

Lower Manhattan Coastal Resiliency

November 20th, 2023

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
 - Battery Coastal Resilience
 - Fidi/Seaport Master Plan
 - BMCR
 - Seaport Coastal Resilience
 - BPCA Projects

In Lower Manhattan, the City, State, and Federal governments have committed over \$1.7B in capital investments for climate adaptation projects. **The Financial District and Seaport Climate Resilience Master Plan will fill a missing link in Lower Manhattan's comprehensive flood defense infrastructure.**



Project Timelines

(Est. Dates as of November 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 | Complete | Underway | Early/Mid 2025 | | | | | | |
| The Battery Coastal Resilience | Complete | Underway | Underway | Summer 2026 | | | | | | |
| North/West Battery Park City Resiliency | April 2024 | Complete | Early 2025 | Early/Mid 2028 | | | | | | |
| Seaport Coastal Resilience | 2025 | Winter 2025 | Winter 2026 | Winter 2028 | | | | | | |
| FiDi-Seaport Master Plan | Underway | TBD | TBD | TBD | | | | | | |

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 4/6 components of the LMCR portfolio, including leading design for the FiDi-Seaport Master Plan, BMCR, and the Battery



NYC Parks

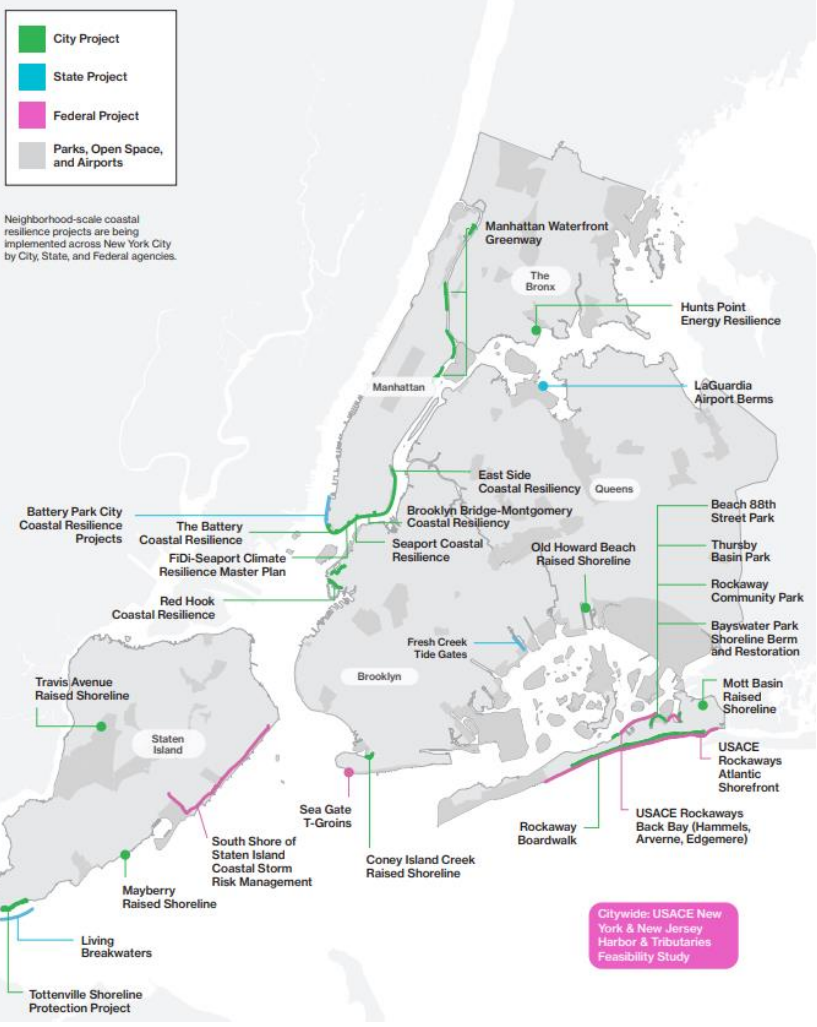


Parks: Owner of The Battery

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



PlaNYC Commitment: Establish the Bureau of Coastal Resiliency at DEP

Benefits of a new governance structure:

- ✓ Increase coordination and efficiency of capital project delivery
- ✓ Establish clear maintenance oversight of coastal resilience projects
- ✓ Provide a central point of accountability for flood protection to New Yorkers

DEP is particularly well positioned to lead this multi-agency effort:

- ✓ Mission alignment with flood resilience planning and operations
- ✓ Experience operating emergency and just-in-time systems
- ✓ Expertise in delivering complex construction projects

LMCR - The Battery

EDC Managing Project on Behalf of Parks

Design

- 100% Design complete – Spring 2023
- Seeking Envision Certification (program to lower carbon footprint for large infrastructure projects)

Construction Updates

- NPS temporary security tent in construction – commenced July 2023.
- Early salvage work - completed
- Construction contracts – procurement ongoing
- Community Liaison – Karp Strategies

Conceptual Rendering



Upcoming Milestones

- Existing wharf demolition - to begin January 2024
- NPS transition to temporary security tent - January 2024
- Anticipate start of pile driving for new wharf - Spring 2024.

LMCR - The Battery

Community Construction Liaison – Karp Strategies

- Day to Day Project Mangers
 - Ariana Cipriani
 - Lily Zaballos
- Will be working with the construction team to address community questions / concerns.
- Will provide regular updates to the Community Board.

For more information visit us at:

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

Or email us at:

info@batterycoastalresilience.com

Conceptual Rendering



Stage 1: Early Construction & Site Preparation

Oct 2022 to June 2023 (8 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 & Fender Repairs | Oct 2022 - June 2023 | 8 months |
| ② | Early Plant Salvage | Apr 2023 | 1 week |
| ③ | LMCR - Battery Early Demo & Salvage Work | June 2023 | 4 weeks |
| ④ | LMCR - Battery Staging and Storage Area | June 2023 - June 2026 | 36 months |

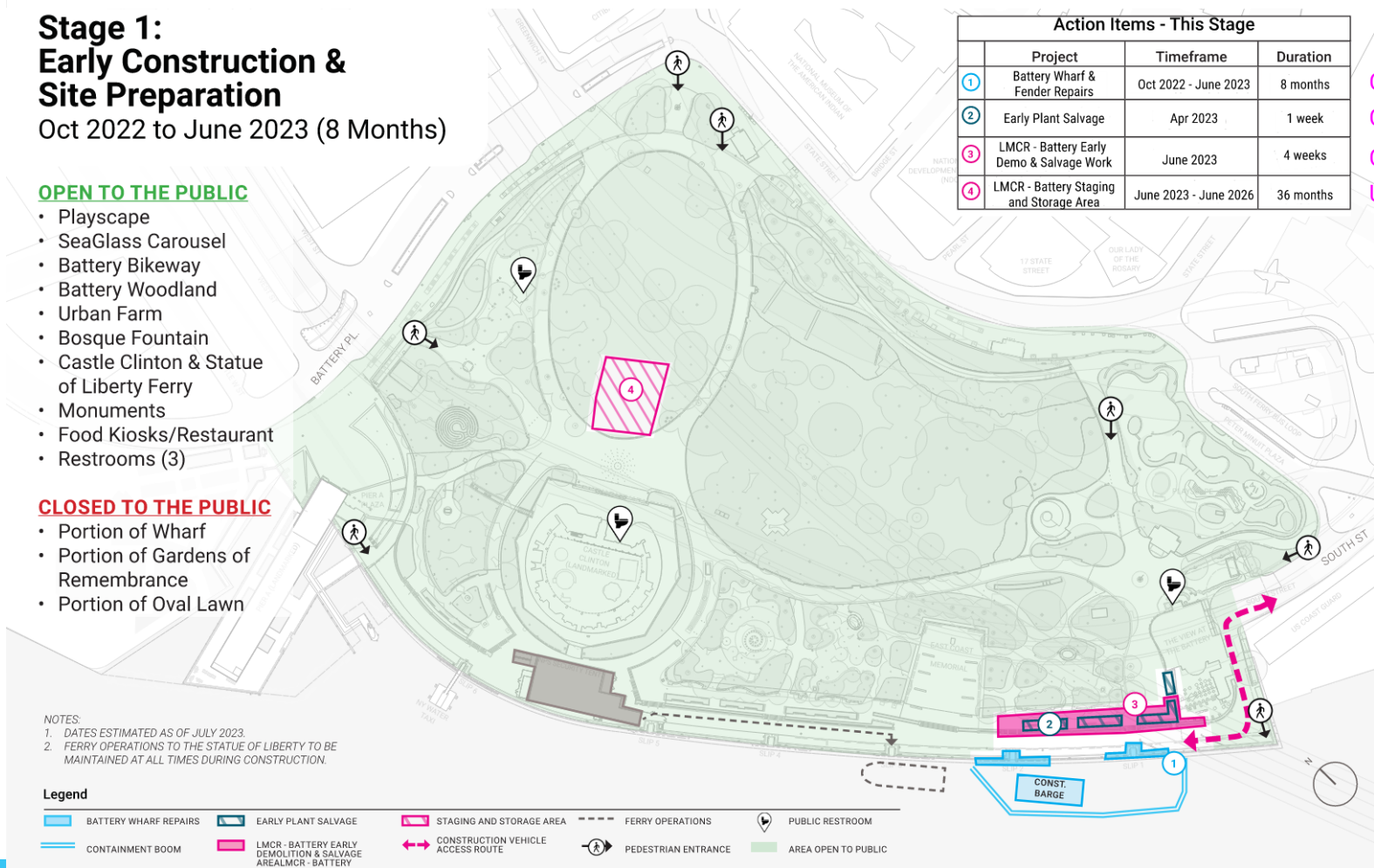
COMPLETE
COMPLETE
COMPLETE
UNDERWAY

NOTES:

