

Lower Manhattan Coastal Resiliency

March 16th, 2023 Rep. Goldman and CB1 Resiliency Town Hall

NYC Mayor's Office of Climate &
Environmental Justice



NYC / EDC

NYC Department of
DDC Design and
Construction



Agenda

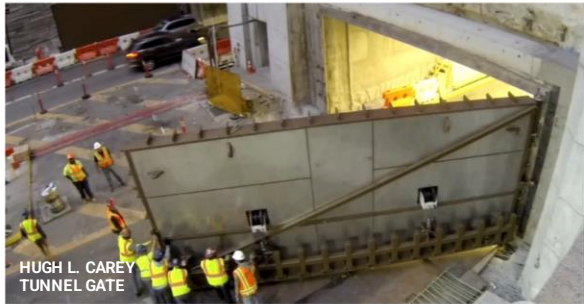
- Overall LMCR Update (MOCEJ)
- Agency Updates
- BPCA
- EDC
- DDC
- DOT
- Ongoing engagement opportunities

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



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

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 2025	Early 2027						
Seaport Coastal Resilience	2024	Spring 2025	Fall 2025	Winter 2027						
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 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



Department of Transportation: Leads implementation of flood protection for Battery Park Underpass, West Street Underpass, & SI Ferry Terminal, while working closely with our partners on all LMCR flood protection projects involving infrastructure located in or affecting City roadways.

