BK Bridge - Montgomery
Coastal Resilience

February 20, 2020
Design Progress for Two Bridges Neighborhood Project
Governor Alfred E. Smith Houses
Agenda

1. Lower Manhattan Coastal Resiliency
2. Project Recap
3. Design Updates
4. Q&A
1 Lower Manhattan Coastal Resiliency

Flood Risk

- Storm Surge
- Sea Level Rise (SLR)
New York City is implementing $500M in on-land capital projects in Lower Manhattan and advancing a Master Plan for FiDi-Seaport.
Lower Manhattan Coastal Resiliency

The BK Bridge-Montgomery Coastal Resilience (BMCR) project in the Two Bridges neighborhood will reduce flooding while maintaining the community's views and access to the waterfront.
Lower Manhattan Coastal Resiliency

Flood damage in Two Bridges from Hurricane Sandy
Lower Manhattan Coastal Resiliency

Two Bridges Neighborhood - 2050s 100-Year Floodplain
Project Recap

Brooklyn Bridge - Montgomery Coastal Resilience Timeline

Feasibility Study

Refined Coastal Analysis

Design Development

Construction

Community engagement activities to include:
- Large-format public meetings
- Quarterly updates and regular touchpoints with community board and elected officials
- Briefings for housing TAs
- ‘Office hours’ tabling sessions in the community
- LinkNYC advertising

Construction Preparation Period

Construction Starts Spring 2021

Community Engagement Will Continue During Construction


4 Rounds of Community Engagement

2016 to Summer 2018

Fall 2018 to Spring 2019

Spring 2019 to Summer 2020

Spring 2021 to Spring 2024

You are here
Project Recap

We heard from the Two Bridges community that the project should try to achieve these goals:

- Provide Flood Protection and Resilience
- Preserving Views + Access
- Distribute Program Equitably
- Integrate Infrastructure into Public Realm
2 Project Recap

Preserve Views + Access
Project Recap

Distribute Program Equitably

FITNESS PARK

BASKETBALL COURTS

FISHING AREA

SEATING / OBSERVATION AREA
2 Project Recap

Integrate Infrastructure into Public Realm
3 Design Updates

Resilience Infrastructure

Raised Platform (Sea Level Rise)

Alignment - Location of Infrastructure
Design Updates

Infrastructure Toolkit

To preserve views and access along the waterfront, the project will utilize an infrastructure toolkit that combines fixed structures with deployable flood gates.

Flip Up Barrier: Sunny Day

Roller Gates & Fixed Structures: Sunny Day
Design Updates

Infrastructure Toolkit

To preserve views and access along the waterfront, the project will utilize an infrastructure toolkit that combines fixed structures with deployable flood gates.

- **Flip Up Barrier: Deployed**
- **Roller Gates & Fixed Structures: Deployed**
3 Design Updates

Raised Platform to Address Sunny Day Tidal Flooding from SLR

Bike Lane

Existing Elev +5.5

Existing Grade

Future Sunny Day Tidal Flooding

Current sea level

Existing Elev +6

Existing Esplanade
Design Updates

Raised Platform to Address Sunny Day Tidal Flooding from SLR

- Bike Lane
- Proposed Elev +7
- Existing Elev +5.5
- Existing Elev +6
- Existing Esplanade

Existing Grade
Future Sunny Day Tidal Flooding
Current sea level
Deployed Flood Infrastructure

Existing Elev +5.5
Existing Grade

Proposed Elev +18.5
Flip-up Gate

Bike Lane

3  Design Updates

2050s 100-year Storm Surge
Current sea level
Design Updates

Flood Protection Alignment - Location of Infrastructure

Site Constraints
Existing Infrastructure

Line of Protection
Sunny Day

Line of Protection
Deployed
Design Updates

Flood Protection Alignment

![Design Updates Diagram]

- Enlargement #1
- Enlargement #2
- Enlargement #3
- NYCHA Smith Houses
- Murray Bergtraum Field
- Tanahy Playground
- Pier 35

Types of gates:
- Flip-up Gates
- Roller Gates
- Fixed Structure

Boundaries:
- 2050s 100-year Floodplain
Design Updates

Enlargement 1

Flip-up gates are used as much as possible to allow for waterfront views and access.
Design Updates

Enlargement 2

Flip-up gates are used as much as possible to allow for waterfront views and access.

