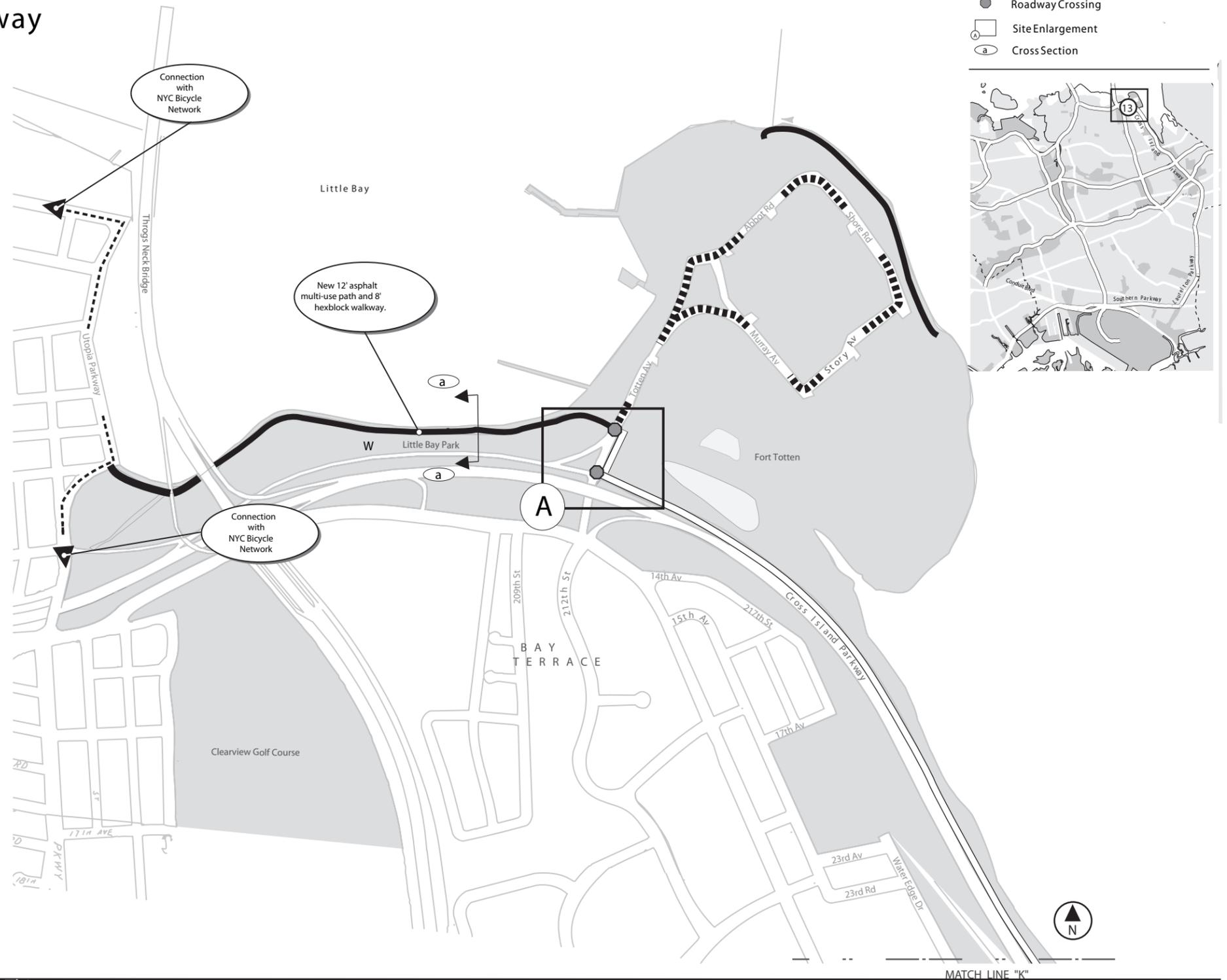


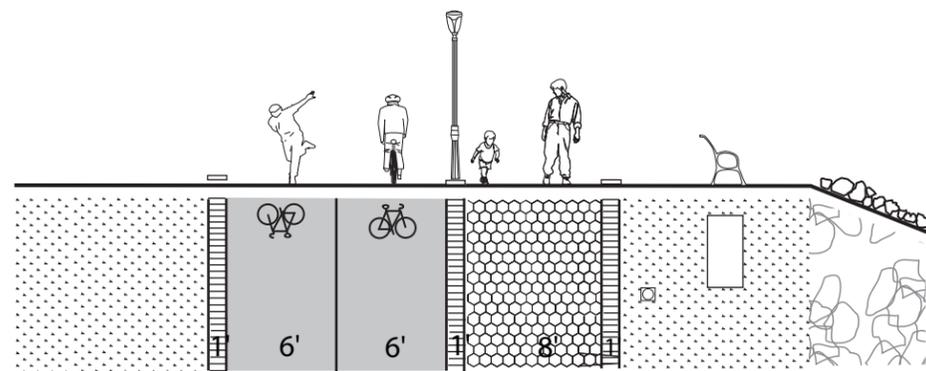
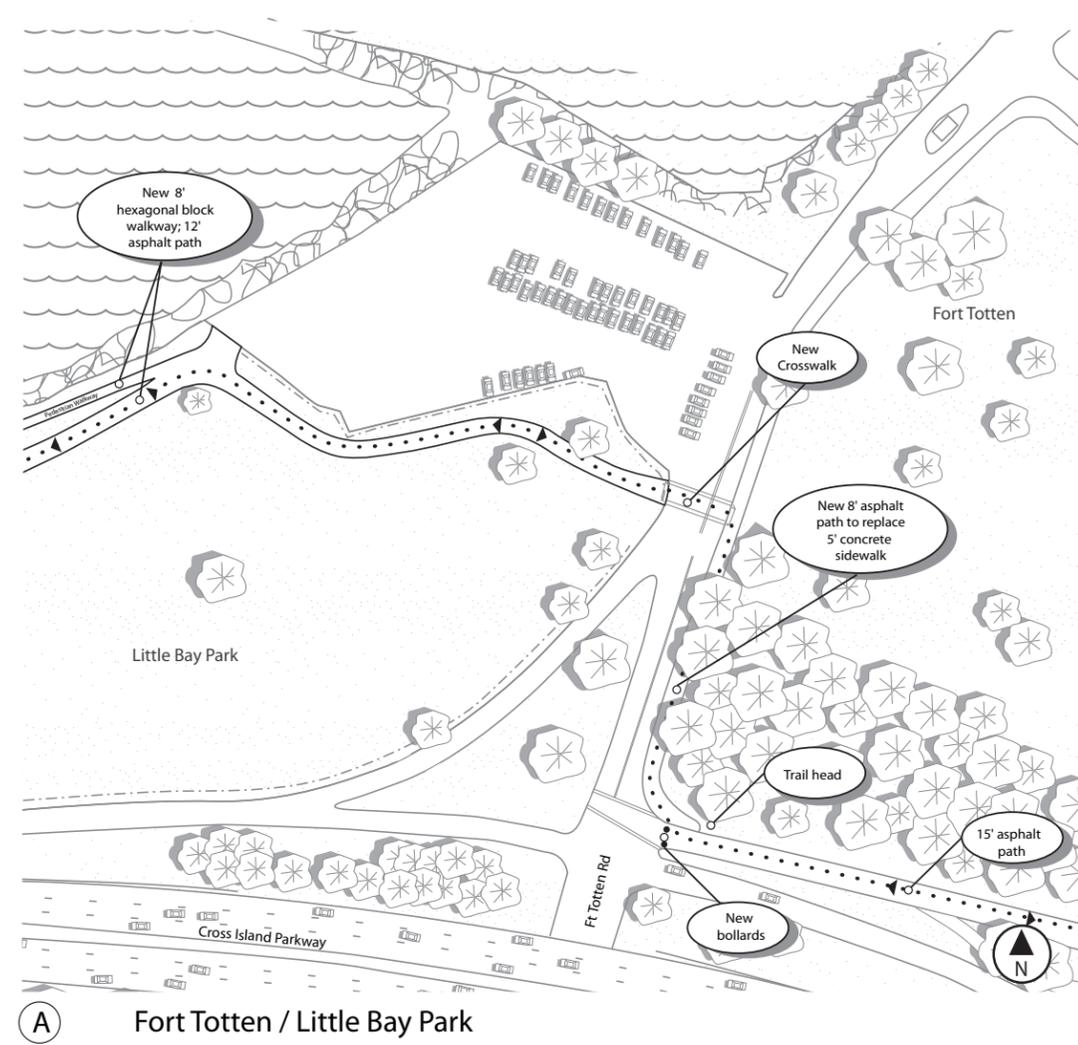
# Cross Island Greenway

## Segment Thirteen: Joe Michael's Mile / Marina - Utopia Parkway

At the terminus of Joe Michael's Mile, the route will travel north on the east side of Totten Avenue along a new 8' asphalt path to replace an existing 5' concrete sidewalk. To the north, a connection will be made with Fort Totten, an historic and scenic route destination. The site, a decommissioned army base, is scheduled to be reused as a Fire Training Academy for the NYC Fire Department. Approximately 50 acres of public parkland will be designated, including development of a multi-use path along the water's edge. Conveyance of the land to the City will take approximately 2-3 years; however, an interim public access plan will be developed by DPR.

Greenway users also have the option of travelling west along the new waterfront path at Little Bay Park. The design of the path would continue the "dual carriageway" design from Joe Michael's Mile; a high demand is expected along this path as it will offer spectacular waterfront views, access to the Park's recreational facilities (including a new roller hockey rink) and connections to the residential communities to the west. Working with existing conditions, the path would travel along the southern and western border of the parking lot located at the entrance to Fort Totten, and continue west along the waterfront. The path could be aligned along the waterfront in this section, pending an analysis of the parking facilities. West of the parking lot and along the remainder of the Park's waterfront, an approximate ten foot grassy buffer will be preserved between the pathway and the rip rap along the waterfront. Finally, the route will connect with the community of Beechurst, and the proposed citywide bicycle network, at the existing Park exit at Utopia Parkway.





