



# NARROWS ROAD SOUTH IMPROVEMENTS

Presentation to Community Board 2

March 11, 2019



## **PRESENTATION OVERVIEW:**

- **Introduction**
- **Existing transportation issues**
- **Data collection and existing traffic operations**
- **Recent improvements**
- **Proposed improvements**
- **Proposed condition analysis results**
- **Findings**

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# Introduction

# 1

## Introduction

At the request of the Borough President, traffic operations and safety were evaluated in the vicinity of Narrows Road South/Hylan Blvd to address:

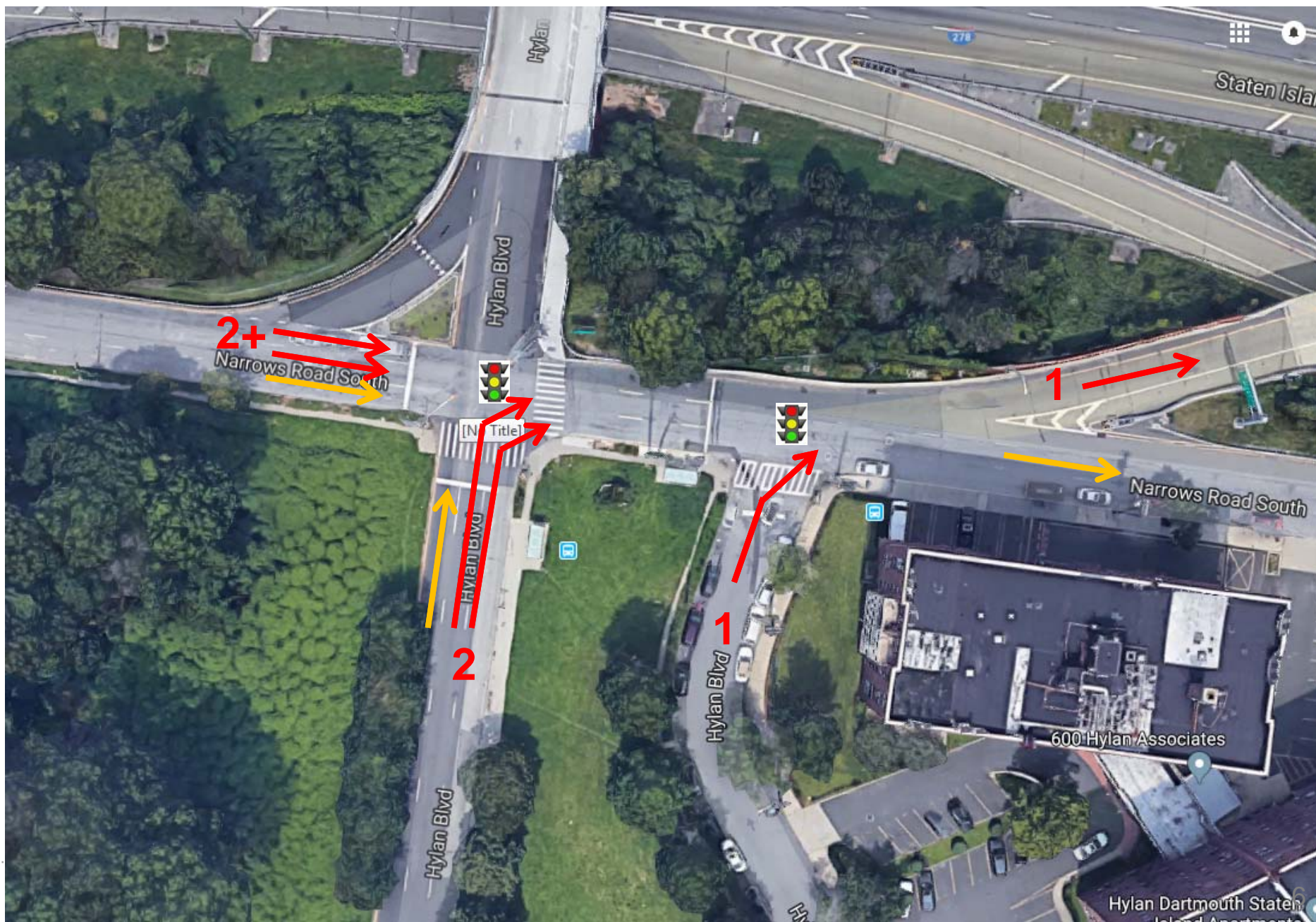
- Eliminating and re-timing traffic signals near on-ramp to SIE
- Reversing Hylan Blvd (east leg), between Narrows Road South and Olga Place
- Relocating bus stops and associated improvements

