

# **New York City Bicycle Lane and Trail Inventory**



**New York City Department of City Planning  
Member of New York Metropolitan Transportation Council**



# New York City Bicycle Lane and Trail Inventory



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# INTRODUCTION

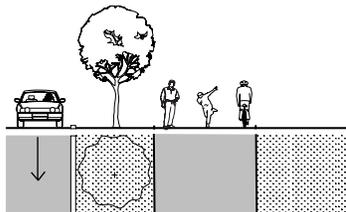


Hudson Street bicycle lane, Manhattan

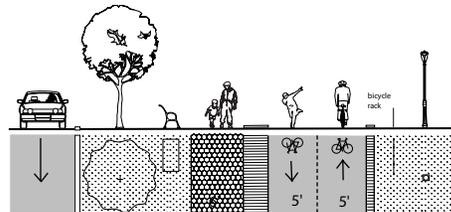


Shore Parkway bicycle trail, Brooklyn

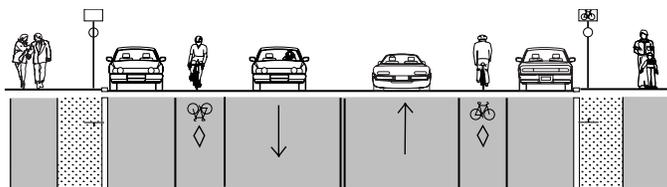
## Bicycle Facility Classification



Class I: Shared-Use Path



Class I: Dual Carriageway



Class II On-Street Bicycle Lane

The following document is a comprehensive inventory of New York City’s Class II on-street bike lanes and Class I off-street bike trails (see photographs and illustrations on this page). It is meant to be used to assist with the planning and implementation of a networked system of on-street and off-street bicycle facilities. It will also be a valuable tool to achieve and maintain a state of good repair for the existing regional transportation system and to help prevent deficiencies from increasing for both existing and future infrastructure.

The report includes existing conditions data for all New York City bike lanes and trails collected from May 1999 to November 1999, Manhattan bike lane counts, 1998 bicycle lane accident data, and a photographic inventory of all lanes and trails. The scope of the inventory was limited to Class II on-street bike lanes and Class I off-street bike trails. Bridges are a focus of another Department of City Planning study and are therefore not included. Signed bicycle routes were also not included in this inventory, but will be considered for the next phase of this project.

# METHODOLOGY

## Bicycle Lanes

All Class II on-street bike lanes in New York City were surveyed cataloging conditions that could effect the functioning and the safety of the bicycle facility. These conditions were evaluated for five components; pavement, lane striping, signs, diamond symbols, and cyclist symbols. Unless otherwise noted the inventory of bicycle lanes was based on the standards of the *Manual on Uniform Traffic Control Devices* (MUTCD) and the New York City Department of Transportation.

### Pavement

**Pavement was considered to be in poor condition if the road surface was rough or uncomfortable to ride on, or had potholes or bumps that were potentially hazardous to cyclists.**

The pavement inventory was based on the American Association of State Highway and Transportation Officials (AASHTO) *Guide for Development of Bicycle Facilities*, stating that pavement surfaces should be smooth and clean and free of irregularities, holes, bumps, and cracks. Utility inlets, drainage grates and subway ventilation grates must also be flush with the pavement and be suitable for safe cycling.



Pavement in **good** condition.  
Father Capodanno Boulevard, Staten Island



Pavement in **poor** condition.  
Lily Pond Avenue, Staten Island



Pavement in **poor** condition due to previous construction.  
Midland Avenue, Staten Island



Pavement in **poor** condition due to drainage grate.  
Father Capodanno Boulevard, Staten Island

## Lane Striping

**Lane striping was considered to be in poor condition if it was worn and not easily visible by cyclists and motorists, or interrupted in any way.**

In accordance with the MUTCD standards, a solid white line should be used to delineate the edge of a travel path where travel in the same direction is permitted on both sides of the line, but crossing the line is discouraged. Typically this line is four to six inches on either side of the lane. A common striping material is thermoplastic paint with glass beads. The AASHTO requirement for bicycle lane width is a minimum of four feet. Wherever possible, a lane between five and six feet should be provided along with a buffer between the bicycle and motor vehicle lanes. This buffer should be six feet.



Lane striping in **good** condition.  
73rd Avenue, Queens



Lane striping in **fair** condition.  
73rd Avenue, Queens



Lane striping in **poor** condition because it is extremely worn.  
Father Capodanno Boulevard, Staten Island



Lane striping in **poor** condition because of previous construction.  
Midland Avenue, Staten Island



Lane striping in **poor** condition because of interrupted striping.  
Rockaway Point Boulevard, Queens

## Signs

Signs were considered in poor condition if not easily visible by cyclists and motorists, if vandalized, if the message were worn and difficult to read, or if it were bent.

The three signs typically used to call attention to a bicycle lane (see illustrations on this page) should be used as follows:

-*Bike Lane Ahead* (SR-444) must be placed in advance of a marked designated lane to call attention to it and to the possible presence of bicyclists.

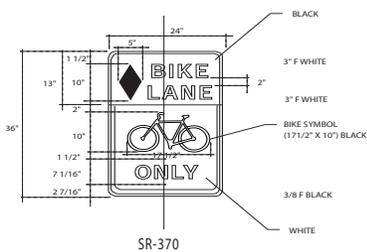
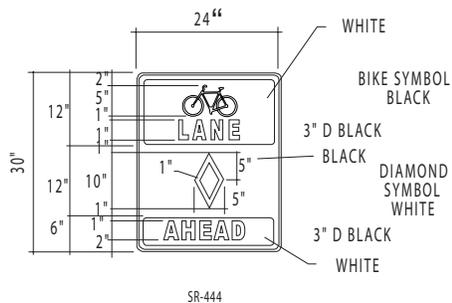
-*Bike Lane Only* (SR-370) should be erected at periodic intervals along the designated lane. In the case of New York City and for the purposes of this inventory, there should be a sign at the beginning of every block.

-*Bike Lane Ends* (SR-445) should be used in advance of the end of the designated lane.

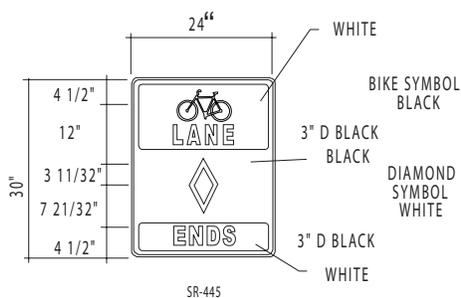
Signs may be no lower than 7 feet high, but over 15 feet high they are often difficult to read and not easily visible by cyclists and motorists.



*Bike lane sign in good condition.  
Midland Avenue, Staten Island*



*Bike lane sign in poor condition because of height.  
34th Avenue, Queens*



*Bike lane sign in poor condition because it is obscured by a tree.  
School Road, Staten Island*

## Pavement Symbols

**Pavement symbols were considered to be in poor condition if worn, partly missing, or distorted, making it difficult for cyclists and motorists to distinguish them.**



*Diamond symbol and cyclist symbol (directly behind the diamond) used in conjunction with a bike lane sign to call attention to the bike lane. St. Nicholas Avenue, Manhattan*

The inventory of pavement symbols included two types; diamond and cyclist. Pavement symbols work together with signs to indicate the separation of bicycle and motor vehicle lanes. The symbols must be visible to both cyclists and motorists. The MUTCD diamond indicates a lane reserved for the exclusive use of a particular class of vehicle, such as Class II on-street bike lanes. Bike lanes must have a white diamond symbol immediately after an intersection to inform vehicle operators turning onto a street of the restrictive nature of the lane. Either a symbol of a cyclist or wording that indicates a bike lane should precede the diamond at each intersection. New York City typically places two diamonds and two cyclists per block.



*Diamond symbol in **good** condition. School Road, Staten Island*



*Diamond symbol in **poor** condition. 73rd Avenue, Queens*



*Cyclist symbol in **good** condition. 73rd Avenue, Queens*



*Cyclist symbol in **poor** condition. 73rd Avenue, Queens*

## Bicycle Trails



Asphalt pavement in **good** condition.  
Ft. Washington Park, Manhattan



Hexagonal pavers in **good** condition.  
East River Park, Manhattan



Pavement in **poor** condition because of standing water.  
Flushing Meadows/Corona Park, Queens



Hexagonal pavers in **poor** condition. East River, Manhattan



Pavement in **poor** condition. Ft. Washington Park, Manhattan

All New York City bike trails were surveyed cataloging conditions that could effect the functioning and the safety of the bicycle facility. These conditions were evaluated for four components; pavement, lane striping, signs, and pavement symbols. Because the trails are separate from the street network, they are not bound to MUTCD requirements. The standards are more subjective and vary greatly from trail to trail. Unless otherwise noted, this inventory used the following standards to rate the existing conditions of the trails: The AASHTO *Guide to the Development of Bicycle Facilities* and the City of New York Department of Parks and Recreation guidelines.

### Pavement

**Pavement was considered to be in poor condition if the surface was rough or uncomfortable to ride upon or had potholes or bumps that were potentially hazardous to cyclists.**

Pavement should have a smooth riding surface, be clean, and be free of irregularities, holes, bumps, and cracks. Utility inlets and drainage grates must also be flush with the pavement and be suitable for safe cycling. Hard, all-weather pavement surfaces, such as asphalt or Portland cement concrete, are recommended. The minimum recommended width for a shared-use path is 10 feet. It is noted where paths are more narrow than this minimum.

## Striping

The lane striping was considered in poor condition if it were worn and not easily visible by cyclists or if it were interrupted in any way.

A four inch wide yellow centerline stripe is recommended to separate two way trail traffic. Solid white edge lines are also recommended where bicycle traffic is expected during early evening hours. However, it is not always necessary to have striping on trails. Some New York City bike trails, such as Ocean Parkway in Brooklyn and Mosholu Parkway in the Bronx, have a three feet high metal fence to separate users. Other trails, Shore Parkway in Brooklyn for example, have planters, grass, or trees separating trail users. There are also many trails in New York City that have nothing separating bicyclists from pedestrians. This case is only acceptable in cases of low volume and adequate width.



Green striping in **good** condition.



Striping in **good** condition.  
Shore Parkway, Brooklyn



Trail with a fence instead of striping.  
Shore Parkway, Brooklyn

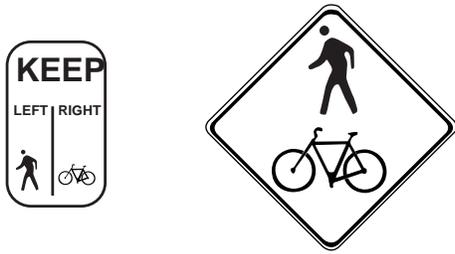


Striping in **fair** condition.  
Shore Parkway, Brooklyn

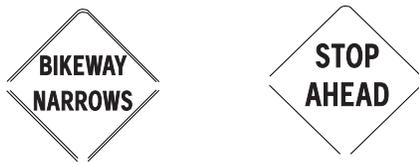


Striping in **poor** condition.  
Shore Parkway, Brooklyn

## Signs



Regulatory Signs



Warning Signs



Greenway Signs

A sign was considered in poor condition if it was not easily visible by cyclists, vandalized in any way, if the message was worn and difficult to read, or if it was bent.

For the bike trail inventory signs were separated into four categories (see illustrations on this page); regulatory, warning, stop/yield, and greenway. All trail and roadway signs should be placed in such a way that motorists and cyclists, respectively, are not confused by them.

**Regulatory signs** inform cyclists and pedestrians of the traffic laws and indicate requirements that would not otherwise be apparent. According to the MUTCD, regulatory signs should be placed at the point where the regulations apply, indicate the requirements, and be easily visible to cyclists and pedestrians.

**Warning signs** inform cyclists and pedestrians of potentially hazardous conditions on or near the trail or of an intersection ahead where sight distance is limited.

**Bicycle stop/yield signs** are smaller than those designed for motorists and are intended for use on bicycle trails. Yield signs are acceptable in locations with low volume and speed. Stop/yield signs should be placed as close to the intended stopping point as possible.

**Greenway signs** were developed by the New York City Department of City Planning to provide a system that relates better to slower non motorized users. Greenway signage regulates, warns, and guides users, educates them about historical, cultural, or environmental sites, directs them to rest areas and amenities, and creates a unique identity for the network. The predominant color on the signs is, appropriately, green. The signs are smaller because pedestrians and bikers move more slowly than motorists and small signs are more user-friendly. These signs can also be placed lower (between 3 and 6 feet high) than signs for motorists and are more in scale with the human body.

A greenway sign indicating that the bike trail is ahead must be placed in advance of a designated bike trail. There should also be a sign at each trail access point or path-roadway intersection. A greenway sign should also be placed to indicate the end of the designated bike trail.



Greenway information sign in **good** condition.  
Joe Michael's Mile, Queens



Regulatory sign in **good** condition.  
Ocean Parkway, Brooklyn



Greenway information sign in **good** condition.  
Shore Parkway, Brooklyn



Bicycle stop sign in **fair** condition along with a regulatory sign in **poor** condition.  
Pelham Parkway, the Bronx



Warning sign in **poor** condition because it had been vandalized.  
Shore Parkway, Brooklyn



Regulatory sign in **poor** condition because it had been vandalized.  
Ocean Parkway, Brooklyn

## Pavement Markings

**Pavement markings were considered to be in poor condition if the symbols were worn, partly missing, or distorted, making it difficult for cyclists to read them.**

Pavement markings have been separated into five categories; diamond, cyclist, arrow, roller-blader, and other symbols. Markings should be located at every crossing and path entrance to channel users to clearly defined crossings and to notify motorists of their presence. For mid path, pavement markings should be used when needed or about every 400 feet. On a shared-use path, cyclist symbols should be placed to indicate where cyclists should ride. Although symbols are recommended, there are many bicycle trails in New York City without any.



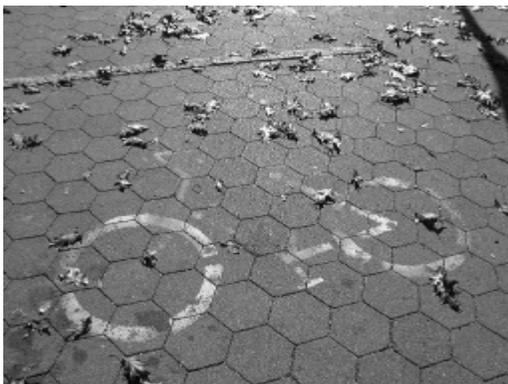
Trail symbols (arrows, cyclists, and pedestrians) in **good** condition.  
Shore Parkway, Brooklyn



Trail symbols (arrows, cyclists, and "ped only") in **good** condition.  
Joe Michael's Mile, Queens



Trail symbols in **poor** condition.  
Shore Parkway, Brooklyn



Bicycle symbol in **poor** condition.  
Eastern Parkway, Brooklyn



Bicycle and pedestrian symbols in **fair** condition.  
Eastern Parkway, Brooklyn

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## DATA

The data is separated by borough and presented by individual bike lane or bike trail. It is meant to be used in a GIS format, but for publication purposes, the static map, in combination with the corresponding database entries, will take its place. The data in MapInfo format will be available via Zip disk and, eventually, on the Department of City Planning web site.

### **Bicycle Lanes**

Inventory data was collected for each block using a “good,” “fair,” “poor,” and “missing” rating system. Information was collected in the following five categories:

**General data** included name of the bike lane, cross streets framing the block, lane width, and any buffer width. A mid block address was noted for mapping purposes and potential street tree locations were collected for the Department of Parks and Recreation.

**Sign data** included condition, message, the type of mount or structure that is supporting the sign, and its height.

**Pavement data** included condition and description. There were several keywords chosen to represent common pavement conditions; rough surface, bumps in pavement, previous construction, pot hole, utility inlet, and uneven pavement.

**Striping data** included condition and description. There were several keywords chosen to represent common striping conditions; interrupted striping, previous construction, and worn.

**Symbol data** included condition and number of diamonds and cyclists and whether the cyclist symbol included a helmet.

### **Manhattan Bicycle Count**

The survey was completed on October 27, 1999. All corridors in Manhattan with Class II on-street bicycle lanes were monitored for a 12 hour period, from 7AM to 7PM. Throughout the 12 hour survey period, temperature and weather conditions ranged from approximately 40 to 65 degrees and from breezy and cloudy to sunny and warm.

### **Bicycle Accidents**

The source of the accident data used in this report was the New York State Department of Motor Vehicles *1998 State Highway Accident Data*. It includes all bicycle accidents reported to the Department of Motor Vehicles.

## Bicycle Trails

Inventory data for the New York City bike trails was collected in half mile segments using a “good,” “fair,” “poor,” and “missing” rating system. For each half mile segment the following information was collected:

**General data** included name of bike trail, distance from start, list of access points, total width, and, if applicable, wheeled width and buffer width between bicyclists and pedestrians.

**Pavement data** included type of surface (asphalt, hexagonal pavers, etc.), condition, description, and edge treatment. Similar to the bike lane data, there were several keywords chosen to represent common trail pavement conditions; rough surface, bumps in pavement, previous construction, pot hole, utility inlet, root, and overgrowth.

**Striping data** included condition, description, color of striping, and existence of a centerline and whether it is dashed. There were several keywords chosen to represent common striping conditions; interrupted striping, previous construction, and worn.

**Symbol data** included condition and number of diamonds, cyclists, roller-bladers, arrows, pedestrians, and other symbols.

**Amenities data** included number of bike racks, water fountains, and police call boxes.

**Sign data** included overall rating and condition, message, and description of regulatory, warning, stop/yield, greenway, and other signs.



# BRONX

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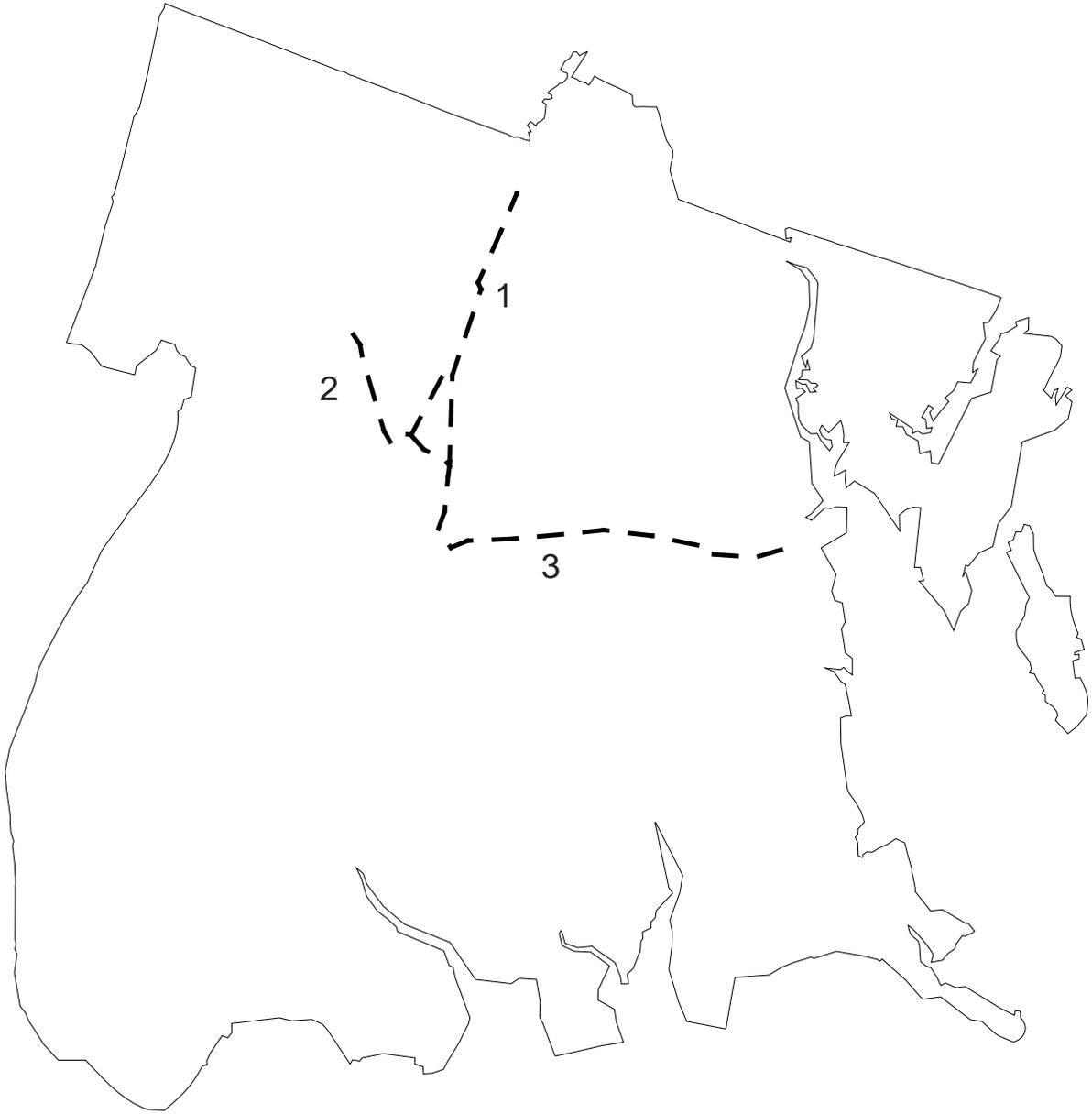
## Bicycle Lanes

There are no class II bicycle lanes in the Bronx

## Bicycle Trails

- 1 Bronx River Greenway
- 2 Mosholu Parkway Greenway
- 3 Pelham Parkway Greenway

————— Bicycle Lane  
- - - - - Bicycle Trail



## 1. Bronx River Greenway



From Street:	233rd Street
To Street:	Pelham Parkway
Length:	2.8 miles
Classification:	Dual carriage
Total Width:	Varies from 6 feet to 18 feet
Wheeled Width:	Varies from 6 feet to 8 feet. Although this width is below the 10 feet standard, it is still a comfortable width in relation to the volume of cyclists and pedestrians.
Buffer Width:	No buffer in some places Varies from 2 feet to 3 feet in others
Paving Material:	Asphalt
1998 Bicycle Accident Data:	No bicycle accidents were reported along the Bronx River corridor