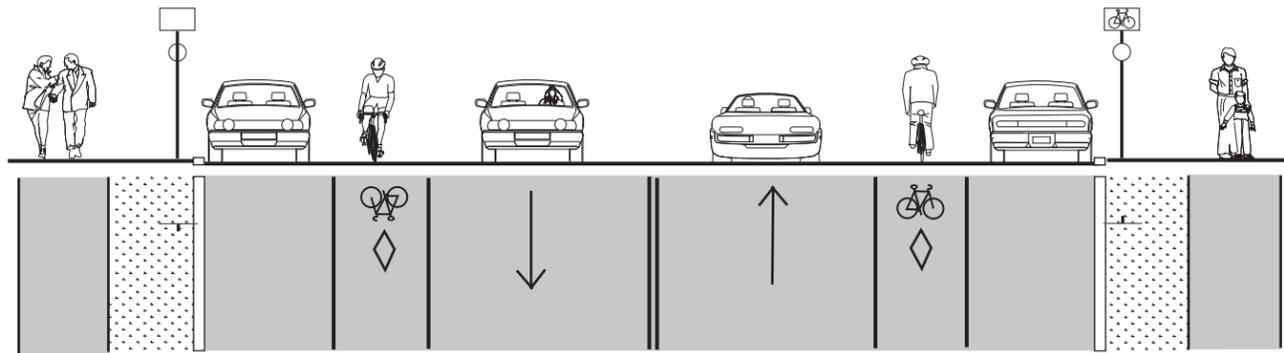
Little Bay Park, looking west.  
Proposed 12' asphalt mixed-use path and 8' hexblock walkway to replace existing informal dirt path.



Little Bay Park, looking west towards Fort Totten

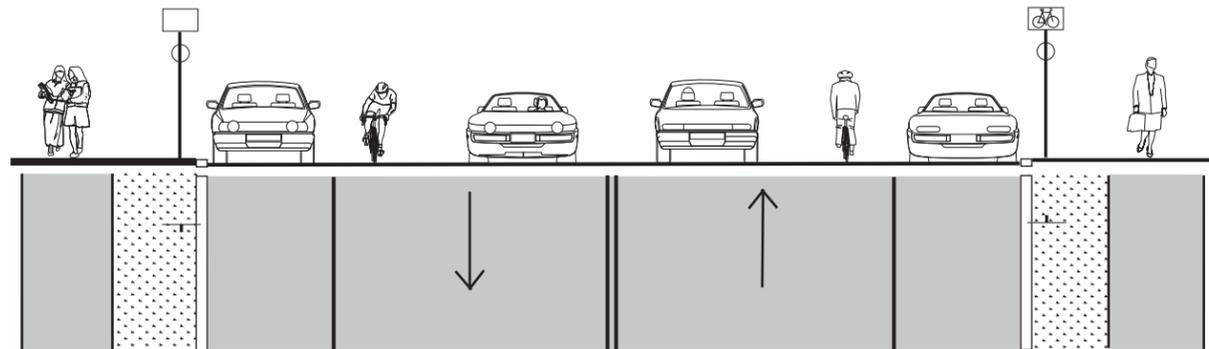
## On-street Bicycle Route Design

The design of the on-street portions of the proposed Greenway is consistent with the design of existing on-street bicycle routes throughout New York City.



**Bicycle Lane**

Bicycle lanes are part of the roadway and delineated by pavement markings and regulatory signage. The lane is usually next to the curb parking lane, but may also be next to a curb where standing is prohibited. Consistent with AASHTO guidelines, minimum bicycle lane width is 5 feet.



**Bicycle Route**

Bicycle routes are identified by informational signing only. Bicycle routes on arterial roadways often have wider curb lanes.

## On-street Signs and Pavement Markings

Below are the on-street regulatory, warning and guidance signs and pavement marking for on-street bicycle facilities as used by NYC DOT. As specified by state statute, the signs and markings are consistent with the Manual of Uniform Traffic Control Devices (MUTCD). These signs are coupled with Greenway medallions for route continuity.



D11-1  
24" x 18"



D4-3  
12" x 18"

Guidance signs



R7-9a  
12" x 18"



R3-17  
24" x 30"

Regulatory signs



W7-5  
18" x 18"



W5-4  
18" x 18"

