

Castle Hill Ave

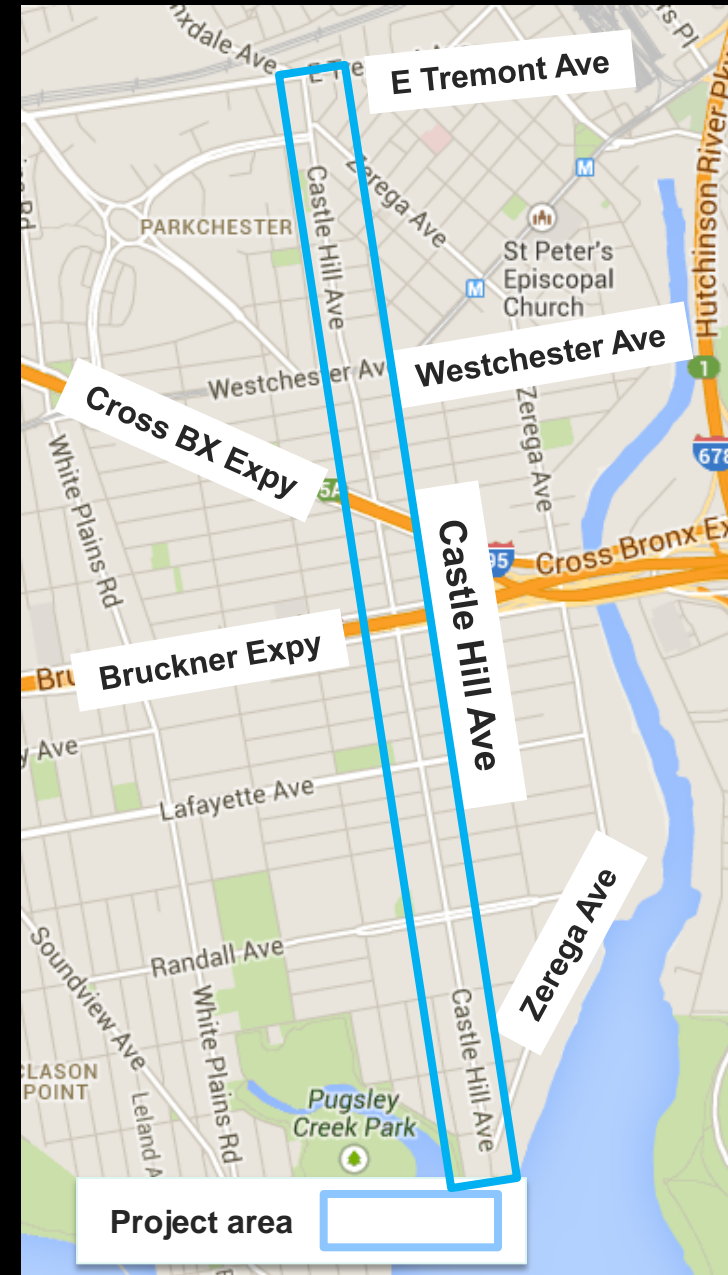
Corridor Safety Improvements

2016



Project Location

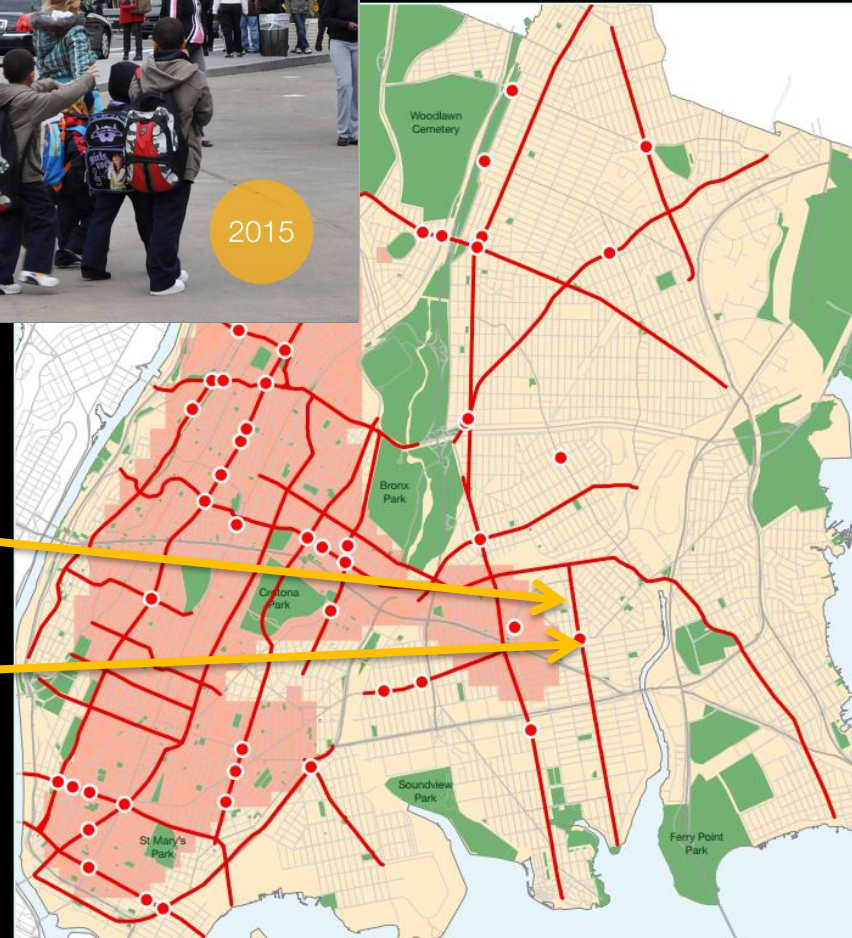
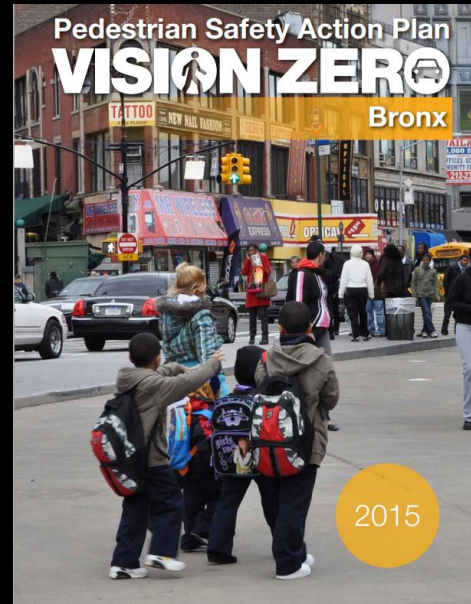
- Project area: Castle Hill Ave from E Tremont Ave to Hart St (2.1 mi)
- Corridor runs entire length of Community Board 9, and small section of CB10
- Borders the Parkchester Neighborhood Slow Zone
- Connects both Cross Bronx Expy and Bruckner Expy
- Schools and libraries in north section
- Residential areas in north and south sections



Vision Zero Priority Corridors

Vision Zero

- Multi-agency effort to reduce traffic fatalities in NYC
- Borough Action Plans released in 2015
- Priority Intersections, Corridors, and Areas identified for each borough
 - **Castle Hill Ave** identified as a Priority Corridor for the Bronx
 - **Castle Hill Ave & Westchester Ave** identified as a Priority Intersection for the Bronx

