

Bushwick Community Bicycle Planning



2016

New York City Department of Transportation
Presented to Community Board 4 Transportation Committee on February 2, 2016



Community Bicycle Network Development Process

Planning

2015



1. Community Outreach and Engagement

2. Data Collection and Evaluation

3. Street Network Limitations and Opportunities

4. Potential Routes and Facility Type

Implementation

2016

- Seek Community Board support for Phase I projects
- Implement Phase I projects
- Steering Committee evaluation and input for Phase II

2017

- Seek Community Board support for Phase II projects
- Implement Phase II projects
- Steering Committee evaluation and input on full network

Community Planning Process

1 Community Outreach and Engagement

2 Data Collection and Evaluation

3 Street Network Limitations and Opportunities

4 Potential Routes and Facility Type

1

2

3

4

Community Planning Process

1 Community Outreach and Engagement

1

2

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4



2014

- **AUGUST**
Online Survey Launch
- **NOVEMBER**
Kickoff Meeting

2015

- **FEBRUARY**
First Community Workshop
- **MARCH & APRIL**
Bike Shop Visits
- **APRIL**
Mobile Workshop at Eco-Station
Earth Day Event

2015 (cont.)

- **APRIL**
Public Surveying at Myrtle-Wyckoff M/L Stop
- **MAY**
Public Surveying at Jefferson L Stop
Visits to Schwinn Clubs & Bike Shops
Second Community Workshop
- **JUNE**
Mobile Workshop at Shape Up
Bushwick
Mobile Workshop at Arts In Bushwick
Online Survey close out (6/30)
- **AUGUST**
Bike Lanes Lesson at El Puente
Tabling at Maritza Davila Parade

1

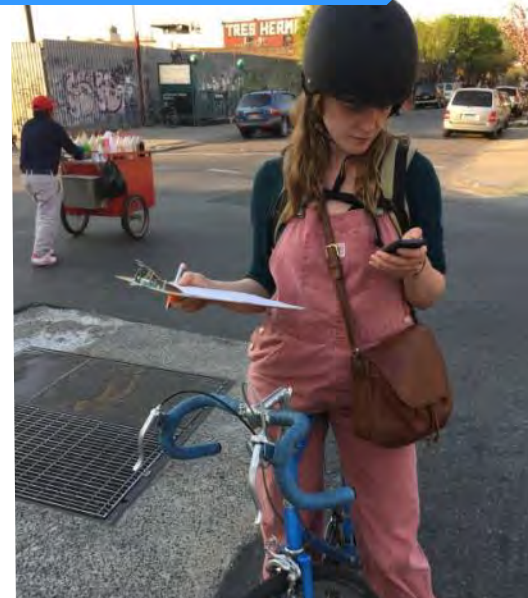
Outreach and Engagement



Myrtle-Wyckoff L/M Stop Surveys



Jefferson L Stop Surveys



Bushwick Bike Shop



Borinquen Schwinn Club



Bravo Bike Shop

1

Outreach and Engagement



2015 Steering Committee Meeting



2015 Shape Up Bushwick



February 2015 Workshop



April 2015 Mobile Workshop

Community Planning Process

2 Data Collection and Evaluation

1

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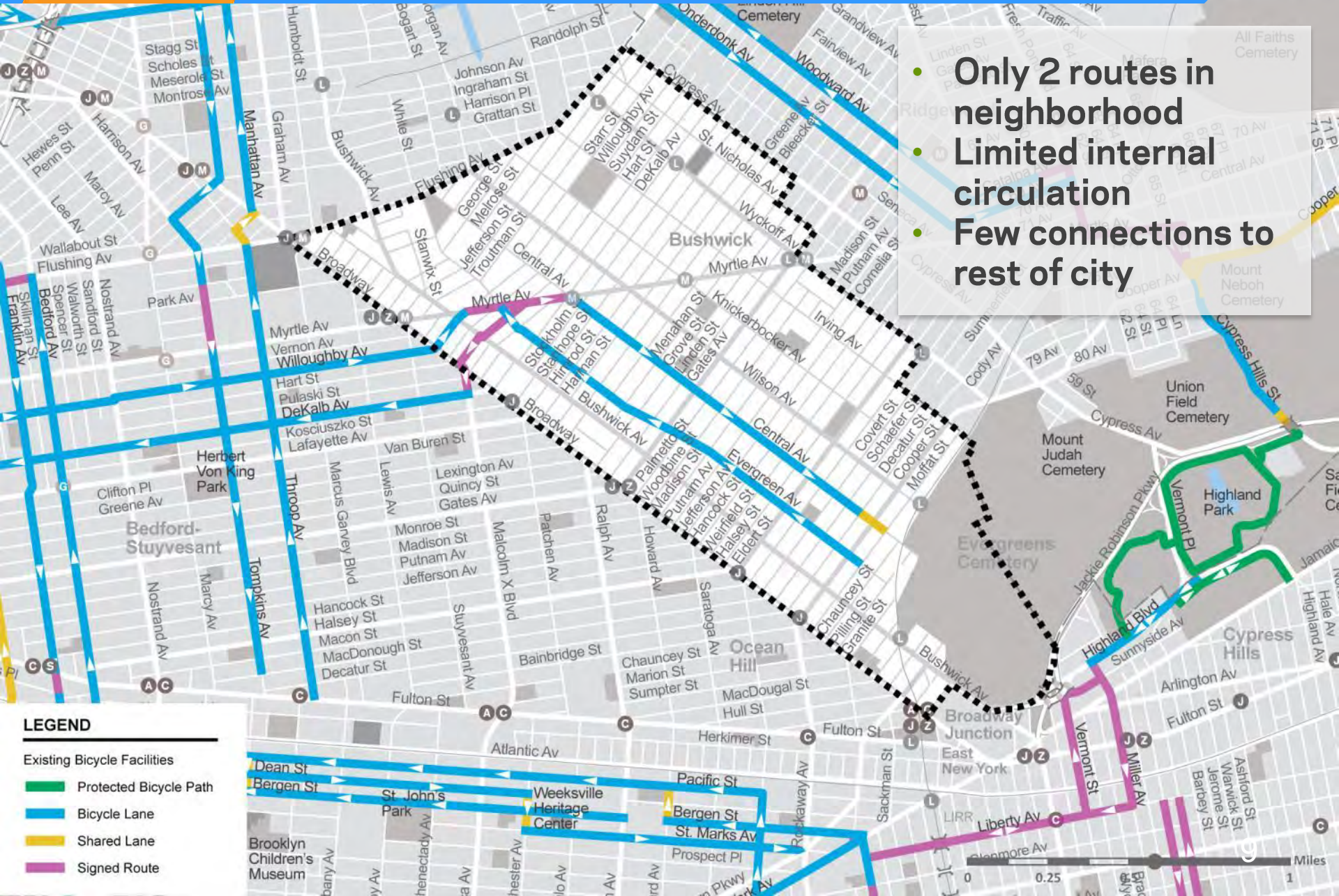
Existing Bicycle Network

- Only 2 routes in neighborhood
- Limited internal circulation
- Few connections to rest of city

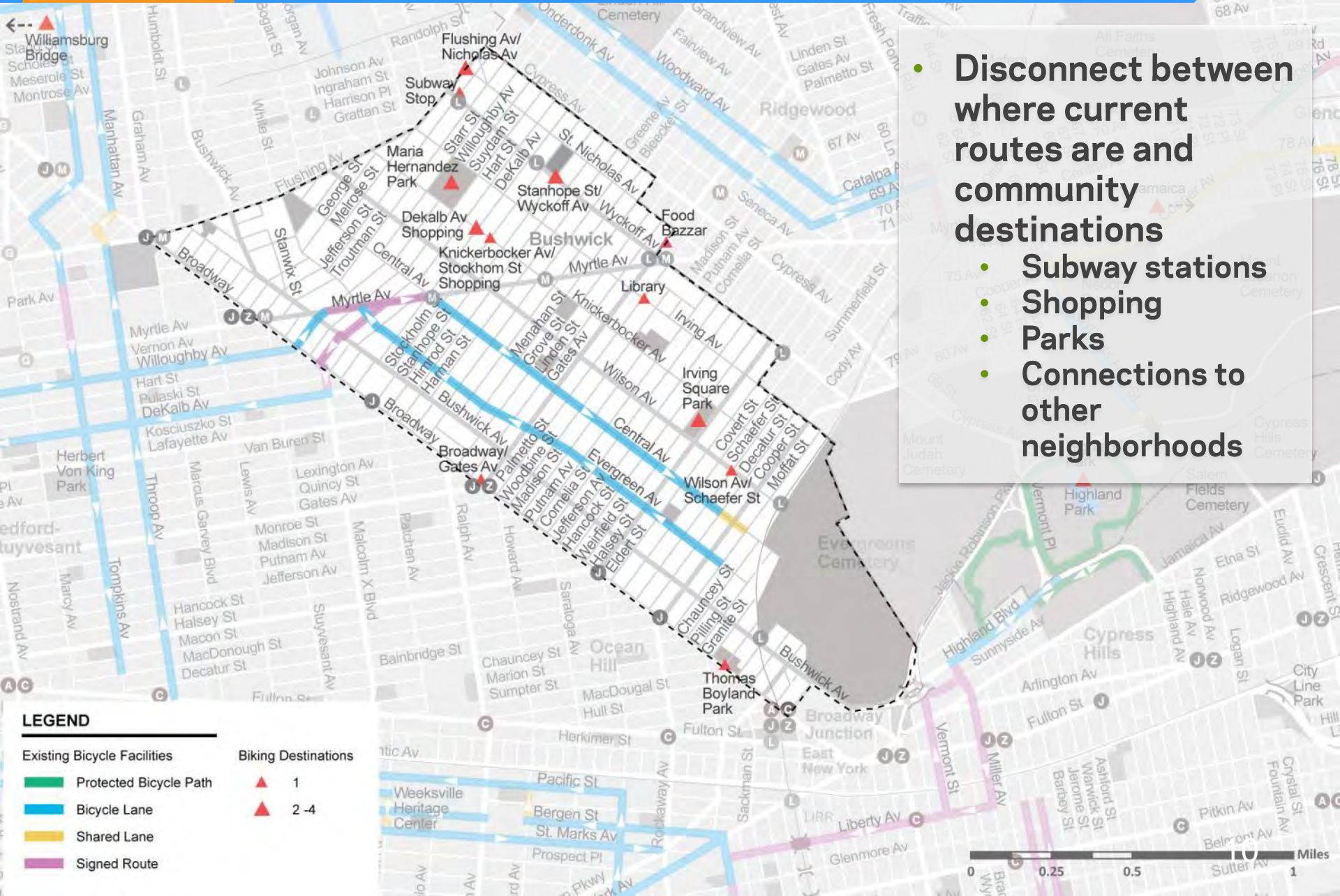
LEGEND

Existing Bicycle Facilities

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



Data Collection and Evaluation Workshop: Top Destinations



LEGEND

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

Biking Destinations

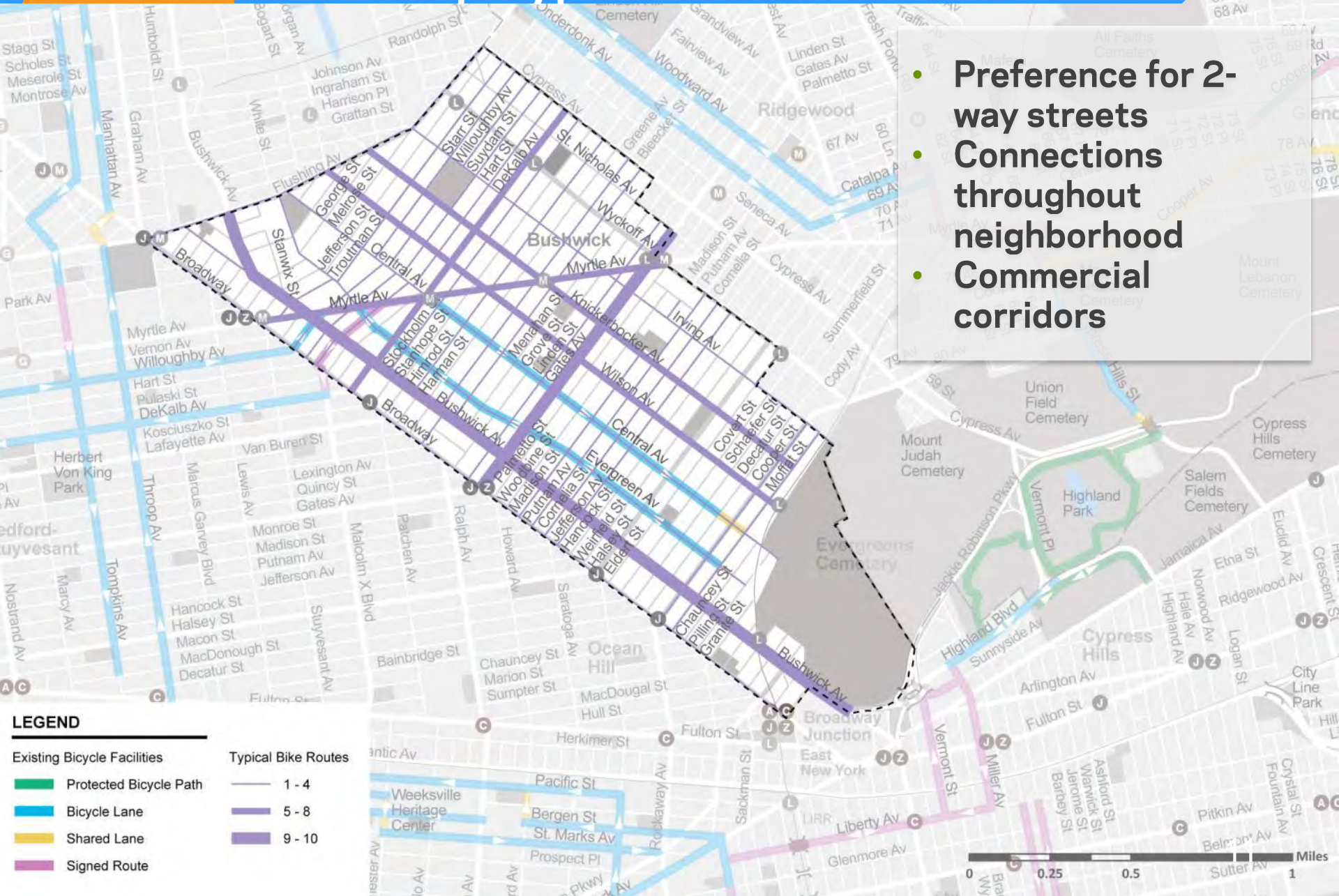
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|---------------------------------------|-----|
| ▲ | 1 |
| ▲▲▲▲ | 2-4 |

