

A photograph of a busy street with cars, a cyclist, a pedestrian, and a traffic officer. The scene is captured from a low angle, looking down the street. On the left, a line of cars is parked. In the center, a cyclist wearing a blue jacket and a white beanie is riding a bicycle. To the right, a pedestrian in a bright yellow jacket is walking. A traffic officer in a high-visibility vest is standing on the left side of the road. The street is lined with trees and buildings.

# VAN DUZER STREET CORRIDOR TRANSPORTATION IMPROVEMENTS

Van Duzer Street Civic Committee

November 1<sup>st</sup>, 2016



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# Project Background



# (1) Project Background

## Project Overview

Address numerous complaints and requests regarding the Van Duzer St Corridor:

- 1 **St Pauls Ave**  
From Victory Blvd to Van Duzer St
- 2 **Van Duzer St (southbound)**  
From St Pauls Ave to Richmond Rd
- 3 **Richmond Rd**  
From Van Duzer St to Narrows Rd N
- 4 **Targee St**  
From Narrows Rd N to Van Duzer St
- 5 **Van Duzer St (northbound)**  
From Targee St to Victory Blvd
- 6 **Swan St**  
From Bay St to St Paul's Ave





## Project Timeline

### Fall 2015

NYC DOT began investigating corridor after receiving numerous complaints about speeding

### June 2016

NYC DOT presented project proposal to Van Duzer St Civic Association and Staten Island Community Board 1

### Summer 2016

Community members, NYC DOT, and NYPD meet on-site to discuss problem locations and potential solutions

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## Existing Conditions

# 2

## (2) Existing Conditions

Van Duzer St near Osgood Ave

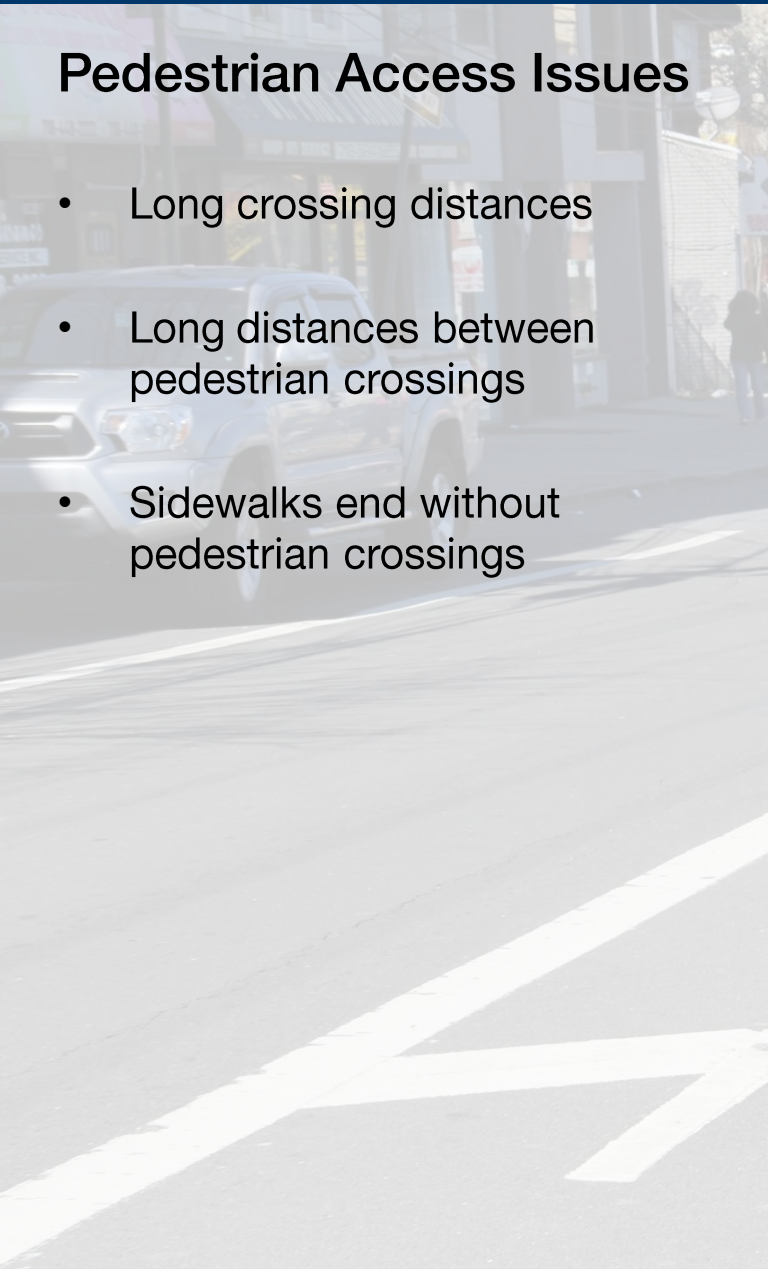


### Speeding is Significant

Vehicle speeds along corridor were measured after numerous speed related complaints. Speeding was found to be significant throughout the corridor.

### Pedestrian Access Issues

- Long crossing distances
- Long distances between pedestrian crossings
- Sidewalks end without pedestrian crossings



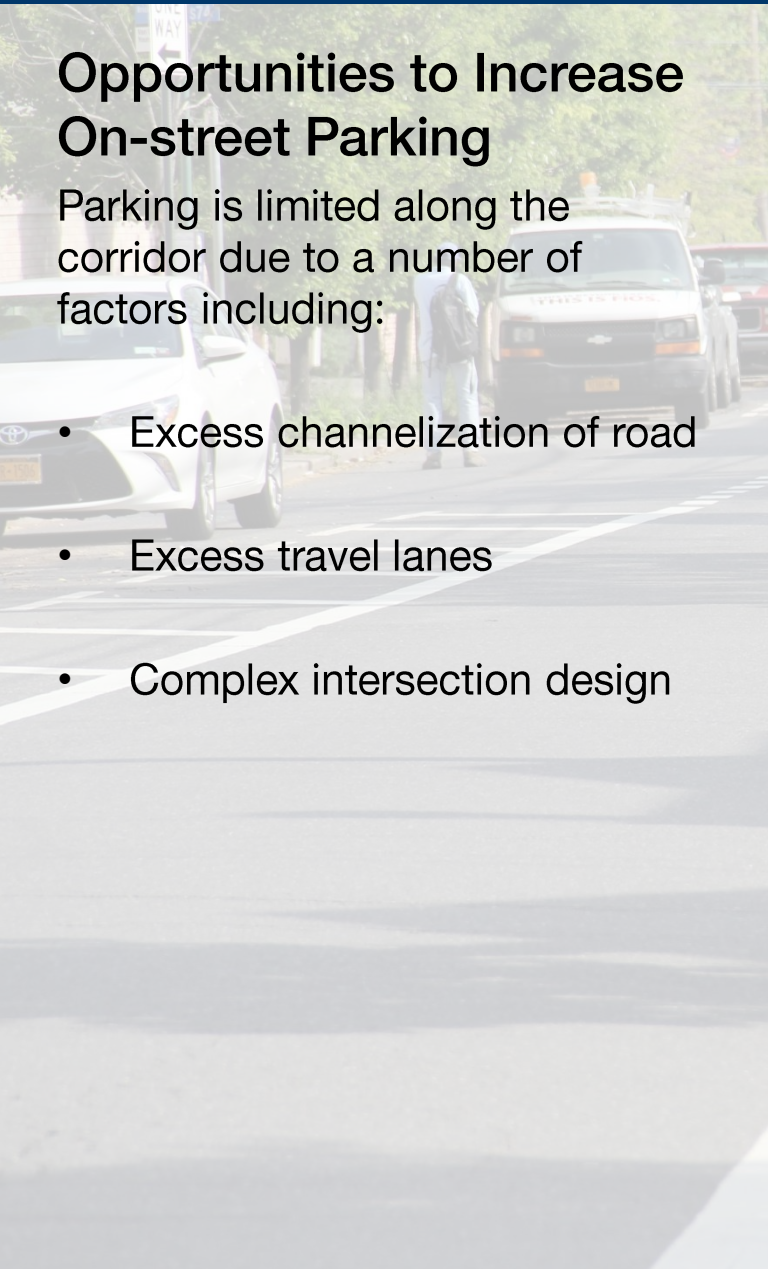
St Paul's Ave at Victory Blvd

## (2) Existing Conditions

### Opportunities to Increase On-street Parking

Parking is limited along the corridor due to a number of factors including:

- Excess channelization of road
- Excess travel lanes
- Complex intersection design



Van Duzer St at Young St



# Bicycle Lane Potential

Bicycle lanes can help calm traffic and improve non-motorized access to community centers and the St. George Ferry Terminal



Tompkinsville



Bay St Bicycle Route



Van Duzer St at Beach St



Targee St at Vanderbilt Ave

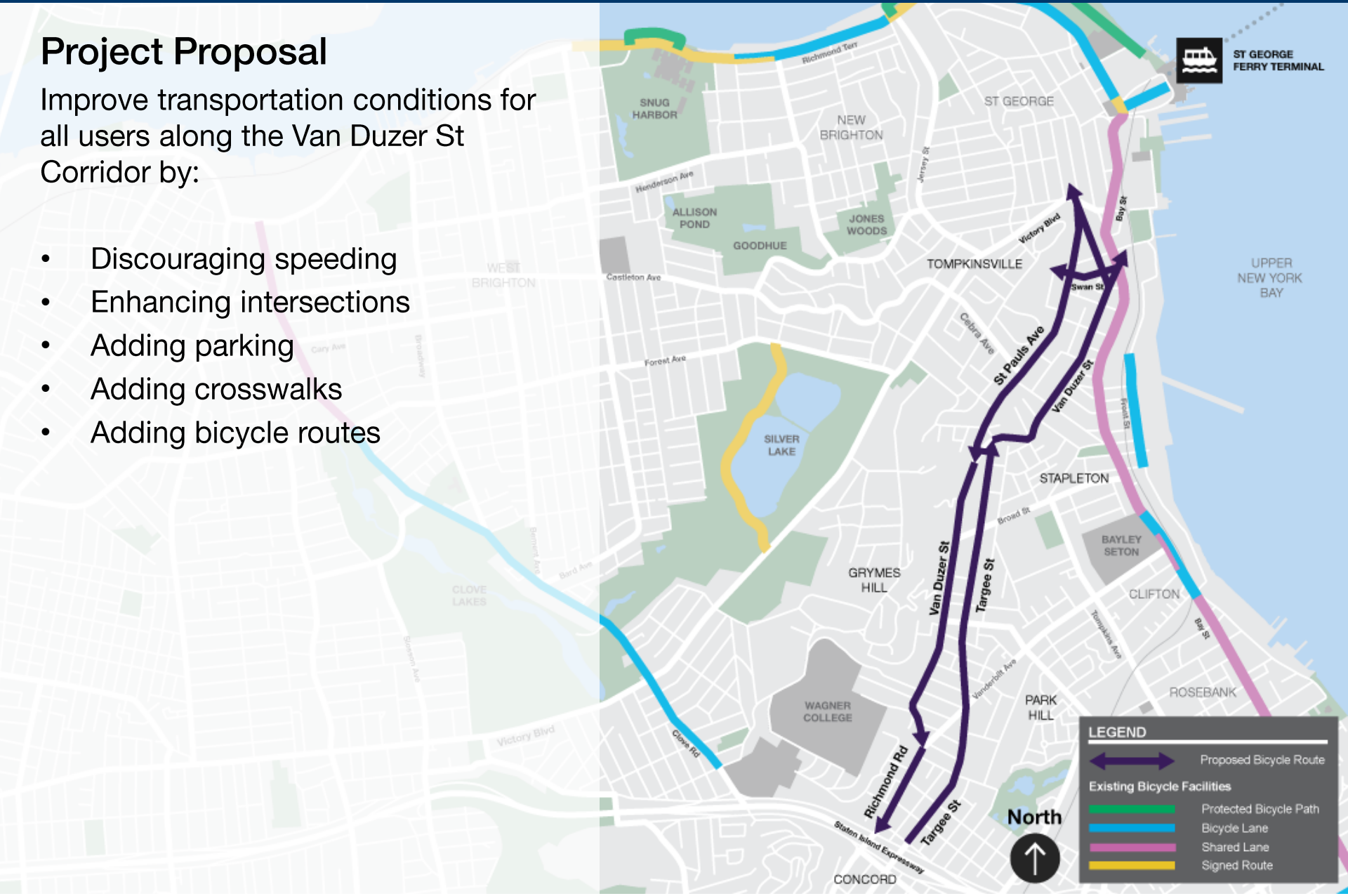


# (2) Existing Conditions

## Project Proposal

Improve transportation conditions for all users along the Van Duzer St Corridor by:

