

Schematic Design of the Brooklyn Waterfront Greenway as a Flood Barrier in Red Hook and Flood Protection Study for the Greenway in Sunset Park

2nd Technical Advisory Committee Meeting

July 26, 2017



SCAPE

*This document was prepared with funds provided by the New York State Department of State under Title 11 of the Environmental Protection Fund
This document was prepared under a contract with Brooklyn Greenway Initiative and the Office of the Borough President*



Agenda

- Schematic designs for the Greenway in Red Hook
- Sunset Park Feasibility Study for the Greenway integrated with flood protection



Project Overview

2 Project Components

➤ Red Hook

Develop schematic designs with the following goals

- Incorporate the Red Hook IFPS with the Brooklyn Waterfront Greenway
- Provide flood protection
- Provide emergency route in and out of Red Hook during a flood
- Close proximity to the Red Hook waterfront
- Designs were coordinate with agencies (MORR and NYCDOT)

➤ Sunset Park

Integrated Flood Protection System Feasibility Study

- Review of past studies, utilities, data
- Existing Conditions from site visits
- 3 alternatives were developed for Greenway and flood protection alignments based on site constraints
- Benefits matrix from feasibility report
- Construction costs were estimated
- Next steps identified

Schematic Designs in Red Hook

THE BROOKLYN GREENWAY AS FLOOD PROTECTION AND EMERGENCY ACCESS

JULY 26, 2017



Department of State



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Schematic Designs in Red Hook

PROJECT GOALS:

- CONSIDER 50 YEAR FLOOD EVENT
- PROVIDE EMERGENCY EGRESS FOR COMMUNITY
- PROVIDE PHYSICAL SEPARATION BETWEEN GREENWAY AND VEHICULAR TRAVEL
- PROVIDE STORM WATER DETENTION
- CREATE PUBLIC AMENITY SPACES
- PROXIMITY TO THE WATERFRONT

Schematic Designs in Red Hook

PROJECT AREA

BOWNE ST, CLINTON WHARF, FERRIS ST.



LEGEND

- * PROTECTED AREA
- 50 YEAR DFE 9.9
- ON GRADE GREENWAY ALIGNMENT
- ELEVATED GREENWAY ALIGNMENT
- ** NYCHA

* POTENTIAL INTRUSION FROM THE SOUTH; FURTHER ANALYSIS REQUIRED

** SEPARATE NYCHA FEMA FUNDED RECOVERY AND RESILIENCY PROJECT

THE BROOKLYN GREENWAY
June 29, 2017

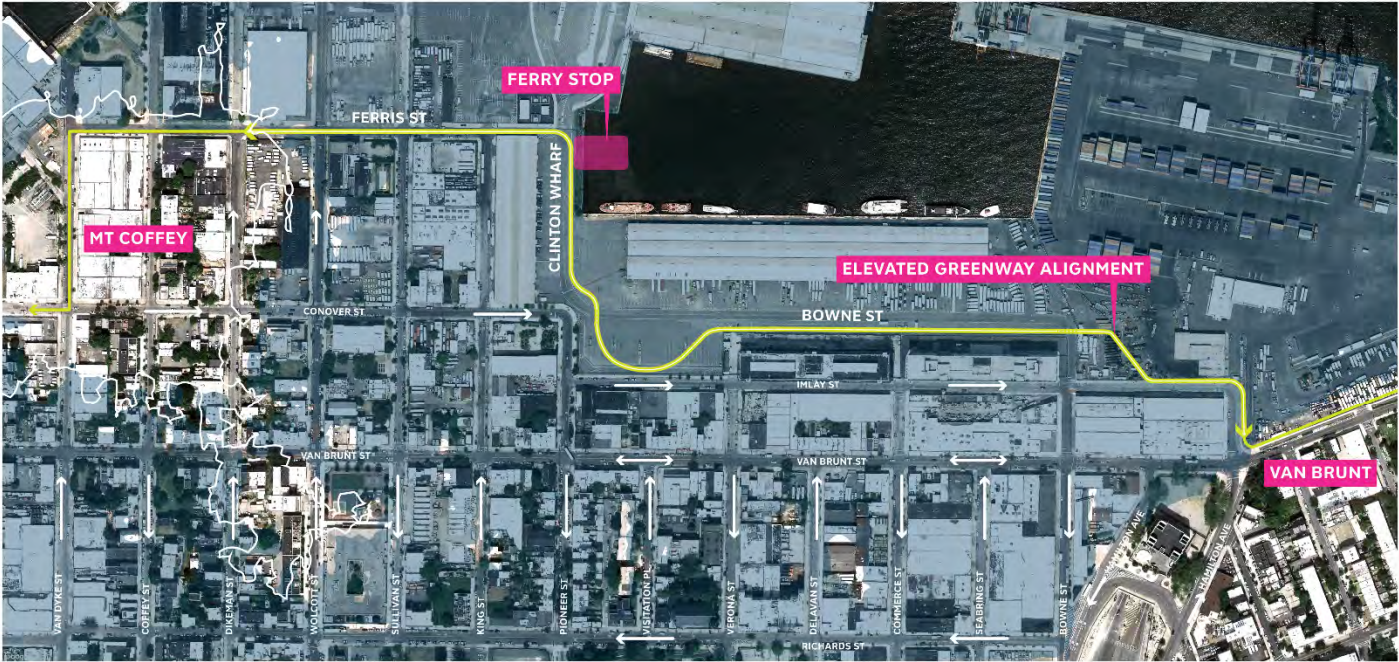


Schematic Designs in Red Hook

EXISTING CONDITIONS



KEY PLAN



THE BROOKLYN GREENWAY
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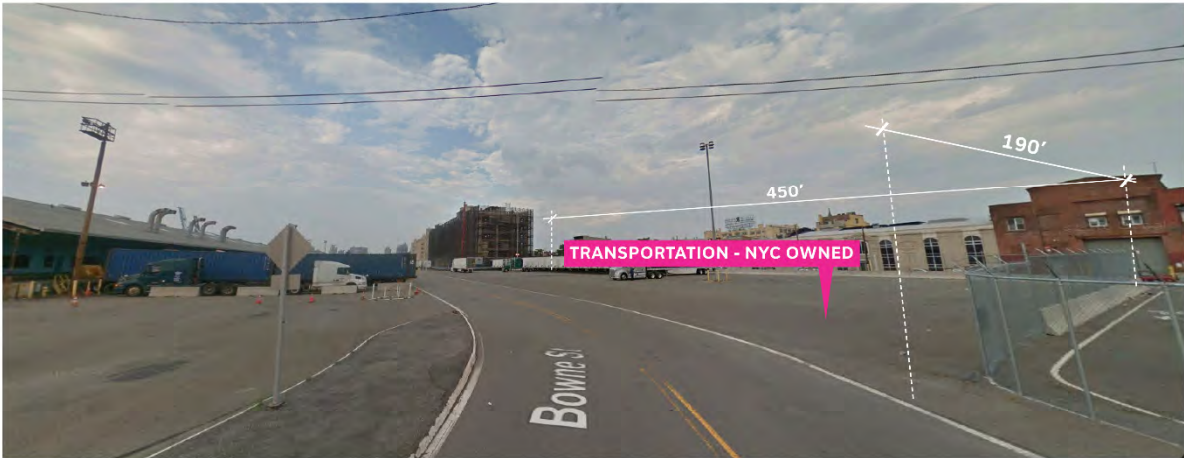