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

Legend

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



Stage 2: Interim NPS Tent Construction

July 2023 to Jan 2024 (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
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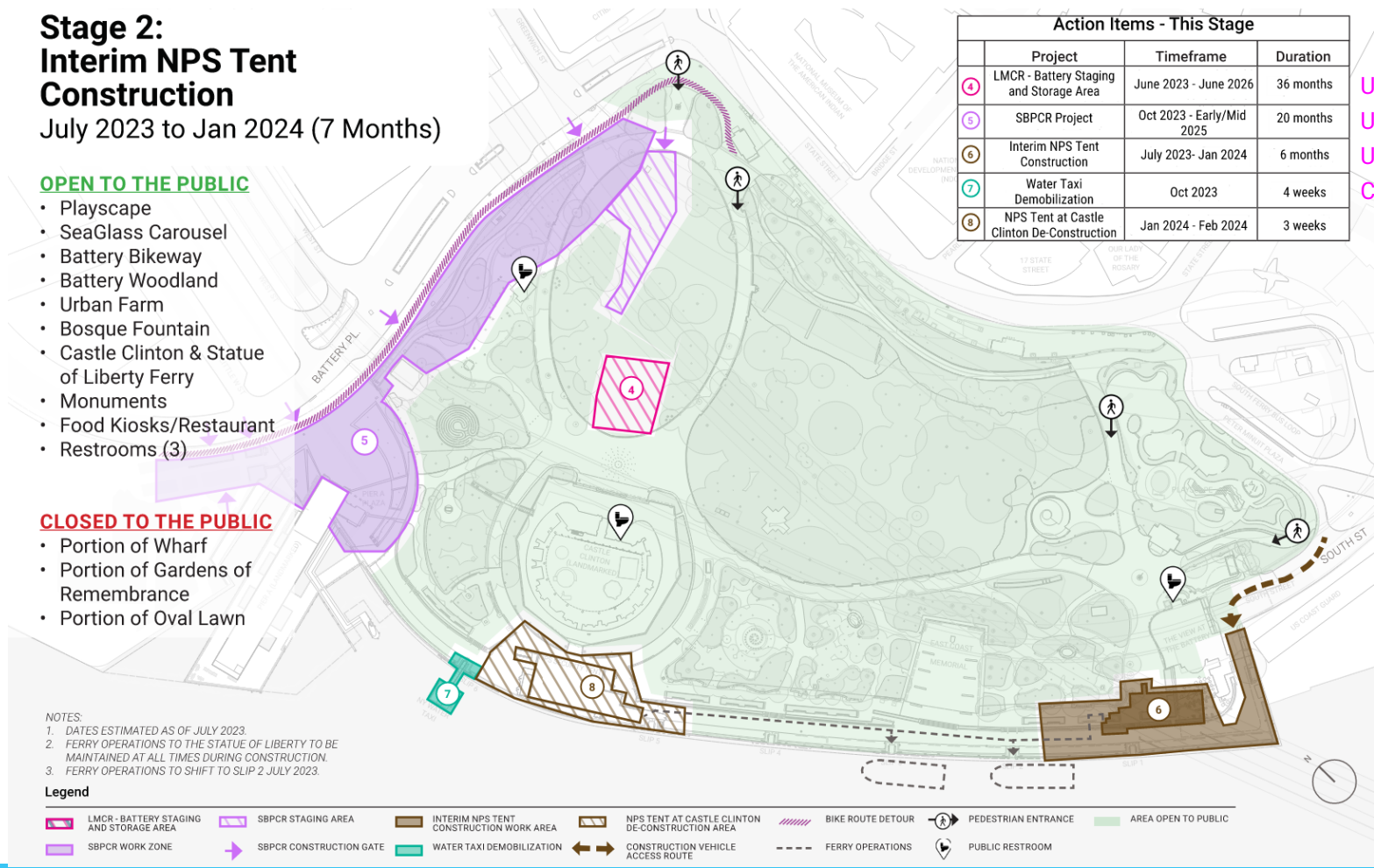
| Action Items - This Stage | | | |
|---------------------------|--|---------------------------|-----------|
| | Project | Timeframe | Duration |
| ④ | LMCR - Battery Staging and Storage Area | June 2023 - June 2026 | 36 months |
| ⑤ | SBPCR Project | Oct 2023 - Early/Mid 2025 | 20 months |
| ⑥ | Interim NPS Tent Construction | July 2023- Jan 2024 | 6 months |
| ⑦ | Water Taxi Demobilization | Oct 2023 | 4 weeks |
| ⑧ | NPS Tent at Castle Clinton De-Construction | Jan 2024 - Feb 2024 | 3 weeks |

UNDERWAY
UNDERWAY
UNDERWAY
COMPLETE

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

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



Early Salvage Work - Completed



Early Salvage Operations In progress
Along the southern end of the wharf



Early Salvage Storage Area
In the Oval lawn across from Castle Clinton

National Park Service Temporary Security Screening Tent – Under Construction

Operational in January 2024



Temporary Security Tent
Front view looking towards the restaurant entrance



Temporary Security Tent
Side view looking from the Bosque

Stage 3: LMCR - Battery Phase 1 Construction

Jan 2024 to July 2025 (19 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 | June 2023 - June 2026 | 36 months |
| 5 | SBPCR Project | Oct 2023 - Early/Mid 2025 | 20 months |
| 9 | LMCR - Battery Phase 1 Construction | Jan 2024 - April 2025 | 15 months |
| 10 | NYC DOT Resiliency Project | Jan 2024 - Dec 2025 | 24 months |
| 11 | NYC Parks Field House Renovation | Aug 2024 - May 2026 | 20 months |
| 12 | NPS Tent at Castle Clinton Re-Construction | April 2025 - June 2025 | 3 months |
| 13 | Interim NPS Tent De-Construction | June 2025 - July 2025 | 3 weeks |

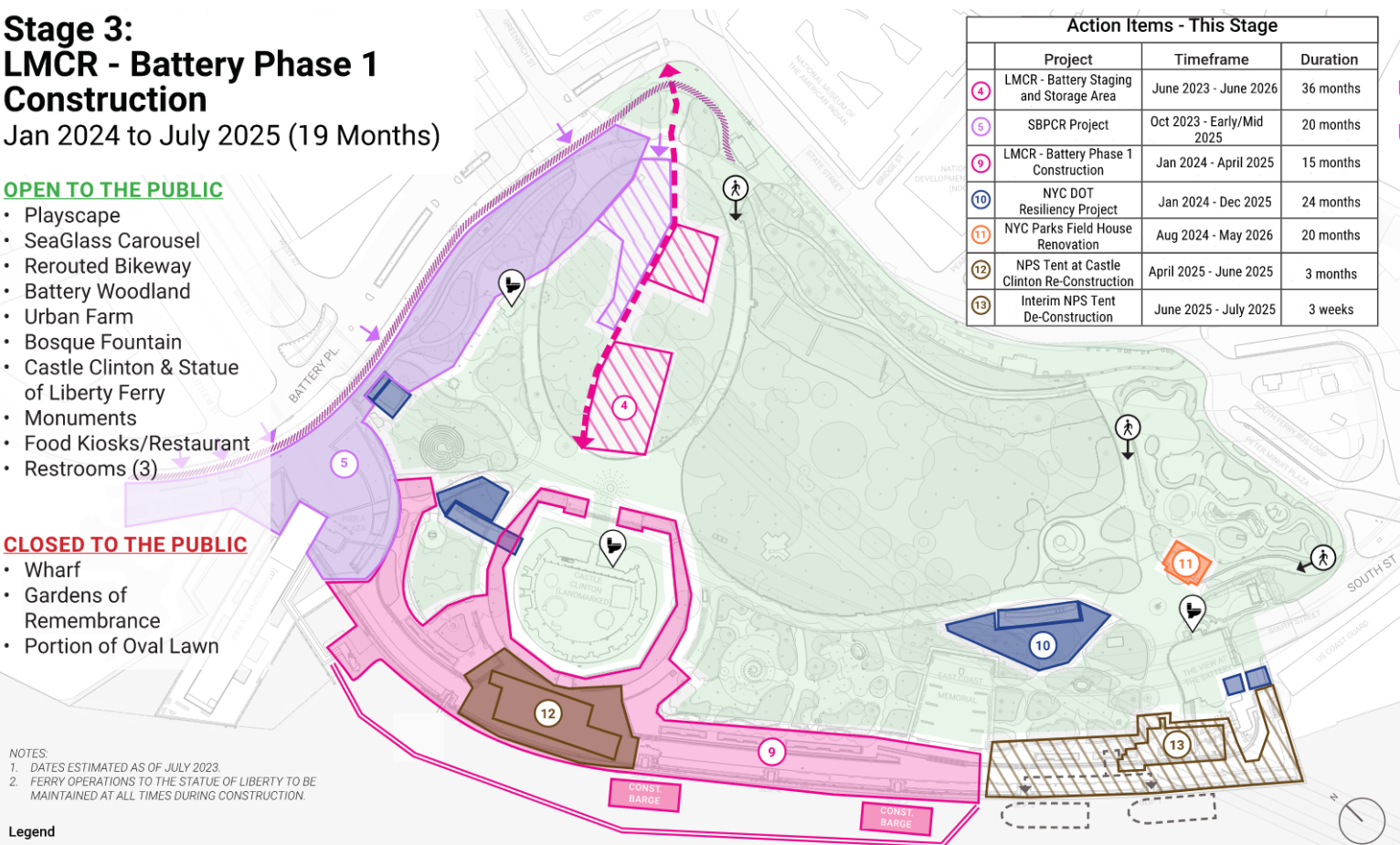
UNDERWAY
UNDERWAY

NOTES:

- DATES ESTIMATED AS OF JULY 2023.
- 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 | FERRY OPERATIONS | PUBLIC RESTROOM |
| 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 |



Stage 4: LMCR - Battery Phase 2 Construction

July 2025 to June 2026 (11 months)

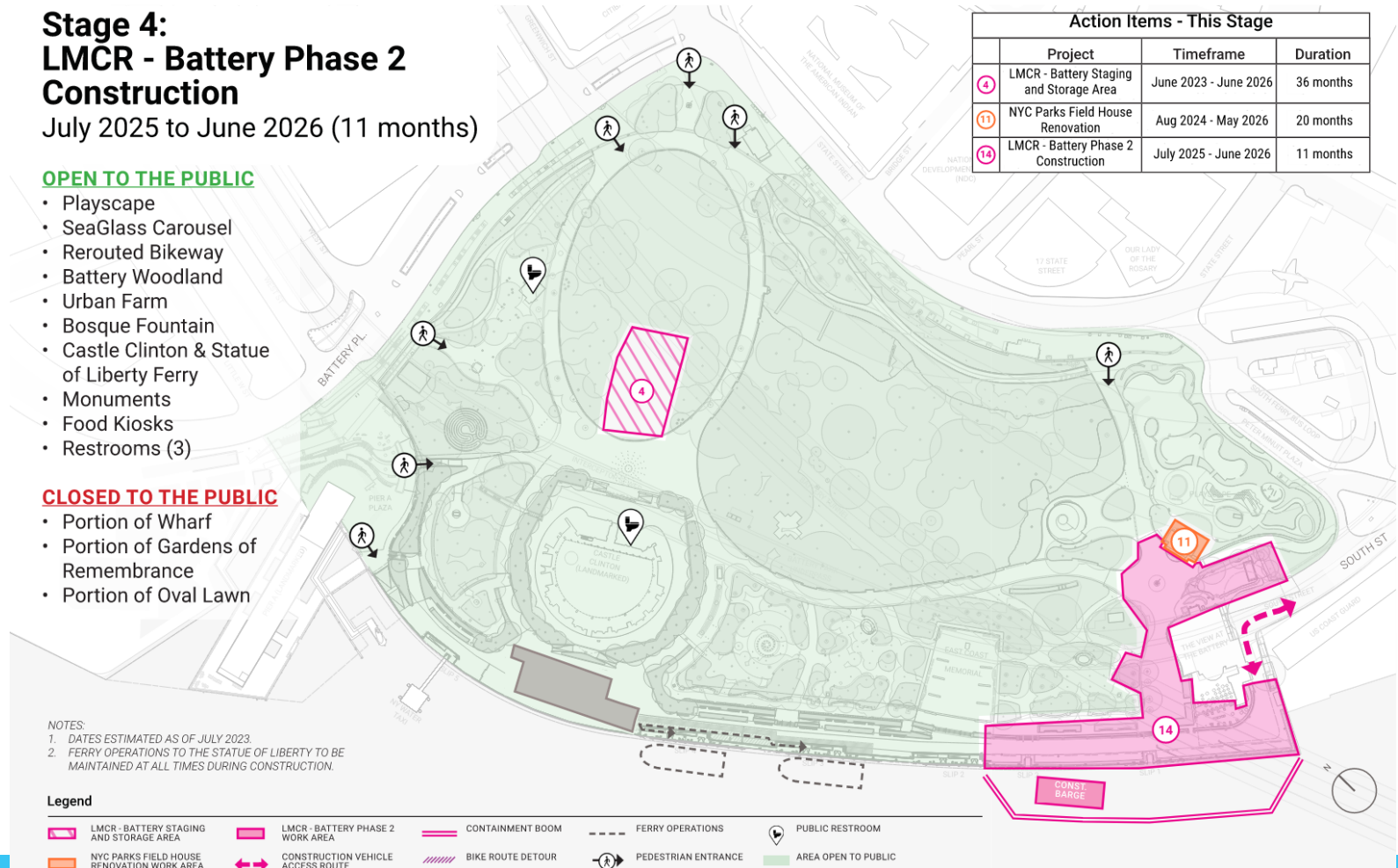
| Action Items - This Stage | | | |
|---------------------------|---|-----------------------|-----------|
| | Project | Timeframe | Duration |
| 4 | LMCR - Battery Staging and Storage Area | June 2023 - June 2026 | 36 months |
| 11 | NYC Parks Field House Renovation | Aug 2024 - May 2026 | 20 months |
| 14 | LMCR - Battery Phase 2 Construction | July 2025 - June 2026 | 11 months |

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

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Legend

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



Financial District & Seaport Climate Resilience Plan Updates

November 20, 2023

Agenda

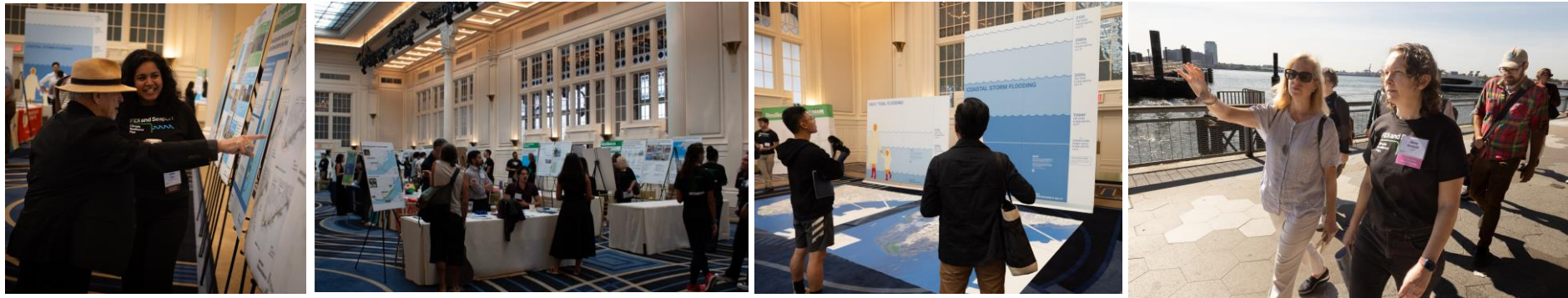
- **Recent Engagement Updates**
- **Stormwater – Sitewide Strategy**
 - **Shoreline Extension Green Infrastructure (GI) Opportunities**
 - **Parallel Conveyance Improvements**

Recent Engagement

- **Resilience+ Expo** was an opportunity for the community to learn about the FiDi and Seaport Resilience Plan and other resiliency work in NYC
- **Tabling at community events** to raise awareness for the project and meet people where they are



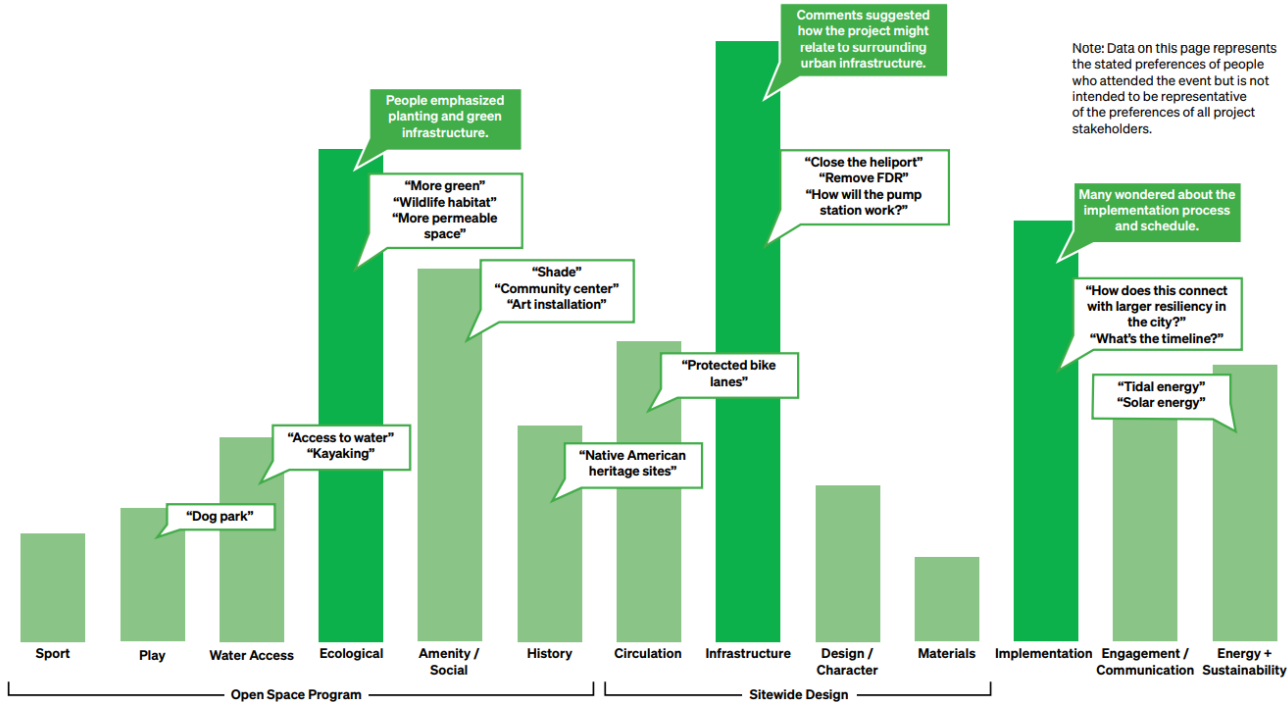
Photo credit: Julienne Schaefer
Tabling at Gotham Park Block Party



300 people attended the Resilience+ Expo to learn about climate change and the FiDi Seaport Plan, provide feedback, engage with partner organizations, and attend walking tours of the waterfront.