- Disconnect between where current routes are and community destinations
 - Subway stations
 - Shopping
 - Parks
 - Connections to other neighborhoods

Data Collection and Evaluation

Workshop: Typical Bike Routes

- Preference for 2-way streets
- Connections throughout neighborhood
- Commercial corridors



LEGEND

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

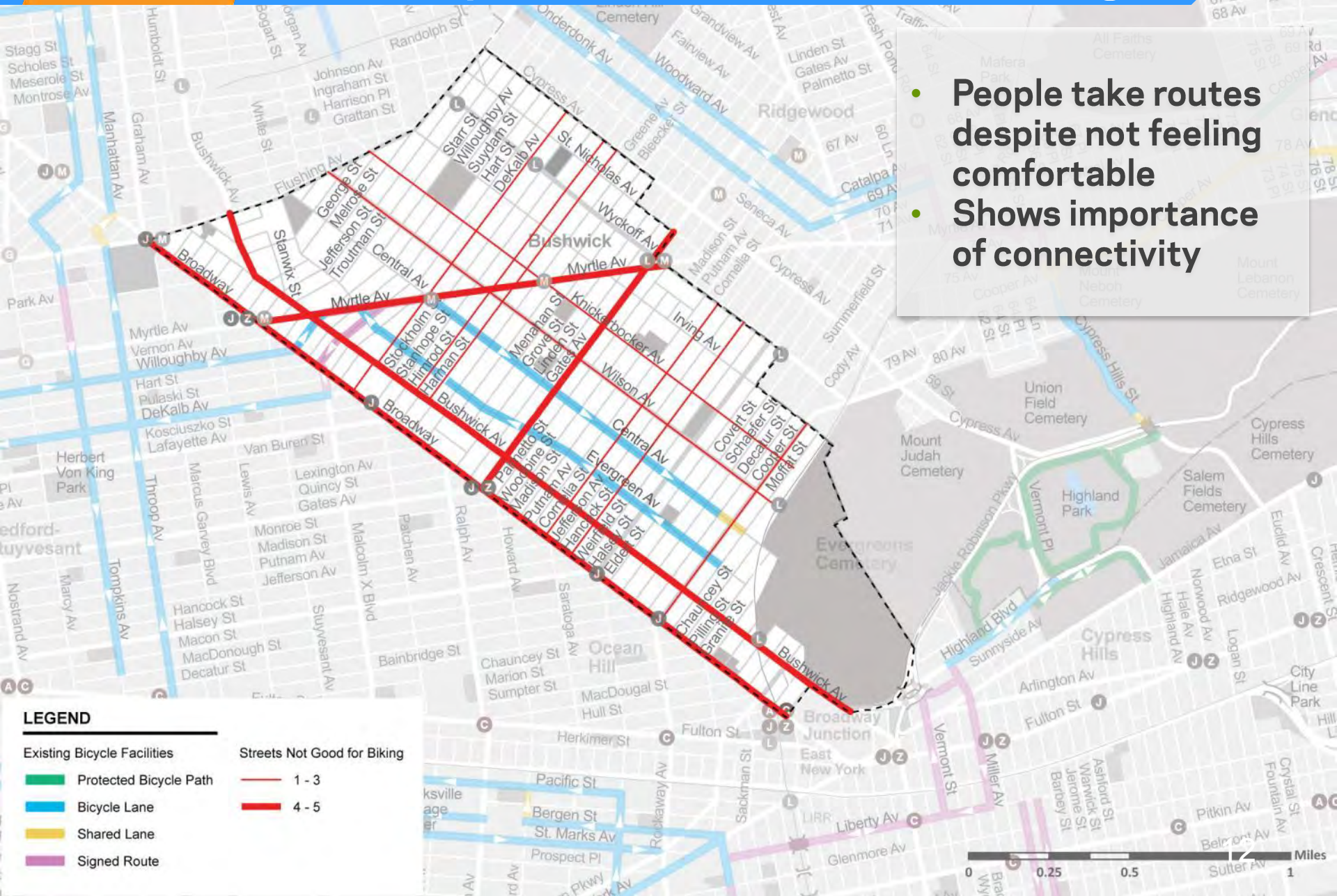
Typical Bike Routes

| | |
|--|--------|
| — (thin) | 1 - 4 |
| — (medium) | 5 - 8 |
| — (thick) | 9 - 10 |

Data Collection and Evaluation

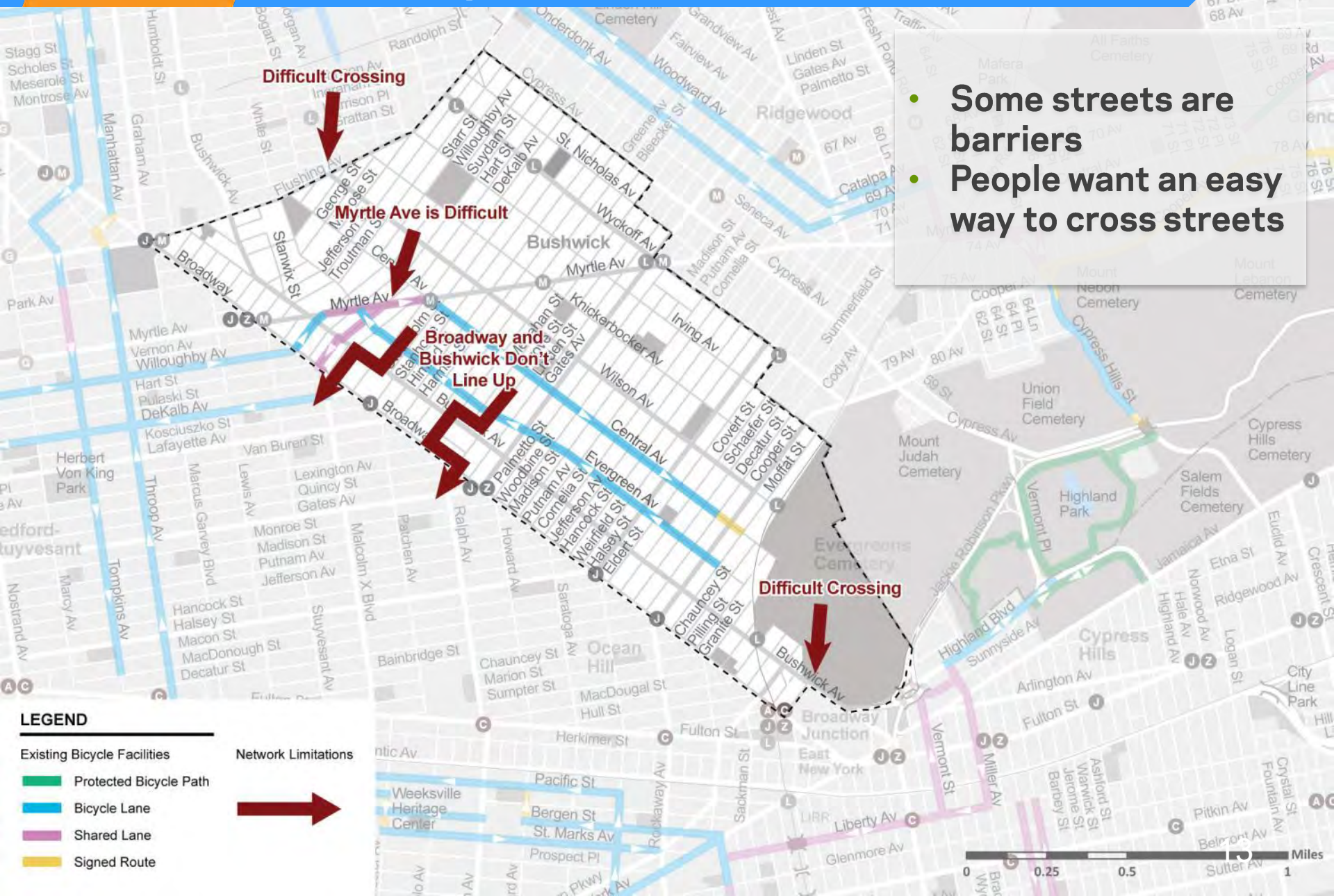
Workshop: Streets Not Good for Biking

- People take routes despite not feeling comfortable
- Shows importance of connectivity



Data Collection and Evaluation Workshop: Problem Areas

- Some streets are barriers
- People want an easy way to cross streets



Difficult Crossing

Myrtle Ave is Difficult

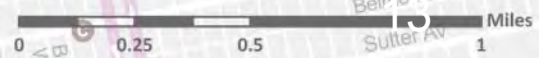
**Broadway and
Bushwick Don't
Line Up**

Difficult Crossing

LEGEND

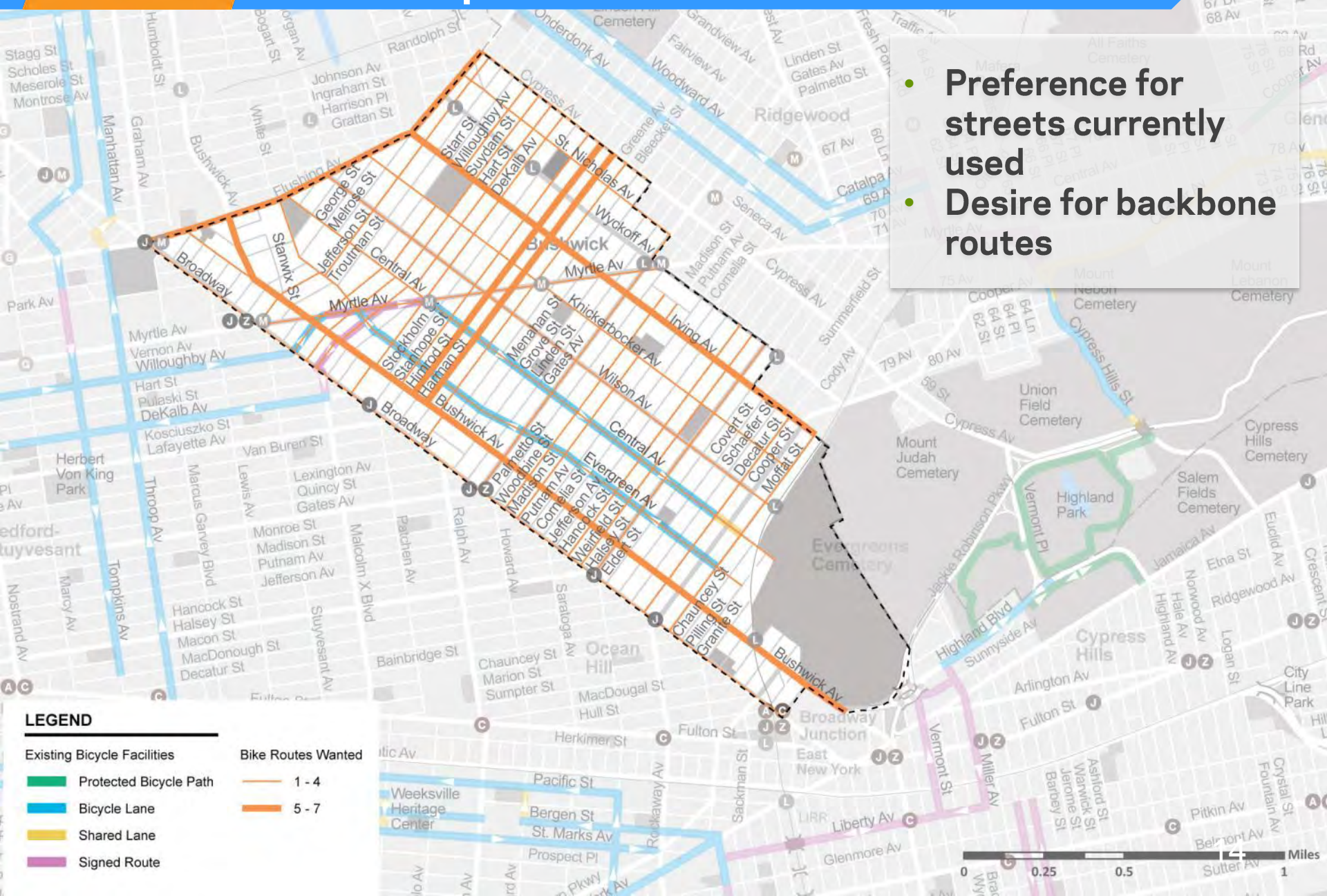
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|------------------------------------|------------------------|
| Existing Bicycle Facilities | |
| | Protected Bicycle Path |
| | Bicycle Lane |
| | Shared Lane |
| | Signed Route |