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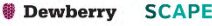


Schematic Designs in Red Hook

WHY BOWNE ST?

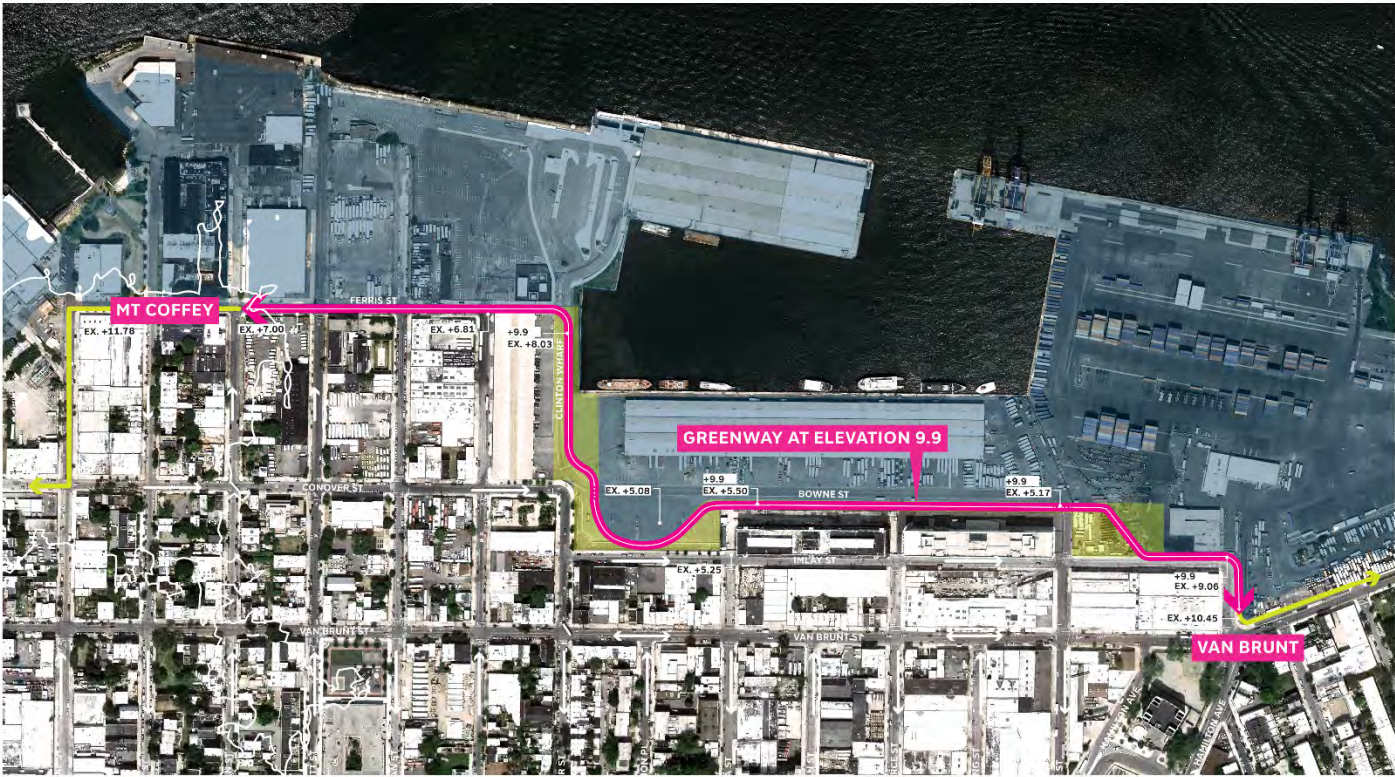


THE BROOKLYN GREENWAY
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RAISED GREENWAY AS FLOOD PROTECTION



THE BROOKLYN GREENWAY
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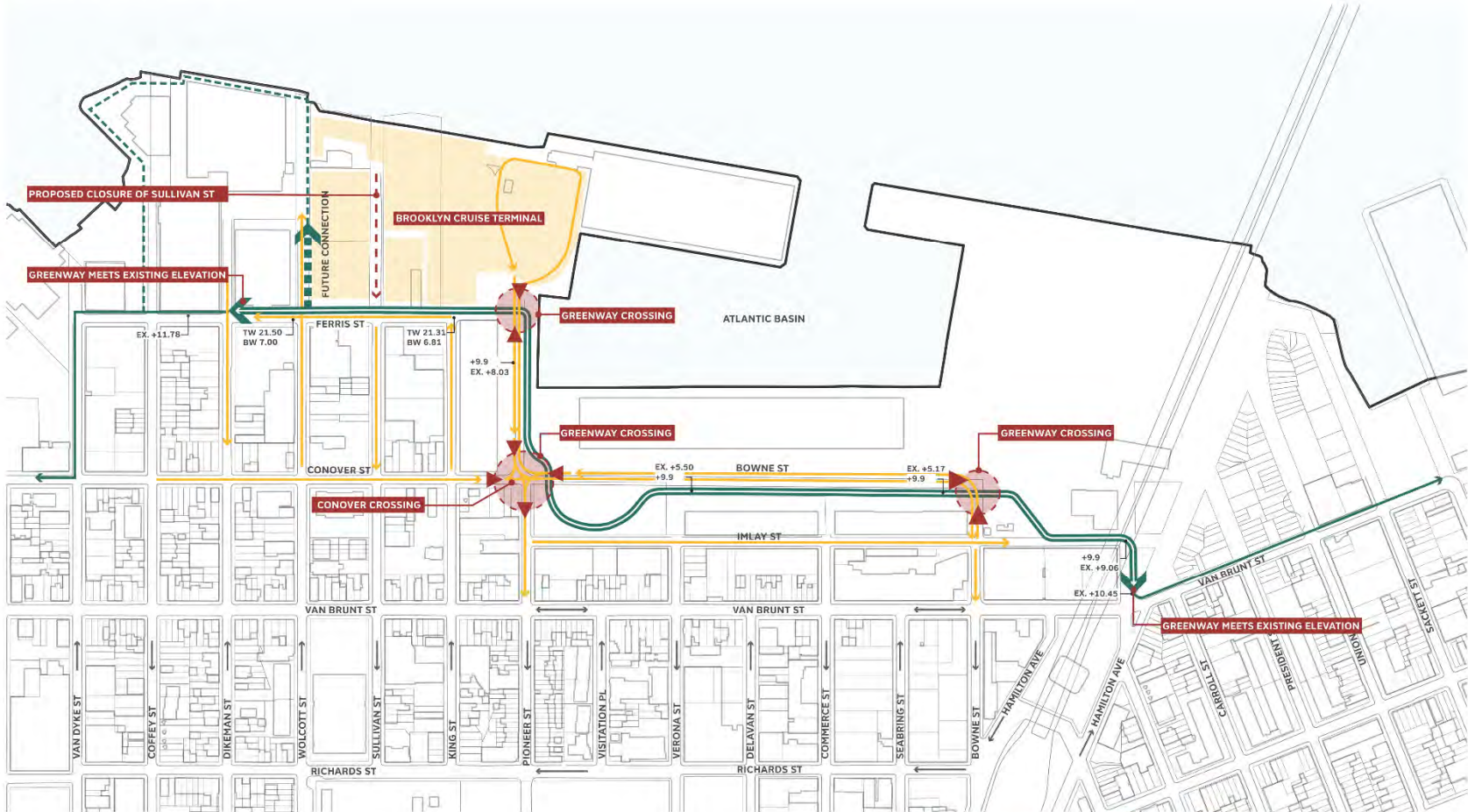
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Department of State