- Discouraging speeding
- Enhancing intersections
- Adding parking
- Adding crosswalks
- Adding bicycle routes

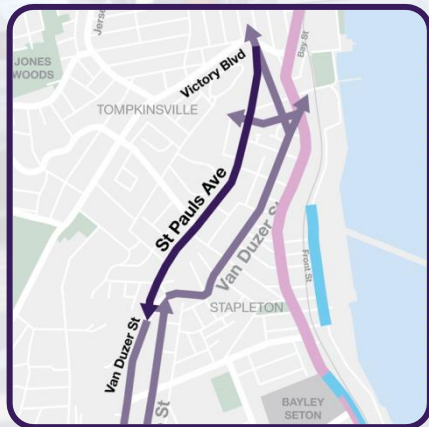


Van Duzer Street Corridor

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## Corridor Improvements

# 3



## St Paul's Ave Victory Blvd to Van Duzer St

- 90% of vehicles speeding at Taxter PI (avg. speed is 31 mph)
- Wide road with unused, channelized space
- Corridor is truck/bus route; traditional speed bumps are infeasible

# Proposed Changes

## St Pauls Ave

### Victory Bl to Van Duzer St

1

#### Create Standard Width Travel Lane

Existing travel lane is too wide for street and is conducive to speeding

2

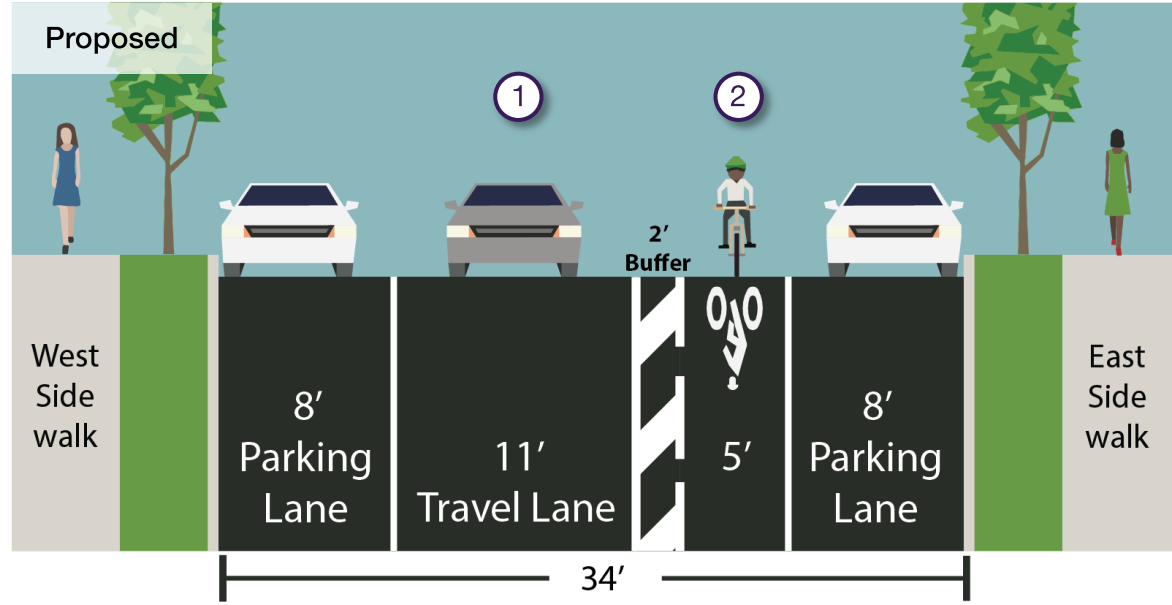
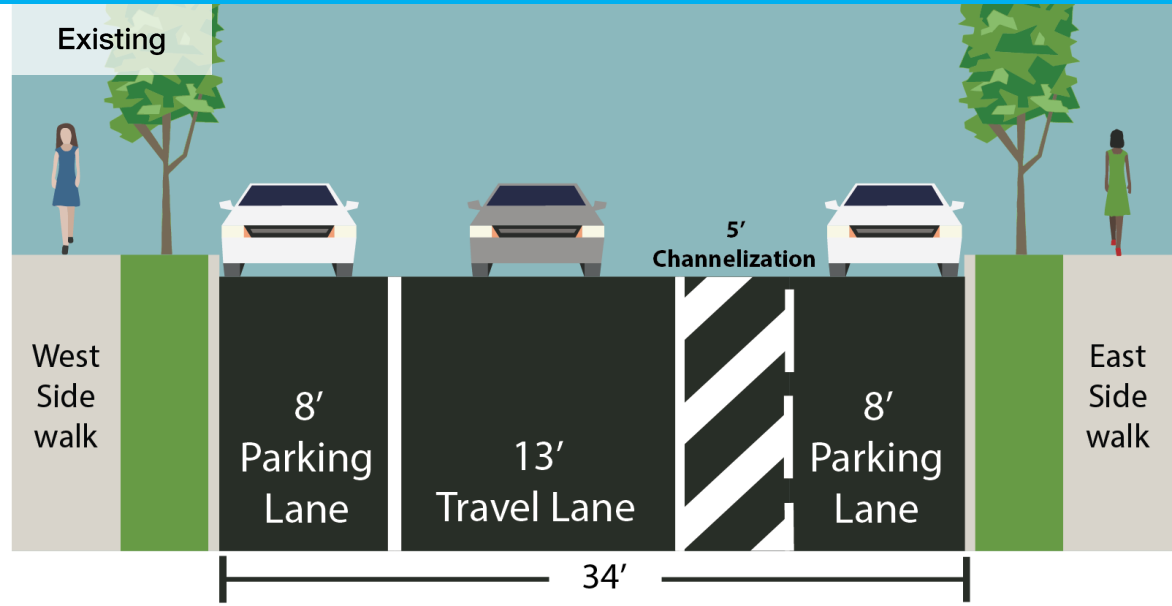
#### Add buffered bike lane

Existing channelization can be reused for bicycle lane  
Buffer adds additional separation between bicycle and vehicle travel  
Left-side alignment avoids bus conflicts

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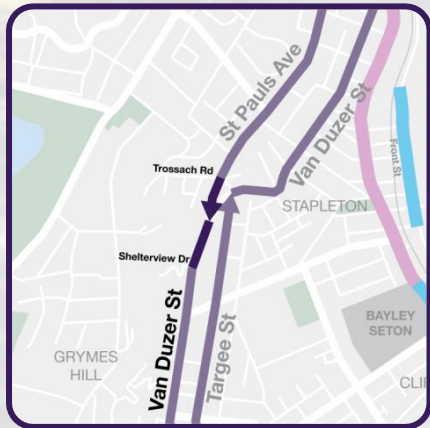
#### Speed Cushions

NYC DOT is evaluating corridor for speed cushions (type of speed bump)





- NYC DOT is piloting an alternative to speed bumps that accommodates buses, trucks, and emergency vehicles while slowing passenger cars
- Several locations on the Van Duzer St Corridor are being evaluated for speed cushion feasibility



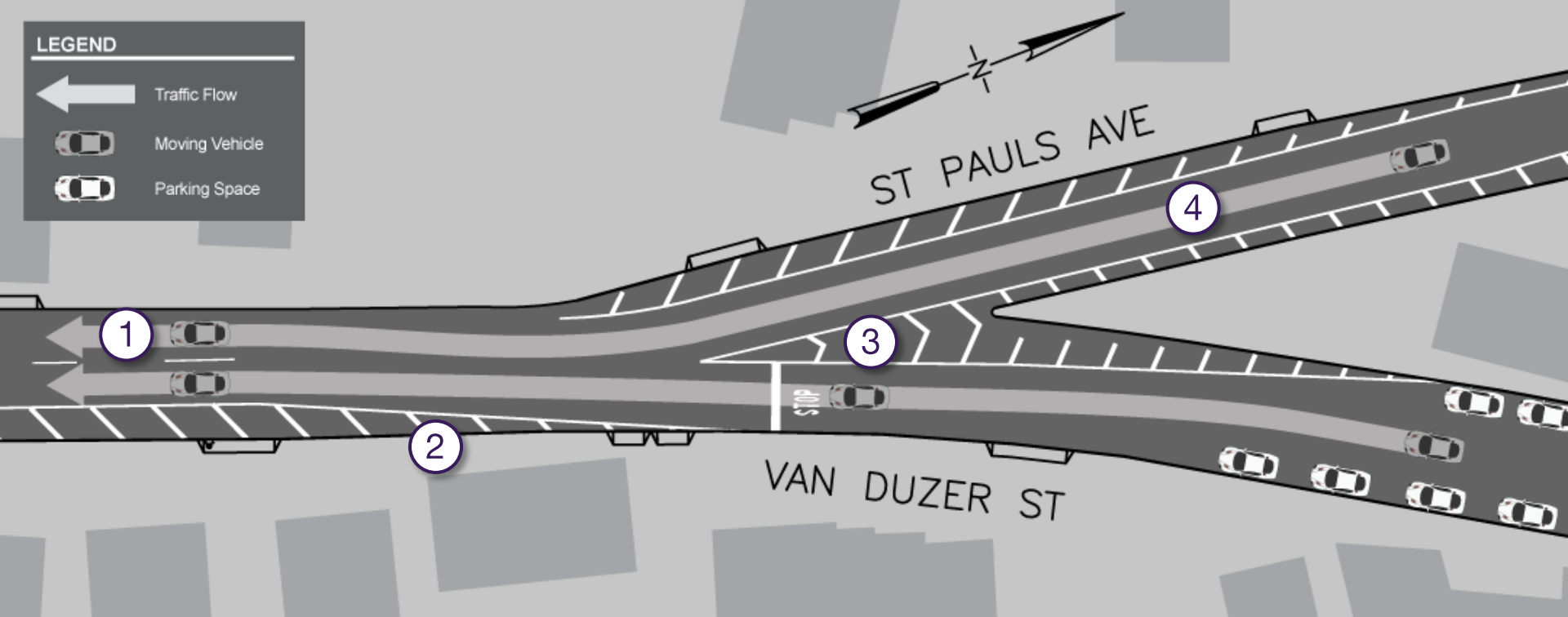
## Van Duzer Street At St Paul's Ave

- 91% of vehicles speeding at Shelterview Dr (avg. speed is 32 mph)
- Poor visibility due to the angle of the intersection
- Limited on-street parking due to intersection design

