

Pulaski Bridge

Pedestrian and Bicycle Improvements



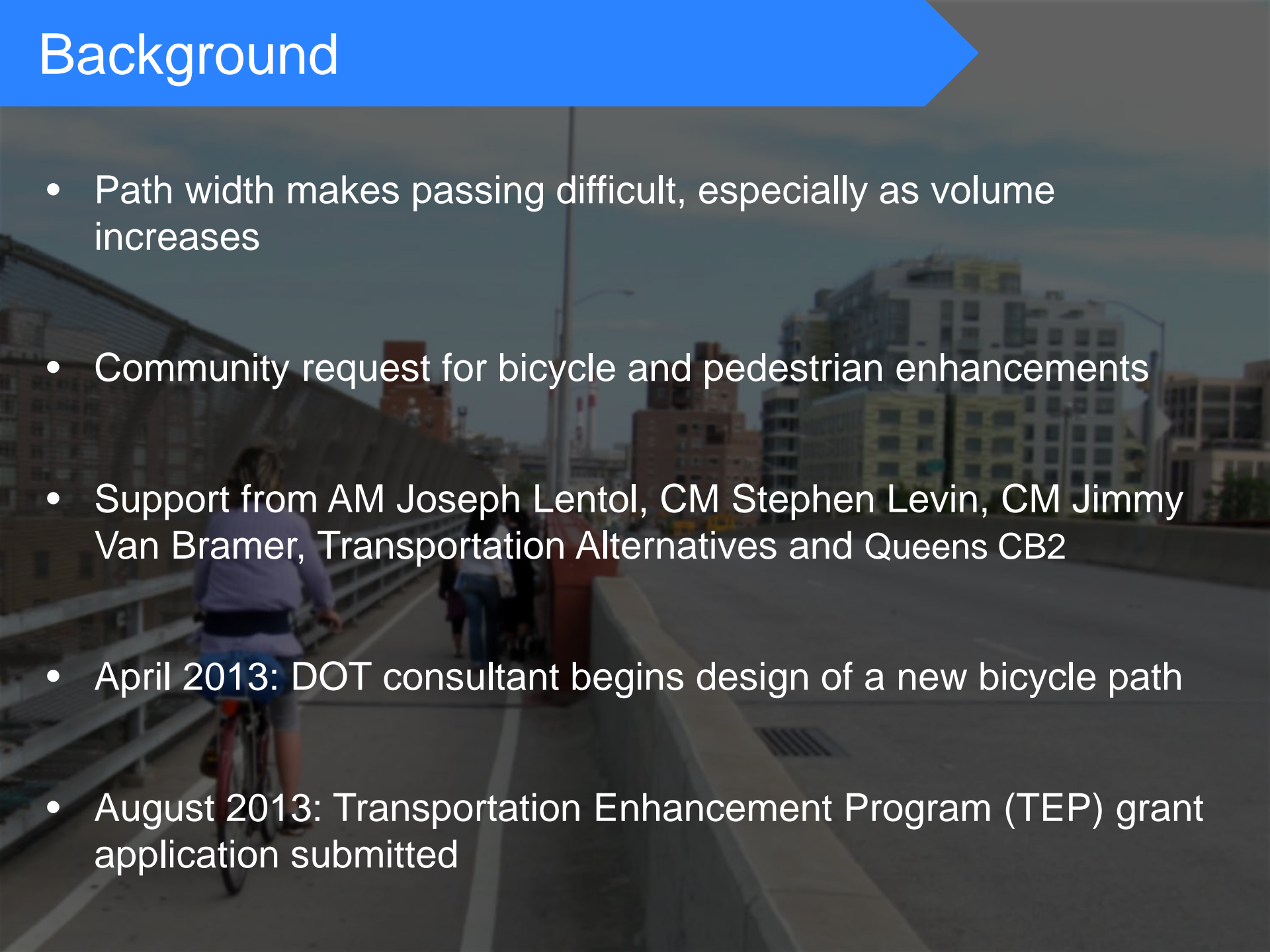
Background

- Critical bike network link:
 - Connects Brooklyn to Ed Koch Queensboro Bridge
 - Connects rapidly redeveloping Queens and Brooklyn waterfronts
 - Important connection to the 7 train for pedestrians and bicyclists
- Community concerns about bicycle-pedestrian path in 2009
- Enhancements installed to improve safety and organize traffic flow