Resilience+ Expo Feedback

Participants shared their thoughts through hands-on activities and conversations with the team



- Larger resilience context was helpful for understand citywide resiliency efforts
- Majority of feedback focused on open space programming and sitewide design
- Interest in historical and community spaces in Seaport Piers
- Preference for diversity of activities across the waterfront
- Preference for softer waterfront character

We are actively studying green infrastructure and water reuse as integral components of our comprehensive sitewide drainage strategy, working in tandem with a wet-weather pump station for extreme storm events.

Shoreline Extension Green Infrastructure (GI)

Shoreline Extension Stormwater Management Overview

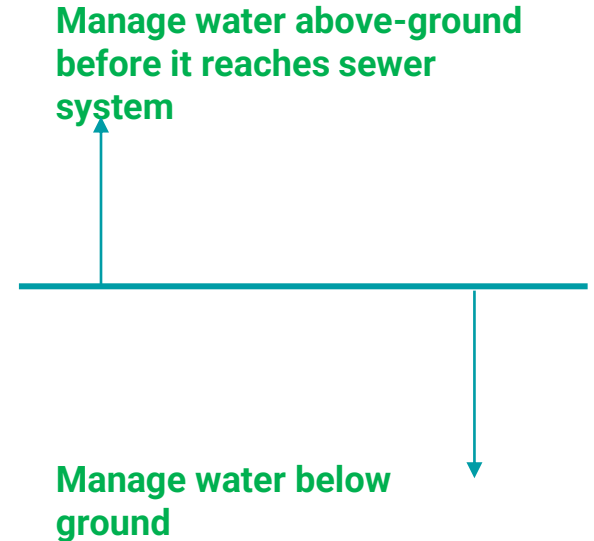
Focus of today's discussion

Green Infrastructure (GI)

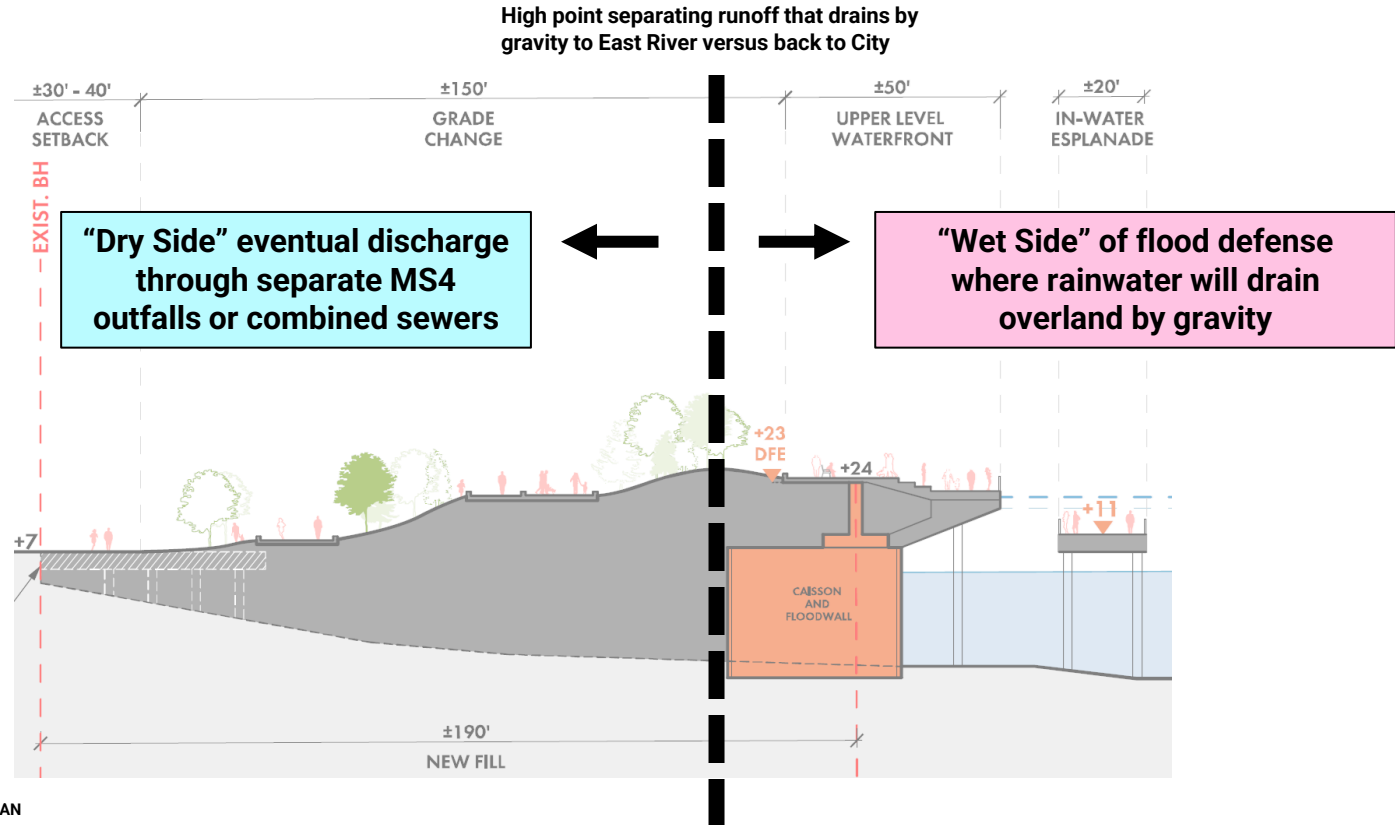
- Above and below grade stormwater capture practices to help manage rainwater
- Also helps to pre-treat rainwater

Separate storm sewer system

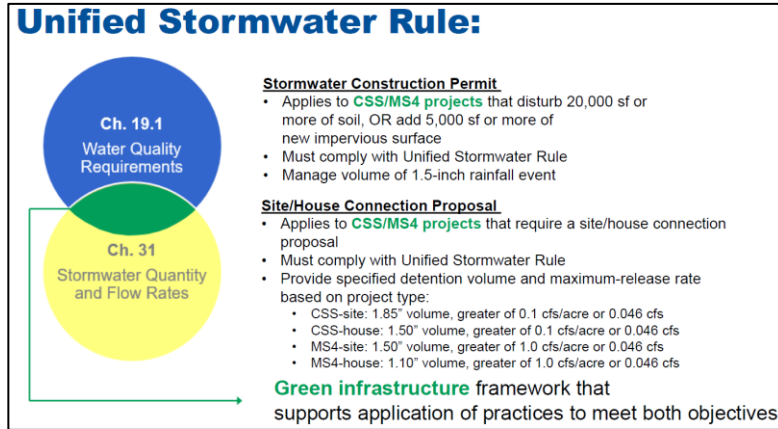
- Routing of rainwater after it exits through GI practices
- Ensures that's rainwater does not add additional stress to the existing sewer system



Thinking about GI Practices Across the Site



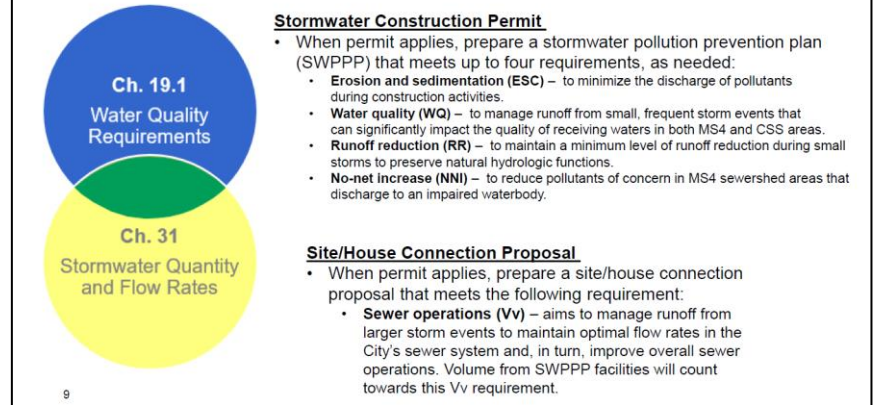
NYC/DEP Regulatory Requirements – Unified Stormwater Rule



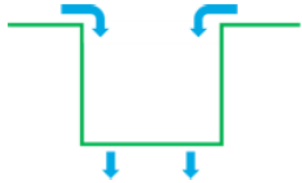
- Water quality and peak runoff reduction related goals
- During and post-construction goals

- Construction permit will be triggered by disturbing more than 20,000 SF
 - Required to manage first 1.5" of rain
- Connection permit will be triggered due to new buildings with sewer connections

USWR Requirements:



Overview of Green Infrastructure Practices



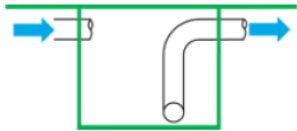
Infiltration

- Water is captured and infiltrated into the underlying soils, which is sometimes referred to as exfiltration.
- Relies on sufficient permeability rates of underlying soils. Practices do not use outlet pipes to drain water.
- Example: Bioretention, no outlet pipe