# Existing Conditions – St Paul’s Ave and Van Duzer St

**LEGEND**

- Traffic Flow
- Moving Vehicle
- Parking Space



**1 Extra Travel Lane**  
 Unnecessary daytime travel lane conducive to speeding and aggressive driving

**2 Limited Parking**  
 Merge at intersection reduces parking capacity on east curb

**3 Skewed Intersection**  
 Angle of intersection limits visibility and complicates signage placement

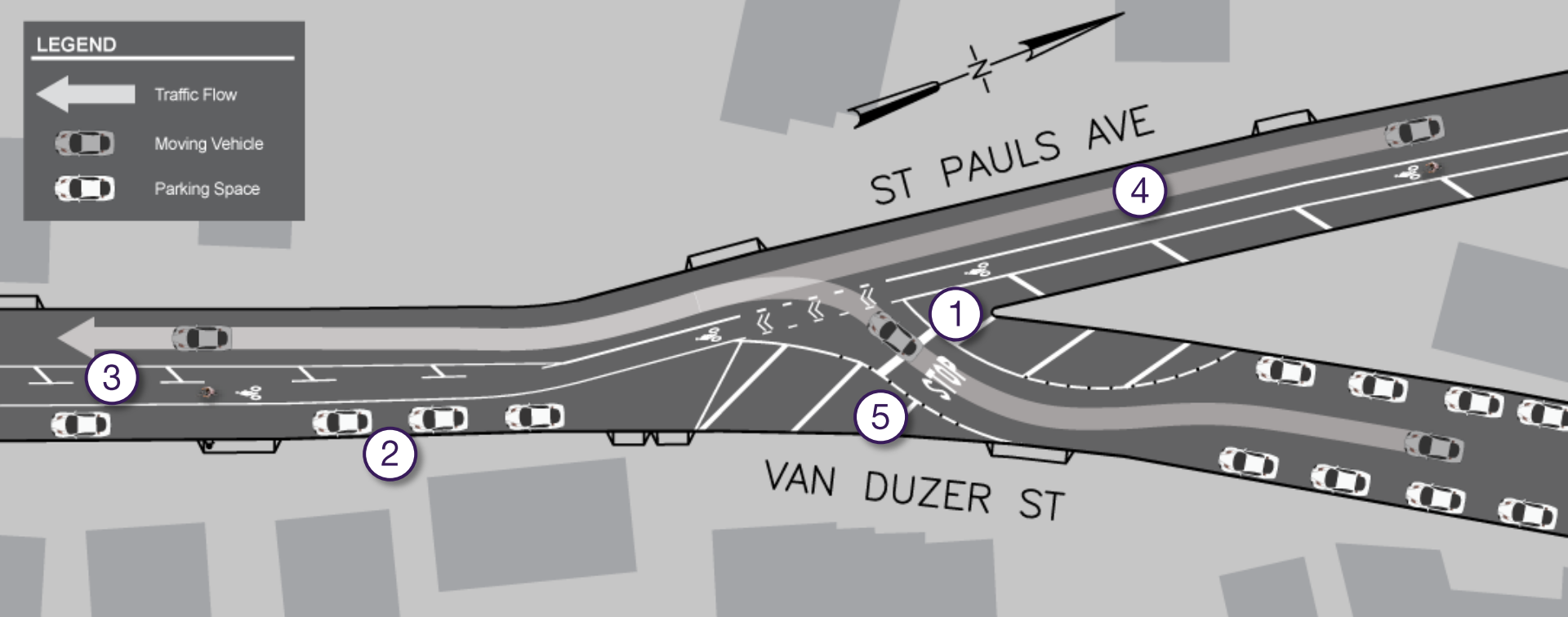
**4 Wide Travel Lane**  
 13' wide travel lane is conducive to speeding



# Proposed Design – St Paul’s Ave at Van Duzer St

**LEGEND**

- Traffic Flow
- Moving Vehicle
- Parking Space



**1** **Normalize Intersection Angle**  
Improves visibility and simplifies vehicular movements

**2** **Add Parking**  
Improved alignment provides room for additional parking

**3** **Add Bicycle Lane**  
Buffered bicycle lane separates bicycle and vehicle traffic

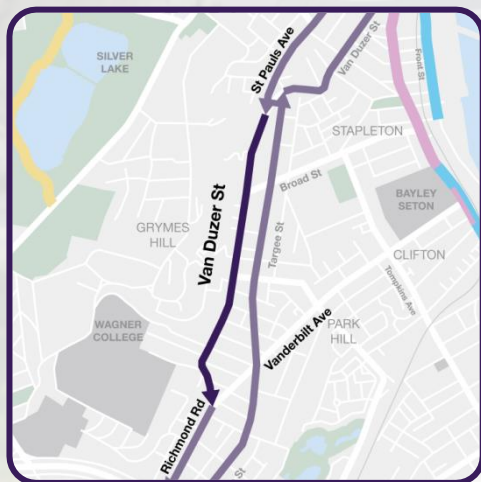
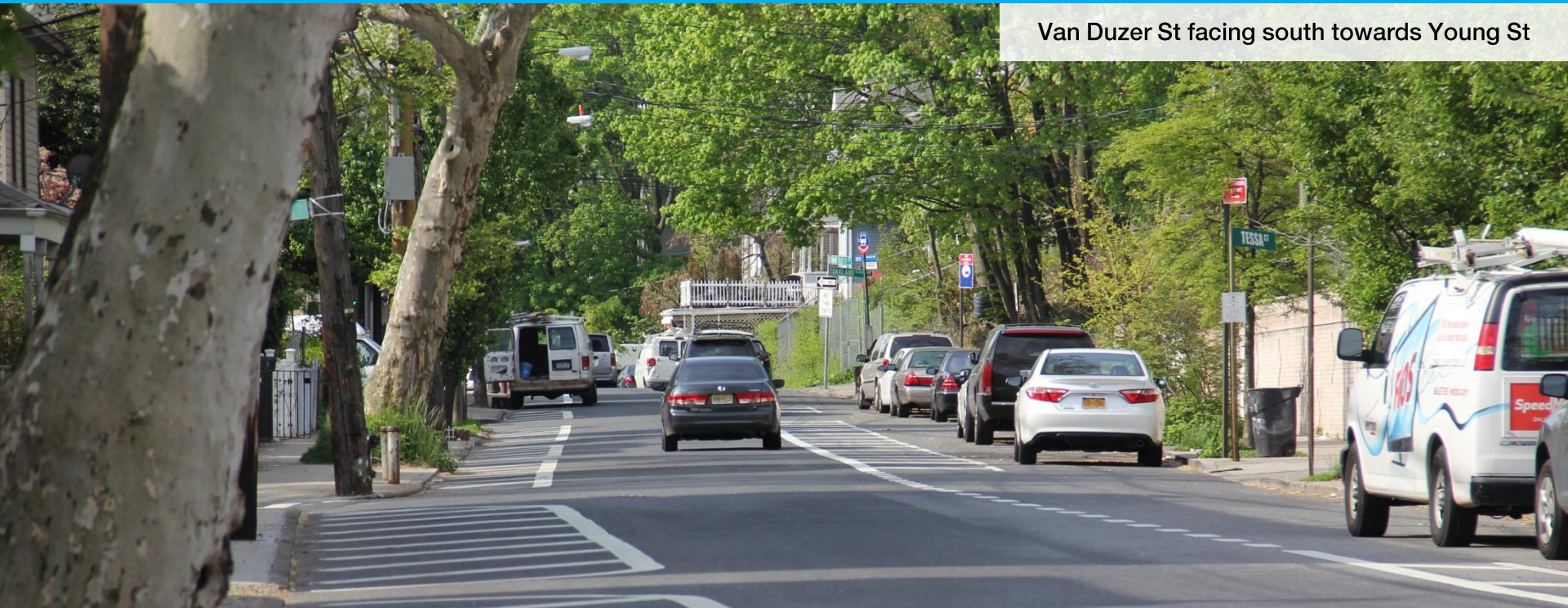
**4** **Standard Travel Lane**  
Standard travel lane width discourages speeding

**5** **Vertical Delineators**  
Improves visibility and compliance in response to community concerns

**★** **Speed Cushions**  
Corridor under evaluation for speed cushions

## (3) Corridor Improvements

Van Duzer St facing south towards Young St



### Van Duzer St St Paul's Ave to Richmond Rd

- 92% of vehicles speeding at Young St (avg. speed is 30 mph)
- Road varies between 1 and 2 travel lanes
- Excess channelization
- Corridor is truck/bus route; traditional speed bumps are infeasible

# Proposed Changes

## Van Duzer St

St Paul's Ave to Richmond Rd

1

### Create Standard Width Travel Lane

Narrow travel lane to discourage speeding

2

### Buffered Bicycle Lane

Add bicycle lane and buffer where room permits

3

### Add Parking

Remove channelization and excess travel lane to provide room for additional fulltime parking spaces

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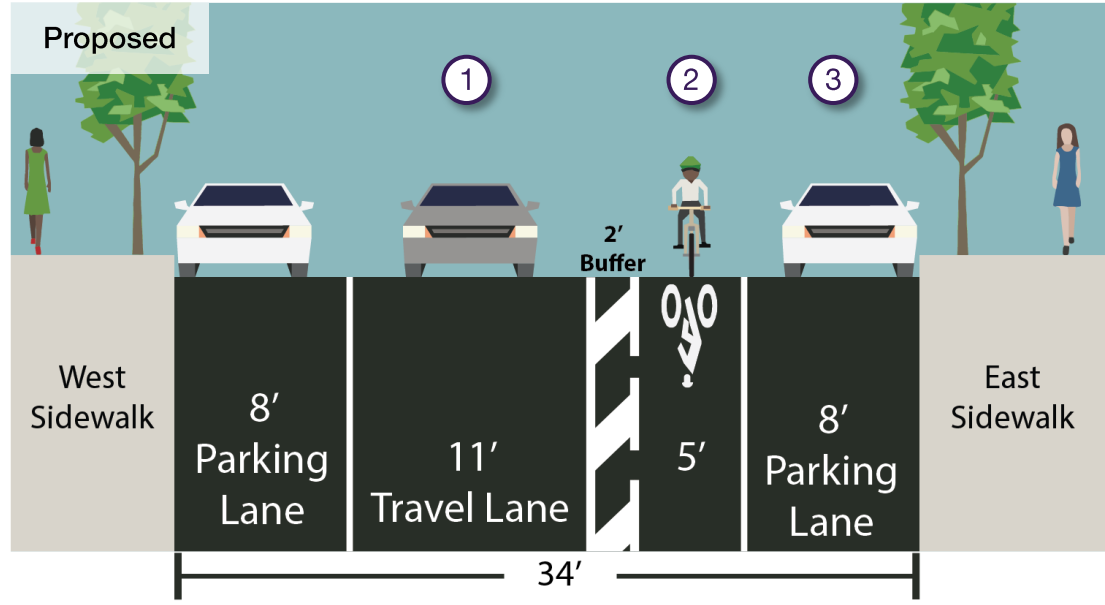
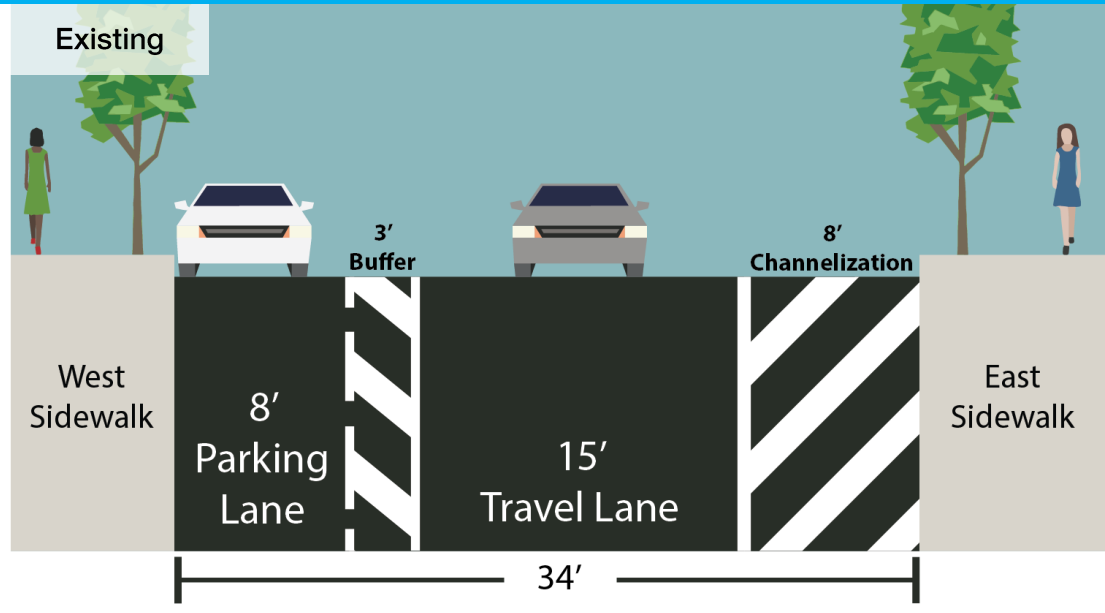
### Maintain Needed Capacity

