

# Lower Manhattan Coastal Resiliency

February 22nd, 2023 Community Board 1 Update

**NYC** Mayor's Office of Climate &  
Environmental Justice

Battery  
Park City  
Authority



NYC Parks

**NYC** / **EDC**

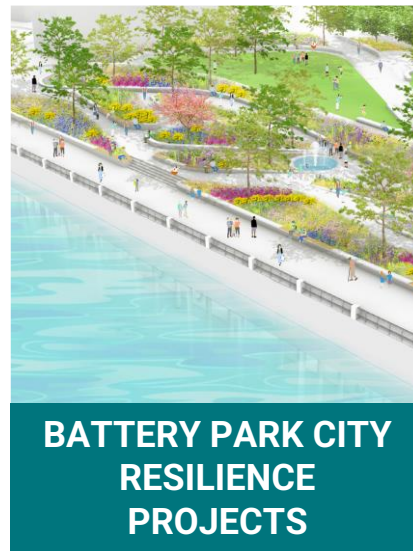
**NYC** Department of  
**DDC** Design and  
Construction

# Agenda

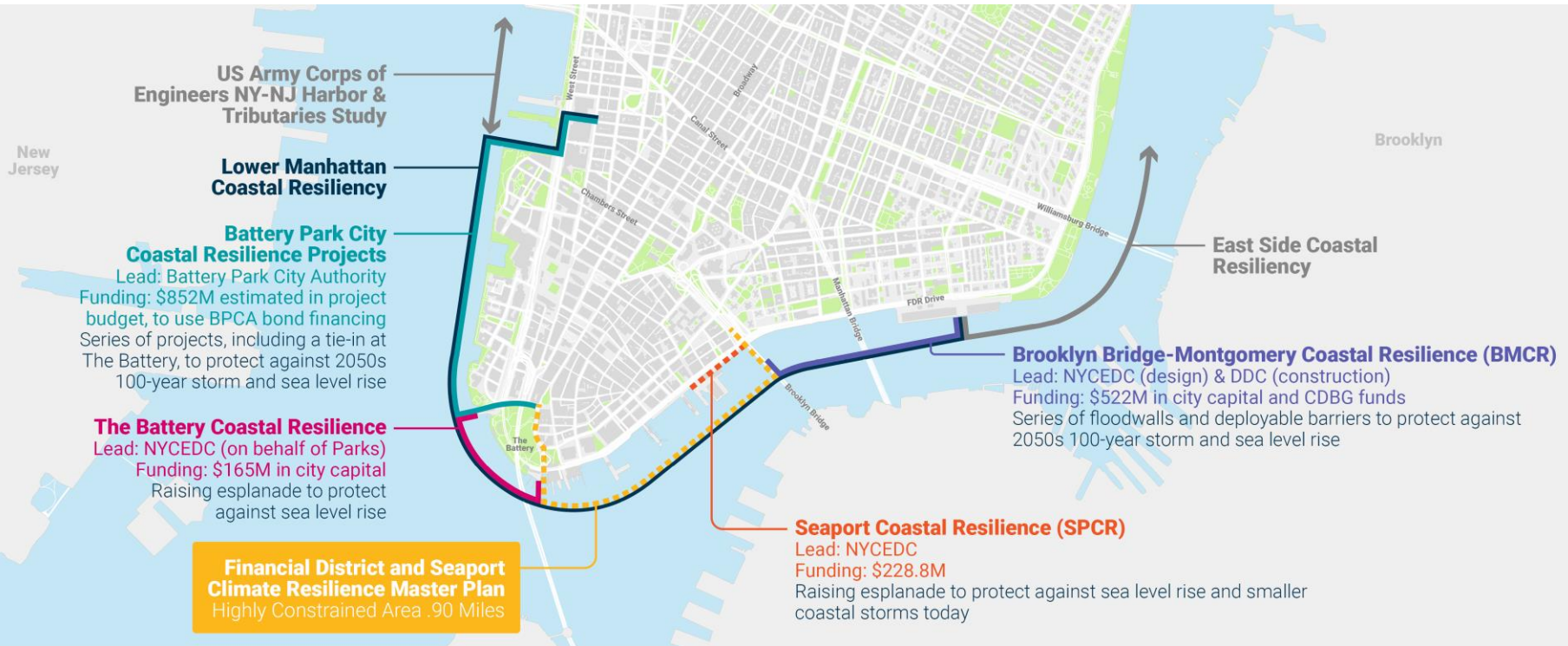
- Overall LMCR Update
- Project Updates
  - Fidi/Seaport Master Plan
  - Battery Coastal Resilience
  - Battery/ West Street Underpasses Floodproofing Project
  - BPCA Projects
  - Seaport Coastal Resilience
  - BMCR
- Ongoing engagement opportunities

# Significant strides were made on the LMCR projects in 2022

- Broke ground on the **BMCR project**
- Finalized design on the **Battery Coastal Resiliency Project**
- Awarded \$50M (largest possible award) in BRIC funding from FEMA for **Seaport Coastal Resilience**
- Finalized design on the **South Battery Park City Resiliency project**
- Commenced Progressive Design Build process on the **North/West Battery Park City project**



# City, State, and Federal governments have committed over \$1.7B in climate adaptation projects in Lower Manhattan





# Project Timelines

(Est. Dates as of February 2023)

Project	100% Design	Procurement	Construction Start	Construction Complete						
					'23	'24	'25	'26	'27	'28
Brooklyn Bridge–Montgomery Coastal Resilience	Complete	Complete	Underway	Fall 2026						
South Battery Park City Resiliency	Complete	Underway	Spring 2023	Early/Mid 2025						
The Battery Coastal Resilience	Complete	Underway	Spring 2023	Summer 2026						
North/West Battery Park City Resiliency	April 2024	N/A	Early/Mid 2024	Early 2027						
Seaport Coastal Resilience	2024	Spring 2025	Fall 2025	Winter 2027						
FiDi-Seaport Master Plan	Underway	TBD	TBD	TBD						

# FiDi-Seaport Climate Resilience Master Plan

An award-winning plan, grounded in extensive community conversations, collaboration, and regulatory feedback, our plan lays out a shared vision that is feasible, implementable and provides a dynamic urban and waterfront experience.



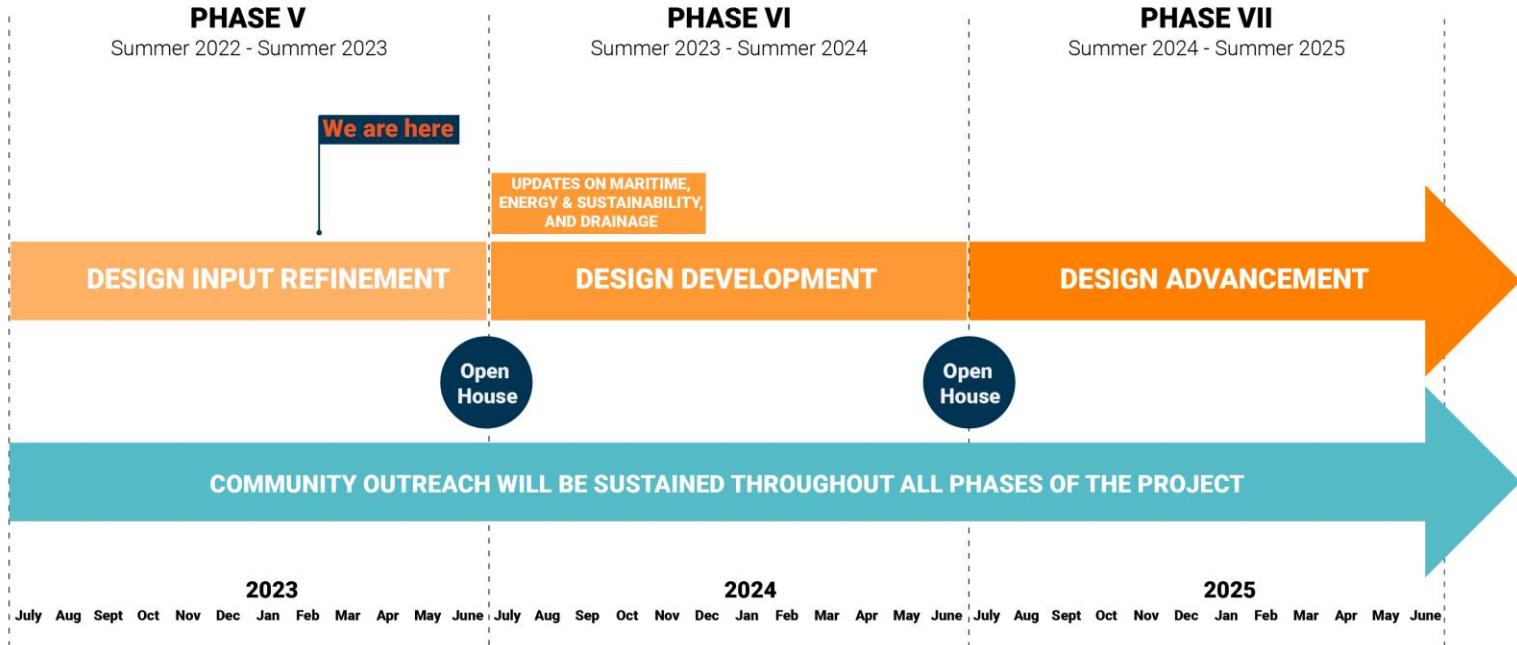
## What is a Master Plan?

- Shared City-community framework for long-term decision-making
- Identifies core infrastructure and sets aside flexible space for future programming
- Intentionally flexible, not set-in-stone

## Highlights of Our Design:

- Two levels of flood protection: a lower level for daily tidal flooding and an upper level for coastal storms
- Extends into the water up to a full city block at some locations (up to 200 feet) and down to a half-block (90 feet)

We are currently working to spread awareness of the project. The next phases of work will be focused on **advancing the design** of the master plan with **your feedback every step of the way**.



This current phase of work (Phase V) is focused on resolving outstanding design questions and updating the Master Plan to reflect key findings across areas of study.



### Stormwater Management

How do we manage **stormwater** during and outside of hurricane events?



### Maritime

How do we make this a 21st century **resilient maritime** hub?



### Energy & Sustainability

How do we make this site **net zero**, advancing other **Citywide initiatives**?



### Access & Circulation

How can we optimize the quality of **open space and circulation**?



How do we manage **stormwater**  
during both hurricane and  
non-hurricane events?