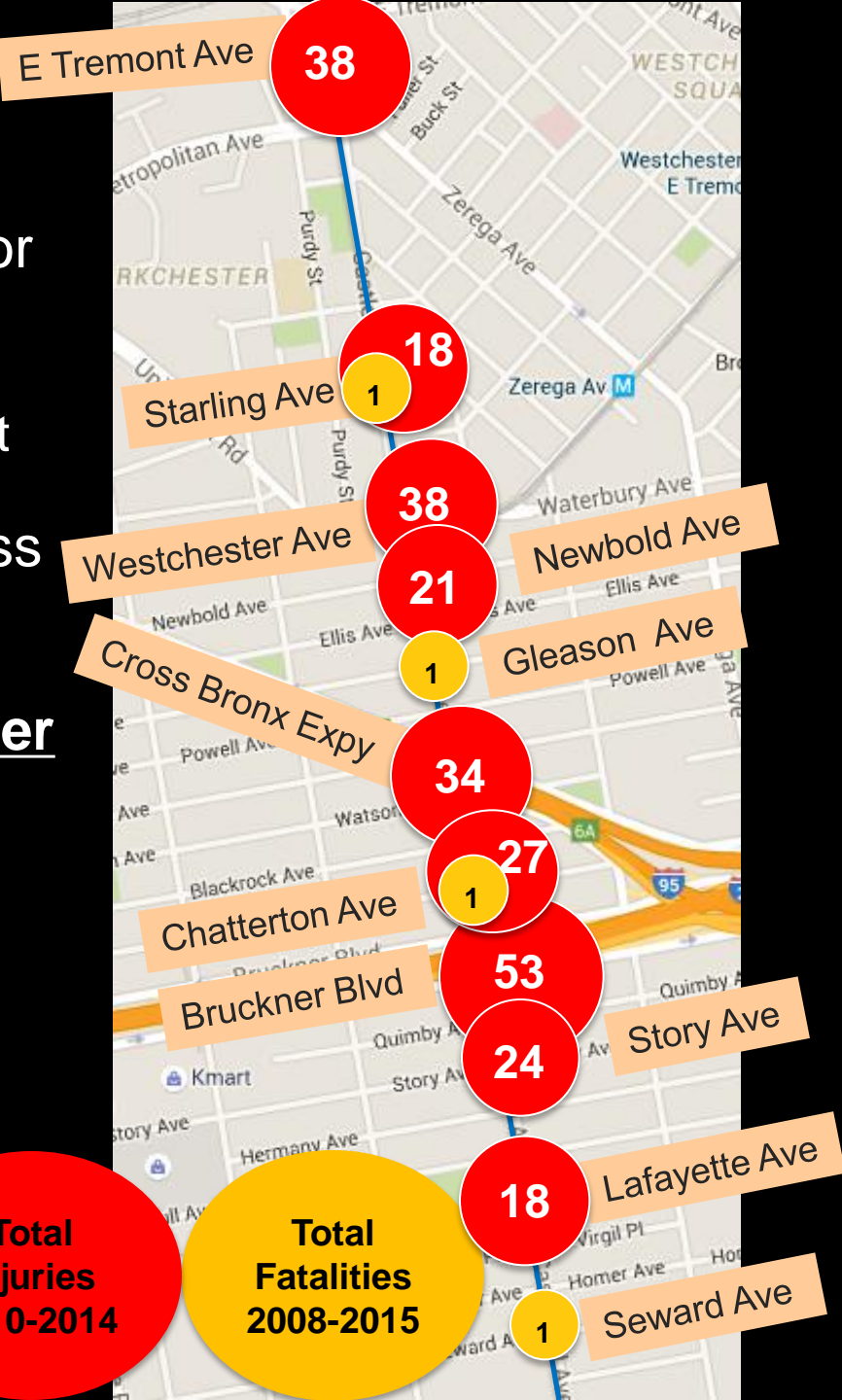


Why Castle Hill Ave?

- 2010-2014: 28 KSI (persons killed or severely injured)
- 4 Pedestrian Fatalities, 2008-present
- Total injuries: pedestrian injuries less than $\frac{1}{4}$ motor vehicle injuries
- **Severe injuries: near same number of pedestrian and motor vehicle occupant injuries**

Castle Hill Ave - E Tremont Ave to Hart St, BX
Injury Summary, 2010-2014 (5 Years)

	Total Injuries	Severe Injuries	Fatalities	KSI
Pedestrian	95	12	2	14
Bicyclist	26	1	0	1
Motor Vehicle Occupant	390	13	0	13
Total	511	26	2	28



Existing Conditions

- 6 lanes
 - 4 travel, 2 parking
- 60' wide roadway
- Wide travel lanes
- Faded markings
- Heavy traffic volumes between Westchester Ave & Bruckner Expressway
- Speeding
- U-turns
- Double parking



Walkable Neighborhood

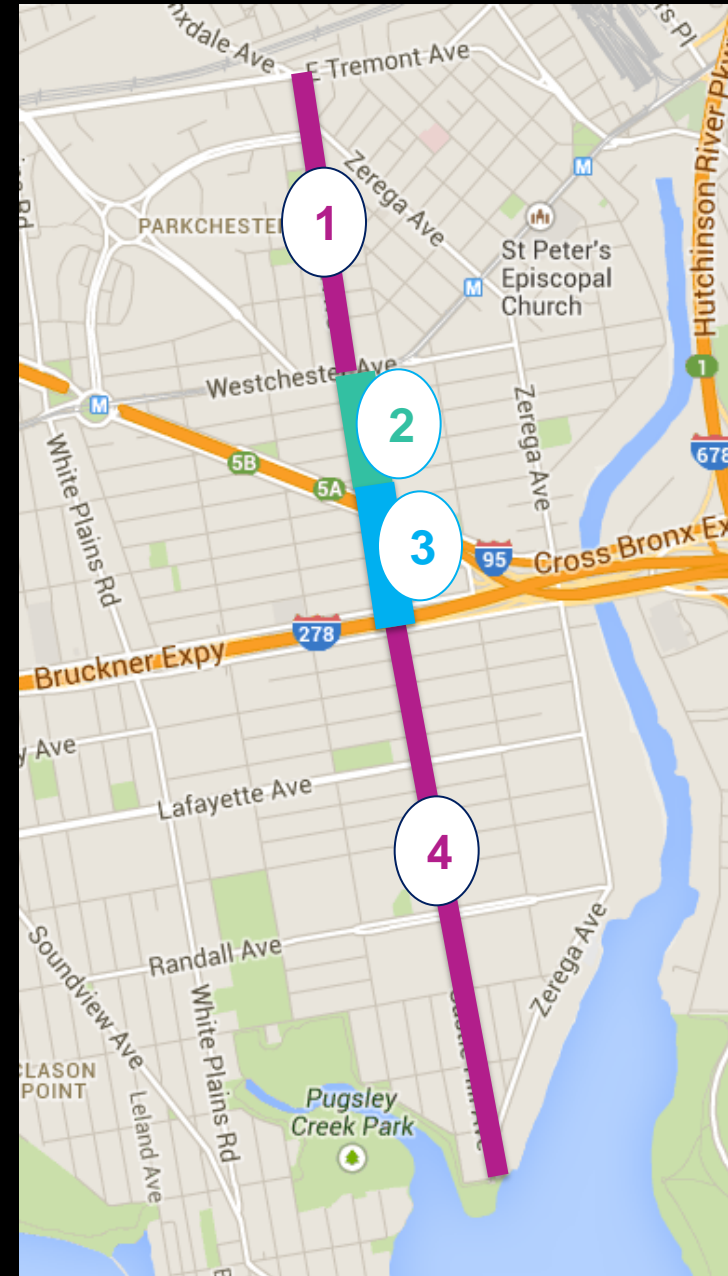
- Important connection between the neighborhoods of: Castle Hill, Union Port, Parkchester, Westchester Square, and Morris Park
- Pedestrian and cyclists use the corridor to access:
 - Parks
 - Subway, Buses
 - Neighborhood shops
 - Schools

Residents should feel safe walking and biking along Castle Hill Avenue.