Fixed Structure and Roller Gates are used to avoid underground utility conflicts.
Design Updates

Enlargement 3

Flip-up gates are used as much as possible to allow for waterfront views and access.

Fixed Structure and Roller Gates are used:
• to avoid underground utility conflicts
• where waterfront views and access are already obstructed by existing buildings
Design Updates

BMCR Without Drainage Intervention

Storm surge and sea level rise decrease the system’s ability to discharge, leading to street and basement flooding.
The proposed drainage system will allow additional flow capacity to the interceptor pipe, reducing the risk of street and basement flooding.
INTERCEPTOR GATE BUILDING

Combined BMCR / ESCR Approach
INTERCEPTOR GATE BUILDING

Existing Conditions

1. AERIAL VIEW FROM SOUTHEAST

2. VIEW LOOKING NORTH FROM SOUTH STREET

3. VIEW LOOKING SOUTH FROM WAGNER PL.

4. VIEW LOOKING SOUTHWEST FROM WAGNER PL.
Existing Conditions

SITE CONSTRAINTS & OPPORTUNITIES

1. MINIMIZE IMPACT ON EXISTING DOT YARD
2. MAINTAIN THE DOT YARD'S EXISTING GATE OPENING AND IMPROVE DOT’S ACCESS TO SOUTH STREET (ROBERT WAGNER SR. PL CONVERTS TO ONE WAY NORTH OF THE YARD)
3. PROVIDE REQ'D OFFSET FROM EXISTING BELOW GRADE COMBINED SEWER
4. PROVIDE ADEQUATE CLEARANCE FROM EXISTING FDR COLUMNS AND FOOTINGS
5. IMPROVE PEDESTRIAN CONNECTION ALONG SOUTH STREET’S NORTH SIDEWALK; EXISTING STREET PATTERN CREATES RIFT WITH NO CLEAR PEDESTRIAN CONNECTION, ENCOURAGING JAYWALKING
INTERCEPTOR GATE BUILDING

Proposed Site Plan

KEY:
1. Hydraulic Area
2. Pump Area
3. Electrical Room

SCALE: 3/64” = 1’
INTERCEPTOR GATE BUILDING

Aerial View from Southeast
INTERCEPTOR GATE BUILDING

View from Southeast
COMMUNITY FEEDBACK

Fall 2019 Community Engagement
- Oct 2, 2019 Public Meeting
- Nov & Dec, 2019 Small Group Sessions
- Community members provided feedback on a conceptual program plan

What we heard
- Desire for open, flexible space
- Strong concerns about relocating the existing basketball half courts
- Existing fitness area is very popular and should be replaced-in-kind with more universal equipment
- Existing bocce court is under-used and should be replaced
- Strong desire for playgrounds at the waterfront
- Gliders at Pier 35 are very popular
- Desire for bathroom facilities
- Desire for improved signage & wayfinding, lighting, skate deterrents
PROPOSED PROGRAM TYPE

Existing Program

Proposed Program Zones - PDC Conceptual Review (October 2019)

Proposed Program Zones - PDC Preliminary Review (February 2020)

Play and Fitness have been switched

Concept Program showed Sports
SITE PLAN 1
Basketball and Ping Pong North of Wagner Place

LIMIT OF WORK

- Color SealCoat Asphalt
- Basketball
- Parks Storage Containers (Location In Progress)
- Ping Pong
- Game Tables
- Ramp to Platform
- Stairs
- Flip-up Gate Post
- Concrete Steps & Wall, Flip-up Gate with Metal Finish

WAGNER PLACE

Asphalt

Basketball

Containers

(F)
Color SealCoat Asphalt

Concrete Steps & Wall, Flip-up Gate with Metal Finish

Basketball Hoop

Access for DOT
SITE PLAN 2
5-12 Play and Adult Fitness South of Catherine Slip

--- LIMIT OF WORK ---

- Benches to Match Existing ERE
- Safety Surface Tiles
- Adult Fitness Area
- Fitness Equipment
- Concrete Climbing Surface
- Fencing
- DEP Regulator Area to Keep Clear