BROOKLYN GREENWAY INITIATIVE
Dewberry SCAPE

Schematic Design of the Brooklyn Waterfront Greenway as a Flood Barrier in Red Hook and Flood Protection Study for the Greenway in Sunset Park



Schematic Designs in Red Hook

TRAFFIC PATTERNS



THE BROOKLYN GREENWAY
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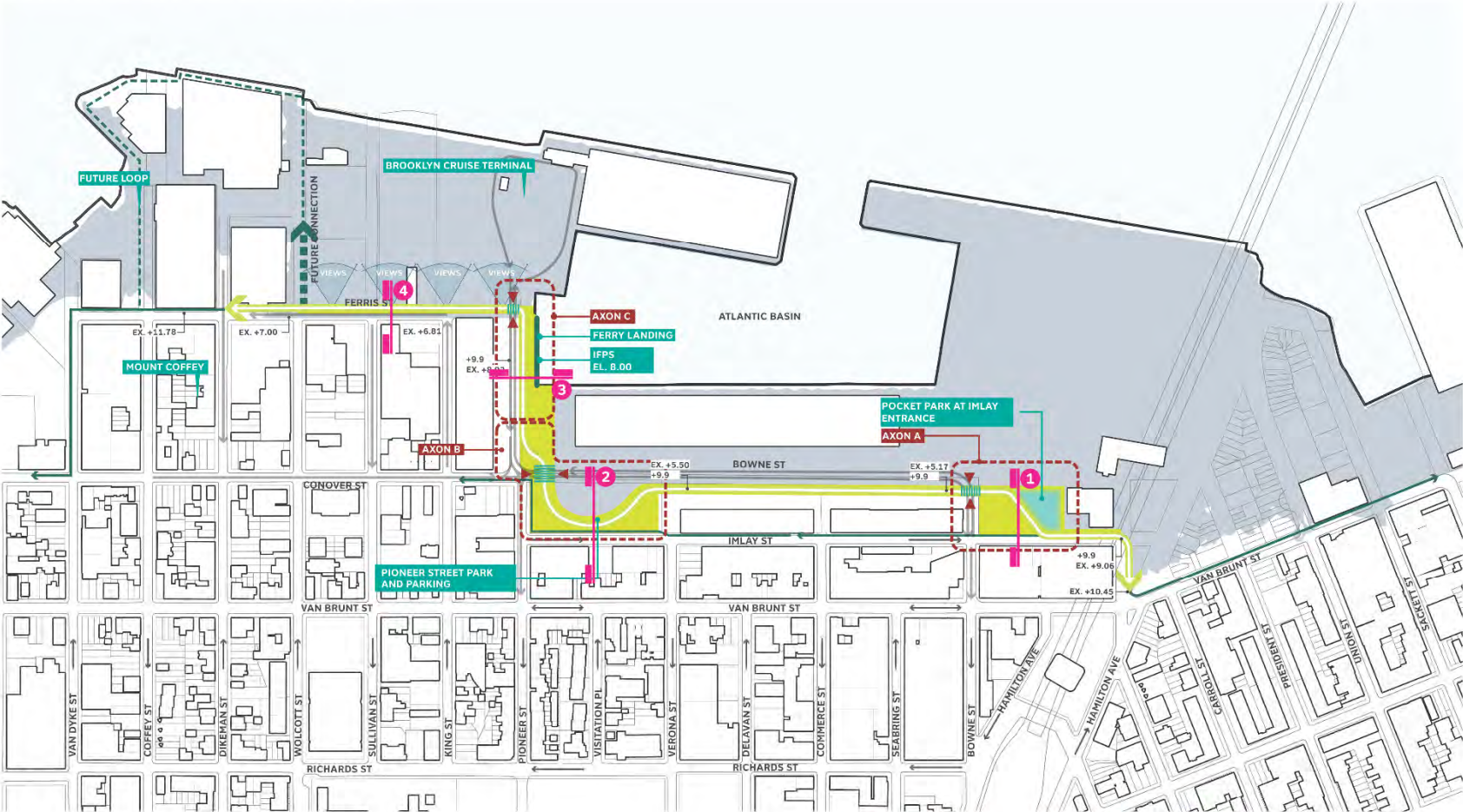




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Schematic Designs in Red Hook