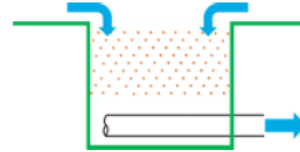
Evapotranspiration

- Water is captured and evaporated or transpired back into the atmosphere.
- Relies on ET occurring between rainfall events. Practices are usually shallow and have no or limited ability to infiltrate water.
- Example: Green roof



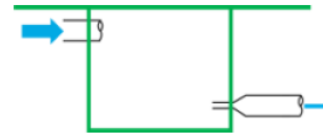
Reuse

- Water is captured and reused for non-irrigation purposes.
- Relies on continuous reuse of water. Practices can be integrated into existing non-potable and non-contact water uses.
- Example: Reuse in cooling tower



Filtration

- Water passes through a filtration media to remove various pollutants.
- Relies on steady flow of water through the filtration media. Practices have an outlet pipe to support filtration.
- Example: Sand filter

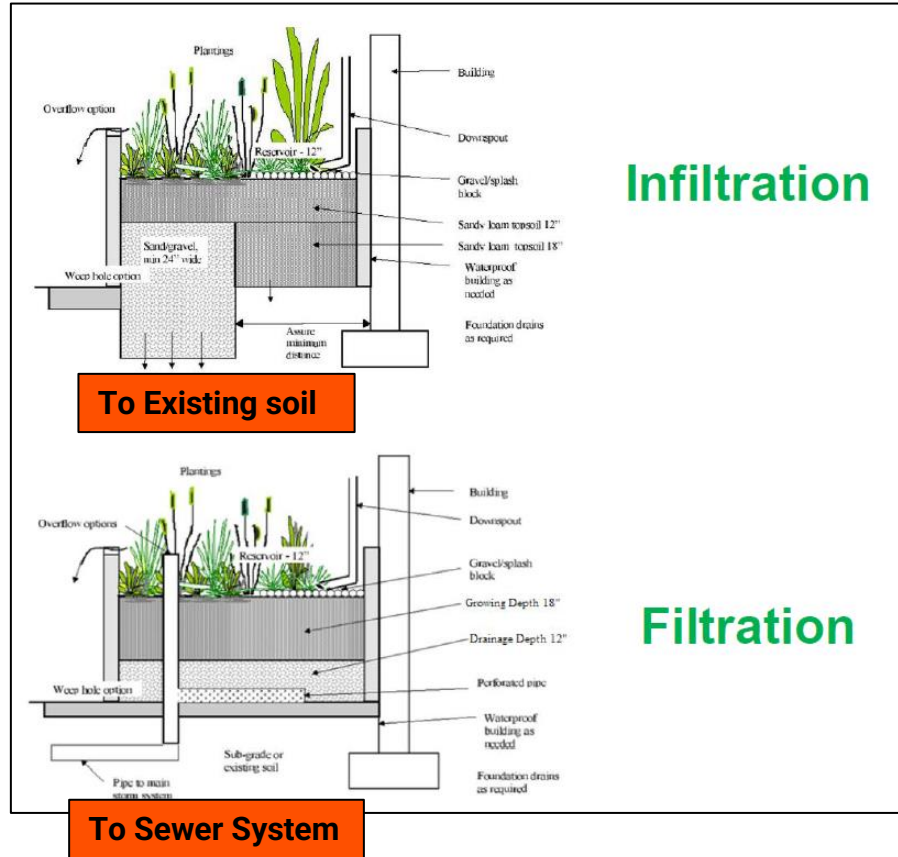


Detention

- Water is temporarily stored and released at a lower flow rate.
- Relies on ability to control release rate. Practices have a controlled-flow device, such as an orifice.
- Example: Detention tank

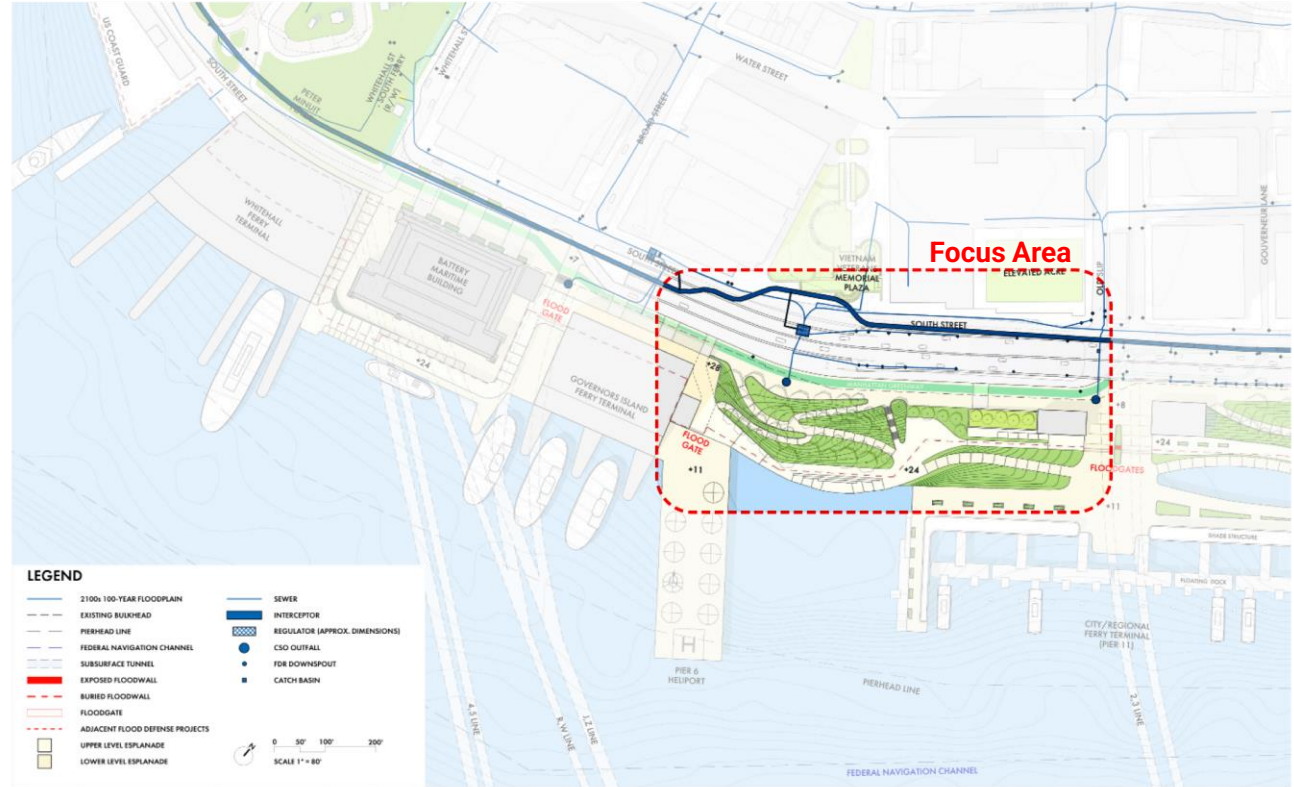
Infiltration vs. Filtration

- Type of practices required will depend on ability to infiltrate (retention)
- Ability to infiltrate will depend on:
 - **Fill material**
 - Post-construction testing to show infiltration rate (0.5 in/hr)
 - Regulatory / stakeholder discussions regarding new-fill
 - Groundwater level
- To bracket scale of practices needed, assessing two ends of spectrum



Identified Initial Concept Area – From New GIF Terminal to Old Slip

- Identifying a concept area to test stormwater practices, including:
 - Ensuring we comply with local regulatory requirements for stormwater runoff on the shoreline extension
 - Opportunities to capture, store, and reuse stormwater on-site
 - Potential to capture additional water from the FDR drive
 - Flexibility of practices across the site
- Design considerations exploring:
 - Conflicts with existing sewer outfalls
 - Compatibility and connectivity with other drainage improvements, including sewer upgrades and the pump station
 - Future sea level rise impacts

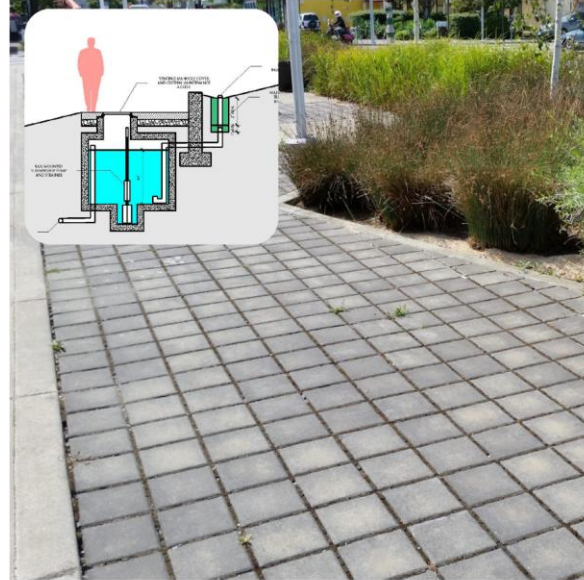


Key Stormwater Management Strategies



Green Infrastructure + Waterfront Greenway Corridor

In some areas, we may be able to combine GI solutions with the Manhattan Greenway



Permeable Paving and Storage Tanks Under Landscape

The team plans to maximize permeable paving where feasible and find areas for stormwater storage under the landscape



Water Squares / Surface Detention for Cloudburst Events

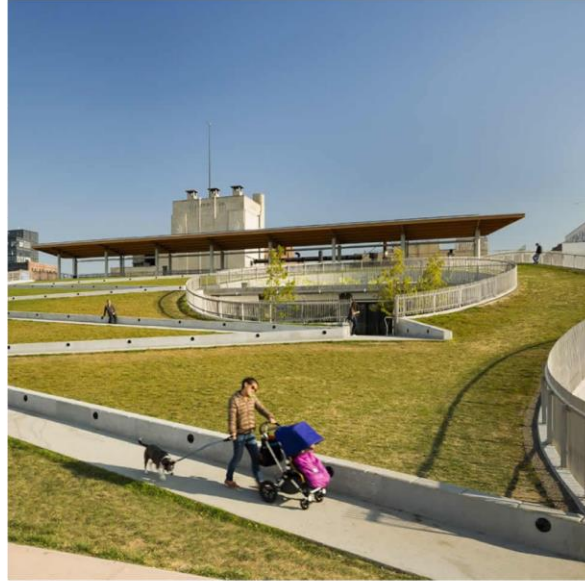
The team is looking for opportunities to integrate surface detention where feasible

Key Stormwater Management Strategies



Green Roofs

The team is exploring multiple green roof approaches. Some spaces may be publicly accessible, some not.