Maintain 2 travel lanes between Cornell Pl and Richmond Rd

★

### Speed Cushions

NYC DOT is evaluating corridor for speed cushions



Van Duzer St near Broad St



- **Community Concern:** Vehicles parking on sidewalk on Van Duzer St near Broad St
- **NYC DOT plan:** add more daytime parking spaces  
Discourage sidewalk parking by converting 16 overnight parking spaces to full-time parking spaces

Example: Onderdonk Ave, Queens





- **Community Concern:** Van Duzer St is too narrow for a dedicated bicycle lane between Baring Pl and Roff St
- **NYC DOT plan:** add shared lane markings  
Alert motorists to the presence of bicyclists and orient bicyclists on the same side of the street and outside the “door zone”



Example: Thompson St, Manhattan

### (3) Corridor Improvements



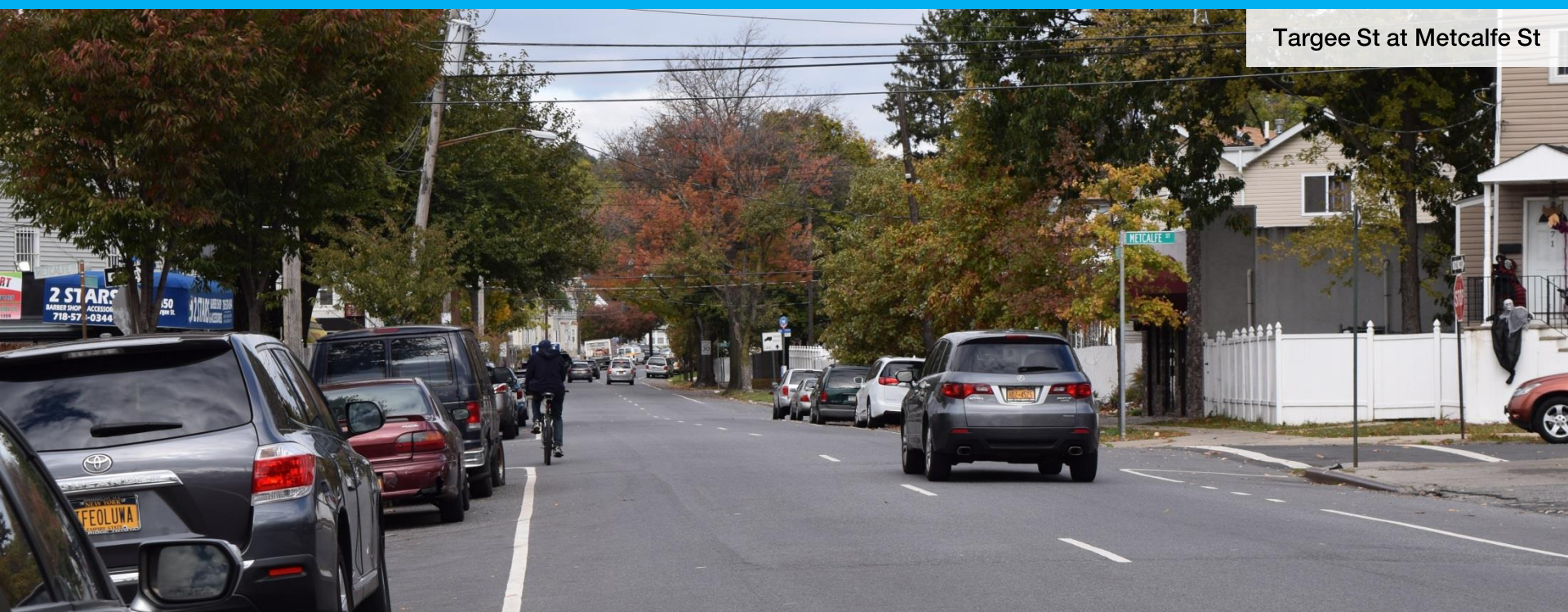
Van Duzer St near Pleasant Valley Ave

- **Community Concern:** Motorists drive on Van Duzer St curve (Hillside Ave to Richmond Rd) at high speeds
- **NYC DOT plan:** add buffered curbside bicycle lane with vertical delineators
  - Replace excess travel lane with buffered bike lane
  - Vertical delineators slow traffic through the curve



Example: Honeywell St Bridge, Queens

Targee St at Metcalfe St



## Richmond Rd & Targee St

(Van Duzer St to Narrows Rd N) (Narrows Rd N to Broad St)

- 77% of vehicles speeding on Targee St at Waverly PI (average vehicle speed is 35 mph)
- Traffic volumes higher near the expressway

# Proposed Changes

Richmond Rd  
Van Duzer St to Narrows Rd N

Targee St  
Narrows Rd N to Broad St

1

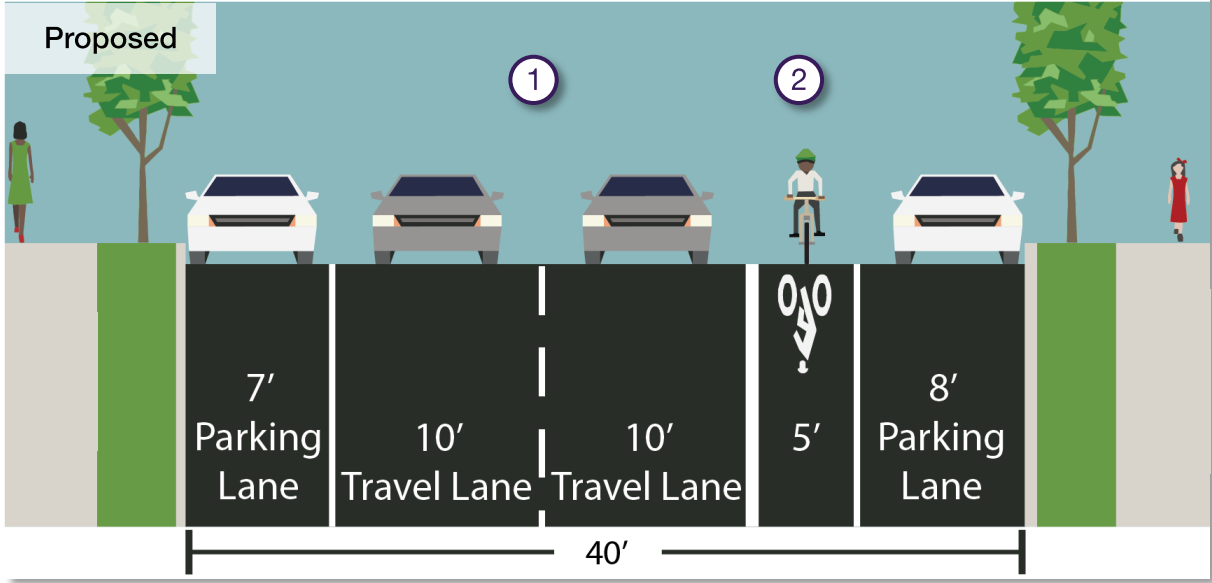
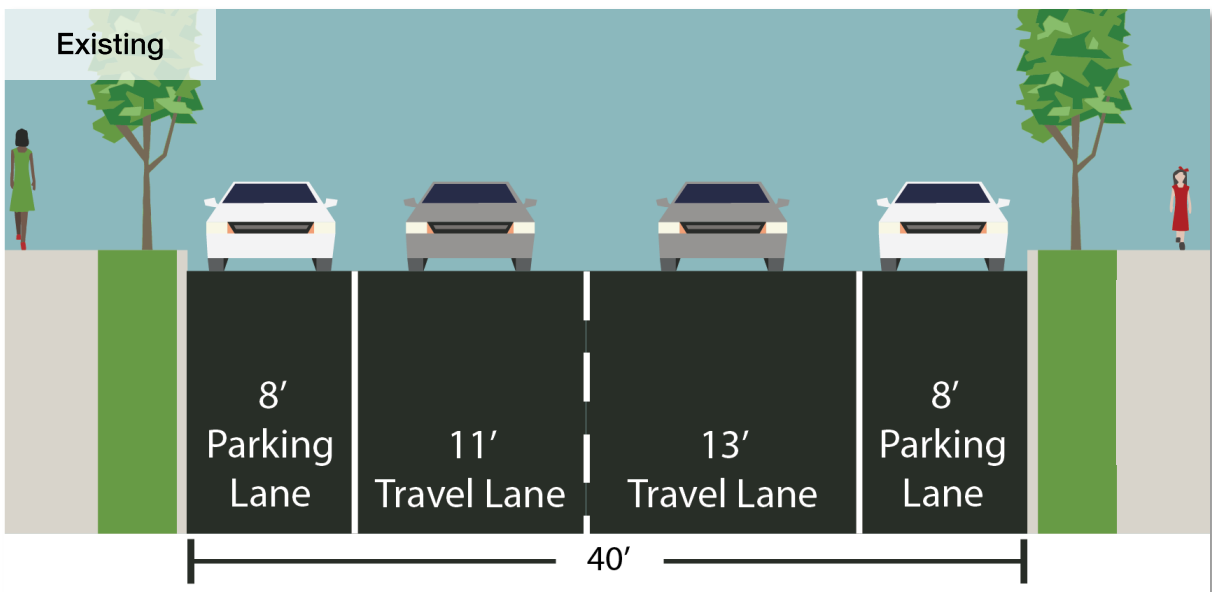
## Create Standard Travel Lanes

Narrow wide travel lane to discourage speeding and maintain capacity for higher traffic volumes