GREENWAY OPPORTUNITIES PLAN



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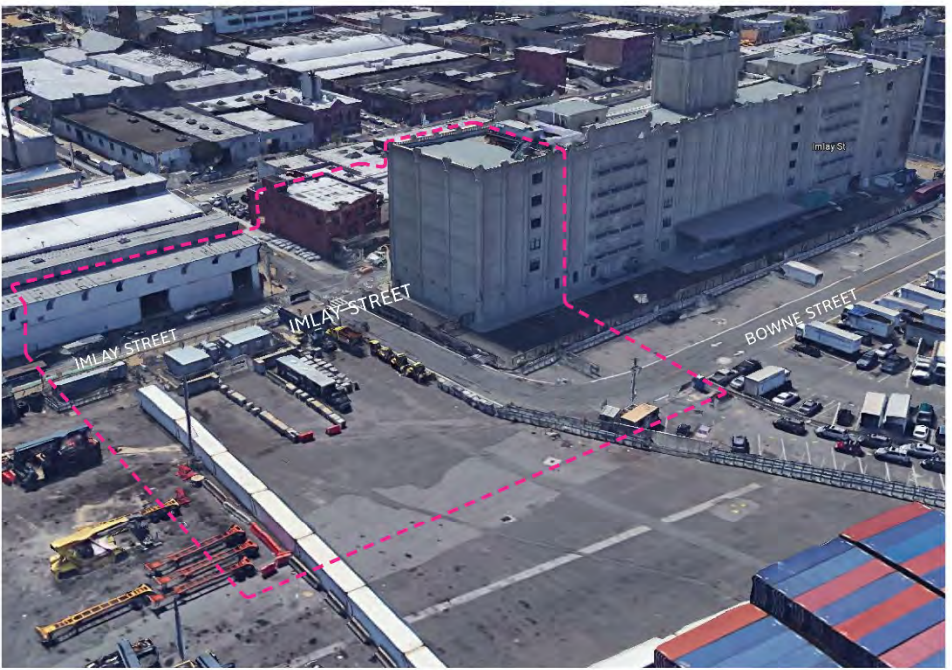




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Schematic Designs in Red Hook

EXISTING CONDITIONS AT IMLAY ST AND BOWNE STREET



KEY PLAN

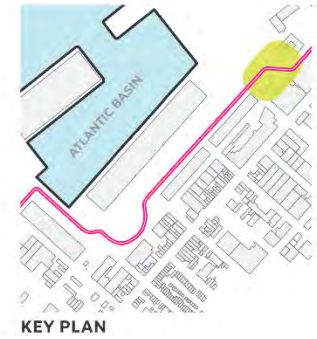
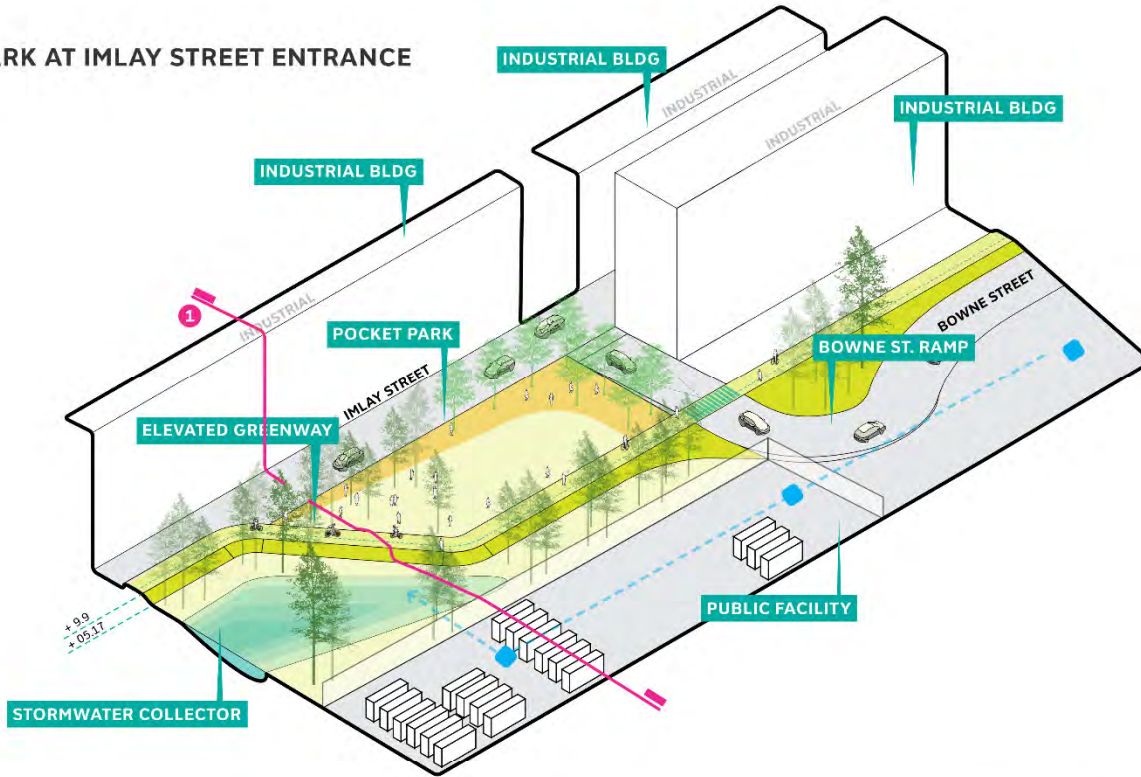
THE BROOKLYN GREENWAY
June 29, 2017



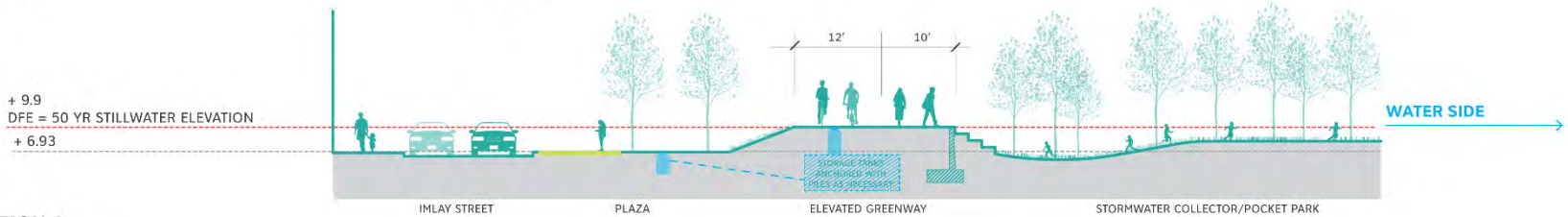
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POCKET PARK AT IMLAY STREET ENTRANCE