Rainwater Storage For Irrigation and Building Uses

The team is looking for opportunities to store rainwater. Some of these tanks may be underground, some can be located within buildings embedded in the raised landscape.

Practice Examples



StormTank Shallow Geogrid System



StormTech Shallow Chamber Collection

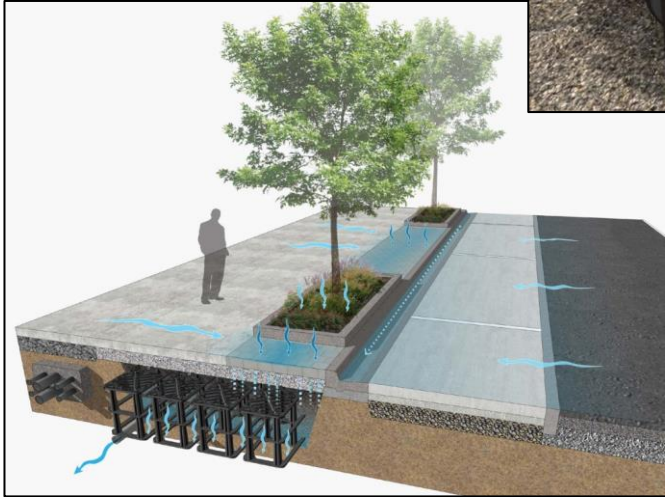


Shallow Precast Stormwater Cistern

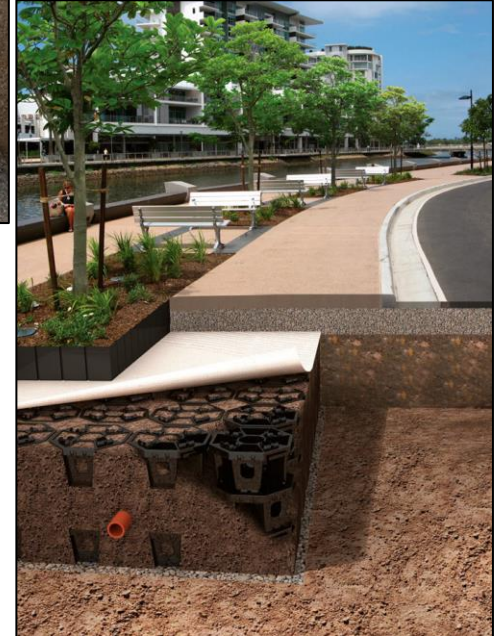
Practice Examples



Stormwater Cistern GRAF



Soil Cells in Landscape

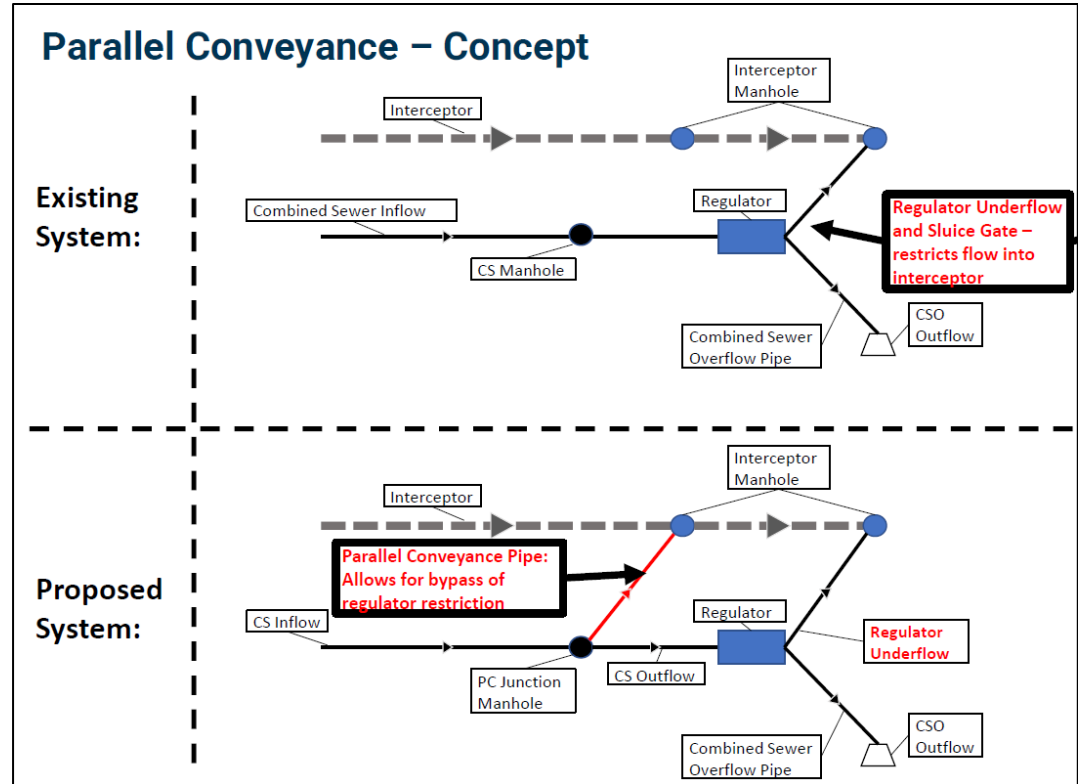


Soil Cells in Linear Tree Planting – Strata Cell

Parallel Conveyance Improvements

Why Parallel Conveyance?

- Parallel conveyance (PC) is a stormwater management strategy that involves creating parallel pathways for stormwater to flow, reducing the risk of flooding.
- It aims to distribute and manage the flow of stormwater by providing alternative pathways, minimizing the risk of overloading a single drainage route during heavy rainfall events.
- PC enhances the resilience of a neighborhood to extreme weather events, as it provides a more robust sewer system capable of handling varying runoff volumes and intensities



Parallel Conveyance Minimizing Near-term Flooding

- Hydrologic & Hydraulic (H&H) Modeling demonstrates that parallel conveyance can help to minimize flooding, even before flood defense is implemented. Modeled conditions:
 - Non-hurricane type event
 - 100-year, 3-hour rainfall
 - No surge
 - Present day tides
 - No assumed flood defense system
- Works with or without flood defense and pump station
- BRIC grant was awarded to advance further planning & design



Brooklyn Bridge-Montgomery Coastal Resilience Construction Update

CB1 Environmental Committee Meeting

1 Centre Street and Virtual

November 20, 2023



Highlights

- Project Status
- Construction Photos
- Upcoming Activities
- Community Resources

BMCR | Project Status

ALL WORK IS SUBJECT TO CHANGE

Current Activities

- Distribution Water Main ~70% Complete
- Utility Relocation & Upgrades
- Floodwall construction
- **Micropile installation**
- **Work zone expansion Pier 35-36**
- **Seepage barrier installation**

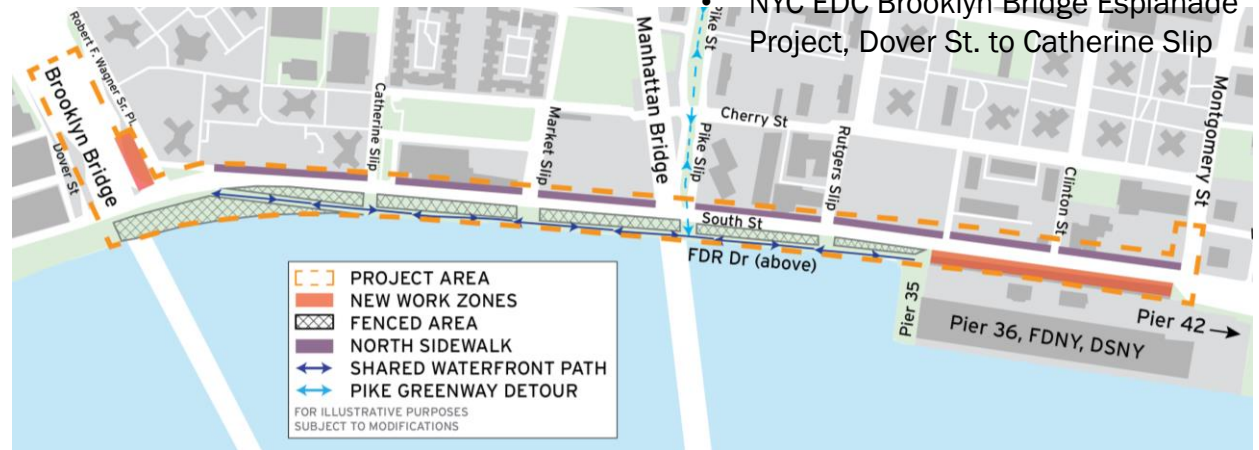
Upcoming Activities

- **Interceptor gate building construction**

Coordination

- ESCR—PC and PA1 Construction, Utility Work Coordination
- Ongoing coordination with DOT to maintain safe, greenway access