Proposal: Castle Hill Ave

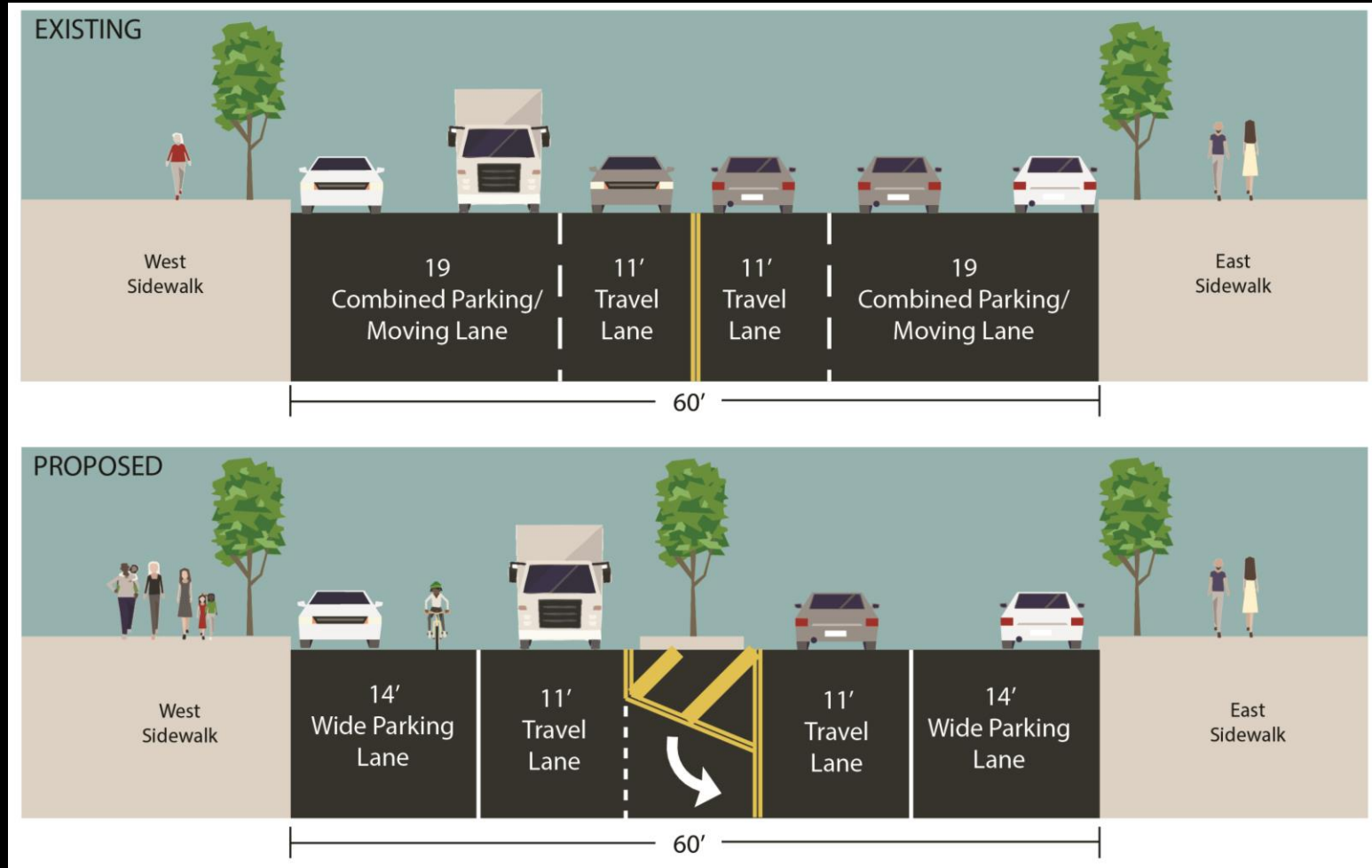
- Goal: calm traffic where possible
- Proposal in four sections to accommodate different traffic volumes
 1. E Tremont to Westchester Ave (one lane each way, LT bays)
 2. Westchester Ave to Powell Ave (1 lane NB, 2 lanes SB)
 3. Powell Ave to Bruckner Blvd (same lane setup as now)
 4. Bruckner Blvd to Hart St (one lane each way, LT bays)



Proposal: E Tremont Ave to Westchester Ave

1

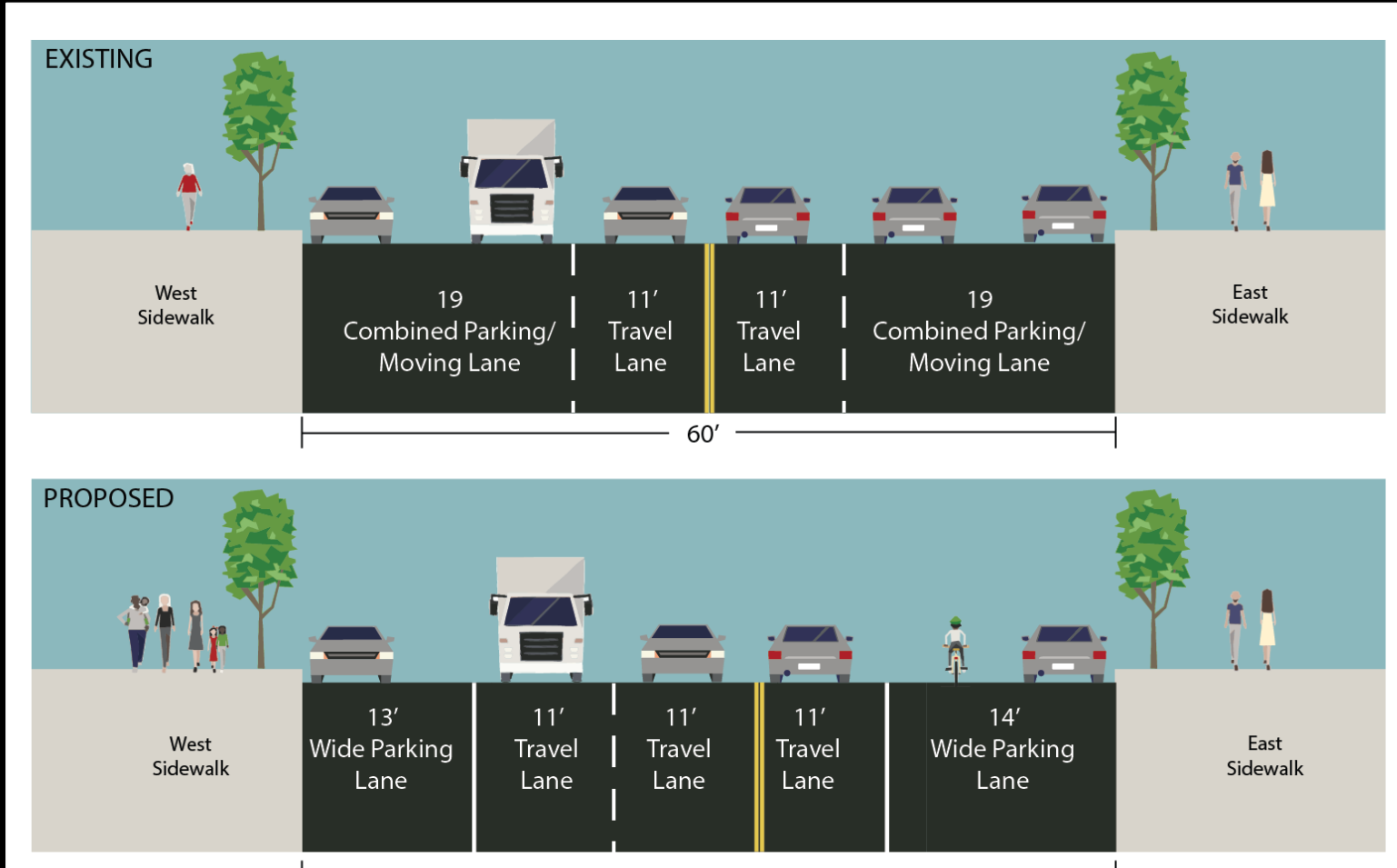
Residential and School area, with 25-48% of vehicles traveling above the speed limit