AXON A



SECTION 1

THE BROOKLYN GREENWAY
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Schematic Designs in Red Hook

EXISTING PARKING AT BOWNE STREET



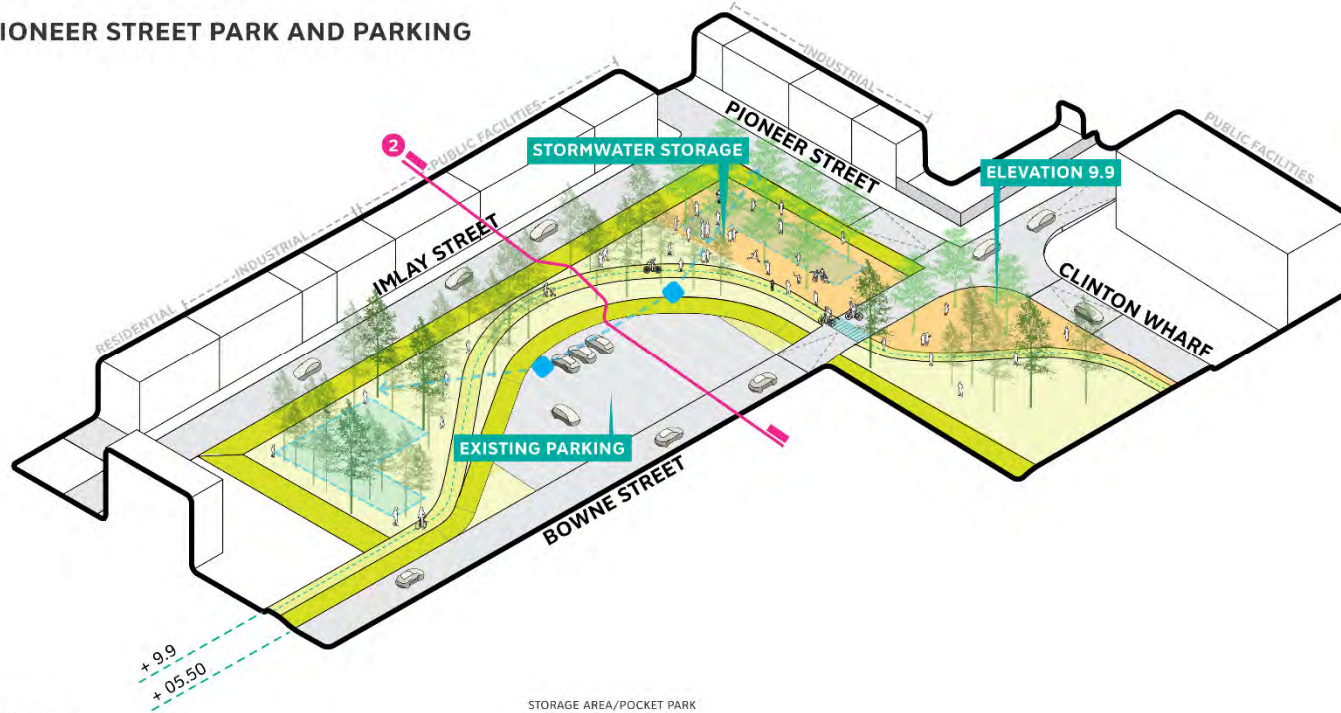
KEY PLAN

THE BROOKLYN GREENWAY
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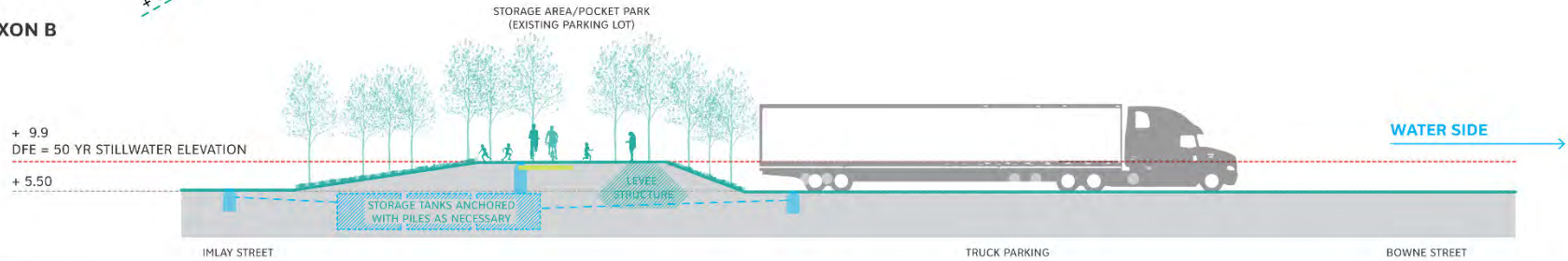


Schematic Designs in Red Hook

PIONEER STREET PARK AND PARKING



AXON B



SECTION 2

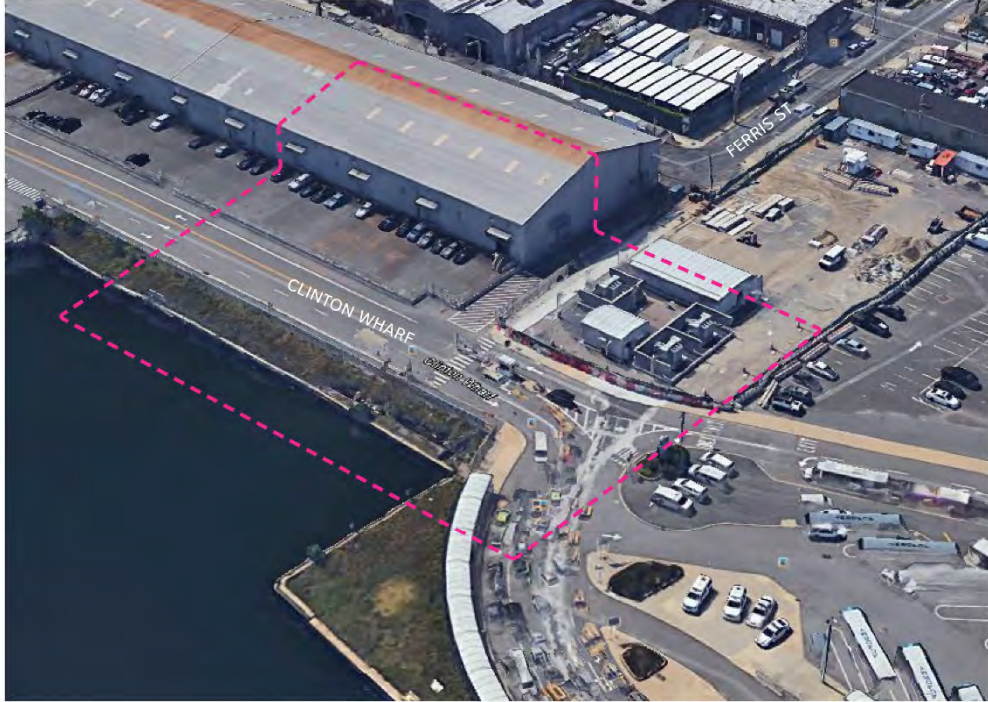
THE BROOKLYN GREENWAY
June 29, 2017

SCALE : 1/16" = 1'-0"