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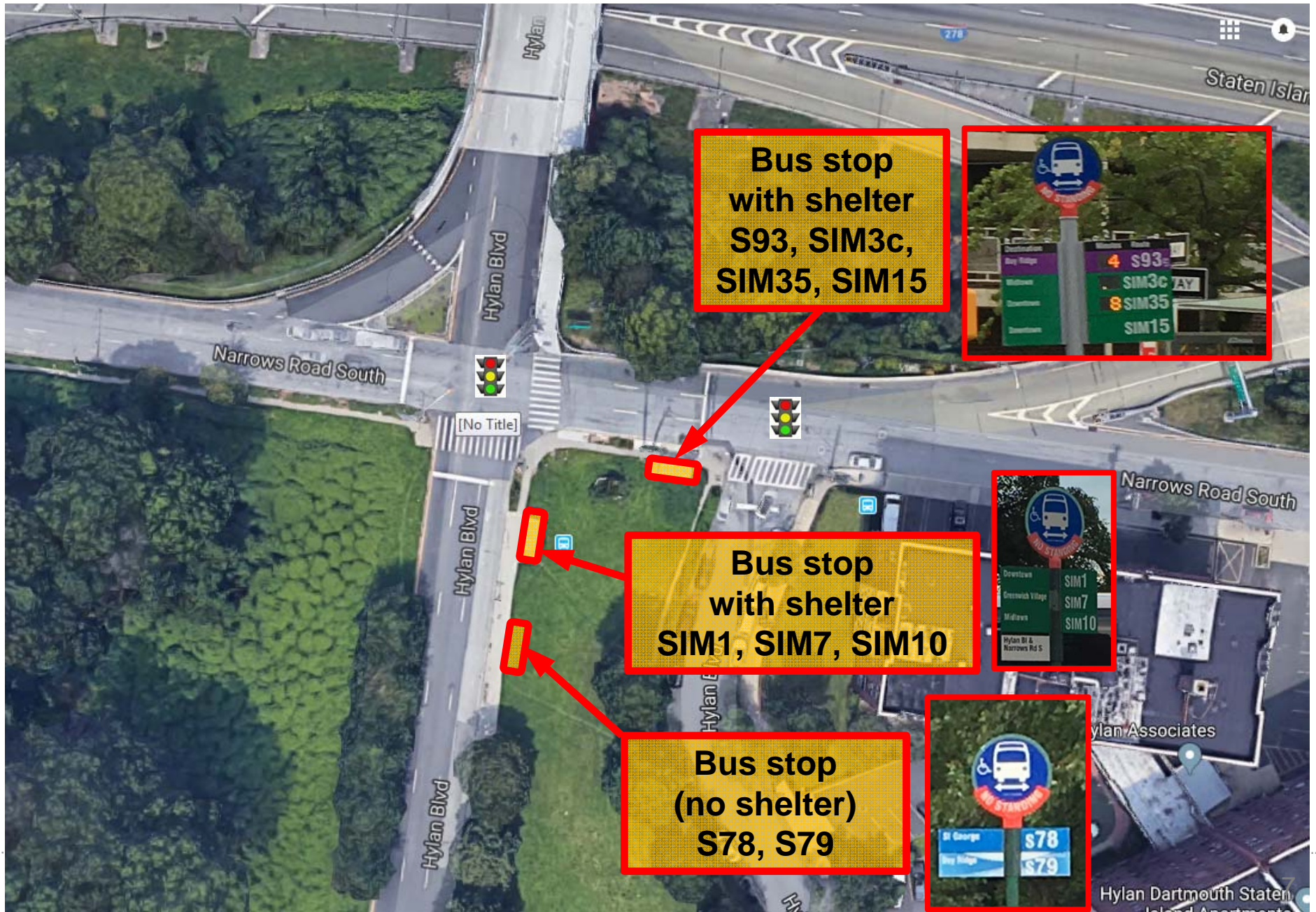
## Existing Transportation Issues