4 to 3 calming, with left turn bays, and wide parking lanes

Proposal: Westchester Ave to Powell Ave

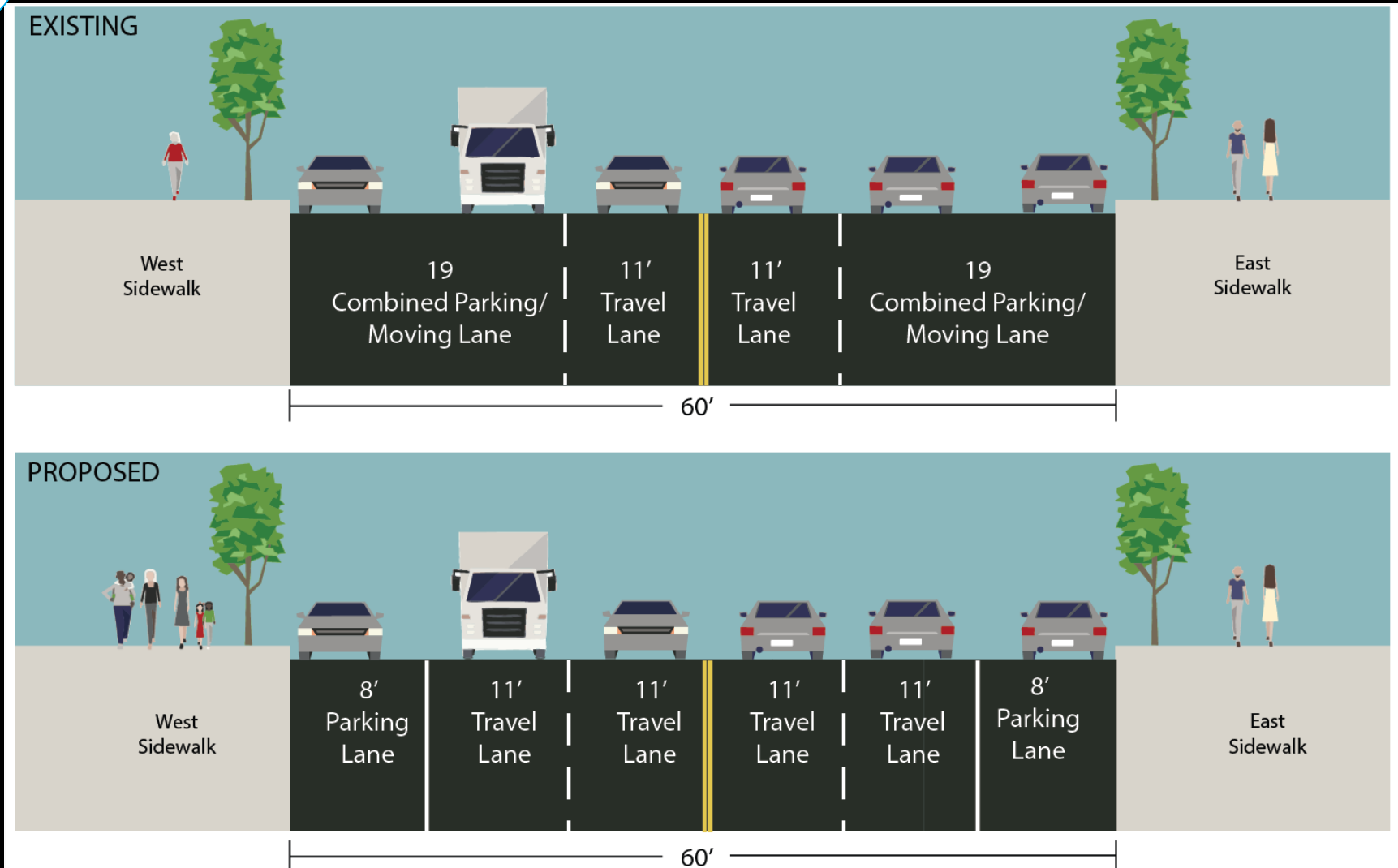
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Higher volumes southbound than northbound:
1 travel lane northbound and 2 travel lanes southbound
With wide parking lanes

Proposal: Powell Ave to Bruckner Expy

3

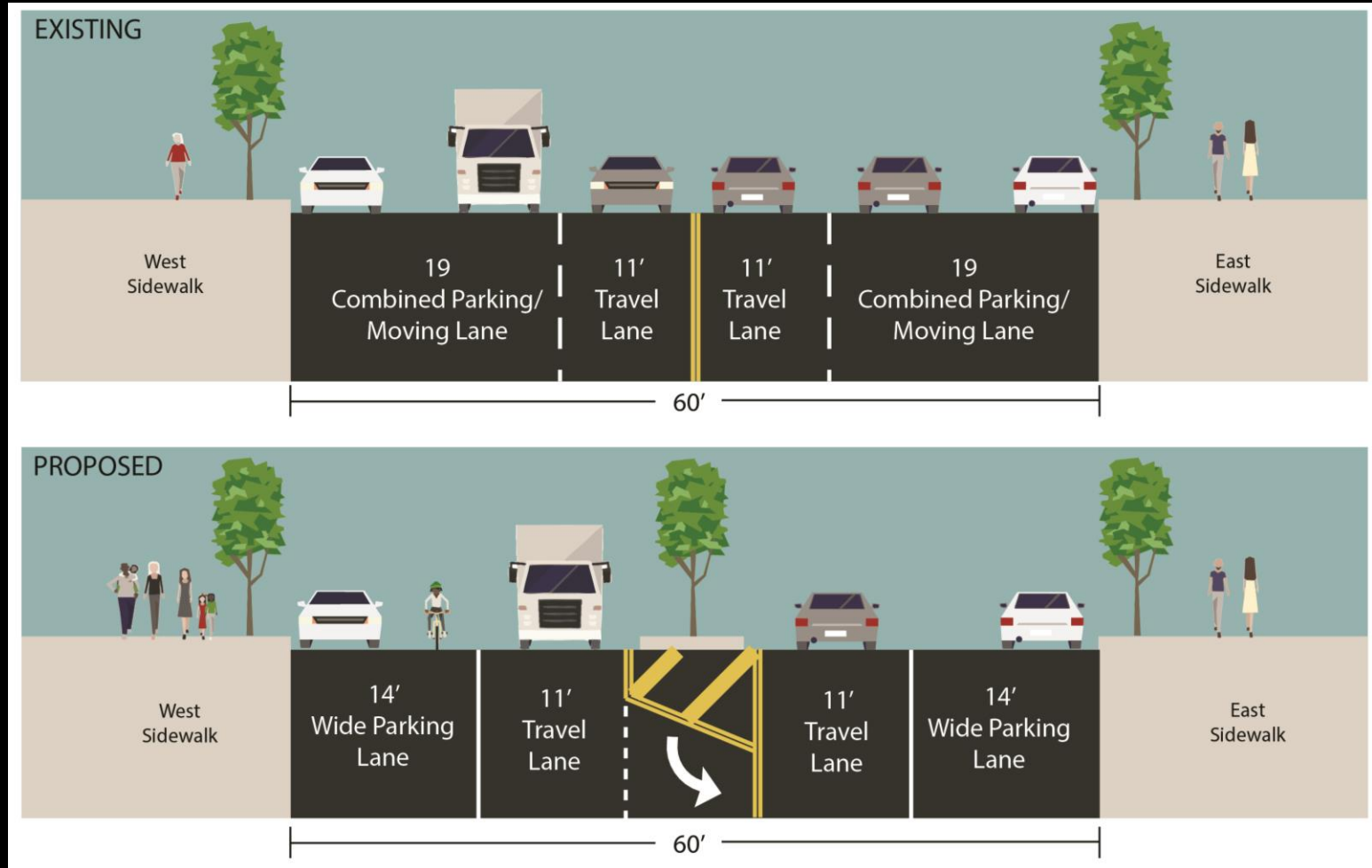


Highest traffic volume area: keep same lane configuration, add parking lanes and extend left turn bay lengths over expressway bridges