## Bronx River Greenway

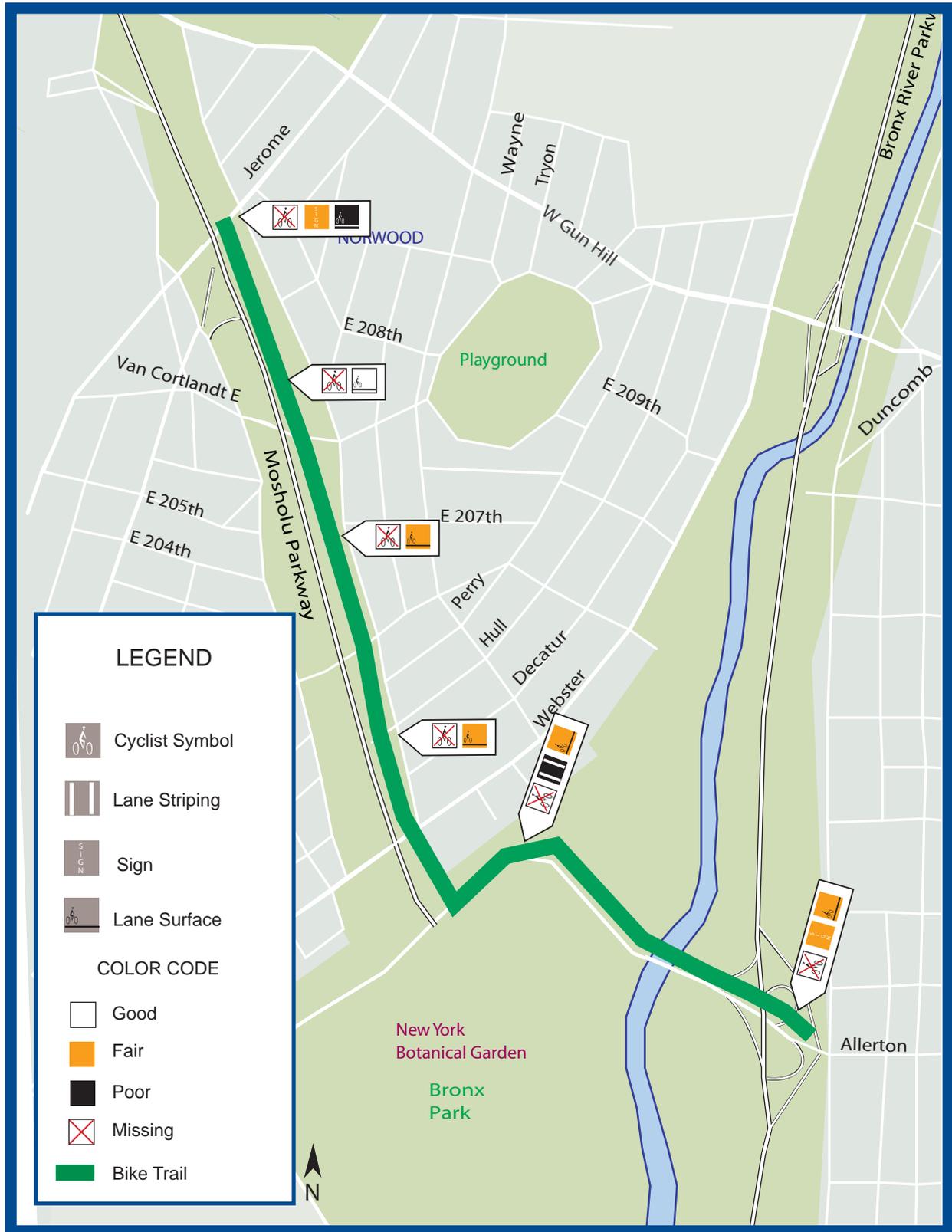


## 2. Mosholu Parkway Bicycle Trail



From Street:	Jerome Avenue
To Street:	Bronx Park East
Length:	1.4 miles
Classification:	Shared-use path from Jerome Avenue to Grand Concourse Dual carriage from Grand Concourse on
Total Width:	12 feet
Wheeled Width:	6 feet
Buffer Width:	3 feet high metal fence for one block after Southern Boulevard No buffer on the rest of the path
Paving Material:	Asphalt
1998 Bicycle Accident Data:	2 bicycle accidents were reported along the Mosholu Parkway bike trail- One each at the Van Cortland Avenue East and at the Webster Avenue intersections

## Mosholu Parkway Bicycle Trail



### 3. Pelham Parkway Bicycle Trail



From:	Bronx Park
To:	Pelham Bay Park
Length:	2.4 miles
Classification:	Shared-use path
Total Width:	18 feet
Wheeled Width:	18 feet
Buffer Width:	No buffer
Paving Material:	Asphalt

1998 Bicycle Accident Data: One bicyclist fatality and 3 accidents reported along the Pelham Parkway bike trail-  
One fatality was reported at the Pelham Parkway westbound entrance intersection and  
One accident reported each at the Williamsburg Road, Seymour Avenue, and Eastchester Road intersections

## Pelham Parkway Bicycle Trail



# BROOKLYN

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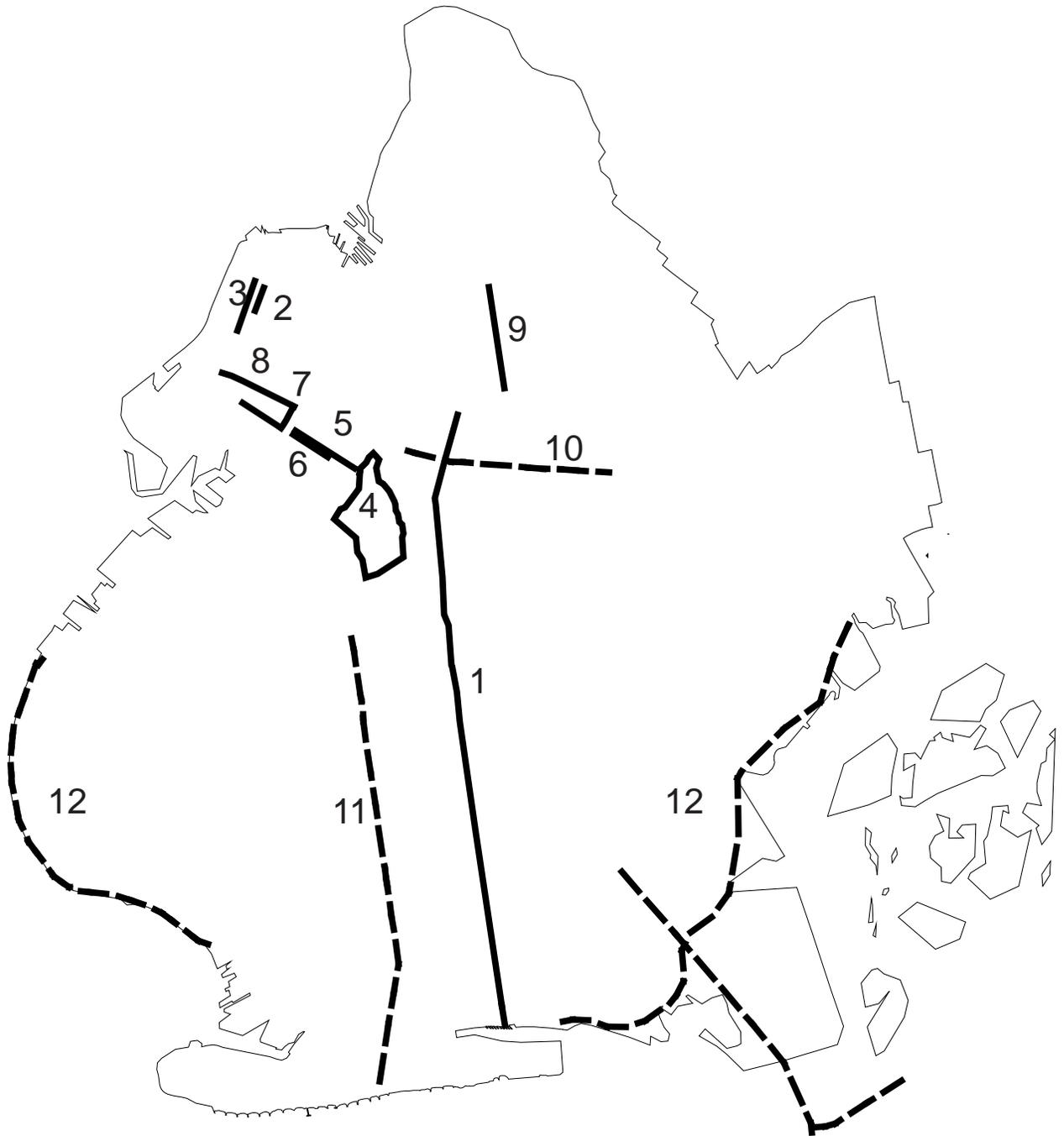
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## Bicycle Lanes

- 1 Bedford Avenue
- 2 Clinton Street
- 3 Henry Street
- 4 Prospect Park Drive
- 5 Second Street
- 6 Third Street
- 7 Third Avenue
- 8 Union Street
- 9 Tompkins Avenue

## Bicycle Trails

- 10 Eastern Parkway
- 11 Ocean Parkway
- 12 Shore Parkway

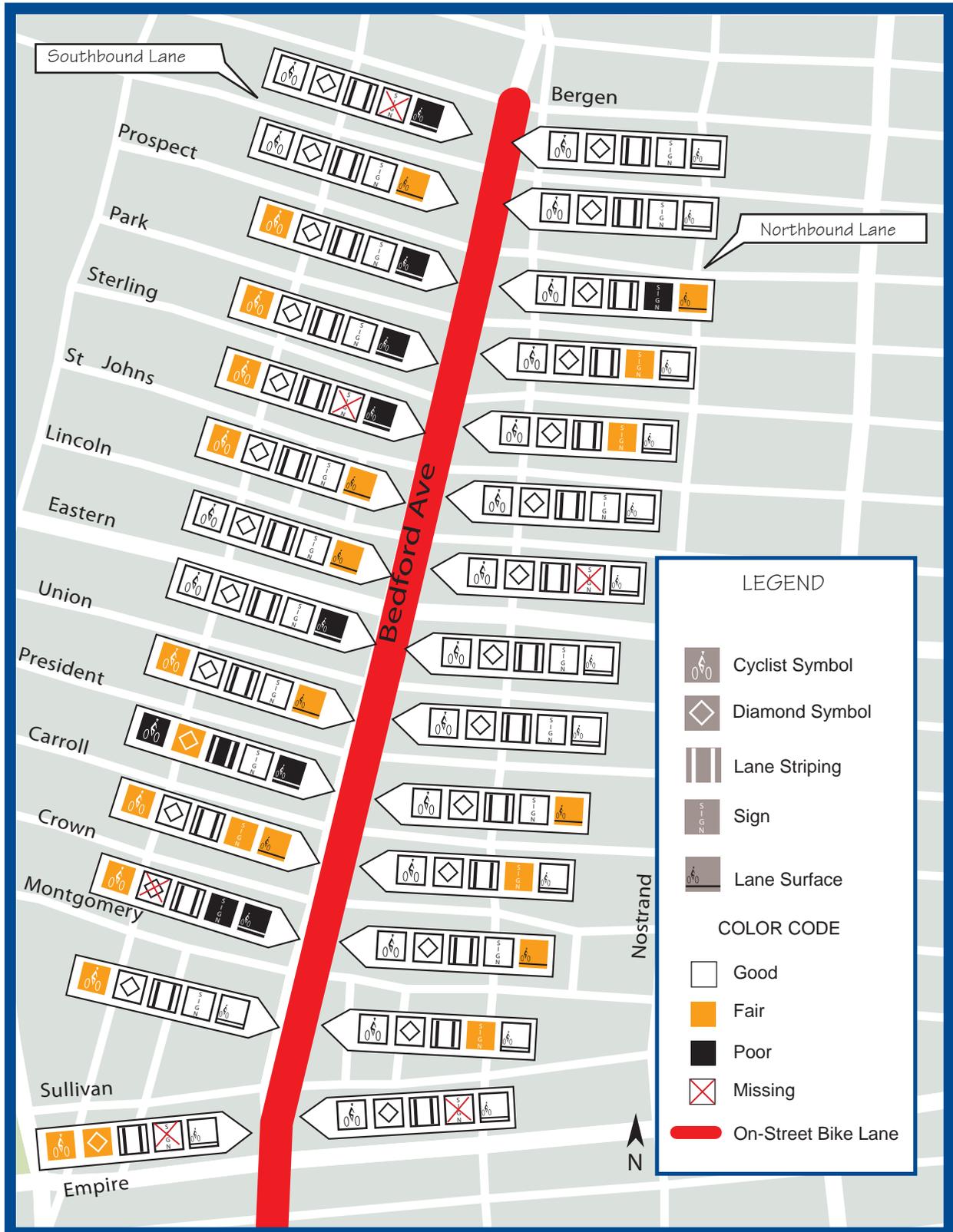


## 1. Bedford Avenue Bicycle Lane

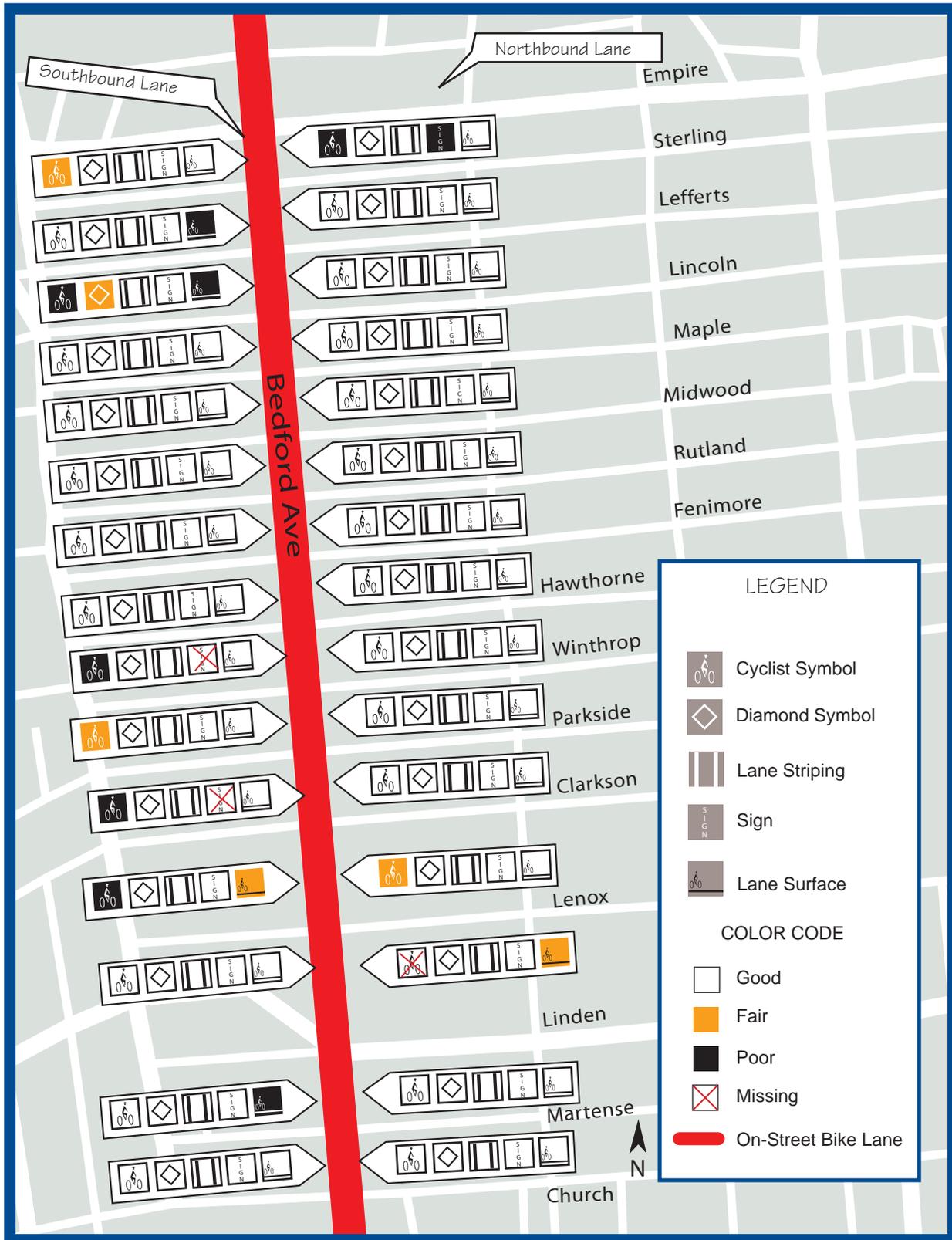


From Street:	Emmons Avenue
To Street:	Bergen Street
Length:	12.6 miles total, 6.3 miles in each direction
Lane Width:	5 feet
Buffer Width:	5 feet buffer for the block between Foster Street and Flatbush Avenue The rest of the lane has no buffer
1998 Bicycle Accident Data:	33 bicycle accidents reported along the Bedford Avenue bike lane- 3 reported at the Flatbush Avenue intersection, 2 reported each at the Carroll Street, Empire Avenue, and Martense Avenue intersections, and One reported each at 24 other intersections

### Bedford Avenue: Bergen Street to Empire Boulevard



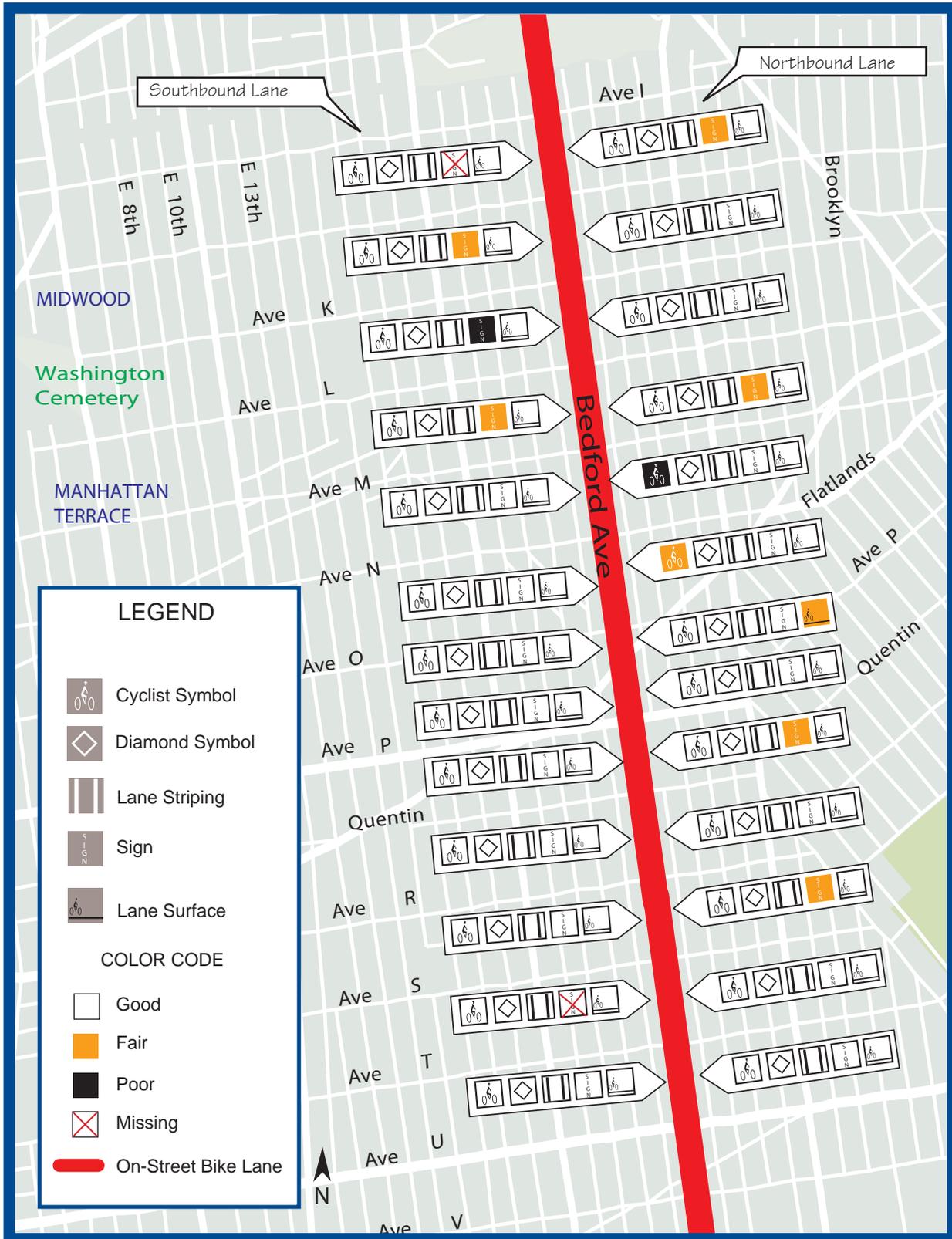
## Bedford Avenue: Empire Boulevard to Church Street



### Bedford Avenue: Church Avenue to Avenue I



## Bedford Avenue: Avenue I to Avenue U



## Bedford Avenue: Avenue U to Emmons Avenue



## 2. Clinton Street Bicycle Lane



From Street: Cadman Plaza West  
To Street: Joralemon Street  
Length: 0.3 miles  
Lane Width: 4 feet  
Buffer Width: No buffer