Schematic Designs in Red Hook

EXISTING ROAD TO CRUISE TERMINAL AT CLINTON WHARF



KEY PLAN

THE BROOKLYN GREENWAY
June 29, 2017



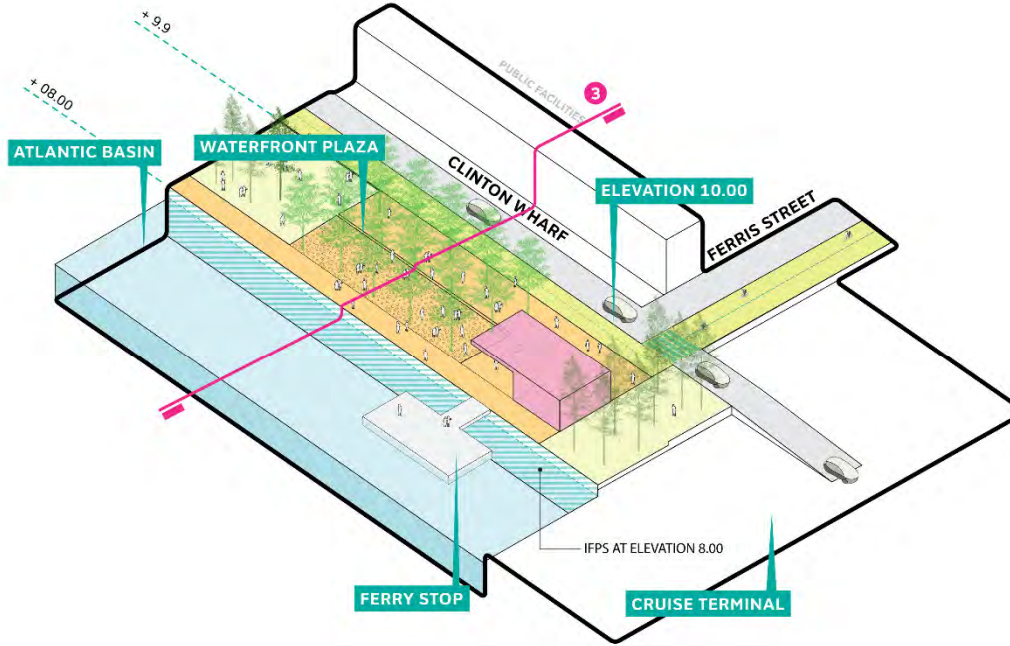
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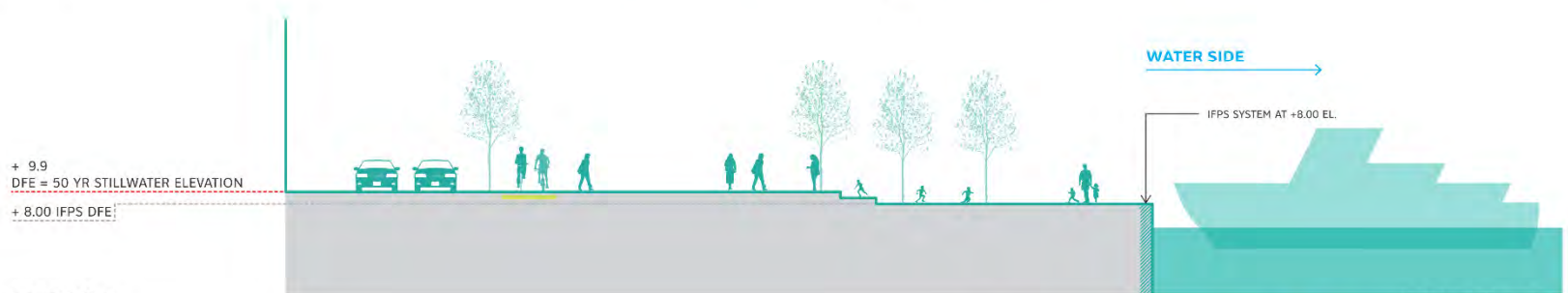


Schematic Designs in Red Hook

CLINTON WHARF
FERRY TERMINAL



AXON C



SECTION 3

THE BROOKLYN GREENWAY
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SCALE : 1/16" = 1'-0"



Schematic Designs in Red Hook

EXISTING SULLIVAN STREET AND FERRIS STREET INTERSECTION



KEY PLAN

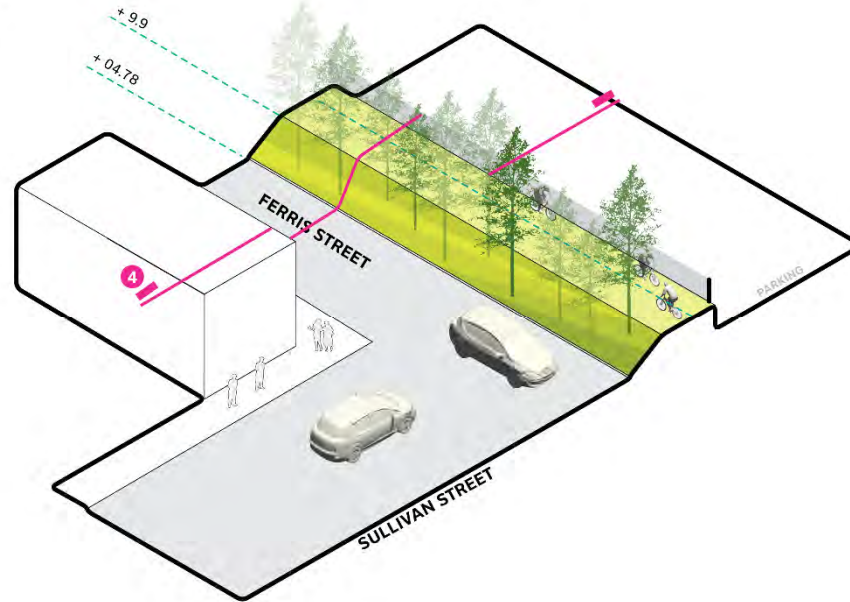
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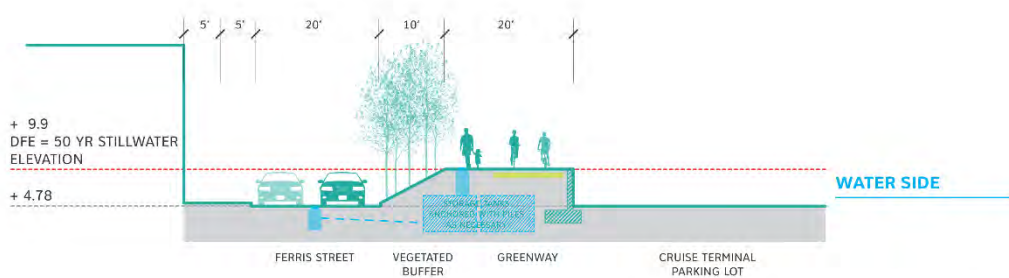
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Schematic Designs in Red Hook