Proposal: Bruckner Expy to Hart St

4

Residential and School area, with 29-38% of vehicles traveling above the speed limit

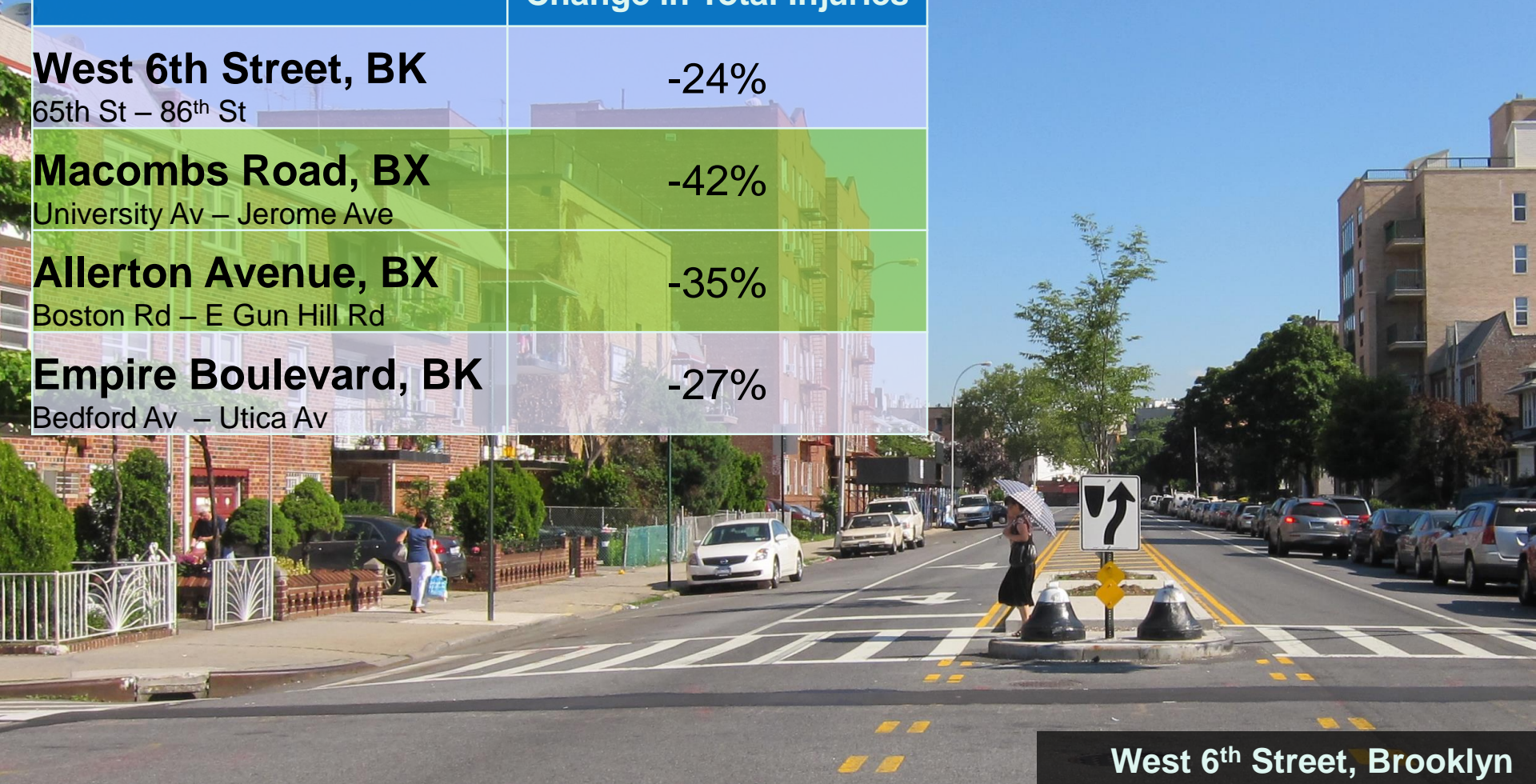


4 to 3 calming, with left turn bays, and wide parking lanes

Expected Injury Reduction

Three Year Before and After Crash Analysis on 4 to 3 Traffic Lane Conversions

	Change in Total Injuries
West 6th Street, BK 65th St – 86th St	-24%
Macombs Road, BX University Av – Jerome Ave	-42%
Allerton Avenue, BX Boston Rd – E Gun Hill Rd	-35%
Empire Boulevard, BK Bedford Av – Utica Av	-27%



West 6th Street, Brooklyn

Existing: at Lyvere/Zerega

- Uncontrolled pedestrian crossing
- Heavy turns on to Zerega Ave



Proposal: at Lyvere/Zerega

- Add pedestrian crossing on east curb



**Add crosswalk to
improve pedestrian
safety**

Proposal: at Parker St



Expand island to narrow
right turn slip to northbound
Castle Hill Ave

Proposal: at Starling Ave

- Existing
 - Wide, skewed crossing
 - Location of pedestrian fatality
- Proposal
 - Add concrete island in north crosswalk to provide refuge for pedestrians crossing the street
 - Add neckdown on northwest corner to align crossing
 - Remove three parking spots on northeast corner to ease turns