Network Limitations



Data Collection and Evaluation Workshop: Bike Routes Wanted

- Preference for streets currently used
- Desire for backbone routes



Data Collection and Evaluation Survey: Bike Routes Wanted

- Preference for streets currently used
- High preference for east/west commercial corridors that serve entire neighborhood
- No strong preference for specific north/south routes shows that we can prioritize geometry and connectivity

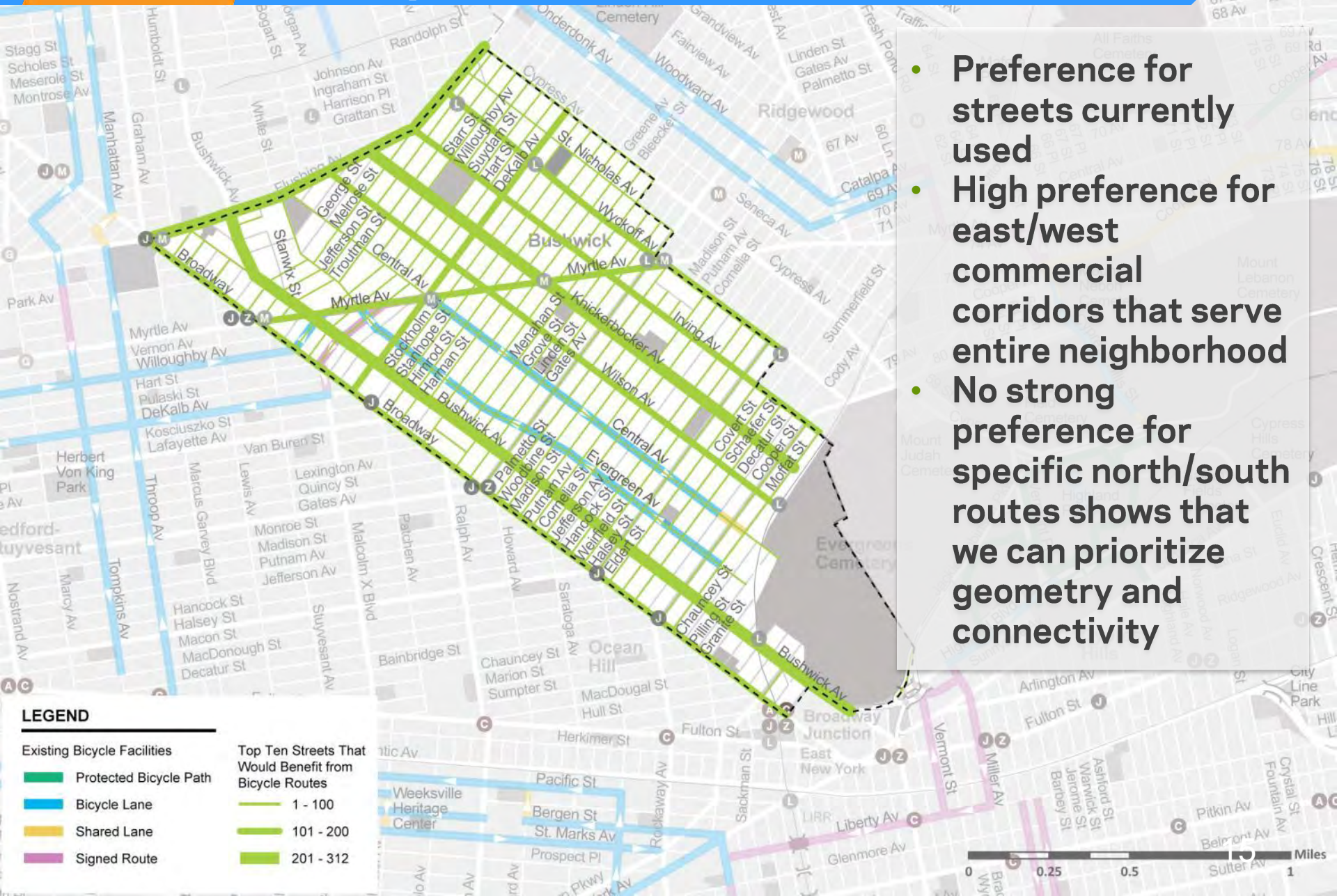
LEGEND

Existing Bicycle Facilities

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

Top Ten Streets That Would Benefit from Bicycle Routes

- 1 - 100
- 101 - 200
- 201 - 312



Street Network and Facility Type



3

Bushwick Street Types: 1-Way Residential

- The bulk of Bushwick's north/south streets are 1-way residential
- Typically 30' wide
- Low traffic volumes



Starr St, Brooklyn

3

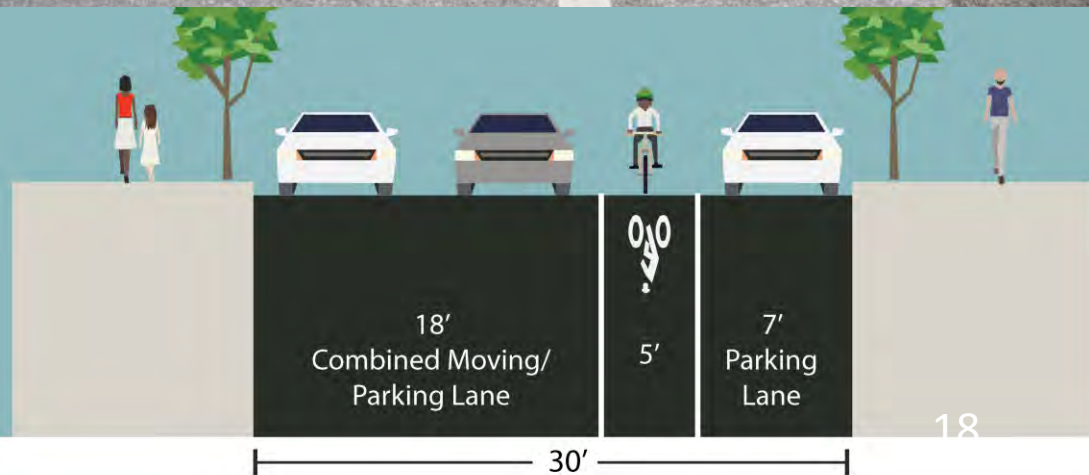
Street Design: 1-Way Dedicated Bicycle Lanes



- **Bushwick's 1-Way Residential Streets can fit:**
 - Space for cyclists
 - Space for motor vehicles
 - No parking impact

91st St, QN

**DEDICATED LANE
30' Minimum Width**



3

Bushwick Street Types: 1-Way Mixed Use

- Some of Bushwick's east/west streets
- Wider streets
- Retail destinations
- Higher traffic volumes
- More parking turnover



3

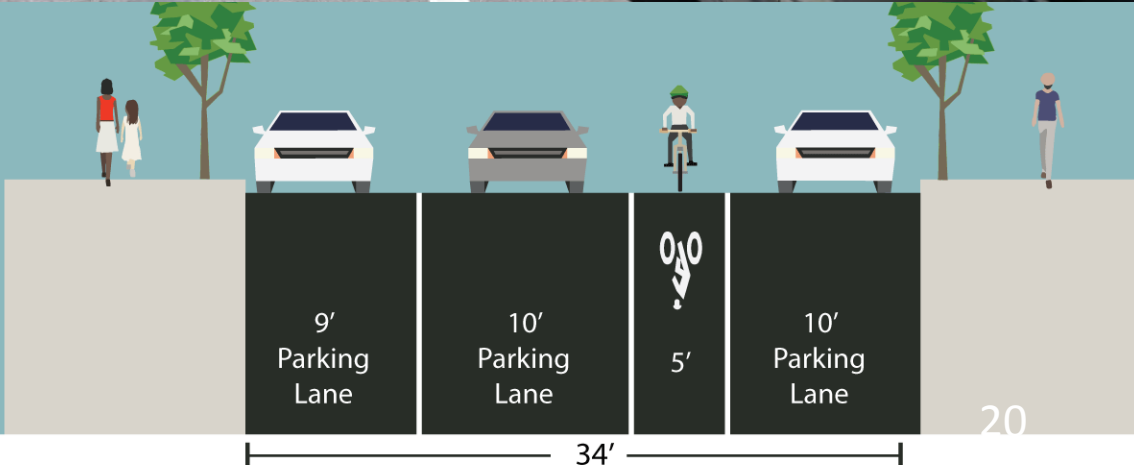
Street Design: 1-Way Dedicated Bicycle Lanes



- **Bushwick's 1-Way Mixed Use Streets can fit:**
 - Space for cyclists
 - Narrows travel lane to calm traffic
 - No parking impact
 - Cyclists kept out of door zone

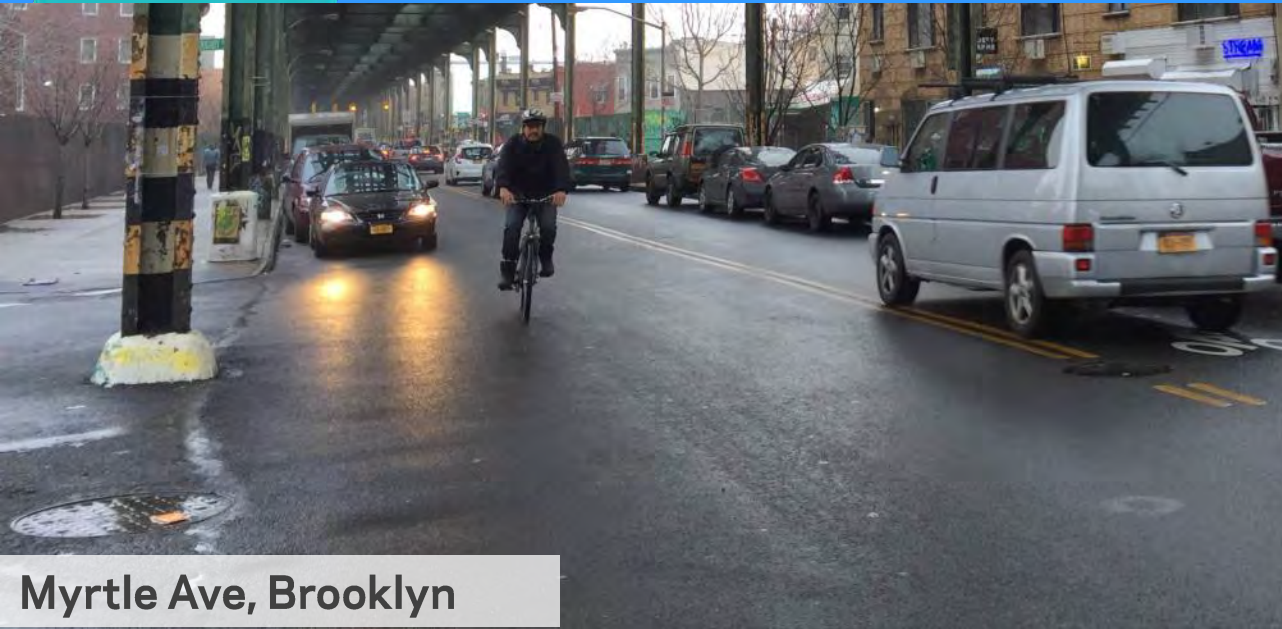
Willoughby Ave, BK

**DEDICATED LANE
Width - 34'**



3

Bushwick Street Types: 2-Way Mixed Use



Myrtle Ave, Brooklyn



Bushwick Ave, Brooklyn

- Remainder of Bushwick Streets
- Examples:
 - Myrtle Ave
 - Broadway
 - Wilson Ave
 - Wyckoff Ave
 - Gates Ave
 - DeKalb Ave
 - Bushwick Ave
 - Flushing Ave
- 34-44' width is too narrow for bicycle lanes on two-way without significant changes
- Complicated geometries
- Higher traffic volumes

