Eighth and Ninth Avenues Complete Street Extension Community Board 4

Commissioner Janette Sadik-Khan New York City Department of Transportation
September 21, 2011

Agenda

- Summary of Existing Conditions on Eighth & Ninth Avenues
- Traffic, Bicycle and Pedestrian Data
- Safety Statistics
- Proposed Plan – CB 4

DOT Background (2007-2010)

+250 miles of bicycle routes installed (2007-2010)

+87% increase in commuter cycling (2007-2010)

Traffic data collected for Hells Kitchen Study

Existing Conditions – 8th Avenue

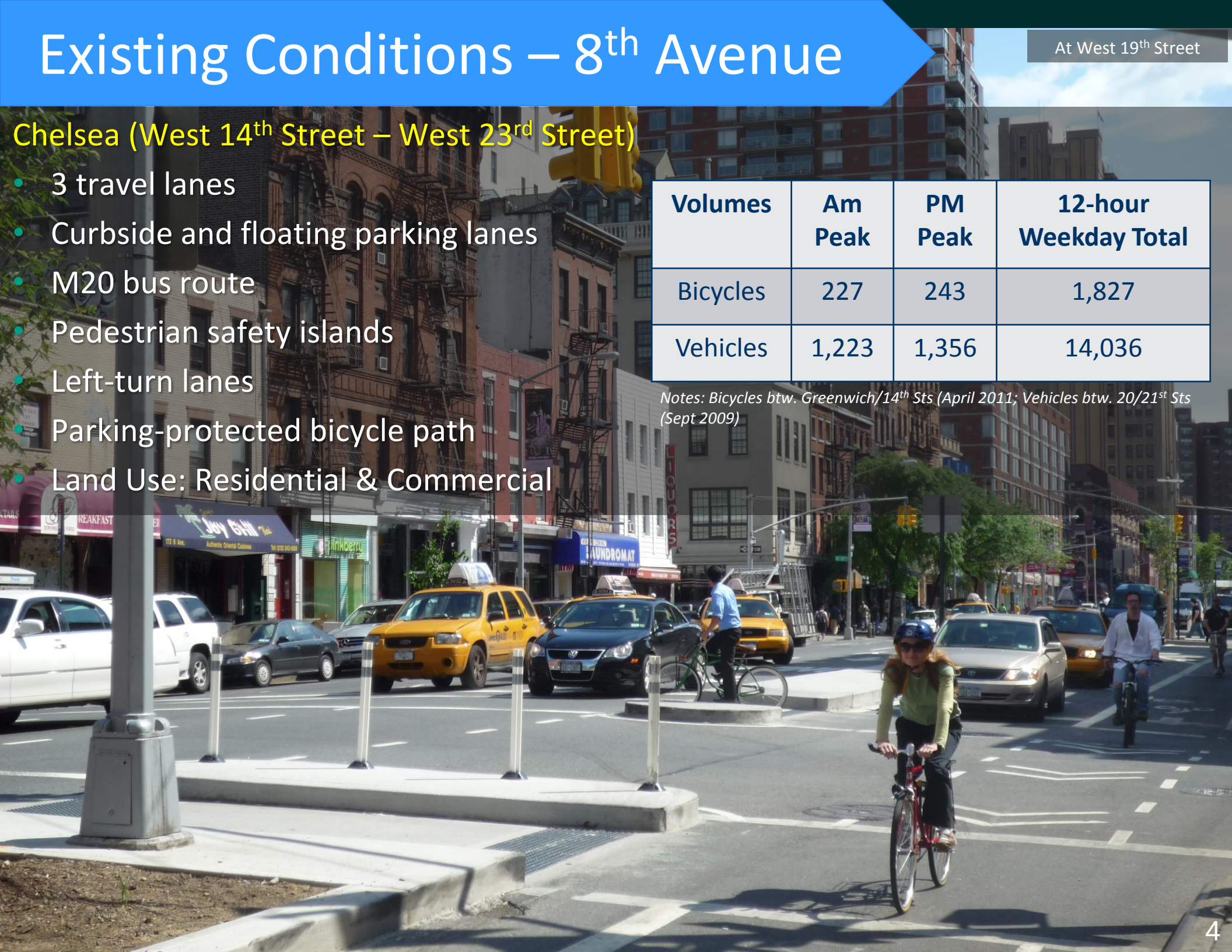
At West 19th Street

Chelsea (West 14th Street – West 23rd Street)

- 3 travel lanes
- Curbside and floating parking lanes
- M20 bus route
- Pedestrian safety islands
- Left-turn lanes
- Parking-protected bicycle path
- Land Use: Residential & Commercial

Volumes	Am Peak	PM Peak	12-hour Weekday Total
Bicycles	227	243	1,827
Vehicles	1,223	1,356	14,036

Notes: Bicycles btw. Greenwich/14th Sts (April 2011; Vehicles btw. 20/21st Sts (Sept 2009)



Road User Safety – 8th Avenue

Eighth Avenue – Before/After Crash Analysis

from Bank Street to W. 14th Street

	Before Period*		After*: 2-year Average	Percent Change
	Total Before	3-year Average		
Crashes	266	88.7	72.0	-18.8%
Crashes w/ Injury	46	15.3	13.0	-15.2%
Total Injuries	55	18.3	15.0	-18.2%

*Before period: 09/01/05 – 08/31/08 (3-years); After period: 12/01/08 – 11/30/10 (2-years)

Note: Phase I of project installed - Bank St – 14th Street

- Crashes are down **19 %**
- Crashes that cause injuries are down **15 %**
- Injuries to all street users are down **18 %**

Crash Data source:
NYPD Accident Database (TAMS data)

Road User Safety – 8th Avenue

Eighth Avenue – Before/After Crash Analysis

from W. 15th Street to W. 23rd Street

	Before Period*		After*: 2-year Average	Percent Change
	Total Before	3-year Average		
Crashes	583	194.3	169.0	-13.0%
Crashes w/ Injury	103	34.3	24.0	-30.1%
Total Injuries	127	42.3	27.5	-35.0%

*Before period: 06/01/06 – 05/30/09 (3-years); After period: 07/01/09 – 06/30/11 (2-years)

Note: Phase II of project installed - W. 15th St – 23rd Street

- Crashes are down **13 %**
- Crashes that cause injuries are down **30 %**
- Injuries to all street users are down **35 %**

Crash Data source:
NYPD Accident Database (TAMS data)

Existing Conditions – 8th Avenue

Chelsea (West 23rd Street – West 34th Street)

- 4 travel lanes
- Curbside and floating parking lanes
- M20 bus route
- Pedestrian safety islands
- "Mixing zones" and left-turn lanes
- Parking-protected bicycle path
- Land Use: Residential , Commercial, Penn Station & Madison Square Garden