# 2

# Competing traffic flows destined to SIE on-ramp (AM peak)



# Poor operations exacerbated by location of bus stops



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## Data Collection and Existing Traffic Operations

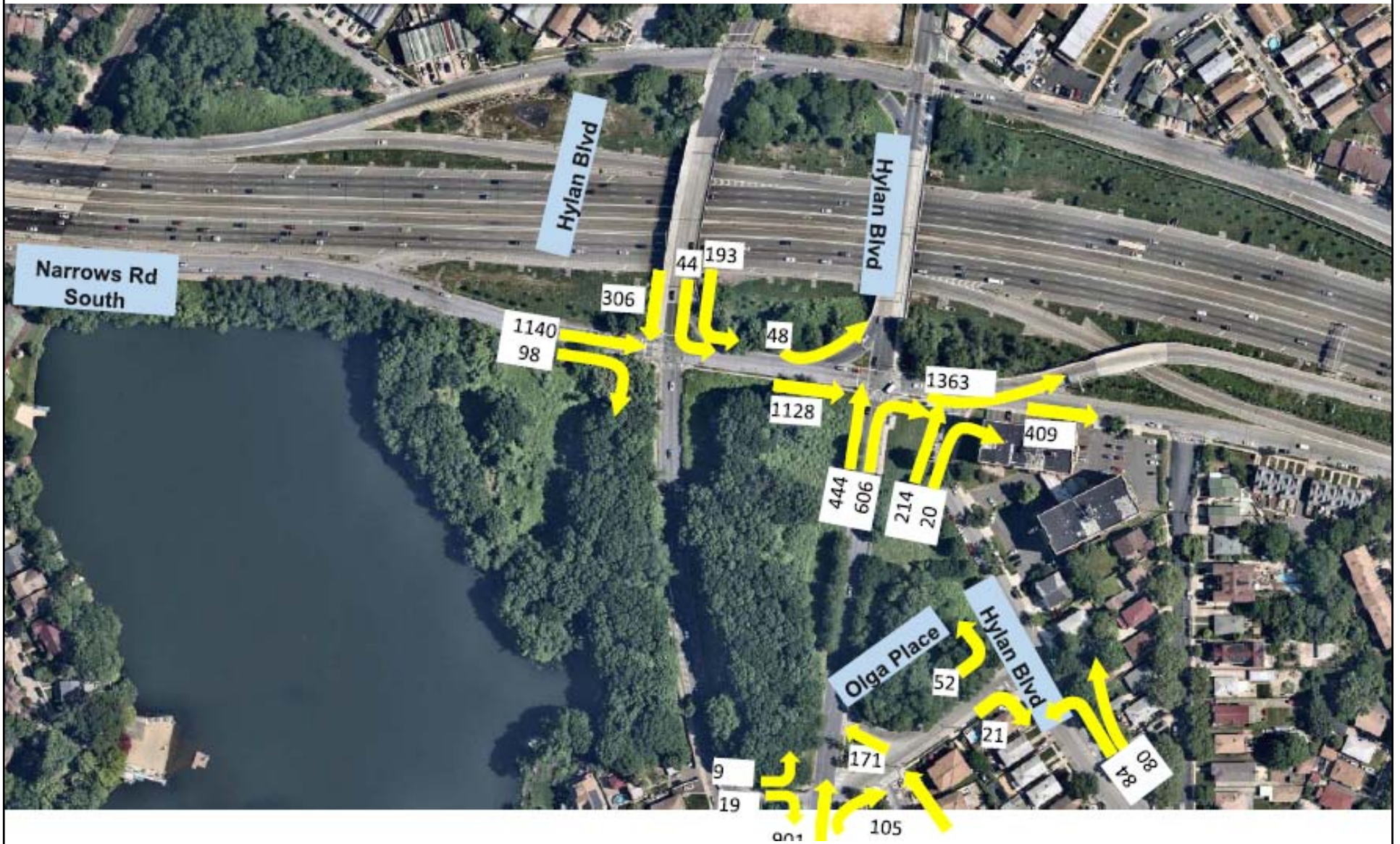
# 3



# Data Collected: ATRs and Turning Movement/Class Counts



# Existing Traffic Volumes (Weekday AM Peak Hour)



## Existing Conditions Speed & Travel Time (Weekday AM Peak Hour)

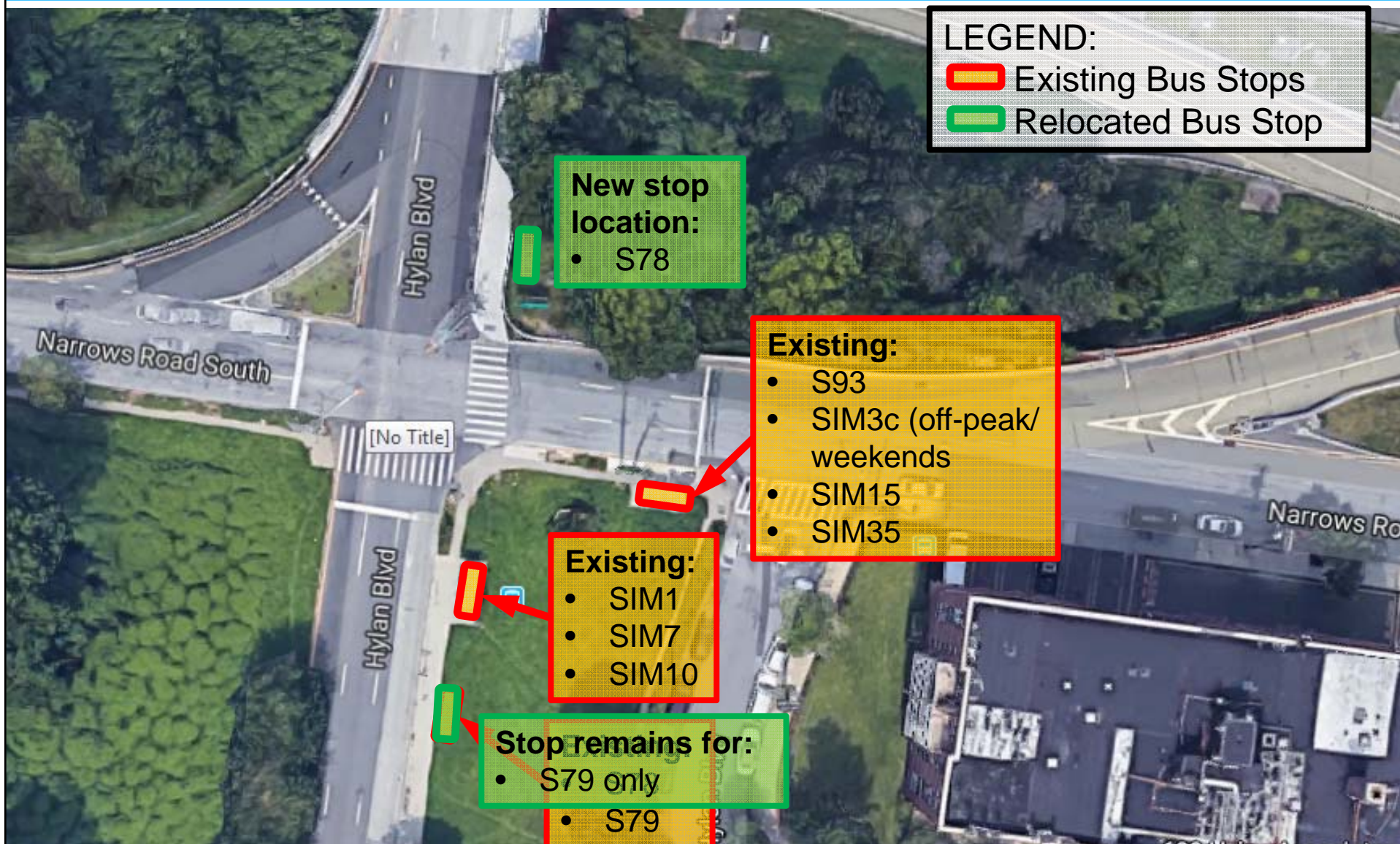
Approach to Staten Island Expressway on-ramp	From	To	Distance (feet)	EXISTING CONDITIONS	
				Speed (mph)	Travel Time (min)
Narrows Road S eastbound	644' upstream of Hylan Blvd southbound	Hylan Blvd (east leg)	1,187	2.3	5.9
Hylan Blvd northbound (west leg)	323' upstream of W. Fingerboard Rd.	Narrows Road S	1,689	2.6	7.3
Hylan Blvd northbound (east leg)	390' upstream of Olga Place	Narrows Road S	997	2.1	5.3