1998 Bicycle Accident Data:  
No bicycle accidents reported along the Clinton Street bike lane

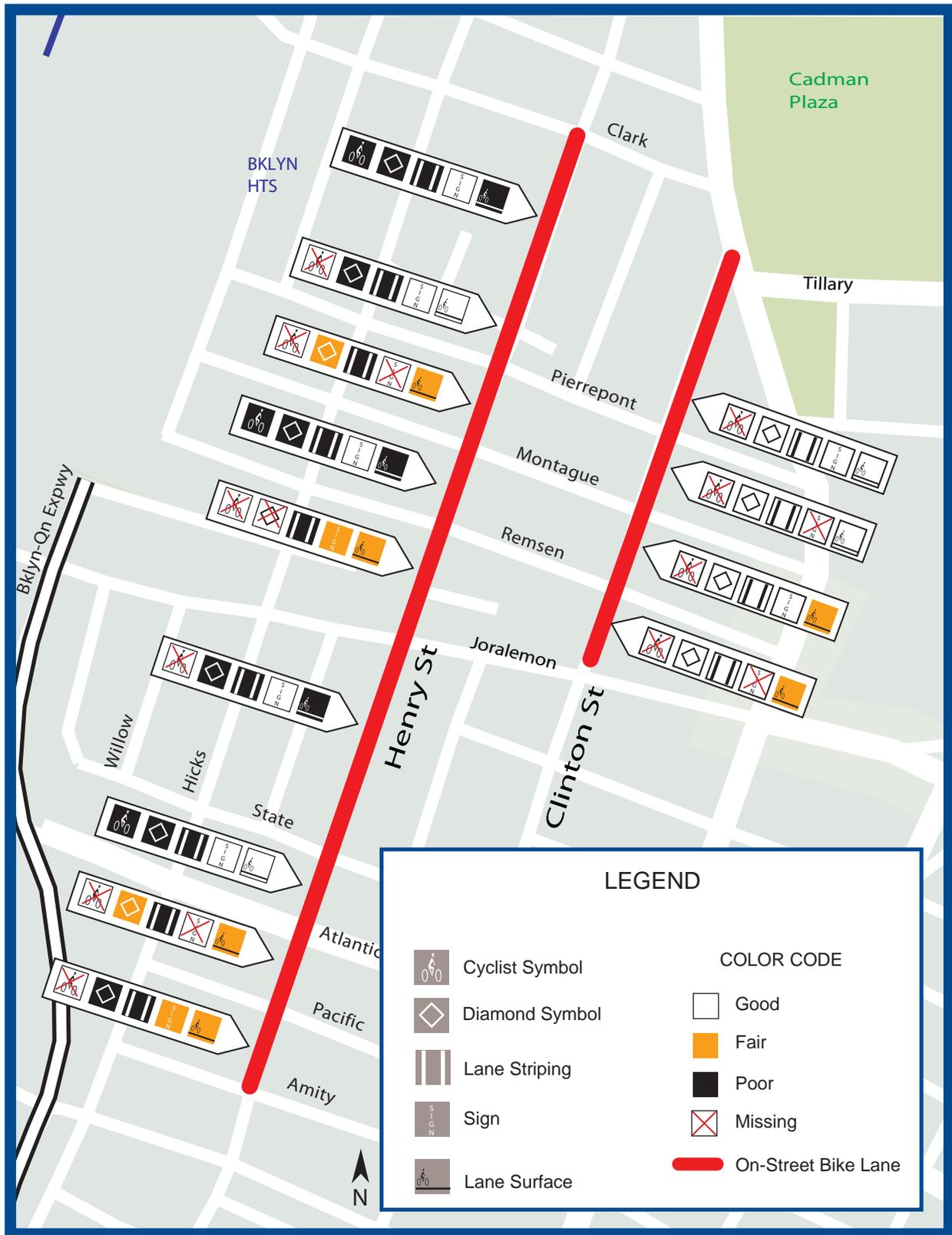
## 3. Henry Street Bicycle Lane



From Street: Clark Street  
To Street: Amity Street  
Length: 0.6 miles  
Lane Width: 4 feet  
Buffer Width: No buffer

1998 Bicycle Accident Data:  
No bicycle accidents reported along the Henry Street bike lane

### Clinton Street and Henry Street



## 4. Prospect Park Drive Bicycle Lane



Length: 3.56 miles

Lane Width: 5 feet

Buffer Width: No buffer

1998 Bicycle Accident Data: No bicycle accidents reported along the Prospect Park Drive bike lane

# Prospect Park Drive



## 5. Second Street Bicycle Lane



From Street: Fourth Avenue  
 To Street: Prospect Park West  
 Length: 0.75 miles  
 Lane Width: 4 feet  
 Buffer Width: No buffer

1998 Bicycle Accident Data:  
 One bicycle accident reported at the intersection of Fifth Avenue and Second Street

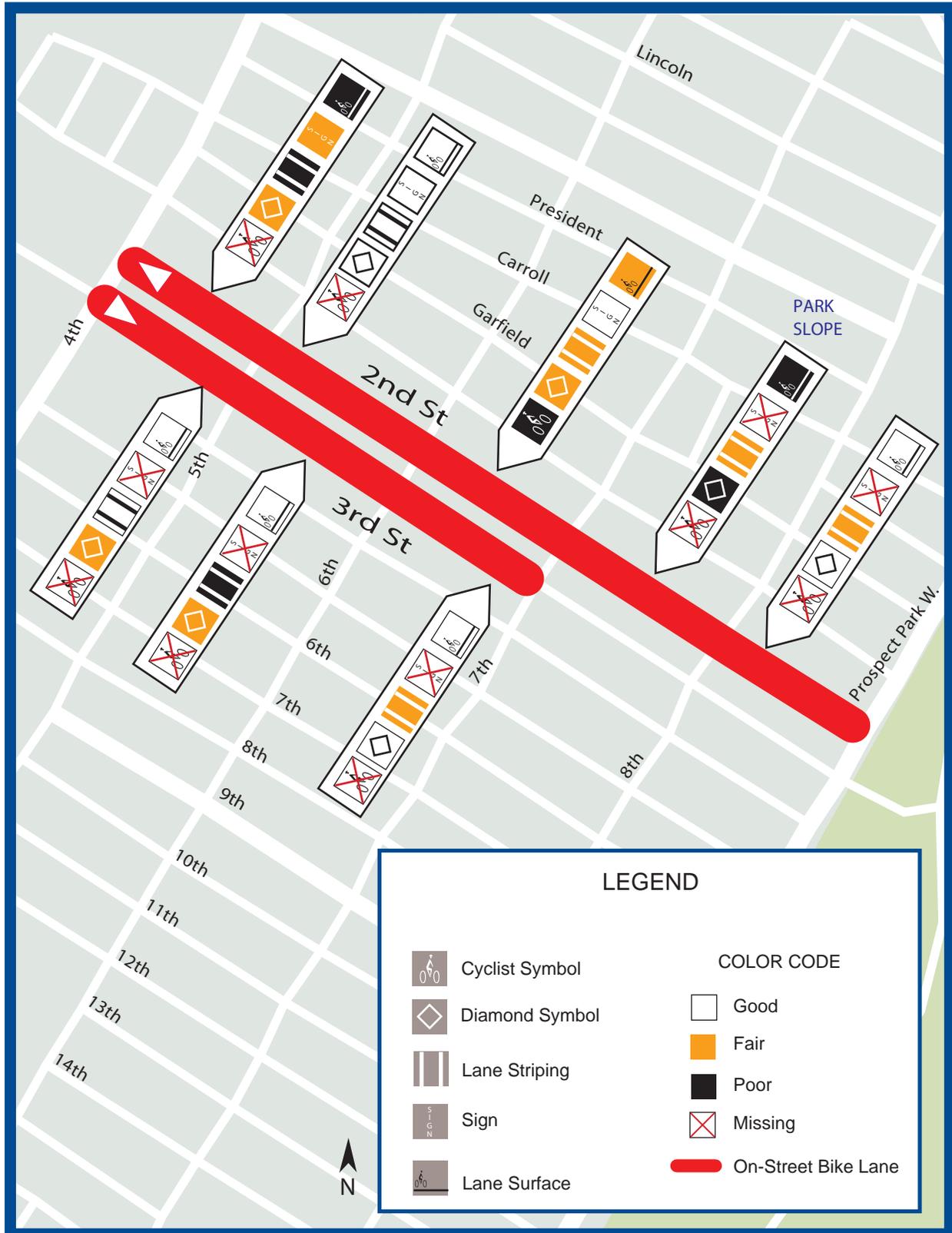
## 6. Third Street Bicycle Lane



From Street: Third Avenue  
 To Street: Smith Street  
 Length: 0.5 miles  
 Lane Width: 4 feet  
 Buffer Width: No buffer

1998 Bicycle Accident Data:  
 One bicycle accident reported at the intersection of Seventh Avenue and Third Street

## Second Street and Third Street



## 7. Third Avenue Bicycle Lane



From Street: Union Street

To Street: Third Street

Length: 0.25 miles

Lane Width: 4 feet

Buffer Width: No buffer from Union Street to Carroll Street; 4 feet buffer from Carroll Street to Third Street

1998 Bicycle Accident Data:  
2 bicycle accidents reported at the Union Street and 3rd Street intersections

## 8. Union Street Bicycle Lane



From Street: Henry Street

To Street: Third Avenue

Length: 0.8 miles

Lane Width: 4 feet

Buffer Width: No buffer

1998 Bicycle Accident Data:  
One bicycle accident reported at the Court Street intersection

### Third Avenue and Union Street



## 9. Tompkins Avenue Bicycle Lane



From Street: Myrtle Avenue

To Street: Macdonough Street

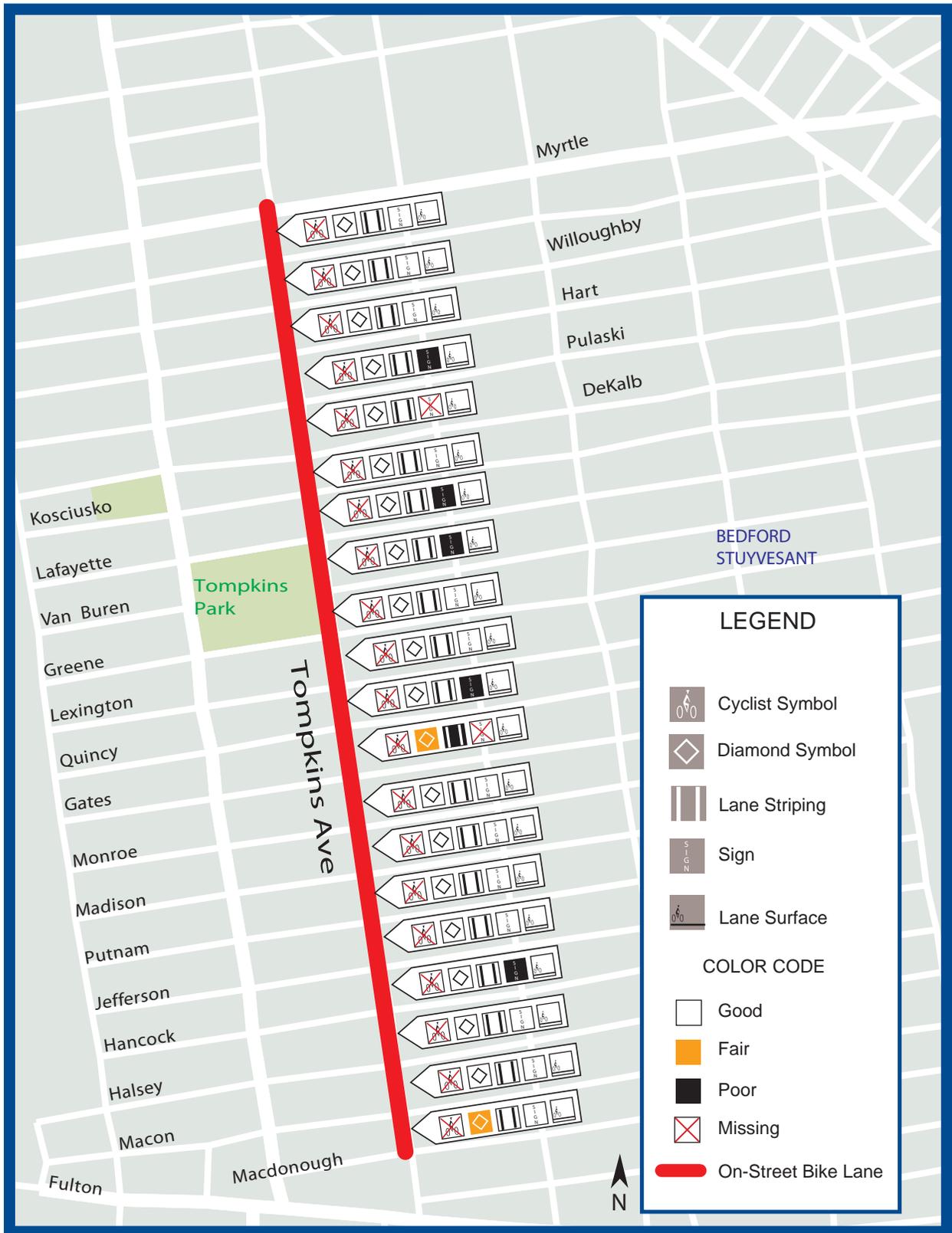
Length: 1.02 miles

Lane Width: 5 feet

Buffer Width: No buffer

1998 Bicycle Accident Data: 8 bicycle accidents reported along the Tompkins Avenue bicycle lane-  
2 reported at the Madison Street intersection and  
One reported each at 6 other intersections

# Tompkins Avenue



## 10. Eastern Parkway Bicycle Trail



From Street: Ralph Street

To Street: Flatbush Avenue

Length: 2.2 miles

Classification: Dual carriage

Total Width: 12 feet

Wheeled Width: 7 feet

Buffer Width: 4 inches of granite at grade

Paving Material: Hexagonal pavers

1998 Bicycle Accident Data: 6 bicycle accidents reported along the Eastern Parkway bicycle trail- One reported each at the Franklin, Nostrand, New York, Troy, Sche nectady, and Utica avenues intersections

## Eastern Parkway



## 11. Ocean Parkway Bicycle Trail



From Street: Church Street

To Street: Seabreeze Avenue

Length: 4.9 miles

Classification: Dual carriage

Total Width: 16 feet

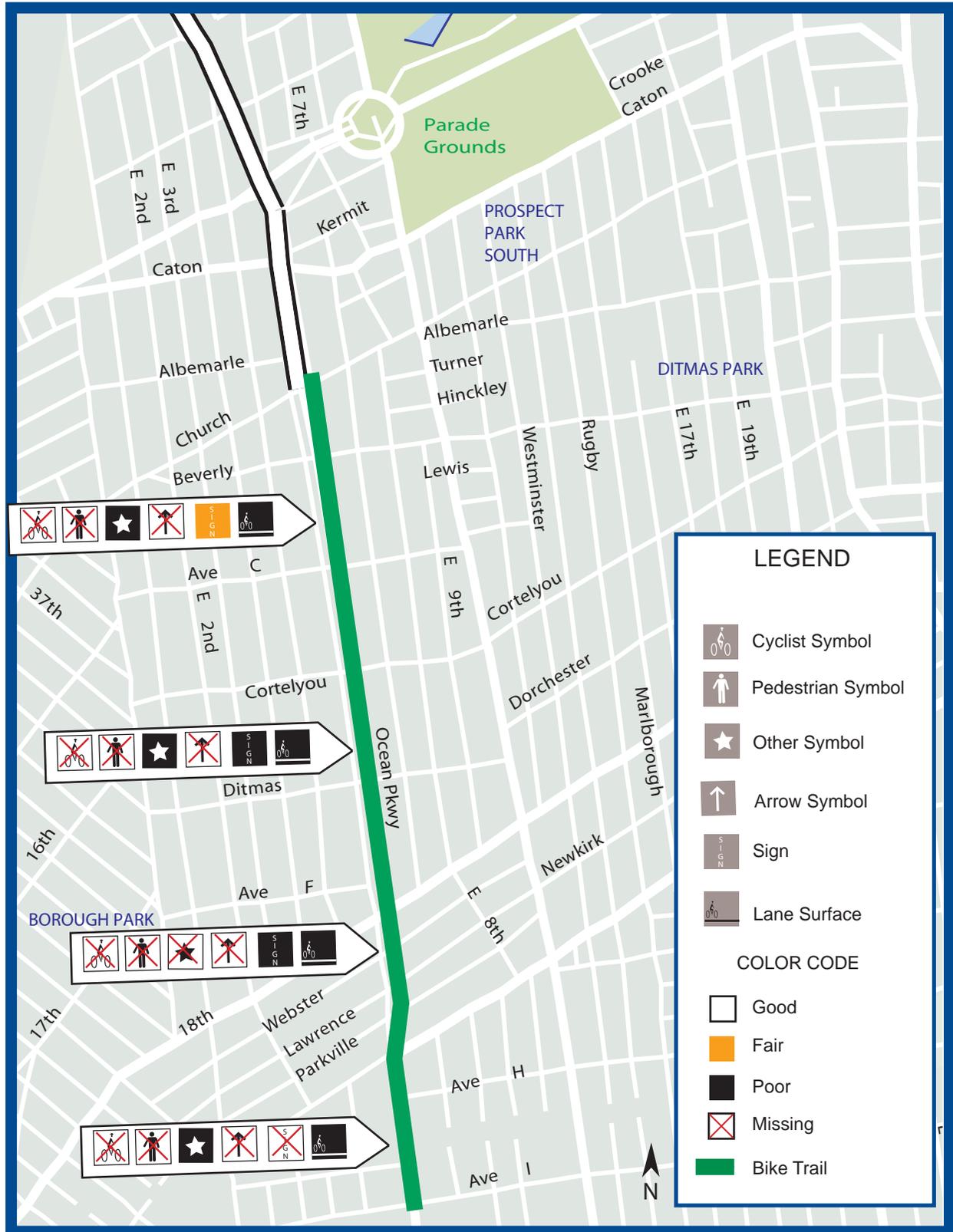
Wheeled Width: 9 feet

Buffer Width: Metal fence about 3 feet high

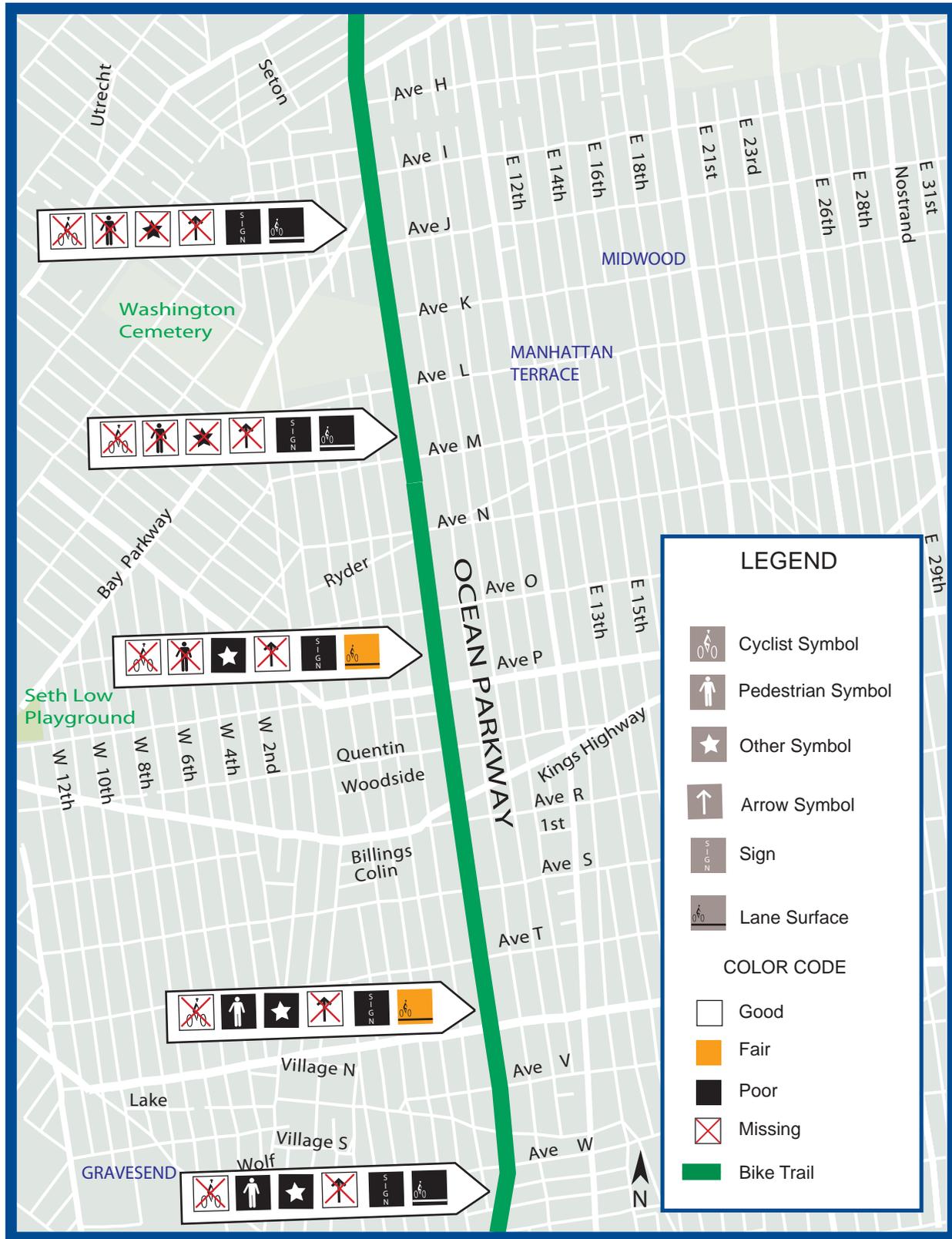
Paving Material: Concrete

1998 Bicycle Accident Data: 20 bicycle accidents reported along the Ocean Parkway bicycle trail- 3 reported each at the Avenue I and Quentin Road intersections, 2 reported at the Foster Avenue intersection, and One reported each at 15 other intersections

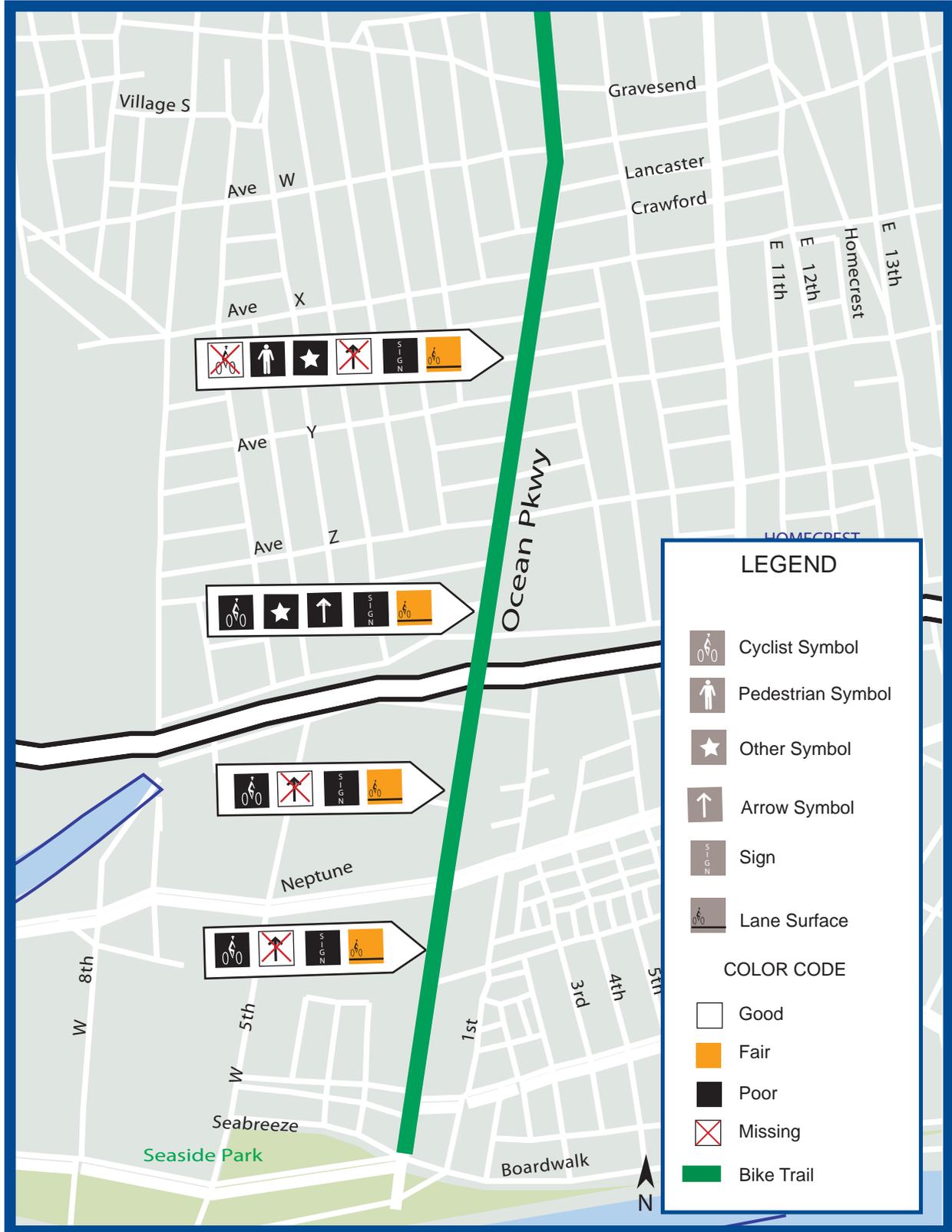
## Ocean Parkway: Church Street to Avenue I