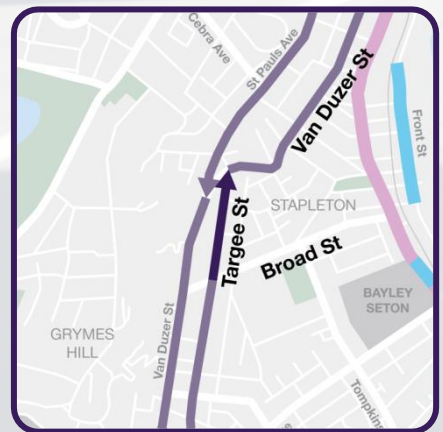
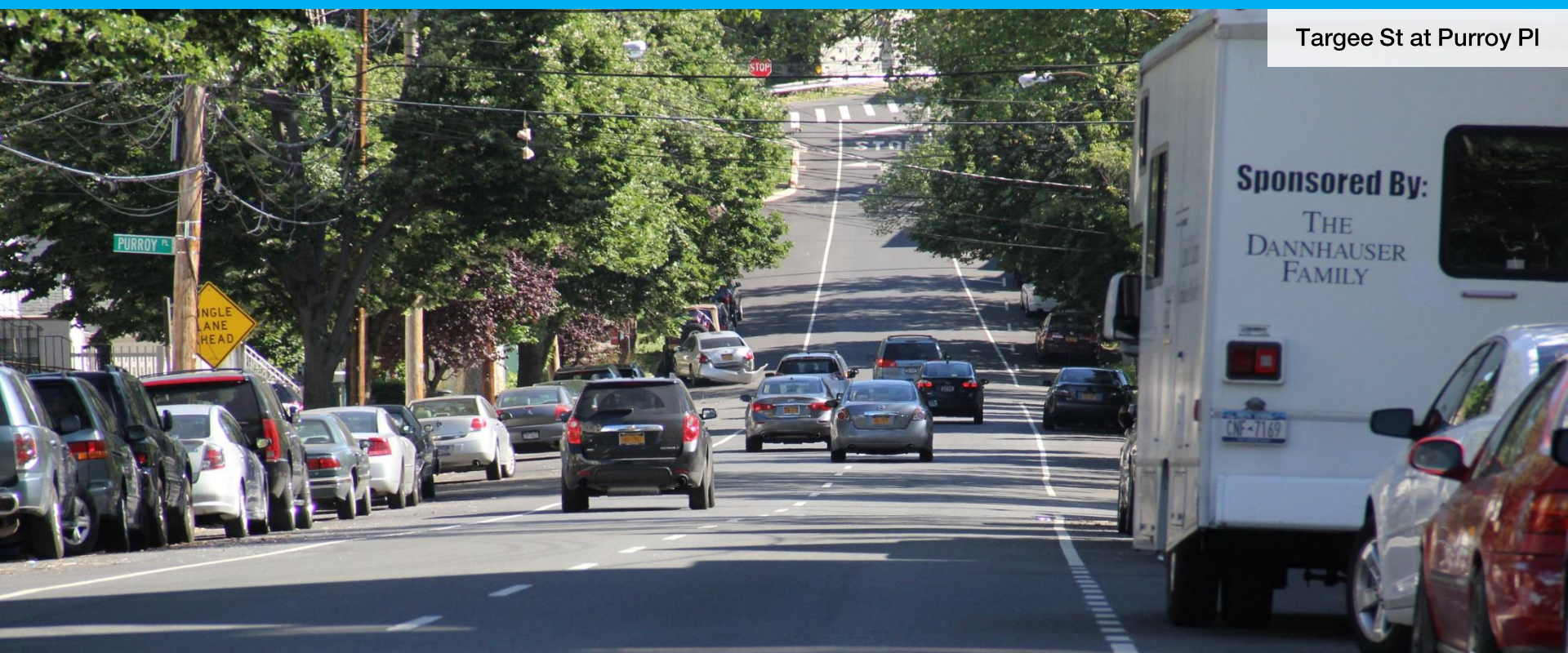
2

## Add Bicycle Lane

Separate bicycle traffic from vehicular traffic







## Targee St Broad St to Van Duzer St

- 89% of vehicles speeding at Freaan St (avg. speed is 35 mph)
- Peak hour traffic volume on Targee St drops 44% between Narrows Rd N and Broad St
- Corridor is truck/bus route; traditional speed bumps are infeasible

# Proposed Changes

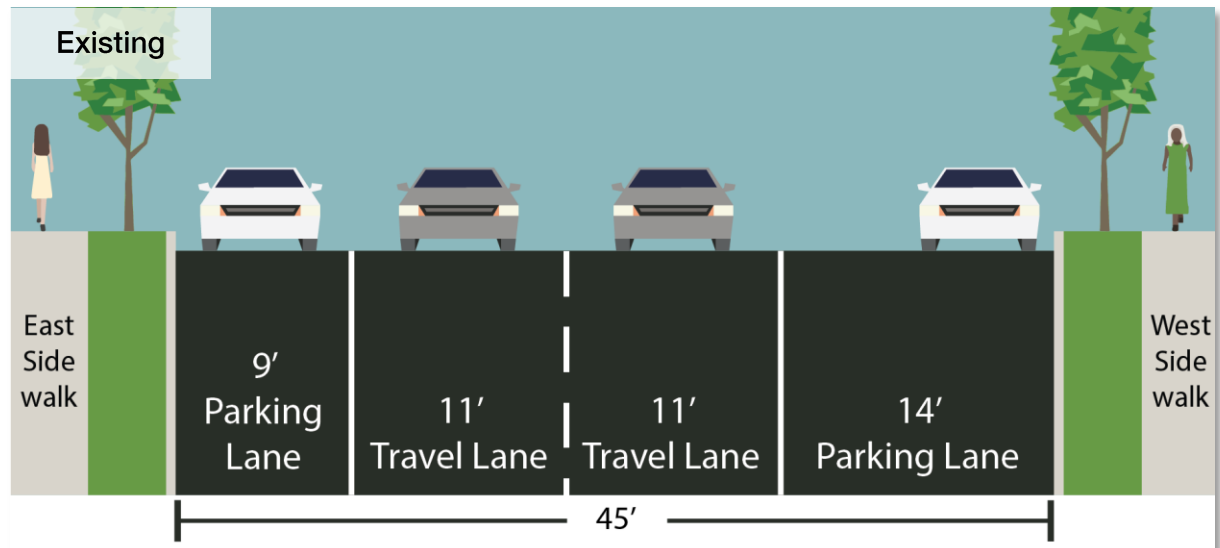
## Targee St

Broad St to Van Duzer St

1

### Remove Excess Travel Lane

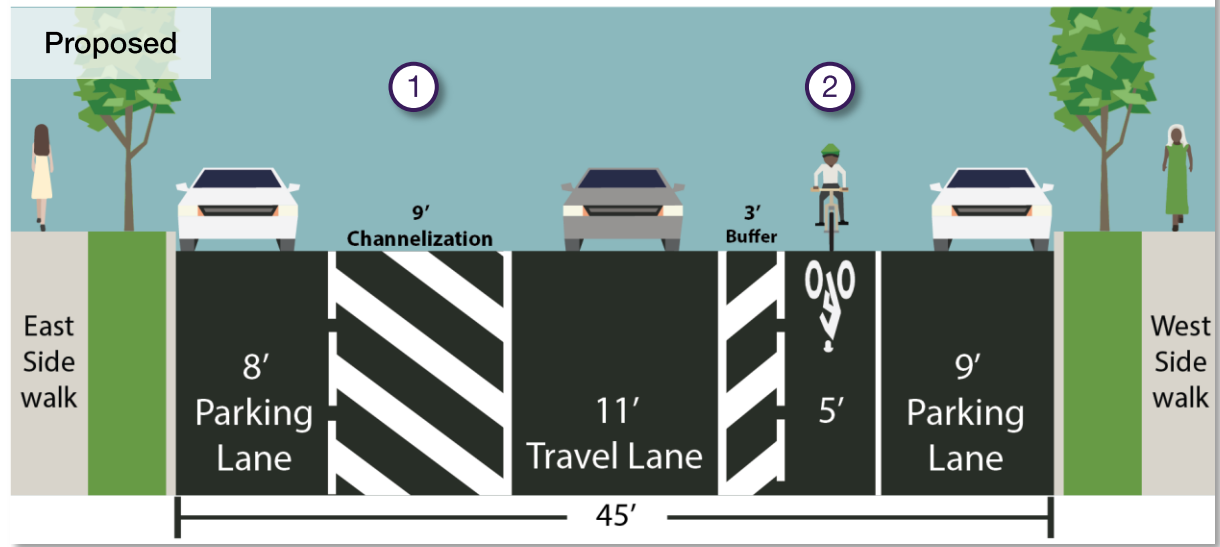
Removing excess second travel lane calms traffic

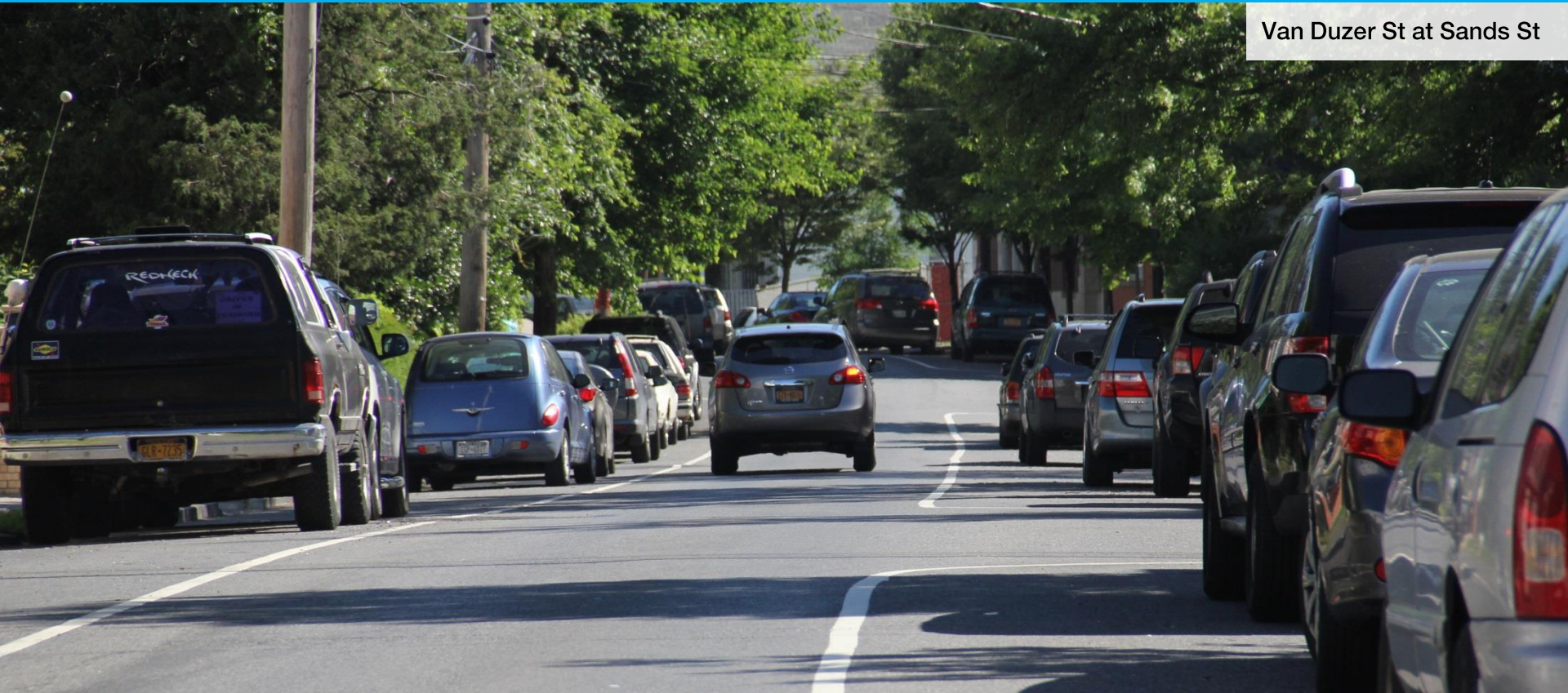


2

### Add Bike Lane

Buffered bicycle lane adds additional comfort to cyclists on corridor





## Van Duzer St Targee St to Hannah St

- Narrow roadway with parking on each side
- Average vehicle speed is ~27 m.p.h.
- Corridor is truck/bus route; traditional speed bumps are infeasible