Warning signs



Lane and symbol marking

## Off-street Bicycle/Pedestrian Route Design:

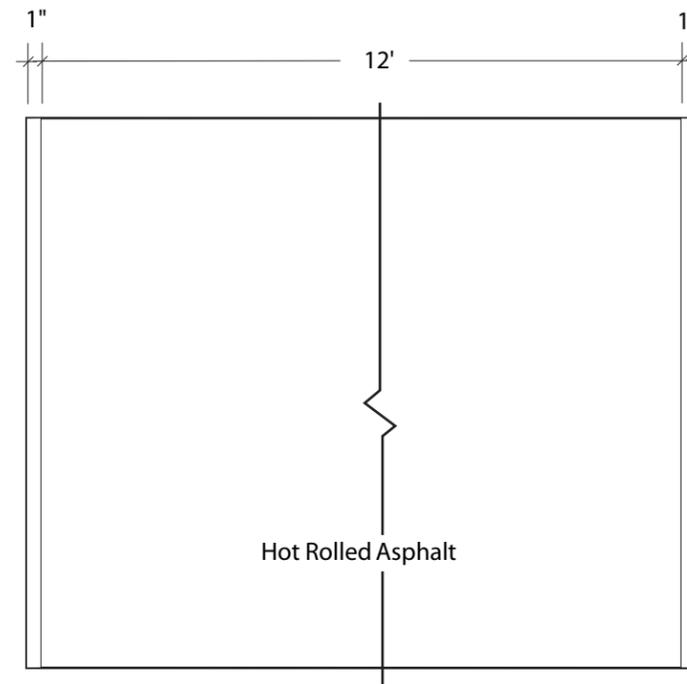
Asphalt paths, ranging in width from 8' to 12', represent the majority of the off-street portions of the proposed greenways. In certain areas (along North Conduit between 80th and 88th Streets and in front of Aqueduct Race Track), 8' asphalt paths replace 5' concrete sidewalks. Signage is required along these segments instructing cyclists to "go slow - respect others". The paving of the path in asphalt will also alert pedestrians that this is not a "typical" sidewalk. Where dual carriageways are specified (Joe Michael's Mile, Little Bay Park and Conduit right-of-way), a hexagonal block walkway is located parallel to the asphalt path.

The Parkways have a strong history of unique and varied plantings. This should be continued for the development of the Greenway, especially in areas where additional planting is possible. Planting will provide route continuity, interest and buffer Greenway travellers from automotive disturbance. Street tree planting plans should be developed for the on-street sections in cooperation with the community.

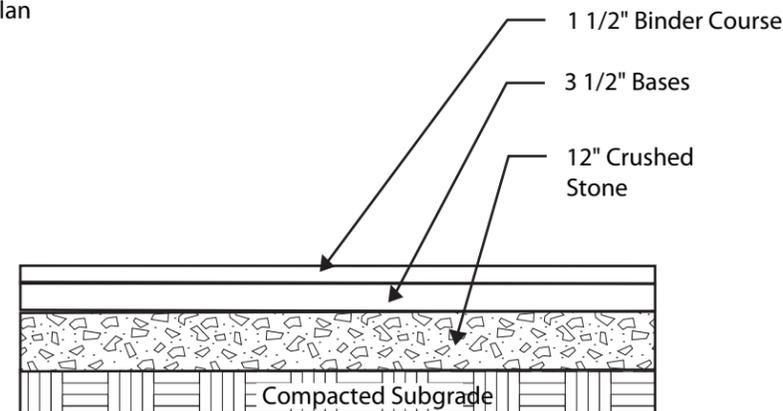
### Multi-Use Path

Dimensions: 12 feet wide with one inch timber edge on either side. A total trail width of 12 feet, 2 inches.

Materials: Hot rolled asphalt travel way with crushed stoned clear zone



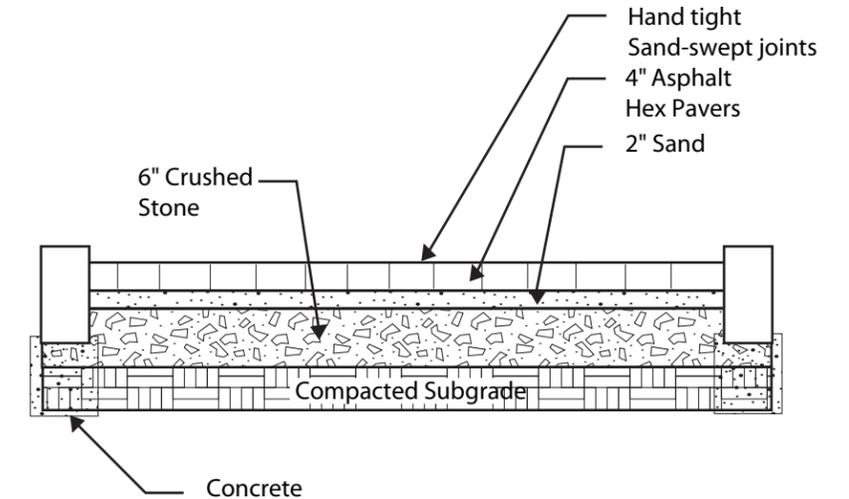
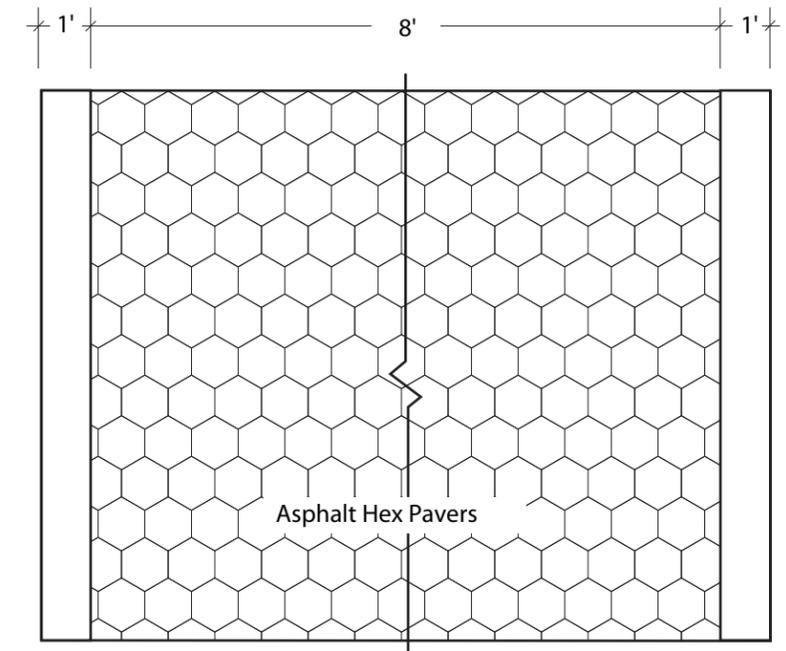
Plan