Battery Park City – 3 Resiliency Projects

BPC Ballfields Resiliency

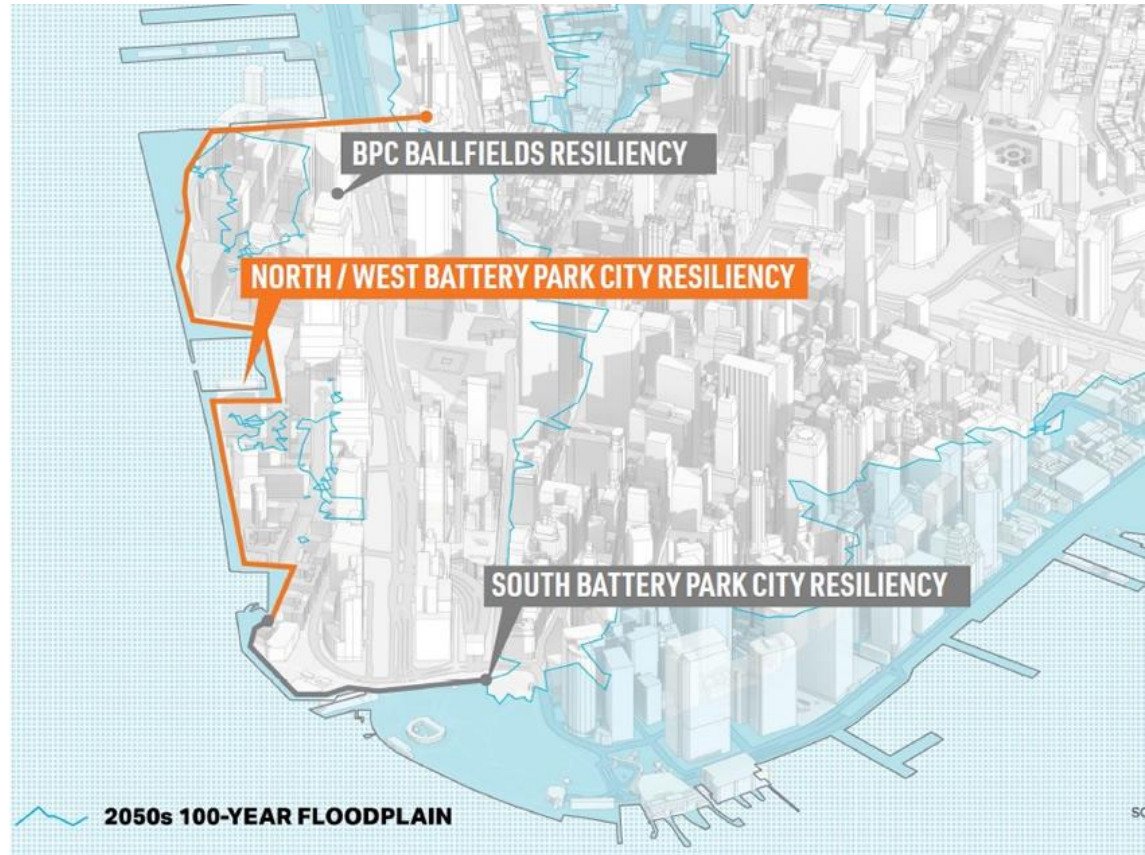
- Construction Complete

South BPC Resiliency

- Construction Commencing
- Expected Completion 2025

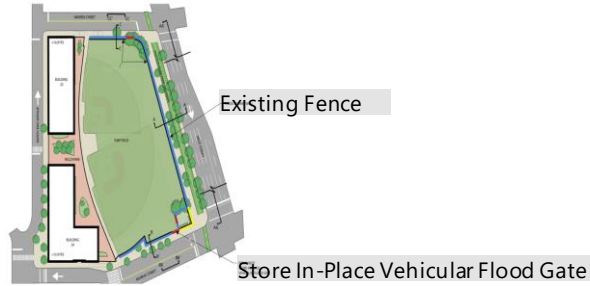
North/West BPC Resiliency

- PDB On-Board
- 30% Design in Progress



Battery Park City Ballfields/Community Center Resiliency

- Construction Completed – Summer, 2022

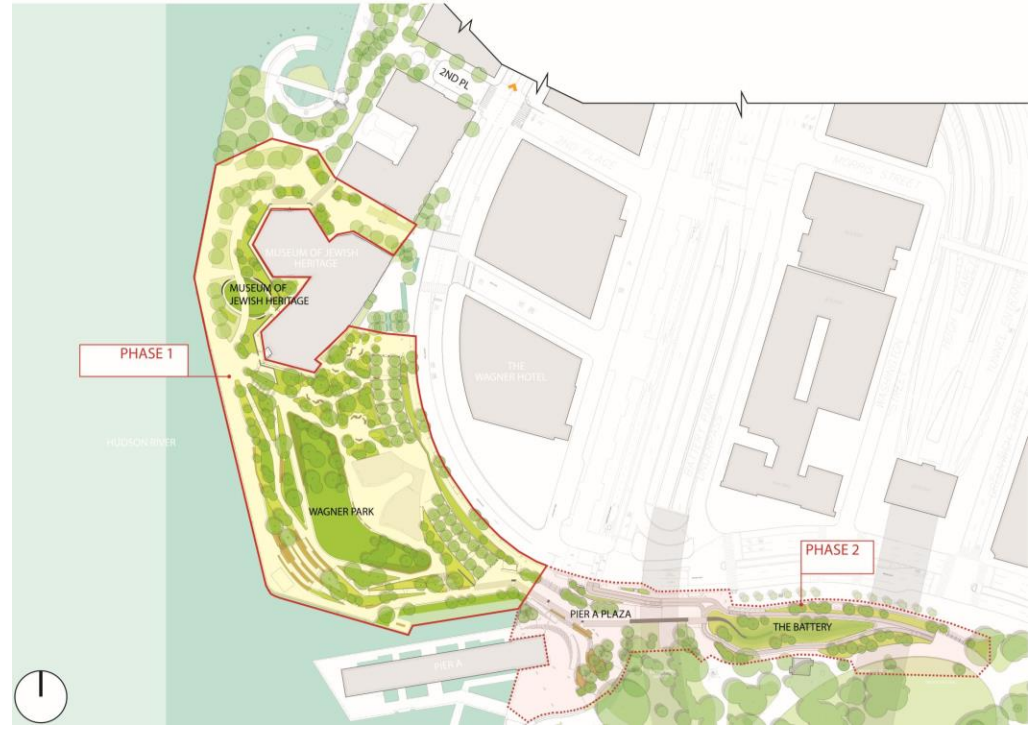


**Battery Park
City Authority**

South Battery Park City Resiliency

Construction

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



Design Completion of
Barrier System
(December 2021)

Design
Completion of
Interior
Drainage (April
2022)

Environmental
Impact Study
Completion
(October 2022)

Construction
Start (Early
2023)

Construction
Substantial
Completion
(Early 2025)

Construction
Final
Completion
(Late-2025)



**Battery Park
City Authority**

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:

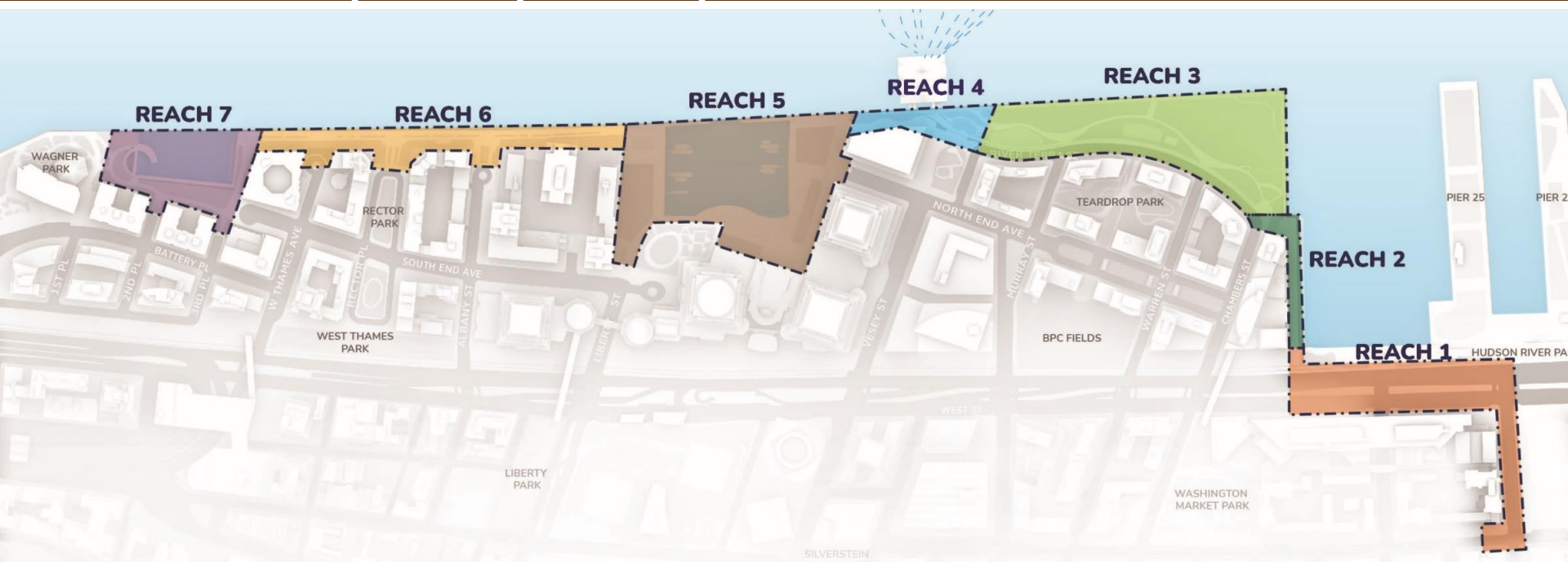
Battery Park City Authority
200 Liberty Street
24th Floor
New York, NY 10281