# Proposed Changes

## Van Duzer St

Targete St to Hannah St



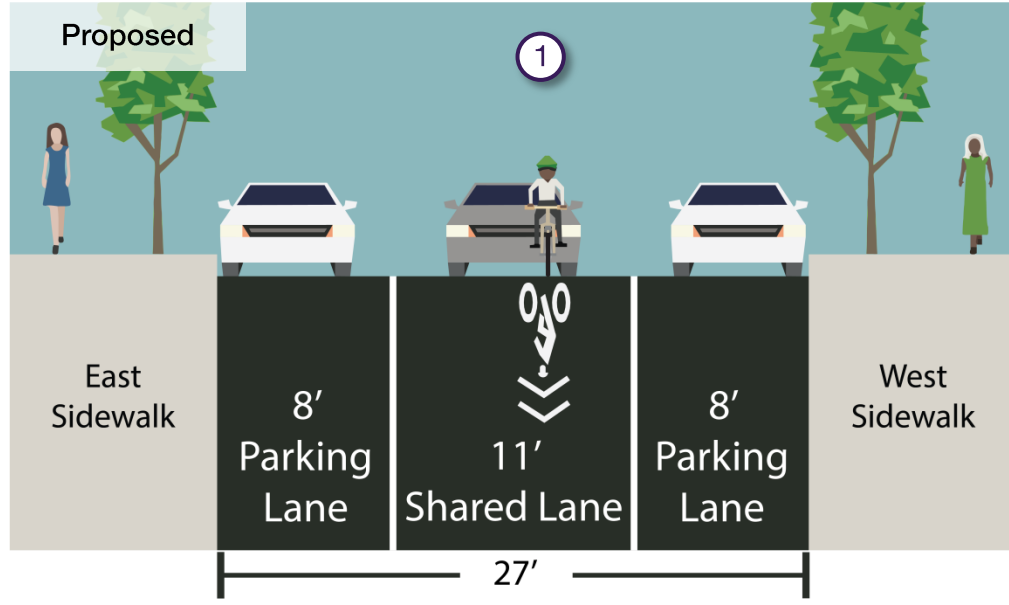
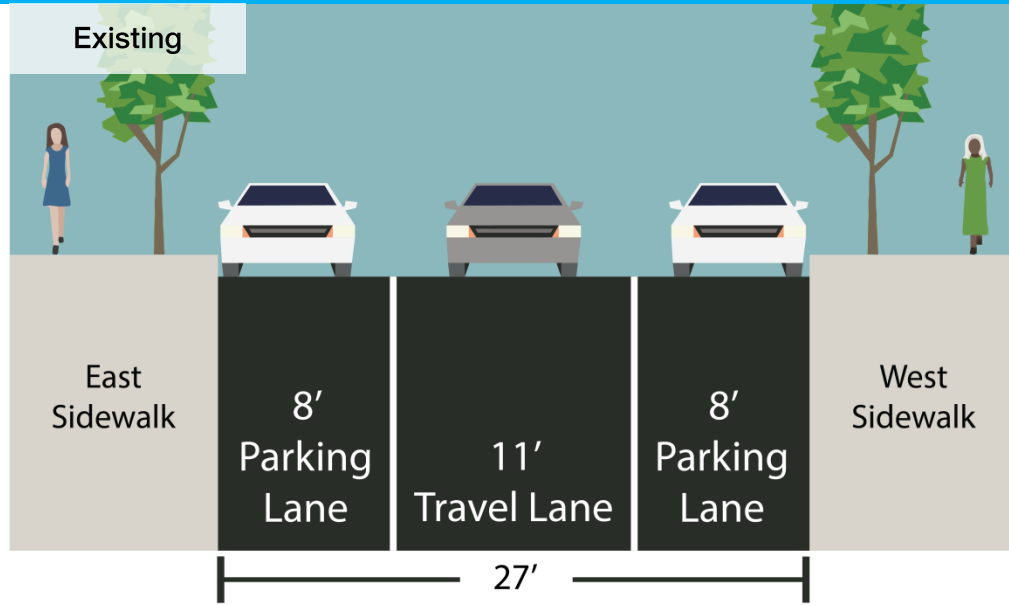
### Add Shared Lane Markings

- Roadway too narrow for addition of bicycle lanes
- Alert motorists to cyclists presence
- Orient bicyclists on the same side of the street and outside the "door zone"



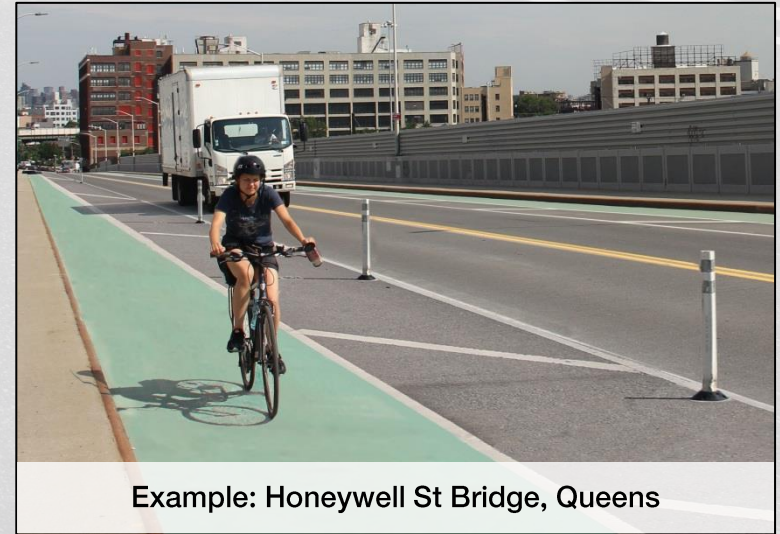
### Speed Cushions

NYC DOT is evaluating corridor for speed cushions





- **Community Concern: Motorists drive on Van Duzer St curve (Targee St to Wright St) at high speeds**
- **NYC DOT plan: add buffered curbside bicycle lane with vertical delineators**
  - Replace excess travel lane with buffered bike lane
  - Vertical delineators slow traffic through the curve



Example: Honeywell St Bridge, Queens

# Bicycle Network Connections

Connect new bicycle routes to existing bicycle route on Bay Street



1 Van Duzer St Ext  
St Julian Pl to Bay St



2 Swan St  
Bay St to St Paul's Ave



# Existing Conditions – Bay St Connections



**1** **Parking Restricted**  
Parking regulation bans the use of 4 parking spaces (7am-7pm) and encourages speeding

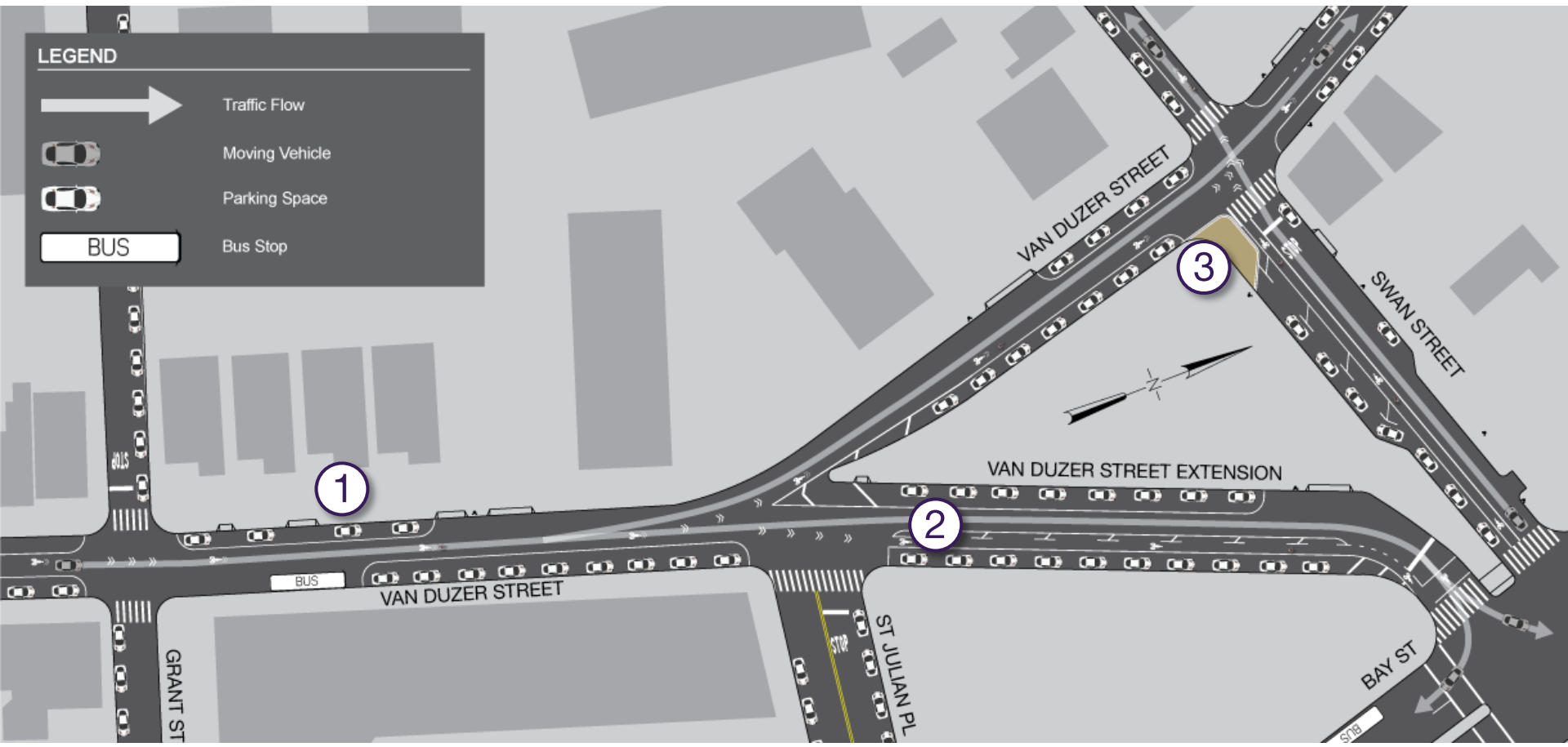
**2** **Extra Travel Lane**  
Extra travel lane is unnecessary for existing traffic volume and discourages parking on the eastern curb

**3** **Poor Road Alignment**  
Inconsistent width on Swan St results in poor lane alignment and long pedestrian crossing distance

# Proposed Design – Bay St Connections

**LEGEND**

- Traffic Flow
- Moving Vehicle
- Parking Space
- BUS
- Bus Stop



**1 Upgrade Parking**  
 Upgrades 4 overnight parking spaces to full time and calms traffic

**2 Add Bike Lane**  
 Buffered lane creates bicycle connection to Bay St and encourages parking

**3 Add Bike Route to Swan St**  
 Painted curb extension and bicycle lane reduces crossing distance and improves lane alignment