Pulaski Bridge Weekday Bicycle/Pedestrian Counts
7-11am & 2-7pm

Mode	April 2009	April 2013	% change
Bicyclists	487	1,004	+106%
Pedestrians	1,077	1,586	+47%

Background

- Path width makes passing difficult, especially as volume increases
 - Community request for bicycle and pedestrian enhancements
 - Support from AM Joseph Lentol, CM Stephen Levin, CM Jimmy Van Bramer, Transportation Alternatives and Queens CB2
 - April 2013: DOT consultant begins design of a new bicycle path
 - August 2013: Transportation Enhancement Program (TEP) grant application submitted
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- A photograph of a person riding a bicycle on a paved path on a bridge. The path is wide and has a white line marking. In the background, a pedestrian is walking. The bridge has a metal railing on the left side. The background shows a cityscape with buildings under a clear sky.

Project Map



Existing Conditions: Shared Path

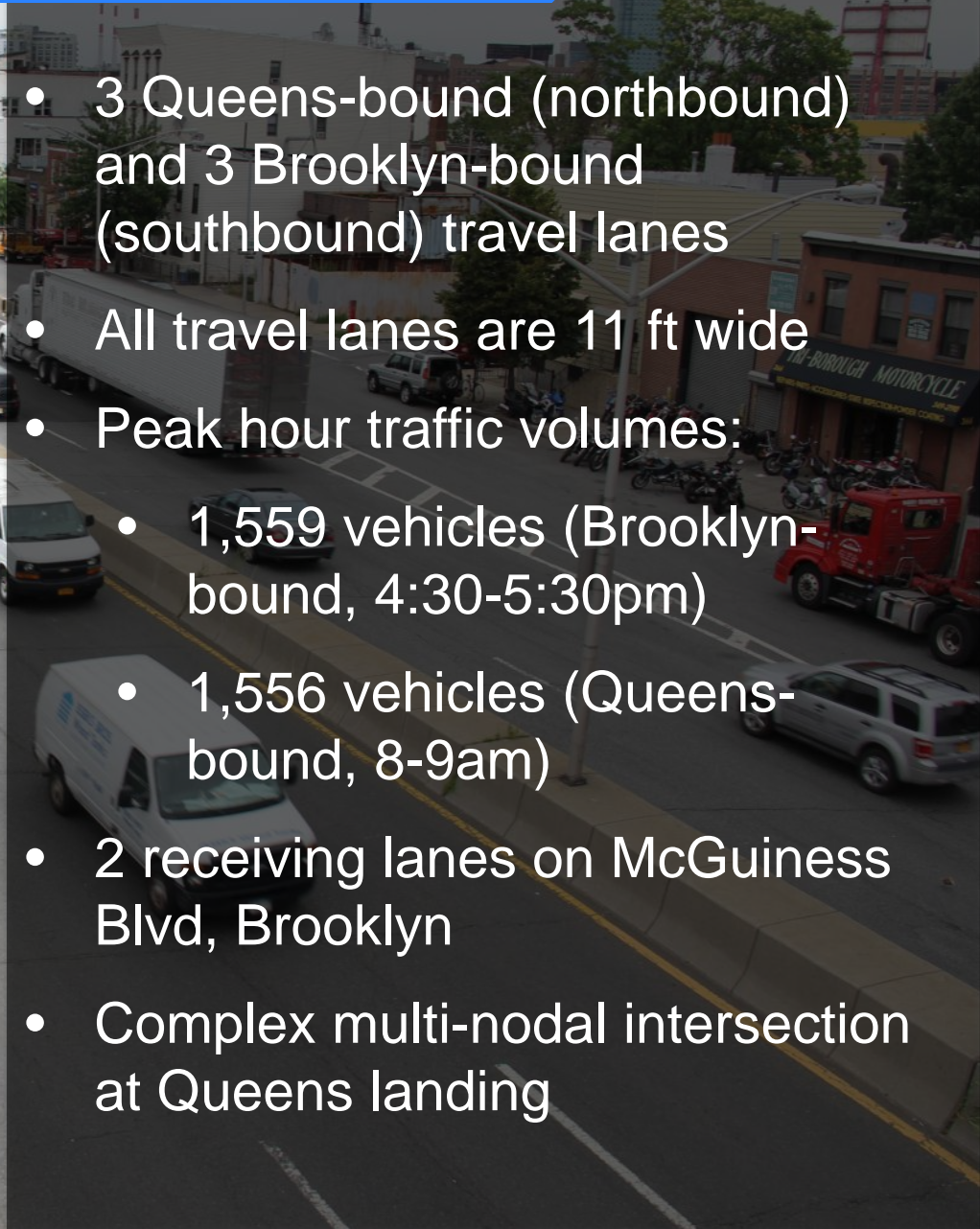


- 8.5 ft-wide two-way shared bicycle/pedestrian path
- Path narrows at obstacles
- Average two-way weekday volumes, 7am-7pm, April 2013:
 - 1,845 pedestrians
 - 1,194 bicyclists