Attn: South BPC Resiliency
Project Team



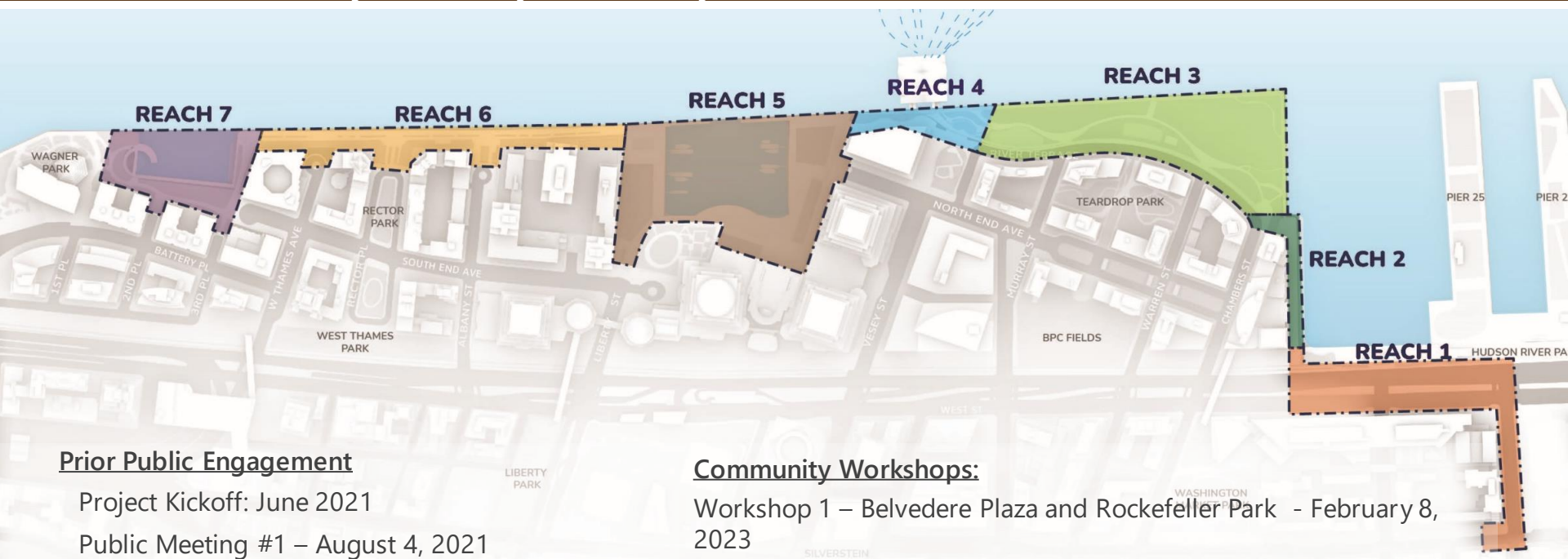
**Battery Park
City Authority**

North/West Battery Park City Resiliency



**Battery Park
City Authority**

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 Walk-shops - October & November 2021
- Public Meeting #3 (Open House) – June 2022
- Public Meeting #4 - September 2022

Community Workshops:

- Workshop 1 – Belvedere Plaza and Rockefeller Park - February 8, 2023
- Workshop 2 – Tribeca and North Esplanade – February 16, 2023
- Workshop 3 – South Esplanade and South Cove - March 6, 2023
- Workshop 4 – North Cove – March 15, 2023
- Public Meeting #5 (30% Design) – *Late Spring 2023*



**Battery Park
City Authority**

The Battery Coastal Resilience

EDC Managing Project on Behalf of Parks

Design Team: Stantec Consulting Services Inc.

