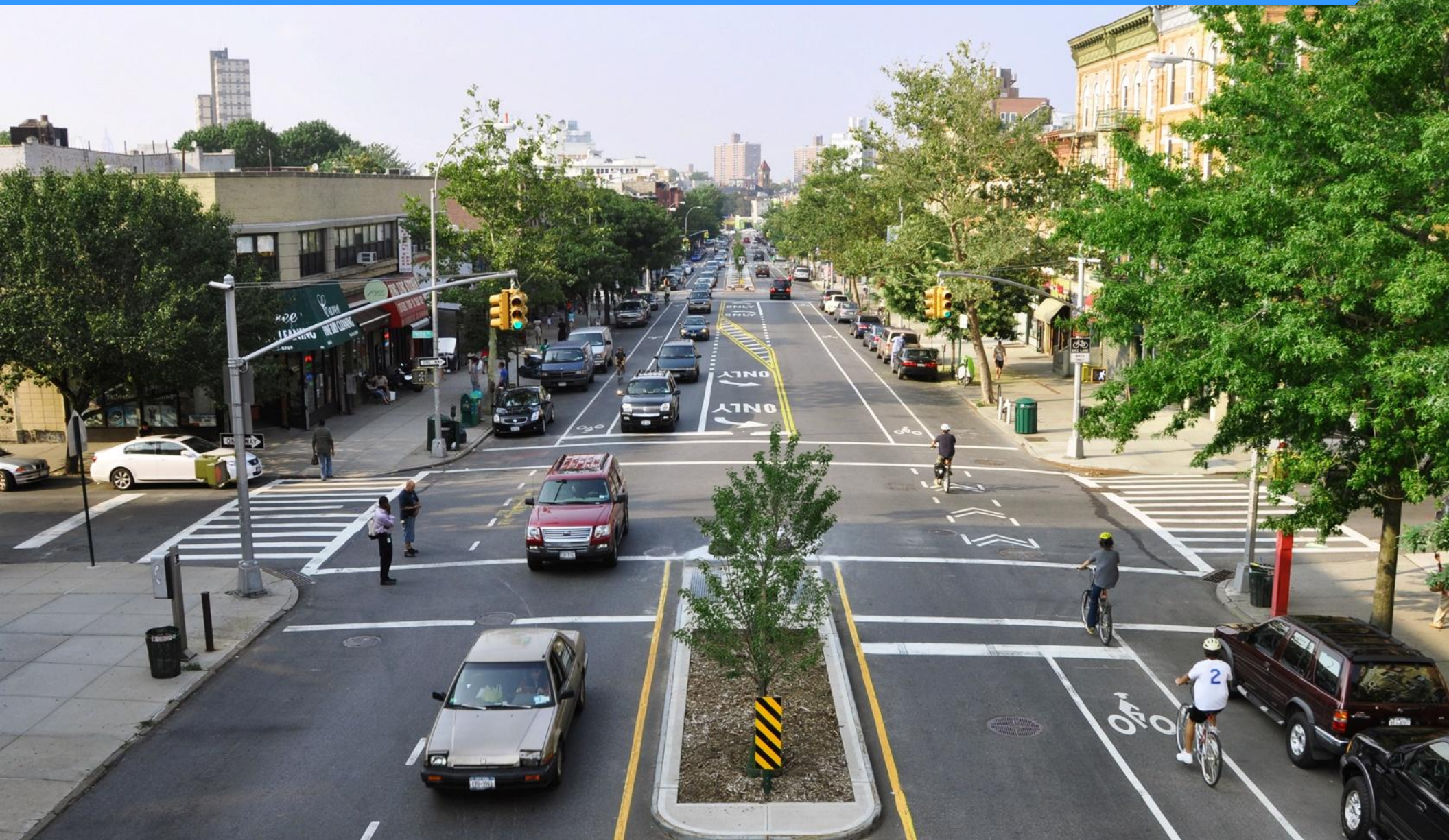


Designing Streets for Safety

Sharing the Road with All Users



Presentation Outline

- NYC Complete Streets Background
- Design for Safety
 - Brownsville Streets
 - Bicycle Treatments
 - Pedestrian Treatments
 - Other Traffic Calming Treatments
- Education & Outreach
- Questions?