### Pedestrian Walkway

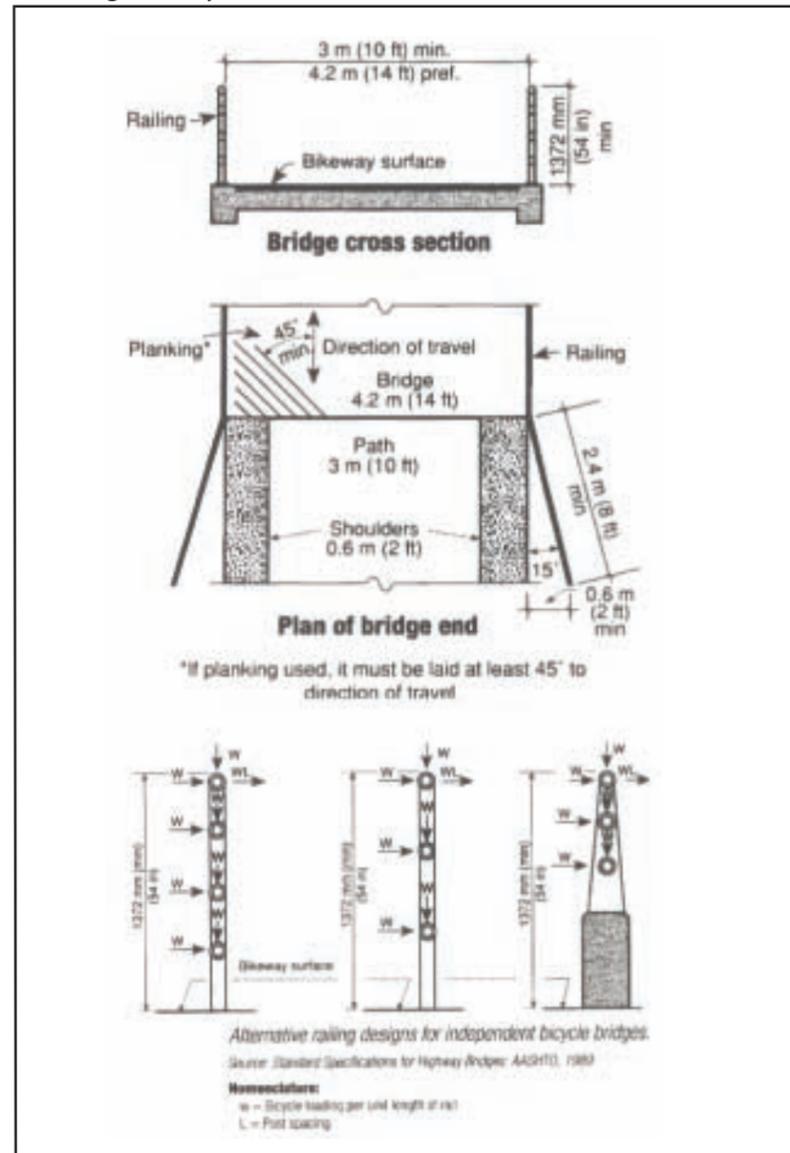
Dimensions: 8 feet wide with one foot wide curbs. A total trail width of 10 feet.

Materials: Asphaltic hex pavers with blue stone curbing.