Construction Manager: Hunter Roberts Construction Group

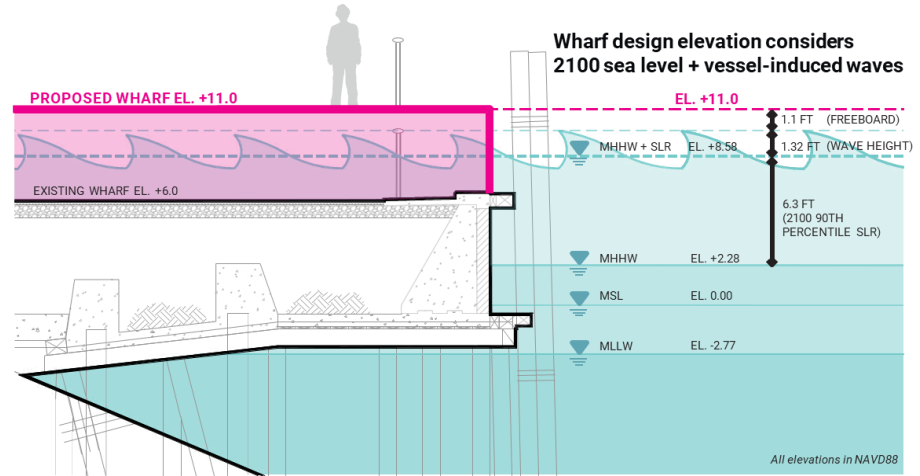
Current Project Budget: \$165M

Stakeholder Coordination:

- Finalized coordination with multiple stakeholders on 100% Design.

Project Progress:

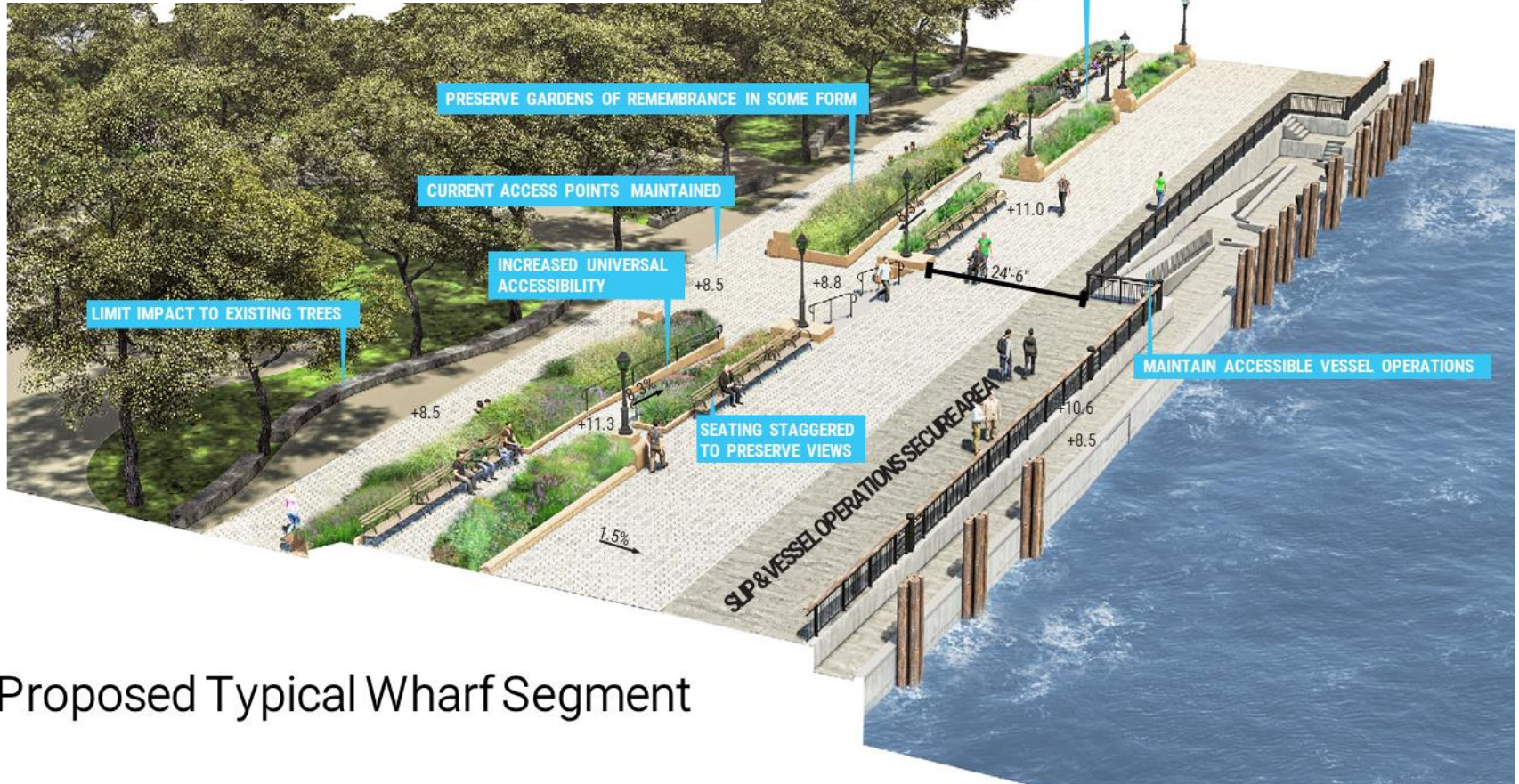
- PDC Final Approval: September 2022
- 100% Design Complete: December 2022
- Commenced Subcontractor Procurement & Awards



Upcoming Milestones:

- Battery-Wharf Slip Repair Construction Complete - Spring 2023
- Early Demo and Salvage – May 2023
- NPS Tent Relocation – May to December 2023
- Phase 1 – Commence December 2023

The Battery Coastal Resilience



Proposed Typical Wharf Segment

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.