NYC Complete Streets Background

Bicyclist Fatalities and
Serious Injuries in New York City

1996-2005



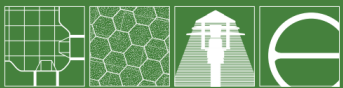
- 250 miles of bicycle routes installed (2006-2010)
- **Over 8 acres of public plaza space installed (2006-2010)**
- 6.4% decrease in all road users injuries/fatalities (2006-2009)

A Joint Report from the
New York City Departments of Health and Mental Hygiene,
Parks and Recreation, Transportation, and the New York City Police Department

planNYC

A GREENER, GREATER
NEW YORK

Street
Design
Manual



New York City
Department of Transportation

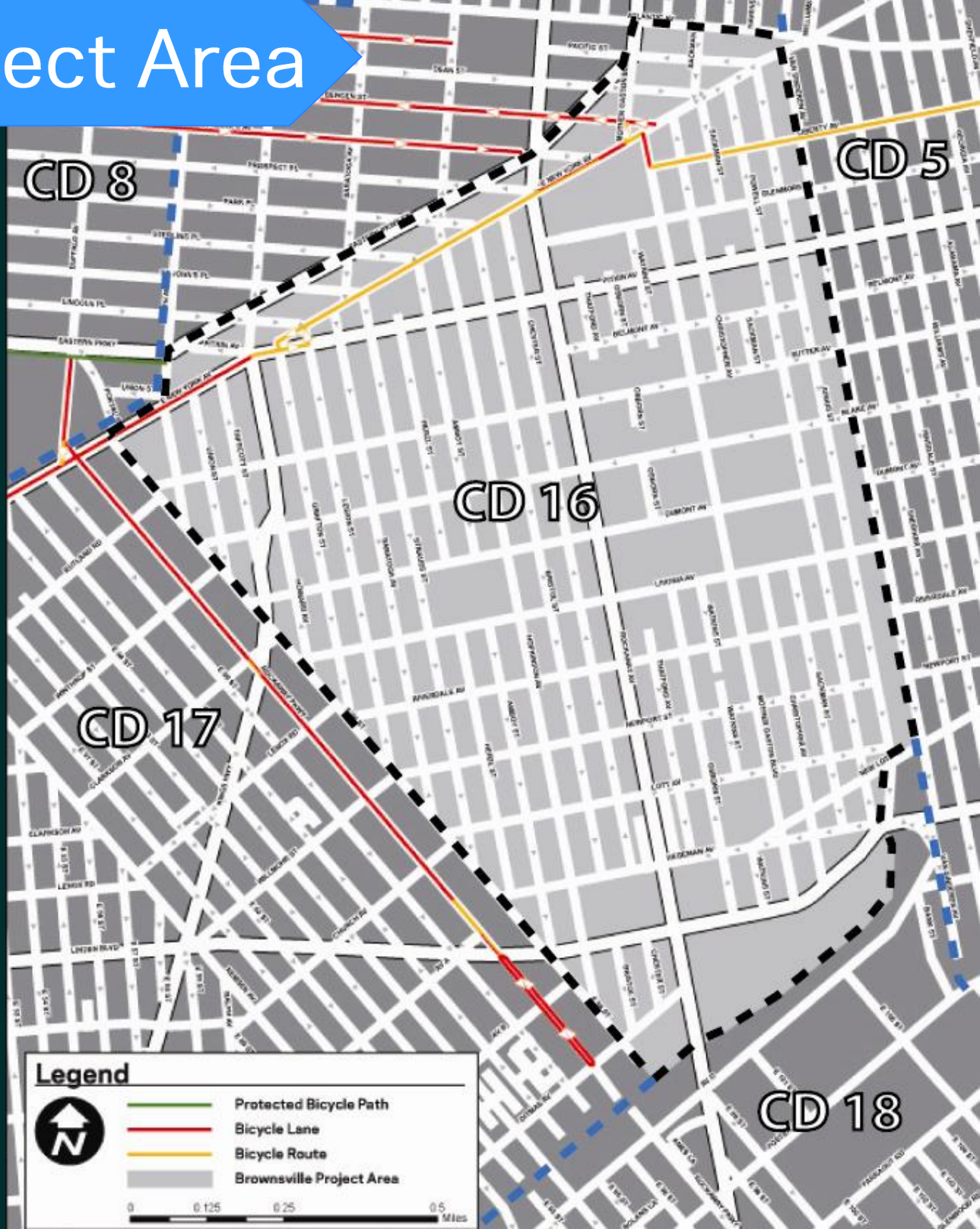
2009

www.nyc.gov/dot



Vanderbilt Avenue, Brooklyn

Brownsville Project Area



DOT Toolkit



Street Design Goals



BEFORE



AFTER

Metropolitan & Bushwick Avenues, Brooklyn

Street Design Process



Street Design: Types of Streets

One-way Streets
Narrower width, less traffic



Strauss Street, Brooklyn

Street Design: Types of Streets

Two-way Streets
Narrower width, more traffic



Street Design: Types of Streets

One-way Streets
Wider width, less traffic



Powell Street (between Pitkin & Livonia), Brooklyn

Street Design: Types of Streets

Two-way Streets
Wider width, varying traffic



Mother Gaston Blvd (between Sutter & Livonia), Brooklyn

Pedestrian Improvements : Design and Benefits



Shared Lanes: Design and Benefits

Calms speeding vehicle traffic

Alerts drivers and cyclists of shared space

25 % decrease in pedestrian injuries (2006-2010)



*Streets with shared lane facilities installed in 2007
(Before: 2003-2006 average; After: 2007-2010 average)