Existing: Castle Hill Ave and Starling Ave



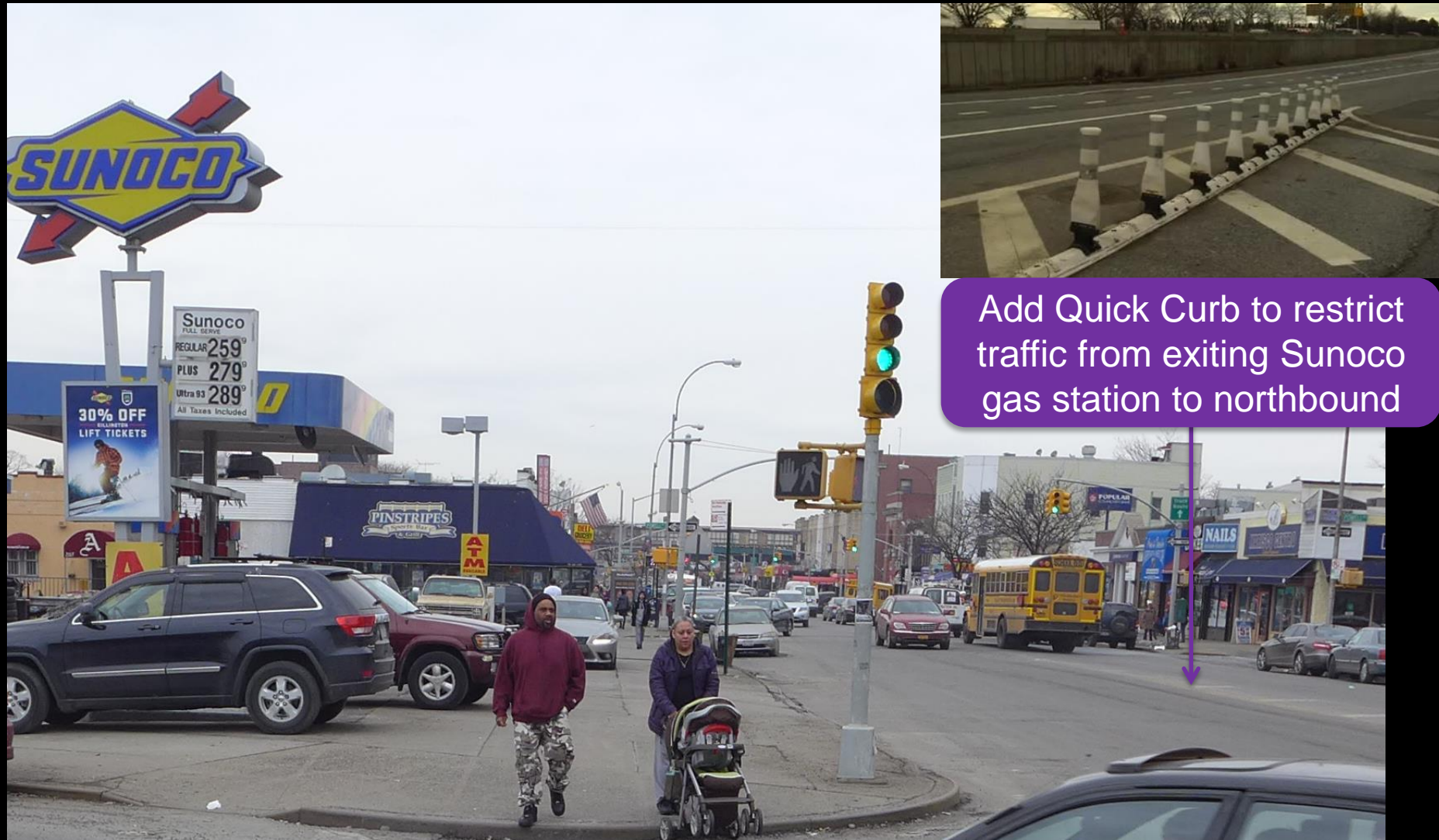
Location of
pedestrian island

Location of
parking removal

Proposed Condition: Allerton Ave.



Proposal: at Cross Bronx Expy N



Add Quick Curb to restrict traffic from exiting Sunoco gas station to northbound

Existing: at Haviland Ave



No crosswalk,
near PS36

Proposal: at Haviland Ave

Add Stop Sign facing
Haviland and crosswalk

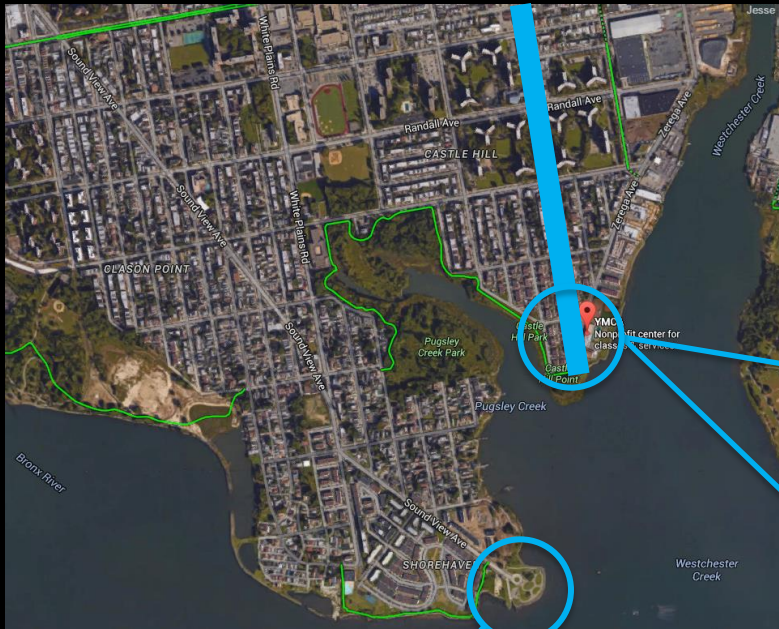


Proposal: Longer Left Turn Bays

- Extend left turn bay length approaching the Cross Bronx and Bruckner Expressways
- Organize traffic
- Safer, easier left turns



Improve connection to Parks



Opportunity: Add Bike Lanes

LEGEND

- Existing Bicycle Facilities
- Protected Bicycle Path
- Bicycle Lane
- Shared Lane
- Signed Route

Annotations:

- No bike network connection to subway
- Parkchester & Unionport cut off from waterfront
- Connection to Lafayette Ave
- YMCA bike corral
- Connection to Pugsley Creek Park