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## Recent Improvements

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# Bus Stop Relocation: December 2018



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# Proposed Improvements

# 5

# Proposed Improvements

- **Traffic signal bagged:**
  - **Narrows Road South/Hylan Blvd (east leg) intersection**
- Street direction conversion:
  - Hylan Blvd (east leg) between Narrows Road South and Olga Place: from northbound to southbound
- Signal phasing and timing modifications
- Roadway geometry & intersection traffic control improvements

# Recommended Traffic Signal Bagged





# Proposed Improvements

- Traffic signal bagged:
  - Narrows Road South/Hylan Blvd (east leg) intersection
- **Street direction conversion:**
  - **Hylan Blvd (east leg) between Narrows Road South and Olga Place: from northbound to southbound**
- Signal phasing and timing modifications
- Roadway geometry & intersection traffic control improvements

# Recommended Street Direction Conversion



## Proposed Improvements

- Traffic signal bagged:
  - Narrows Road South/Hylan Blvd (east leg) intersection
- Street direction conversion:
  - Hylan Blvd (east leg) between Narrows Road South and Olga Place:  
from northbound to southbound
- **Signal phasing and timing modifications**
- Roadway geometry & intersection traffic control improvements

# Existing Traffic Signal Arrangement



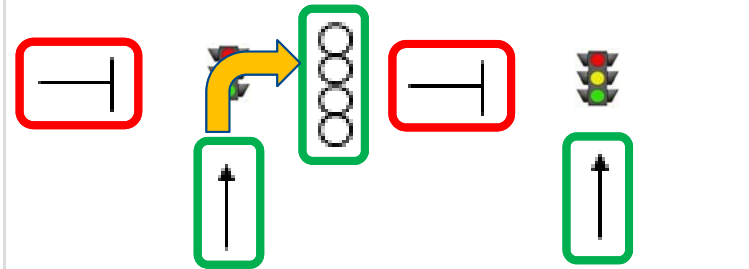
# Existing Signal Phasing & Timing Plan (AM)

## Phases

Northbound left-turns must...

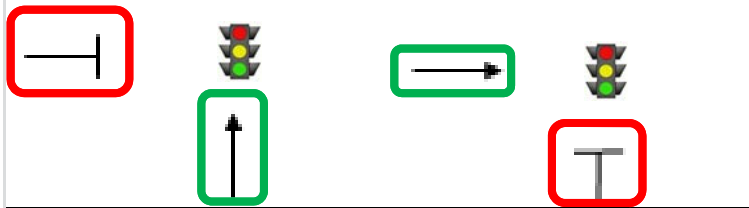
- 1) Yield to pedestrians in crosswalk
- 2) Stop before reaching on-ramp

**1**  
(30 sec)



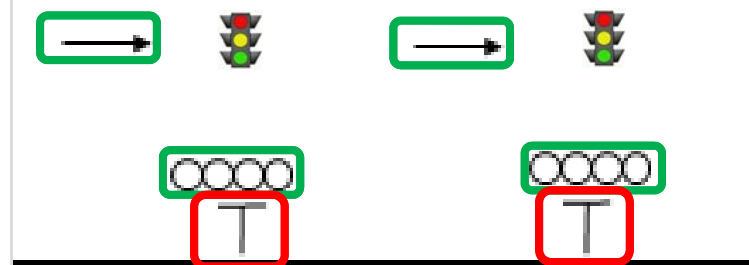
- 1) Green for Hylan Blvd (both legs)
- 2) "WALK" across Narrows Rd S

**2**  
(35 sec)



- 1) Green for Hylan Blvd (west leg only)
- 2) Green for Narrows Road S (middle segment only)