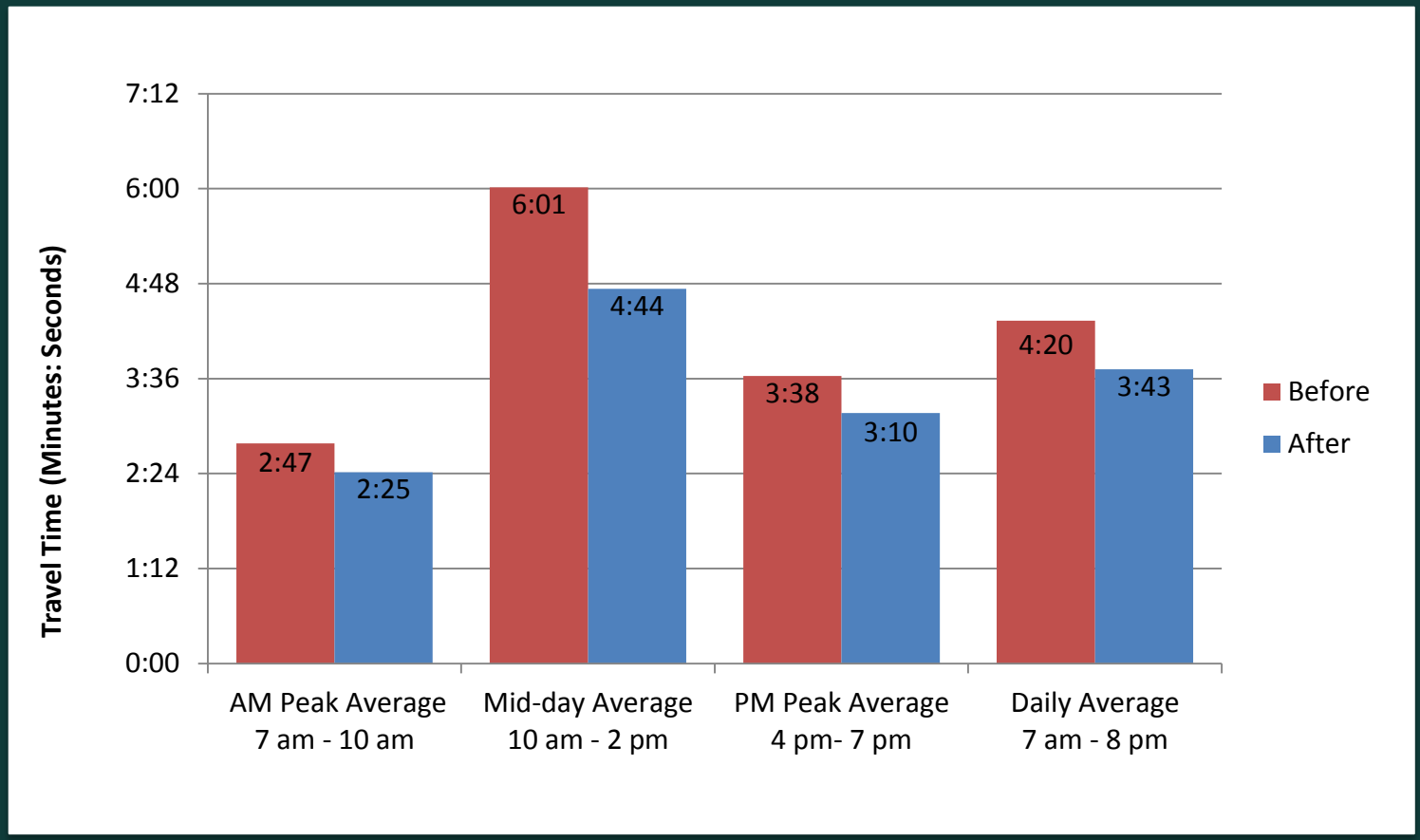
Volumes	Am Peak	PM Peak	12-hour Weekday Total
Bicycles	143	181	1,356
Vehicles	1,204	1,299	13,986

Notes: Bicycles btw 28/29th Sts (April 2011; Vehicles btw. 24/25th Sts (Sept 2009)

At West 24th Street

Travel Times – Before & After

8th Avenue Weekday Travel Times
W 23rd Street to W 34th Street



8th Avenue travel times improved after implementation

Weekday average travel times derived from two runs per hour conducted over the days of:
Before: September 30-October 1, 2009 and October 6-8, 2009
After: November 16-18, 2010

Existing Conditions – 8th Avenue

Hell's Kitchen/Midtown West (West 34th Street – West 59th Street)

- 4 travel lanes
- Curbside parking lanes
- M20 bus route
- Dedicated bicycle lane
- Land Use: Commercial & Port Authority

Volumes	Am Peak	PM Peak	12-hour Weekday Total
Bicycles	66	221	1,527
Vehicles	1,828	1,729	19,130

Notes: Bicycles @ 50th Sts (Sept 2010; Vehicles btw. 43/44th Sts (Sept 2010)

At West 35th Street

Road User Safety – 8th Avenue

Eighth Avenue – Serious Injury & Fatalities Ranking (2005-2009)

From W. 34th Street to W. 59th Street

	Total Injuries	Average Injury / Year	Average Injury / Mile / Year	Serious Injury / Fatality Percentile
Pedestrians	317	63.4	51.8	98%
Cyclists	79	15.8	12.9	N/A
Motor Vehicle Occupants	405	81.0	66.2	95%
Total	**807**	**160.2**	**131.0**	**98%**

Fatalities (2005 – present)

8 Pedestrians

1 Motorist

Crash Data source:
NYS Dept. of Motor Vehicles / NYS Dept. of Transportation

Existing Conditions – 9th Avenue

Chelsea (West 14th Street – West 33rd Street)

- 3 travel lanes
- Curbside and floating parking lanes
- M20 bus route
- Pedestrian safety islands
- Left-turn lanes
- Parking-protected bicycle path
- Curbside bicycle lane (14th-16th St), Dedicated Bicycle Lane (33rd-31st St)
- Pedestrian plaza (14th-15th St)
- Land Use: Residential & Commercial

Volumes	Am Peak	PM Peak	12-hour Weekday Total
Bicycles	65	212	1,399
Vehicles	1,014	1,014	13,197

Notes: Bicycles btw. 18/19th Sts (April 2011; Vehicles btw. 30/31st Sts (Sept 2009)

At West 21st Street

Road User Safety – 9th Avenue

Ninth Avenue – Before/After Crash Analysis

Between 16th Street to 23rd Street

	Before Period*		After*: 3-year Average	Percent Change
	Total Before	3-year Average		
Crashes	448	149.3	115.2	-22.9%
Crashes w/ Injury	99	33.0	14.5	-56.1%
Total Injuries	116	38.7	16.2	-58.2%

*Before period: 08/01/04 – 07/31/07 (3-years); After period: 11/01/07 – 10/31/10 (3-years)

Note: Phase I of project installed - West 16th Street – West 23rd Street

- Crashes are down **23 %**
- Crashes that cause injuries are down **56 %**
- Injuries to all street users are down **58 %**

Crash Data source:
NYPD Accident Database (TAMS data)

Road User Safety – 9th Avenue

Ninth Avenue – Before/After Crash Analysis

Between 24th Street to 31st Street

	Before Period*		After*: 2-year Average	Percent Change
	Total Before	3-year Average		
Crashes	399	133.0	146.0	9.8%
Crashes w/ Injury	90	30.0	20.5	-31.7%
Total Injuries	109	36.3	23.5	-35.3%

*Before period: 08/01/05 – 07/31/08 (3-years); After period: 11/01/08 – 10/31/10 (2-years)

Note: Phase II of project installed - West 24th Street – West 31st Street

- Severity of crashes significantly decreased
- Crashes that cause injuries are down **32 %**
- Injuries to all street users are down **35 %**

Crash Data source:
NYPD Accident Database (TAMS data)

Existing Conditions – 9th Avenue

Hell's Kitchen/Midtown West (West 33rd Street – West 59th Street)

- 4 travel lanes; 5 lanes during AM & PM rush hour periods
- Curbside parking lanes
- M20 bus route
- Land Use: Residential, Commercial, Lincoln Tunnel & Port Authority

Volumes	Am Peak	PM Peak	12-hour Weekday Total
Bicycles	70	194	1,480
Vehicles	1,694	1,852	20,628

Notes: Bicycles @ 50th St (Sept 2010); Vehicles btw. 42/41st Sts (Sept 2009)

At West 36th Street

Road User Safety – 9th Avenue

Ninth Avenue – Serious Injury & Fatalities Ranking (2005-2009)