Vanderbilt Avenue, Brooklyn

Shared Lanes: Design and Benefits



West 10th Street, Manhattan

BEFORE

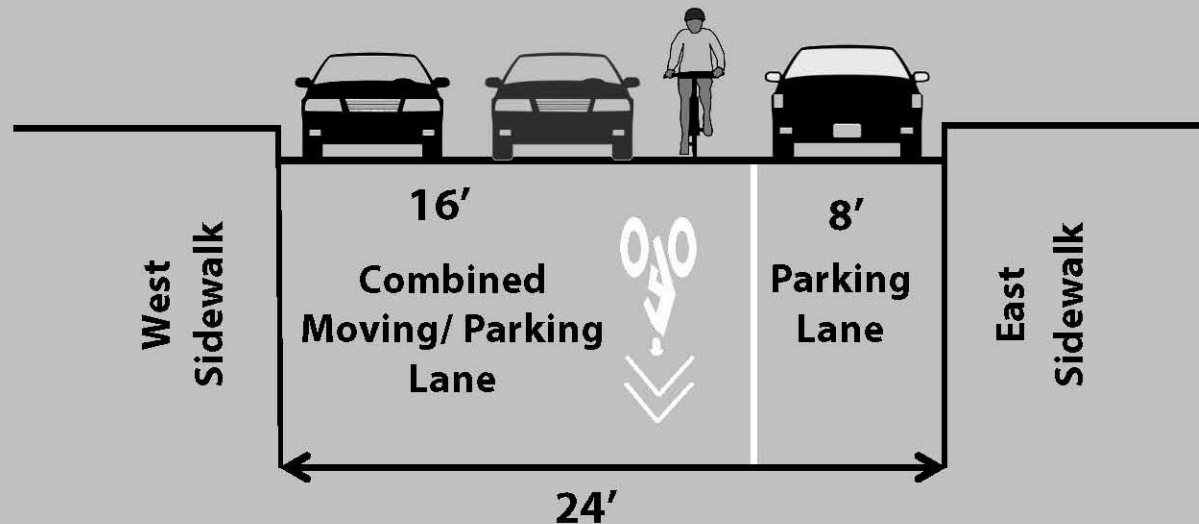
Shared Lanes: Design and Benefits

One-way streets between 24' and 29' in width



One-Way SHARED LANE

24' Minimum Width



Shared Lanes: Design and Benefits



BEFORE

Vanderbilt Avenue, Brooklyn

Shared Lanes: Design and Benefits

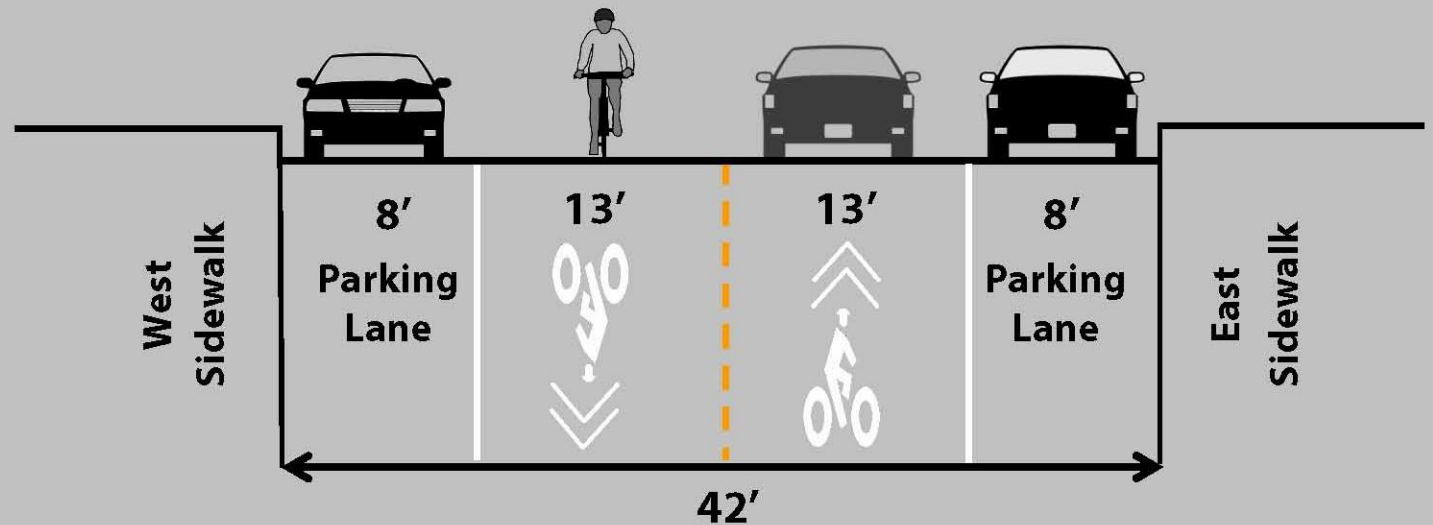
Two-way streets between 42' and 44' wide



9th St, Brooklyn

Two-Way SHARED LANE

42' Minimum Width



Dedicated Bicycle Lanes: Design and Benefits

Narrower lanes calms speeding vehicle traffic

Organizes street for different road users

34 % reduction in all road user injuries (2006-2010)