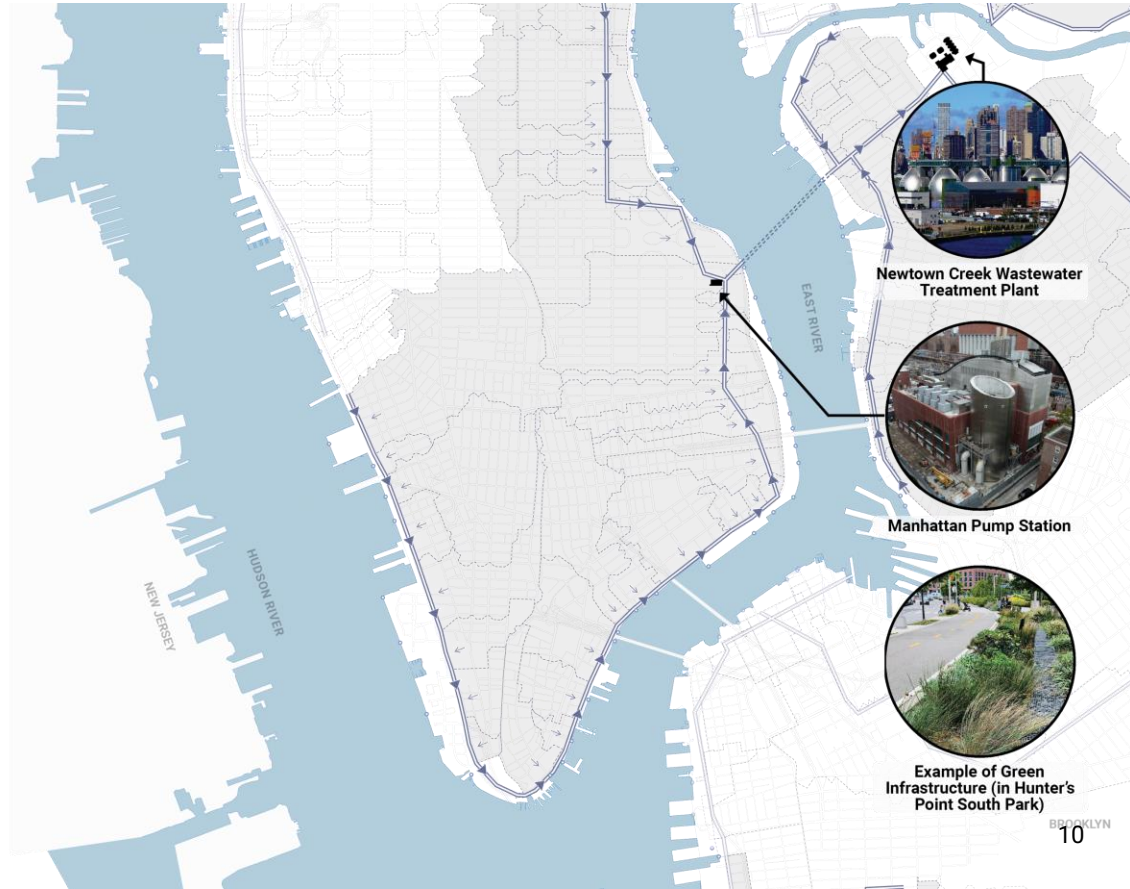
# The Master Plan is assessing how to leverage stormwater management infrastructure for both hurricane and non-hurricane conditions.

## What are we currently studying?:

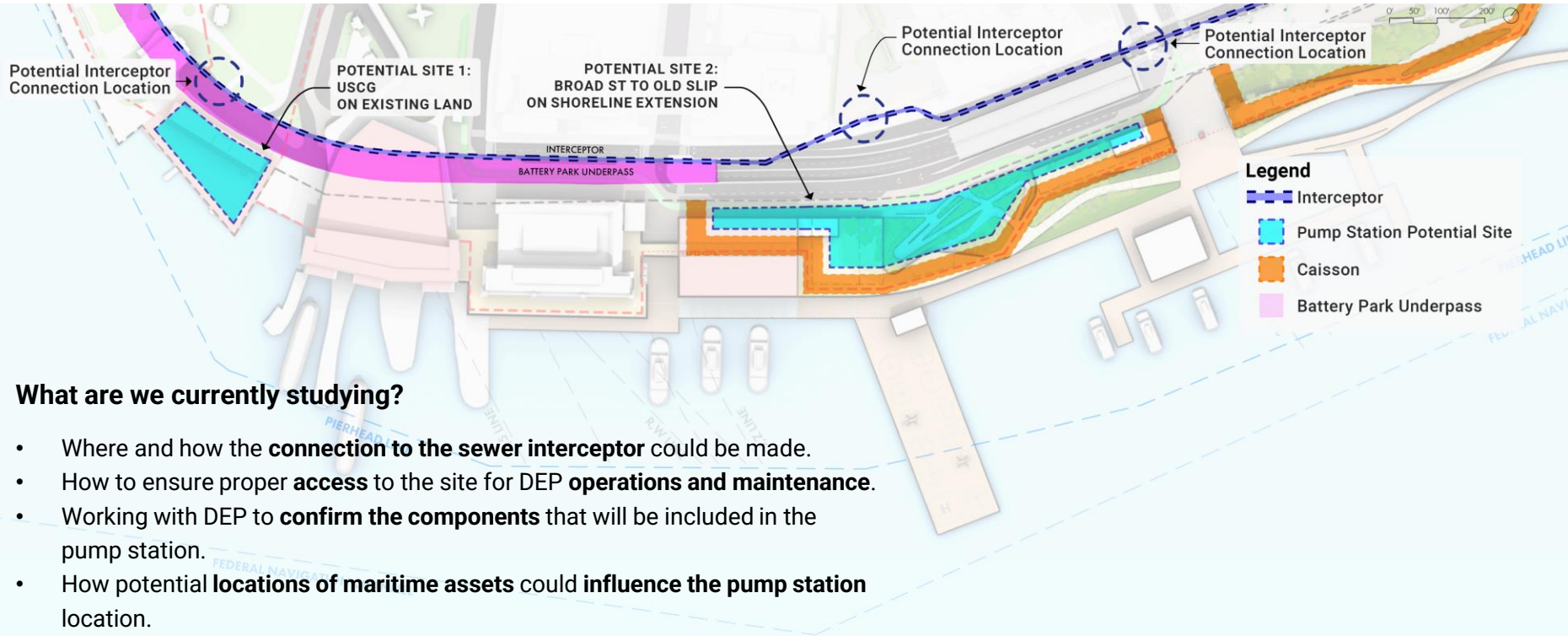
- What **storm conditions** can the new stormwater infrastructure provide benefit for?
- What **green infrastructure strategies** can help capturing and managing water before it enters the sewer system?
- In coordination with DEP, what are the design inputs and requirements **for the pump station?**

### Legend

- Newtown Creek Wastewater Treatment Plant Area
- Combined Sewer Overflow Shed
- Combined Sewer Overflow Shed - Flow Direction
- ▬ Interceptor Pipe
- ▶ Interceptor Pipe - Flow Direction
- Combined Sewer Overflow - Outfall Location



# Where is it feasible to site a pump station?



How do we make the Financial  
District & Seaport area a 21<sup>st</sup>  
century resilient **maritime** hub?