From W. 33rd Street to W. 59th Street

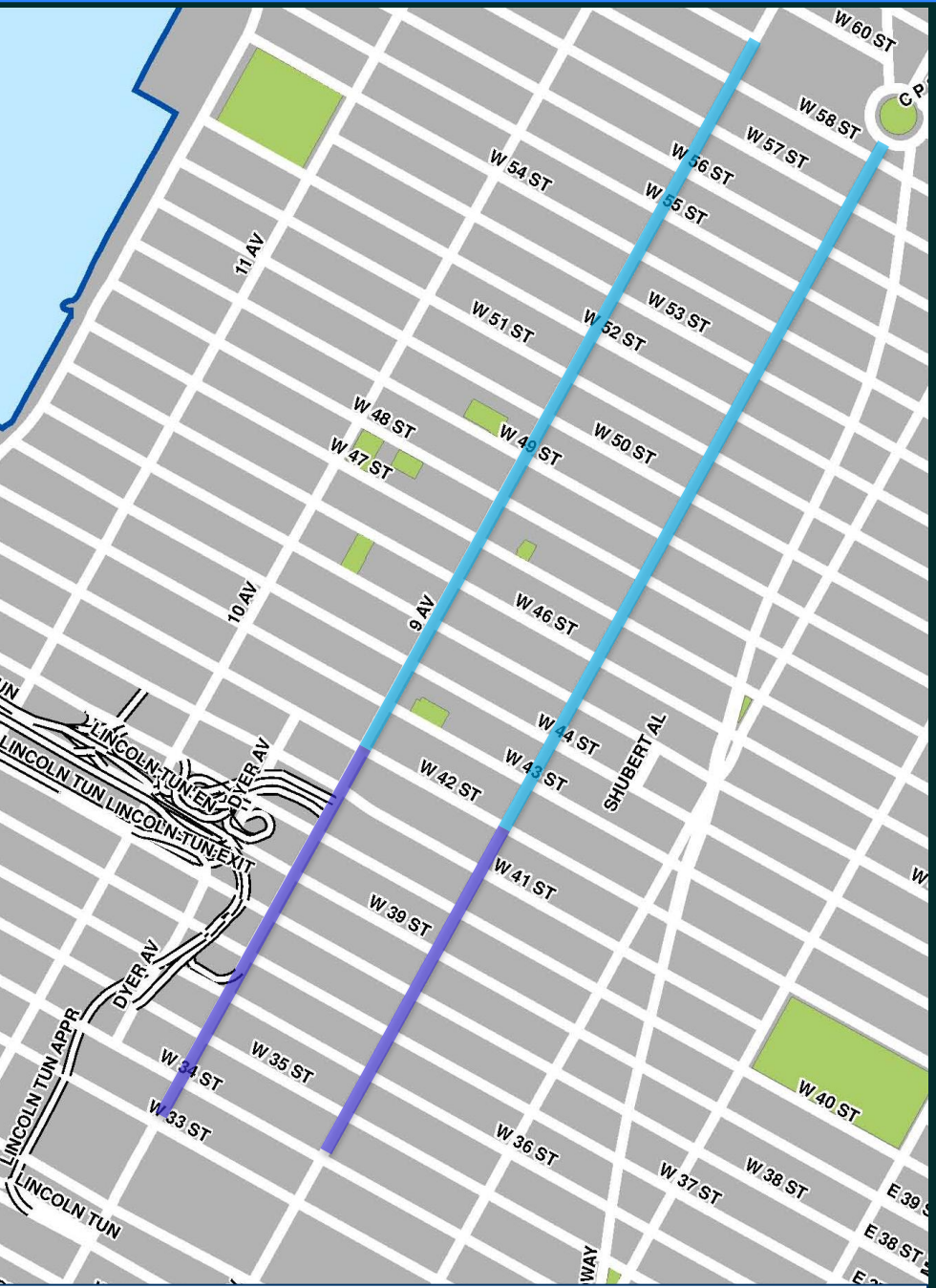
	Total Injuries	Average Injury / Year	Average Injury / Mile / Year	Serious Injury / Fatality Percentile
Pedestrians	313	62.6	50.1	95%
Cyclists	74	17.8	11.8	N/A
Motor Vehicle Occupants	383	76.6	61.3	88%
Total	**770**	**154.0**	**123.2**	**95%**

Fatalities (2005 – present)

6 Pedestrians

Crash Data source:
NYS Dept. of Motor Vehicles / NYS Dept. of Transportation

Eighth and Ninth Avenue Plan



Potential Phase 1: W 33/34 Sts to W 42 St
Potential Phase 2: W 42 St to W 59 St

Potential Phasing

Phase I - Spring 2012

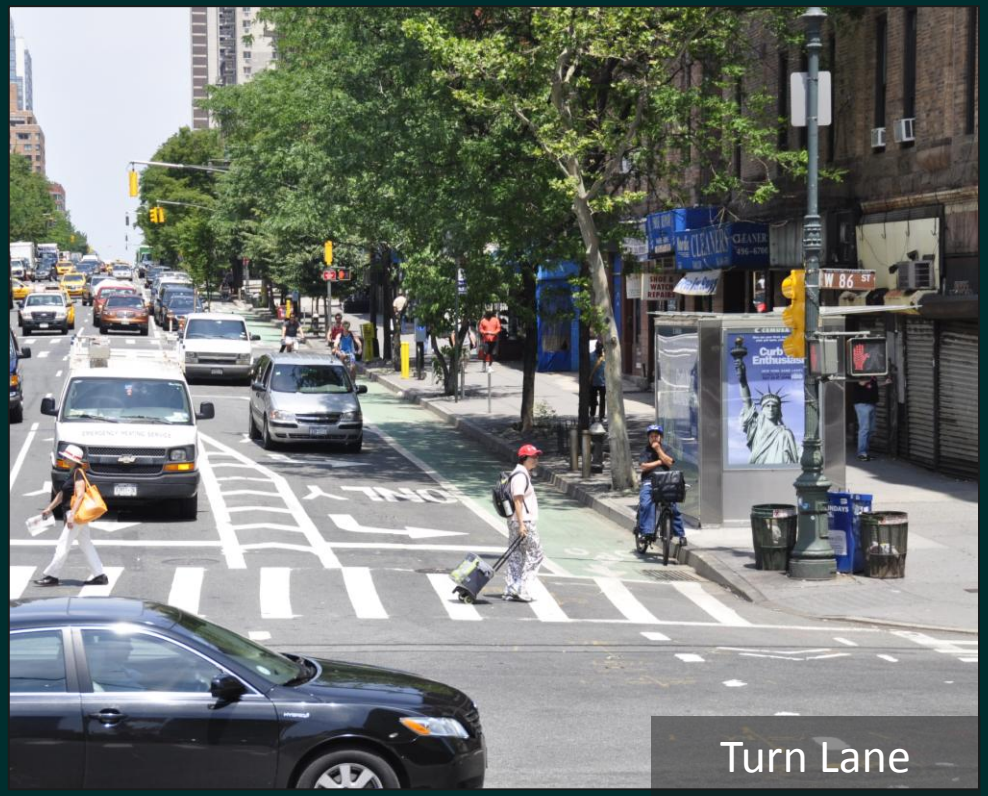
- Eighth Avenue bicycle facilities extended from West 34th Street to West 42nd Street
- Ninth Avenue bicycle facilities extended from West 33rd Street to West 42nd Street

Phase II - Fall 2012

- Eighth Avenue bicycle facilities extended from West 42nd Street to Columbus Circle
- Ninth Avenue bicycle facilities extended from West 42nd Street to West 59th Street