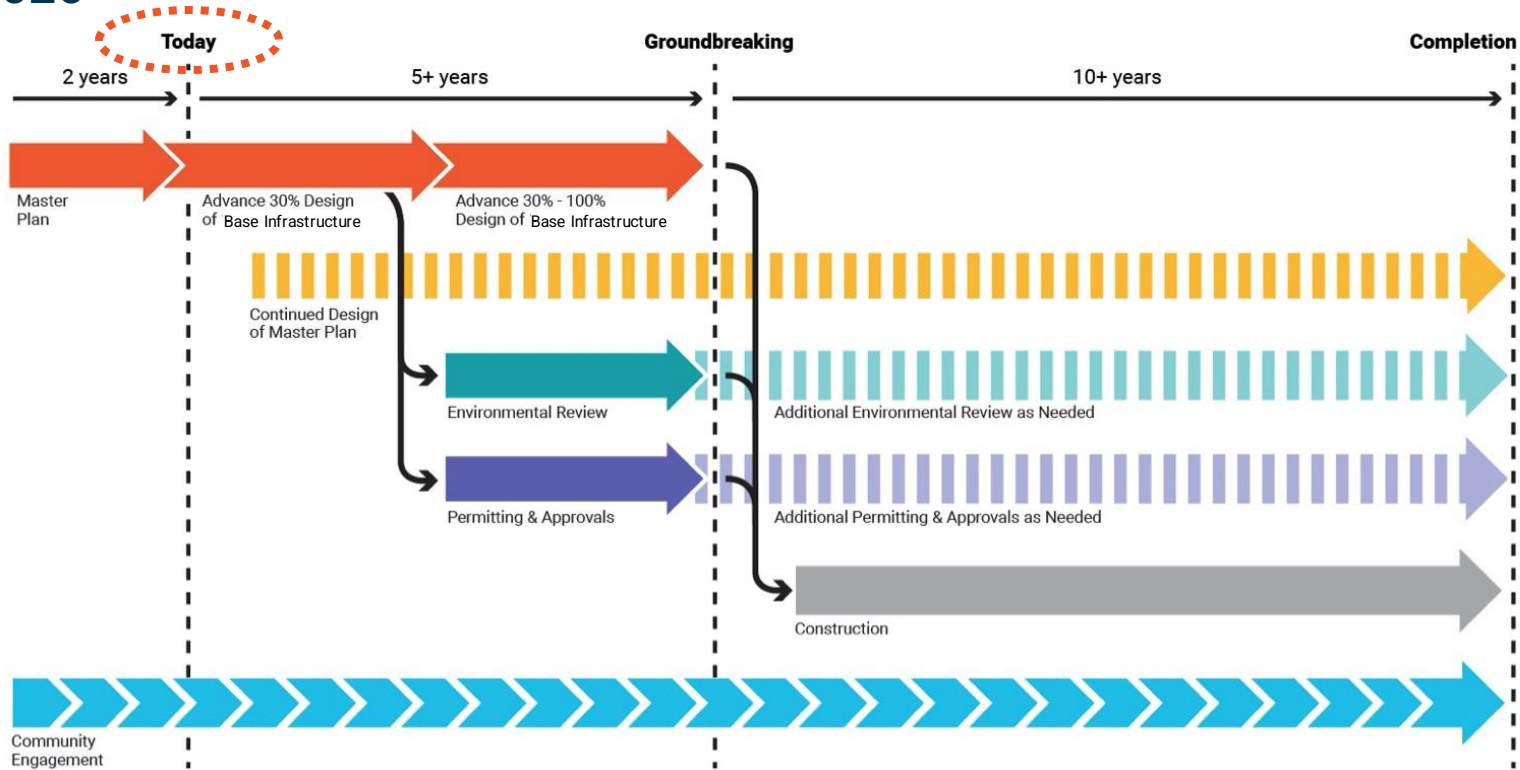
What is a Master Plan?

- 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)

This plan will take 15-20 years to build out in its entirety; we are currently refining our conceptual design, with a goal of beginning the permitting process by 2026



Seaport Coastal Resilience - 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 developed once we move further along into the design process and have a Design Consultant onboard



Seaport Coastal Resilience - 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) - 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 imminently, RFP Award tentative First-Half 2023
- When design work begins, project team to regularly coordinate with and seek input from the CB, community, and stakeholders and continue to share updates via quarterly LMCR briefings