## Ocean Parkway: Avenue I to Avenue X



## Ocean Parkway: Avenue X to Seabreeze Avenue



## 12. Shore Parkway Bicycle Trail



*Shore Parkway, Owls Head Park to Bensonhurst Park*



*Shore Parkway, Gateway National Recreation Area*

From Street:	68th Street
To Street:	Pennsylvania Avenue
Length:	12.7 miles
Classification:	Dual carriage
Total Width:	31 feet from Owls Head Park to the Verrazano Narrows Bridge 16 feet from the Verrazano Narrows Bridge to Bensonhurst Park 12 feet in the National Gateway Recreation Area.
Wheeled Width:	10 feet from Owls Head Park to the Verrazano Narrows Bridge 8 feet from the Verrazano Narrows Bridge to Pennsylvania Avenue
Buffer Width:	Varies from nothing to 6 feet
Paving Material:	Asphalt
1998 Bicycle Accident Data:	One bicycle accident reported along the Shore Parkway bicycle trail at the intersection of Knapp Street

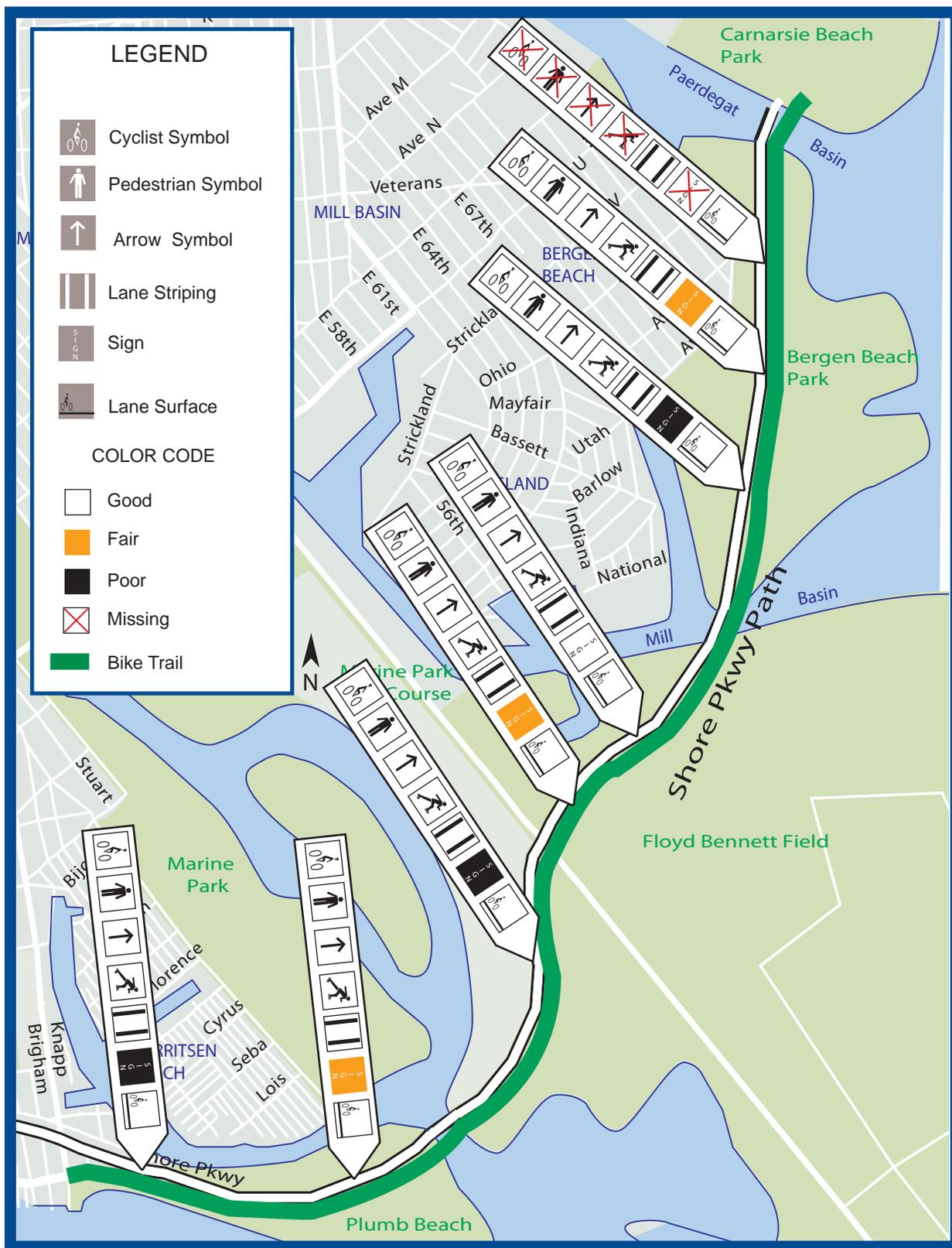
## Shore Parkway: Sixty-Eighth Street to the Verrazano Narrows Bridge



## Shore Parkway: The Verrazano Narrows Bridge to Bensonhurst Park



## Shore Parkway: Knapp Street to Canarsie Beach Park



## Shore Parkway: Canarsie Beach Park to Pennsylvania Avenue



## Shore Parkway: Flatbush Avenue



# MANHATTAN

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## Bicycle Lanes

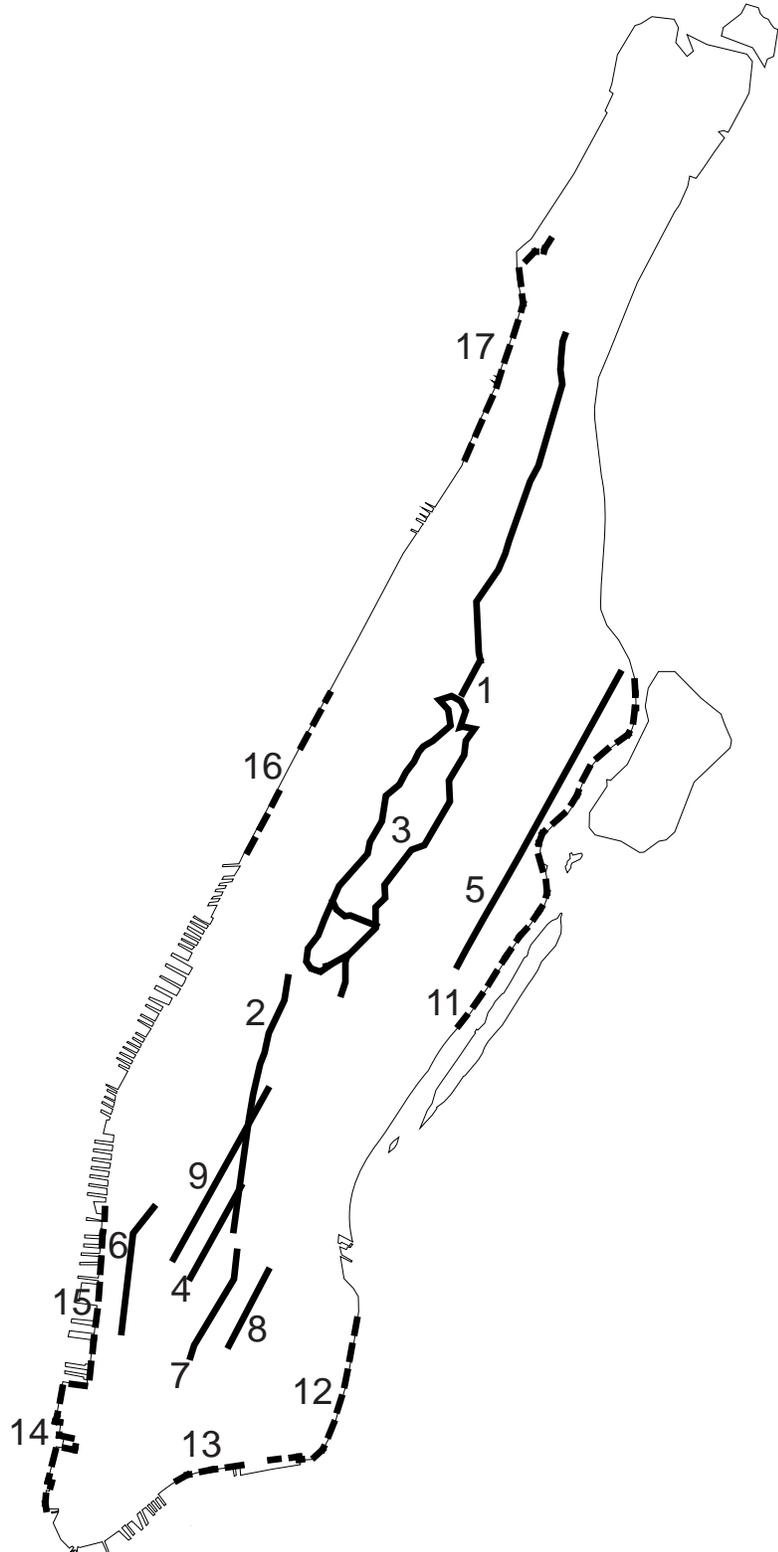
- 1 Adam Clayton Powell Jr. Boulevard
- 2 Broadway
- 3 Central Park Drives
- 4 Fifth Avenue
- 5 First Avenue
- 6 Hudson Street/Eighth Avenue
- 7 Lafayette Street/Fourth Avenue
- 8 Second Avenue
- 9 Sixth Avenue
- 10 Street Nicholas Avenue

## Bicycle Trails

- 11 East River, 126th Street to 63rd Street
- 12 East River, 20th Street to Montgomery Street
- 13 East River, Rutgers Slip to Dover Street
- 14 Battery Park City Bicycle Trail
- 15 Hudson River Greenway
- 16 Riverside Park Bicycle Trail
- 17 Ft. Washington Park Bicycle Trail

Bicycle Lane 

Bicycle Trail 



## 1. Adam Clayton Powell Jr. Boulevard Bicycle Lane



From Street: 110th Street

To Street: 118th Street

Length: 0.8 miles total, 0.4 miles in each direction

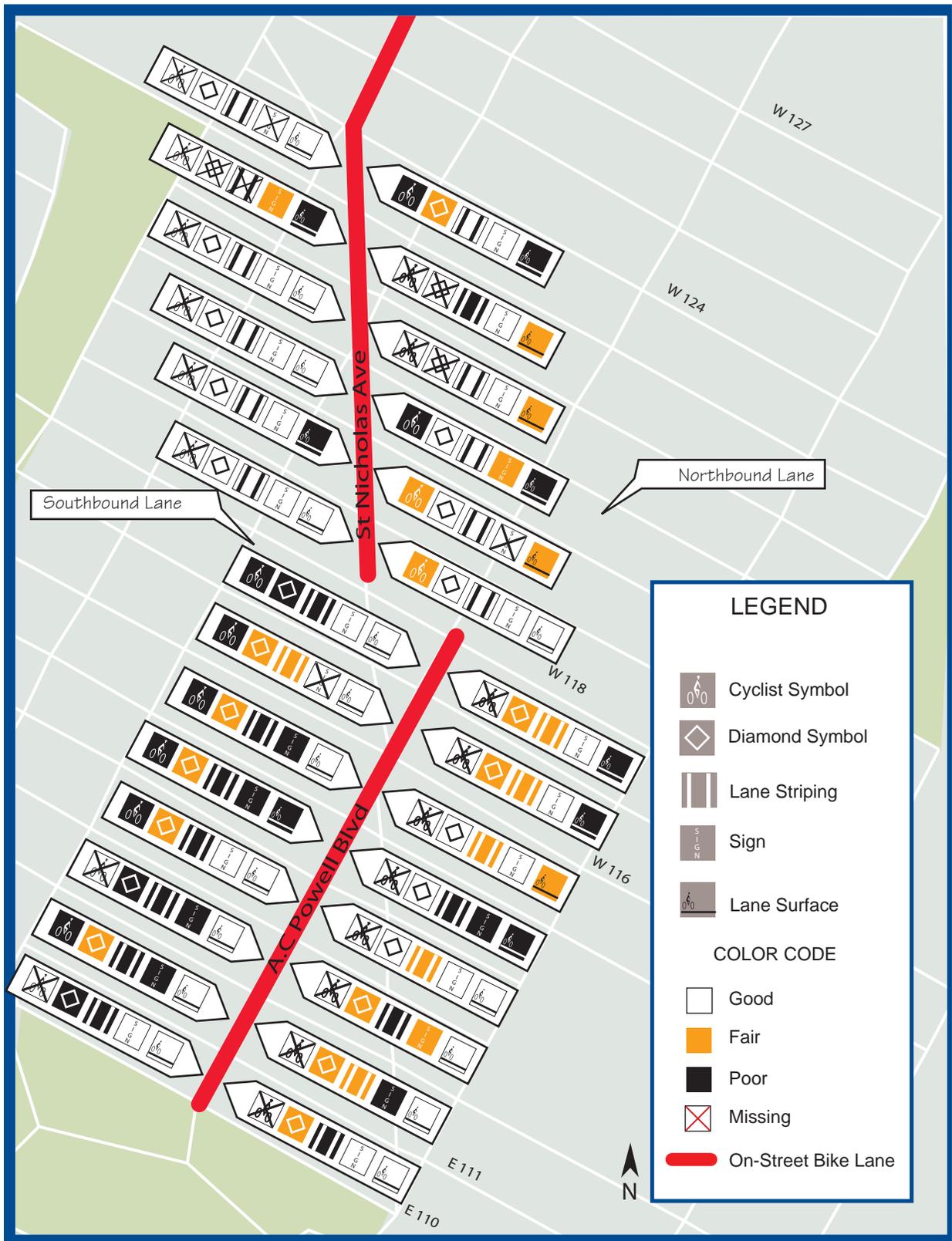
Lane Width: 5 feet

Buffer Width: No buffer

1998 Bicycle Accident Data: 2 bicycle accidents reported along the Adam Clayton Powell Jr. Boulevard bicycle lane-  
One each at the 116th and the 114th streets intersections

NYC DCP Bicycle Count : 100 cyclists northbound, 135 cyclists southbound over a 12 hour period

### Adam Clayton Powell Jr. Boulevard/ St. Nicholas Boulevard: W 118th to W 124th



## 2. Broadway Bicycle Lane



From Street: 59th Street

To Street: 17th Street

Length: 2.6 miles

Lane Width: 5 feet

Buffer Width: No buffer

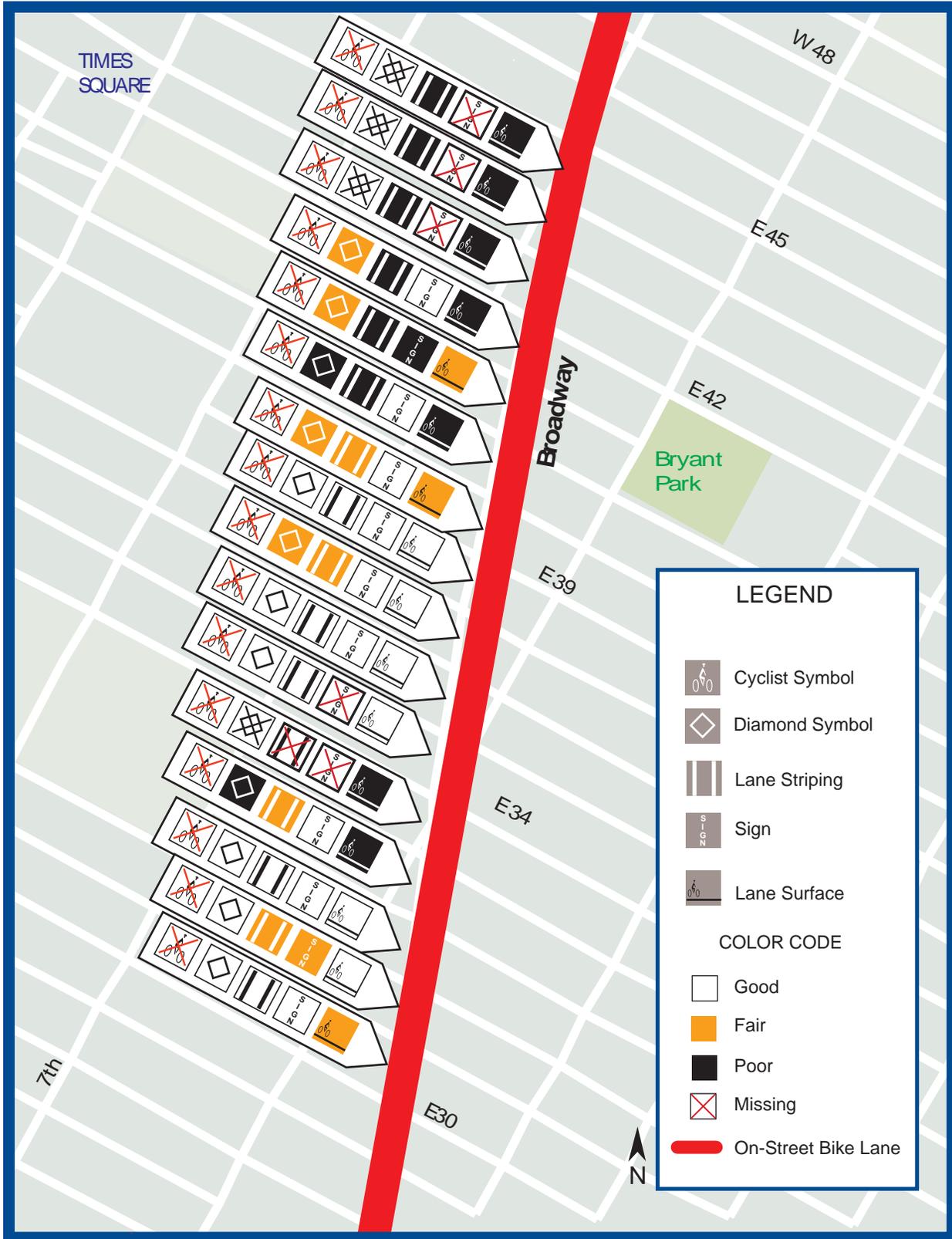
1998 Bicycle Accident Data: 40 bicycle accidents reported along the Broadway bicycle lane-  
3 reported each at the 53rd and 23rd streets intersections,  
2 reported each at the 18th, 27th, 47th, 49th, 50th, and 54th streets intersections, and  
One reported each at 22 various other intersections along Broadway

NYC DCP Bicycle Count: 908 cyclists on the Broadway bicycle lane at 48th Street  
719 cyclists on the Broadway bicycle lane at 28th Street  
Both were counted over a 12 hour period

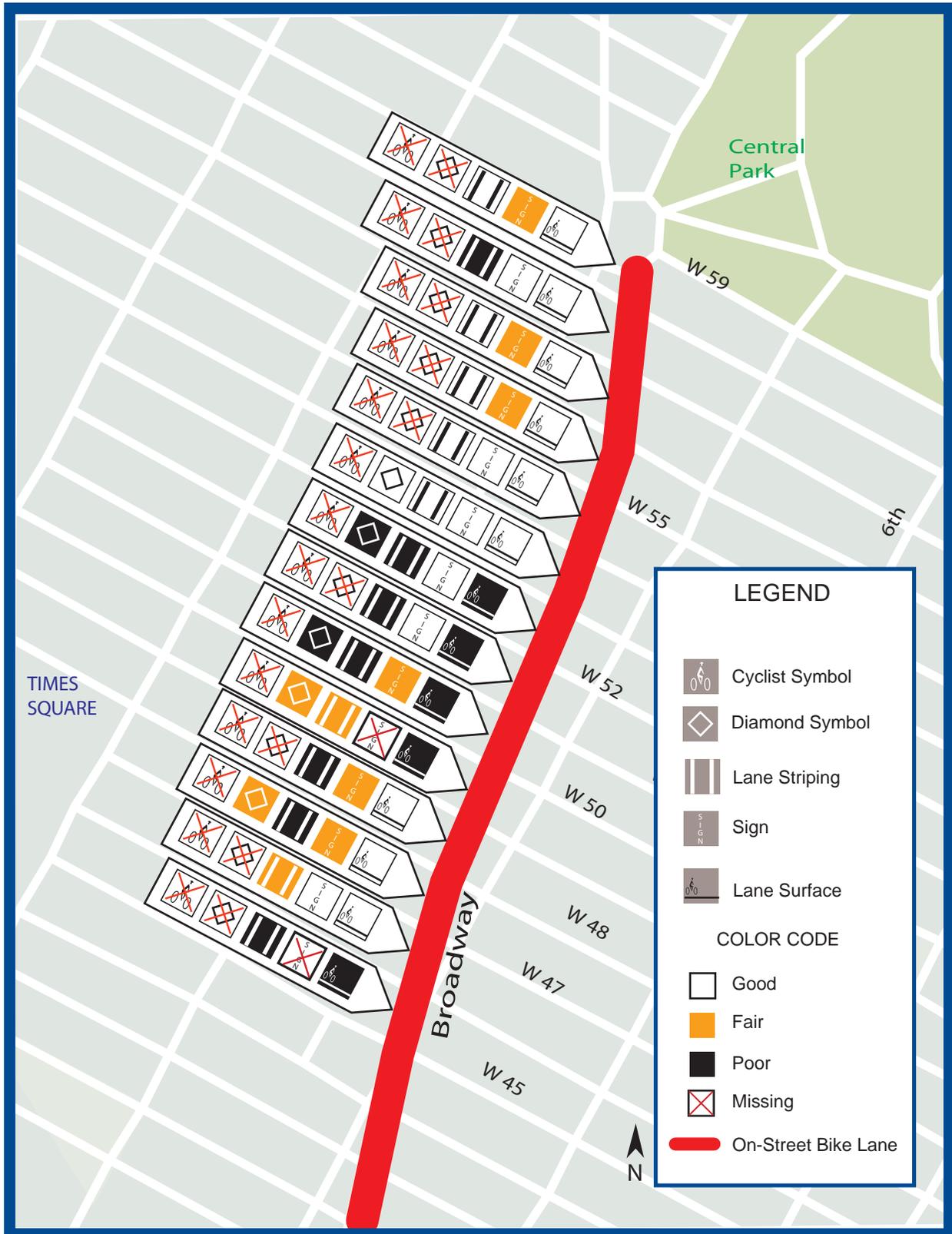
### Broadway: 17th Street to 31st Street