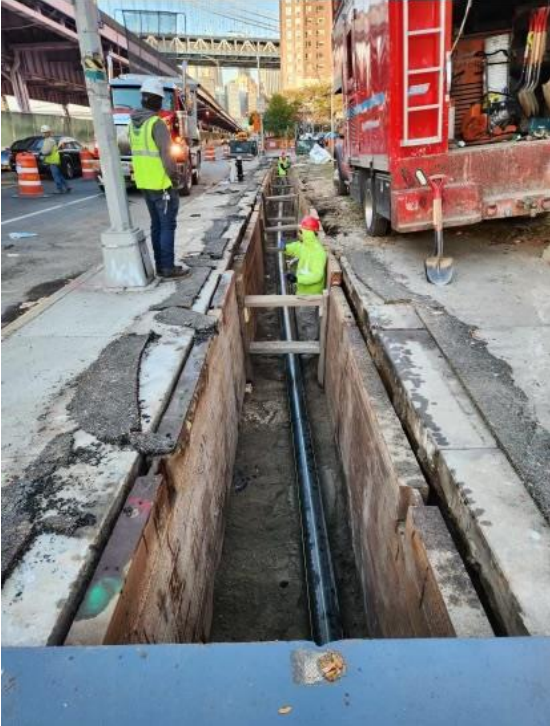
• NYC EDC Brooklyn Bridge Esplanade Project, Dover St. to Catherine Slip



BMCR | Construction Photos



Micropile Installation – September 2023



Gas Main Installation on South Street – October 2023

BMCR | Upcoming Activities – Pier 35 to 36

ALL WORK IS SUBJECT TO CHANGE



Rendering of future flood wall at Clinton Street



Construction Advisory

Project # SANDTWOBR | Borough: Manhattan | Date Issued: 10/03/2023
The Brooklyn Bridge - Montgomery Coastal Resilience (BMCR) Project is an initiative to provide long-term flood protection on the south side of Manhattan.

Extending Work Zone

Under the FDR Drive, Pier 35 to Pier 36
Starting October 16, 2023, ongoing until further notice.

To safely accommodate the construction and installation of the various flood protection systems, the contractor will extend the enclosed work zone from Pier 35 to Pier 36.
Piers 35, 36, and 42 will remain accessible throughout construction. This will require a detour of the bike lane on or about November 1, 2023—additional advisory to follow. Please follow the posted detour signs.

Questions? ¿Preguntas? 問？
BMCR Community Construction Liaison (CCL) | Email: bmccr.ccl@gmail.com
Marsha Guio, 347-938-4266 | Email: bmccr.ccl@gmail.com

NYC Department of Design and Construction | NYC EDC NYC DOT

Construction Advisory

Project # SANDTWOBR | Borough: Manhattan | Date Issued: 10/03/2023
The Brooklyn Bridge - Montgomery Coastal Resilience (BMCR) Project is an initiative to provide long-term flood protection on the south side of Manhattan.

Detour of Bikers and Pedestrians

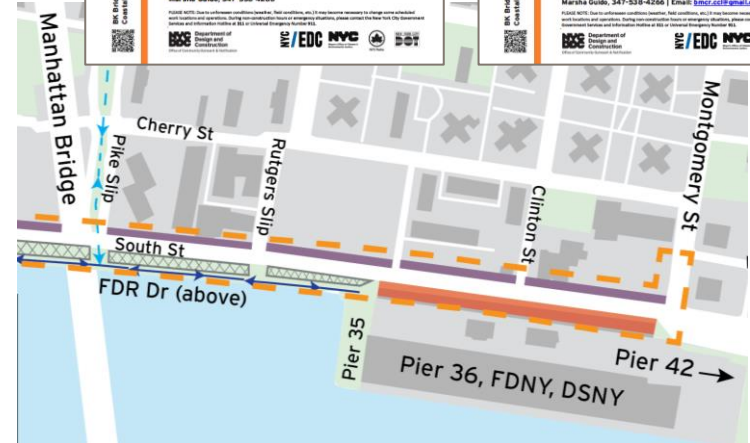
On South Street from Pier 35 to 36
Starting November 6, 2023, and ongoing until further notice.

To safely accommodate gas main installation, and floodwall construction, the enclosed work zone must be extended between Piers 35 and 36. Bikers should follow the existing East River Crossway Detour at Pike Slip or consider alternate routes. Pedestrians should use the available sidewalk on the north side of South St. To access Pier 35 and the waterfront pathway, cross at Rutgers Slip, Pier 36, Market 56s, or Catherine Slip.

Please follow all posted signage.

Questions? ¿Preguntas? 問？
BMCR Community Construction Liaison (CCL)
Marsha Guio, 347-938-4266 | Email: bmccr.ccl@gmail.com

NYC Department of Design and Construction | NYC EDC NYC DOT



New work zone for flood wall construction in red

BMCR | Upcoming Activities – Robert F. Wagner Sr. Pl.

ALL WORK IS SUBJECT TO CHANGE




Rendering of future Interceptor Gate Building on Robert F. Wagner Sr. Pl.

Construction Advisory

Project # SANDTWOBR | Borough: Manhattan | Date Issued: 11/02/2023
The Brooklyn Bridge – Montuony Coastal Resilience (BMCR) Project is an initiative to provide long-term flood protection on the south side of Manhattan.

Construction of the Interceptor Gate Building
Robert F. Wagner Sr. Pl., at South St.
Starting November 8, 2023,
Ongoing until further notice.

The Interceptor gate building, which will house the mechanics that operate the interceptor gate for the sewer system improvements, will be constructed on Robert F. Wagner Sr. Pl. at South St.



Questions? (Frequently Asked)?
BMCR Community Construction Liaison (CCL)
Email: bmcr.ccl@nyc.gov
Manhattan Office: 347-2318-4366

Public Note: Due to unforeseen conditions (weather, site conditions, etc.) it may become necessary to change work conditions and/or construction methods. All changes will be posted on the project website. For more information, please contact the project website or call the community liaison at 347-2318-4366.

NYC EDC NYC DOT



New work zone for interceptor gate building construction in red

BMCR | Resources

- Visit Us: <https://www.nyc.gov/bmcr>
- Community Construction Liaison:
 - Marsha Guido
347-538-4266
Email: bmcr.ccl@gmail.com
- Tabling in the Community
- CB 3 Parks Meetings
- On-site signage
- Inquiry tool and email updates:

<https://www.nyc.gov/site/lmcr/progress/contact.page>



Tabling event - 2023



Advisories posted on-site

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

NYC Lower Manhattan Coastal Resiliency [Русский](#) Select Language | Text-Size

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) led the design for the project, which will extend along the waterfront from the Brooklyn Bridge to Montgomery Street. DDC completed design in fall of 2021 and DDC is now managing the construction of BMCR.

This project will reduce flooding risk – from both sea level rise and storm surge – for thousands of residents, 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.

Explore the headings below for more information about BMCR and the status of construction:

Learn more about the NYCEDC design phase: [NYCEDC LMCR](#)

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

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

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- Construction Notices
- Presentations
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Brooklyn Bridge-Montgomery Coastal Resilience


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Visit Us at:
<https://www.nyc.gov/bmcr>



Seaport Coastal Resiliency? (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

Engagement & Next Steps:

- BRIC Award Formally Received from FEMA – Review Process In Progress
- Design Team procurement of design team to be completed by Early 2024
- 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





Battery
Park City
Resiliency
Project
Updates

BPC BALLFIELDS RESILIENCY

NORTH / WEST BATTERY PARK CITY RESILIENCY

SOUTH BATTERY PARK CITY RESILIENCY

2050s 100-YEAR FLOODPLAIN

South Battery Park City Resiliency

Construction

- **Phase 1: MJH & Wagner Park Site/Pavilion:**
 - Construction Underway
- **Phase 2: Pier A/Battery/Interior Drainage:**
 - Construction Underway
- **Project Construction Completion:** Early- to Mid-2025



South Battery Park City Resiliency – Construction Updates

- Foundation construction of the new Pavilion Building in Wagner Park.
- Installation of cistern and backfilling in Wagner Park.
- Installation of soil anchors for new sheet pile floodwalls in Wagner Park.
- Performance of test pits and new utility installation on First Place
- Tree pruning, removal, and protection completion in The Battery.
- Performance of test pits within the construction fence will continue in The Battery.