--- SITE PLAN 2 ---

Play Equipment
SITE PLAN 3
Entry, Overlook and Seating at Catherine Slip

- Concrete Steps, Ramps, and Platform; Flip-up Gate with Metal Finish
- Concrete Stairs and Seating with RPL Slats
- Concrete Stairs and Seating with RPL Slats
- Stairs with Stepped Seating
- Flip-Up Gate Post
- Ramp to Platform
- FDR Column

CATHERINE SLIP
STAY IN TOUCH:

- www.nyc.gov/lmcr
- @NYClimate
- @NYClimate
- By Mail
  253 Broadway - 14th Floor
- In Person
- lmcr@cityhall.nyc.gov
INTERCEPTOR GATE BUILDING

Proposed Material Palette

STAINLESS STEEL
Back Up Wall, Doors, & Trim Elements

SOLID GLASS BRICK
Facade
(Pictured: Office Mockup)

BARRE GREY GRANITE
Stone Base

FLAT-LOCK METAL TILE Sloped Roof Assembly
PLAY EQUIPMENT

A: Landscape Structures- Mobius climber
B: Landscape Structures- Evos
C: Landscape Structures- Humpty Climber
D: Landscape Structures- Curva Spinner
E: Landscape Structures- Curved Balance Beam
F: Landscape Structures- Pod Climber 8”- 30”
G: Climbing Surface
H: Landscape Structure Whoosh Winder Slide
FITNESS EQUIPMENT

a. Combine (South Fitness)
b. Arm Bike - ADA
c. Push Up & Leg Lift Station - ADA
d. Triple Bars - ADA

SAFETY SURFACE TILES

Mitchell EZ Fall Safety Surface Tiles
The BMCR and ESCR **drainage systems will be connected** so that stormwater flows to the Manhattan Pump Station and gets pumped to and treated at the Newtown Creek Wastewater Treatment Plant.
INTERCEPTOR GATE BUILDING

Elevation & Section

1. EAST ELEVATION

2. CROSS SECTION

- Flat-Lock Metal Tile
- Solid Glass Brick w/ SS Backup Wall
- Granite Base
### Design Updates

**Project Coordination**

- **Brooklyn Bridge**
- **Esplanade**
- **Pier 35**
- **East River Esplanade**
  - Package 3
  - Package 4
3 Design Updates

Existing and Planned Public Amenities

NYCHA SMITH HOUSES

TANAHEY PLAYGROUND

MURRY BERGTRAUM FIELD

PIER 35

Design Updates

Existing and Planned Public Amenities

- BIKE PATH
- BASKETBALL COURTS
- PLAYGROUND
- HOCKEY
- SKATEBOARDING

SPORTS & GAMES

- SOFTBALL
- SOCCER FIELD
- BASKETBALL COURTS
- FITNESS AREA

Currently Under Construction

Planned
Design Updates

2016-2018 Community Input
The **existing program** includes: Fitness Areas, Bocce Ball, Basketball, Turf Field, Seating, Promenade, Bike Lane, Game Tables.

Community feedback has shown preference for other program over the existing bocce ball court; the synthetic turf field will be replaced with other small sports program.
3 Design Updates

Impacted Program to Replace or Remove
3 Design Updates

Impacted Program to Replace or Remove

- **BIKE RACKS REDESIGN+ RELOCATE**
- **BLEACHER / SEATING REDESIGN+ RELOCATE**
- **FITNESS REDESIGN IN PLACE**
- **BLEACHER / SEATING REDESIGN+ RELOCATE**
- **BLEACHER / SEATING REDESIGN+ RELOCATE**

Legend:
- **FITNESS**
- **SPORTS**
- **LIMIT OF WORK**
- **BBE PROJECT LIMIT**
- **SEATING/GLIDERS(TABLES**
- **BIKE RACK**
3 Design Updates

Impacted Program to Replace or Remove

- Bike Racks: Redesign + Relocate
- Basketball: Redesign + Relocate
- Bocce Ball: Remove
- Turf Field: Replace with Other Program
- Fitness: Redesign in Place
Design Updates

Proposed Project Program
3 Design Updates

Proposed Project Program
3 Design Updates

Proposed Program