# Key Maritime Planning Goals



**Goal 1:** Resiliency is Priority



**Goal 2:** Efficiently Connected & Accessible



**Goal 3:** Adaptable & Flexible



**Goal 4:** Technically Integrated with Infrastructure & Security Needs



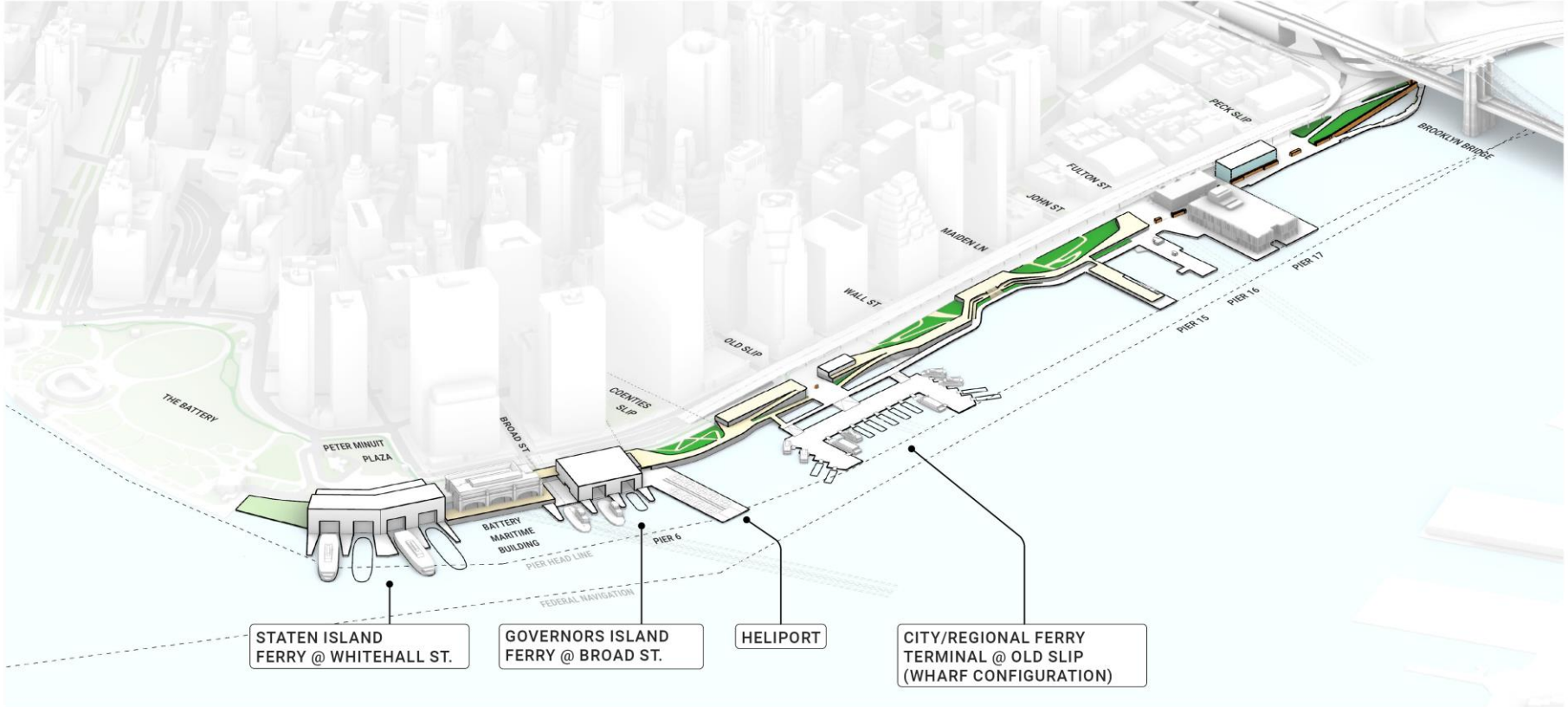
**Goal 5:** Sustainable Design



**Goal 6:** Celebrate the New York Waterfront



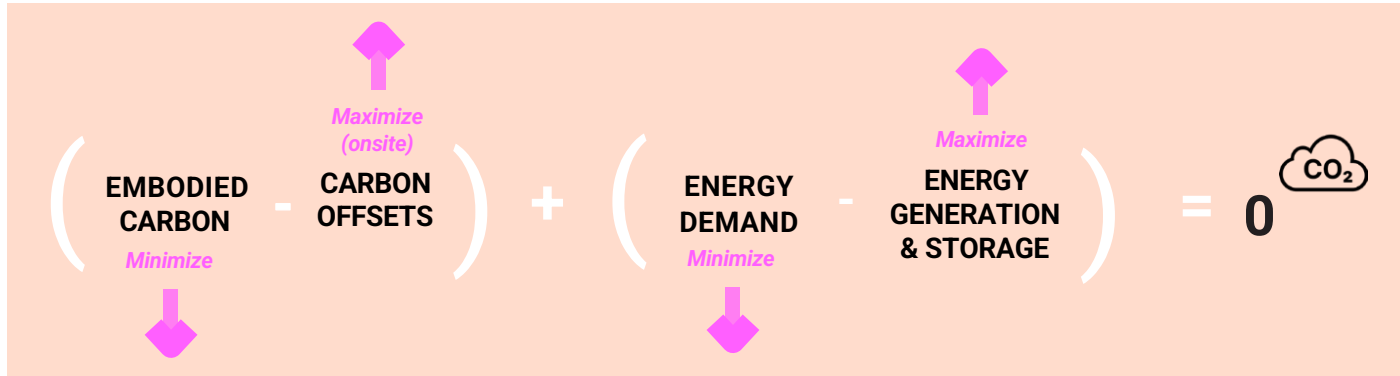
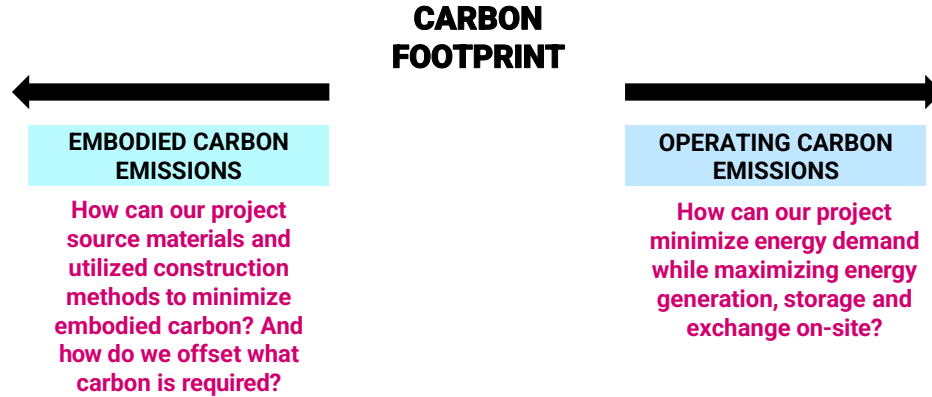
# 3-Terminal Approach; Wharf Terminal at Old Slip



How do we make this site  
net-zero and how are we  
integrating **sustainability** into  
all aspects of the design?



# How can we reduce the project's carbon footprint and achieve net-zero carbon emissions?





# How can our project contribute to human and ecological wellbeing, while minimizing pollution and negative impacts on the local environment?

## 2A. STORMWATER

How can our project help reduce the volume of runoff from the site and filter water before it enters the combined sewer system?

## 2B. POTABLE WATER DEMAND

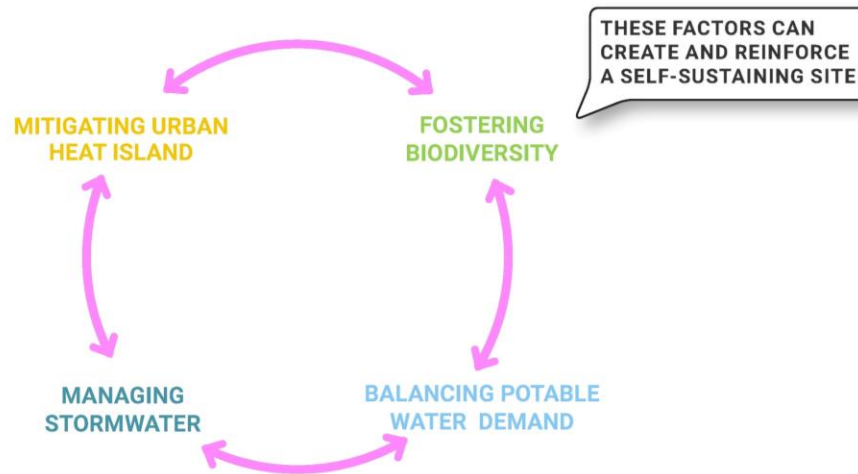
How can our project site minimize potable water waste and promote conservation?

## 2C. URBAN HEAT ISLAND

How can our site mitigate the impact of thermal gain in the urban context in light of a future with more extreme heat?

## 2D. BIODIVERSITY

What can our project do to minimize impacts on local habitats and promote regeneration?



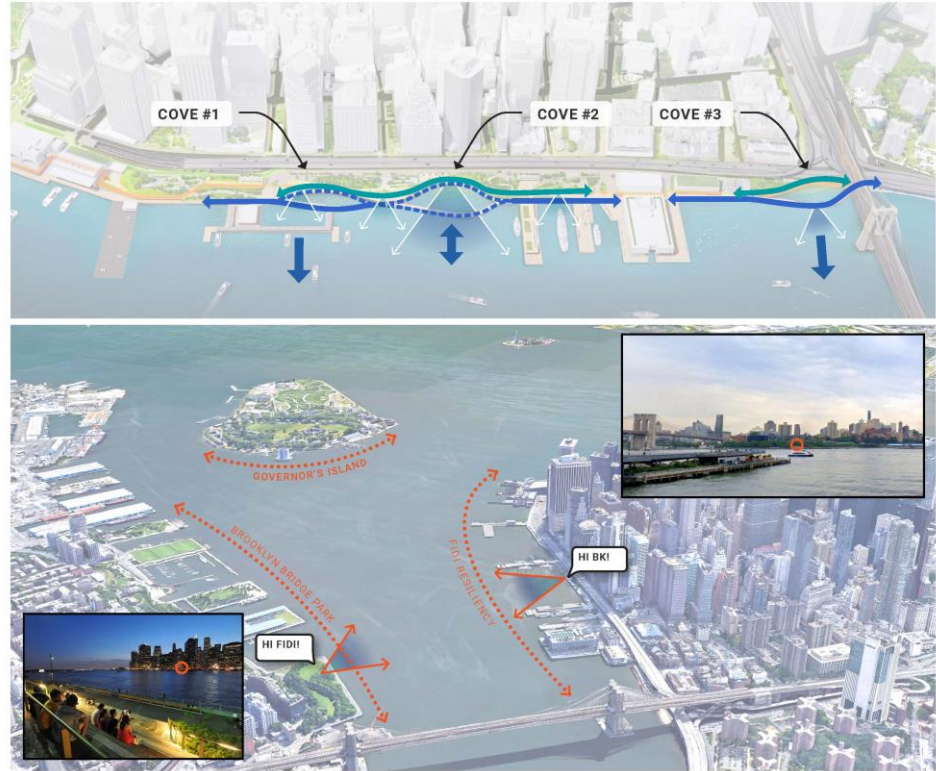
How can we optimize the  
quality of **open space** and  
**circulation**?



# How are we enhancing the waterfront experience?

We are evaluating the waterfront configuration for criteria such as:

- **Usability** - Does the design provide safe and comfortable spaces to stay and enjoy the waterfront?
- **Movement** - Are there clear and efficient ways of moving between destinations? Are there sufficient connections between elevations?
- **Experience** - Does the design create unique experiences at both upper and lower esplanade elevations? How does the waterfront relate to the surrounding urban harbor?
- **Flexibility** - Does the design accommodate a variety of users and journeys across the water's edge?
- **Performance** - Is waterfront program and ecology distributed in the most appropriate locations for successful performance?
- **Constraints** - All studies must respond to flood protection, access, maintenance, loading, and drainage considerations.



**What are the CCLM's priorities and feedback regarding how the waterfront experience can be optimized for a diverse group of users?**

# How are we optimizing city-side open space?

We are evaluating the city-side for criteria such as:

- **Usability** - Are there opportunities to streamline circulation or manipulate topography to create more programmable landscape area?
- **Movement** - Are there clear and efficient ways of moving up and over? Are there sufficient access points with strong urban connections? Is wayfinding intuitive?
- **Experience** - Can we strengthen urban adjacencies and views? How can we leverage existing conditions to benefit experience?
- **Flexibility** - Can the landscape support a variety of undetermined future uses and programs?
- **Performance** - Does the landscape support opportunities for ecological and habitat enhancement?
- **Constraints** - All studies must respond to flood protection, access, maintenance, loading, and drainage considerations.



**What are the CCLM's priorities and feedback regarding how open space can be optimized for a diverse group of users?**



# FiDi-Seaport Climate Resilience Master Plan

An award-winning plan, grounded in extensive community conversations, collaboration, and regulatory feedback, our plan lays out a shared vision that is feasible, implementable and provides a dynamic urban and waterfront experience.



## Awards won



- AIA-NY & ASLA-NY Transportation & Infrastructure Awards: Honor Award – Planning (2022)
- The Architect's Newspaper: Best of Design, Merit Award – Urban Design & Master Plan (2022)

NYC / EDC

NYC

Mayor's Office of Climate & Environmental Justice

## What is a Master Plan?

- Shared City-community framework for long-term decision-making
- Identifies core infrastructure and sets aside flexible space for future programming
- Intentionally flexible, not set-in-stone

## Highlights of Our Design:

- Two levels of flood protection: a lower level for daily tidal flooding and an upper level for coastal storms
- Extends into the water up to a full city block at some locations (up to 200 feet) and down to a half-block (90 feet)

# Stage 1: Early Construction & Site Preparation

Oct 2022 to May 2023 (7 Months)