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# Pedestrian Improvements

# 4

# (4) Pedestrian Improvements

## Add Enhanced Crosswalks

Provide pedestrians with places to cross the road safely



1

**St Paul's Ave & Van Duzer St**  
Sidewalk ends without crosswalk by bus stop, closest crosswalk more than 700 feet away



2

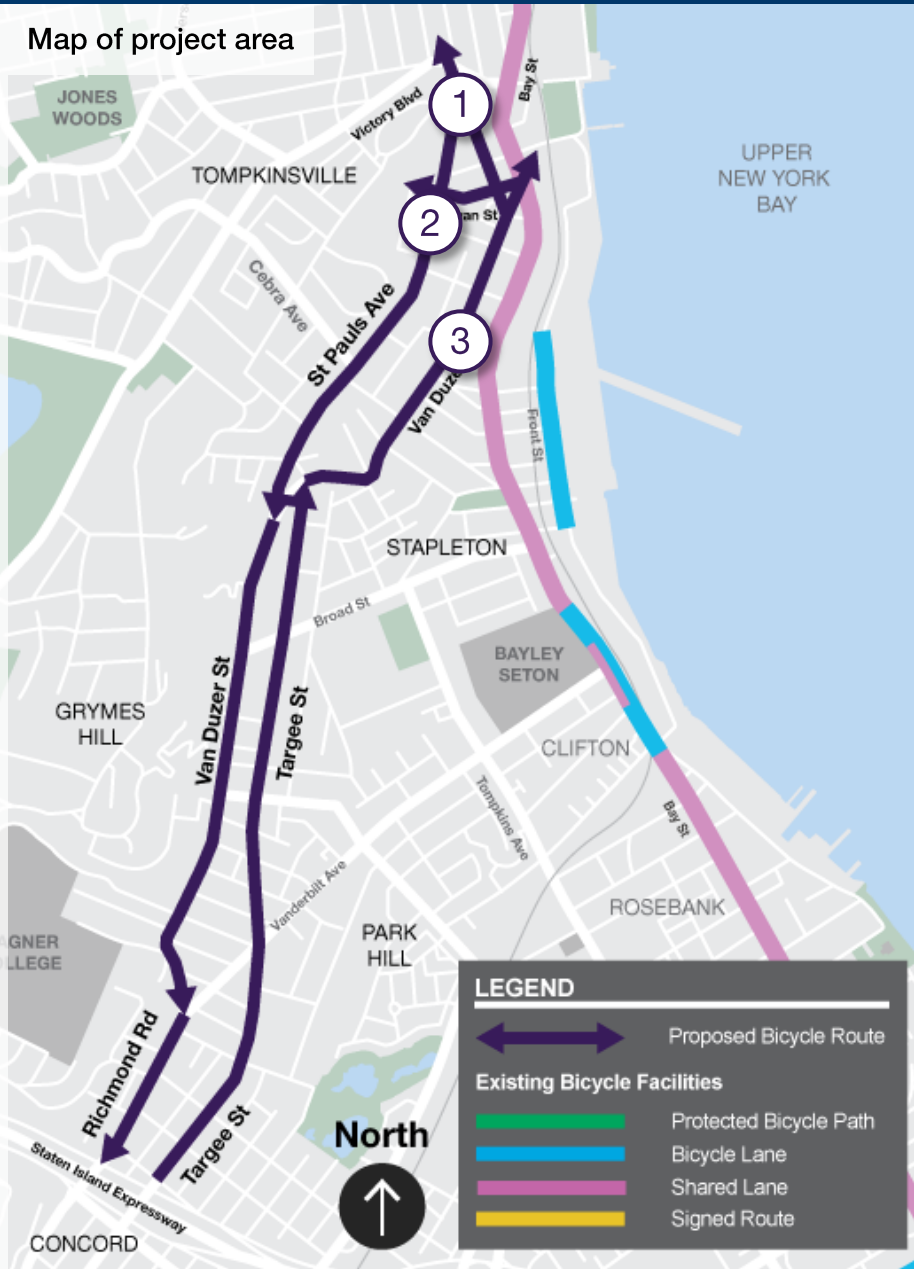
**St Paul's Ave & Grant St**  
P.S. 65 is a significant pedestrian trip generator and the closest crosswalk is more than 1,400 feet away



3

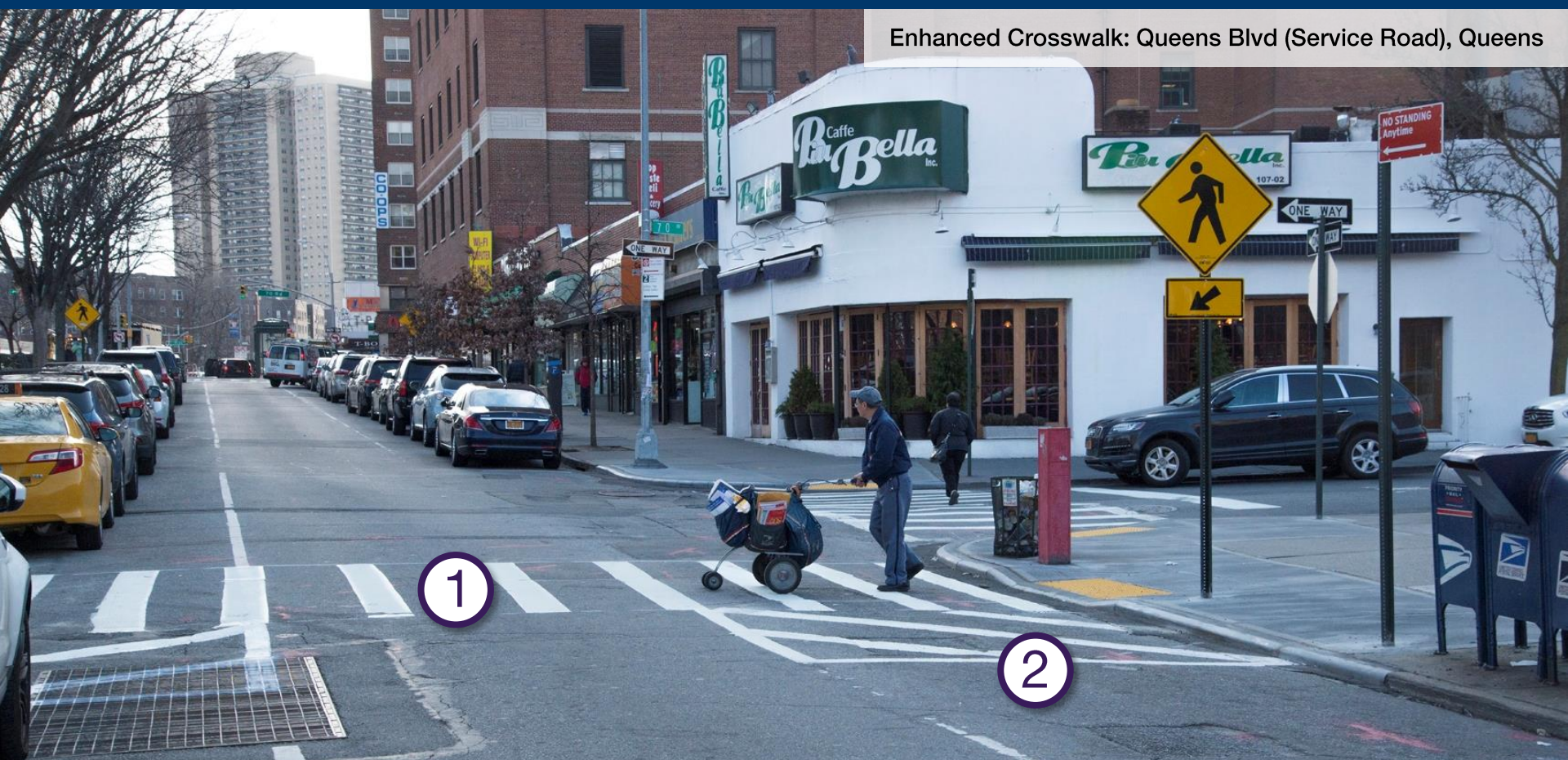
**Van Duzer St & William St**  
William St provides access to Bay St commercial corridor from the community and the distance between existing crossings is more than 1,400 feet

Map of project area



# (4) Pedestrian Improvements

Enhanced Crosswalk: Queens Blvd (Service Road), Queens



## Enhanced Crosswalks

**1** Add Crosswalk  
High-visibility crosswalk improves pedestrian access

**2** Increase visibility  
Prohibit parking for 20 feet in front of crosswalks to increase visibility of crossing pedestrians