Design Treatments

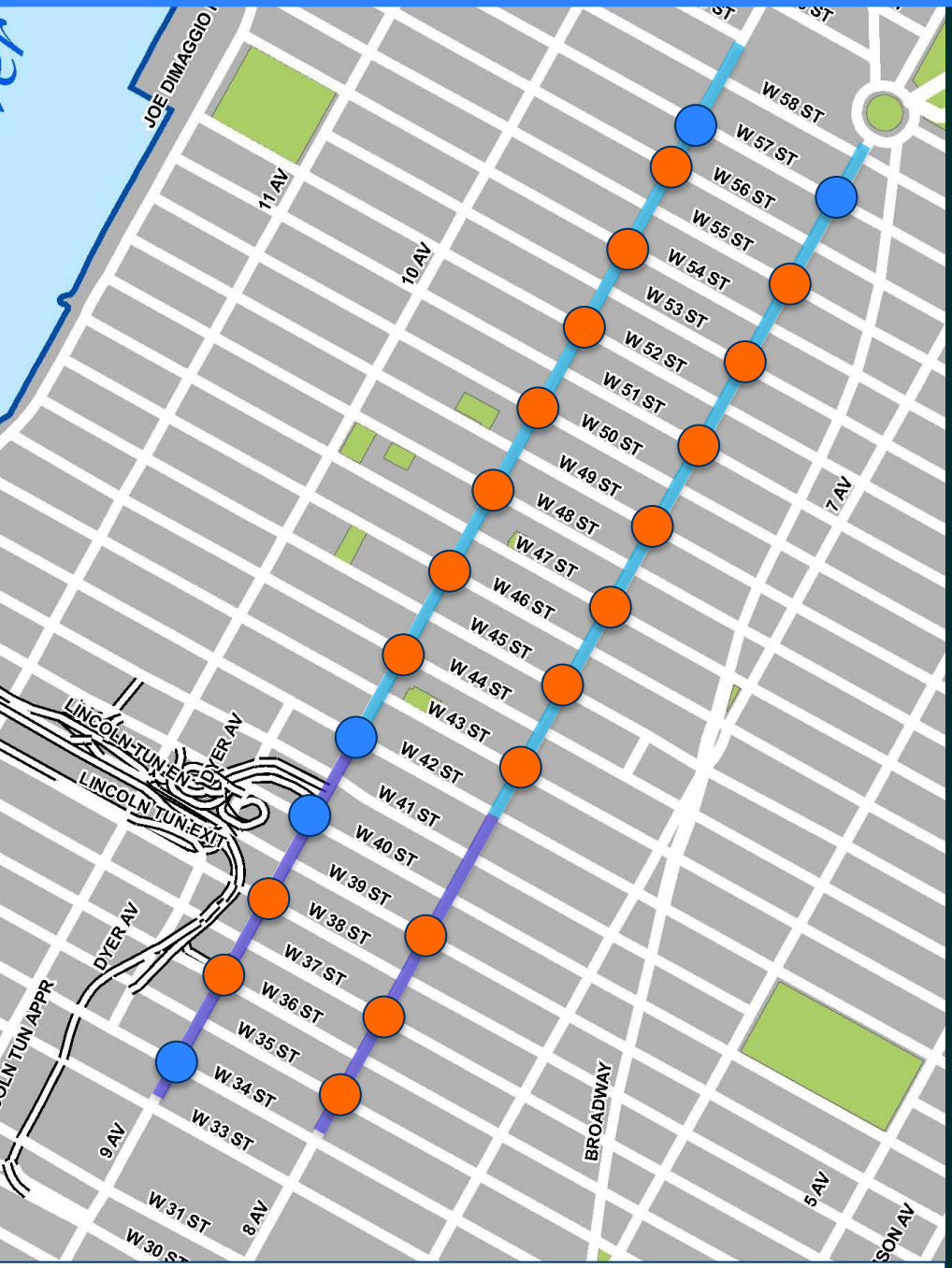
Mixing Zone



Turn Lane

- Maintain all travel lanes – mixing zones/turn lanes increases roadway capacity
- Mixing Zones – accommodate vehicle/bike turning conflict
- Turn Lanes –protects cyclists from turning vehicles with dedicated bicycle signal

Eighth and Ninth Avenue Plan



Mixing Zone Treatment
Dedicated Turn Lane

Turn Treatments

Between 59th – 33rd Streets

Mixing Zones

- 10 on Eighth Ave
- 10 on Ninth Ave

Dedicated Turn Lane

- 1 on Eighth Ave
- 3 on Ninth Ave

Investigating additional turn lane locations as part of Hells Kitchen Study

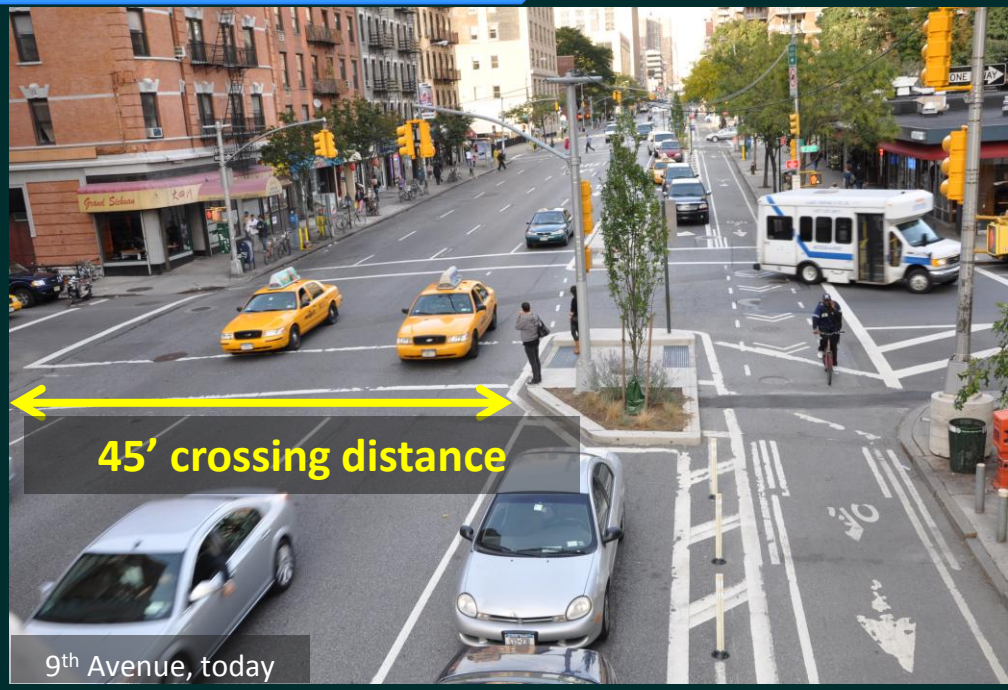
Design Treatments

Pedestrian Island/“Floating” Parking Lane

Pedestrian Island/“Floating” Parking Lane

- Pedestrian Islands – Shorten pedestrian crossings
- “Floating” Parking Lane – Maintain on-street parking