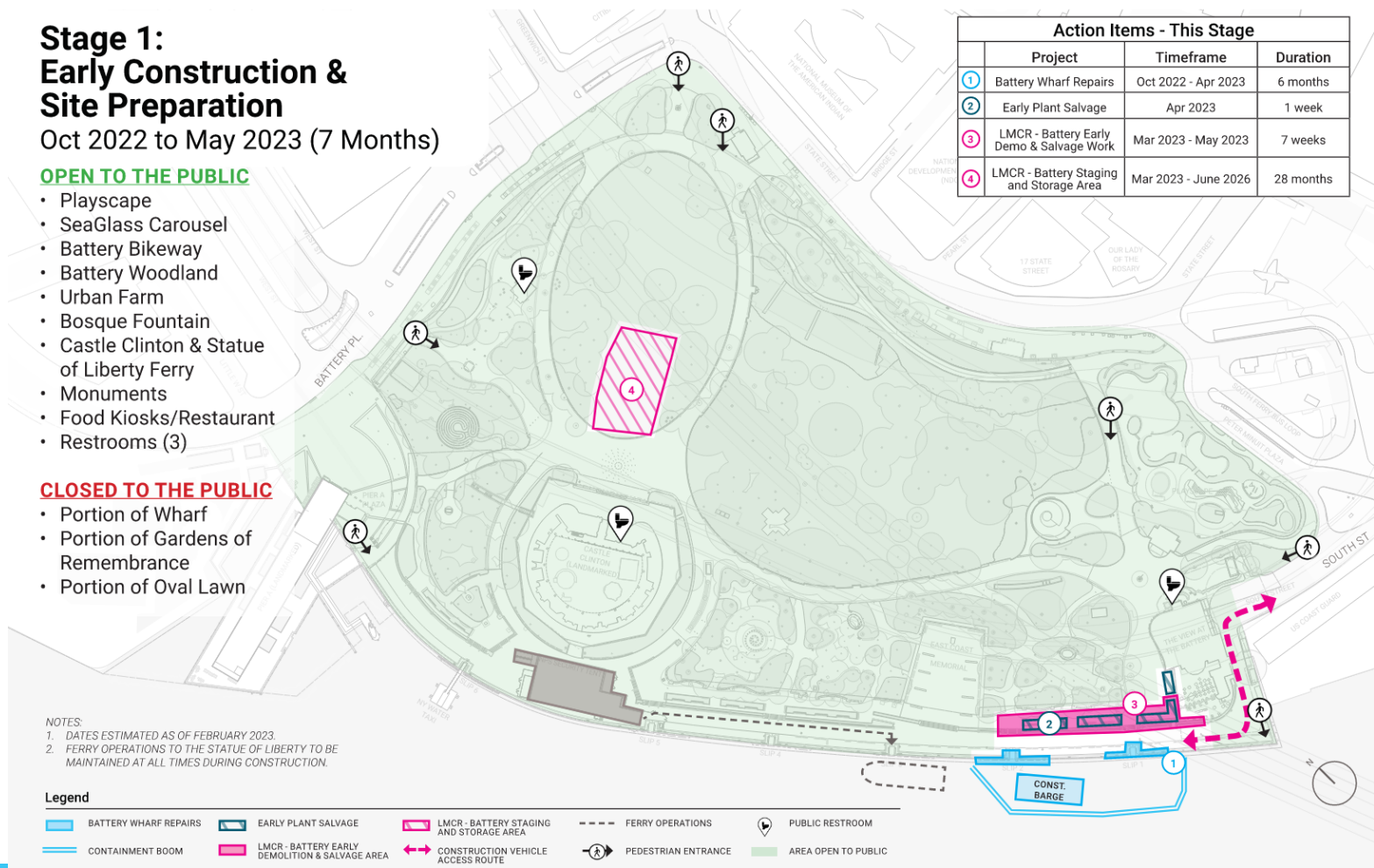
## OPEN TO THE PUBLIC

- Playscape
- SeaGlass Carousel
- Battery Bikeway
- Battery Woodland
- Urban Farm
- Bosque Fountain
- Castle Clinton & Statue of Liberty Ferry
- Monuments
- Food Kiosks/Restaurant
- Restrooms (3)

## CLOSED TO THE PUBLIC

- Portion of Wharf
- Portion of Gardens of Remembrance
- Portion of Oval Lawn

Action Items - This Stage			
	Project	Timeframe	Duration
①	Battery Wharf Repairs	Oct 2022 - Apr 2023	6 months
②	Early Plant Salvage	Apr 2023	1 week
③	LMCR - Battery Early Demo & Salvage Work	Mar 2023 - May 2023	7 weeks
④	LMCR - Battery Staging and Storage Area	Mar 2023 - June 2026	28 months



NOTES  
 1. DATES ESTIMATED AS OF FEBRUARY 2023.  
 2. FERRY OPERATIONS TO THE STATUE OF LIBERTY TO BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.

### Legend

- BATTERY WHARF REPAIRS
- EARLY PLANT SALVAGE
- LMCR - BATTERY STAGING AND STORAGE AREA
- FERRY OPERATIONS
- PUBLIC RESTROOM
- CONTAINMENT BOOM
- LMCR - BATTERY EARLY DEMOLITION & SALVAGE AREA
- CONSTRUCTION VEHICLE ACCESS ROUTE
- PEDESTRIAN ENTRANCE
- AREA OPEN TO PUBLIC

# Stage 2: Interim NPS Tent Construction

May 2023 to Dec 2023 (7 Months)

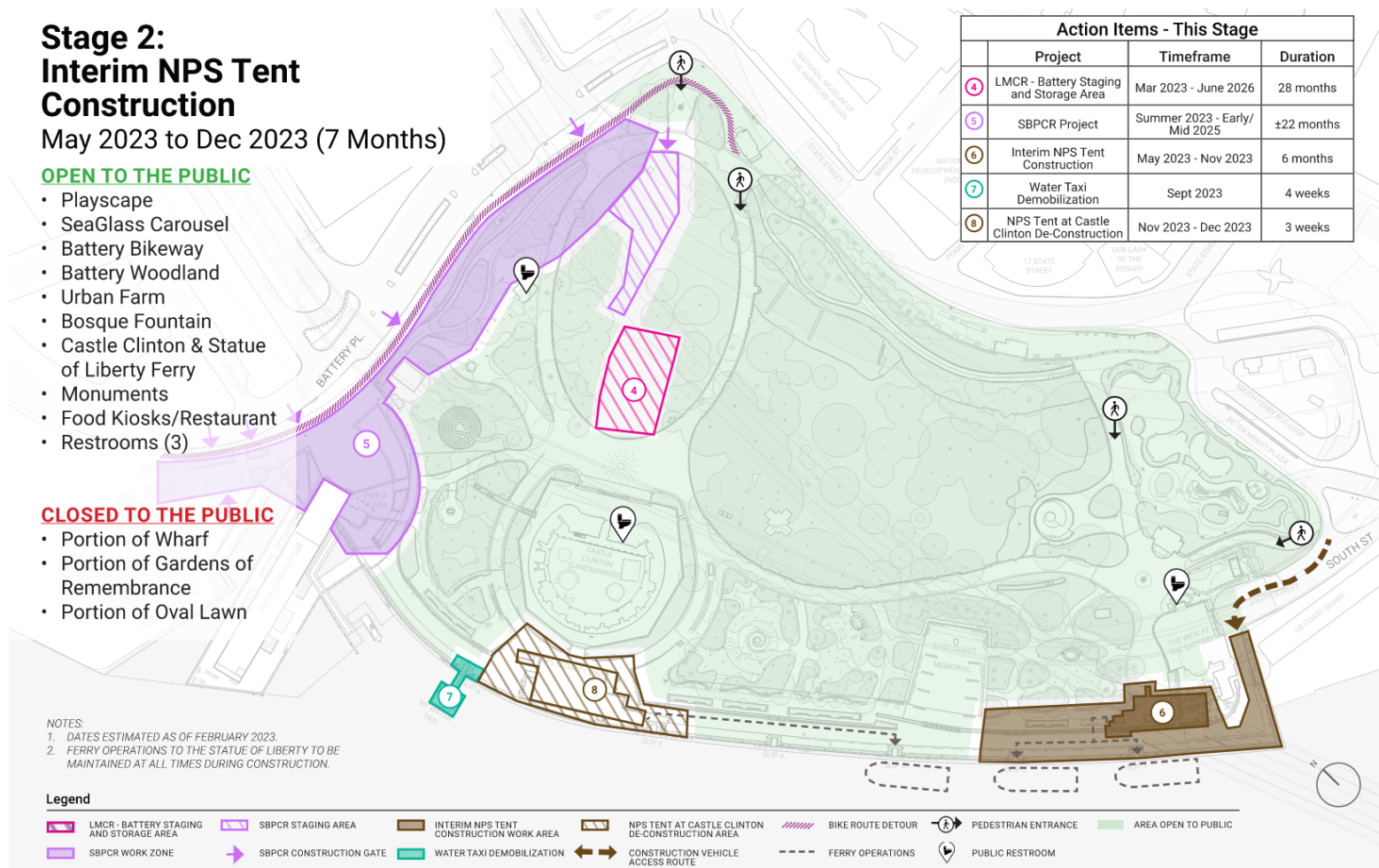
## OPEN TO THE PUBLIC

- Playscape
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- Food Kiosks/Restaurant
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## CLOSED TO THE PUBLIC

- Portion of Wharf
- Portion of Gardens of Remembrance
- Portion of Oval Lawn

Action Items - This Stage			
	Project	Timeframe	Duration
4	LMCR - Battery Staging and Storage Area	Mar 2023 - June 2026	28 months
5	SBPCR Project	Summer 2023 - Early/Mid 2025	±22 months
6	Interim NPS Tent Construction	May 2023 - Nov 2023	6 months
7	Water Taxi Demobilization	Sept 2023	4 weeks
8	NPS Tent at Castle Clinton De-Construction	Nov 2023 - Dec 2023	3 weeks



NOTES:  
 1. DATES ESTIMATED AS OF FEBRUARY 2023.  
 2. FERRY OPERATIONS TO THE STATUE OF LIBERTY TO BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.

### Legend

- LMCR - BATTERY STAGING AND STORAGE AREA
- SBPCR STAGING AREA
- INTERIM NPS TENT CONSTRUCTION WORK AREA
- NPS TENT AT CASTLE CLINTON DE-CONSTRUCTION AREA
- BIKE ROUTE DETOUR
- PEDESTRIAN ENTRANCE
- AREA OPEN TO PUBLIC
- SBPCR WORK ZONE
- SBPCR CONSTRUCTION GATE
- WATER TAXI DEMOBILIZATION
- CONSTRUCTION VEHICLE ACCESS ROUTE
- FERRY OPERATIONS
- PUBLIC RESTROOM



# Stage 3: LMCR - Battery Phase 1 Construction

Dec 2023 to July 2025 (21 Months)

## OPEN TO THE PUBLIC

- Playscape
- SeaGlass Carousel
- Rerouted Bikeway
- Battery Woodland
- Urban Farm
- Bosque Fountain
- Castle Clinton & Statue of Liberty Ferry
- Monuments
- Food Kiosks/Restaurant
- Restrooms (3)

## CLOSED TO THE PUBLIC

- Wharf
- Gardens of Remembrance
- Portion of Oval Lawn

Action Items - This Stage			
	Project	Timeframe	Duration
4	LMCR - Battery Staging and Storage Area	Mar 2023 - June 2026	28 months
5	SBPCR Project	Summer 2023 - Early/Mid 2025	±22 months
9	LMCR - Battery Phase 1 Construction	Dec 2023 - Mar 2025	15 months
10	NYC DOT Resiliency Project	Sept 2023 - Sept 2025	24 months
11	NYC Parks Field House Renovation	Aug 2024 - Jan 2026	18 months
12	NPS Tent at Castle Clinton Re-Construction	Mar 2025 - June 2025	3 months
13	Interim NPS Tent De-Construction	June 2025 - July 2025	3 weeks

NOTES:  
 1. DATES ESTIMATED AS OF FEBRUARY 2023.  
 2. FERRY OPERATIONS TO THE STATUE OF LIBERTY TO BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.