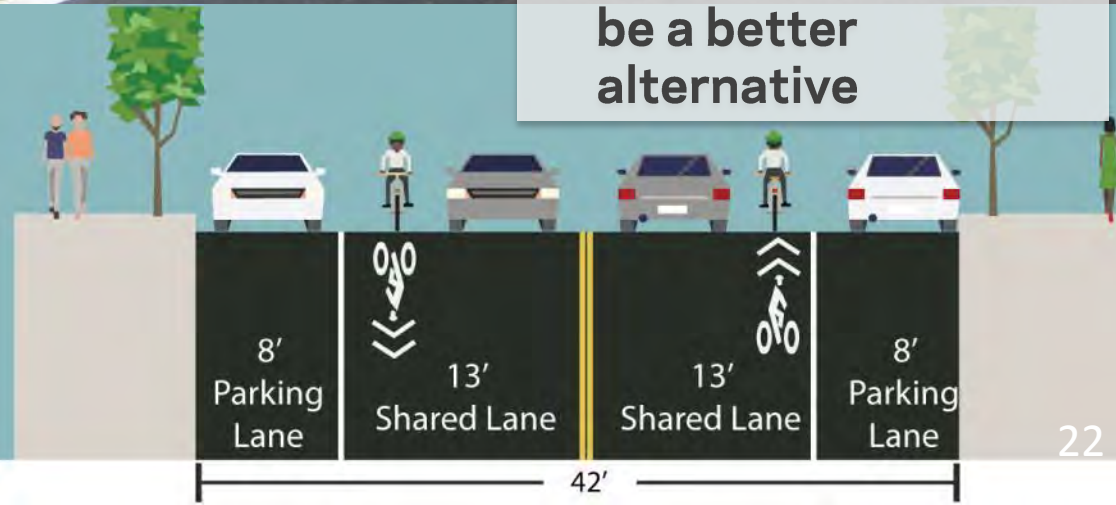
3

Street Design: 2-Way Shared Lanes



- Only option for low-impact facility in narrow space
 - No parking impact
 - No travel lane impact
- No dedicated space for cyclists
- Not ideal for high volume streets
- Many of these streets parallel a 1-way pair that would be a better alternative

SHARED LANE
Width - 42'





Short-Term Projects

- **Low-Impact:**
 - Little or no parking loss
 - No travel lane loss
- **Standard design**
- **Quick buildout**
- **Low cost**

Anticipated installation
Summer of 2016



Long-Term Projects

- **Higher-Impact:**
 - Potential parking loss
 - Potential travel lane loss
- **More complex design**
- **Robust traffic modeling**
- **Potentially higher-cost**

Continue to work with
community to evaluate
potential long-term
opportunities

4

Potential Routes

4 Potential Routes and Facility Type

1

2

3

4



Connectivity

- “Key destinations”
- “Routes wanted”
- “Routes used”
- To existing network
- In/outside neighborhood
- Grid change



Safety

- “Street not good for cycling”
- “Problem areas”
- Vision Zero
- Conflicting movements
- Traffic volumes

Safety is both an issue and an opportunity



Geometry

- Design limitations and opportunities
- Street width
- Facility type



LEGEND

Existing Bicycle Facilities

- █ Protected Bicycle Path
- █ Bicycle Lane
- █ Shared Lane
- █ Signed Route

Biking Destinations

- ▲ 1
- ▲ 2-4



Destinations

In Bushwick:

- Shopping on Knickerbocker and DeKalb Aves
- Subway stations
- Parks

Out of Bushwick:

- Jamaica
- Highland Park
- Broadway Junction
- Bedford-Stuyvesant
- Ridgewood
- Williamsburg & Williamsburg Bridge



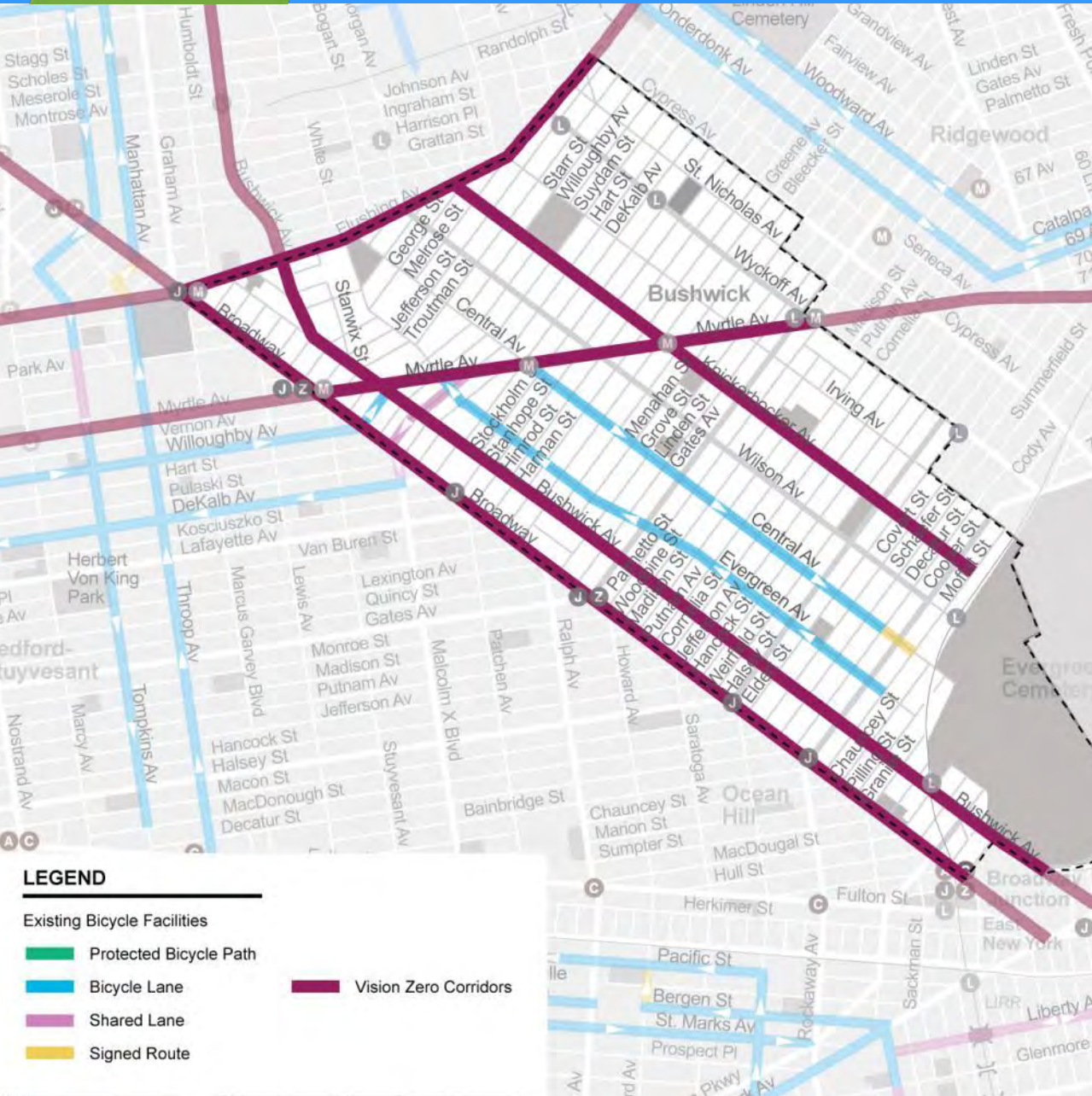
LEGEND

- Streets Connecting All of Bushwick
- - - Stub Streets
- Connections on South Side of Bushwick
- - - Dead End on North End of Street
- - - Dead End on South End of Street
- Connections on North Side of Bushwick
- - - Dead End on South End of Street



Street Grid/Network

- Certain streets are barriers
- Grid changes
- Dead ends
- T-intersections
- One-way changes



Vision Zero Priority Corridors

- Flushing Ave
- Myrtle Ave
- Bushwick Ave
- Broadway
- Knickerbocker Ave
- Has capacity for bike lane

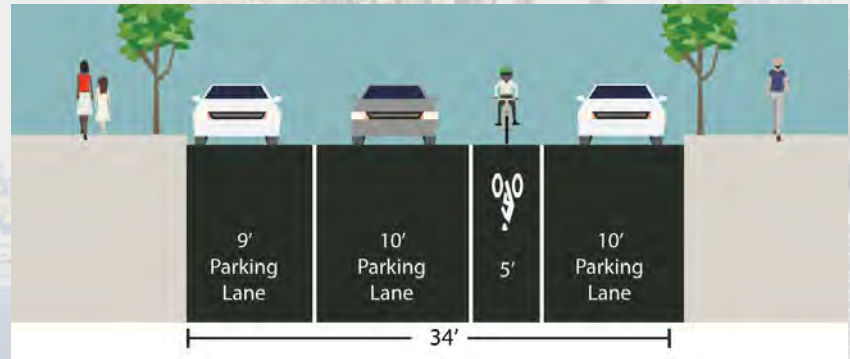
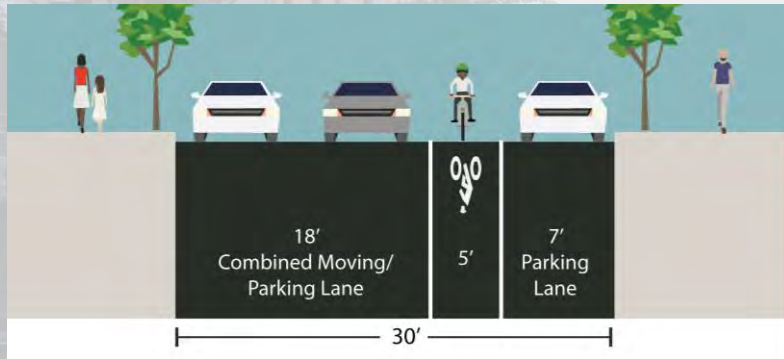
LEGEND

| | |
|-----------------------------|------------------------|
| Existing Bicycle Facilities | |
| | Protected Bicycle Path |
| | Bicycle Lane |
| | Shared Lane |
| | Signed Route |
| | Vision Zero Corridors |