### Broadway: 31st Street to 45th Street



### Broadway: 45th Street to 59th Street



### 3. Central Park Drives Bicycle Lane



Length: 6.24 miles

Lane Width: Varies from 4 feet to 8 feet

Buffer Width: Varies from 1 foot to 3 feet

1998 Bicycle Accident Data: No bicycle accidents reported along the Central Park Drives

### Central Park Drives



## 4. Fifth Avenue Bicycle Lane



From Street: 23rd Street

To Street: Washington Square North

Length: 0.8 miles

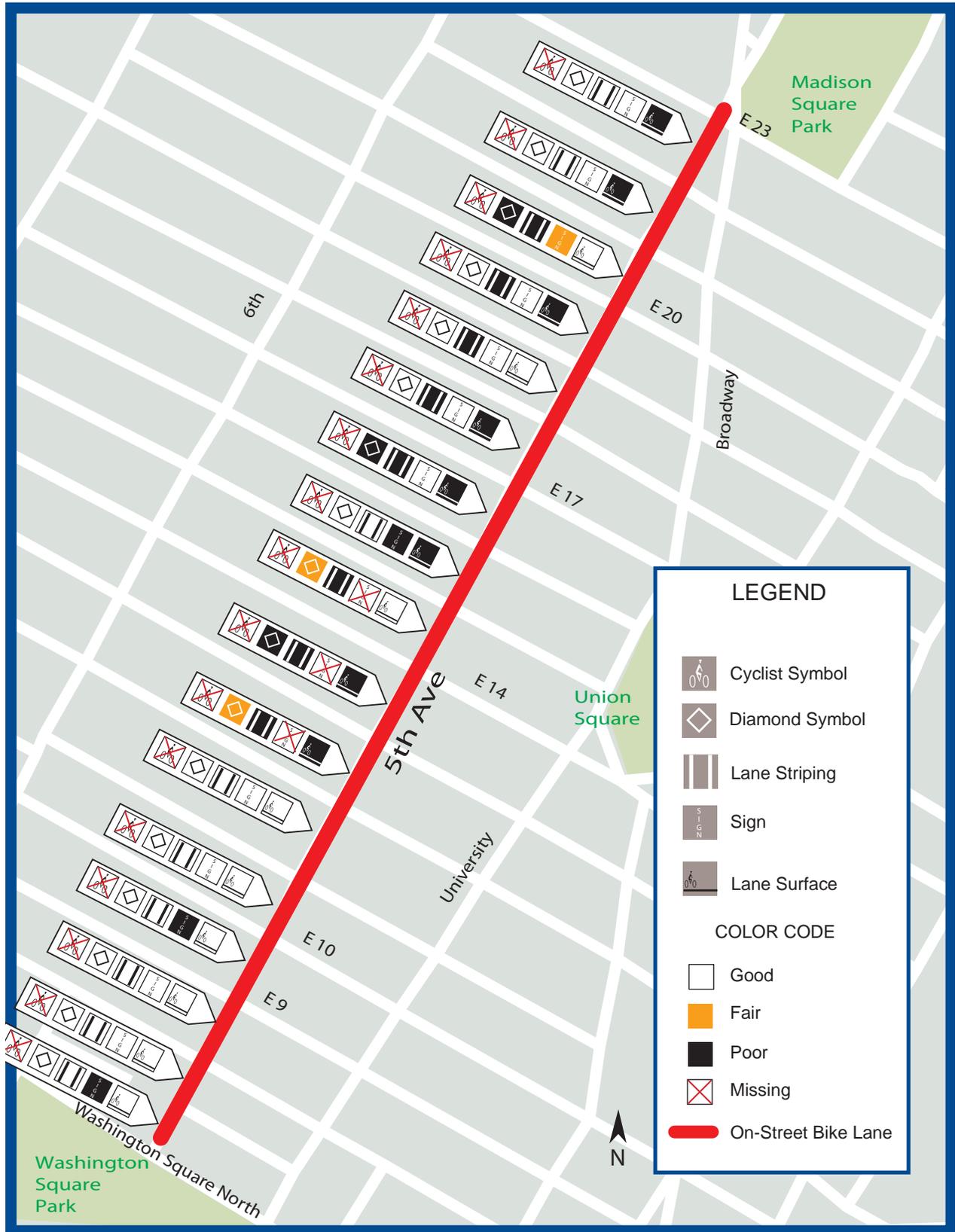
Lane Width: 5 feet

Buffer Width: No buffer

1998 Bicycle Accident Data: 22 bicycle accidents reported along the Fifth Avenue bicycle lane- 3 reported each at the 23rd, 18th, and 8th streets intersections, 2 reported each at the 14th, 15th, 17th, and 19th streets intersections, and One reported each at 5 various intersections

NYC DCP Bicycle Count: 948 cyclists on Fifth Avenue bicycle lane over a 12 hour period

## Fifth Avenue



## 5. First Avenue Bicycle Lane



From Street: 72nd Street

To Street: 125th Street

Length: 2.7 miles

Lane Width: 4 feet

Buffer Width: No buffer

1998 Bicycle Accident Data: 19 bicycle accidents reported along the First Avenue bicycle lane-  
2 reported at the 104th Street intersection and  
One reported each at 17 various intersections

NYC DCP Bicycle Count: 226 cyclists on the First Avenue bicycle lane over a 12 hour period

# First Avenue



## 6. Hudson Street/Eighth Avenue Bicycle Lane



From Street:                      Dominick Street

To Street:                         14th Street

Length:                            1.0 miles

Lane Width:                      5 feet

Buffer Width:                    3 feet to 5 feet

1998 Bicycle Accident Data: 8 bicycle accidents reported along the Hudson Street/Eighth Avenue bicycle lane-  
2 reported at the 14th Street intersection and  
One reported each at 6 various intersections

NYC DCP Bicycle Count:      665 cyclists on the Hudson Street/Eighth Avenue bicycle lane over a  
12 hour period

### Hudson Street/Eighth Avenue



## 7. Lafayette Street/Fourth Avenue Bicycle Lane



From Street: Spring Street

To Street: 14th Street

Length: 1.0 miles

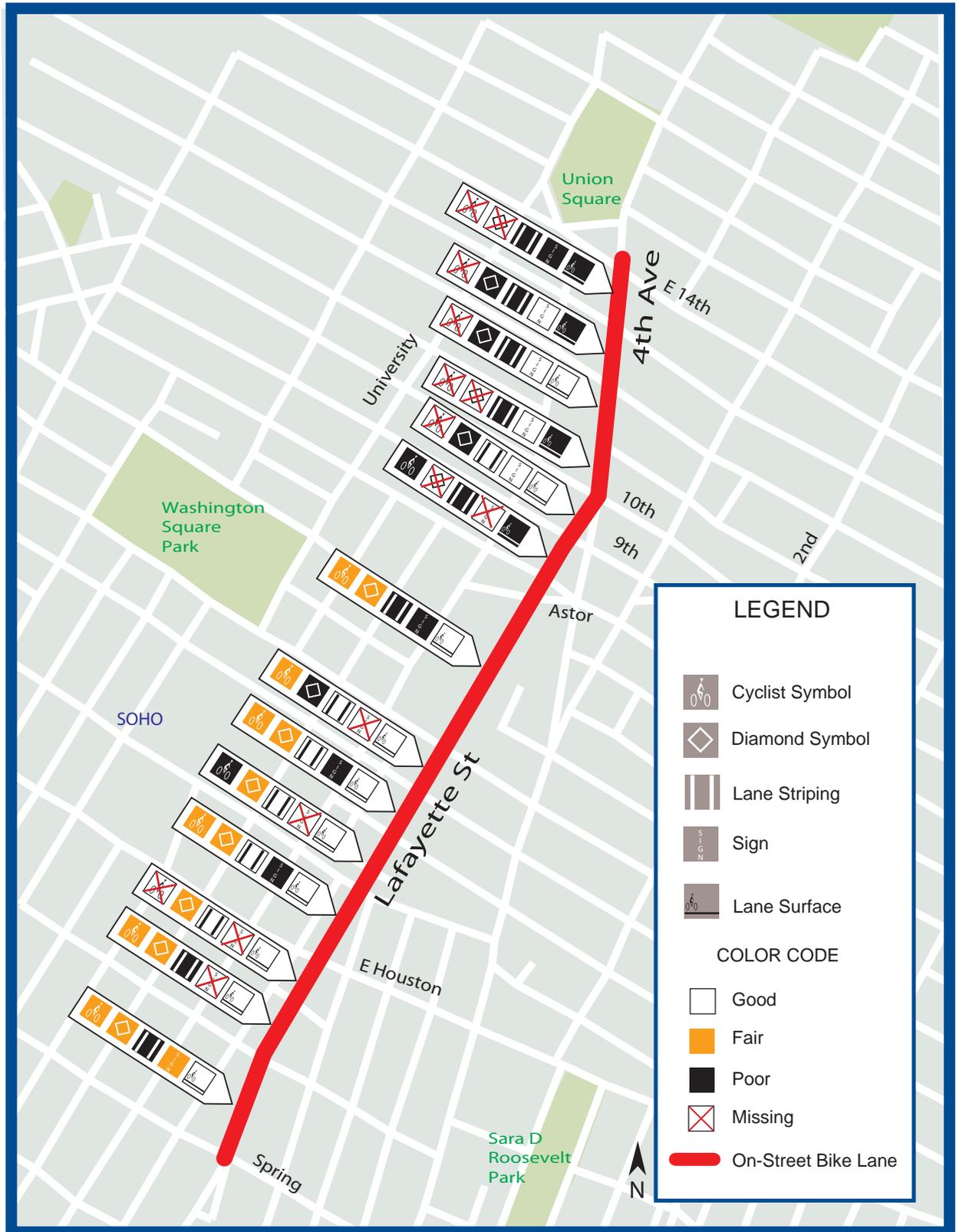
Lane Width: 5 feet

Buffer Width: 3 feet

1998 Bicycle Accident Data: 7 bicycle accidents reported along the Lafayette Street/Fourth Avenue bicycle lane-  
2 reported each at the 14th Street and Astor Place intersections and  
One reported each at the 4th, 9th, and 13th streets intersections

NYC DCP Bicycle Count: 1,276 cyclists on Lafayette Street/Fourth Avenue bicycle lane over a  
12 hour period

## Lafayette Street/Fourth Avenue



## 8. Second Avenue Bicycle Lane



From Street: 14th Street

To Street: Houston Street

Length: 0.75 miles

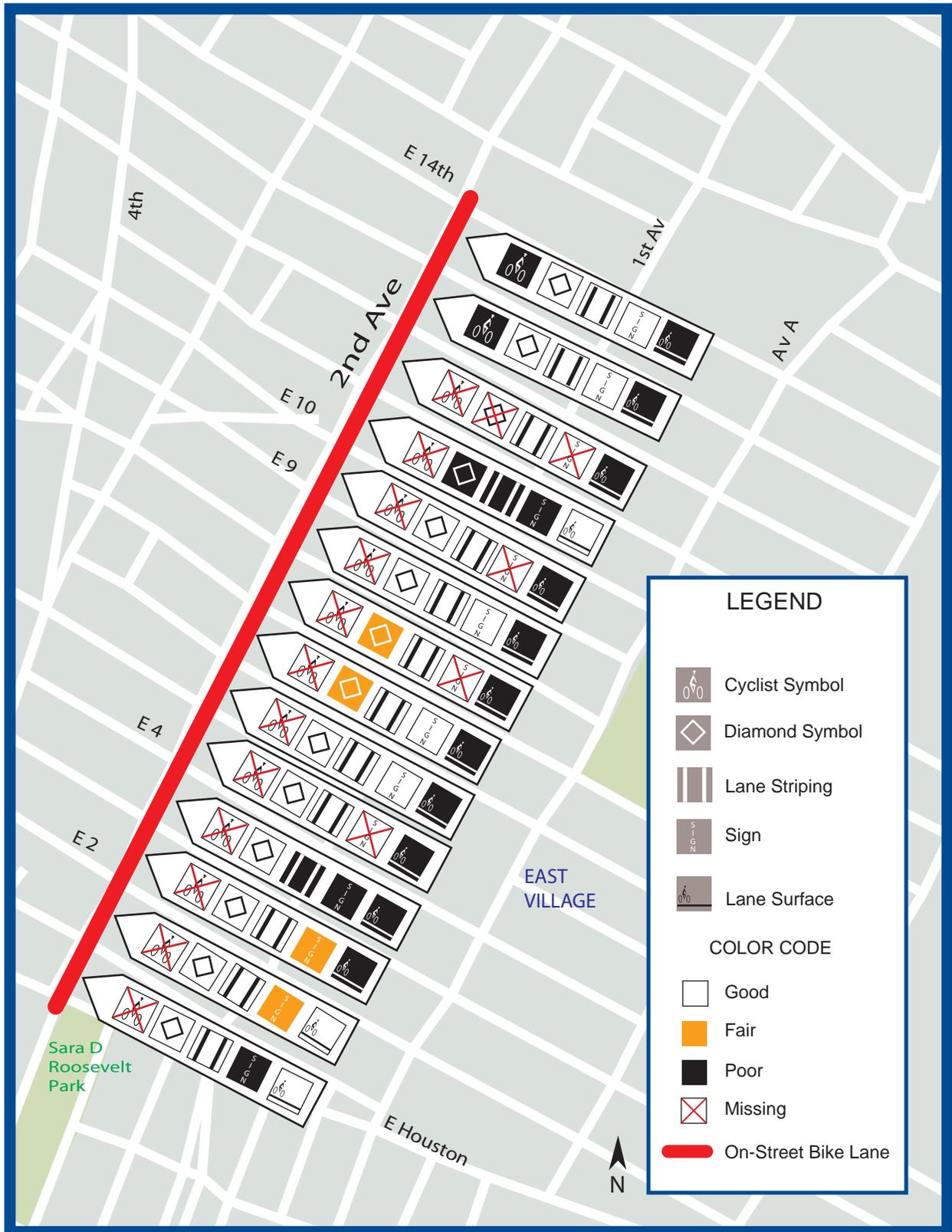
Lane Width: 5 feet

Buffer Width: 3 feet

1998 Bicycle Accident Data: 13 bicycle accidents reported along the Second Avenue bicycle lane-  
3 reported at the 14th Street intersection and  
One reported each at 10 various intersections

NYC DCP Bicycle Count: 715 cyclists on Second Avenue bicycle lane over a 12 hour period

## Second Avenue



## 9. Sixth Avenue Bicycle Lane



From Street: 8th Street

To Street: 40th Street

Length: 1.65 miles

Lane Width: 3.5-4 feet

Buffer Width: No buffer

1998 Bicycle Accident Data: 52 bicycle accidents reported along the Sixth Avenue bicycle lane-  
5 reported at the 29th Street intersection,  
4 reported at the 26th Street intersection,  
3 reported each at the 31st, 23rd, 21st, and 18th streets intersections,  
2 reported each at the 30th, 24th, 13th, and 12th streets intersections,  
and  
One reported each at 23 other various intersections

NYC DCP Bicycle Count: 1,738 cyclists on Sixth Avenue bicycle lane over a 12 hour period

# Sixth Avenue



## 10. St. Nicholas Avenue Bicycle Lane



From Street: 117th Street

To Street: 168th Street

Length: 4.8 miles total, 2.4 miles each way

Lane Width: 5 feet

Buffer Width: No buffer

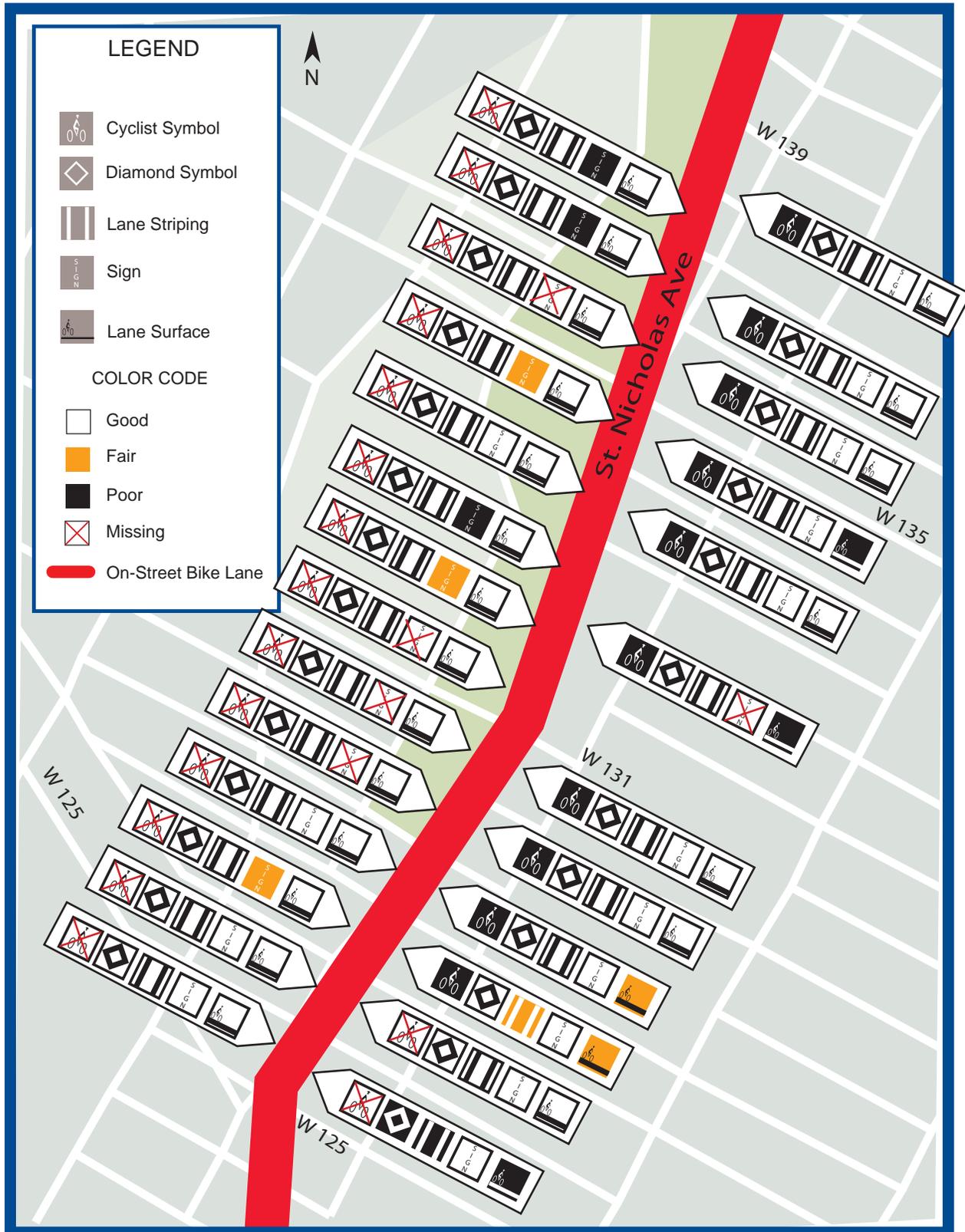
1998 Bicycle Accident Data: 13 bicycle accidents reported along the St. Nicholas Avenue bicycle lane-  
2 reported at the 145th Street intersection and  
One reported each at 11 other intersections

NYC DCP Bicycle Count: At 151st Street-  
82 cyclists northbound and  
71 cyclists southbound

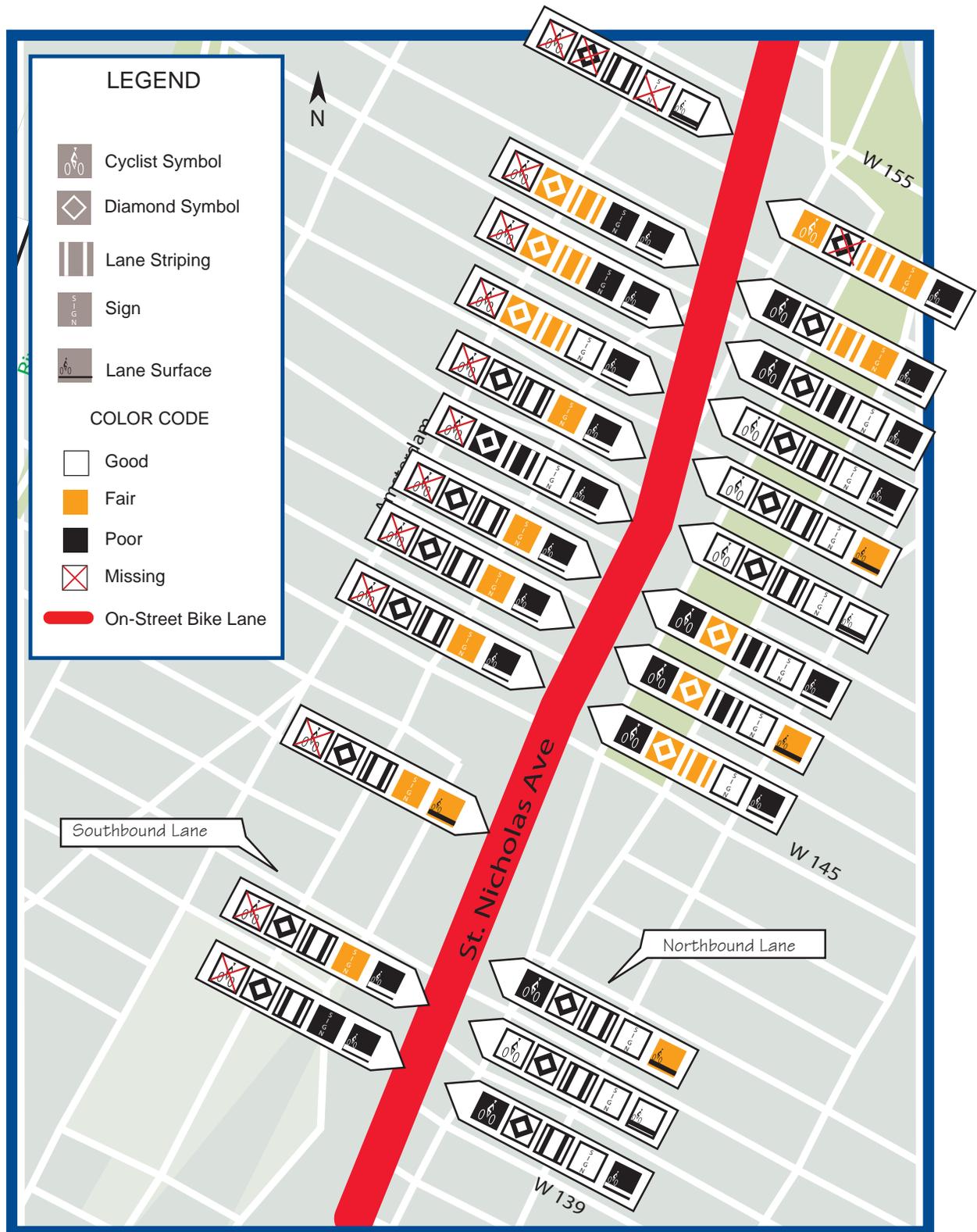
At 128th Street-  
67 cyclists northbound and  
85 cyclists southbound