BERM AT FERRIS STREET



AXON D



SECTION 4

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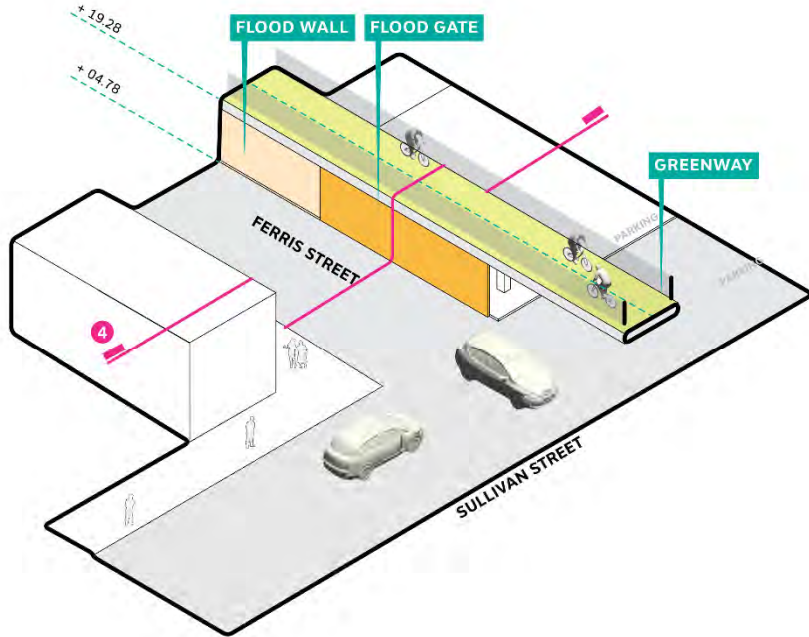
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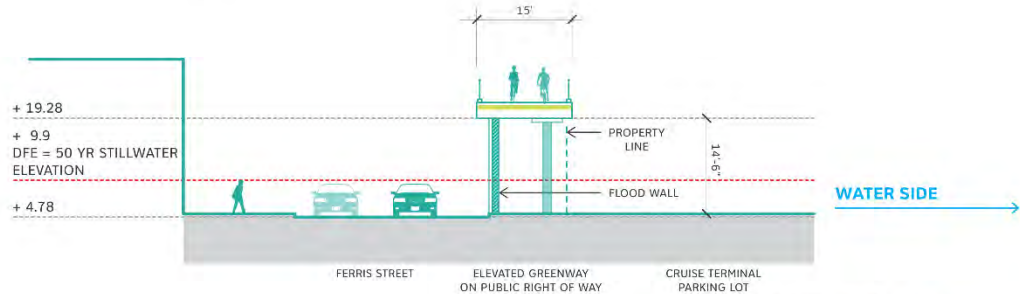
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Schematic Designs in Red Hook

ELEVATED BRIDGE AT FERRIS STREET



AXON D ALT.



SECTION 4 ALT.

THE BROOKLYN GREENWAY
June 29, 2017

SCALE : 1/16" = 1'-0"



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Schematic Designs in Red Hook