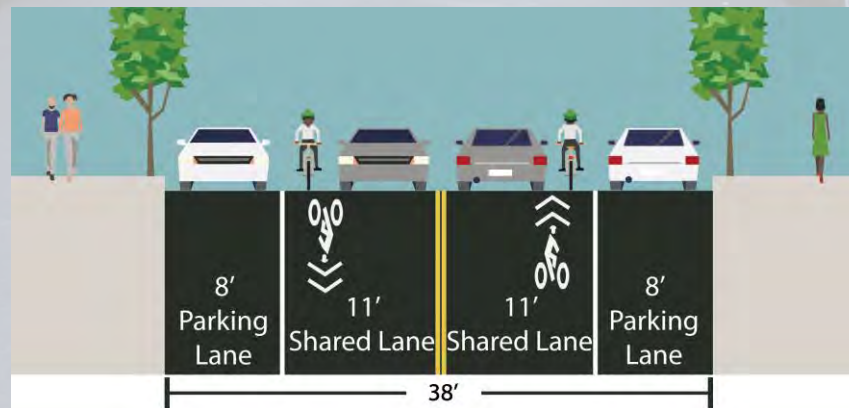


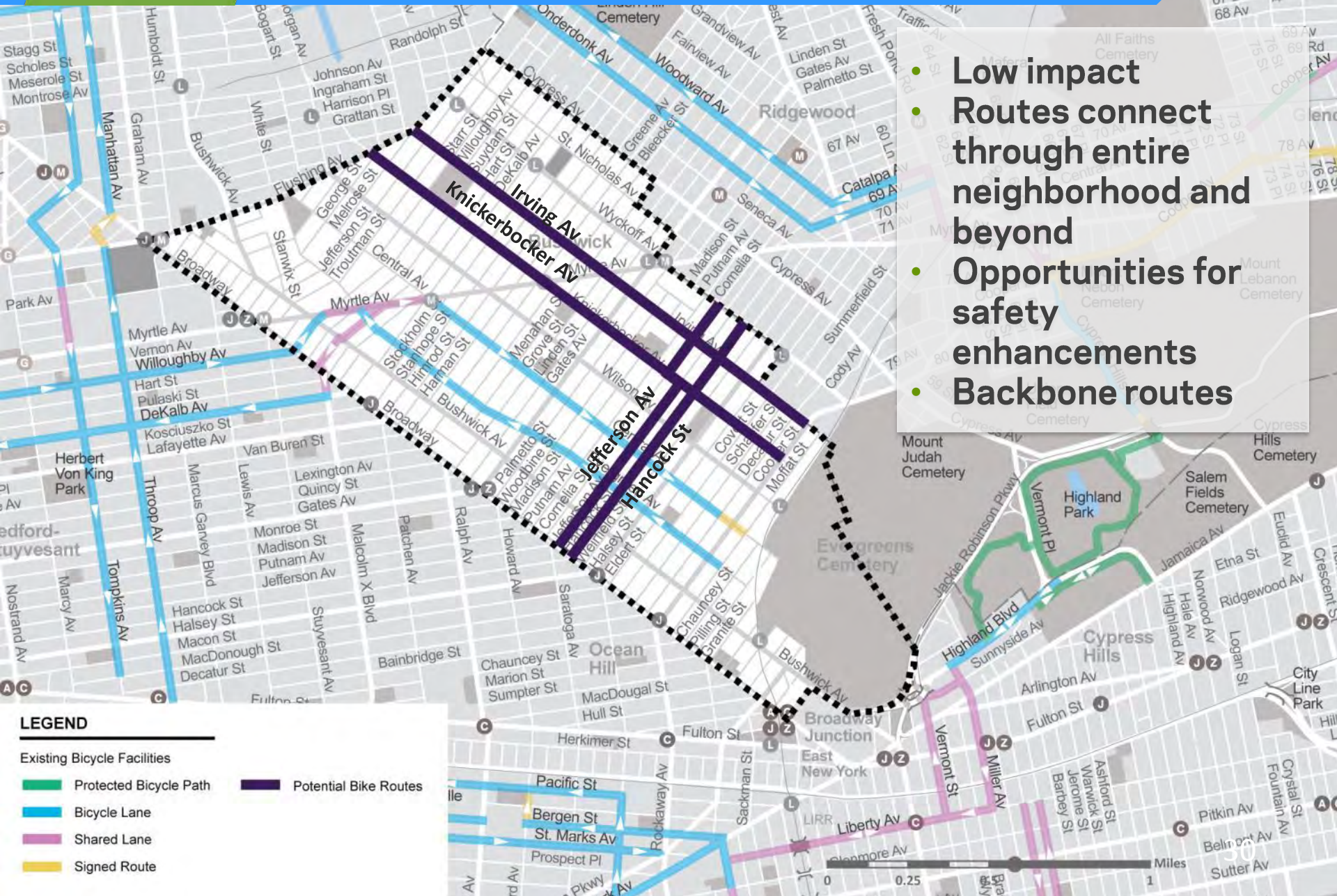


Bicycle lanes



Shared lanes










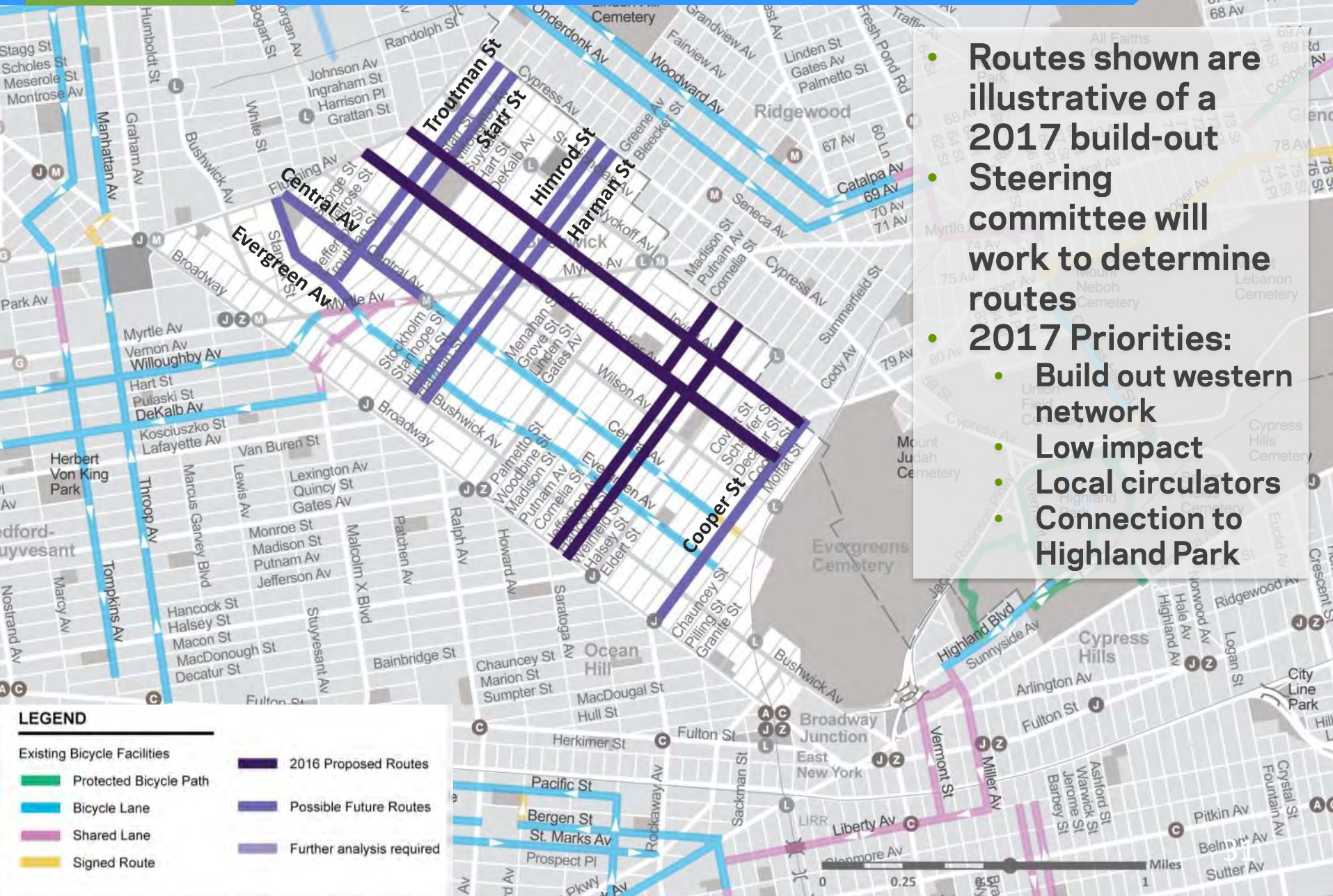
- Low impact
- Routes connect through entire neighborhood and beyond
- Opportunities for safety enhancements
- Backbone routes

LEGEND

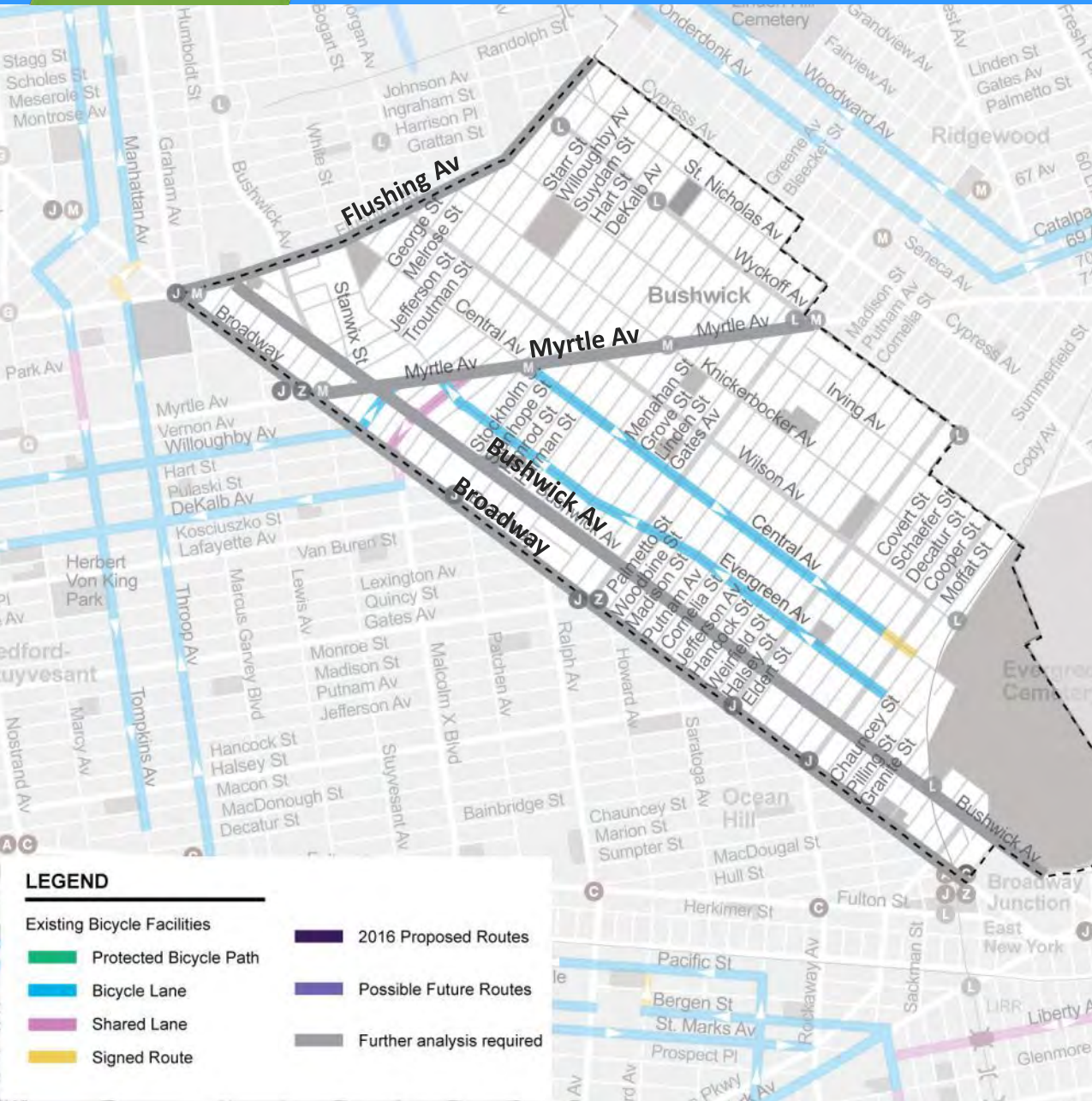
Existing Bicycle Facilities

-  Protected Bicycle Path
-  Bicycle Lane
-  Shared Lane
-  Signed Route
-  Potential Bike Routes

Potential Future Bicycle Routes

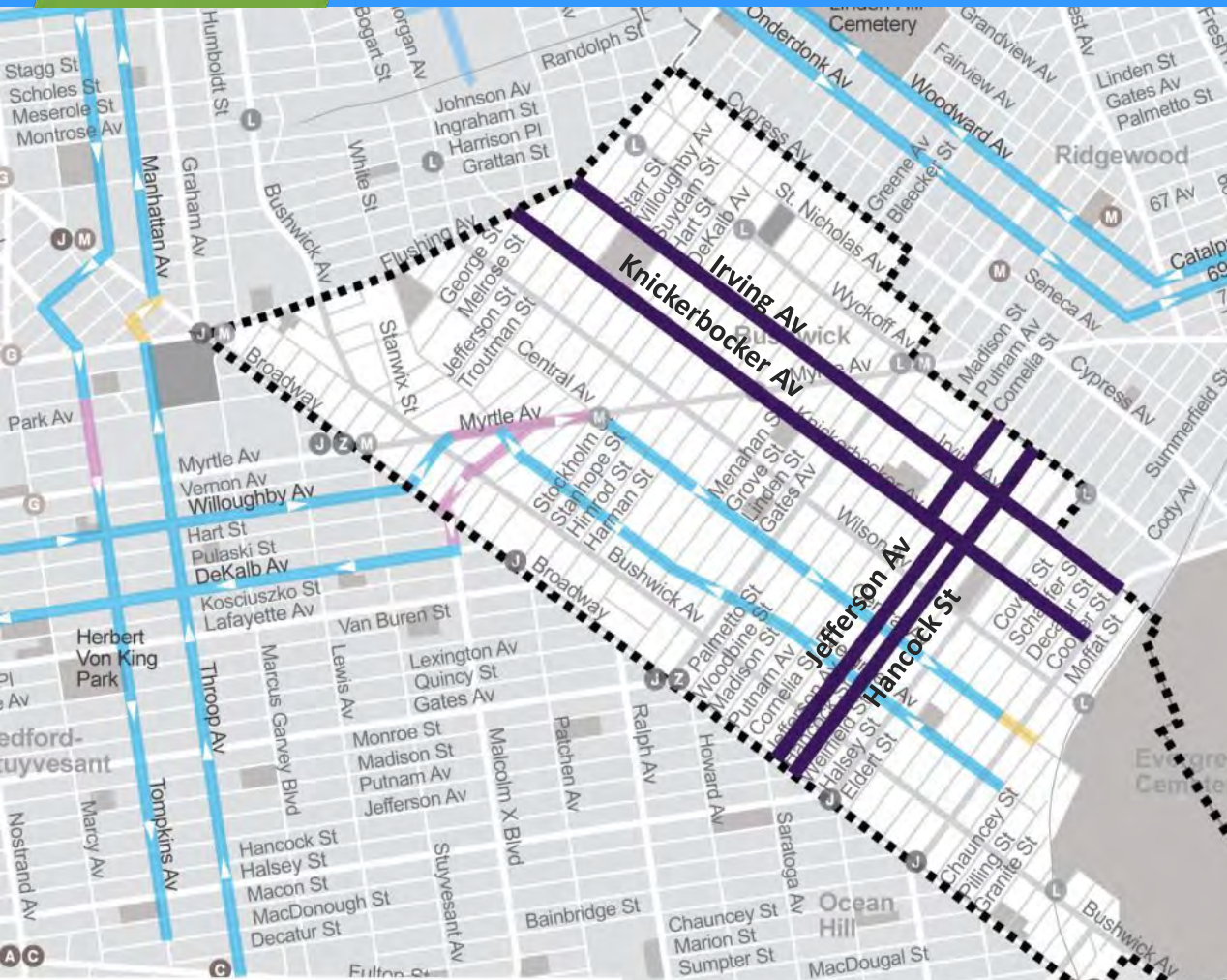


- Routes shown are illustrative of a 2017 build-out
- Steering committee will work to determine routes
- 2017 Priorities:
 - Build out western network
 - Low impact
 - Local circulators
 - Connection to Highland Park



- Community has shown interest in these corridors, but they are challenging
 - What are the streets we should concentrate on?
 - What is the role of the Steering Committee?