### Legend

- SBPCR WORK ZONE
- SBPCR CONSTRUCTION GATE
- LMCR - BATTERY PHASE 1 WORK AREA
- NYC PARKS FIELD HOUSE RENOVATION WORK AREA
- INTERIM NPS TENT DE-CONSTRUCTION WORK AREA
- CONTAINMENT BOOM
- SBPCR STAGING AREA
- LMCR - BATTERY STAGING AND STORAGE AREA
- NYC DOT RESILIENCY PROJECT SURFACE WORK AREAS
- NPS TENT AT CASTLE CLINTON RE-CONSTRUCTION AREA
- CONSTRUCTION VEHICLE ACCESS ROUTE
- BIKE ROUTE DETOUR
- PEDESTRIAN ENTRANCE
- AREA OPEN TO PUBLIC
- PUBLIC RESTROOM
- FERRY OPERATIONS

# Stage 4: LMCR - Battery Phase 2 Construction

July 2025 to June 2026 (11 months)

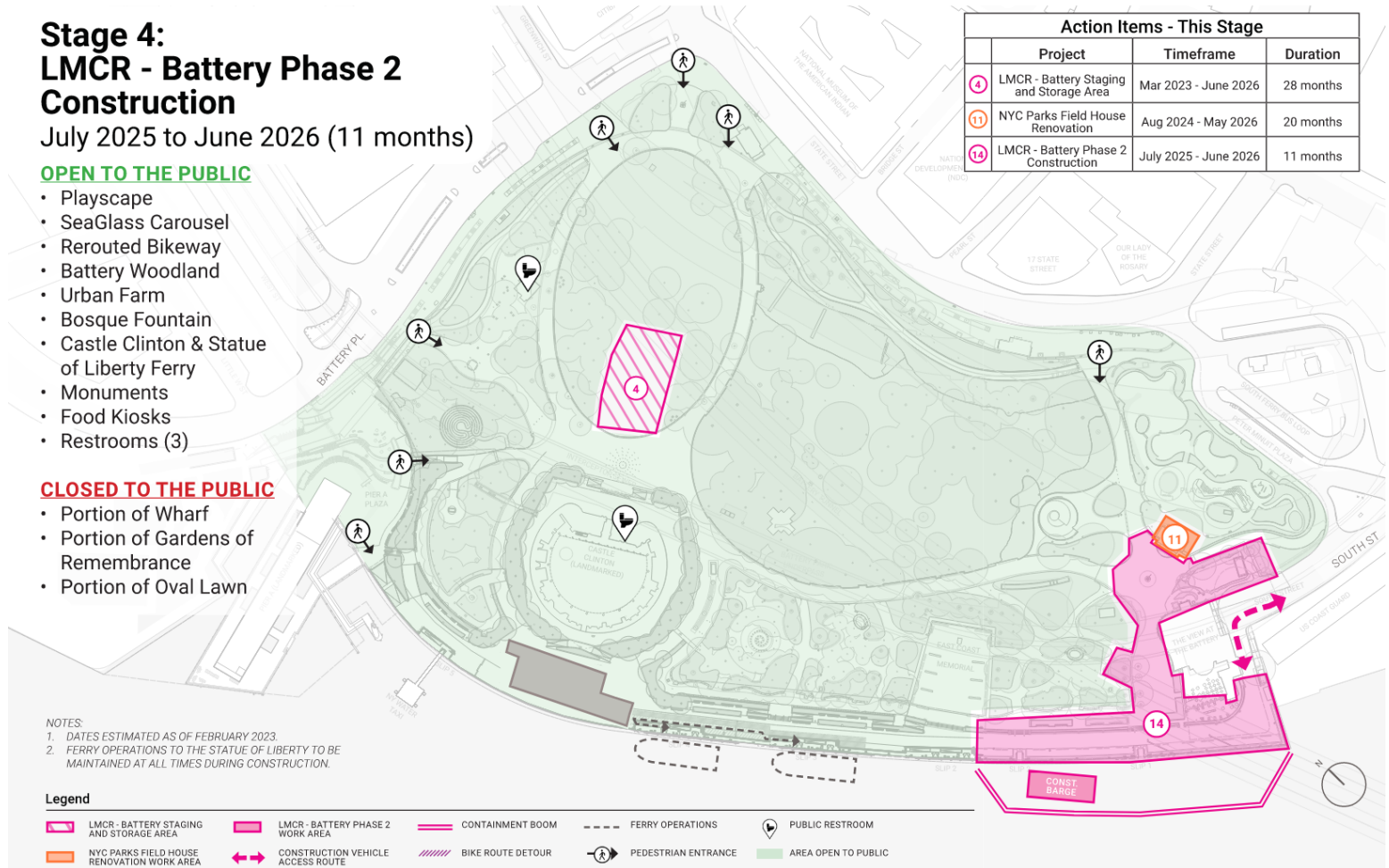
## OPEN TO THE PUBLIC

- Playscape
- SeaGlass Carousel
- Rerouted Bikeway
- Battery Woodland
- Urban Farm
- Bosque Fountain
- Castle Clinton & Statue of Liberty Ferry
- Monuments
- Food Kiosks
- Restrooms (3)

## CLOSED TO THE PUBLIC

- Portion of Wharf
- Portion of Gardens of Remembrance
- Portion of Oval Lawn

Action Items - This Stage			
	Project	Timeframe	Duration
4	LMCR - Battery Staging and Storage Area	Mar 2023 - June 2026	28 months
11	NYC Parks Field House Renovation	Aug 2024 - May 2026	20 months
14	LMCR - Battery Phase 2 Construction	July 2025 - June 2026	11 months



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LMCR - BATTERY STAGING AND STORAGE AREA	LMCR - BATTERY PHASE 2 WORK AREA	CONTAINMENT BOOM	FERRY OPERATIONS	PUBLIC RESTROOM
NYC PARKS FIELD HOUSE RENOVATION WORK AREA	CONSTRUCTION VEHICLE ACCESS ROUTE	BIKE ROUTE DETOUR	PEDESTRIAN ENTRANCE	AREA OPEN TO PUBLIC



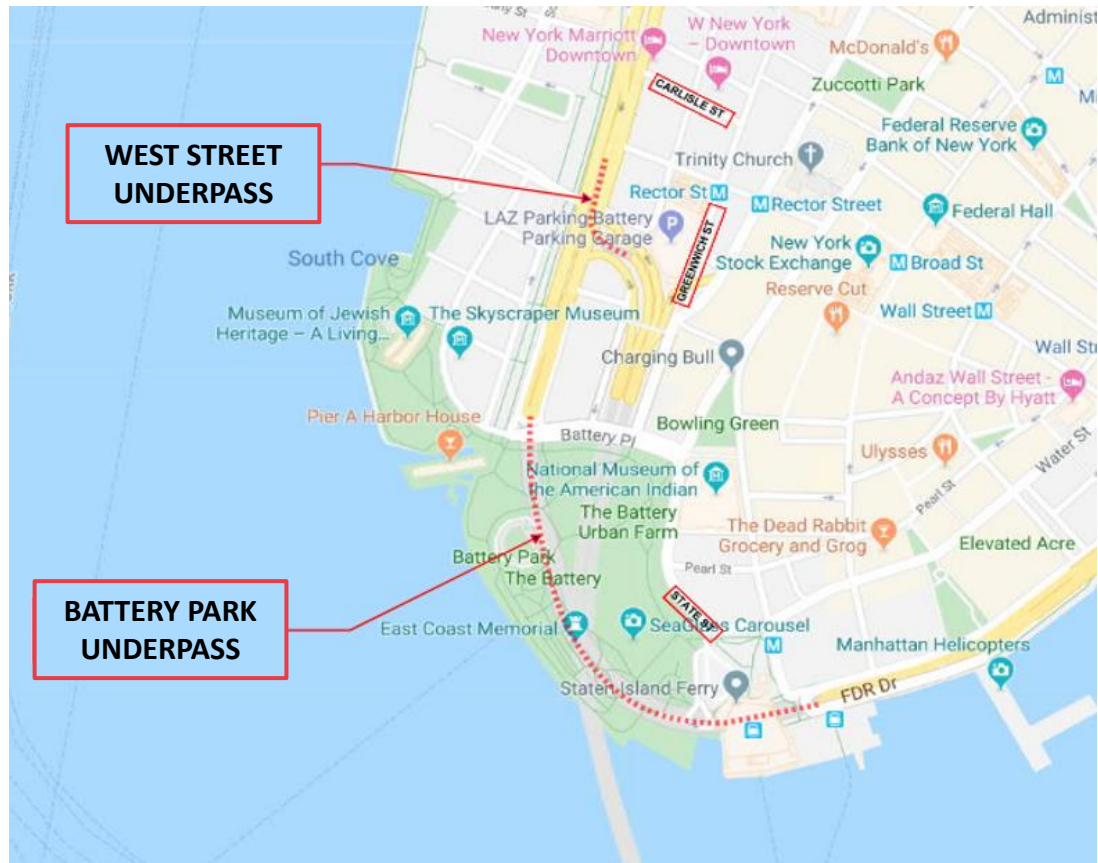
# Battery/West Street Underpasses Floodproofing Project (NYC DOT)

## Summary of Work

- Flood gates to be installed at both Battery Park Underpass (BPU) openings
- Floodproofing of BPU ventilation structures will not permanently intrude into Park
- Most work to be performed within tunnels; limited surface activities to be coordinated with Parks, EDC, BPCA
- WSU ventilation to be floodproofed

## Schedule & Closures

- Start late 2023. Expected to last 24 months
- BPU to be kept open during daytime; some overnight closures



# South Battery Park City Resiliency

## Construction

- **Phase 1: MJH & Wagner Park Site/Pavilion:**
  - On-Site Mobilization/Construction to Commence in Coming Weeks
- **Phase 2: Pier A/Battery/Interior Drainage:**
  - Contractor Procurement in Progress
  - Construction Commencement Summer 2023
- **Project Construction Completion:** Early- to Mid-2025 (2-Year Duration)



# South Battery Park City Resiliency

Questions and feedback about SBPCR can be sent to:

**Rick Fogarty**  
Community Construction Liaison  
(917) 624-5409  
[sbpcrinfo@bpca.ny.gov](mailto:sbpcrinfo@bpca.ny.gov)

*or by mail:*

**Battery Park City Authority**  
200 Liberty Street, 24th Floor  
New York, NY 10281  
att: South BPC Resiliency Project Team