All counted over a 12 hour period

### St. Nicholas Avenue: 125th Street to 139th Street



## St. Nicholas Avenue: 139th Street to 155th Street



### St. Nicholas Avenue: 155th Street to 168th Street

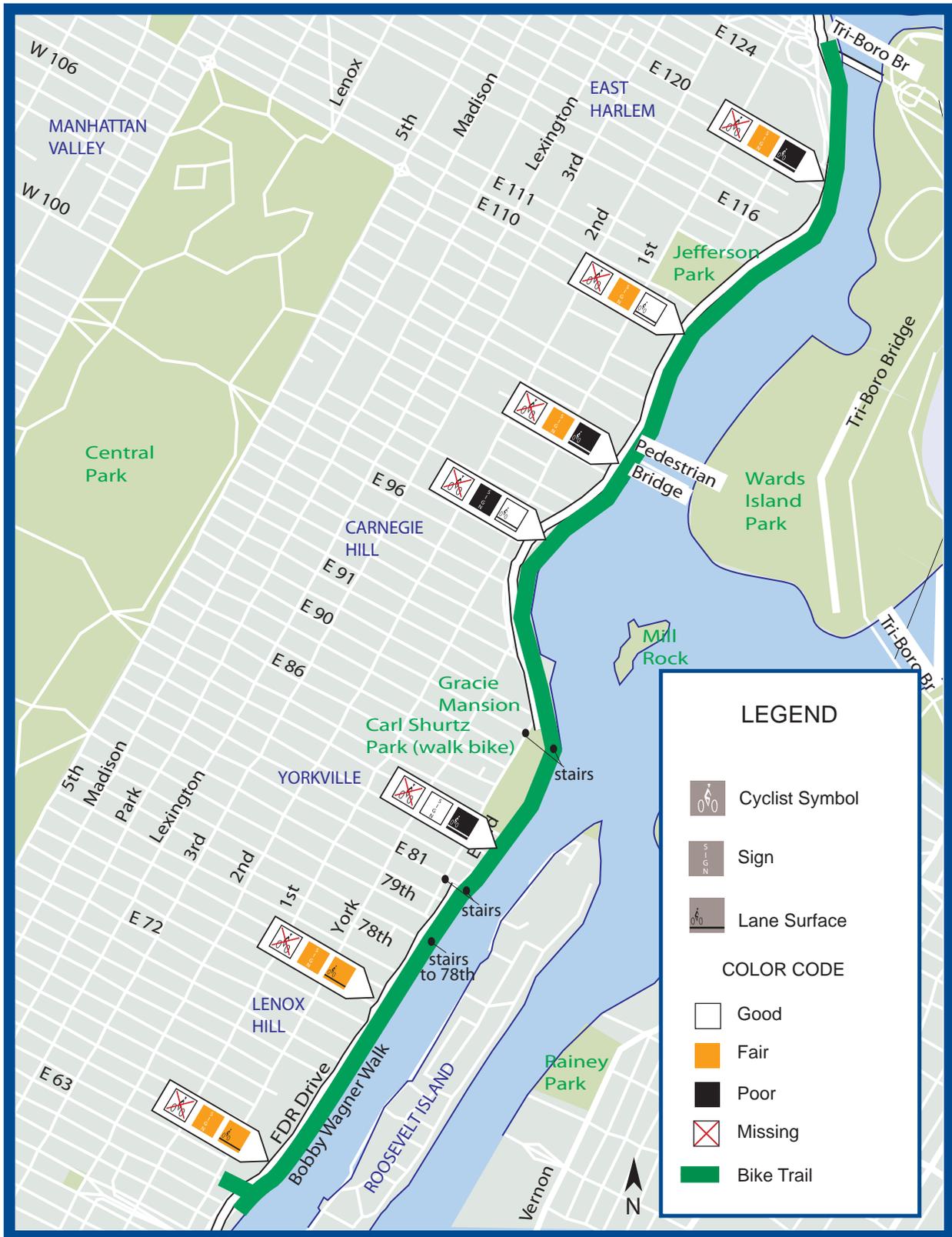


## 11. East River: 126th Street to 63rd Street



From:	126th Street
To:	63rd Street
Length:	3.3 miles
Classification:	Shared-use path
Total Width:	8 feet to 12 feet, 36 feet between 89th Street and 78th Street, but cyclists must walk their bikes through that section. 8 feet is a standard width for a shared-use path.
Wheeled Width:	8 feet to 12 feet
Buffer Width:	No buffer
Paving Material:	Hexagonal pavers
1998 Bicycle Accident Data:	No bicycle accidents reported along the East River bicycle trail

### East River: 126th Street to 63rd Street



## 12. East River: 20th Street to Montgomery Street



From:	20th Street
To:	Montgomery Street
Length:	1.5 miles
Classification:	Shared-use path
Total Width:	8 feet from 20th Street to 13th Street. This is a substandard width and is often made even narrower by recreational anglers. 18 feet from 13th to Montgomery streets
Wheeled Width:	8 feet from 20th to 13th streets 18 feet from 13th to Montgomery streets
Buffer Width:	No buffer
Paving Material:	Brick from 20th to 14th streets Asphalt from 14th to Montgomery streets
1998 Bicycle Accident Data:	No bicycle accidents reported along the East River bicycle trail

### East River: 20th Street to Montgomery Street



### 13. East River: Rutgers Slip to Dover Street



From:	Rutgers Slip
To:	Dover Street
Length:	1.2 miles total, 0.6 miles in each direction
Classification:	2-way dual carriage
Total Width:	20 feet
Wheeled Width:	2 5-foot lanes
Buffer Width:	6 feet, cobblestone between the two bicycle lanes
Paving Material:	Asphalt
1998 Bicycle Accident Data:	No bicycle accidents reported along the East River bicycle trail

### East River: Rutgers Slip to Dover Street

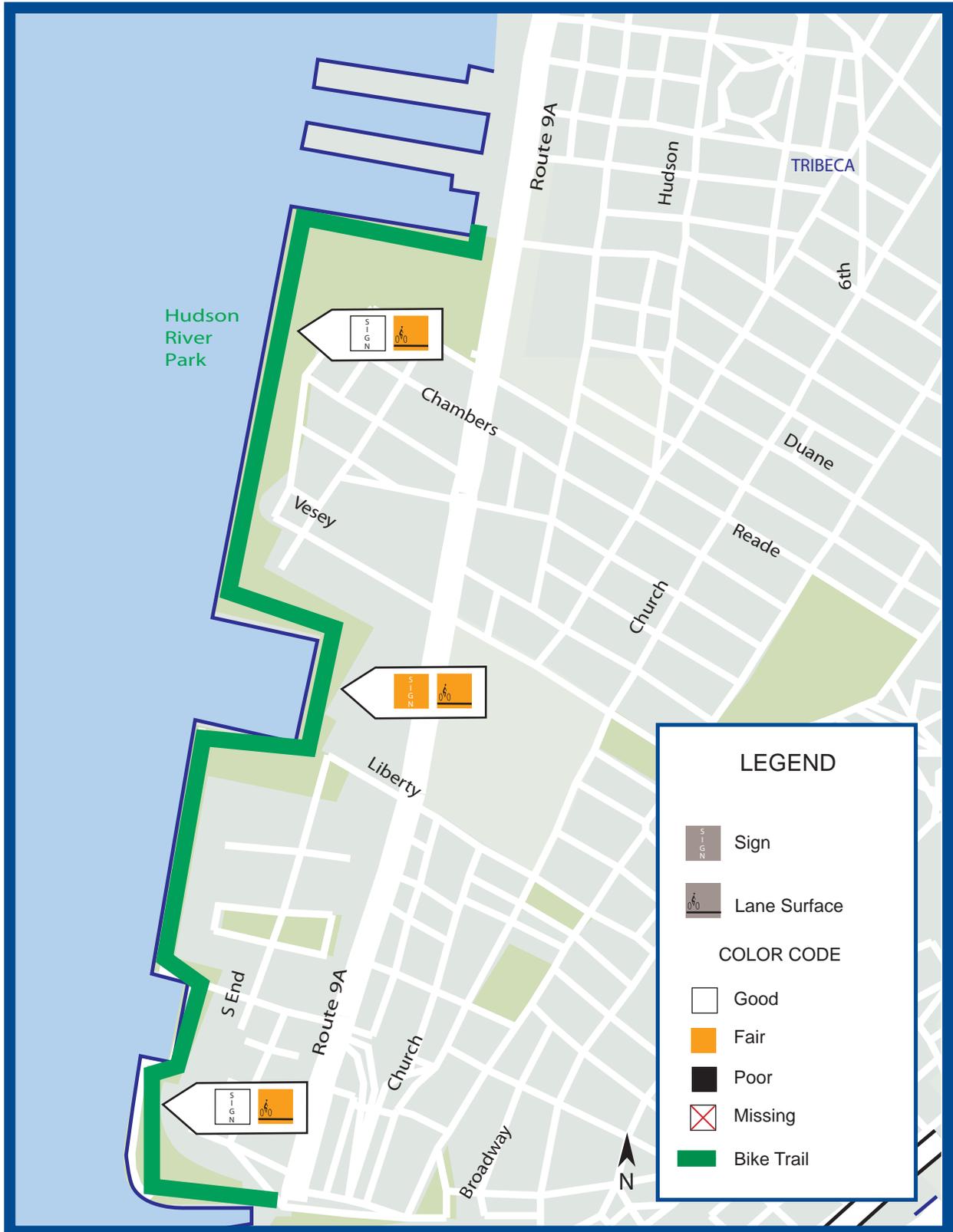


## 14. Battery Park City Bicycle Trail



From:	Pier A
To:	Chambers Street
Length:	1.5 miles
Classification:	Shared-use path
Total Width:	7 feet to 12 feet. Narrower than 10 feet is a substandard width for a shared-use path.
Wheeled Width:	7 feet to 12 feet
Buffer Width:	No buffer
Paving Material:	Hexagonal pavers
1998 Bicycle Accident Data:	No bicycle accidents reported along the Battery Park City bicycle trail

### Battery Park City Bicycle Trail



## 15. Hudson River Greenway



From: Chambers Street

To: Little W. 12th Street

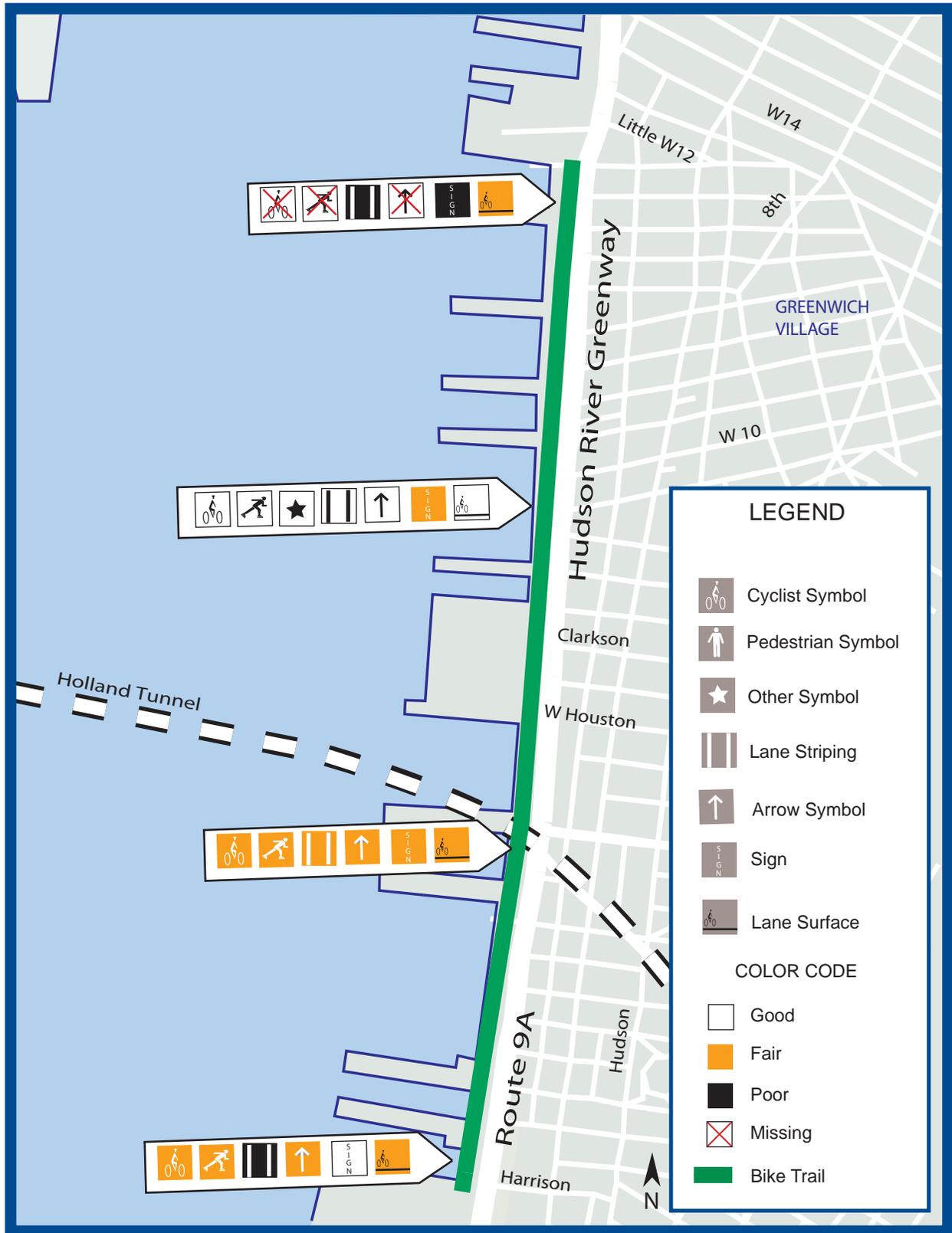
Length: 1.4 miles

Classification: 2-way dual carriage

Wheeled Width: 20 feet total , 9 feet each direction from Chambers Street to Jane Street  
15 feet total, 7.5 feet each lane from Jane Street to Little W. 12th Street

Buffer Width: 2 feet green paint buffer between the bike path  
and pedestrian path from Chambers Street to Little W. 12th Street

# Hudson River Greenway



## 16. Riverside Park Bicycle Trail



From: W. 72nd Street

To: W. 100th Street  
There is a break in the trail between W. 83rd Street and W. 90th Street. Cyclists and pedestrians can squeeze through a small area between the Hudson River and the Henry Hudson Parkway to make the connection between the two sections.

Length: 1.0 miles

Classification: Shared use path

Total Width: 12 feet

Wheeled Width: 12 feet

Buffer Width: No buffer

Paving Material: Asphalt

1998 Bicycle Accident Data: No bicycle accidents reported along the Riverside Park bicycle trail.

## Riverside Park Bicycle Trail



## 17. Ft. Washington Park Bicycle Trail



From: W. 145th Street

To: W. 181st Street

Length: 2.0 miles

Classification: Shared use path

Total Width: 12 feet

Wheeled Width: 12 feet

Buffer Width: No buffer

Paving Material: Asphalt

1998 Bicycle Accident Data: No bicycle accidents reported along the Ft. Washington Park bicycle trail.

### Ft. Washington Park Bicycle Trail



# QUEENS

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## Bicycle Lanes

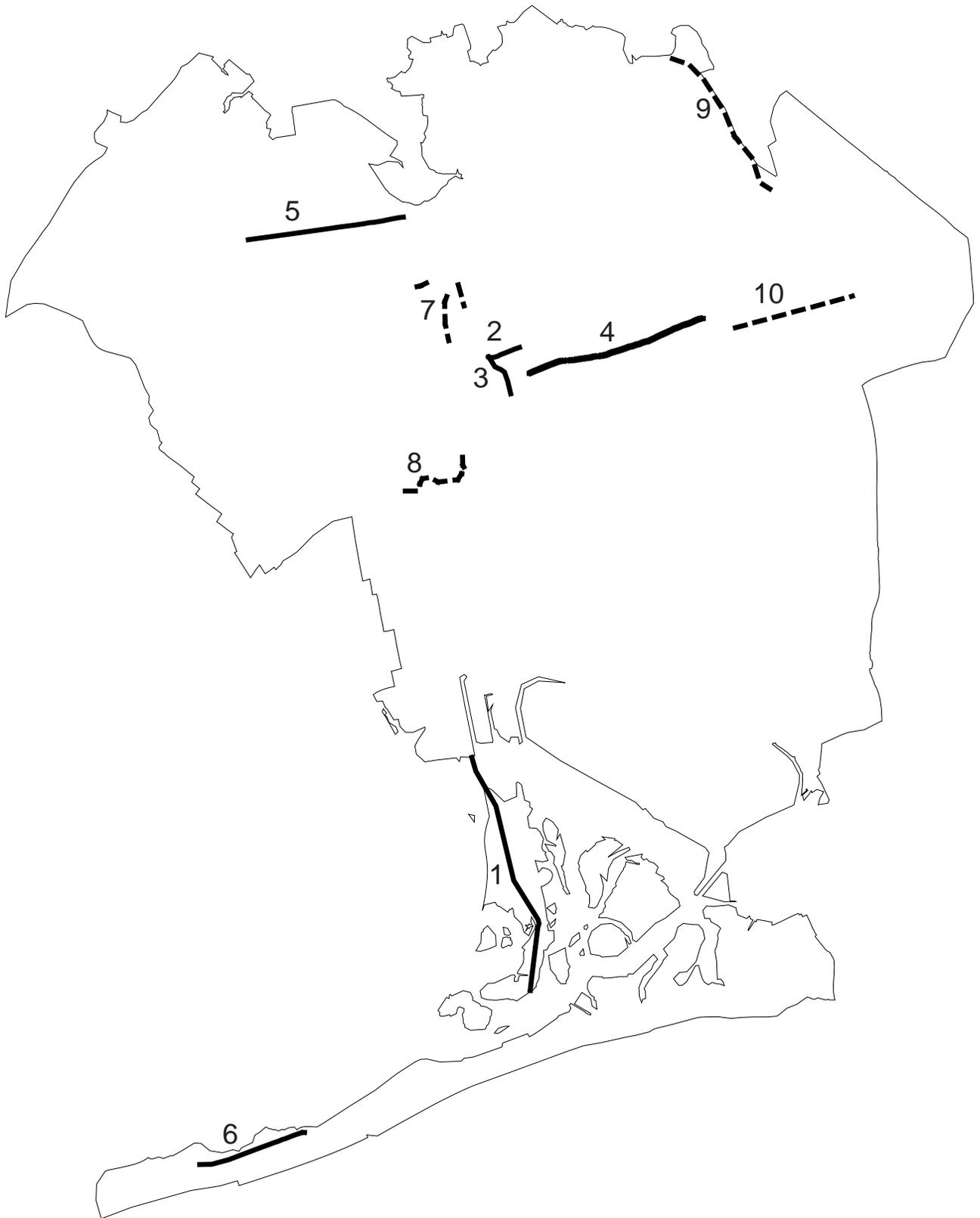
- 1 Cross Bay Boulevard
- 2 Jewel Avenue
- 3 Park Drive East
- 4 Seventy-Third Avenue
- 5 Thirty-Fourth Avenue
- 6 Rockaway Point Boulevard

## Bicycle Trails

- 7 Flushing Meadows/Corona Park  
Bicycle Trail
- 8 Forest Park Bicycle Trail
- 9 Joe Michael's Mile
- 10 Vanderbilt Motor Parkway

Bicycle Lane 

Bicycle Trail 

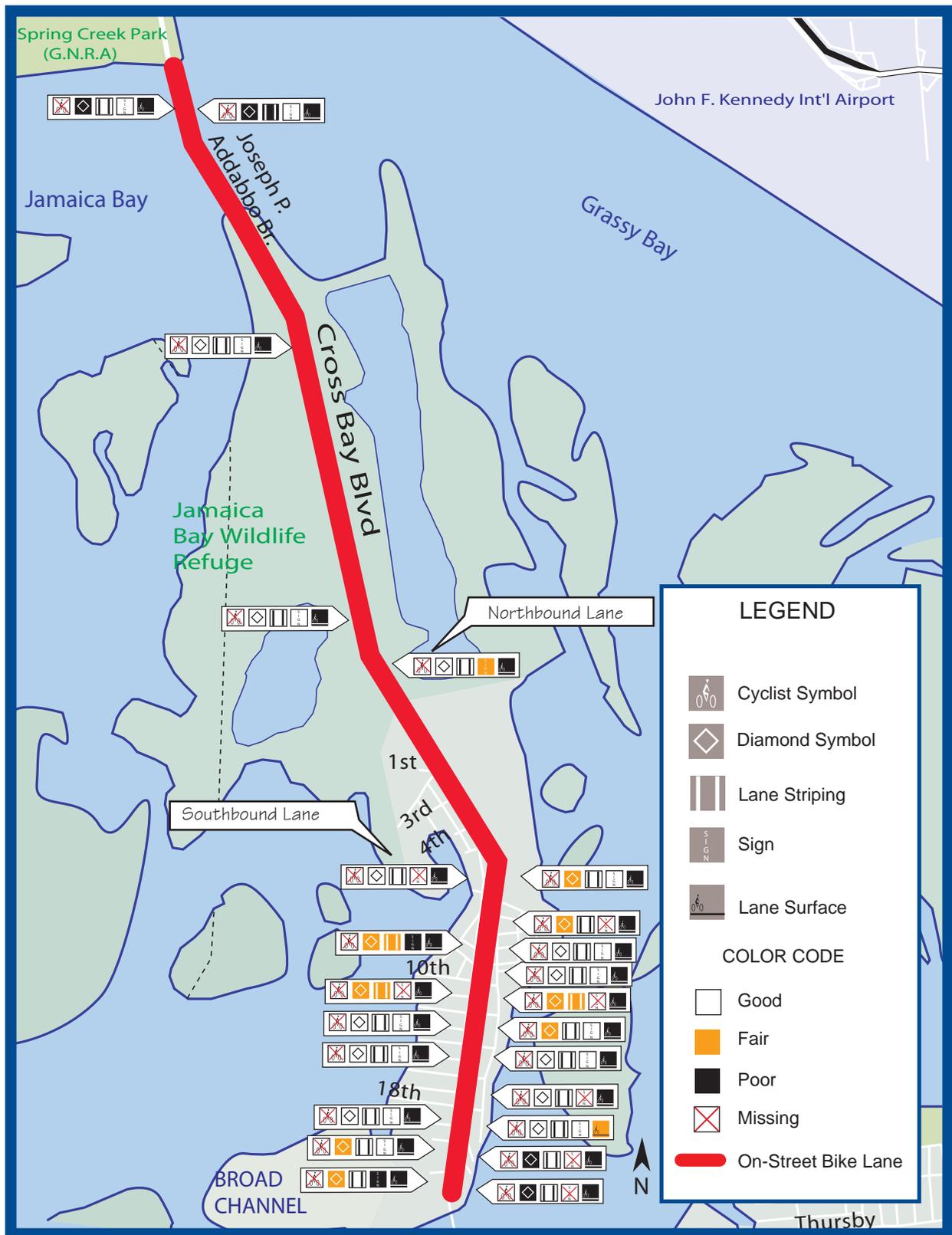


## 1. Cross Bay Boulevard Bicycle Lane



From Street:	Veteran's Memorial Bridge
To Street:	165th Avenue
Length:	7.7 miles total, 3.85 miles each way
Lane Width:	5 feet
Buffer Width:	No buffer from Veteran's Memorial Bridge to 2nd Road 3 feet buffer from 2nd Road to the Addabbo Bridge
1998 Bicycle Accident Data:	7 bicycle accidents reported along the Cross Bay Boulevard bicycle lane- 2 reported each at the 16th Road and 12th Road intersections and One reported each at the 9th, 18th, and 19th roads intersections