- Considerations:
 - Potential safety improvements
 - Complicated geometries
 - Higher impact to traffic patterns and parking
 - Need further discussion and analysis



LEGEND

Existing Bicycle Facilities

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

■ Potential Bike Routes

Proposed Bike Routes

East/West

- Knickerbocker Ave, Irving Ave

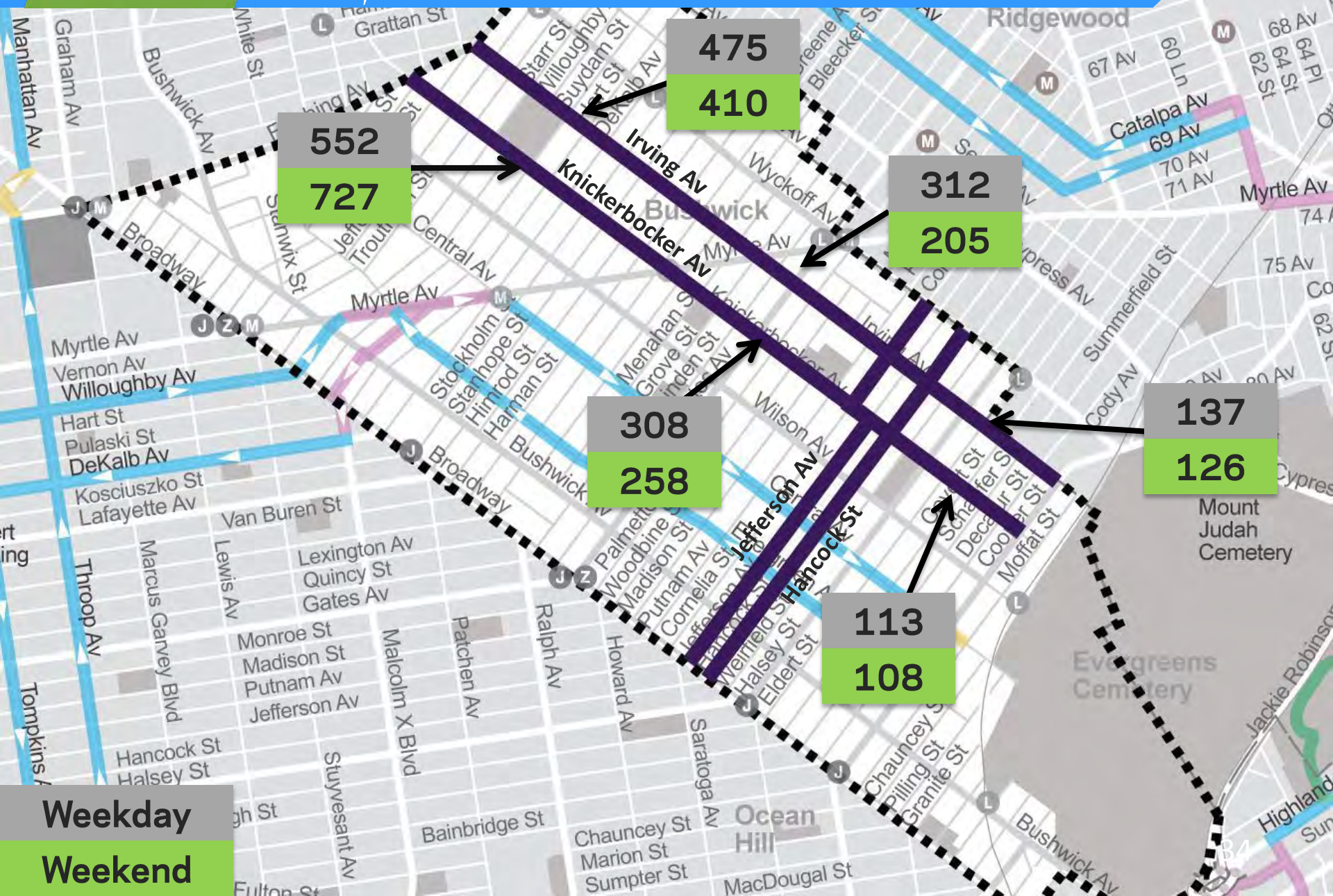
North/South

- Jefferson Ave/Cornelia St, Hancock St

- Low impact
- Opportunities for safety enhancements
- Backbone routes
- Opportunities to extend beyond neighborhood
- Safety improvements

Existing Bicycle Volumes

June, 2015



Knickerbocker Ave, Irving Ave

Existing Conditions



34' Wide

- Mixed-use (residential & commercial)
- 1-way street
- Curbside parking lanes

4

Knickerbocker Ave, Irving Ave

Issues

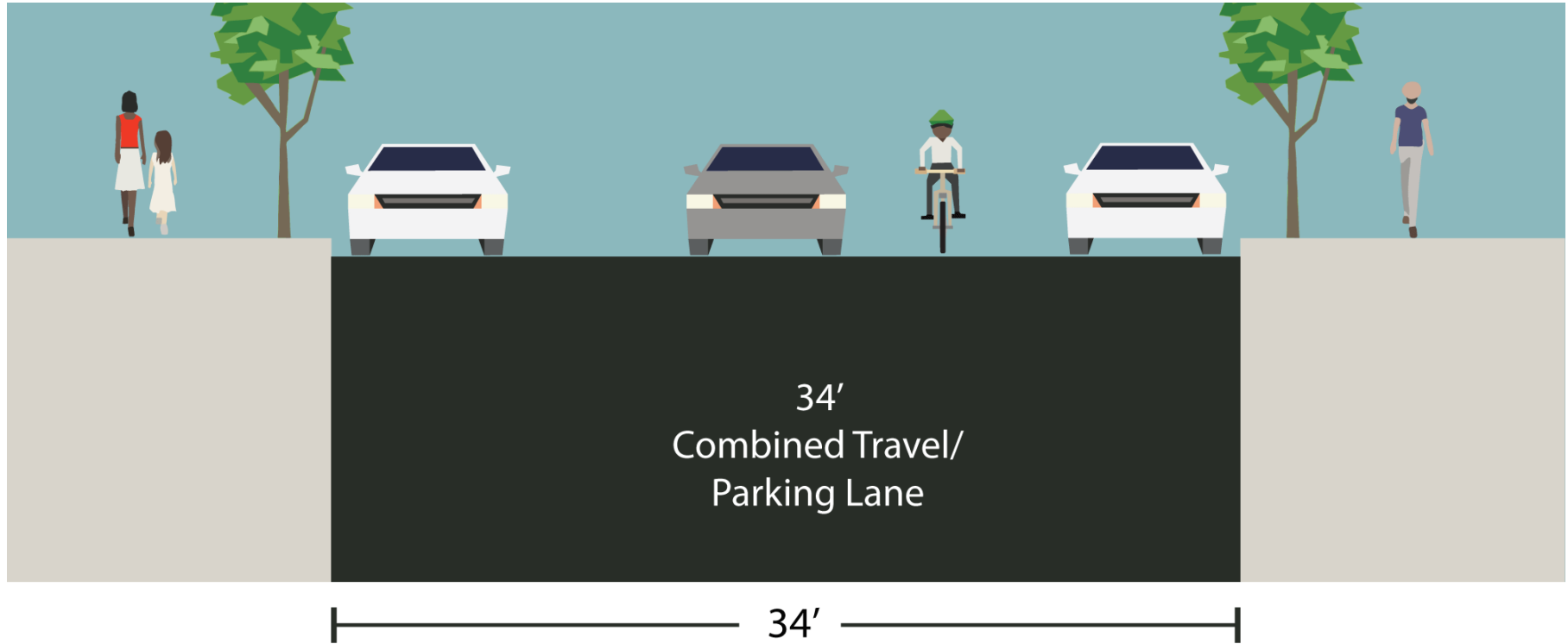
Wide Travel Lane

*- Encourages
Speeding*

Lack of Markings

*- No dedicated
space for cyclists*

Existing



Knickerbocker Ave, Irving Ave

Proposed Design

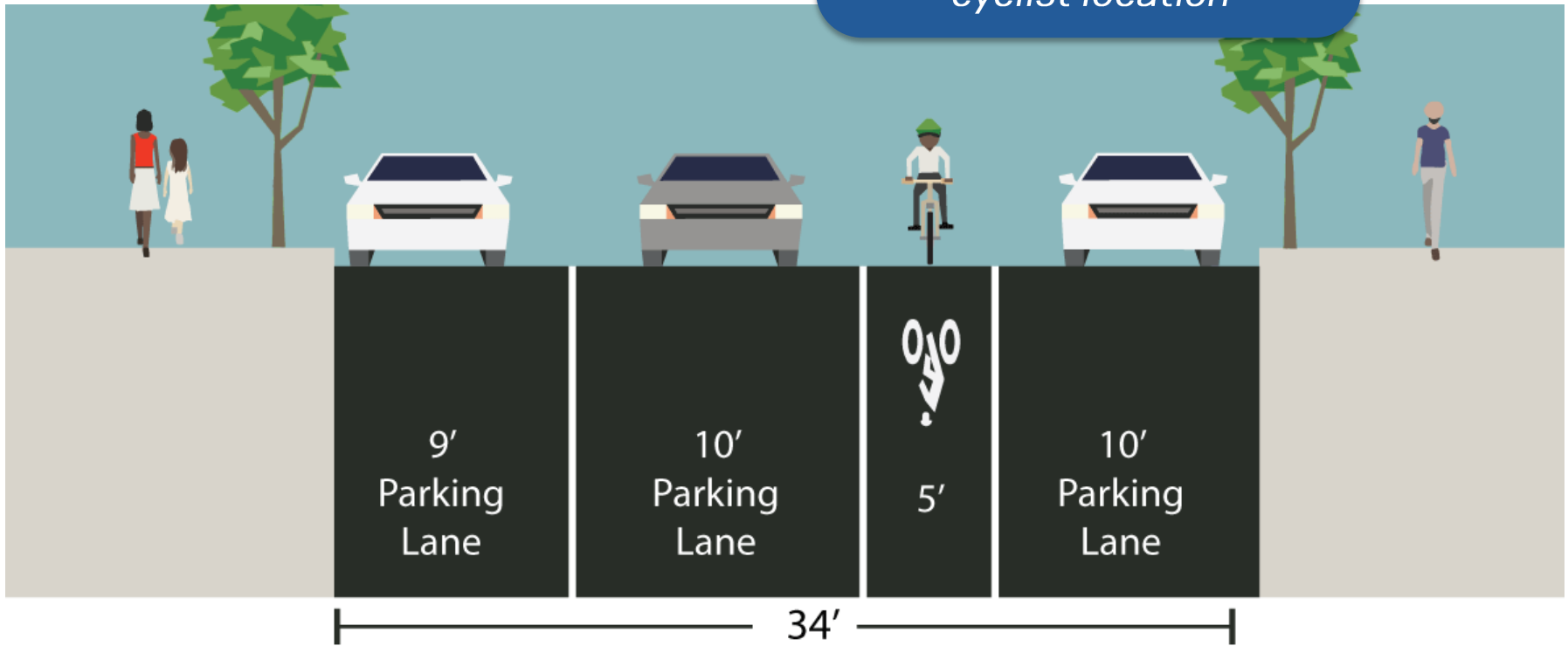
Standard Width Travel Lane

- Calms traffic

Bike Lanes

- Provide dedicate space for cyclists
- Increase predictability of cyclist location