**HOW CAN THE GREENWAY
SYNTHESIZE WITH THE
INTEGRATED FLOOD
PROTECTION SYSTEM (IFPS)?**

Schematic Designs in Red Hook

IFPS FLOOD PROTECTION
 10 YEAR FLOOD EVENT CONSIDERED



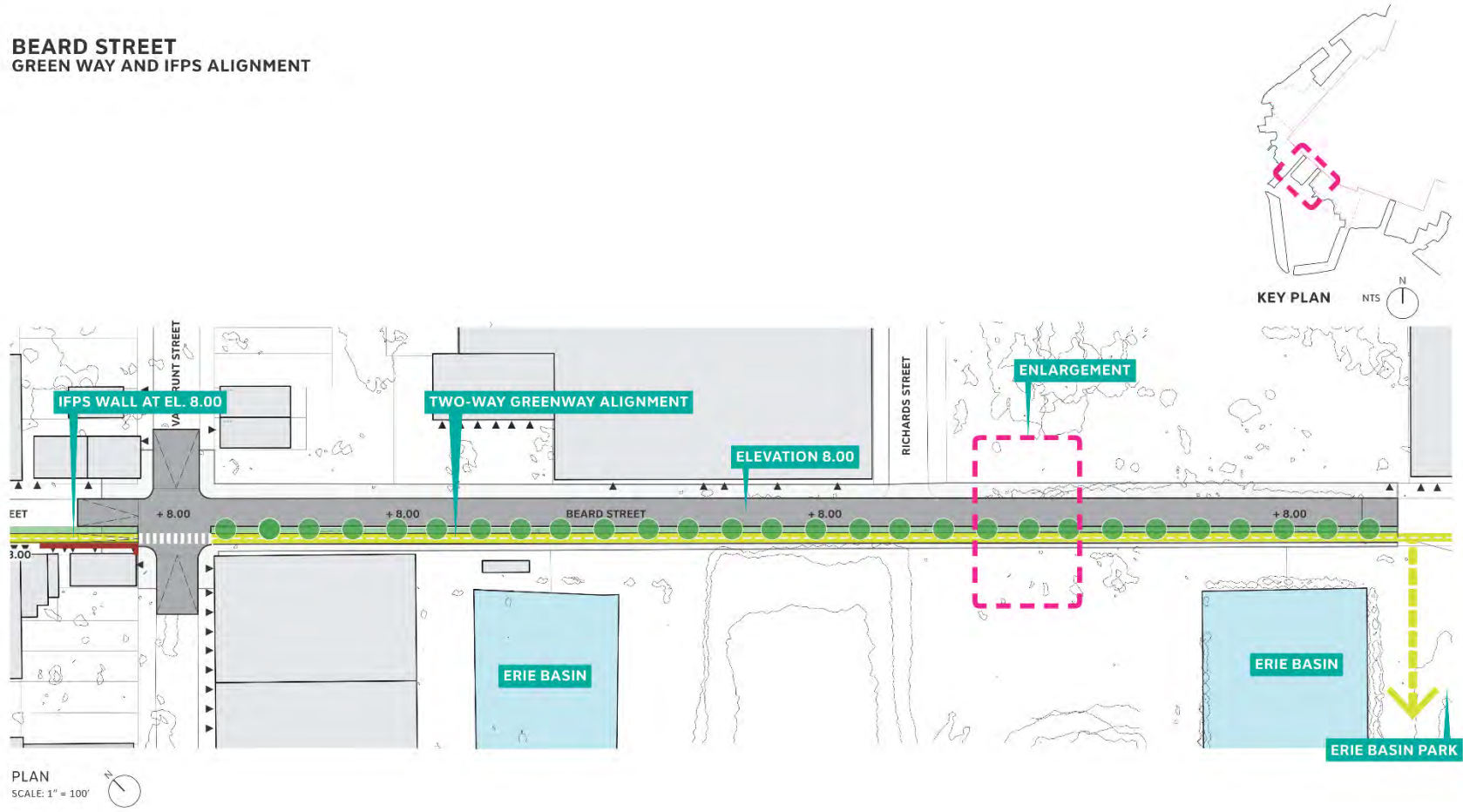
- LEGEND**
- PROTECTED AREA
 - 10 YEAR - DFE 8.00
 - ON GRADE GREENWAY ALIGNMENT
 - RAISED GREENWAY ALIGNMENT
 - ** NYCHA
- ** SEPARATE NYCHA FEMA FUNDED RECOVERY AND RESILIENCY PROJECT

THE BROOKLYN GREENWAY
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Schematic Designs in Red Hook

BEARD STREET GREEN WAY AND IFPS ALIGNMENT



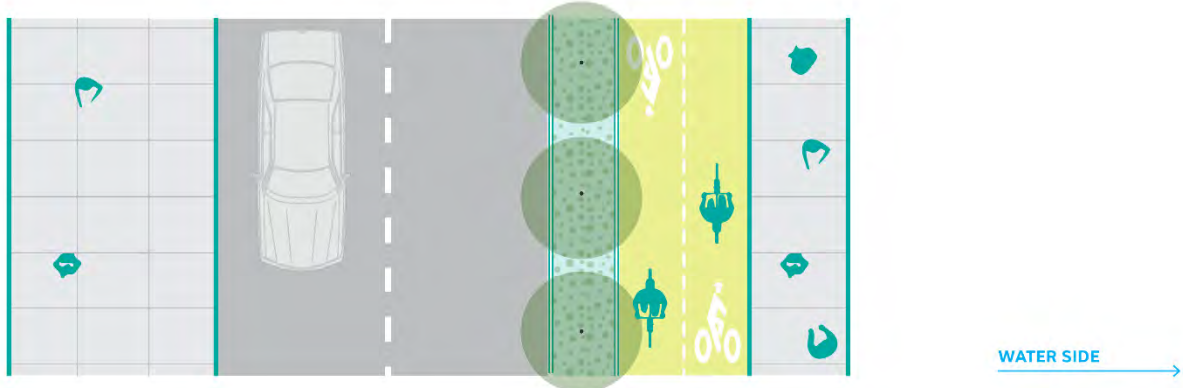
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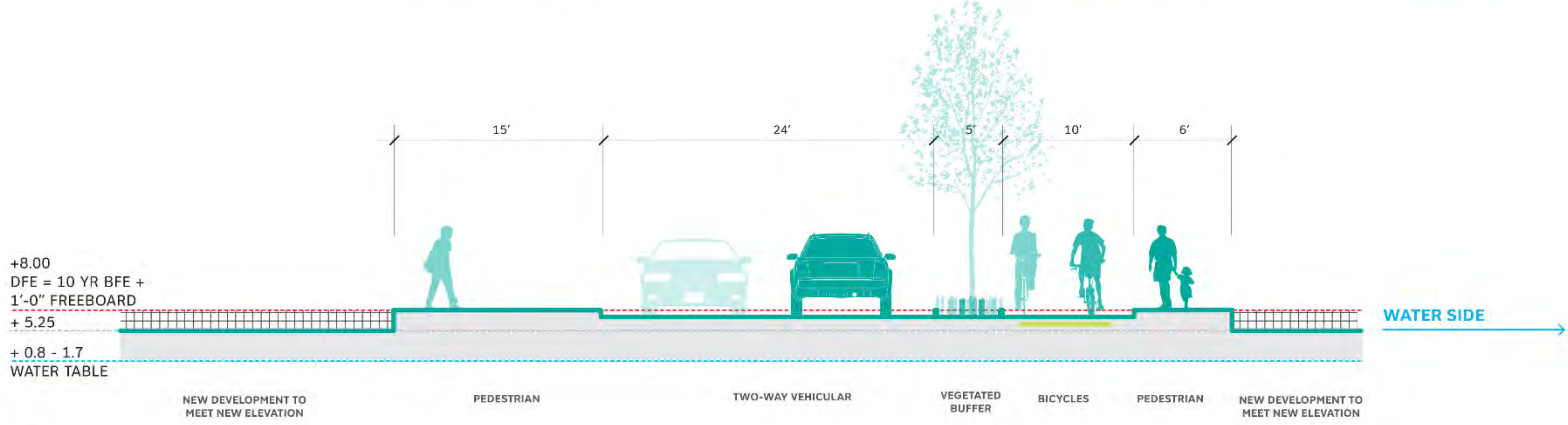


Schematic Designs in Red Hook

BEARD STREET IFPS INTEGRATION



PLAN



SECTION 1

DRAFT CONCEPTUAL DESIGN FOR DISCUSSION PURPOSES ONLY

SCALE : 1/8" = 1'-0"

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