**3**  
(55 sec)

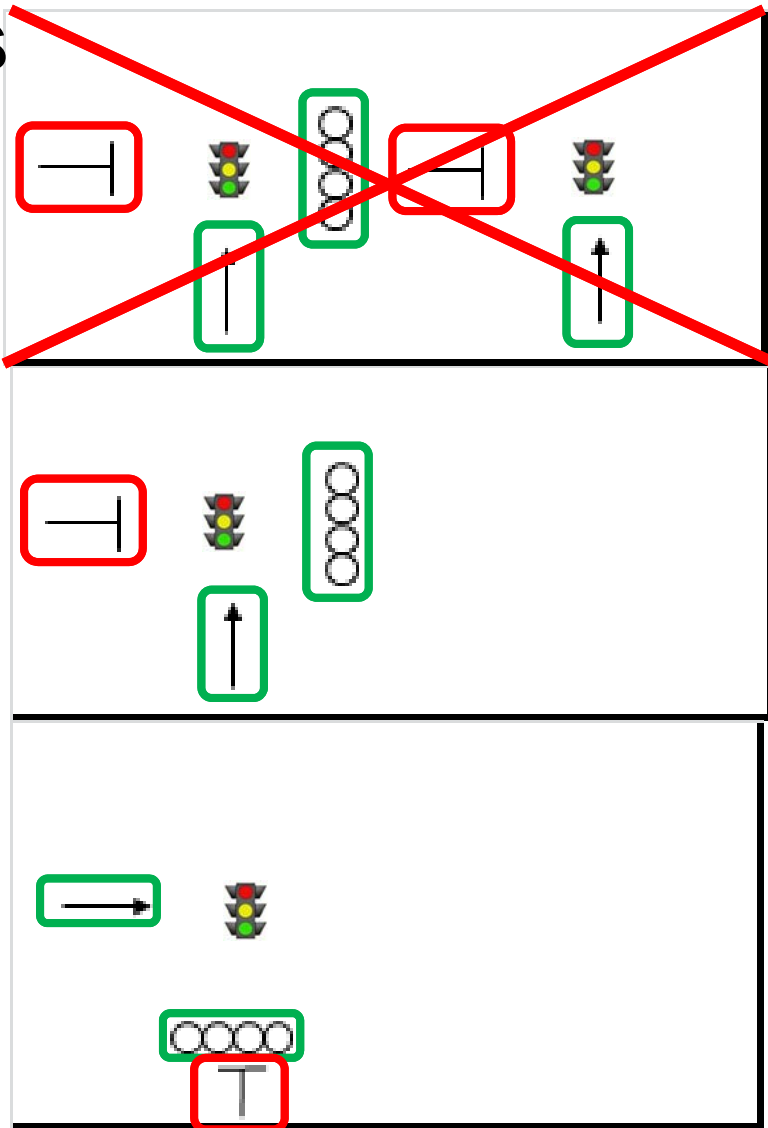


- 1) Green for Narrows Road S
- 2) "WALK" along south side of Narrows Rd S

Cycle = 120 sec

# Recommended Signal Phasing & Timing Plan (AM)

## Phases



**Eliminate Phase 1  
(east signal removed)**