*Before: Apr 2002 - Apr 2008 average; After Jun 2008 - Oct 2010 average

**Before: Mar 2009 ; After: Sep 2009 (Vanderbilt Ave)

Jay Street, Brooklyn

Dedicated Bicycle Lanes: Design and Benefits



AFTER

West 10th St, Manhattan

Dedicated Bicycle Lanes: Design and Benefits

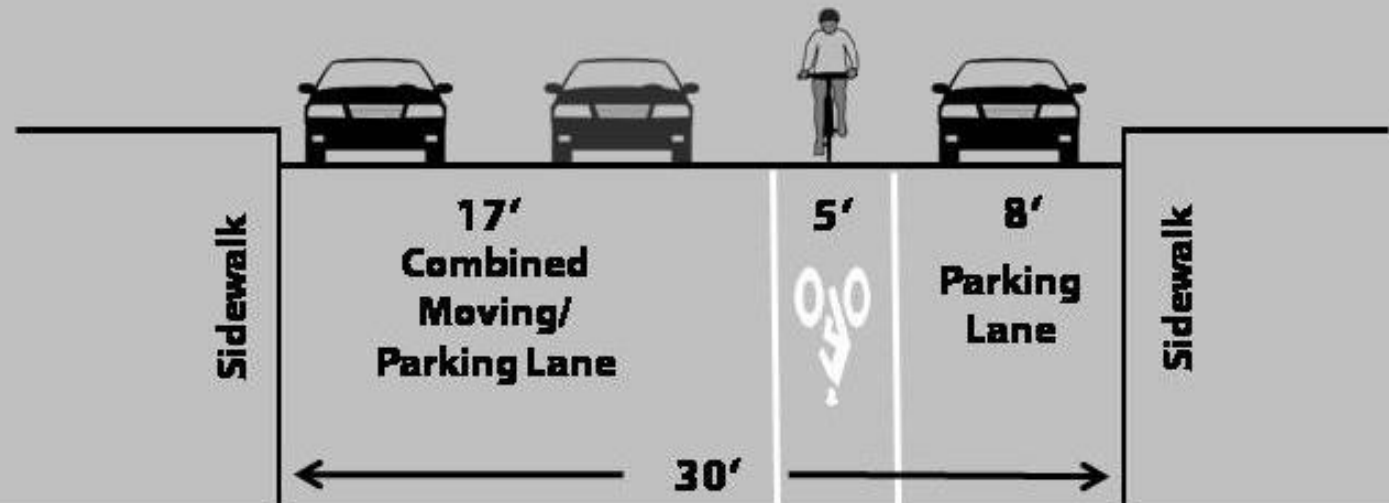
One-way streets more than 30' in width



West 10th St , Manhattan

DEDICATED LANE

30' Minimum Width



Dedicated Bicycle Lanes: Design and Benefits



BEFORE

DeKalb Avenue, Brooklyn

Dedicated Bicycle Lanes: Design and Benefits

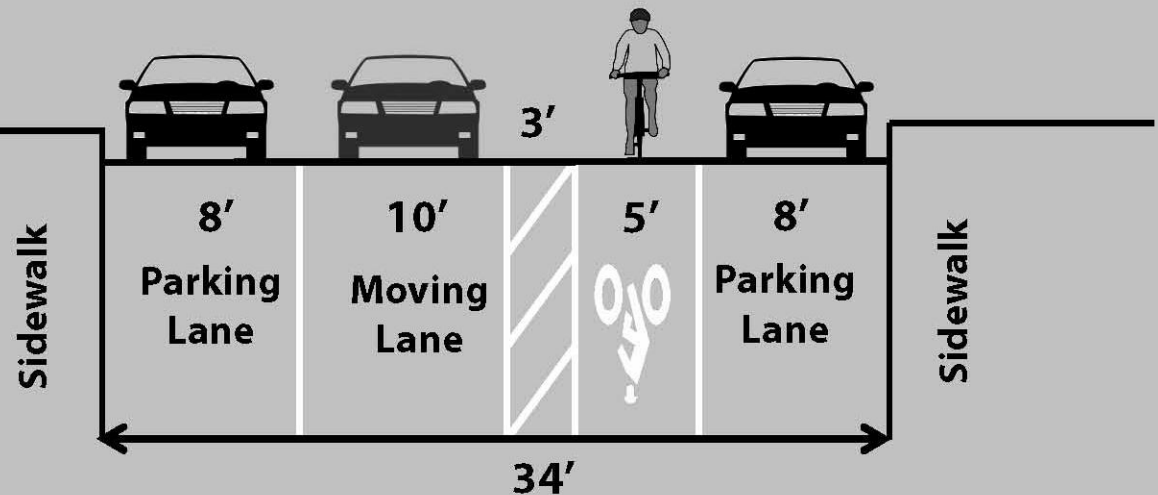