**Access Bridge
Through
Service Road**

Connection to Lafayette Ave

YMCA bike corral

Connection to Pugsley Creek Park

Parkchester & Unionport cut off from waterfront

Existing Bicycle Facilities

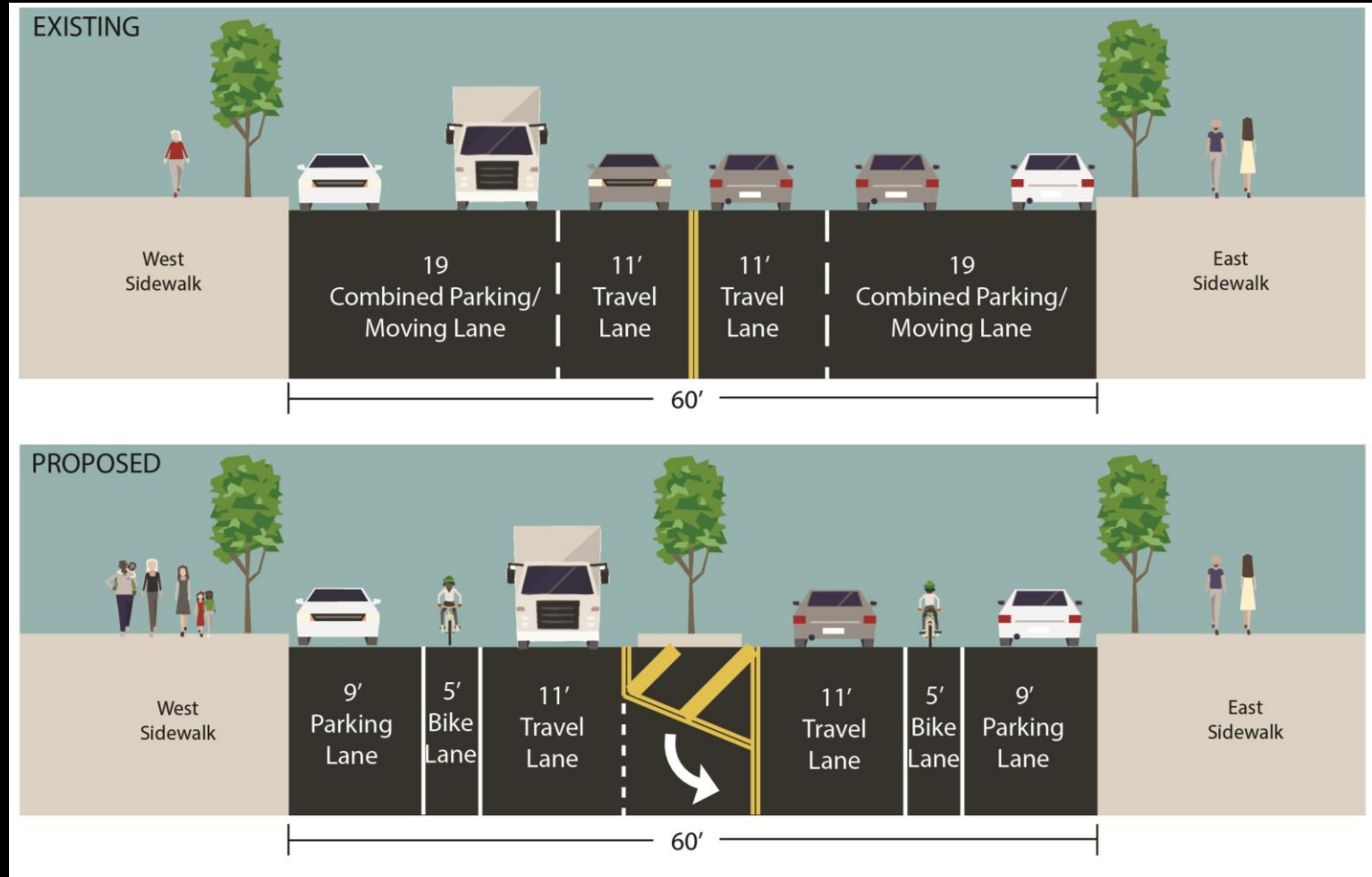
Bicycle Lane

Signed Route

Proposal: E Tremont Ave to Westchester Ave

1

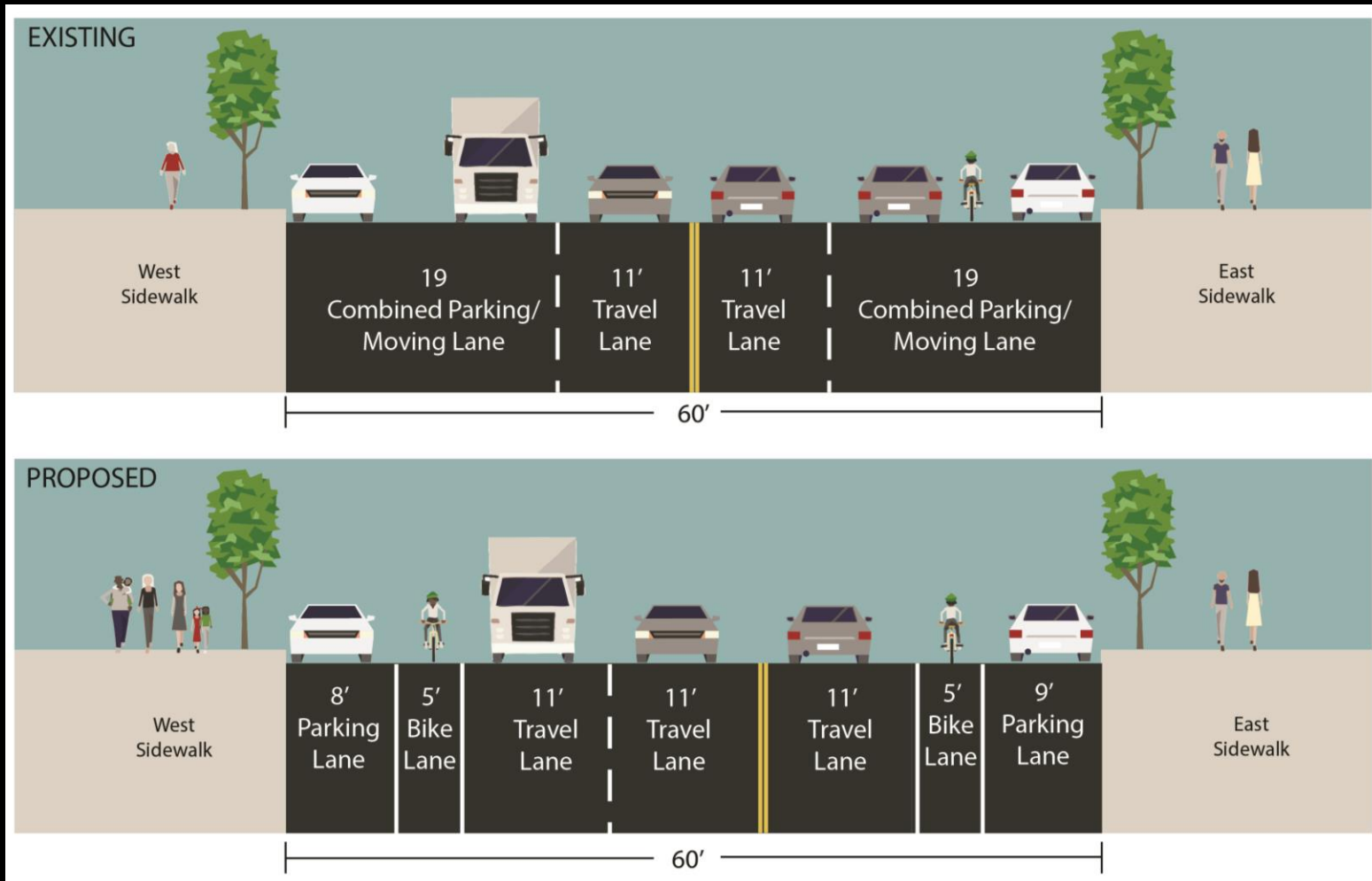
Residential and School area, with 25-48% of vehicles traveling above the speed limit