### **30 SECONDS MORE GREEN TIME FOR:**

- 1) Green for Hylan Blvd (*no second stop*)
- 2) "WALK" across Narrows Road S

### **MAINTAIN GREEN TIME FOR:**

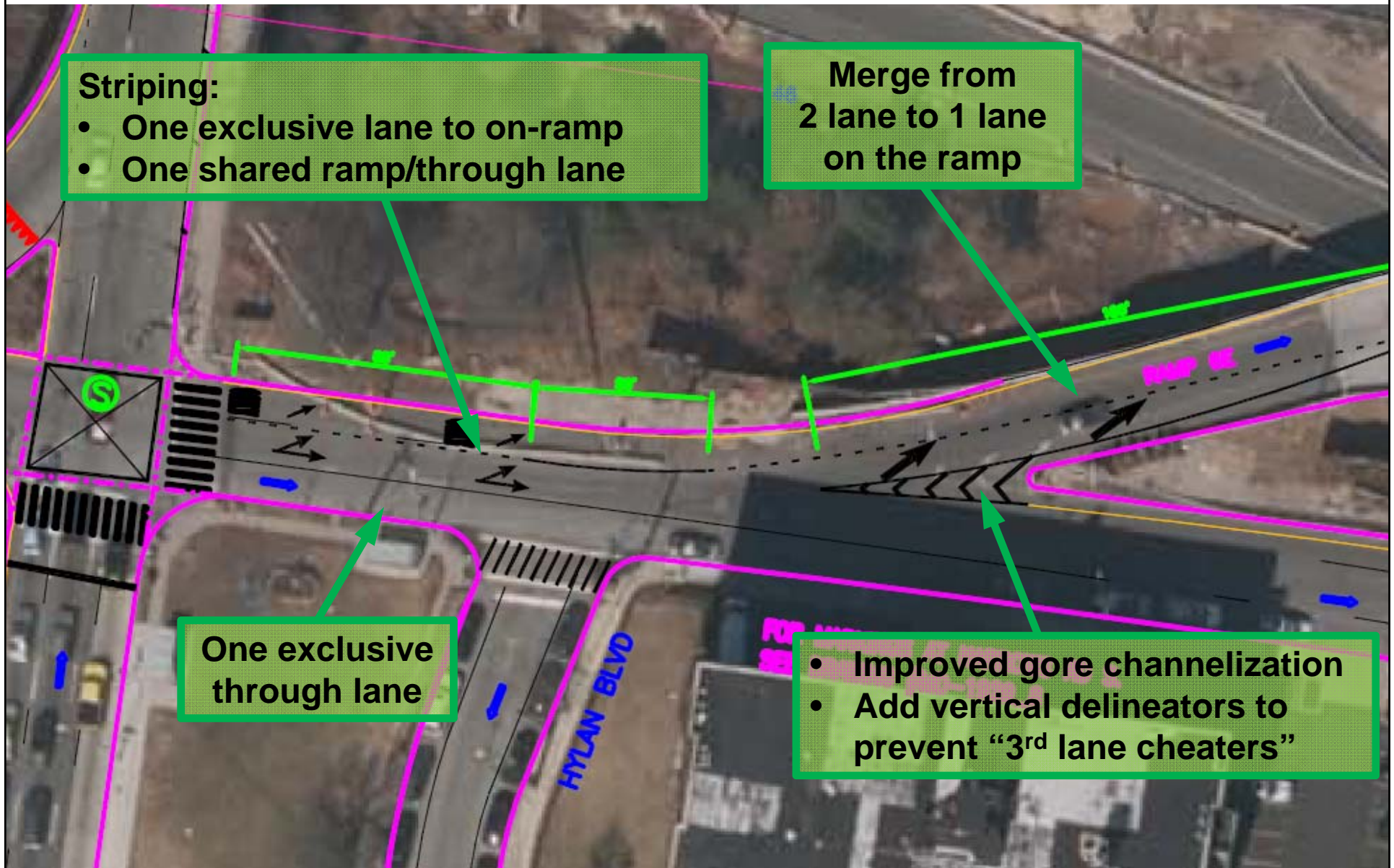
- 1) Green for Narrows Road S
- 2) "WALK" along south side of Narrows Rd S