# North/West Battery Park City Resiliency

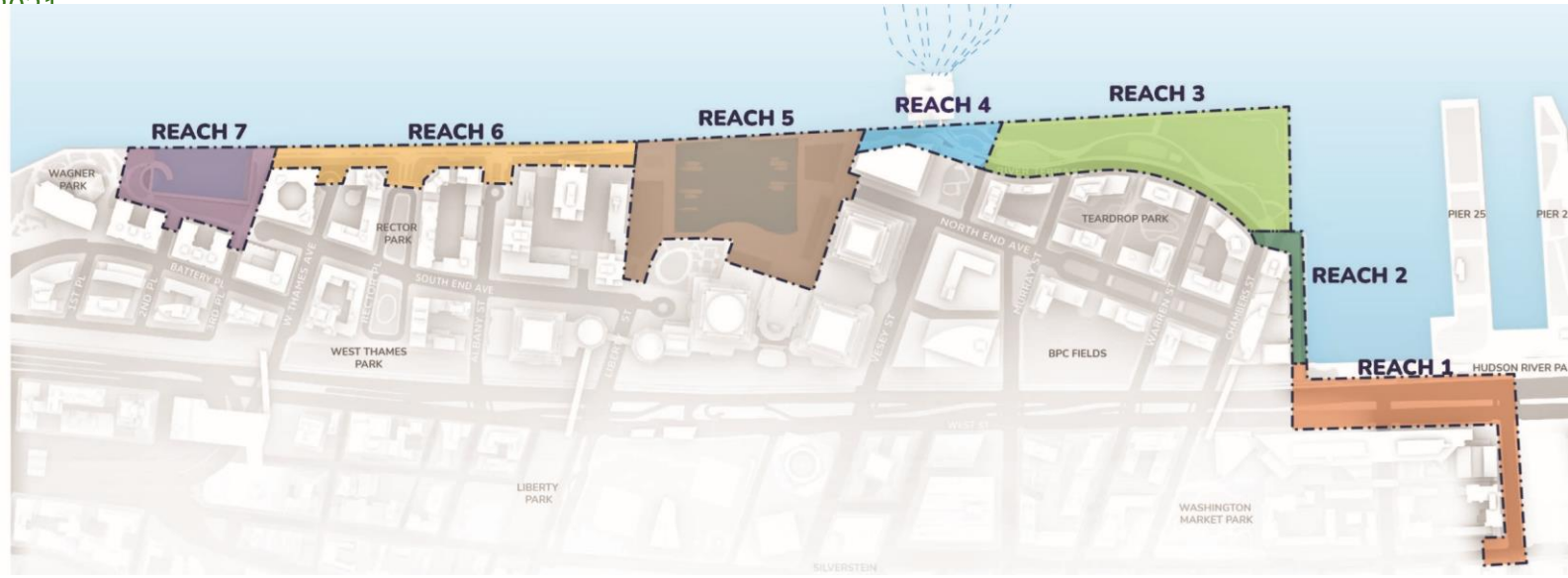
## Prior Public Engagement

- Project Kickoff: June 2021
- Public Meeting #1 – August 4, 2021
- Public Meeting #2 - December 16, 2021
- Public Walkshops: - October & November 2021

Public Meeting #3 (Open House) – June 2022  
Public Meeting #4 - September 2022

**Reach Workshop – Belvedere Plaza and Rockefeller Park - February 8, 2023**

**Reach Workshop – Tribeca and North Esplanade – February 16, 2023**





# North/West Battery Park City Resiliency

## Upcoming Public Engagement

Reach Workshop – South Esplanade and South Cove - March 6, 2023

Reach Workshop – North Cove – March 14, 2023

Public Meeting #5 (30% Design) – Late Spring 2023





# Why the Seaport?

**Identified during the FiDi-Seaport Master Planning process, Seaport Coastal Resilience is a near-term investment to protect one of the most vulnerable and low-lying areas in Lower Manhattan**

- The Seaport District is particularly low-lying, which makes it highly vulnerable to climate change and sea level rise
- Without action, this area will begin to see frequent flooding by the 2040s, monthly flooding by the 2050s, and daily flooding by the 2080s
- The area is also at risk from coastal storms and extreme precipitation and these risks will only continue to increase over time with climate change
- This area is at risk of a bath-tub effect because the waterfront at a higher elevation than the adjacent upland neighborhood, allowing water to be trapped once it overtops the bulkhead



# What is SPCR?

**Creating a more resilient Seaport by addressing sea level rise, drainage risks, and improved waterfront access**

- To address climate risks in this area, this project proposes raising the shoreline 3-5 feet in the area from the Brooklyn Bridge to Imagination Playground
- As part of the federal grant application process, early project scoping also includes potential esplanade improvements, ecological enhancements, and green infrastructure to address stormwater management
- The design will be determined once we move further along into the design process and have a Design Consultant onboard



# Current Status and Next Steps

**NYCEDC & MOCEJ will continue to coordinate closely with the community throughout design process**

## Funding:

*Project in early stages and fully funded:*

- \$170M in City Capital
- \$50M from FEMA, (BRIC Grant) - been selected by FEMA, awaiting official Notice of Grant Award
- \$8.8M from the Howard Hughes Corporation to go towards the waterfront esplanade and public amenities

## Engagement & Next Steps:

- BRIC Award Review Process ongoing from FEMA
- With Notice of FEMA Funding, beginning procurement of design team in Q1 of 2023, RFP Award tentative First-Half 2023
- When design work begins, project team to regularly coordinate with and seek input from the CB and continue to share updates via quarterly LMCR briefings



# Brooklyn Bridge-Montgomery Coastal Resilience Construction Update

CB1 Environmental Protection Committee

VIRTUAL MEETING  
February 22, 2023



# Highlights

- Project Area and Flood Protection
- Project Status
- Construction Updates
- Community Resources



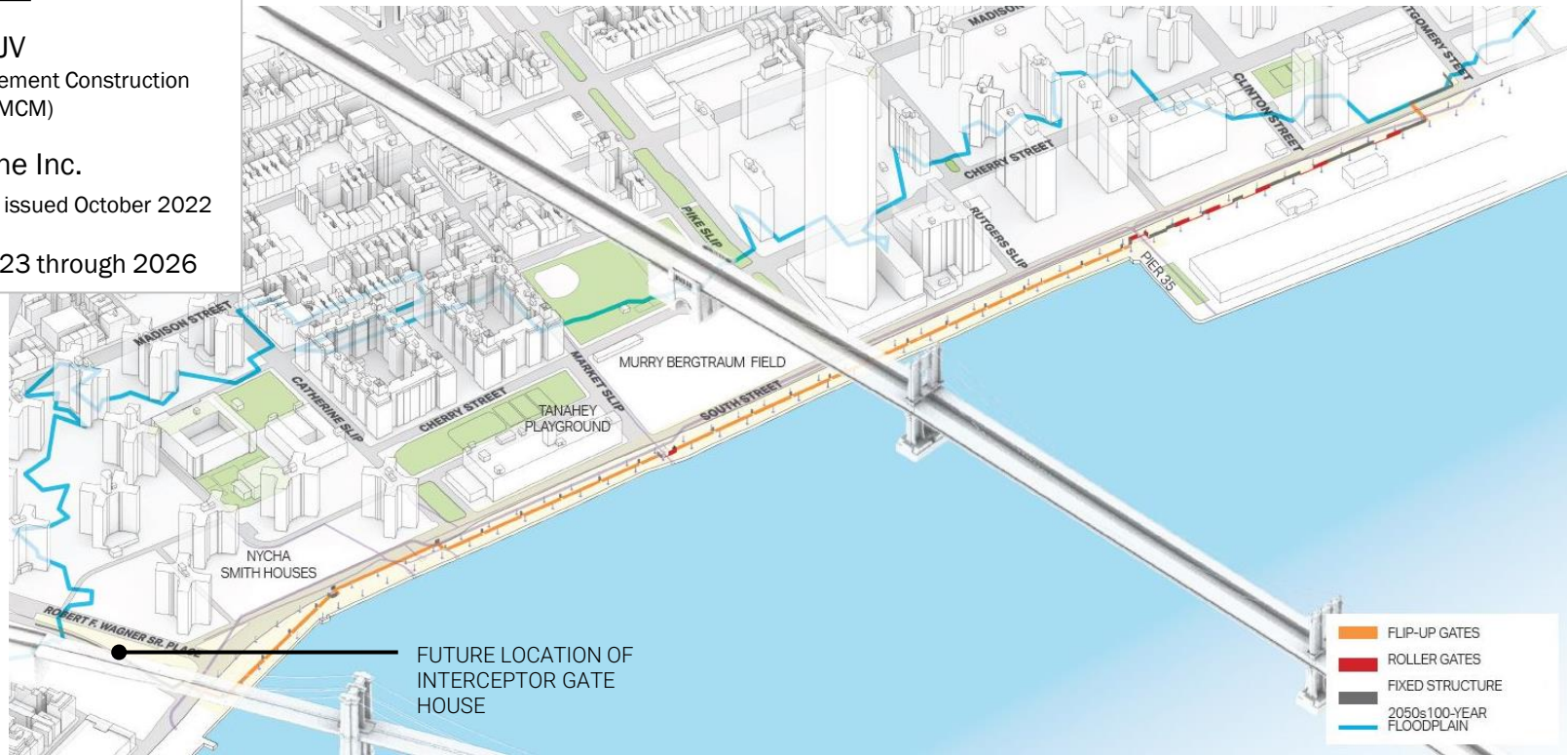
# BMCR | Project Area and Flood Protection Design

## Project Details

Jacobs/GPI JV  
Program Management Construction  
Management (PMCM)

John P. Picone Inc.  
Contractor- NTP issued October 2022

Timeline: 2023 through 2026



# BMCR | Project Status

ALL WORK IS SUBJECT TO CHANGE

## Current Activities

- Pre-construction survey
- Continue development of construction schedule and work sequencing
- Parking restrictions
- Install traffic control devices
- Exploratory test pit work

## Upcoming Activities

- Temporary construction fence installation
- Water Main upgrades
- Shared bikepath (Greenway) alignment changes

## Coordination

- Several portions of the esplanade are closed for EDC construction work
- Ongoing coordination with DOT to maintain safe, greenway access



# BMCR | 2023 Construction Update

ALL WORK IS SUBJECT TO CHANGE

**Construction Advisory**

**Project # SANDTW0BR | Borough: Manhattan | Date Issued: 12/23/2022**  
The Brooklyn Bridge - Montgomery Street Coastal Resiliency (BMCR) Project is an initiative to provide long-term flood protection on the south side of Manhattan.

## Mobilization begins on the Brooklyn Bridge - Montgomery Street Coastal Resiliency Project

Beginning week of January 9, 2023

Contractor will mobilize equipment and start their survey of the project area to prepare for upcoming construction along South Street. Construction staging area will be installed under the FDR Drive between Dover Street and Catherine Slip. Site survey work will commence at Clinton and South Streets and then continue throughout the project area.

The project will provide floodwalls, deployable gates, and rip-up barriers to protect the community from future flooding. Work also includes upgrades to watermain, sewers, and waterfront amenities.