4 to 3 calming, with left turn bays, and bike lanes

Proposal: Westchester Ave to Powell Ave

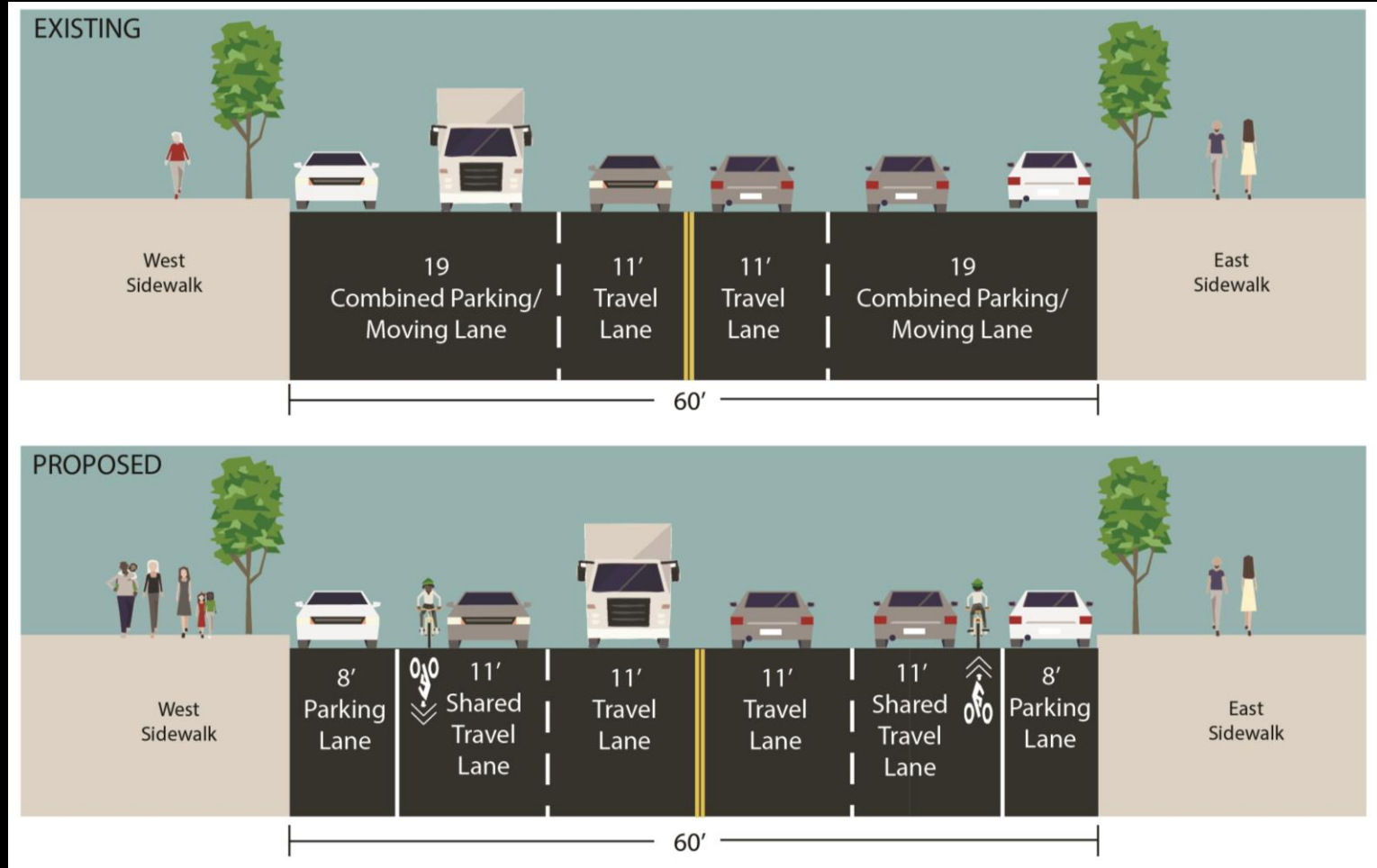
2



Higher volumes southbound than northbound:
1 travel lane northbound and 2 travel lanes southbound
And bike lanes

Proposal: Powell Ave to Bruckner Expy

3

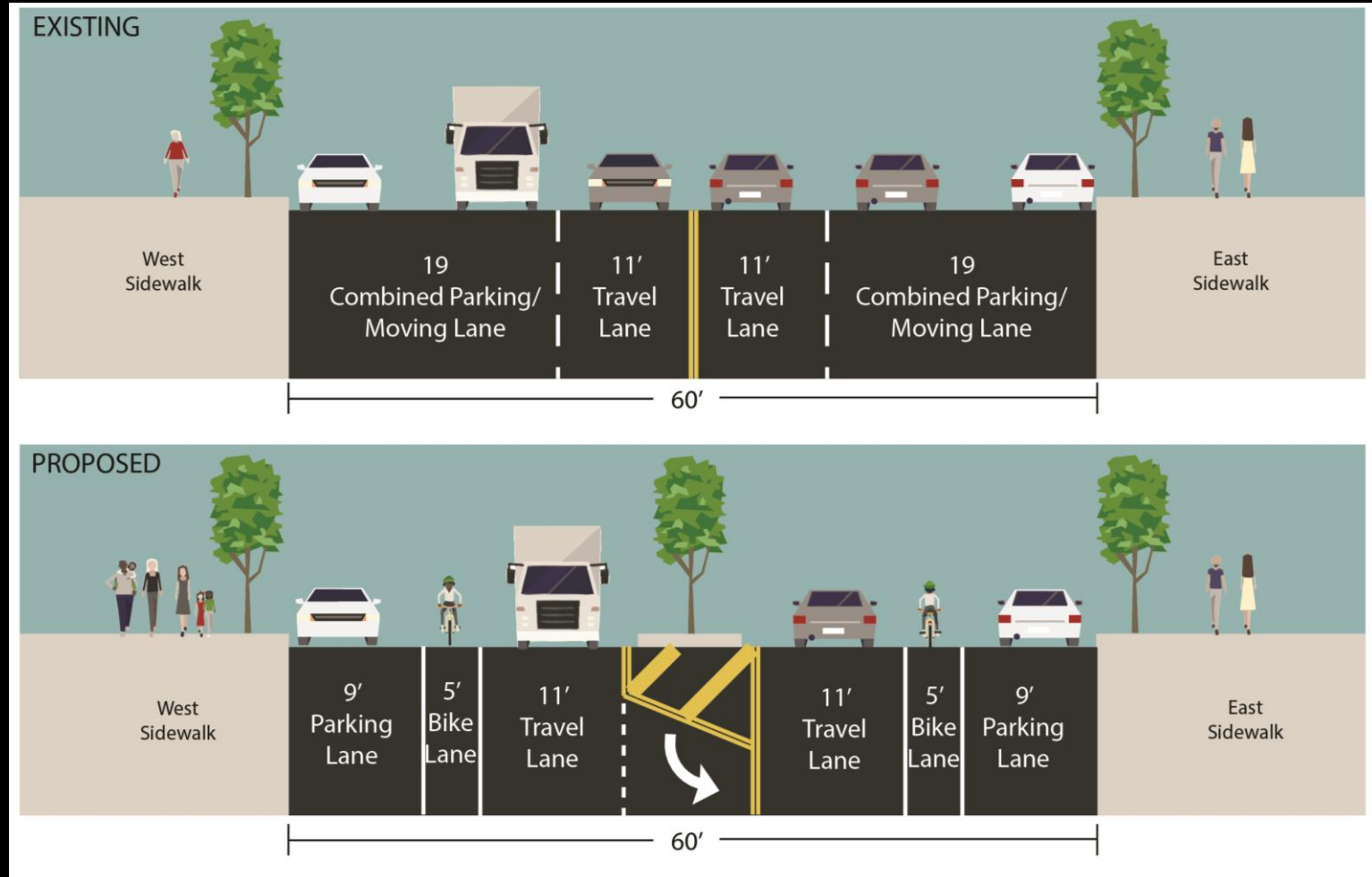


Highest traffic volume area: keep same lane configuration, add parking lanes and extend left turn bay lengths over expressway bridges
With "Sharrows" in the right lane

Proposal: Bruckner Expy to Hart St

4

Residential and School area, with 29-38% of vehicles traveling above the speed limit



4 to 3 calming, with left turn bays, and bike lanes

Bike Lanes: Similar Injury Reduction

Three Year Before and After Crash Analysis on 4 to 3 Traffic Lane Conversions

	Change in Total Injuries
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E 222nd St, BX Bronx Blvd – Baychester Ave	-27%



East 222nd St, Bronx

Adjacent Project Status

- Bridge over the Bruckner Expy – completion Feb 2016
- Resurfacing (E Tremont – Glover St): March/April 2016
- Neckdowns on Westchester Ave – under construction at Castle Hill – 4 locations scheduled for completion July 2016
- Parkchester Slow Zone – completed
- Metered parking study – planned
 - Virgil Pl – Story Ave: both sides
 - Starling Ave – Manning St: west side
- Loading Zones –
 - Possible near grocery stores



Project Benefits

- Pedestrian safety island and neckdown allow for shorter, safer crossings
- Lane reduction lowers speeds and calms traffic outside heaviest traffic areas
- 32 new left turn bays, and longer left turn bays approaching Cross Bronx and Bruckner expressways better organize traffic
- Bicycle lanes connect neighborhoods to waterfront, discourage sidewalk riding and organize traffic flow



Existing: Castle Hill Ave & St. Raymonds Ave



Proposed Condition: Bronxwood Ave



Questions?



Thank
You