One-way streets more than 34' in width



DeKalb Avenue, Brooklyn

One-way BUFFERED BIKE LANE

34' Minimum Width



Dedicated Bicycle Lanes: Design and Benefits



BEFORE

Clarendon Road, Brooklyn

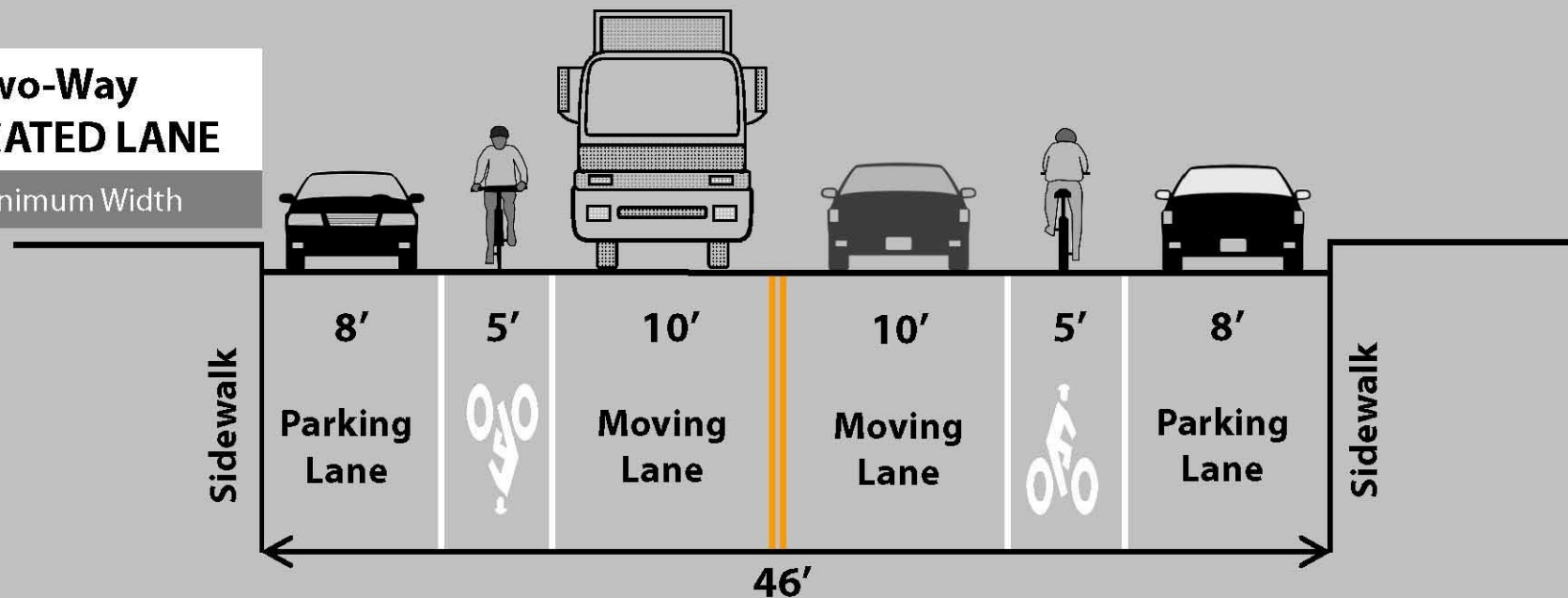
Dedicated Bicycle Lanes: Design and Benefits

Two-way streets more than 46' in width



Two-Way DEDICATED LANE

46' Minimum Width



On-Street Bicycle Paths: Design and Benefits

Physical separation between bikes and motor vehicles

47% reduction in injuries overall (9th Ave*)

61% reduction in sidewalk riding (9th Ave**)