BMCR | Project Area and Flood Protection Design

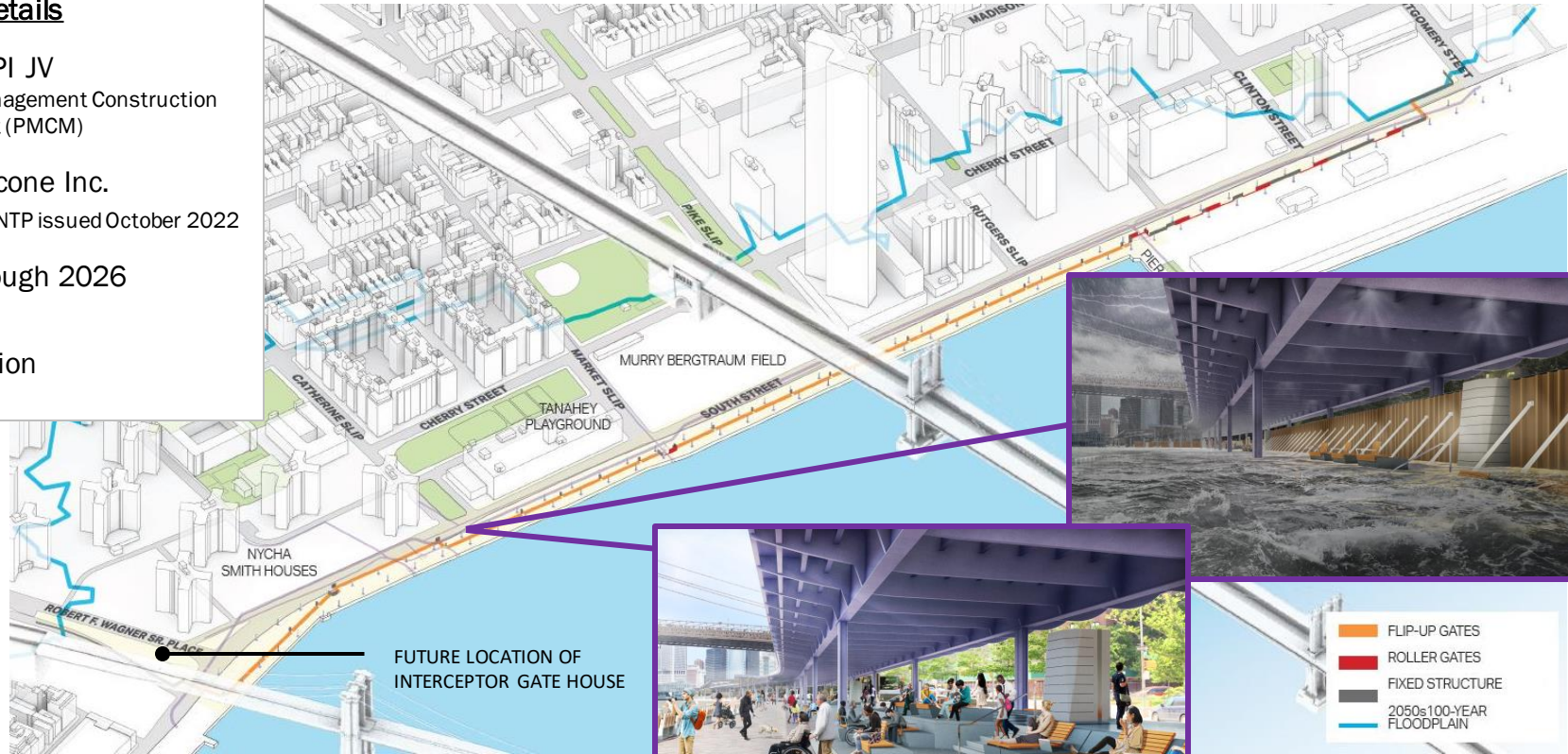
Project Details

Jacobs/GPI JV
Program Management Construction
Management (PMCM)