## Bridge Structure and Barrier Rails

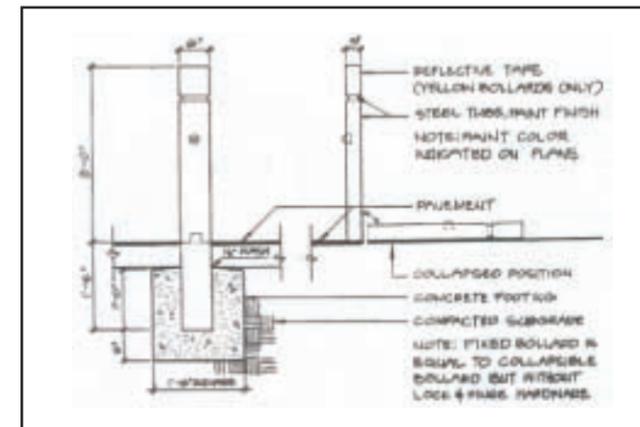
The Master Plan proposes a bicycle/pedestrian bridge over an on-ramp on the Southern Parkway. Shown below is a detail for a multi-use bridge and bridge railing, consistent with AASHTO standards. The Master Plan also recommends use of the bridge railing on paths adjacent to roadways to protect greenway users.



Details for multi-use bridge. Source: North Carolina DOT

## Vehicle Access Controls

A physical barrier is needed at roadway intersections and entrances to the multi-use paths to prevent unauthorized motor vehicles from entering. A barrier is also warranted when the path is located near sensitive natural habitats, such as the proposed path in Idlewild Park. DPR has developed several guard rail and bollard details for various locations throughout the city. Shown below are two examples.



Detail for a collapsible steel bollard  
Source: Reconstruction of the Shore Parkway bicycle path, DPR



Steel barrier rail along perimeter of Marine Park

## Greenway Signage

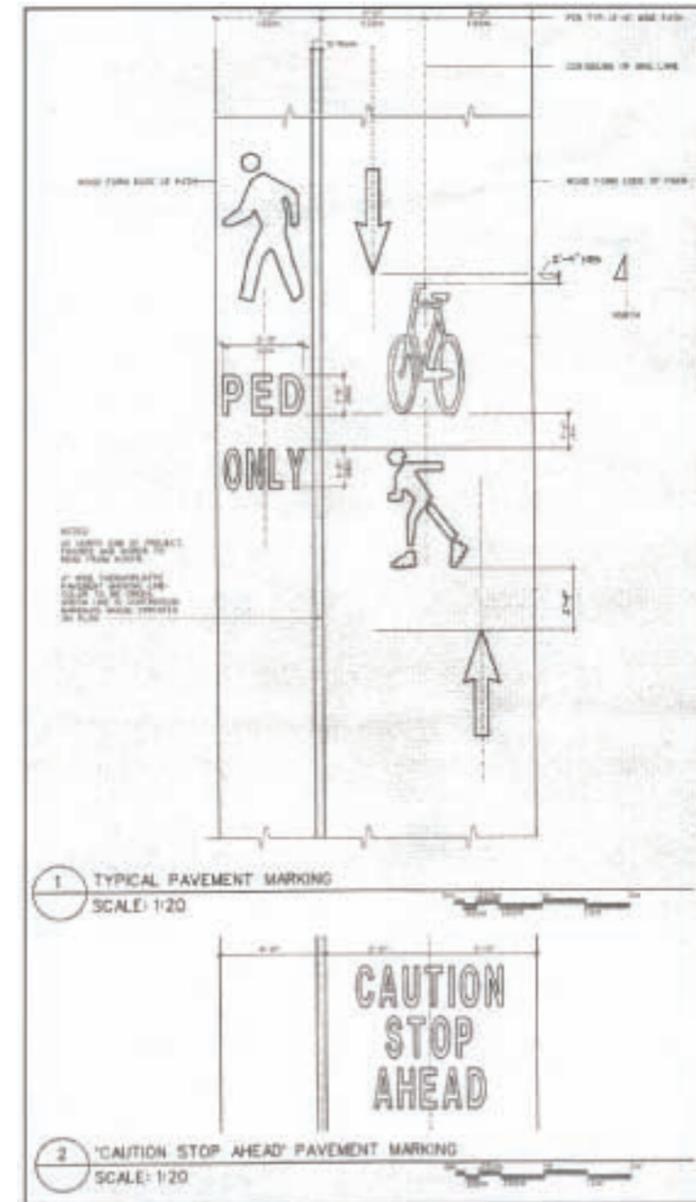
DCP has proposed signage for the City's Greenway System in an effort to provide recognizable identity for a greenway while guiding users safely along the route. The signage uses a green color and vertical lozenge shape for easy recognition and installation on narrow paths, and a distinctive logo with the

greenway's name. Shown below are five examples of signs which could be used along the off-street segments of the Conduit, Southern Queens, Laurelton and Cross Island Greenways.



## Path Pavement Markings

Shown below are the proposed path pavement markings for DPR's construction of the Cherry Walk section of the Hudson River Valley Greenway. The paths in the Conduit, Southern Queens, Laurelton and Cross Island Greenways should follow this example, with clear markings of a bicycle, in-line skater and a directional arrow.



## Construction Phasing Plan

The estimated cost of constructing all four Greenways is \$25 million. Typical construction of the Greenways will involve general site work, such as clearing, removal of existing pavement, grading, protection of existing trees, and installation of paving, site furniture, lighting and plant materials.