**Questions? ¿Preguntas? 問題?**  
BMCR Community Construction Liaison (CCL) | Email: [bmcr.ccl@gmail.com](mailto:bmcr.ccl@gmail.com)  
Marsha Guido, 347-538-4266

PLEASE NOTE: Due to unforeseen conditions (weather, field conditions, etc.) it may become necessary to change some scheduled work locations and operations. During non-construction hours or emergency situations, please contact the New York City Department of Design and Construction at 311 or 311 on a 24-hour emergency hotline: 311.

**NYC Department of Design and Construction**  
**NYC/EDC**  
**NYC DOT**

**BMCR Bridge - Montgomery Coastal Resiliency**

**Construction Advisory**


**Project # SANDTW0BR | Borough: Manhattan | Date Issued: 02/09/2023**  
The Brooklyn Bridge - Montgomery Coastal Resiliency (BMCR) Project is an initiative to provide long-term flood protection on the south side of Manhattan.

## Parking limited on South Street

### From Market Slip to Pike Slip

Starting February 13, 2023  
ongoing until further notice

For the safety of residents and the protection of vehicles, parking will be limited along South Street between Market Slip and Pike Slip. Please look at the posted signs for the most updated information.



**Questions? ¿Preguntas? 問題?**  
BMCR Community Construction Liaison (CCL) | Email: [bmcr.ccl@gmail.com](mailto:bmcr.ccl@gmail.com)  
Marsha Guido, 347-538-4266

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**NYC Department of Design and Construction**  
**NYC/EDC**  
**NYC DOT**

**BMCR Bridge - Montgomery Coastal Resiliency**

**NYC DDC** Department of Design and Construction  
OFFICE OF COMMUNITY OUTREACH AND NOTIFICATION  
[www.nyc.gov/ddc](http://www.nyc.gov/ddc)  
[info@nyc.gov/ddc](mailto:info@nyc.gov/ddc)

# COMMUNITY ADVISORY

PROJECT NAME: RECONSTRUCTION OF FRONT STREET  
PROJECT#: SANDHW08 BOROUGH: MANHATTAN ADVISORY ISSUED: February ?? 7, 2023

## WATER MAIN TEST SHUTDOWN

On Monday February 6, 2023  
8:00 AM - 5:00 PM

- Pike Slip from Cherry St to South St
- South St from Market Slip to Rutgers Slip

We are upgrading the infrastructure in your community.

If you have any questions, concerns, or would like to learn more about this DDC Project, please call the Community Construction Liaison:

**Marsha Guido CCL at Mobile: 347-538-4266 or E-mail: [BMCRccl@gmail.com](mailto:BMCRccl@gmail.com)**

During nonconstruction hours please contact 311 for nonemergency city services.

PLEASE NOTE: Due to unforeseen conditions (weather, field conditions, etc.) it may become necessary to change some scheduled work locations and operations.

The NYC Department of Design and Construction is managing this project on behalf of the NYC Department of Transportation and the NYC Department of Environmental Protection.

Eric Adams Mayor  
Thomas F. Kelly, P.E. Commissioner

# BMCR | Resources

- Visit Us

<https://www.nyc.gov/site/lmcr/progress/brooklyn-bridge-montgomery-coastal-resilience.page>

Stay tuned for new website updates

- Community Construction Liaison:

- Marsha Guido

- 347-538-4266

- Email: [bmcr.ccl@gmail.com](mailto:bmcr.ccl@gmail.com)

- Inquiry Tool (coming soon)

- CB 3 Parks Meetings

- On-site signage

The screenshot shows the website's navigation bar with 'Background', 'Progress', 'Resources', and 'Get Involved' tabs. The main heading is 'Brooklyn Bridge-Montgomery Coastal Resilience'. Below the heading, there are sections for 'Brooklyn Bridge-Montgomery Coastal Resilience' (with a link), 'The Battery Coastal Resilience', 'Interim Flood Protection Measure (IFPM)', 'Battery Park City Resilience Projects', and 'The Financial District and Seaport Climate Resilience Master Plan'. To the right, there are sections for 'BMCR Project Updates' (with a link to 'BMCR Bulletin #7 issued 2/10/2023'), 'Active Community Advisories' (with links to 'BMCR South Street Parking Advisory', 'BMCR Water Main Interruptions South St. from Pike Slip to Market Slip', 'BMCR Water Main Upgrades Advisory', 'BMCR Parking Restriction Advisory: South Street between Brooklyn Bridge and Robert F. Wagner Sr. Place', and 'BMCR Mobilization Advisory'), and 'Presentations' (with a link to 'Community Board 3 Parks, Recreation, Waterfront & Resiliency Committee: Construction Update 01/13/2023'). At the bottom right, there is a map of the project area with a dashed orange line indicating the 'PROJECT AREA' and 'FOR DR (Inquiry)'.



Advisories posted on-site



NYC Lower Manhattan Coastal Resiliency 311 Search all NYC.gov websites

NYC Lower Manhattan Coastal Resiliency

Background Progress Resources Get Involved Search

## Brooklyn Bridge-Montgomery Coastal Resilience

[Brooklyn Bridge-Montgomery Coastal Resilience](#)

**The Battery Coastal Resilience**

**Interim Flood Protection Measure (IFPM)**

**Battery Park City Resilience Projects**

**The Financial District and Seaport Climate Resilience Master Plan**

**Seaport Coastal Resilience**


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In the Two Bridges neighborhood, the Department of Design and Construction (DDC) will install a combination of flood walls and deployable flip-up barriers to protect the neighborhood from a 100-year storm surge in the 2050s, while also maintaining access and visibility to the waterfront. New York City Economic Development Corporation (NYCEDC) is leading design for the project, which will extend along the waterfront from the Brooklyn Bridge to Montgomery Street. EDC completed design in fall of 2021 and DDC is due to start construction in fall 2022.


This project will reduce flooding risk – from both sea level rise and storm surge – for thousands of residents, including many living in affordable housing, while continuing to preserve views and access to the waterfront. These deployable barriers will be permanent infrastructure, hidden until they are flipped up in the event of a storm. The location of the flood walls and posts has been designed to minimize conflict with subsurface infrastructure and to maximize integration of public space amenities such as open-air seating, fitness equipment, and athletic courts.

Lead: DDC, NYCEDC, MOCR  
Funding: \$522M

The same waterfront that the community enjoys when weather is good...



...transforms into critical flood protection during major flooding events.



Are you looking for more information?

Visit Us at:  
<https://www.nyc.gov/site/lmcr/progress/brooklyn-bridge-montgomery-coastal-resilience.page>





# BMCR | 2023 Construction Update



## East River Greenway / Shared Path shift from Catherine Slip to Pier 35

Starting mid-late January ongoing until further notice

- Contractor will adjust the alignment of the existing bike lane, which presently runs on the west side of the esplanade, and transition it to the east side, along the water.
- There will be clearly marked exits at every South Street intersection. Please follow all posted signs and striping.
- More details to come.

# What We've Heard

- **CB3 Parks 2020/2021 resolutions:** under review, however many of the points fall under the design phase
- **Greenway detours and safety:** currently working with the construction team to understand the potential construction impacts and will provide more information at future meetings
- **Open space resources:** Neighborhood Recreational Resources application from Parks <https://www.nycgovparks.org/planning-and-building/planning/neighborhood-development/east-side-coastal-resiliency/map>

# Opportunities for Community Engagement

Project	Community Engagement Opportunities
BMCR	Ongoing Construction Updates & Communication
The Battery	Ongoing Construction Updates & Communication
Battery Park City	South BPC: Ongoing Construction Updates & Communication North/West BPC: Reach by Reach Workshops <b>February- Early March 2023</b> , Public Meeting #5 (30% design)- <b>Late Spring 2025</b>
Seaport Coastal Resilience	Upcoming meetings and design workshops in <b>2023</b>
FiDi-Seaport Master Plan	CBO Meetings, workshops, and individual briefings (as requested)

Thank you!



# Appendix

# Current capital projects & planning studies share same underlying principles with variations that reflect localized needs.

## CAPITAL PROJECTS TO PROTECT AGAINST TIDAL FLOODING AND FREQUENT STORMS:

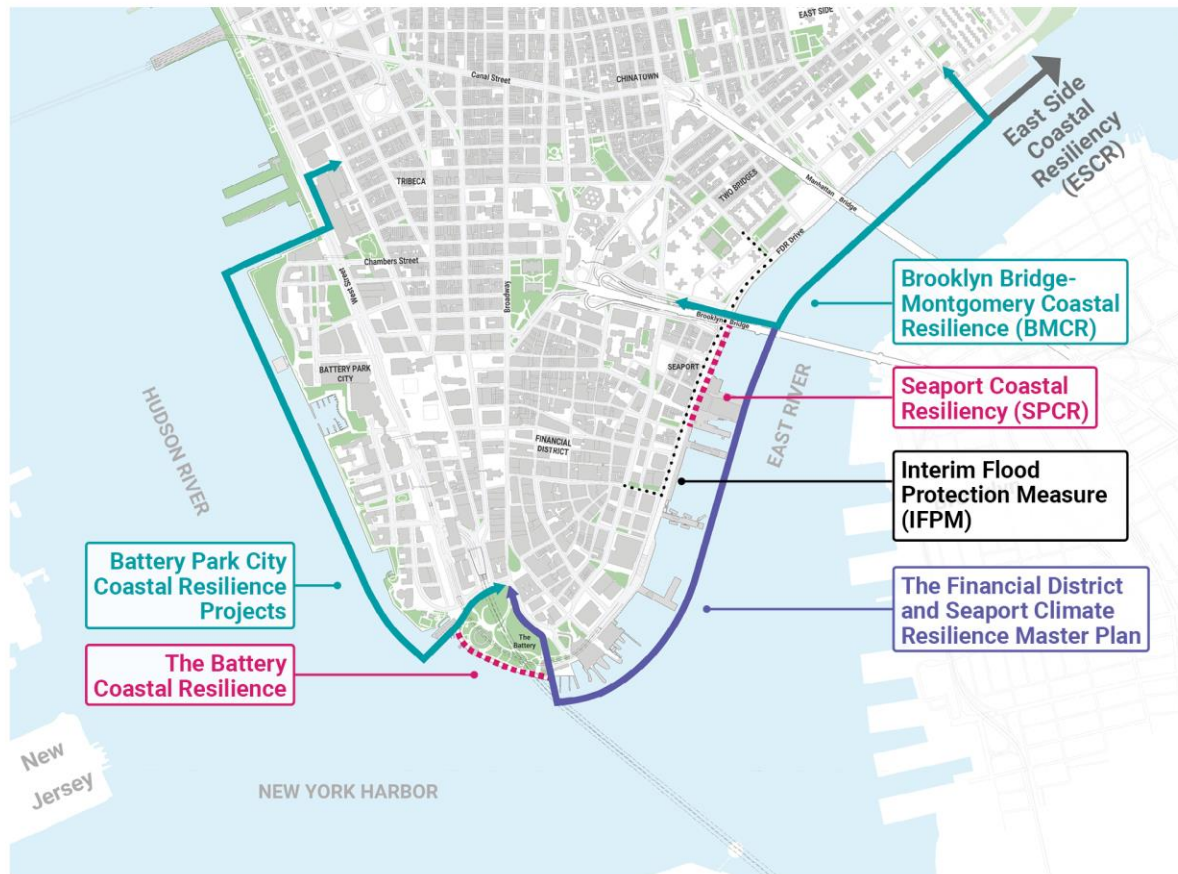
- The Battery Coastal Resilience
- Seaport Coastal Resilience (SPCR)