Proposed



4

Knickerbocker Ave at Flushing Ave

Existing - George St to Melrose St

Lack of Markings

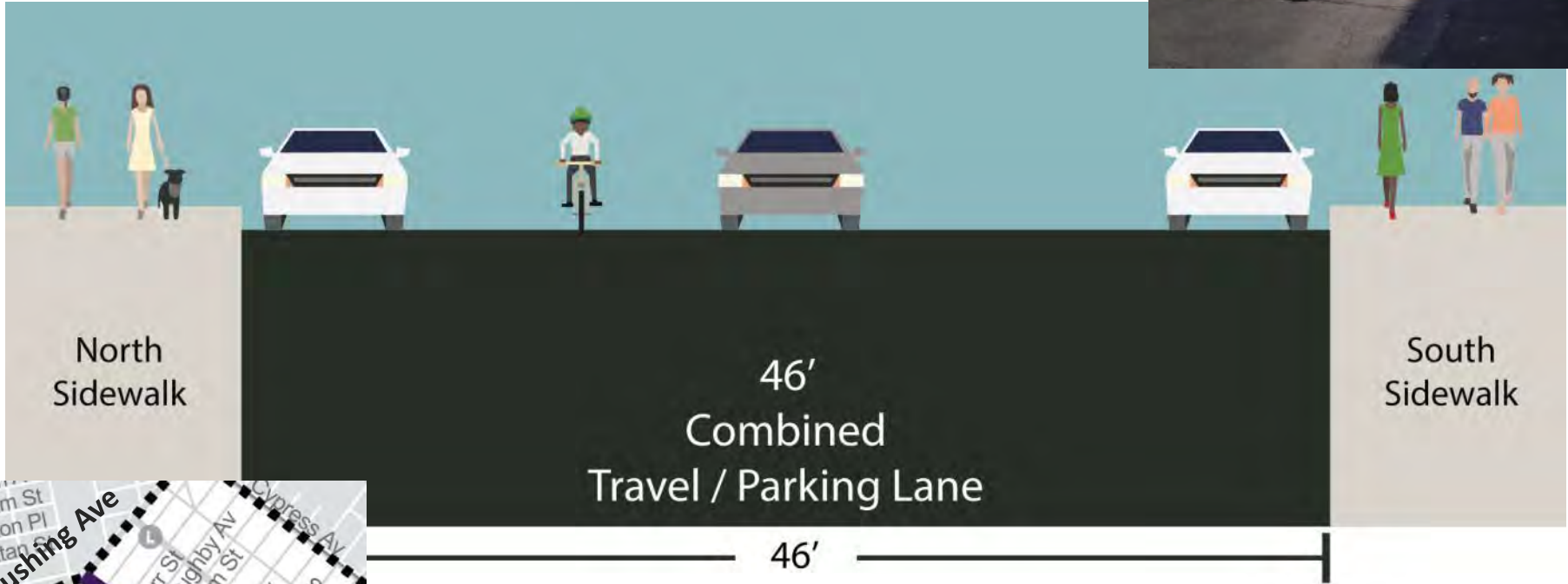
- No dedicated space for cyclists

Wide Travel Lane

- Encourage speeding



Existing



Knickerbocker Ave

Proposed Design - George St to Melrose St

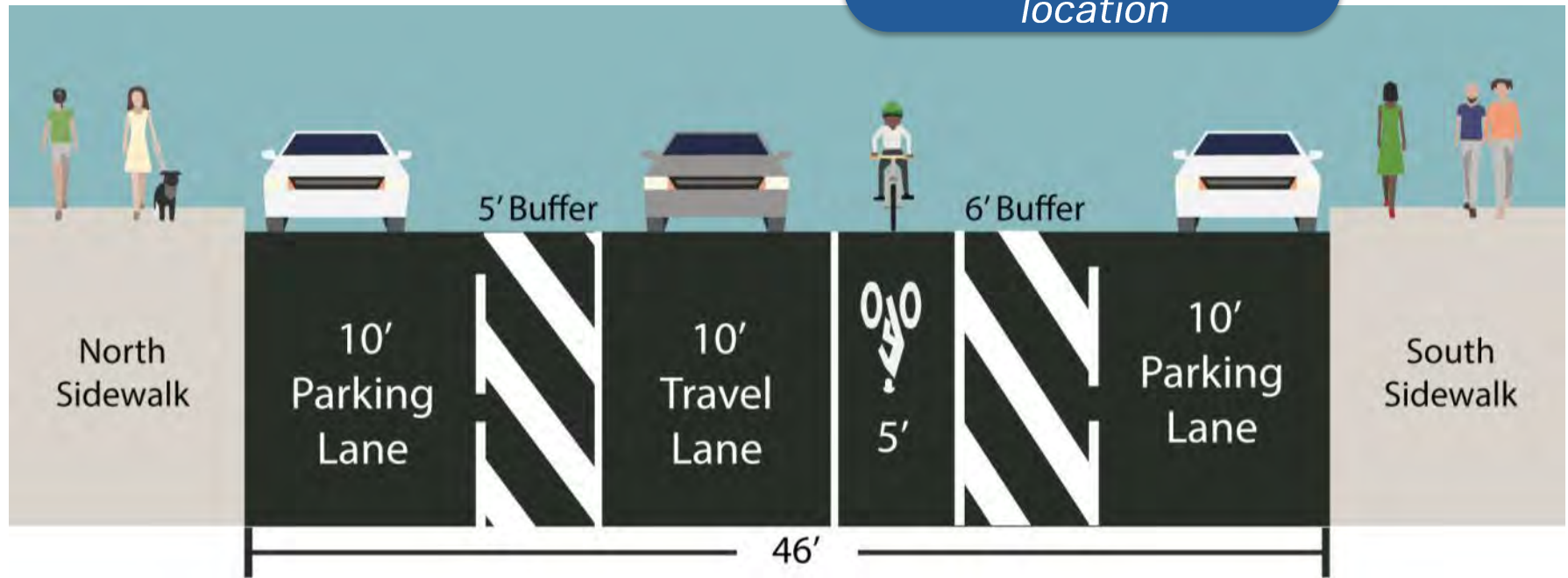
Standard Width Travel Lane

- Reduces speeding
- Maintains alignment

Bike Lanes

- Provide dedicate space for cyclists
- Increase predictability of cyclist location

Proposed



Knickerbocker Ave

Existing Conditions- Harman St to Bleecker St

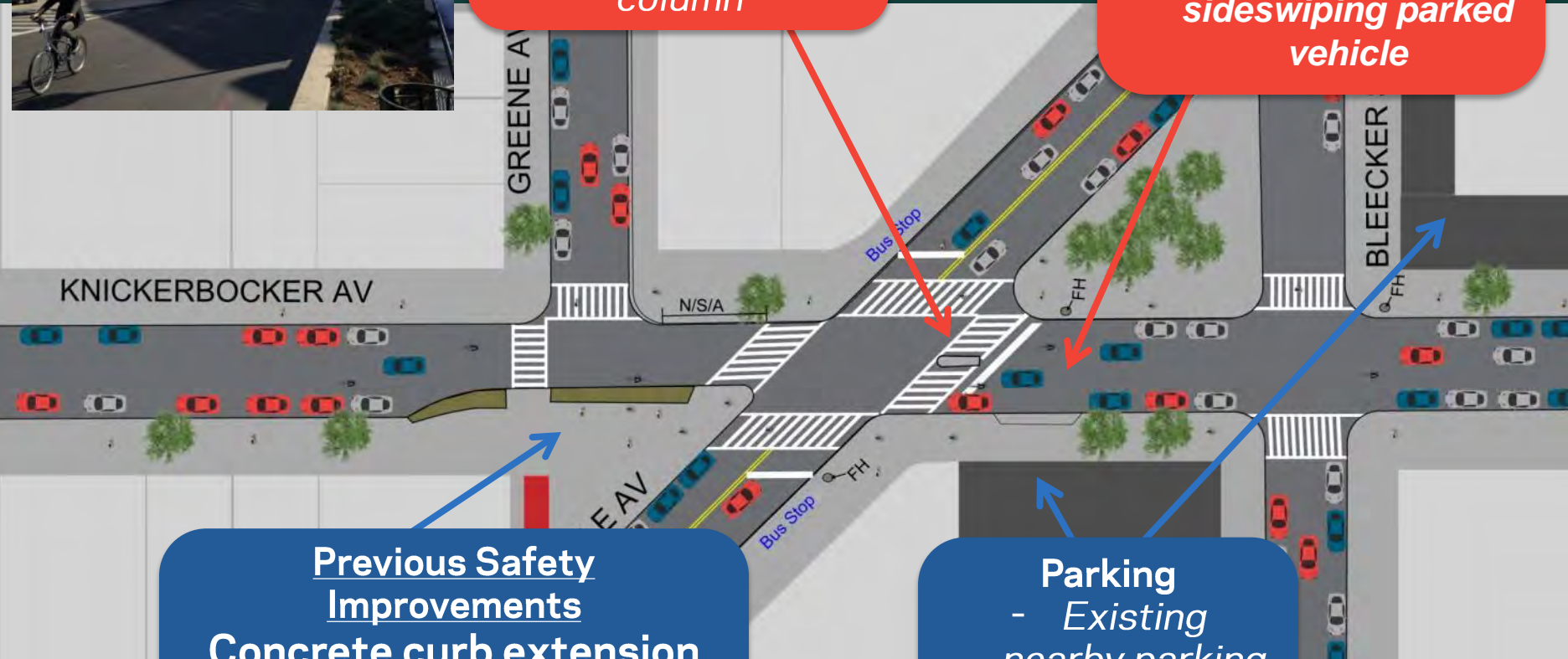


Elevated Train Columns

- Confusion around elevated train column

Lack of Markings

- No dedicated space for cyclists
- Potential for sideswiping parked vehicle



Previous Safety Improvements

Concrete curb extension

- New pedestrian space
- Access to subway
- Calms traffic

Parking

- Existing nearby parking lots provide alternatives to these spots

Knickerbocker Ave

Proposed Design- Harman St to Bleecker St



Markings

Guide drivers away from elevated train columns

Through and Right Turn Lane

- Clearly designates vehicular movements

Dedicated Left Turn Lane

- Clearly designates space for turning vehicles

Bike Lanes

*- Provide dedicated space for cyclists
- Increase predictability of cyclist location*

Bike Lane

- Guides cyclists through challenging intersection

Trade-off:

improved intersection for four parking spots

GREENE AV

KNICKERBOCKER AV

N/S/A

N/S/A (proposed)