*Before: July 2004- July 2007 average; After: Nov 2008- Mar 2011 average

**Before: July 2007 (9th Ave); After: 2010 average

On-Street Bicycle Paths: Design and Benefits



AFTER

Columbus Ave, Manhattan

On-Street Bicycle Paths: Design and Benefits

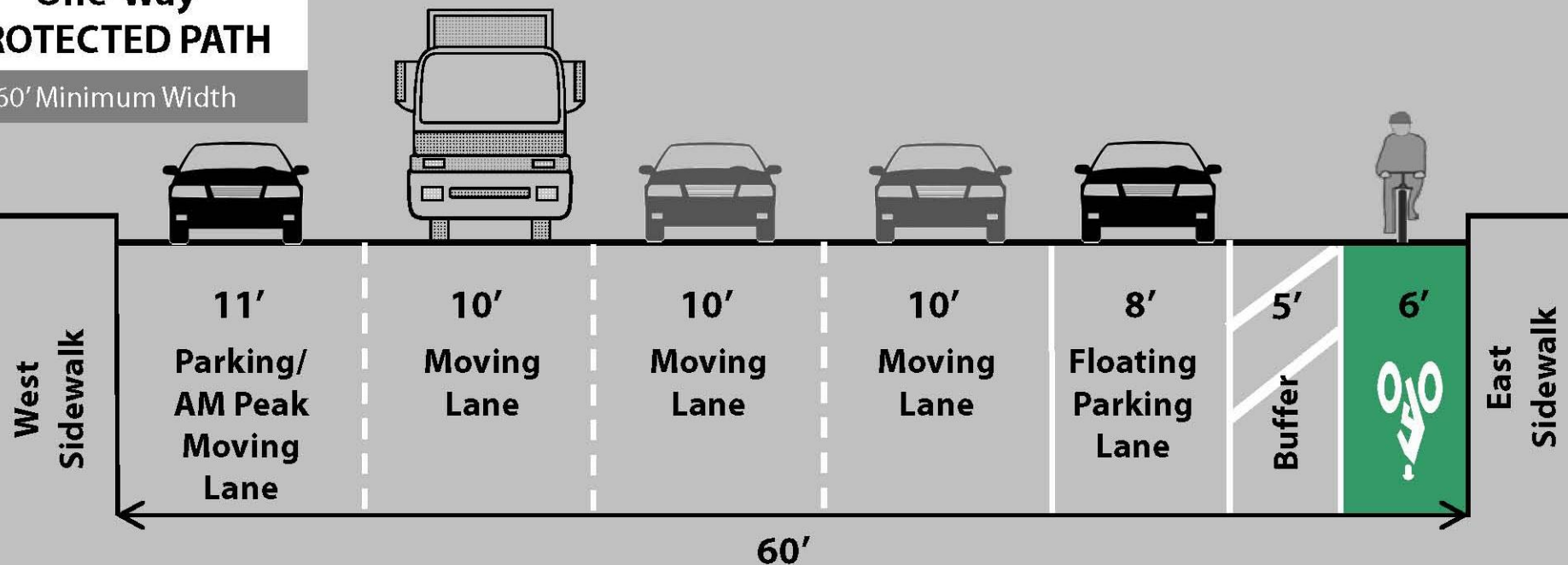
One-way streets more than 60' in width



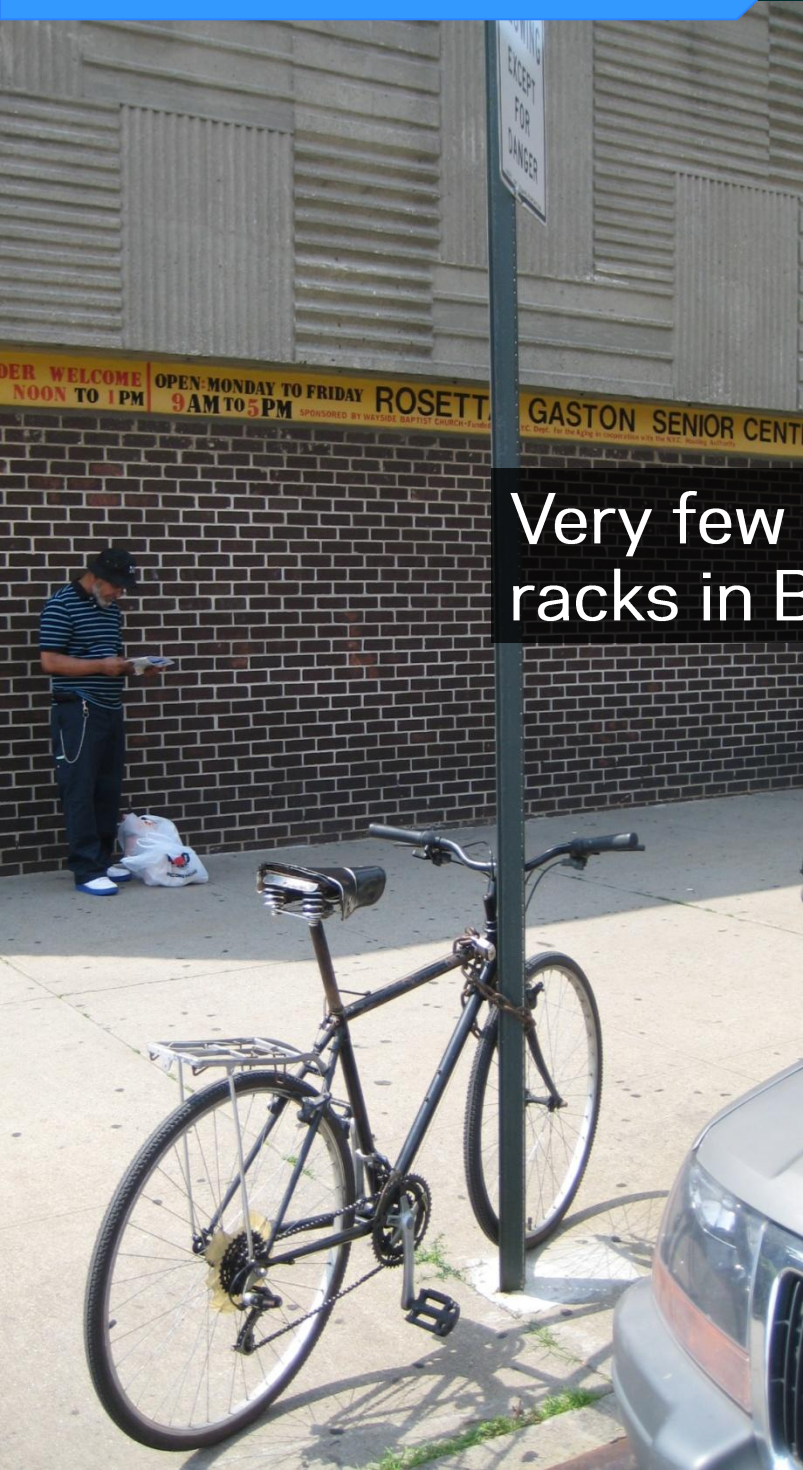
Columbus Ave, Manhattan

One-Way PROTECTED PATH

60' Minimum Width



Bicycle Parking



Very few bicycle racks in Brownsville



Bicycle Parking

© 2010 John Midgley



Bicycle Shelters



Bedford Ave, Brooklyn



Hoop Rack

Lock Your Bike Right

Lock your bike to designated racks where available.

Lock all "quick release" parts.



Lock your wheels to your frame.

Lock your bike with a U-lock or heavy chain.



Schermerhorn St, Brooklyn

On-Street Bike Parking

Street Safety: Other Traffic Safety Measures



NYC Cycling Map & Bike Smart Brochure

Over 2 Million Maps Distributed

FREE



New York City RULES

Yield to pedestrians
Ceda el paso a los peatones