Cistern Installation – Wagner Park



Foundation Work – Wagner Park Pavilion

South Battery Park City Resiliency

Questions and feedback about SBPCR can be sent to:

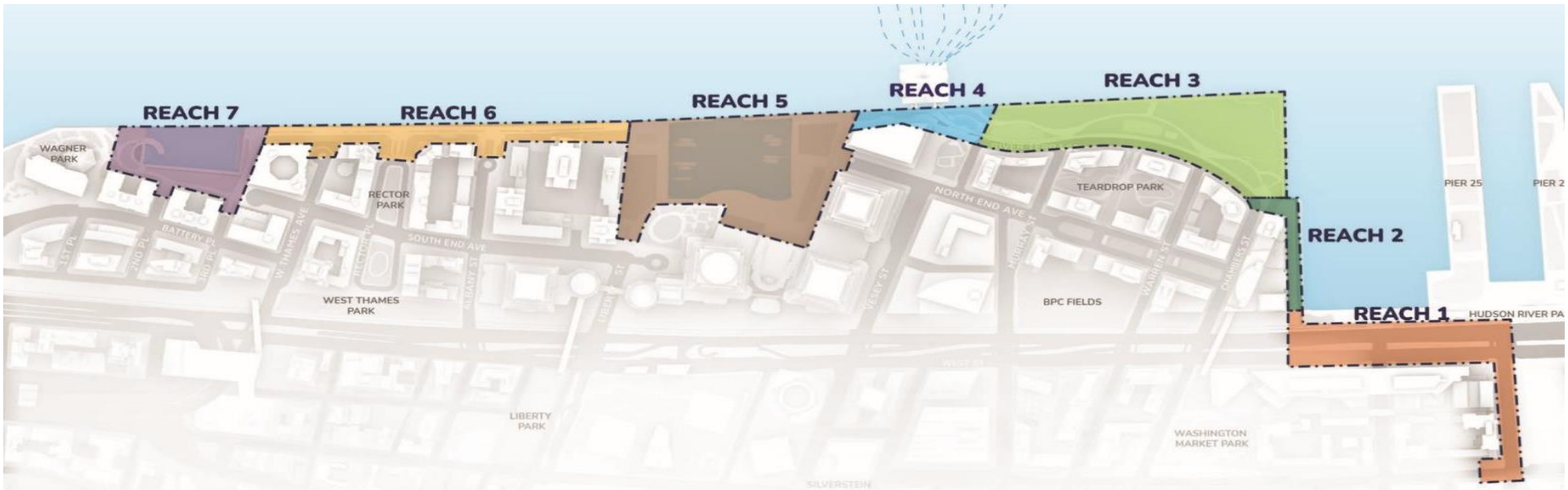
Rick Fogarty
Community Construction
Liaison (917) 624-5409
sbpcrinfo@bpca.ny.gov

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



North/West Battery Park City Resiliency

Update to CB 1 EPC - October 21, 2023 – Interior Drainage

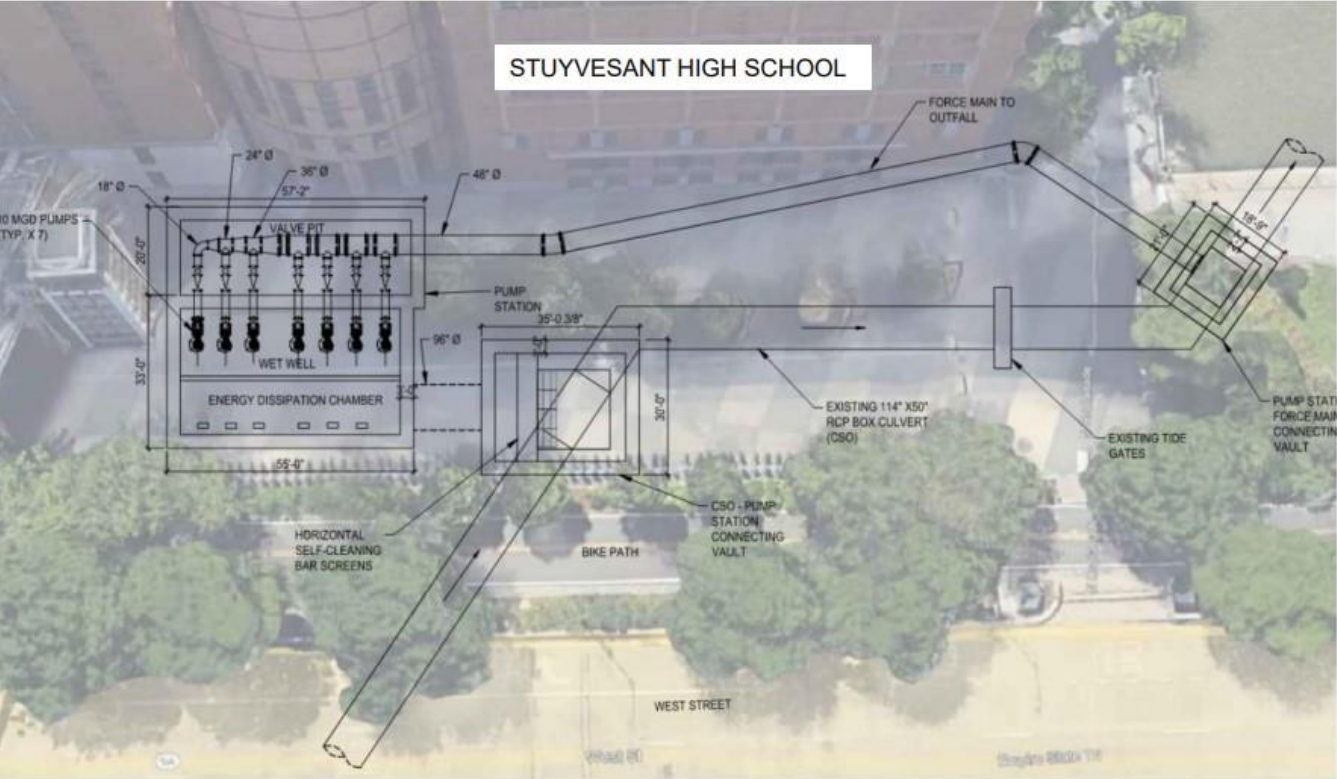
Two main drainage objectives:

1. Isolate the protected area such that floodwater is prevented from entering through existing sewer connections during coastal storm surges.
2. Manage interior flooding within the protected area associated with a coincident coastal storm surge and rainfall event to minimize interior flooding.



North/West Battery Park City Resiliency

Update to CB 1 EPC - October 21, 2023 – Interior Drainage

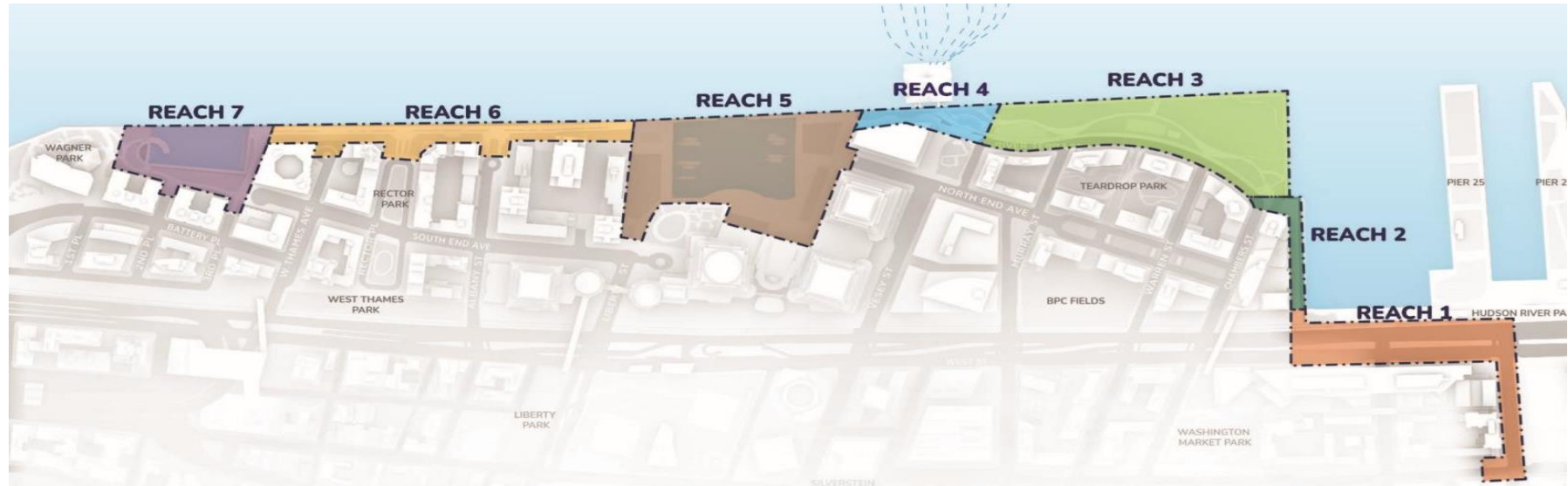


- Six 10 MGD (90 HP) submersible constant speed pumps & 1 stand-by
- Wet well: 33' x 55'
- Valve pit: 57' x 20'
- Inlet bar screen/grid is needed to protect pumping units from solids and debris in the CSO
- Electrical equipment will also need to be sited

North/West Battery Park City Resiliency

Public Engagement To- Date

- 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 Workshops- February 6th, February 6th, March 6th, March 14th 2023
- Public Meeting #5 (30% Design) – June 26, 2023
- Site Walkthroughs - October 19th, October 21st & October 26th
- **Public Meeting #6 (Post-30% Design Progress Update) – November 30, 2023**



North/West Battery Park City Resiliency

Post-30% Design Progress Meeting – November 30, 2023

Design Update on All Reaches – Focus on:

- Reach 1: Alignment along Route 9A and Route 9A Crossing; Updated Focus on East Side Alignment
- Reach 2: Revised Extension – Consistent 6-Foot Extension to Accommodate Future Adaptability and Circulation
- Reach 5: Updated Port Authority Coordination & Sizing and Design of PATH Tunnel Bridging Structures at North Cove Marina

Topic Tables: (1-on-1 with Design Team Members)

- Tree/Landscape Considerations within the Project
- Risk and Adaptability
- Battery Park City Resiliency Projects & Lower Manhattan Coastal Resiliency