## Cross Bay Boulevard



## 2. Jewel Avenue Bicycle Lane



From Street: Main Street

To Street: Park Drive East

Length: 1.0 miles total,  
0.5 miles each way

Lane Width: 5 feet

Buffer Width: No buffer

1998 Bicycle Accident Data: No bicycle accidents reported along the Jewel Avenue bicycle lane

## 3. Park Drive East Bicycle Lane



From Street: Jewel Avenue

To Street: 77th Avenue

Length: 1.4 miles total,  
0.7 miles each way

Lane Width: 6 feet

Buffer Width: No buffer

1998 Bicycle Accident Data: No bicycle accidents reported along the Park Drive East bicycle lane

### Jewel Avenue and Park Drive East

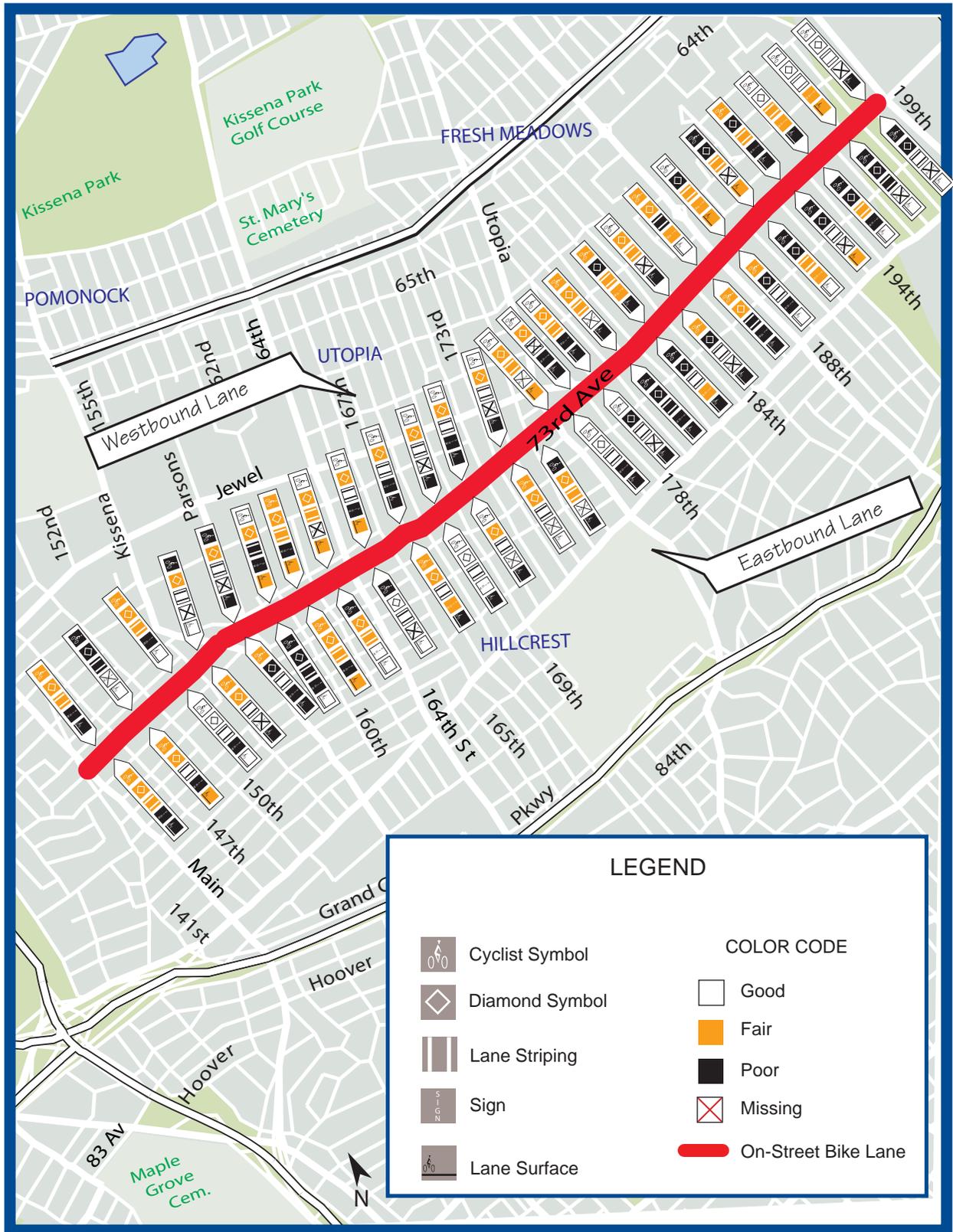


## 4. Seventy-Third Avenue Bicycle Lane



From Street:	Main Street
To Street:	199th Street
Length:	5.2 miles total, 2.6 miles each way
Lane Width:	5 feet
Buffer Width:	No buffer
1998 Bicycle Accident Data:	2 bicycle accidents reported along the Seventy-Third Avenue bicycle lane- One each reported at the Main and at the 179th streets intersections

## Seventy-Third Avenue



## 5. Thirty-Fourth Avenue Bicycle Lane



From Street: 69th Street

To Street: 114th Street

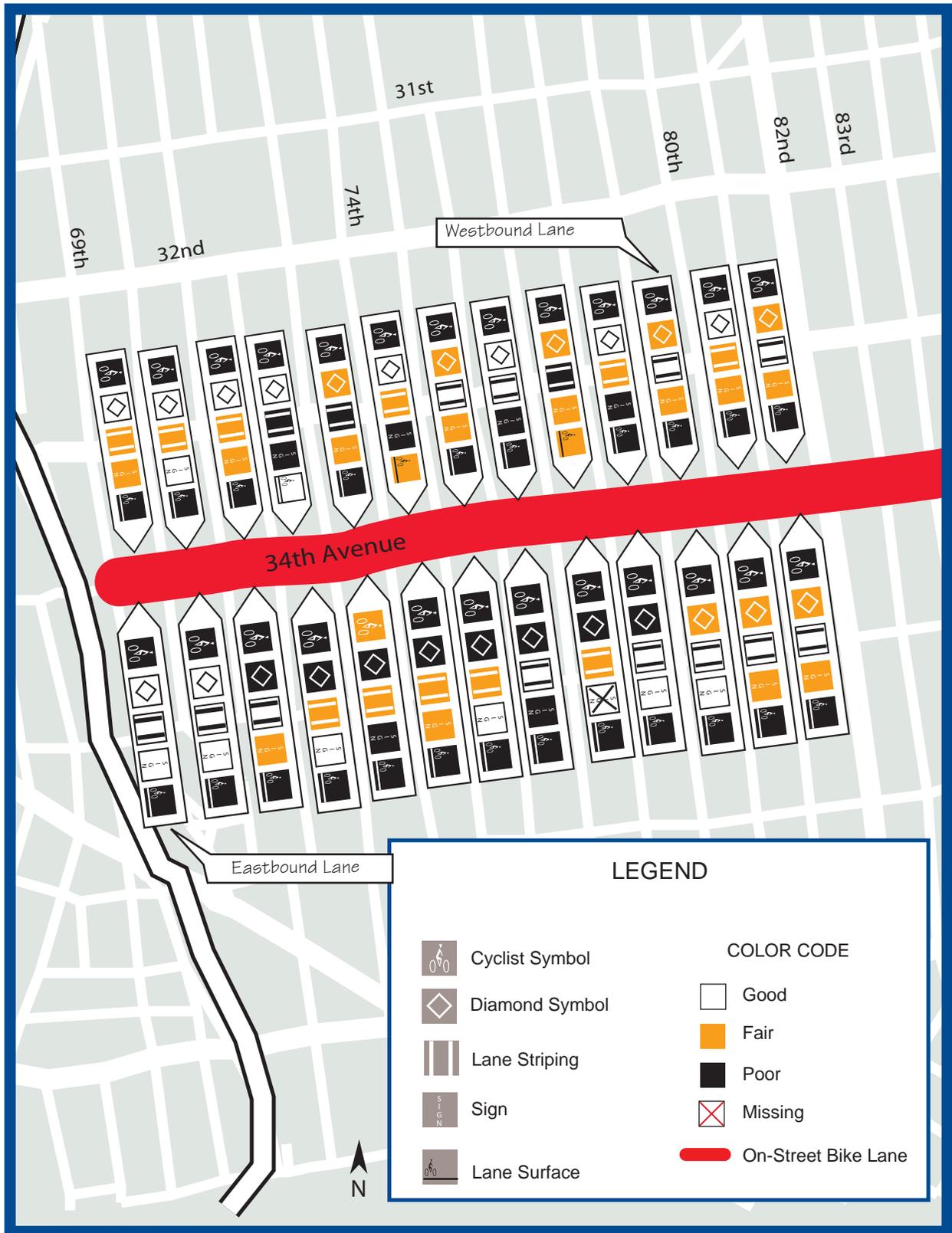
Length: 4.6 miles total, 2.3 miles each way

Lane Width: 5 feet

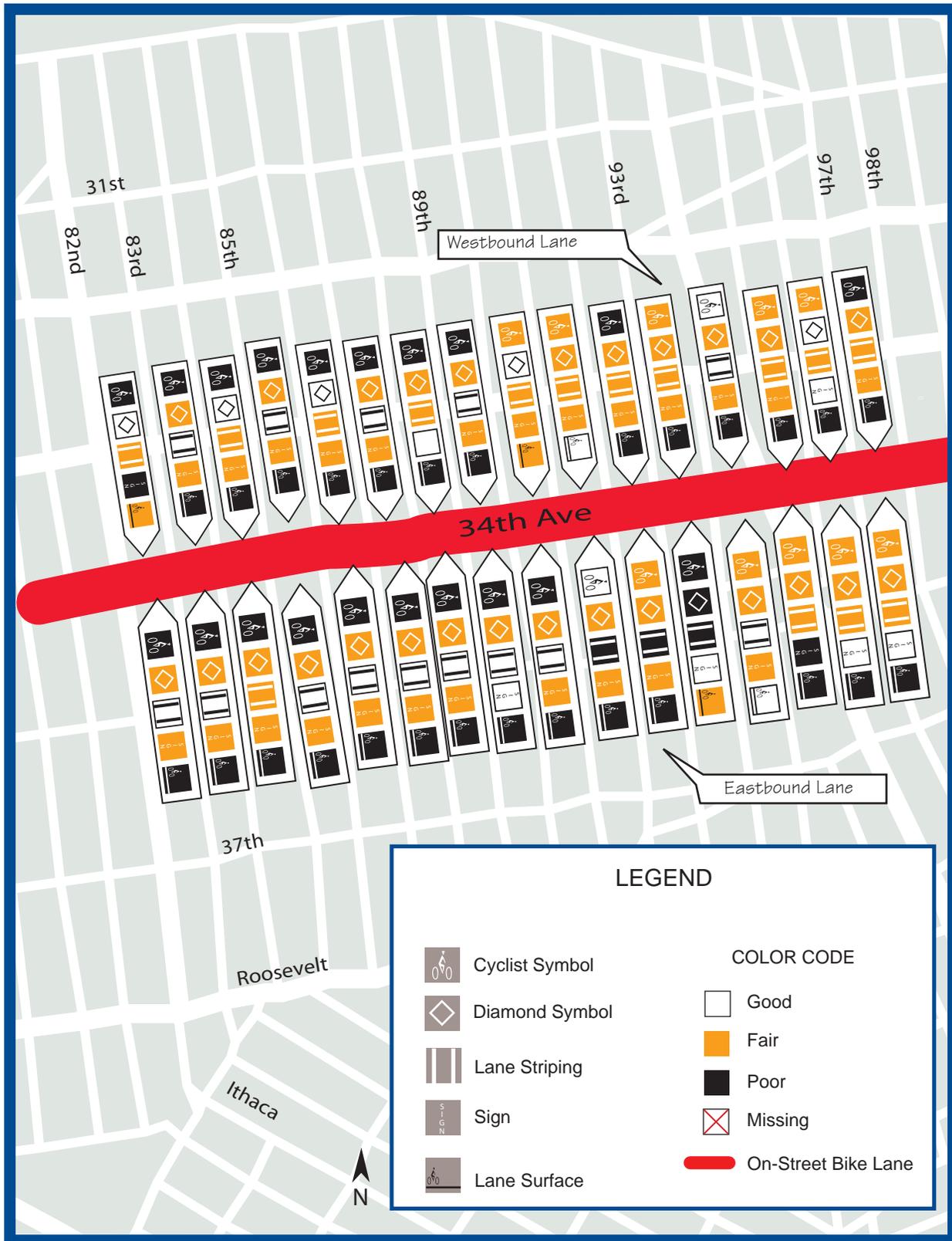
Buffer Width: No buffer

1998 Bicycle Accident Data: 5 bicycle accidents reported along the Thirty-Fourth Avenue bicycle lane-  
One each reported at the 111th, 107th, 105th, 99th, and 76th streets intersections

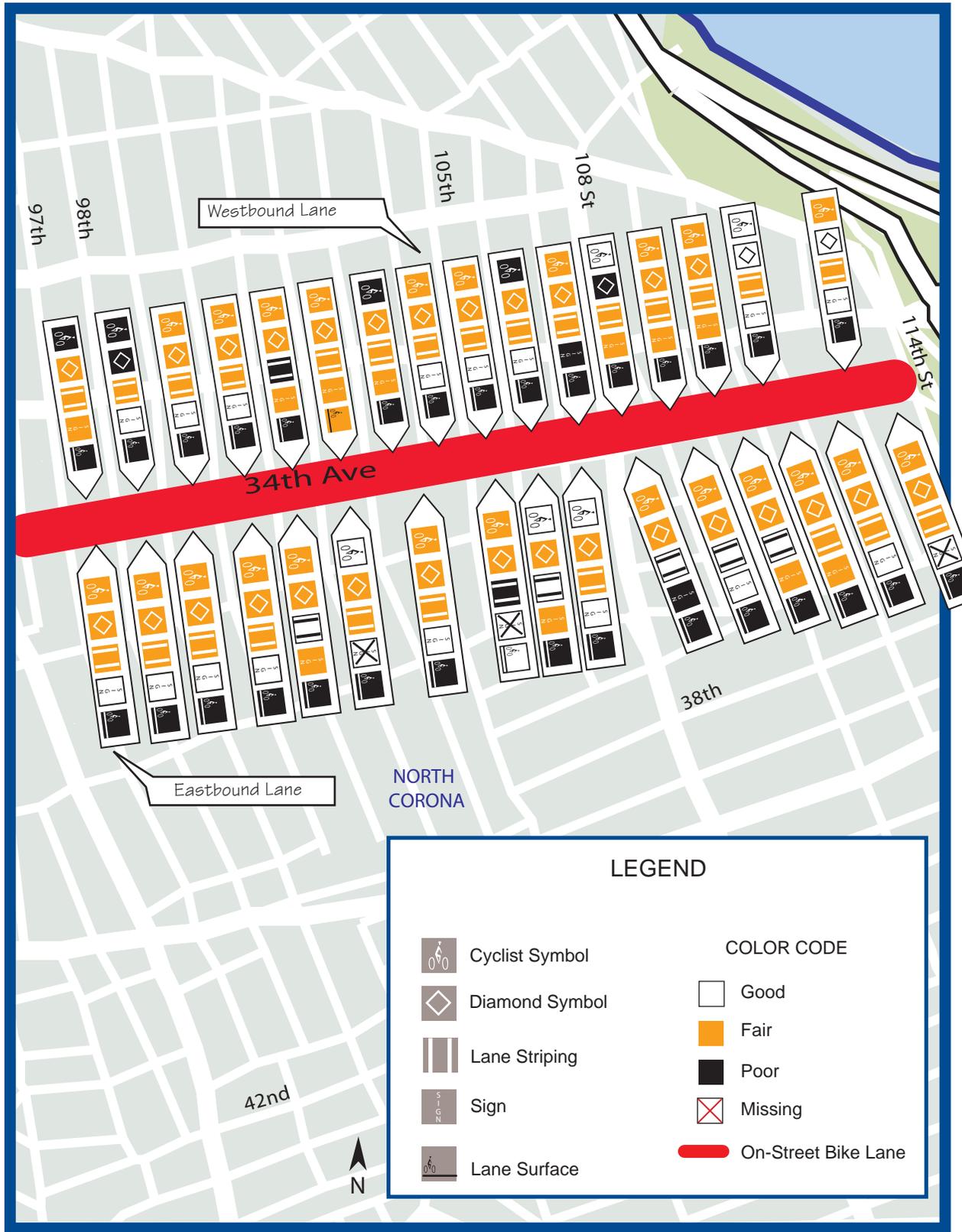
### Thirty-Fourth Avenue: 69th Street to 82nd Street



### Thirty-Fourth Avenue: 82nd Street to 97th Street



### Thirty-Fourth Avenue: 97th Street to 144th Street



## 6. Rockaway Point Boulevard Bicycle Lane



From Street: Marine Parkway

To Street: 201st Street

Length: 3.0 miles total, 1.5 miles each way

Lane Width: 5 feet-7 feet

Buffer Width: 3 feet-6 feet

1998 Bicycle Accident Data: No bicycle accidents reported along the Rockaway Point Boulevard bicycle lane

## Rockaway Point Boulevard



## 7. Flushing Meadows/Corona Park Bicycle Trail



Length: 1.2 miles of official bicycle trail, but there are trails throughout the park that are often used by cyclists