Existing Conditions: Roadway

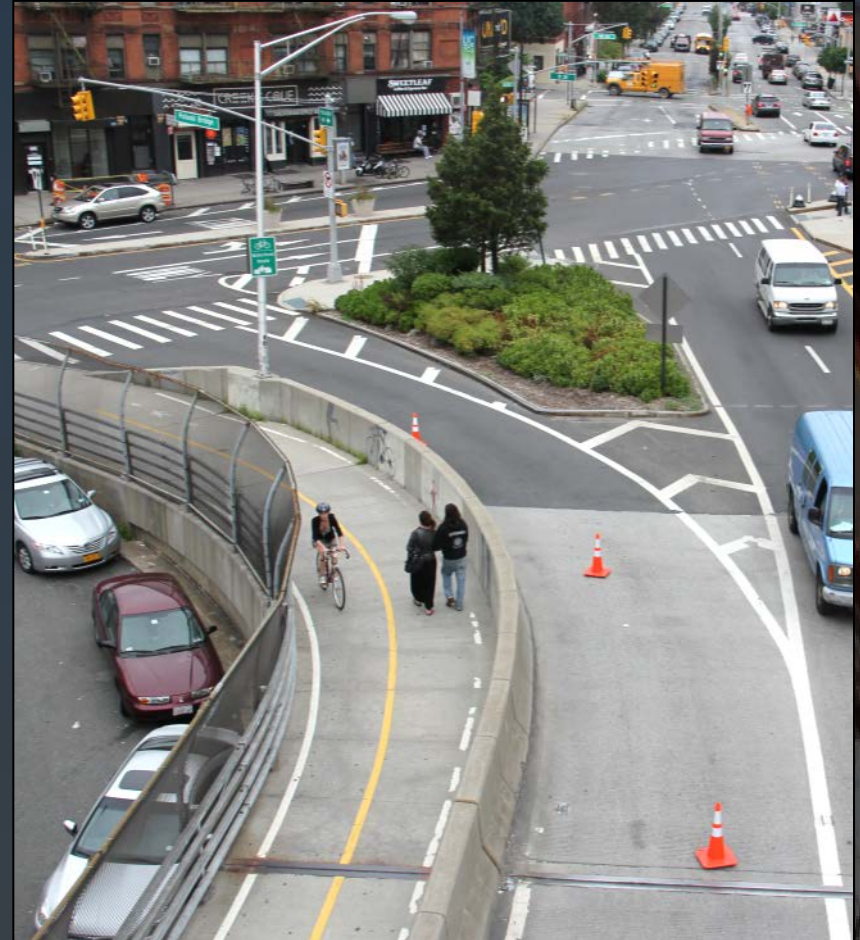


- 3 Queens-bound (northbound) and 3 Brooklyn-bound (southbound) travel lanes
- All travel lanes are 11 ft wide
- Peak hour traffic volumes:
 - 1,559 vehicles (Brooklyn-bound, 4:30-5:30pm)
 - 1,556 vehicles (Queens-bound, 8-9am)
- 2 receiving lanes on McGuiness Blvd, Brooklyn
- Complex multi-nodal intersection at Queens landing



Project Challenges

- Bridge approaches have slip lanes
- Electrical lines in existing barrier
- Moveable bridge: opens for maritime traffic
 - Newtown Creek is an active waterway, approx. 500 openings/year
 - Moveable structure must be kept in balance
- Bridge deck makes barrier attachment challenging
- Funding constraints