The construction has been divided into a phasing plan, and is a guide less for timing than for coherent construction segments. As such, the phasing plan generally follows the Master Plan's thirteen segments. The agency(ies) responsible for each segment are identified to provide guidance in implementation.

As mentioned at the beginning of the Master Plan, it is expected that implementing agencies, such as the State DOT and City DOT, Parks and Environmental Protection, will be guided by the Master Plan to construct, where possible, portions of the Greenway as part of existing or individual capital projects.

### Conduit Greenway

Segment One - Vermont Place to Liberty Avenue

Total estimated cost: \$685,000

A. Vermont to Jamaica - This portion would reconstruct the paths in Highland Park to provide a connection between the Brooklyn Queens Greenway and the Cypress Hills neighborhood and points south.

Jurisdiction: DPR

Potential funding sources:  
DPR capital project  
1997 NYS Clean Water/Clean Air Bond Act  
TEA-21 (the federal successor to the ISTEA program).

B. Jamaica to Liberty - This portion would connect the Brooklyn Queens Greenway in Highland Park with the Conduit Greenway to the southeast via an on-street route through the Cypress Hills neighborhood. Implementation involves signing the entire route, striping and marking two streets, and constructing a new path south of East New York Technical High School.

Jurisdiction: NYC DOT

Potential funding sources:  
CDOT Bicycle Program implementation funds  
CDOT roadway resurfacing/reconstruction  
1997 NYS Clean Water/Clean Air Bond Act  
TEA-21

Segment Two - Conduit Boulevard (Liberty to Cross Bay)

Total estimated cost: \$3.1 million

This segment is dominated by the open space along Conduit Boulevard. Completion of this segment will link Segment One with the Shore Parkway path, improves the Conduit Boulevard right-of-way, a major open space resource that is largely undeveloped and underutilized.

Jurisdiction: NYC DOT (DPR maintains the grass and trees along the Conduit right-of-way open space)

Potential funding sources:  
DPR capital projects (such as reconstruction of the neighborhood parks along North Conduit)  
NYS 1997 Clean Water/Clean Air Bond Act  
The construction of the Conduit Greenway could also be included as mitigation if the proposed Lindenwoods Commons shopping complex is constructed at Linden and Conduit Boulevard.  
TEA-21

### Southern Queens Greenway

Segment Three - Cross Bay Boulevard to 114th Street (Alternative One) - This segment will connect the Conduit Greenway with the Southern Parkway paths to the east. Alternative One involves designation of on-street routes (all streets would be signed; selected streets would be striped) and sidewalk reconstruction.

Total estimated cost: \$1.56 million

Jurisdiction: NYC DOT is responsible for existing streets and has jurisdiction over sidewalks.

Potential funding sources:  
DOT's Bicycle Program implementation funds  
DOT roadway resurfacing/reconstruction.  
MTA redevelopment of Aqueduct Train Station

Segment Three - Cross Bay Boulevard to 114th Street (Alternative Two)

In the event that the Aqueduct site is redeveloped (i.e., a long term lease is signed with the NYS Racing Association), Alternative Two should be implemented. If possible, a multi-use path should be constructed in the new development.

Total estimated cost: N/A

Potential funding sources:  
DOT roadway resurfacing/reconstruction  
DOT Bicycle Program implementation funds

Segments Four (short-term, on-street route) and Five - 114th to Farmers Boulevard - This segment will connect the Greenway with Baisley Pond Park. With the exception of the new paths in Baisley Pond Park, these segments are entirely on-street, with nearly 2 miles of on-street, 2-way striped lanes.

Jurisdiction: DPR has jurisdiction of Baisley Pond Park; the streets are under the jurisdiction of NYC DOT.

Total estimated cost: \$440,000

Potential funding sources:  
DPR capital project (Baisley Pond paths)  
1997 NYS Clean Water/Clean Air Act  
DOT Bicycle Program implementation funds  
DOT roadway resurfacing/reconstruction  
TEA-21  
DPR Street Trees Program

Segment Four (long-term, off-street route) - The long-term, off-street option connects the Conduit Greenway with Segment Five, which connects with Baisley Pond Park. The off-street option, more capital intensive than the on-street, should be developed following the development of the short term option.

Total estimated cost: \$910,000

Jurisdiction: CDOT and DPR share responsibility for maintenance of the Southern Parkway's right-of-way open space; SDOT conducts capital planning along the Parkway.

Potential funding sources:  
SDOT roadway resurfacing/reconstruction  
DPR capital projects  
DOT Bicycle Program implementation funds  
1997 NYS Clean Water/Clean Air Bond Act  
TEA-21

Segment Six: Farmers Boulevard to Brookville Boulevard, Short-term, on-street route: This on-street route connects the Southern Queens

Greenway with the Laurelton Greenway and the Brookville-Idlewild-Springfield park loop. Limited segments require striping and sidewalk reconstruction.