# (4) Pedestrian Improvements

Enhanced Crosswalk: 8th Street, Manhattan



## Enhanced Crosswalks

1

**Shorten Crossing Distances**  
Painted curb extensions reduce pedestrian crossing distance

2

**Provide Warning**  
Signs give advance warning to motorists of approaching crosswalk

# (4) Pedestrian Improvements

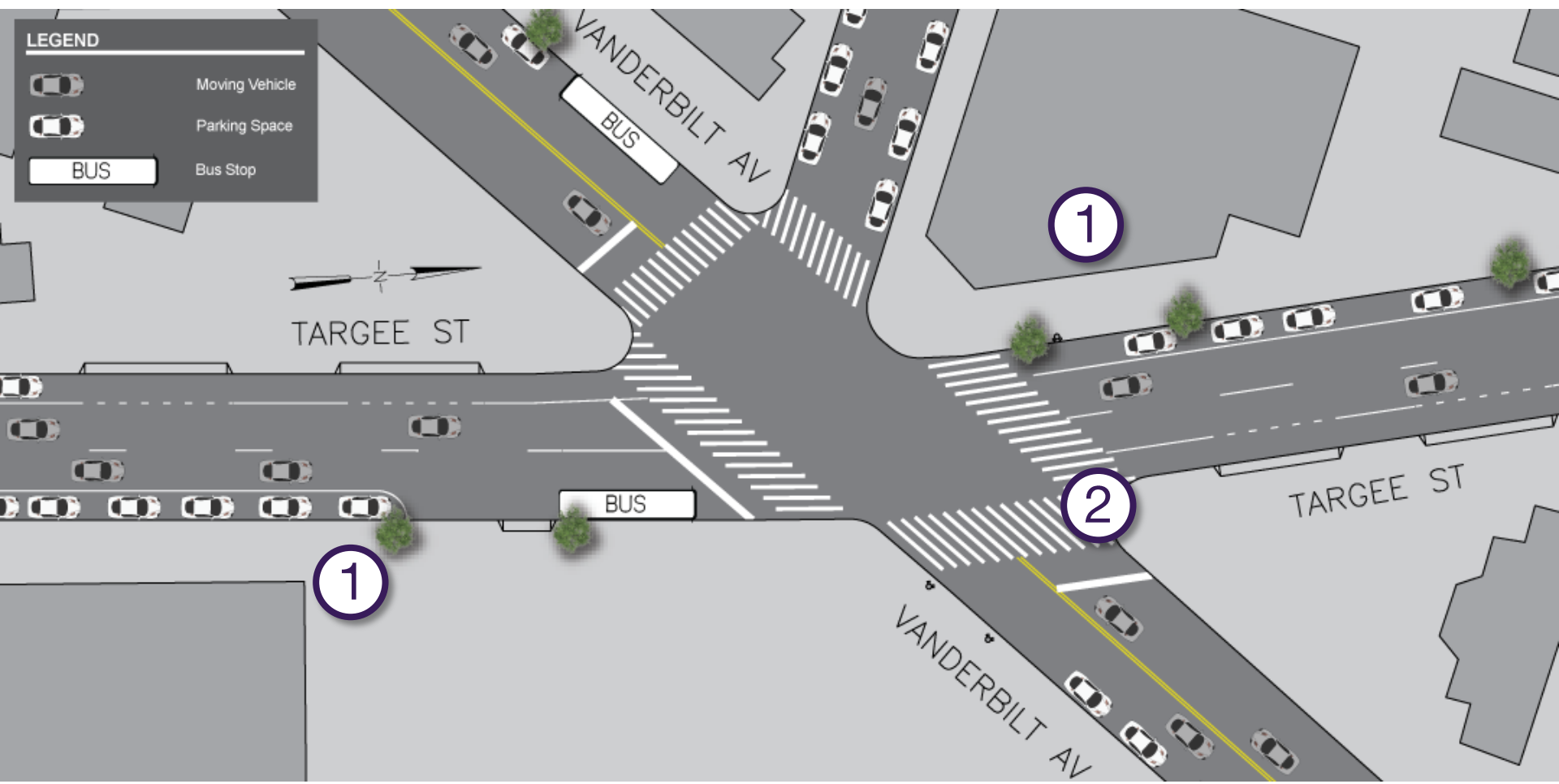
Targee St and Vanderbilt Ave



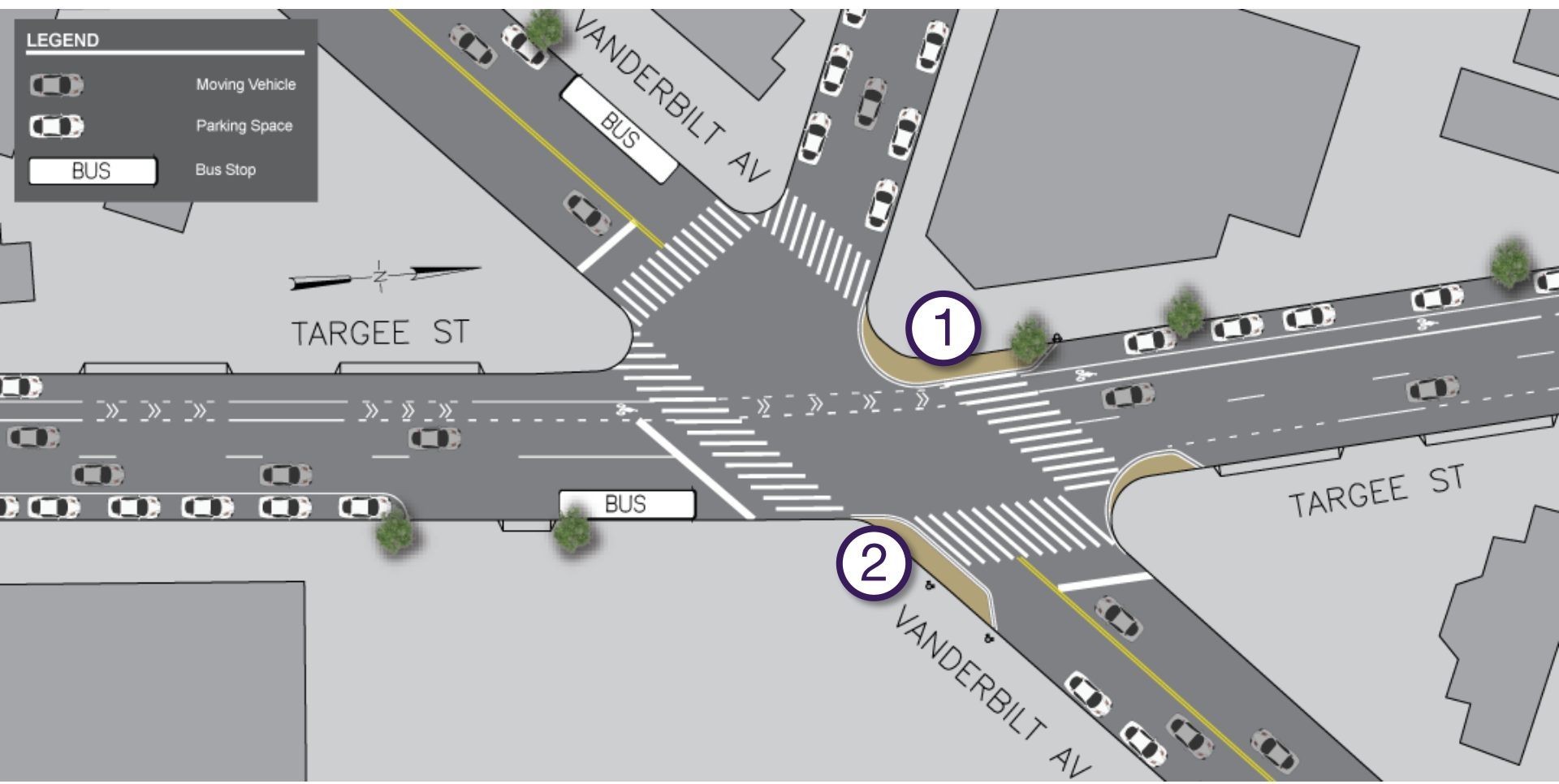
## Reduce Crossing Distances Targee St and Vanderbilt Ave

- Commercial center of neighborhood
- Long crossing distances for pedestrians
- 8 people killed or severely injured (2010-2014)

# Existing Conditions – Targee St and Vanderbilt Ave



Proposed Design – Targee St and Vanderbilt Ave



**1** Shorten Pedestrian Crossings  
Painted curb extensions shorten crossing distances

**2** Calm Turning Traffic  
Higher turning angles slow traffic as they navigate corners

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Summary

5



# Design Changes

NYC DOT made major changes to original proposal following community input:

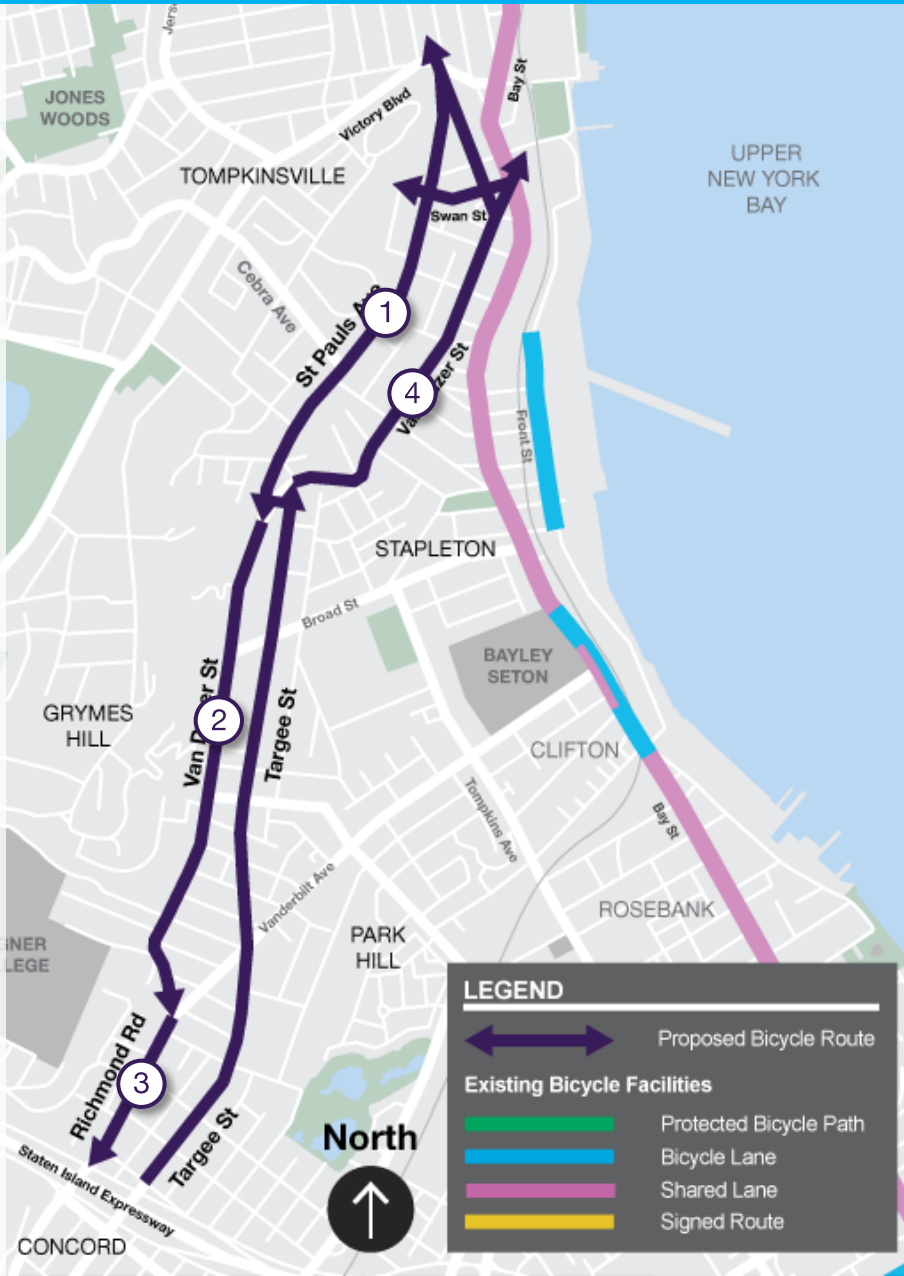
- 1 St Paul's Ave Corridor**

  - Move bicycle lane to left side of street, to avoid bus conflicts
  - Added buffer between bicycle lanes and travel lanes
  - Speed cushions under evaluation
- 2 Van Duzer St (St Paul's Ave to Richmond Rd)**

  - Added vertical delineators at St Paul's Ave intersection and curve in road after Hillside Ave
  - Move bicycle lane to left side of street, to avoid bus conflicts
  - Added buffer between bicycle lanes and travel lanes
  - Speed cushions under evaluation
- 3 Richmond Rd**

  - Move bicycle lane to left side to avoid bus conflicts
  - Added buffer between bicycle lanes and travel lanes
- 4 Van Duzer St (Targee St to Hannah St)**

  - Added vertical delineators added to design at Court St, where road curves
  - Speed cushions under evaluation



# Net Increase In Fulltime Parking

Proposal adds 13 new parking spaces and upgrades 20 overnight spaces to fulltime, and removes 7 existing overnight parking spaces

1

## Van Duzer St St Paul's Ave to Chestnut Pl

- Add 22 parking spaces
- Upgrade 16 overnight parking spaces to fulltime
- Remove 14 overnight-only spaces

2

## Van Duzer St at Beach St

- Add 7 overnight parking spaces in left-turn lane, when traffic is low

3

## Bay St Connection

- Upgrade 4 overnight parking spaces to fulltime on Van Duzer St at Grant St
- Remove 4 parking spaces on Van Duzer St Extension
- Remove 2 parking spaces on Swan St for bicycle lane

4

## Pedestrian Improvements

- Remove 2 parking spaces for enhanced crosswalk at St Paul's Ave & Grant St
- Remove 1 parking space at Targee St & Vanderbilt Ave





## Project Summary

Project improves corridor by upgrading roadway for all users

- Reduce speeding along a residential corridor, while maintaining needed traffic capacity
- Add a bicycle route connecting to shops and entertainment, and existing route to St. George Ferry Terminal
- Improve lane alignment and visibility at key intersections
- Add more crosswalks for pedestrians
- Add or upgrade parking

# THANK YOU!

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## Questions?



NYC DOT



NYC DOT



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NYC DOT