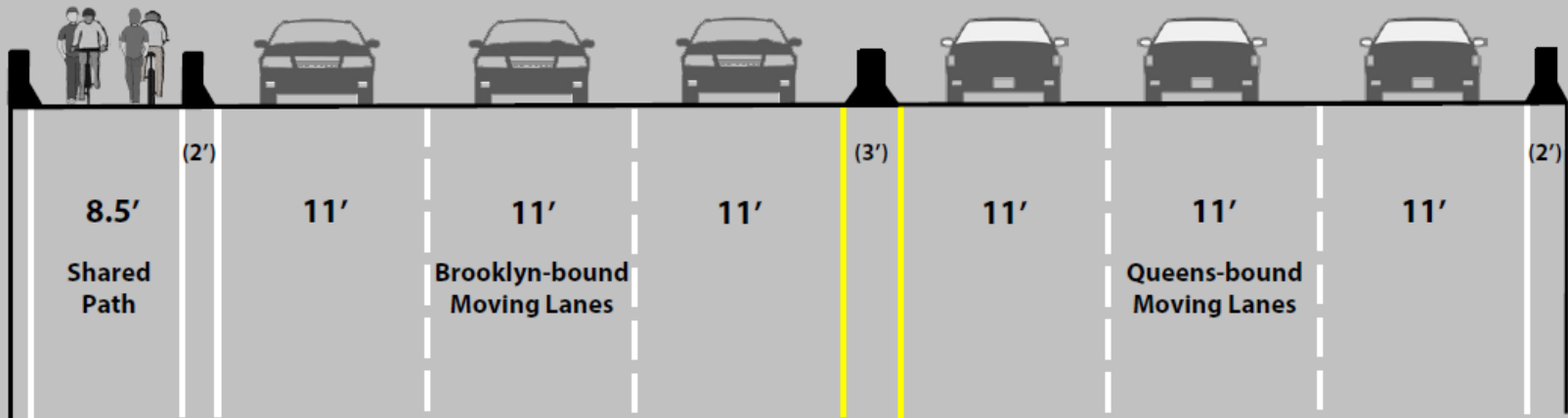


Alternatives Considered

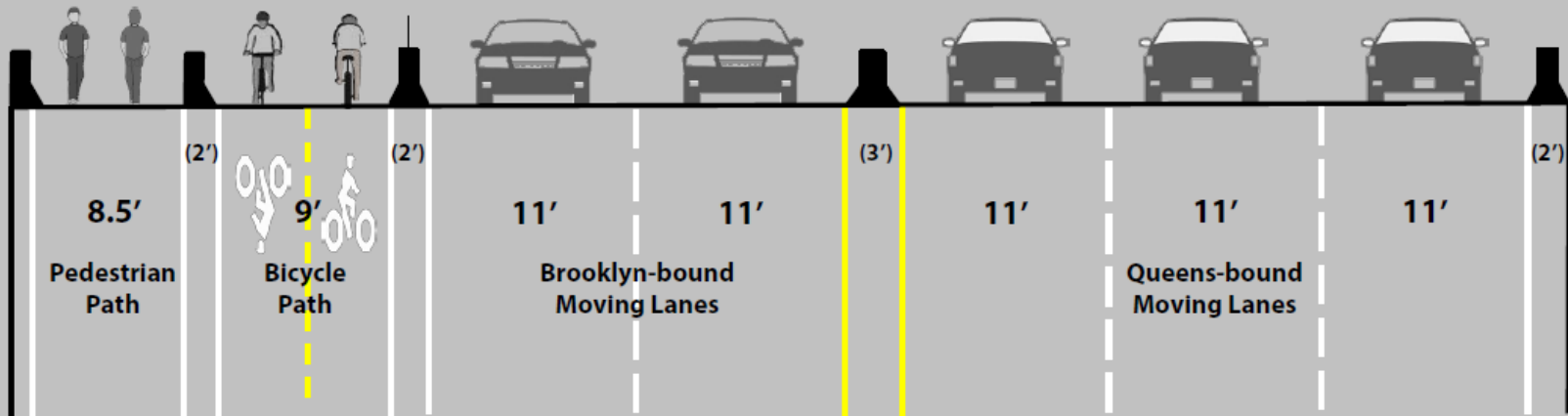
- On-street bicycle lanes in the direction of travel
 - Vehicle speeds too high
 - Heavy truck traffic
 - Sight line issues due to vertical and horizontal alignment
 - Off-ramps at Queens-bound approach hostile to cycling
- Two-way bike path on east (Queens-bound) side of bridge
 - Off-ramps at Queens-bound approach hostile to cycling
 - Access issues in Brooklyn
- Expanding bridge width
 - Cost prohibitive
- Free-standing pedestrian/bicycle bridge between Manhattan Ave and Vernon Blvd
 - Cost prohibitive