Pedestrian Crossing Improvements

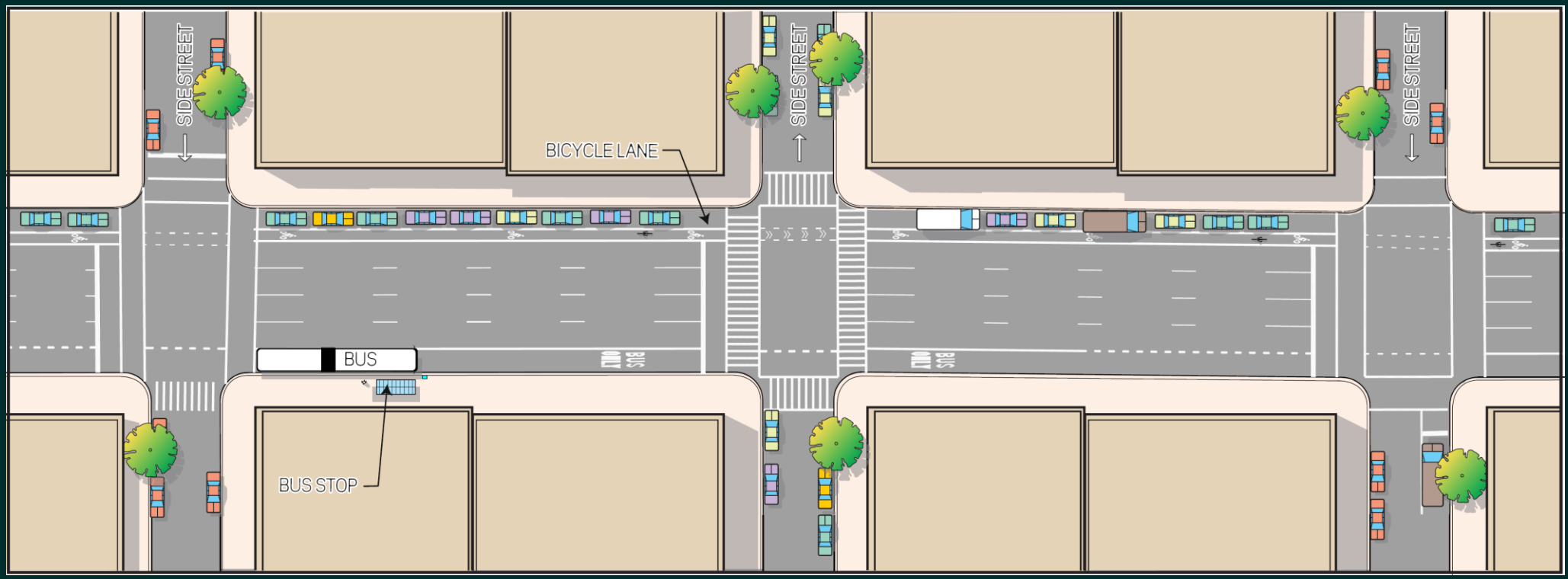


Safe, Protected Space on Street

Warning Strips for Vision-impaired Pedestrians

Existing Conditions

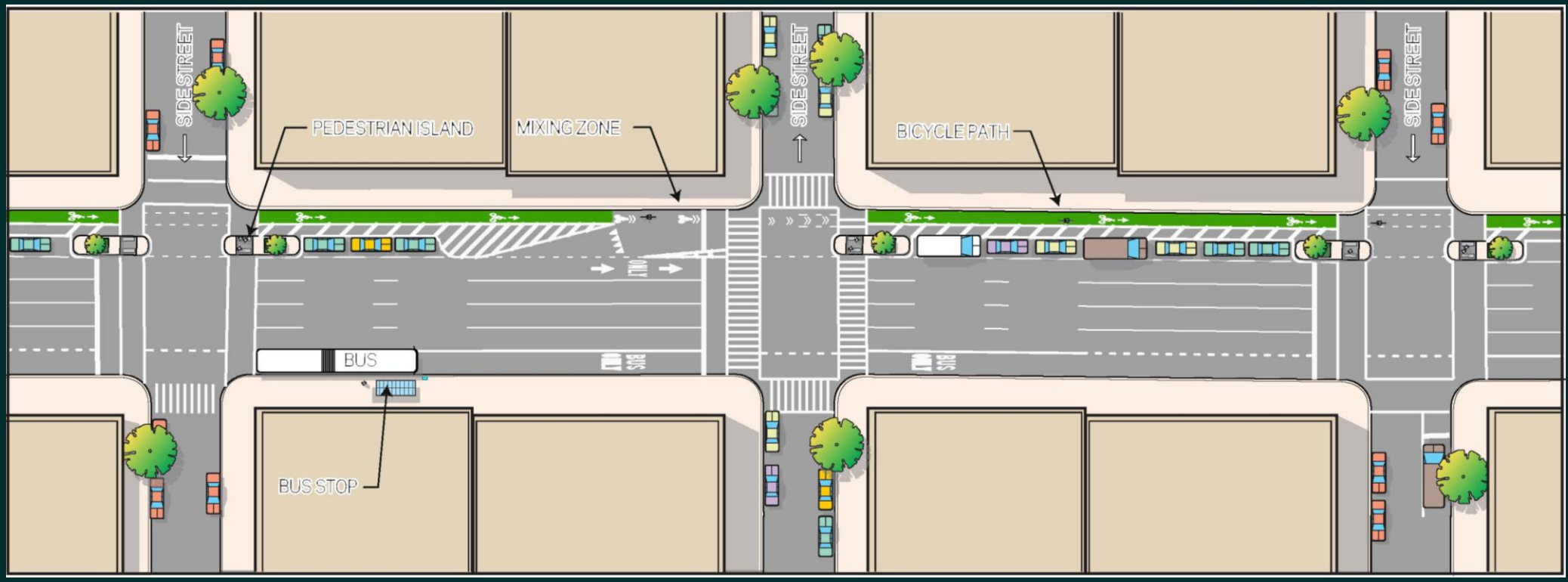
Existing Design – Eighth Avenue (W. 34th - W. 59th Sts)



- 4 Travel Lanes
- 2 Curbside Parking/Loading Lanes
- Bike lane adjacent to parking
- Curbside Bus Lane (W. 42nd to W. 59th Sts)

Design Treatments

Typical Design – Eighth Avenue

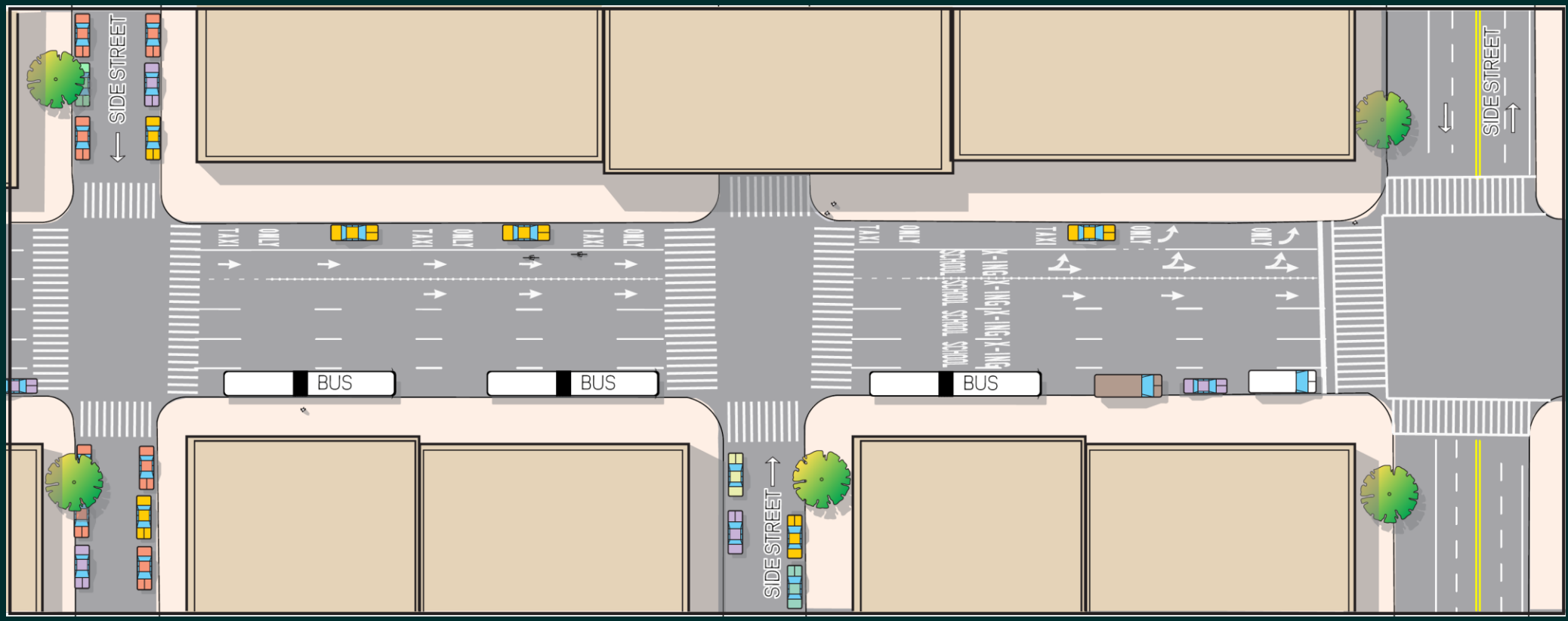


Repurposed Parking Space		Parking Space Equivalents
11	Turn Lanes / Mixing Zones	**38**
30	Pedestrian Islands	**12**
Total Spaces Repurposed		**50**
Total Existing Parking Spaces (59th-34th Sts)		**209**
Percent of Spaces Repurposed		**23.9%**

- Parking-Protected Bicycle Path
- “Floating” Parking/Loading Lane
- Pedestrian Safety Islands
- Curbside Bus Lane

Existing Design

Port Authority Design – Eighth Avenue



- No Shared Lane or Bicycle Markings (W. 39th – 42nd Sts)
- Curbside Taxi Stand and Drop-off/Pick-up Area
- Left-Turn Lanes at West 42nd Street