Classification: Shared-use path

Total Width: 21 feet

Wheeled Width: 21 feet

Buffer Width: No buffer

Paving Material: Asphalt

1998 Bicycle Accident Data: No bicycle accidents reported along the Flushing Meadows/Corona Park bicycle trail

## 8. Forest Park Bicycle Trail



From: Metropolitan Avenue

To: Woodhaven Boulevard

Length: 1.4 miles

Classification: Closed off roadway

Total Width: 24 feet

Wheeled Width: 24 feet

Buffer Width: No buffer

Paving Material: Asphalt

1998 Bicycle Accident Data: No bicycle accidents reported along the Forest Park bicycle trail

## Flushing Meadows/Corona Park and Forest Park



## 9. Joe Michael's Mile



From: Northern Boulevard

To: Totten Avenue

Length: 2.4 miles

Classification: Dual carriage

Total Width: 19 feet

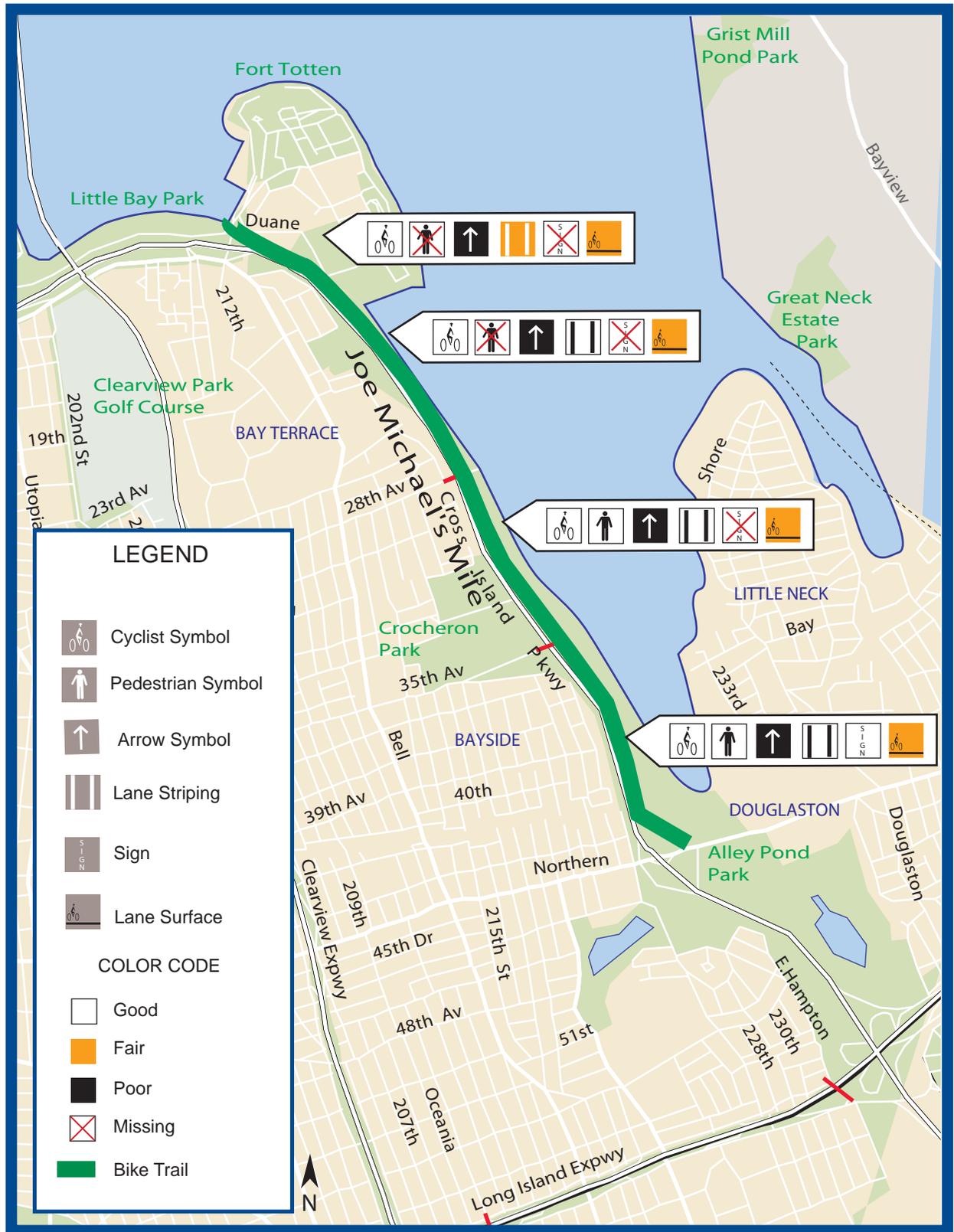
Wheeled Width: 7 feet

Buffer Width: No buffer

Paving Material: Asphalt

1998 Bicycle Accident Data: No bicycle accidents reported along Joe Michael's Mile

## Joe Michael's Mile

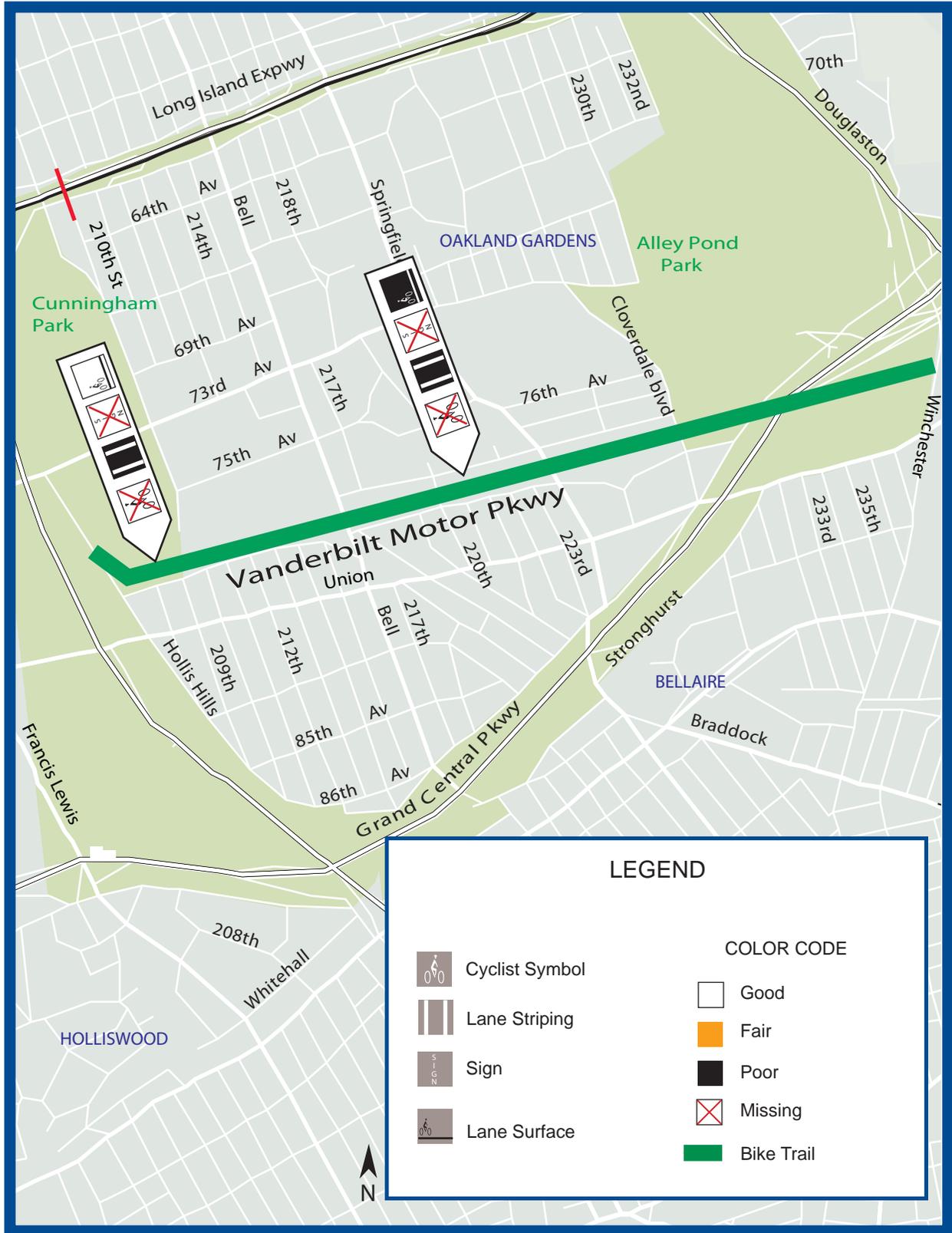


## 10. Vanderbilt Motor Parkway



From:	Hollis Hills Terrace
To:	Winchester Boulevard
Length:	1.7 miles
Classification:	Dual carriage
Total Width:	12 feet
Wheeled Width:	12 feet
Buffer Width:	No buffer
Paving Material:	Asphalt
1998 Bicycle Accident Data:	No bicycle accidents reported along the Vanderbilt Motor Park bicycle trail

## Vanderbilt Motor Parkway



# STATEN ISLAND

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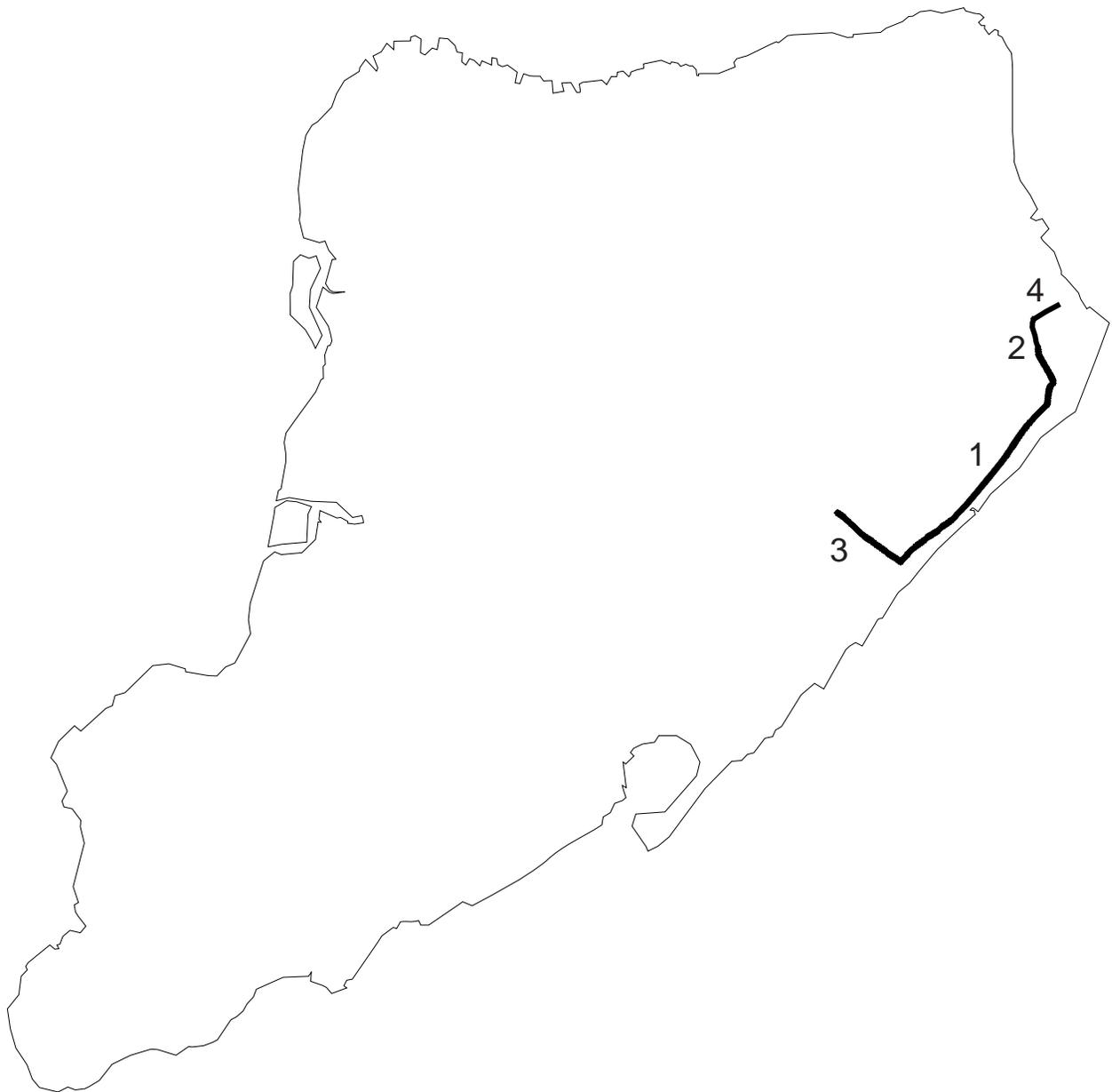
## Bicycle Lanes

- 1 Father Capodanno Boulevard
- 2 Lily Pond Avenue
- 3 Midland Avenue
- 4 School Road

## Bicycle Trails

There are no class I bicycle trails in Staten Island

-  Bicycle Lane
-  Bicycle Trail



## 1. Father Capodanno Boulevard Bicycle Lane



From Street: Lily Pond Avenue

To Street: Midland Avenue

Length: 4.7 miles total, 2.35 miles each way

Lane Width: 5 feet

Buffer Width: No buffer

1998 Bicycle Accident Data: One bicycle accident reported along the Father Capodanno Boulevard bicycle lane at the Midland Avenue intersection

### Father Capodanno Boulevard



## 2. Lily Pond Avenue Bicycle Lane



From Street: School Road

To Street: Father Capodanno Boulevard

Length: 1.4 miles total, 0.7 miles each way

Lane Width: 5 feet

Buffer Width: No buffer

1998 Bicycle Accident Data:  
No bicycle accidents reported along the Lily Pond Avenue bicycle lane

## 4. School Road Bicycle Lane



From Street: Bay Street

To Street: Lily Pond Avenue

Length: 0.6 mile total, 0.3 mile each way

Lane Width: 5 feet

Buffer Width: No buffer

1998 Bicycle Accident Data:  
No bicycle accidents reported along the School Road bicycle lane

## Lily Pond Avenue and School Road



### 3. Midland Avenue Bicycle Lane



From Street: Father Capodanno Boulevard

To Street: Hylan Boulevard

Length: 1.6 miles total, 0.8 miles each way

Lane Width: 5 feet

Buffer Width: 3 feet

1998 Bicycle Accident Data: One bicycle accident reported along the Midland Avenue bicycle lane at the Hylan Boulevard intersection

# Midland Avenue



# ANALYSIS

Bicycle lanes and trails were analyzed by pavement, striping, signs, and symbol condition for each of the boroughs.

Corresponding pie charts illustrate the percentage of each of the above categories in good, fair, poor, and missing condition. The reasons why a category was rated “poor” on the field worksheet is also noted in the text below.

## Bronx Analysis

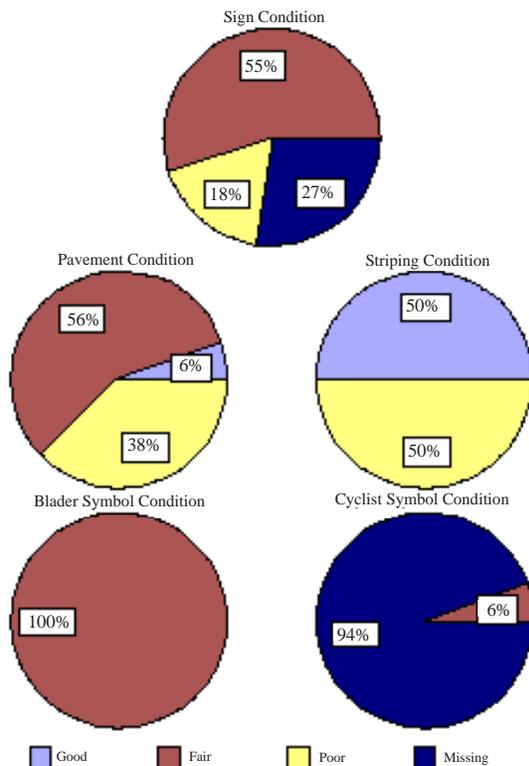
### Bicycle Trails

**Over half of the signs, pavement and blader symbols are in good condition. Exactly one half of the striping is in good condition. Yet, an overwhelming amount of cyclist symbols are missing.**

Of the **signs** in poor condition, many in the Bronx have been vandalized. Also, there are important regulatory and warning signs missing.

Of the **pavement** in poor condition, 43 percent is due to bumps or rough surface, 15 percent to debris, 15 percent to roots protruding through the surface, 9 percent to overgrowth, 9 percent to potholes, and 9 percent to cracks in the pavement.

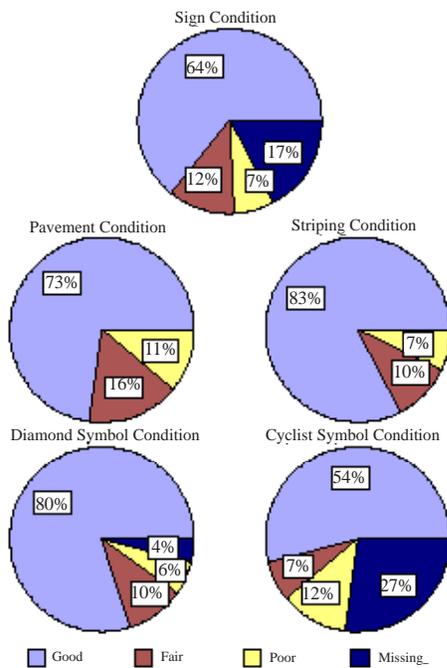
Of the **striping** in poor condition, 100 percent is because it has been worn.



## Brooklyn Analysis

### Bicycle Lanes

**In all categories (sign, pavement, striping, and diamond and cyclist symbols) the majority of the bicycle lane facilities in Brooklyn were in good condition. However, a large percentage of the cyclist symbols are either in poor condition or missing all together.**

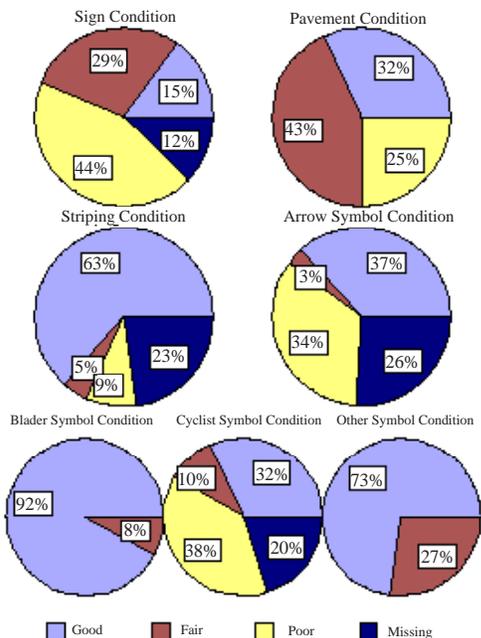


Of the **signs** that are in poor condition, 35 percent are obstructed in some way, 35 percent have been placed mid block and are not clearly visible, 12 percent have been vandalized, 12 percent are too high, and 6 percent are bent.

Of the **pavement** that is in poor condition, 33 percent is due to previous construction, 38 percent to bumps or a rough surface, 17 percent to utility inlets that are not flush with the pavement, and 8 percent to pot holes.

Of the **striping** that is in poor condition, 44 percent is worn, 29 percent is a result of previous construction, and 27 percent is because the striping has been interrupted in some way.

### Bicycle Trails



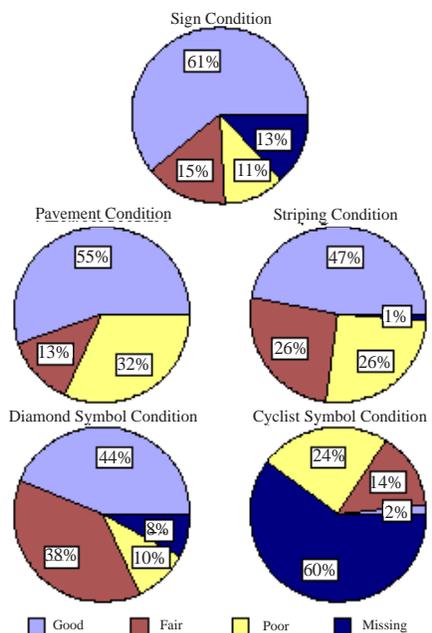
Of the **signs**, the most apparent problem is the absence of those that call attention to the start or finish of a bicycle trail or of access points.

Of **pavement** that is in poor condition, 39 percent has either bumps or a rough surface, 18 percent has cracks, 12 percent is overgrown, 11 percent is caused by roots protruding through the surface, 9 percent is due to debris, 4 percent to standing water, 3 percent to utility inlets not flush with the pavement, 2 percent to sand on the surface, and another 2 percent to previous construction.

Of the **striping** that is in poor condition, 100 percent is because it has been worn.

## Manhattan Analysis

### Bicycle Lanes



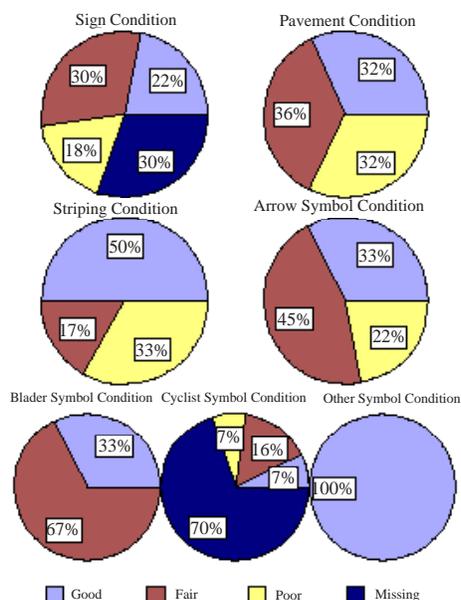
Over half of the sign, pavement, striping, and diamond symbols are in either good or fair condition. However an overwhelming amount of cyclist symbols are missing.

Of the signs that are in poor condition, 43 percent are obstructed, 38 percent are too high, 13 percent have been vandalized, and 6 percent are bent.

Of the pavement in poor condition, 27 percent is due to previous construction, 48 percent to bumps or rough surface, 17 percent to a utility inlet not flush with the surface, and 8 percent to potholes.

Of the striping in poor condition, 49 percent is because the striping is worn, 28 percent is due to previous construction, and 23 percent has been interrupted in some way.

### Bicycle Trails



Of the signs, the most apparent problem is the absence of those that call attention to the start or finish of a bicycle trail or of access points.

Of the pavement in poor condition, 45 percent can be attributed to bumps or rough surface, 14 percent to debris, 14 percent to cracks, 10 percent to previous construction, 4 percent to utility inlets not flush with the pavement, and 3 percent to roots protruding through the surface.

Of the striping in poor condition, 67 percent is worn and 33 percent is interrupted in some way.

## Queens Analysis

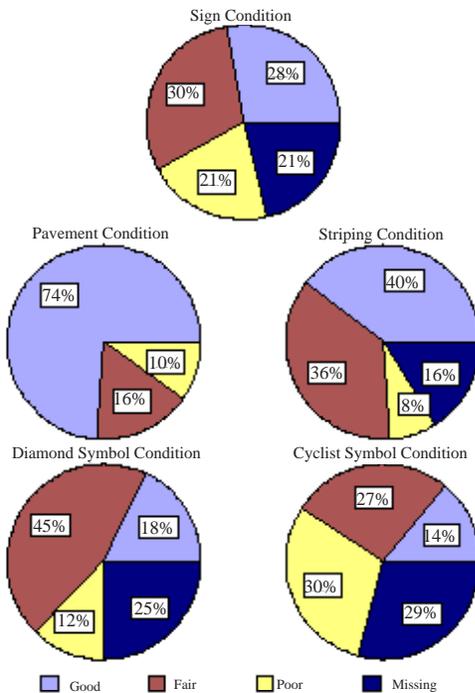
### Bicycle Lanes

**In all categories, (sign, pavement, striping, and diamond and cyclist symbols) the majority of bicycle facilities are in either good or fair condition.**

Of the **signs** that are in poor condition, 48 percent are mid block and are not visible, 26 percent have been obstructed, 10 percent have been vandalized, 10 percent are too high, and 6 percent have been bent.

Of the **pavement** in poor condition, 45 percent has bumps or a rough surface, 37 percent is due to previous construction, 12 percent to utility inlets that are not flush with the pavement surface, and 6 percent to potholes.

Of the **striping** in poor condition, 39 percent has been interrupted in some way, 33 percent is due to previous construction, and 28 percent is worn.

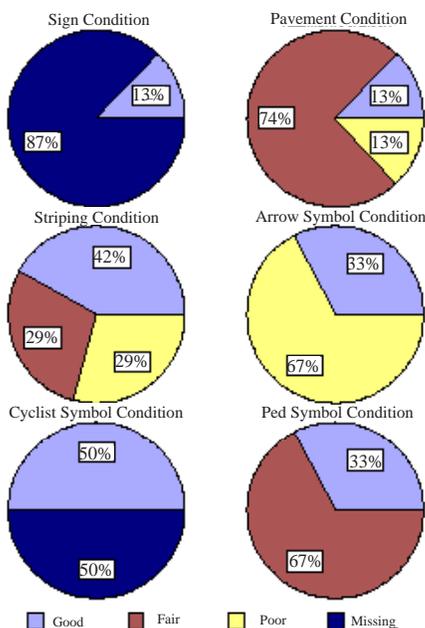


### Bicycle Trails

**There are very few signs on any of the Queens bicycle trails. All of them, with the exception of Joe Michael's Mile, need signs at the beginning. All of them also need signs at the end of the bicycle trails and at each access point.**

Of the **pavement** in poor condition, 34 percent is because of bumps or a rough surface, 33 percent can be attributed to potholes, 11 percent to standing water, 11 percent to utility covers not flush with the pavement, and 11 percent to roots protruding from the surface.

Of the **striping** in poor condition, 67 percent is interrupted and 33 percent is worn.



## Staten Island Analysis

### Bicycle Lanes

**Over half of the striping and pavement are in good condition. Most diamond and cyclist symbols are missing. Over half of the signs are in either good or fair condition, but there is a large percentage of signs missing.**

Of the **signs** that are in poor condition, 100 percent of them have been obstructed in some way.

Of the **pavement** in poor condition, 48 percent has bumps or a rough surface, 24 percent has utility inlets that are not flush with the surface, 20 percent can be attributed to previous construction, and 8 percent to potholes.

Of the **striping** in poor condition, 25 percent has been interrupted and 75 percent is worn.