Proposed Condition

Existing

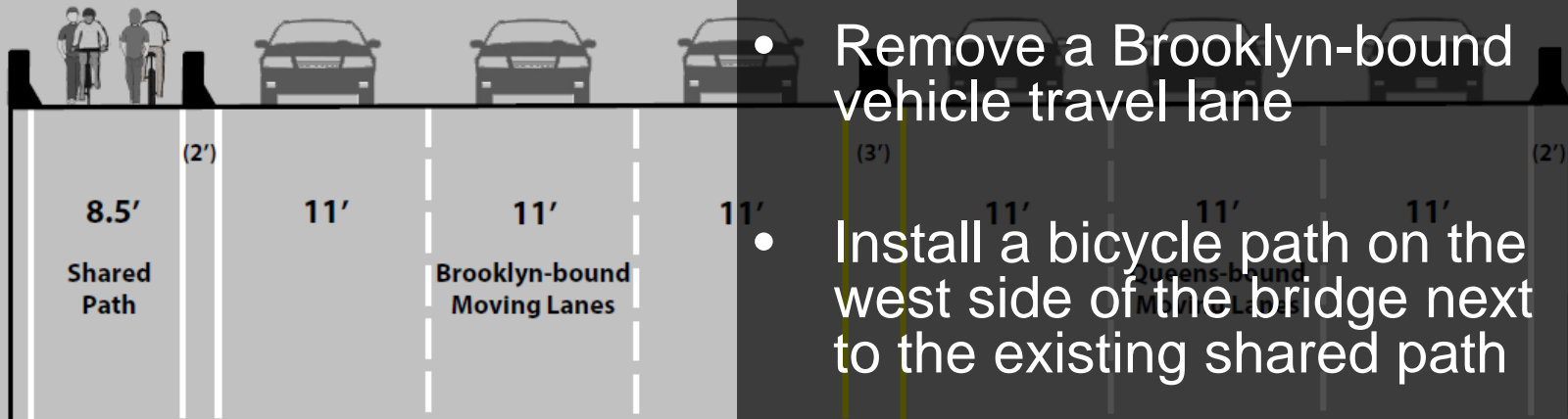


Proposed

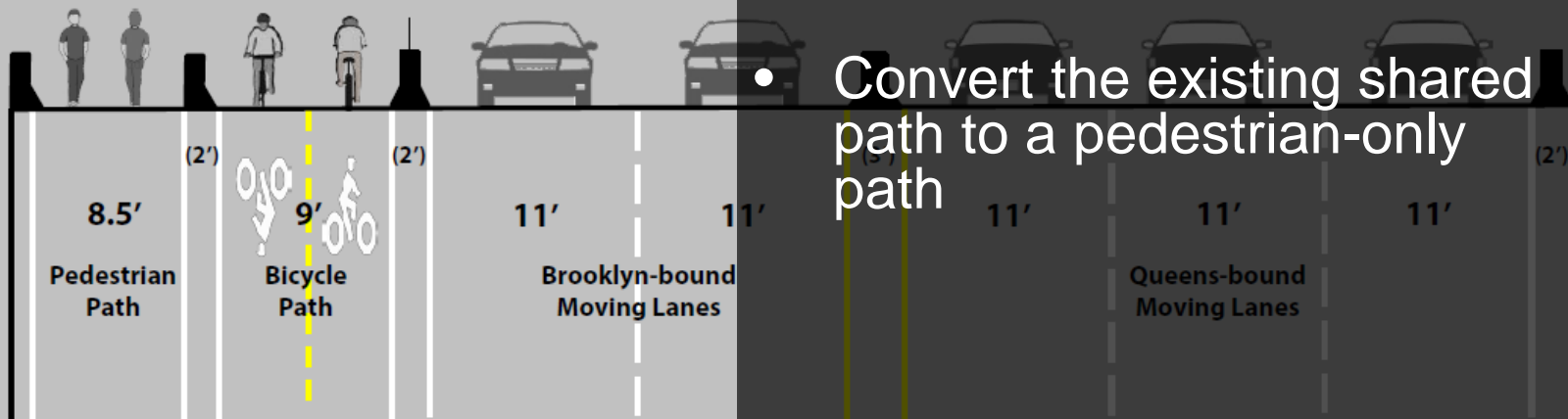


Proposed Condition

Existing



Proposed



- Remove a Brooklyn-bound vehicle travel lane
- Install a bicycle path on the west side of the bridge next to the existing shared path
- Install barriers protecting the new bicycle path
- Convert the existing shared path to a pedestrian-only path