## CAPITAL PROJECTS TO ADDRESS BOTH STORM SURGE AND TIDAL FLOODING:

- Battery Park City Coastal Resilience Projects
- Brooklyn Bridge-Montgomery Coastal Resilience (BMCR)

## LONG TERM PLANNING PROJECTS TO ADDRESS BOTH STORM SURGE AND TIDAL FLOODING:

- The Financial District and Seaport Climate Resilience Master Plan



# LMCR Comparison Table

A shared goal of protecting against climate hazards, addressing the unique conditions for each area

Project Name	Stage of Project	Source of Stillwater Elevation	Design Criteria: Sea Level Rise	Design Criteria: Storm Surge	Design Criteria: Tidal Flooding	Relative Wave Climate*
The Battery Coastal Resilience	Funded, Construction to begin 2023	FEMA PFIRMs	NPCC, 2100	Protect against current day higher frequency coastal storm events (2% storm)	High Tide	High
Seaport Coastal Resilience	Funded, Design Development to begin 2023	FEMA PFIRMs	NPCC, 2100	Protect against current day higher frequency coastal storm events (2% storm)	High Tide	Moderate
Battery Park City Coastal Resilience Projects	Funded, Construction to begin Spring 2023 (South Project)	FEMA PFIRMs	NPCC, 2050s	100-year storm	High Tide	BPCA South = High; BPCA North/West = Low-High
BMCR	Funded, Construction has started (Winter 2022/2023)	FEMA PFIRMs	NPCC, 2050s	100-year storm	High Tide	Moderate
FiDi Seaport	Long-term Planning	FEMA PFIRMs	NPCC, 2100	100-year storm	High Tide	Moderate – High

# Coordination Across the City

The LMCR portfolio has been structured to involve an array of agencies who remain coordinated via an interagency taskforce, regular updates within and across the agencies, and coordinated community outreach

Main agencies and roles:



Mayor's Office of Climate and Environmental Justice (MOCEJ): oversees City's resilience portfolio, including LMCR, and ensures consistency with citywide policy goals



New York City Economic Development Corporation (NYCEDC): leads on 3/4 of the LMCR portfolio, including leading design for the FiDi-Seaport Master Plan, BMCR, and the Battery



NYC Parks

Parks: Owner of The Battery



Battery Park City Authority (BPCA): Leads resilience planning and design for all projects within Battery Park City, including ongoing work with BPCA North/West and South



Department of Design and Construction (DDC): Leads on implementation of BMCR



# Protecting Lower Manhattan Against Storm Surge and Tidal Flooding

A shared goal of protecting against climate hazards, addressing the unique conditions for each area

**Near term capital projects to protect against either storm surge or daily tidal flooding**

## **The Battery Coastal Resilience**

0.33 Miles

Tidal Flooding: High tide + 2100 SLR

## **Seaport Coastal Resilience (SPCR)**

Tidal Flooding: High tide + 2100 SLR



# Protecting Lower Manhattan Against Storm Surge and Tidal Flooding

A shared goal of protecting against climate hazards, addressing the unique conditions for each area

**Capital projects to address both storm surge and tidal flooding:**

## **Battery Park City Coastal Resilience Projects**

1.15 Miles

Storm Surge: 100 year storm + 2050s SLR

Tidal Flooding: High tide + 2050s SLR

## **Brooklyn Bridge-Montgomery Coastal Resilience (BMCR)**

0.80 Miles

Storm Surge: 100 year storm + 2050s SLR

Tidal Flooding: High tide + 2050s SLR

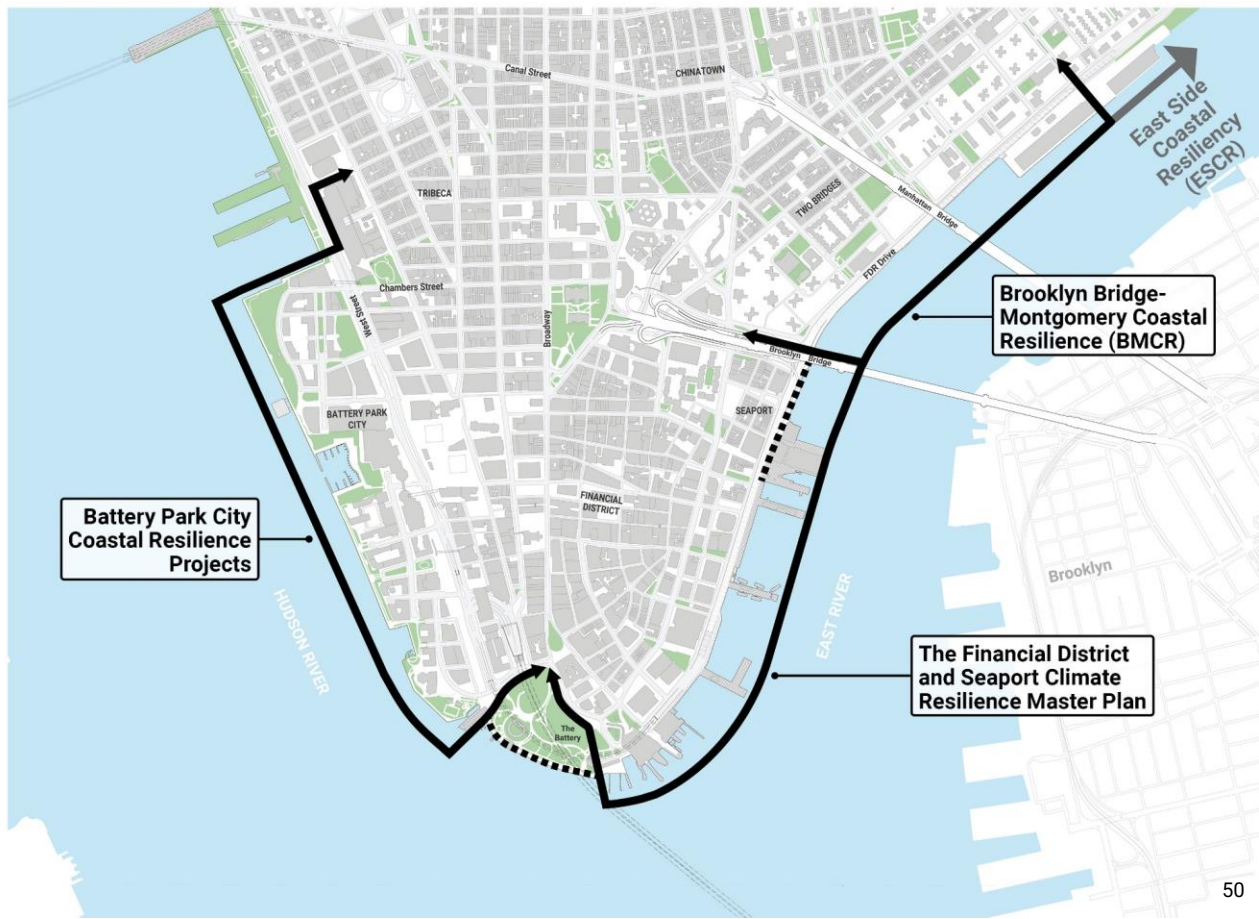
**Long term planning to address both storm surge and tidal flooding:**

## **The Financial District and Seaport Climate Resilience Master Plan**

0.90 Miles

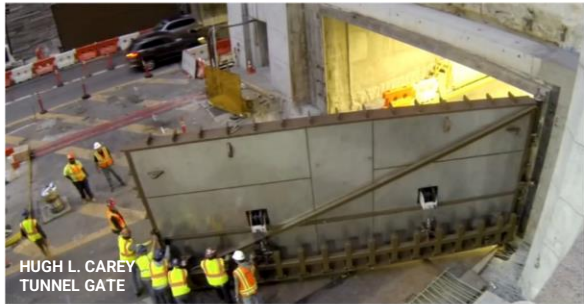
Storm Surge: 100 year storm + 2100 SLR

Tidal Flooding: High tide + 2100 SLR



# LMCR projects respond to the urgency of the moment while planning for the long-term

A shared goal of protecting against climate hazards, addressing the unique conditions for each area



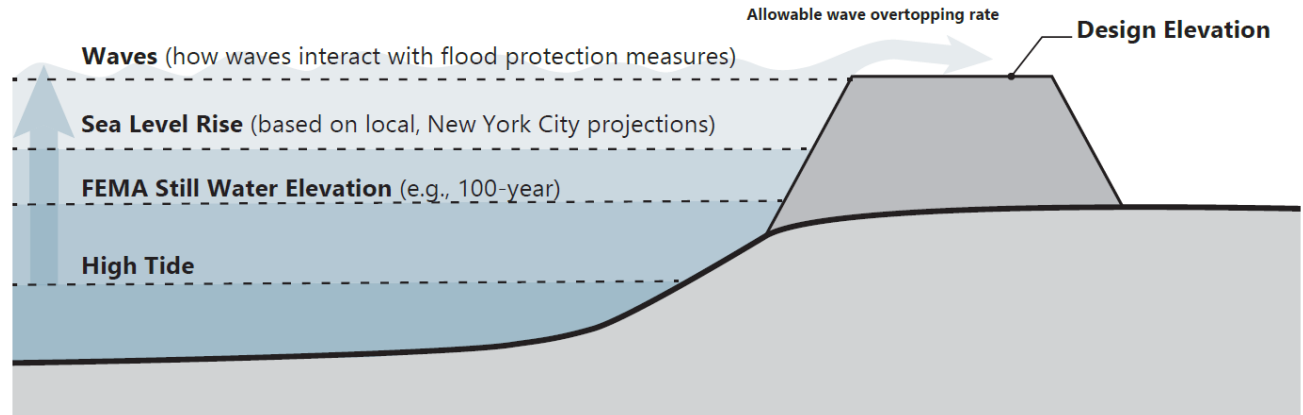
Responding to the urgency of the moment....

...And making investments in the future



# What is a Design Flood Elevation?

- The **design flood elevation**, or the “**DFE**” is the minimum elevation to which a structure must be elevated or floodproofed.
- To calculate a DFE, first a **Design Storm Event** is determined, then additional height is included for **sea level rise, wave runoff and wave overtopping**.
- The selected design storm, sea level rise projection, and relative wave climate, all have a large impact on the DFE.
- Projects pursuing FEMA accreditation need to comply with FEMA 44 CFR 65.10 – which sets forth design standards.





# All LMCR projects are based on the same underlying principles

