balance pedestrian needs v. need to process vehicles
- Improve capacity to ensure demand is in balance with development density



Thank you!

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