Existing Condition



KEEP RIGHT EXCEPT TO PASS

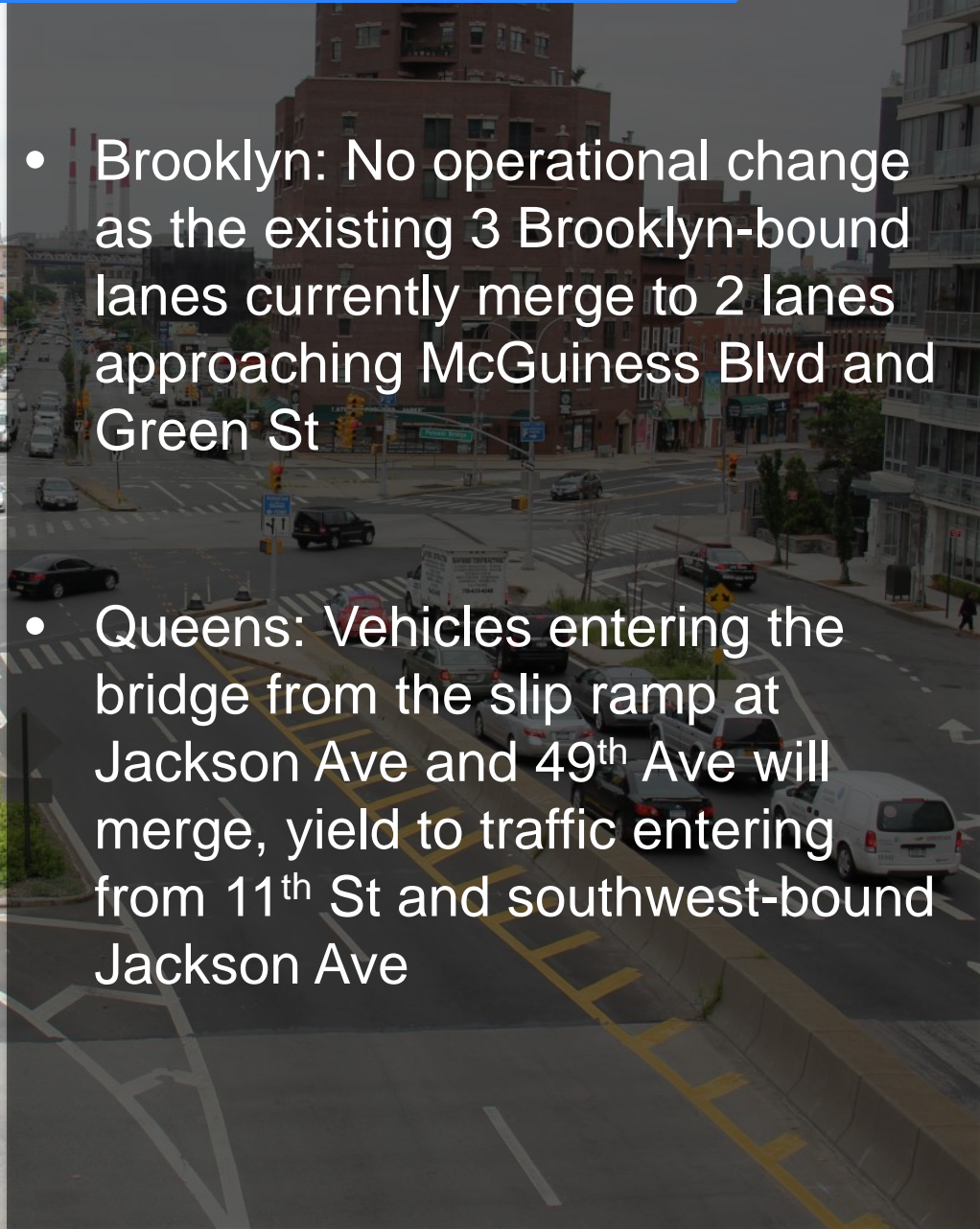
Proposed Condition



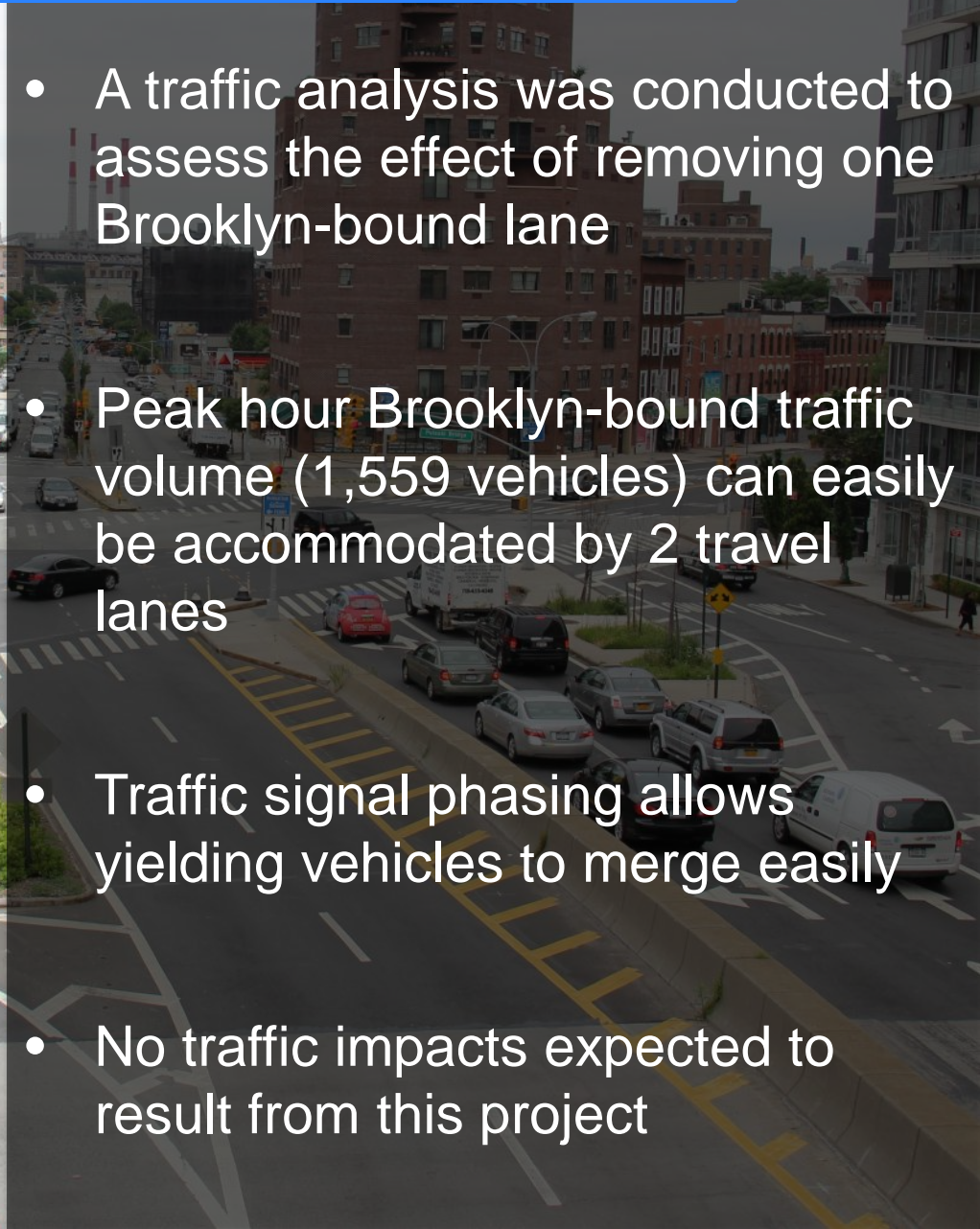
Changes to Roadway Configuration



- Brooklyn: No operational change as the existing 3 Brooklyn-bound lanes currently merge to 2 lanes approaching McGuinness Blvd and Green St
- Queens: Vehicles entering the bridge from the slip ramp at Jackson Ave and 49th Ave will merge, yield to traffic entering from 11th St and southwest-bound Jackson Ave



Traffic Analysis



- A traffic analysis was conducted to assess the effect of removing one Brooklyn-bound lane
- Peak hour Brooklyn-bound traffic volume (1,559 vehicles) can easily be accommodated by 2 travel lanes
- Traffic signal phasing allows yielding vehicles to merge easily
- No traffic impacts expected to result from this project

Project Benefits



- Doubles space dedicated to bicyclists and pedestrians
- Enhances safety by separating bicyclists and pedestrians
- Facilitates transit trips; eases congestion on the B62 bus
- Enhances transportation network resiliency in event of emergencies (e.g. Hurricane Sandy, blackout) by increasing bicycle/pedestrian capacity

Project Costs



Estimated project cost:

- \$3.46 million
- 91% materials and labor
- 9% planning and design

Next Steps



- Implementation via NYCDOT Bridge Component Rehabilitation contract
- Anticipated implementation 2014

Questions?

Thank
You