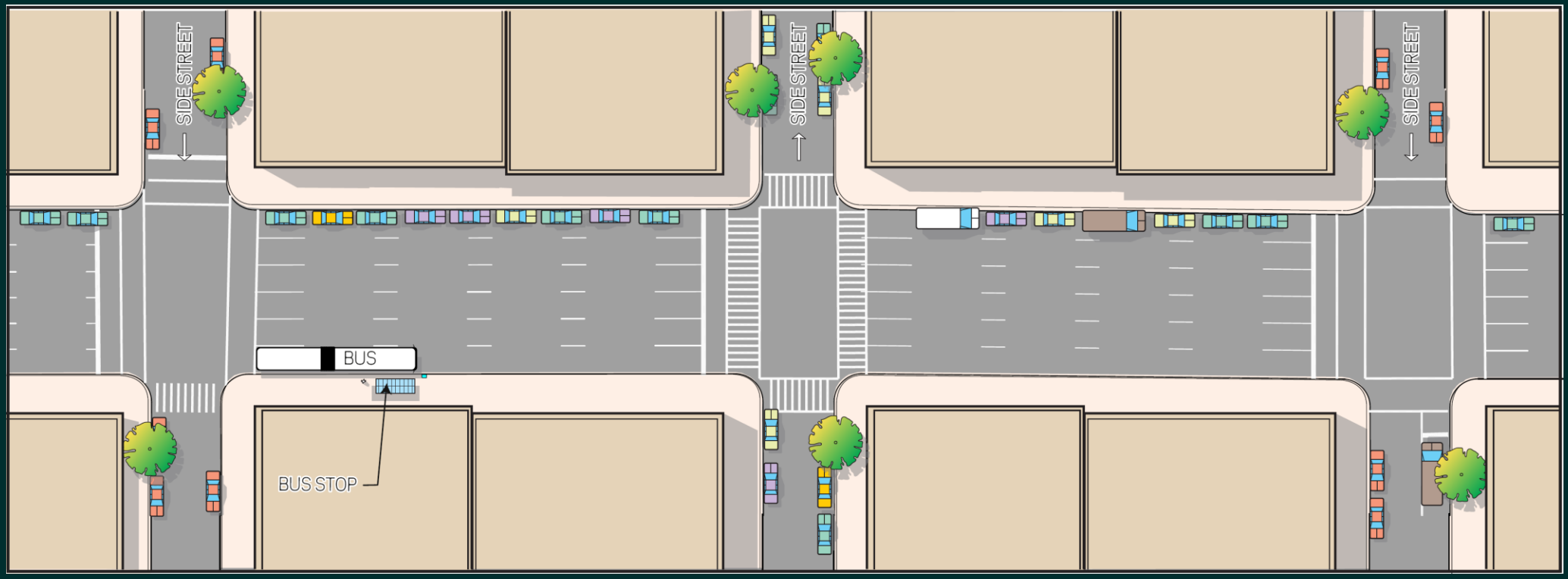
Design Treatments

Port Authority Design – Eighth Avenue

- Buffered Bicycle Lane and Shared Lane Design
- Maintain Taxi Stand and Drop-off/Pick-up Area
- Maintain Left-Turn Lanes at West 42nd Street

Existing Design

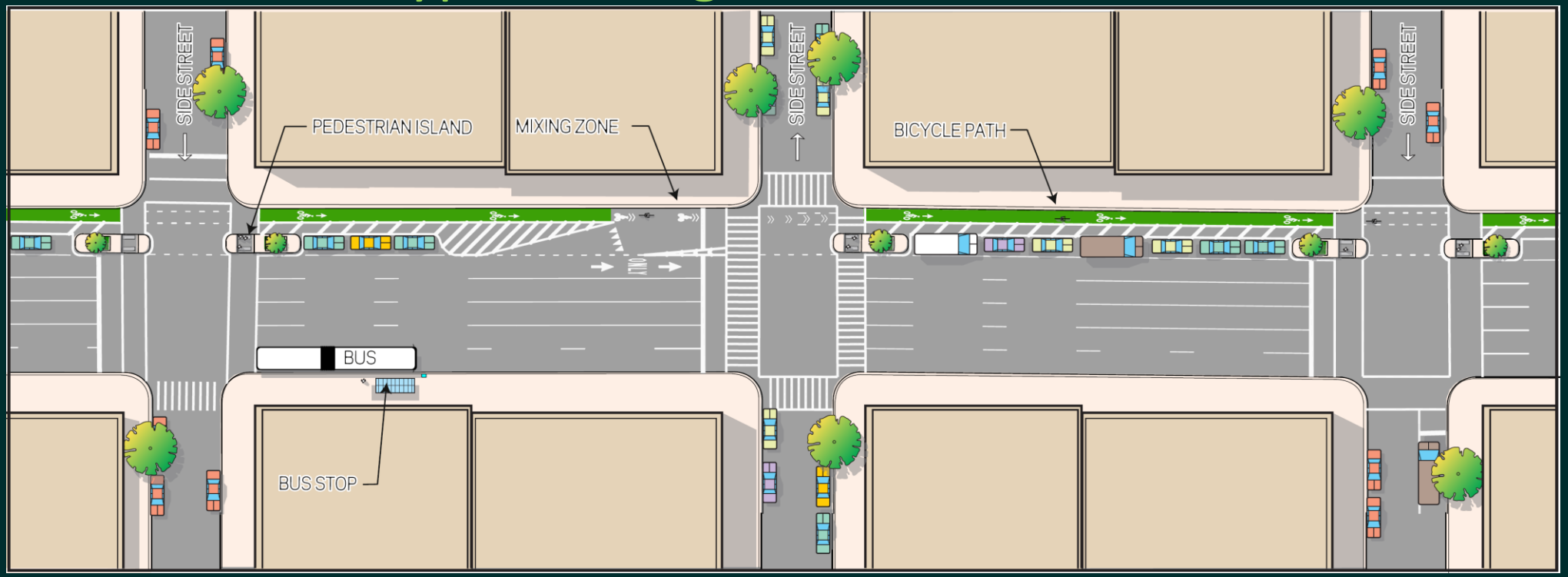
Existing Conditions – Ninth Avenue (W. 33rd – W. 59th Sts)



- 4 fulltime travel lanes
- 2 parking/loading lanes
- Port Authority and Lincoln Tunnel Access

Design Treatments

Typical Design – Ninth Avenue

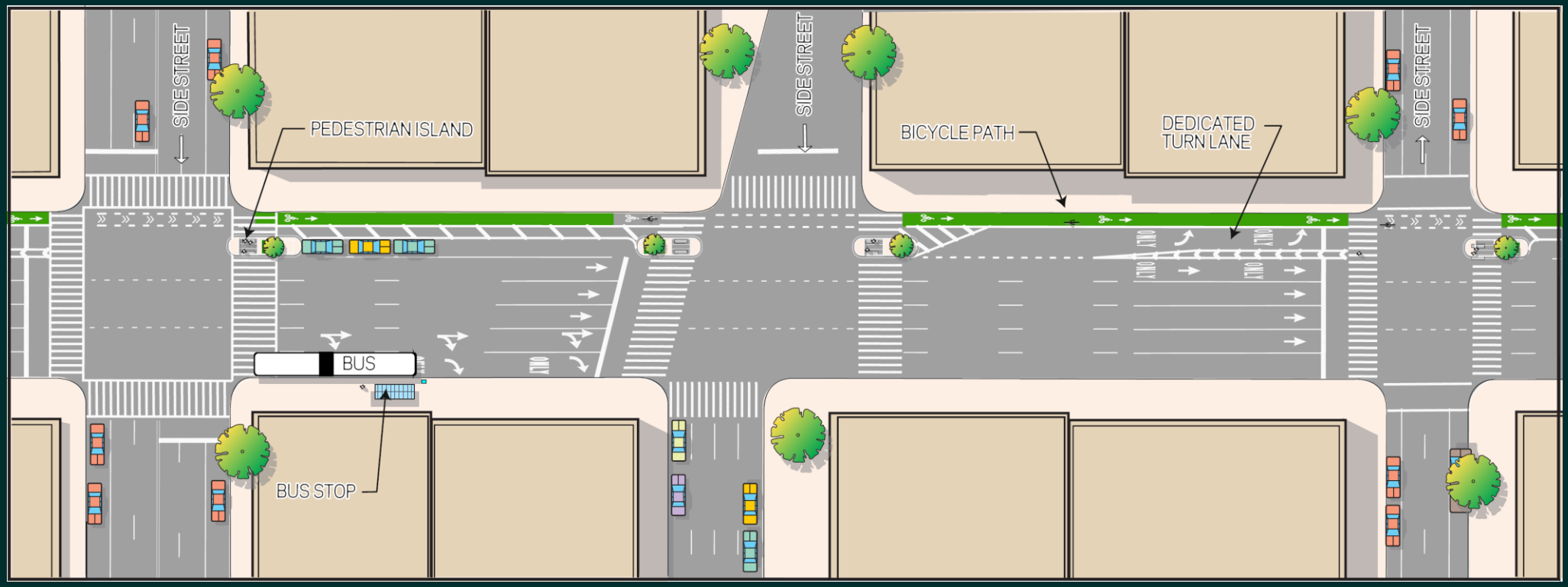


Repurposed Parking Space		Parking Space Equivalents
13	Turn Lanes / Mixing Zones	**68**
32	Pedestrian Islands	**8**
Total Spaces Repurposed		**76**
Total Existing Parking Spaces (59th-33rd Sts)		**209**
Percent of Spaces Repurposed		**36.4%**