Jurisdiction: NYC DOT

Total estimated cost: \$50,000

Potential funding sources:  
DOT Bicycle Program implementation funds  
DOT roadway resurfacing/reconstruction  
TEA-21

Segment Six: Farmers Boulevard to Brookville Boulevard, Long-term, off-street route: As a more capital intensive route, the long-term, off-street route within the Southern Parkway right-of-way should be developed following the short-term, off-street route.

Total estimated cost: \$4.65 million

Jurisdiction: CDOT and DPR share responsibility for maintenance of the Southern Parkway's right-of-way open space; SDOT conducts capital planning along the Parkway.

Potential funding sources:  
DPR capital projects  
SDOT capital projects along the adjacent Southern Parkway  
NYS 1997 Clean Water/Clean Air Bond Act  
TEA-21

Segment Seven: Brookville-Idlewild-Springfield Park Loop: This portion will connect some of the most scenic parks in Queens via a network of on-street lanes and off-street paths.

Jurisdiction: DPR has jurisdiction of the three parks; NYC DOT has jurisdiction of the city streets.

Total estimated cost: \$760,000

Potential funding sources:  
DPR capital projects  
SDOT is currently planning improvements to Rockaway Boulevard with plans for a multi-use path along the southern side of the roadway.

## Laurelton Greenway

Reconstruction of the paths in the Laurelton Parkway and clearing of the beautiful "park like" setting will create a unique and scenic route in the city's Greenway system. In addition, the route will provide improved bicycle access to the existing bicycle and recreational facilities in Brookville Park and improved bicycle access to the beaches of Nassau County.

Jurisdiction: DPR

Total estimated cost: \$3.9 million

Potential funding sources:  
DPR capital projects  
SDOT capital work along adjacent Laurelton Parkway  
DOT Bicycle Program implementation funds  
DOT roadway resurfacing/reconstruction  
1997 Clean Water/Clean Air Bond Act  
TEA-21

## Cross Island Greenway

Segment Nine: Linden Boulevard to 104th Avenue: The majority of this segment is a nearly one-mile long 8' wide path along the right-of-way open space of the Cross Island Parkway. This path will be reached from the Laurelton Greenway via 233rd Street. The on-street segment will be marked with signs only.

Jurisdiction: DPR maintains the open space with the Southern Parkway right-of-way; NYC DOT maintains the Parkway's roadway and on- and off-ramps; NYS DOT is responsible for capital planning. NYC DOT has jurisdiction of the on-street segments.

Total estimated cost: \$1.75 million

Potential funding sources:  
DPR capital projects  
DOT roadway resurfacing/reconstruction  
TEA-21

DOT Bicycle Program implementation funds

Segment Ten: 222nd Street to Winchester Boulevard: This segment, entirely on-street, provides the critical link to Alley Pond Park and the Brooklyn Queens Greenway. The entire segment will be signed and nearly one-and-a-half miles of the route will be striped and marked.

Jurisdiction: NYC DOT

Total estimated cost: \$27,000

Potential funding sources:  
DOT Bicycle Program implementation funds  
DOT roadway resurfacing/reconstruction  
1997 NYS Clean Water/Clean Air Bond Act  
TEA-21

Segment Eleven: Hillside Avenue to Long Island Expressway: In this segment, the Cross Island Greenway terminates at the Queens Farm Museum. This route is a combination of new path construction, sidewalk reconstruction and on-street signing. To the north, the route becomes the Brooklyn-Queens Greenway, a pedestrian pathway in the park and an on-street perimeter bicycle route.

Total estimated cost: \$780,000

Potential funding sources:  
DPR capital projects (construction of the Brooklyn Queens Greenway segment has been funded through the ISTEPA Enhancement Program)  
DOT Bicycle Program implementation funds  
DOT roadway resurfacing/reconstruction  
1997 Clean Water/Clean Air Bond Act  
TEA-21

Segment Twelve: Alley Pond Park to Little Neck Bay Marina: This segment is a combination of the Brooklyn Queens Greenway path construction through Alley Pond Park, sidewalk reconstruction along Northern Boulevard and path reconstruction and landscaping along Joe Michael's Mile.

Jurisdiction: DPR has jurisdiction over Alley Pond Park and Joe Michael's Mile. DOT has jurisdiction over the Northern Boulevard Bridge and city streets and sidewalks.

Total estimated cost: \$3.4 million

Potential funding sources:  
DPR capital project  
DOT roadway resurfacing/reconstruction (DOT recently completed a study to reconstruct the Northern Boulevard bridge with improvements to access Joe Michael's Mile)  
DOT Bicycle Program implementation funds  
1997 Clean Water/Clean Air Bond Act  
TEA-21

Segment Thirteen: Little Neck Marina to Utopia Parkway: This segment will continue the path reconstruction and landscaping of Joe Michael's Mile, connecting the path with a new waterfront path in Little Bay Park.

Jurisdiction: DPR has jurisdiction over Little Bay Park and Joe Michael's Mile

Total estimated cost: \$2.78 million

Potential funding sources:  
DPR capital project (DPR is currently constructing a waterfront path in Little Bay Park)  
DOT Bicycle Program implementation funds  
TEA-21

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