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

2023 through 2026
Timeline

\$349 Million
Budget

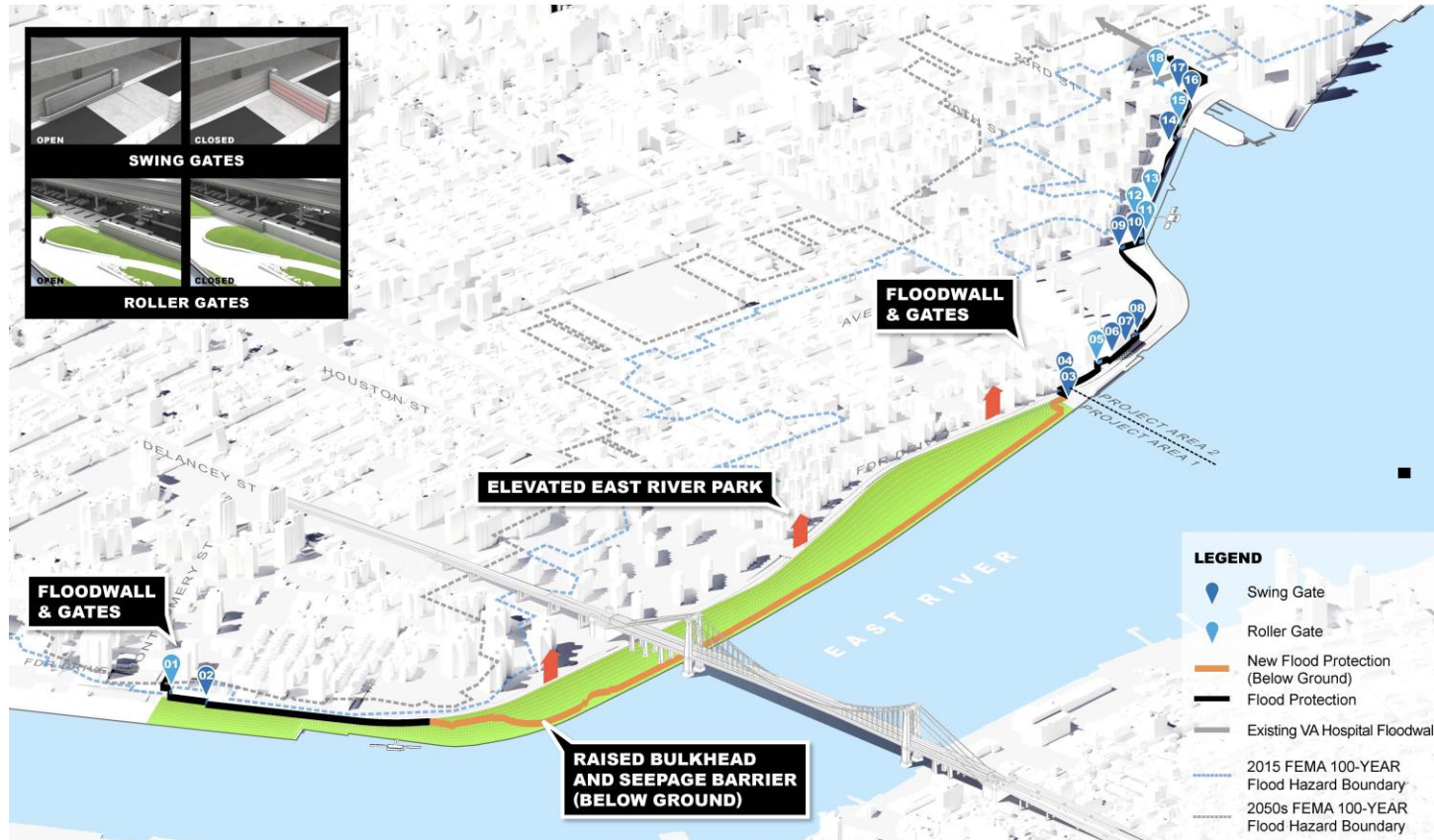


FUTURE LOCATION OF
INTERCEPTOR GATE HOUSE



ESCR | Project Overview

FLOOD PROTECTION ALIGNMENT



ESCR | Overview of Contracts

Project Area 1 (PA1)

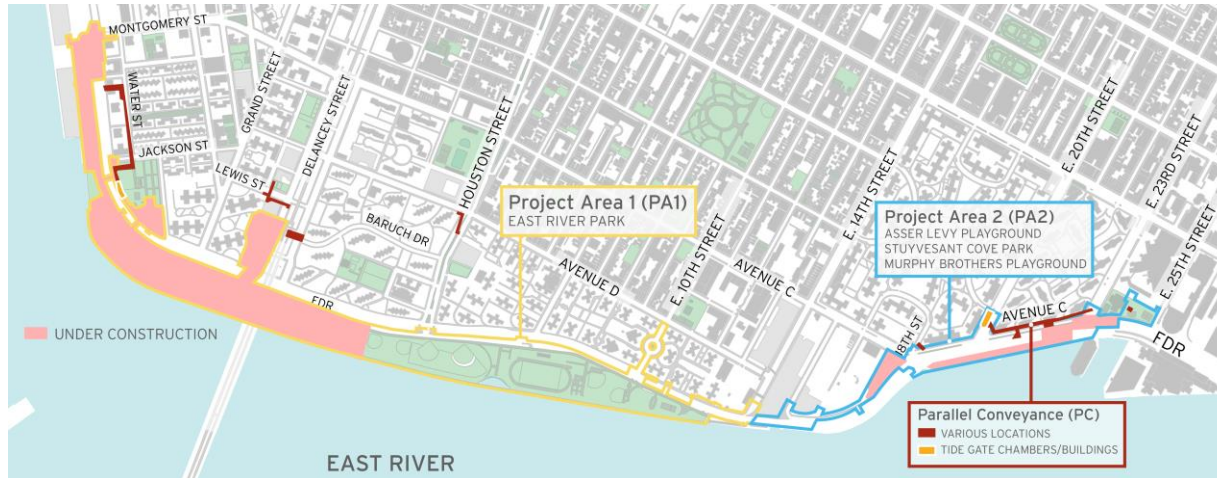
- *Budget:* \$1.27 Billion
- *Contractor:* IPC Resiliency Partners
- *NTP:* issued August 16, 2021
- On time for 2026 Completion

Project Area 2 (PA2)

- *Budget:* \$163 Million
- *Contractor:* Perfetto Contracting Co. Inc.
- *NTP:* issued November 2020
- On time for 2025 Completion