- Parking-Protected Bicycle Path
- Retain all Four Fulltime Travel Lanes Plus Curbside Rush hour Lane (west)
- Mixing Zones and Dedicated Turn Lanes
- Pedestrian Safety Islands

Design Treatments

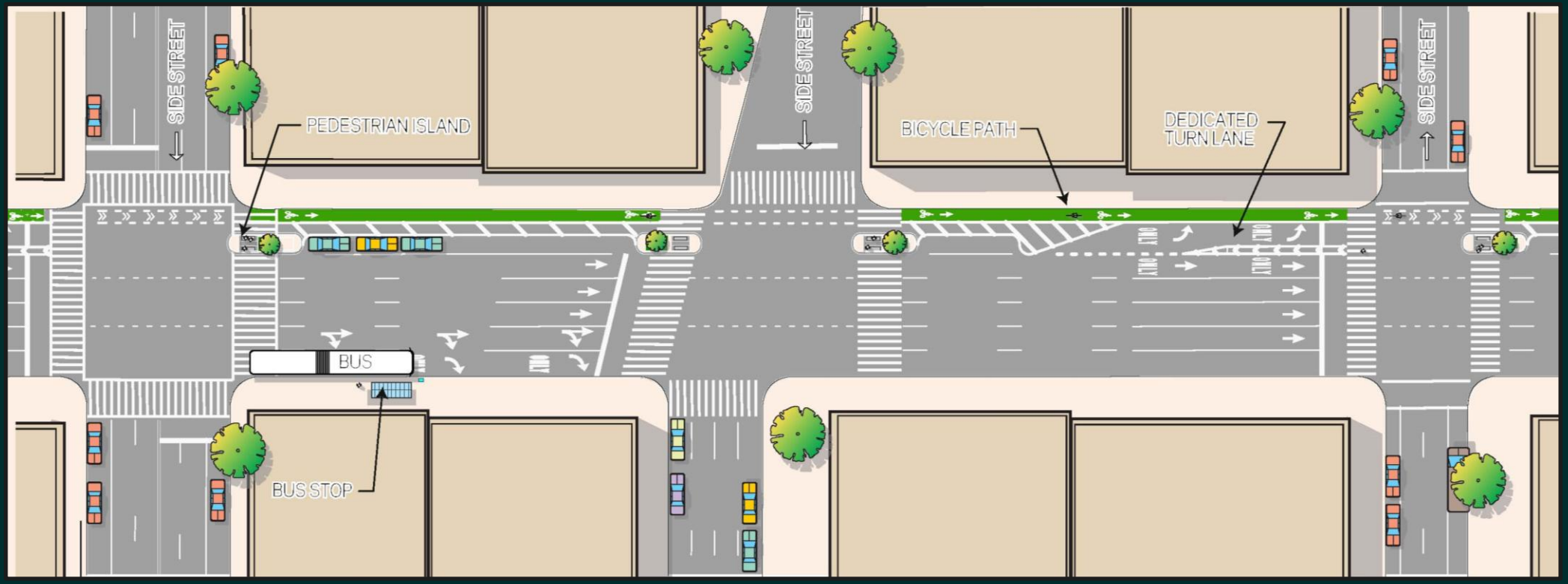
Design Option: Port Authority – Ninth Avenue



- Parking-Protected Bicycle Path
- Dedicated Turn Lane at W 40th St
- “Floating” Parking/Loading Lane
- Pedestrian Safety Islands

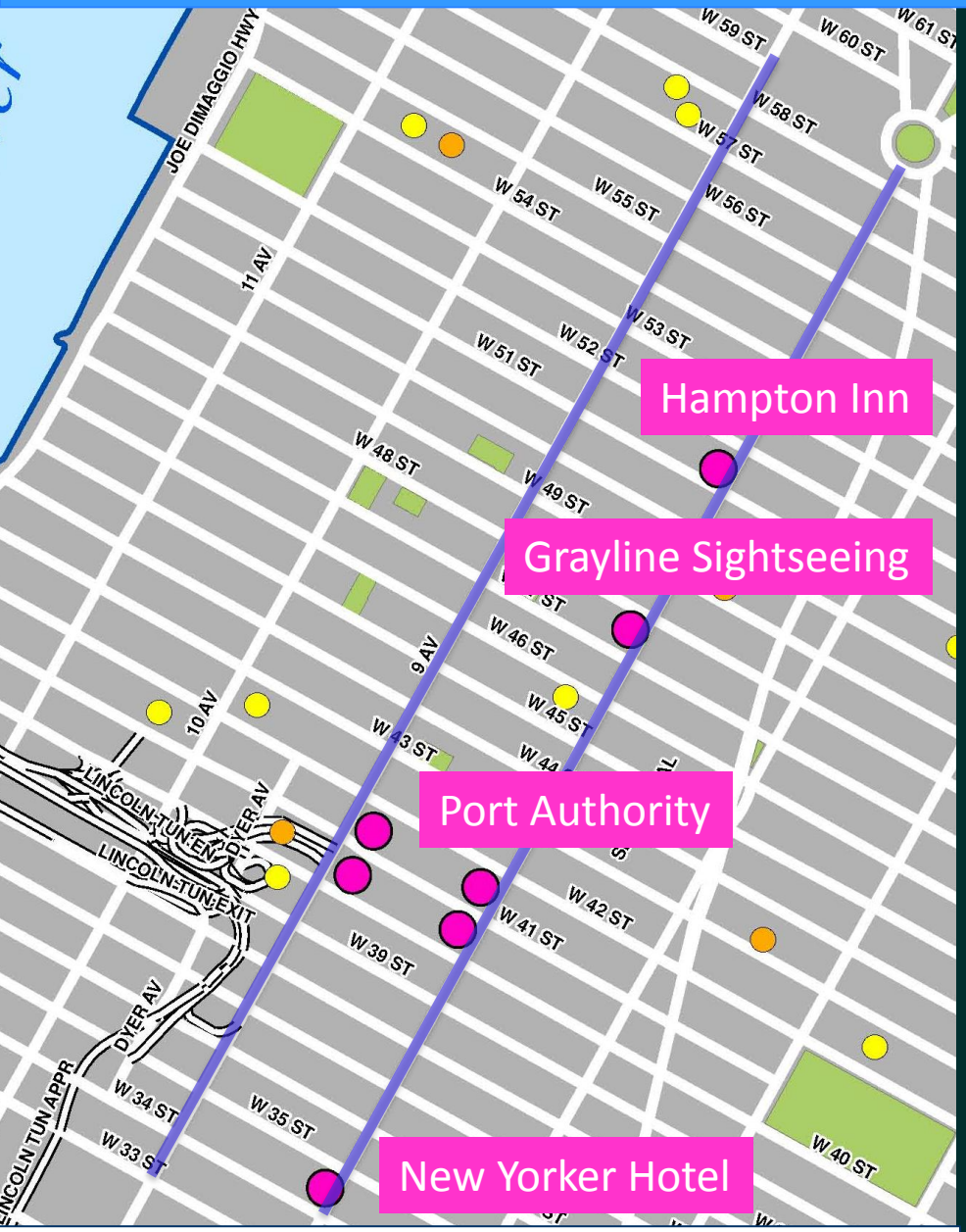
Design Treatments

Design Option: Port Authority – Ninth Avenue



- Parking-Protected Bicycle Path
- Dedicated Turn Lane at W 40th St with some loading space
- “Floating” Parking/Loading Lane
- Pedestrian Safety Islands

Passenger Drop-off & Pick-up



Commercial Drop-off/Pick-up Generators
Day Care Centers
Senior Centers

Eighth & Ninth Avenues

between 59th – 34th Sts

- 7 Day Care Centers
- 2 Senior Centers
- 7 Other Drop-off/Pick-up Points

- No Day Care or Senior Centers load onto the avenues
- Other points will retain sufficient loading space