**Cycle = 120 sec**

## Proposed Improvements

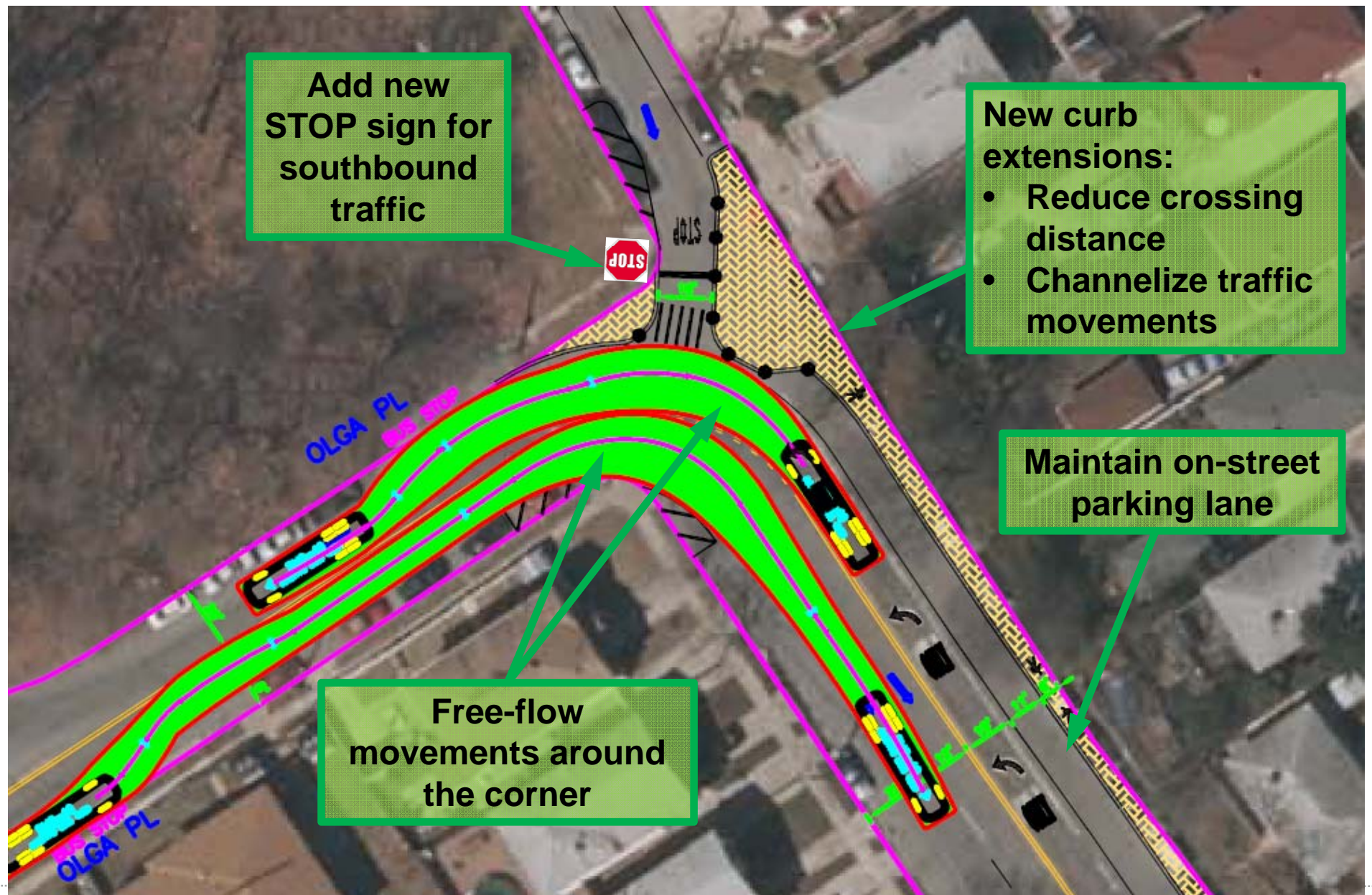
- Traffic signal bagged:
  - Narrows Road South/Hylan Blvd (east leg) intersection
- Street direction conversion:
  - Hylan Blvd (east leg) between Narrows Road South and Olga Place:  
from northbound to southbound
- Signal phasing and timing modifications
- **Roadway geometry & intersection traffic control improvements**

# Roadway Geometry and Intersection Traffic Control Changes





# Roadway Geometry and Intersection Traffic Control Changes



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# Proposed Condition Analysis Results

# 6

# Speed & Travel Time Comparison (Weekday AM Peak Hour)

Approach to Staten Island Expressway on-ramp	From	To	Distance (feet)	EXISTING CONDITIONS		PROPOSED CONDITIONS	
				Speed (mph)	Travel Time (min)	Speed (mph)	Travel Time (min)
Narrows Road S eastbound	644' upstream of Hylan Blvd southbound	Hylan Blvd (east leg)	1,187	2.3	5.9	2.4	5.6
Hylan Blvd northbound (west leg)	323' upstream of W. Fingerboard Rd.	Narrows Road S	1,689	2.6	7.3	4.8	4.0
Hylan Blvd northbound (east leg)	390' upstream of Olga Place	Narrows Road S	997	2.1	5.3	N/A	N/A

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# Findings

# 7

## Findings

- Improvements result in moderate benefits to traffic operations (including speed and travel time)
- On-ramp should be widened to provide two full lanes
- However, traffic congestion remains an issue along Narrows Road South and Hylan Boulevard due to diverted traffic from Staten Island Expressway mainline and presence of on-ramp
- Residents on east side of Hylan Boulevard (east leg) would be re-routed, due to street direction reversal from northbound to southbound

# THANK YOU!

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## Questions?



NYC DOT



NYC DOT



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NYC DOT