MYRTLE AV

Bus Stop

Bus Stop

FH

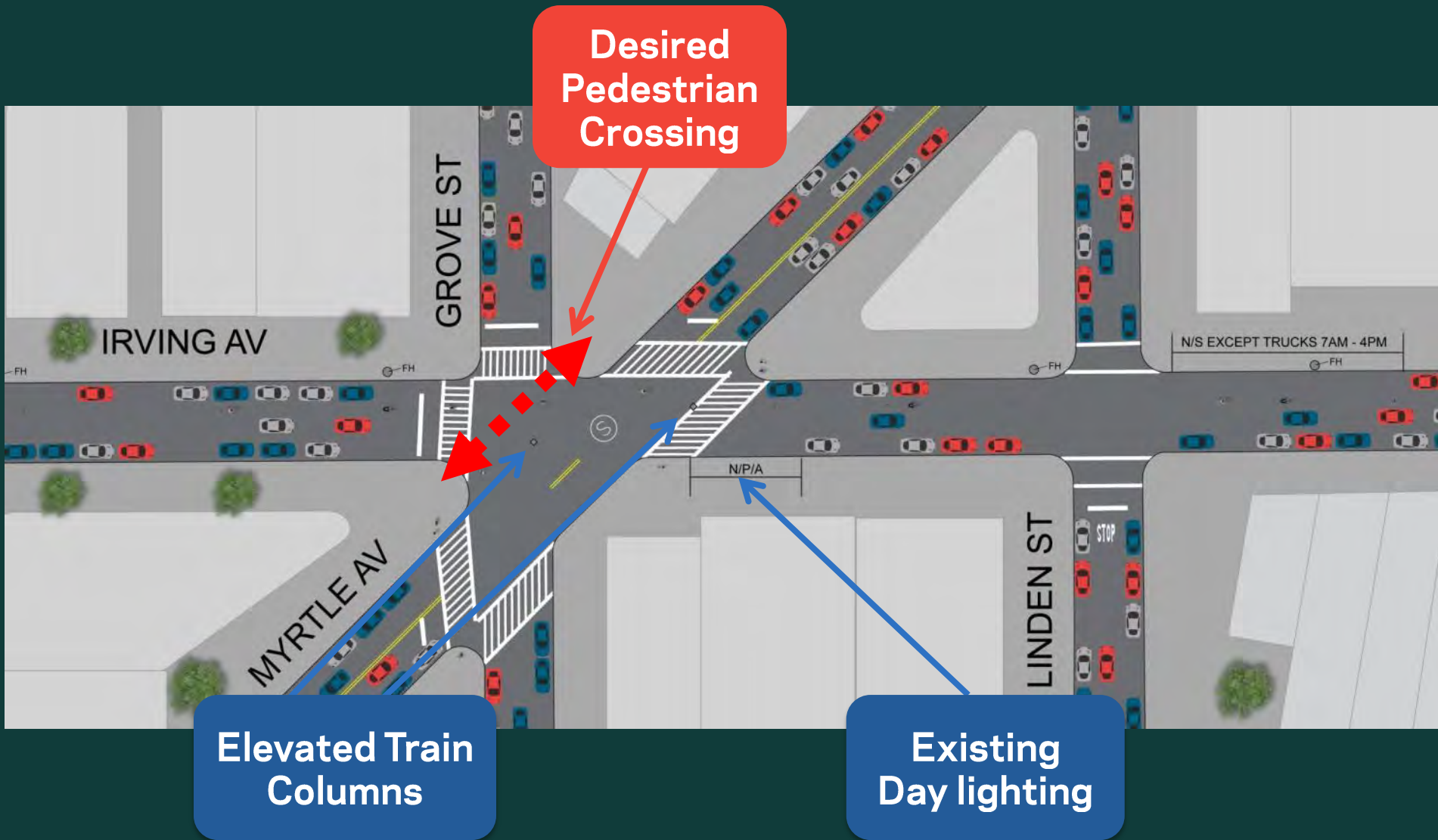
FH

ONLY

ONLY

Irving Ave

Existing Conditions- *Menahan St to Linden St*

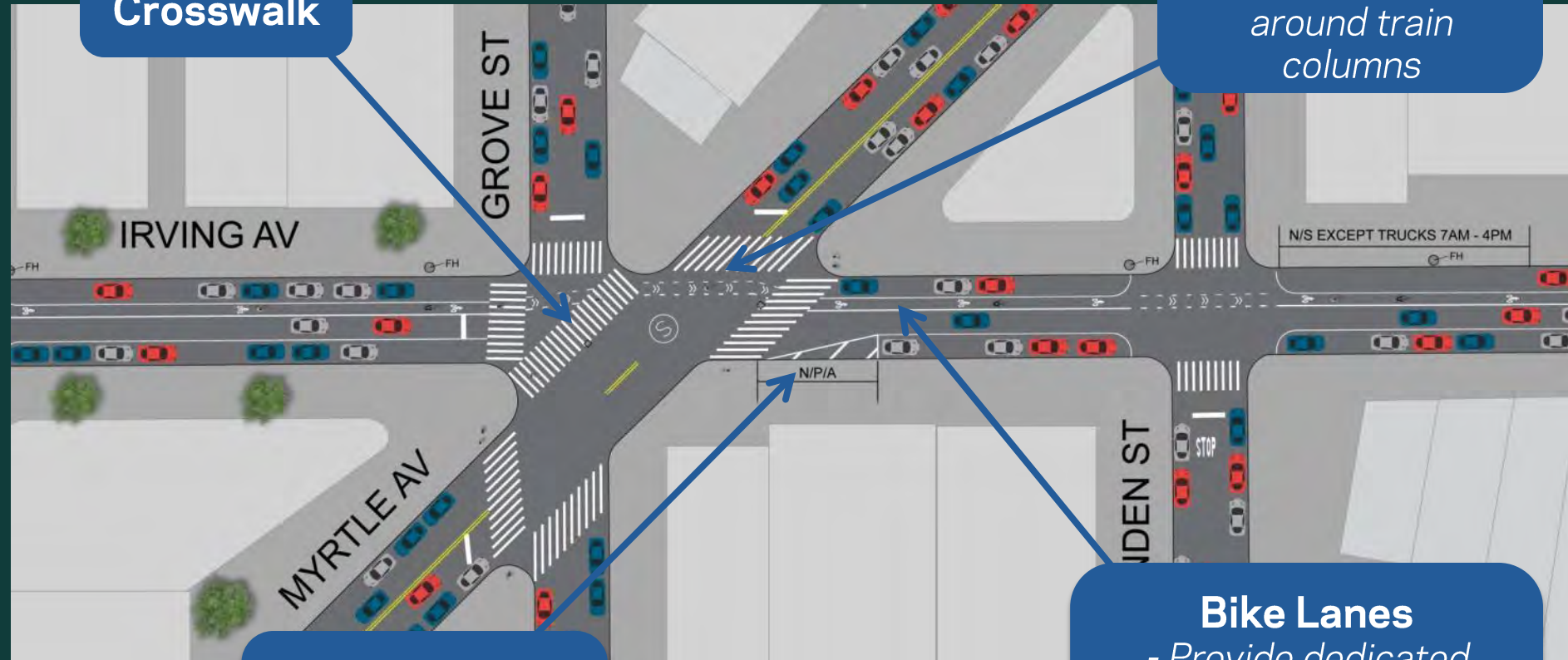


New Crosswalk

Intersection markings
- Guide cyclists around train columns

Previous Safety Improvement
- Day lighting

Bike Lanes
- Provide dedicated space for cyclists
- Increase predictability of cyclist location



Jefferson Ave/Cornelia St, Hancock St

Existing Conditions

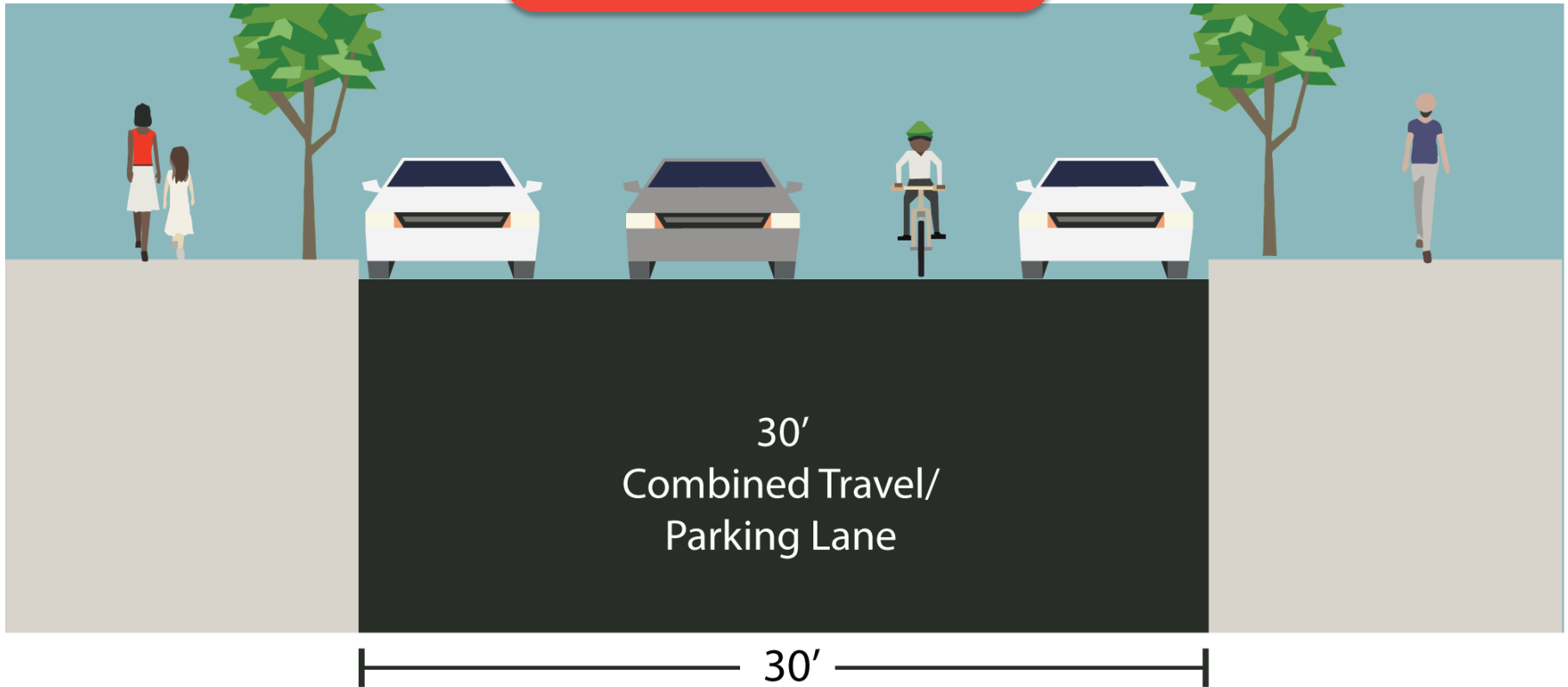


30' Wide

- Mixed-use (residential & commercial)
- 1-way street
- Curbside parking lanes

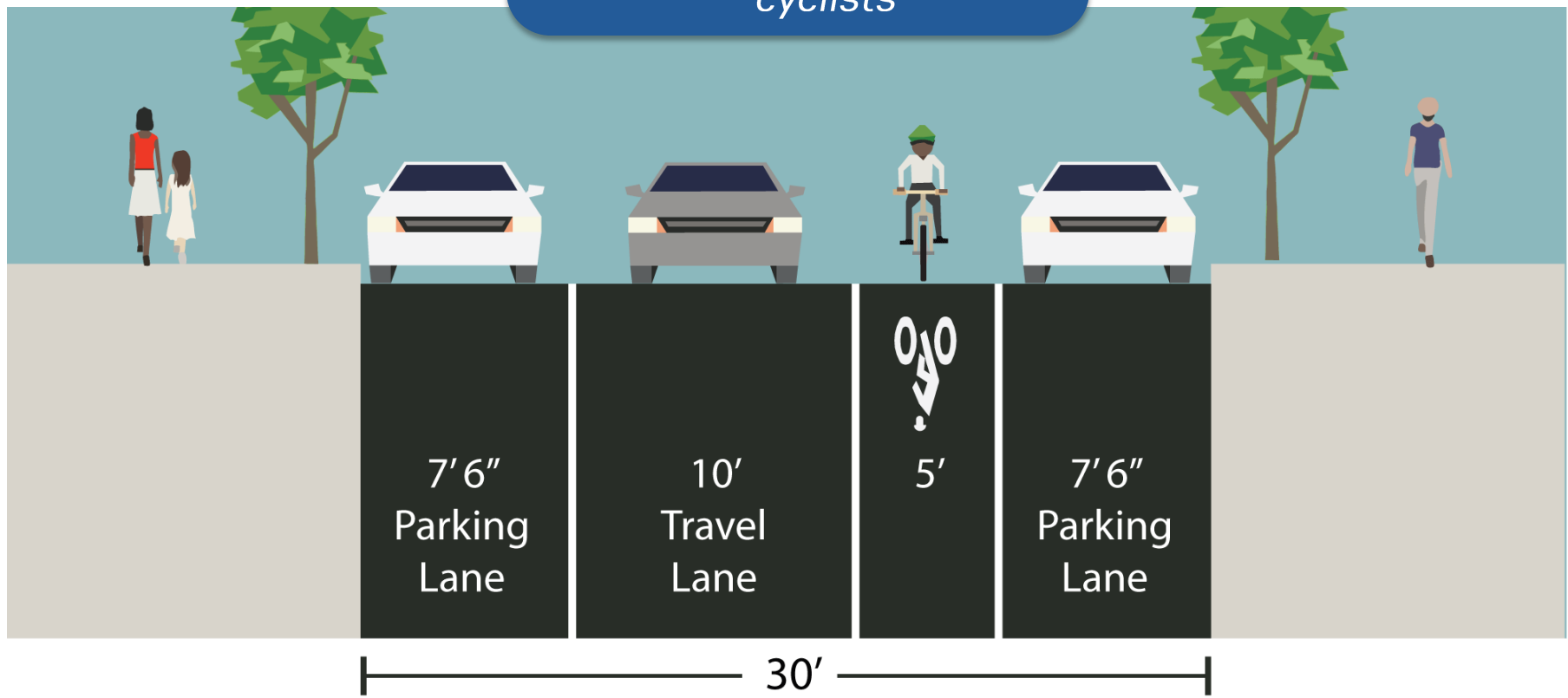
Lack of Markings

- *No dedicated space for cyclists*
- *Invites speeding*

Existing

Bike Lanes

- Increase predictability of cyclist location
- Dedicated space for cyclists

Proposed

Improves Safety

1. Provides dedicated space for cyclists
2. Discourage speeding

Improves Mobility

1. Build network in Bushwick
2. Opportunities to expand network beyond neighborhood



Questions?

**Thank
You**

nyc.gov/dot