讓路給行人

Stop at red lights and stop signs
Deténgase en las luces rojas del semáforo y las señales de pare
在號誌轉為紅燈後和 STOP (暫時停車) 標誌前停下

Ride in the direction of traffic
Circule en el sentido del tránsito cuando ande en bicicleta
朝交通方向騎乘

Stay off the sidewalk (unless you're under 13)
No use las aceras (a menos que tenga menos de 13 años de edad)
離開人行道 (除非您是13歲以下)

Use a white front light and red tail light at night
Use una luz delantera blanca y una luz trasera roja durante la noche
晚上使用白色頭燈和紅色尾燈

www.nyc.gov/bikesmart
Request The Official Guide to Cycling in New York City by calling 311.

New York City Cyclists Must:

- 1 **Yield to pedestrians**
Ceda el paso a los peatones
讓路給行人
- 2 **Stop at red lights and stop signs**
Deténgase en las luces rojas del semáforo y las señales de pare
在號誌轉為紅燈後和 STOP (暫時停車) 標誌前停下
- 3 **Ride in the direction of traffic**
Circule en el sentido del tránsito cuando ande en bicicleta
朝交通方向騎乘
- 4 **Stay off the sidewalk (unless you're under 13)**
No use las aceras (a menos que tenga menos de 13 años de edad)
離開人行道 (除非您是13歲以下)
- 5 **Use a white front light and red tail light at night**
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晚上使用白色頭燈和紅色尾燈

www.nyc.gov/bikesmart

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FREE!



Bike Smart

The Official Guide to Cycling in New York City

Michael R. Bloomberg, Mayor, New York City
Janette Sack-Khan, Commissioner, NYCDOT

New!

Contact Us

- Call CB 16: (718) 385 - 0323
- Fill out an online form at: www.nyc.gov/dot
- Mail your comments to:

**Office of the Brooklyn Borough Commissioner
NYC Department of Transportation
16 Court Street
Brooklyn, NY 11241**

Questions?

**Thank
You**

Street Design: Brownsville Streets



Pitkin Avenue, Brooklyn

Dedicated Bicycle Lanes: Design and Benefits

Dedicated bicycle lanes can be used on wider, calmer streets.



Dedicated Bicycle Lanes: Design and Benefits

Dedicated bicycle lanes with buffers can be used on very wide streets.



Dedicated Bicycle Lanes: Design and Benefits



Mother Gaston Blvd, Brooklyn