Drop-off and Pick-up will not be adversely affected

DOT to conduct educational outreach

Passenger Drop-off & Pick-up

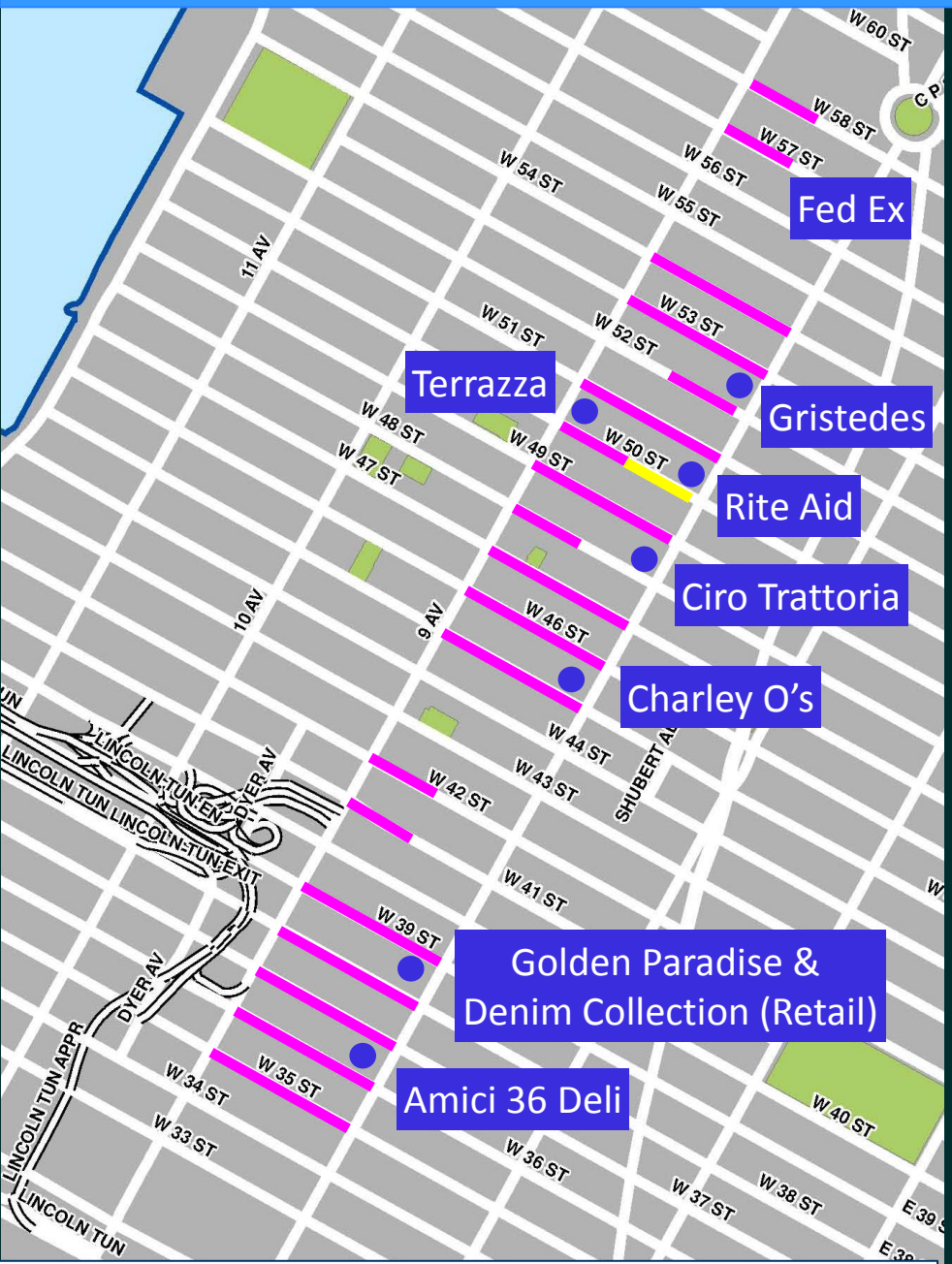
Reinforced Pedestrian Safety Signage

Signage to Indicate Passenger Drop-off/ Pick-up Areas

Drop-off / Pick-up Space Retained

Second Avenue

Commercial Loading Replacement



Existing Side Street Truck/Commercial Loading

Proposed Additional Truck/Commercial Loading

Major Loading Generators near Proposed Mixing Zones

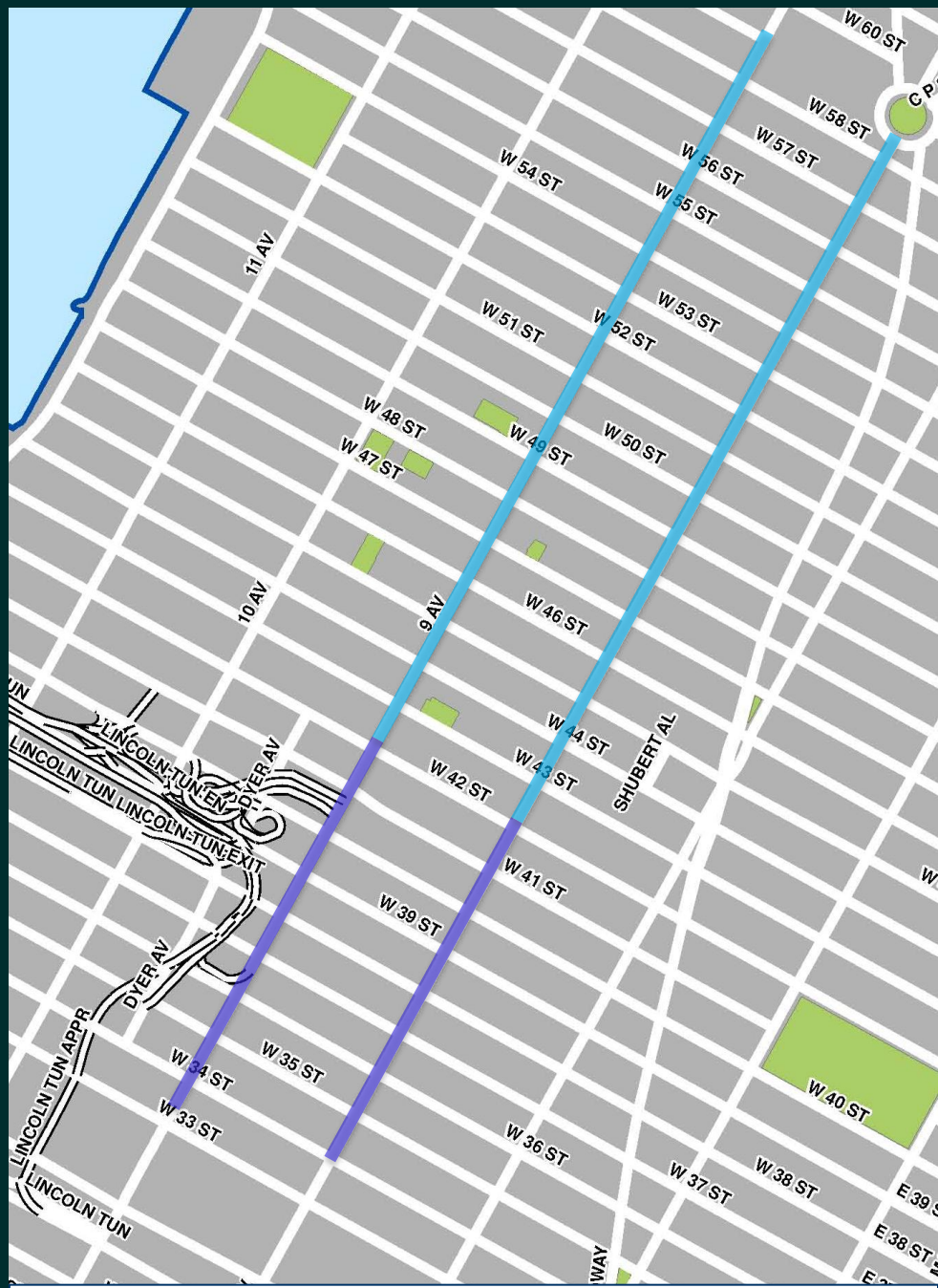
Columbus Avenue

Side Street Loading Zones Installed

Avenue Loading Zones Installed

Next Steps

- Community outreach through CB 4
- Examine successful design on 8th and 9th Avenues
- Potential for two-phase installation
  - Phase I : West 33/34 Sts to West 42 St
  - Phase II: West 42 St to West 59 St / Columbus Circle



Potential Phase 1: W 33/34 Sts to W 42 St
Potential Phase 2: W 42 St to W 59 St

Questions?

Thank You