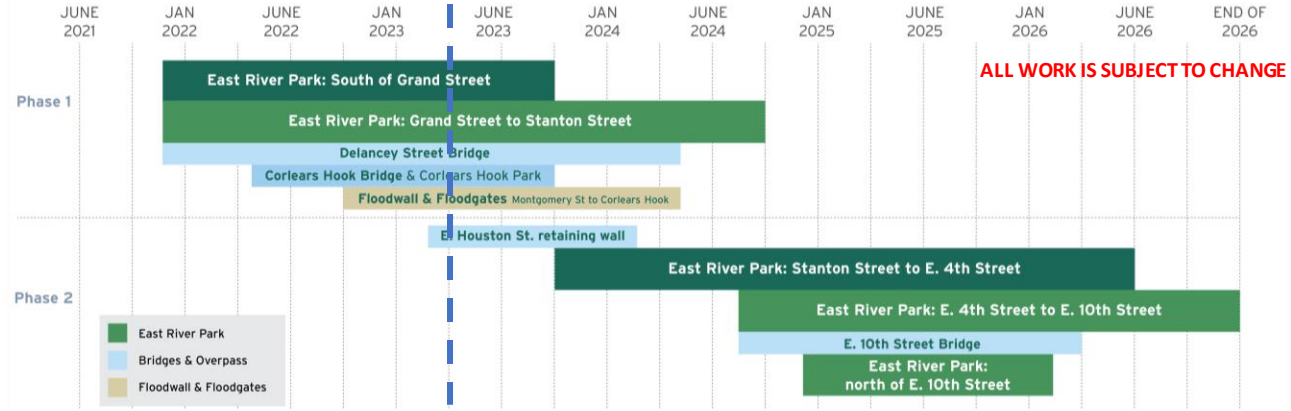
Parallel Conveyance (PC)

- *Budget:* \$155 Million
- *Contractor:* NYCC-JPL JV
- *NTP:* issued September 13, 2022
- On time for 2026 Completion

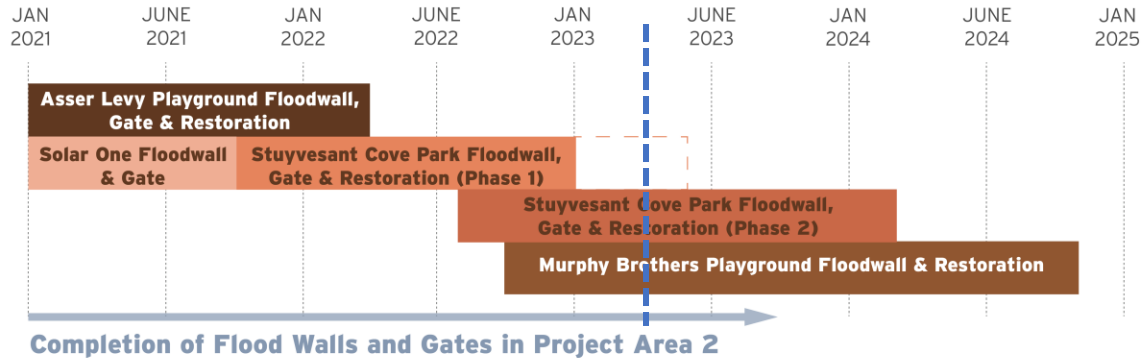


ESCR | PA1 & PA2 Construction Progress

PA 1 Timeline



PA 2 Timeline



ESCR | PA1 & PA2 Construction Progress



Floodgate, Asser Levy Playground, Flood wall



Sheet pile, Combi Wall, Sewer expansions



ESCR | Community Engagement



ESCR Community Call for Art Program – May 2022

East Side Coastal Resiliency
Project Area 1

The East Side Coastal Resiliency (ESCR) project is a major infrastructure project designed to protect the city of New York from flooding and sea level rise. The project includes the construction of a new seawall, the installation of flood gates, and the creation of new parks and public spaces. The project is a partnership between the City of New York and the Federal Government.

Project Area 1 Overview

Location: Montgomery Street to East Side
 Block 1000, 1001, 1002, 1003, 1004, 1005, 1006, 1007, 1008, 1009, 1010, 1011, 1012, 1013, 1014, 1015, 1016, 1017, 1018, 1019, 1020, 1021, 1022, 1023, 1024, 1025, 1026, 1027, 1028, 1029, 1030, 1031, 1032, 1033, 1034, 1035, 1036, 1037, 1038, 1039, 1040, 1041, 1042, 1043, 1044, 1045, 1046, 1047, 1048, 1049, 1050, 1051, 1052, 1053, 1054, 1055, 1056, 1057, 1058, 1059, 1060, 1061, 1062, 1063, 1064, 1065, 1066, 1067, 1068, 1069, 1070, 1071, 1072, 1073, 1074, 1075, 1076, 1077, 1078, 1079, 1080, 1081, 1082, 1083, 1084, 1085, 1086, 1087, 1088, 1089, 1090, 1091, 1092, 1093, 1094, 1095, 1096, 1097, 1098, 1099, 1100, 1101, 1102, 1103, 1104, 1105, 1106, 1107, 1108, 1109, 1110, 1111, 1112, 1113, 1114, 1115, 1116, 1117, 1118, 1119, 1120, 1121, 1122, 1123, 1124, 1125, 1126, 1127, 1128, 1129, 1130, 1131, 1132, 1133, 1134, 1135, 1136, 1137, 1138, 1139, 1140, 1141, 1142, 1143, 1144, 1145, 1146, 1147, 1148, 1149, 1150, 1151, 1152, 1153, 1154, 1155, 1156, 1157, 1158, 1159, 1160, 1161, 1162, 1163, 1164, 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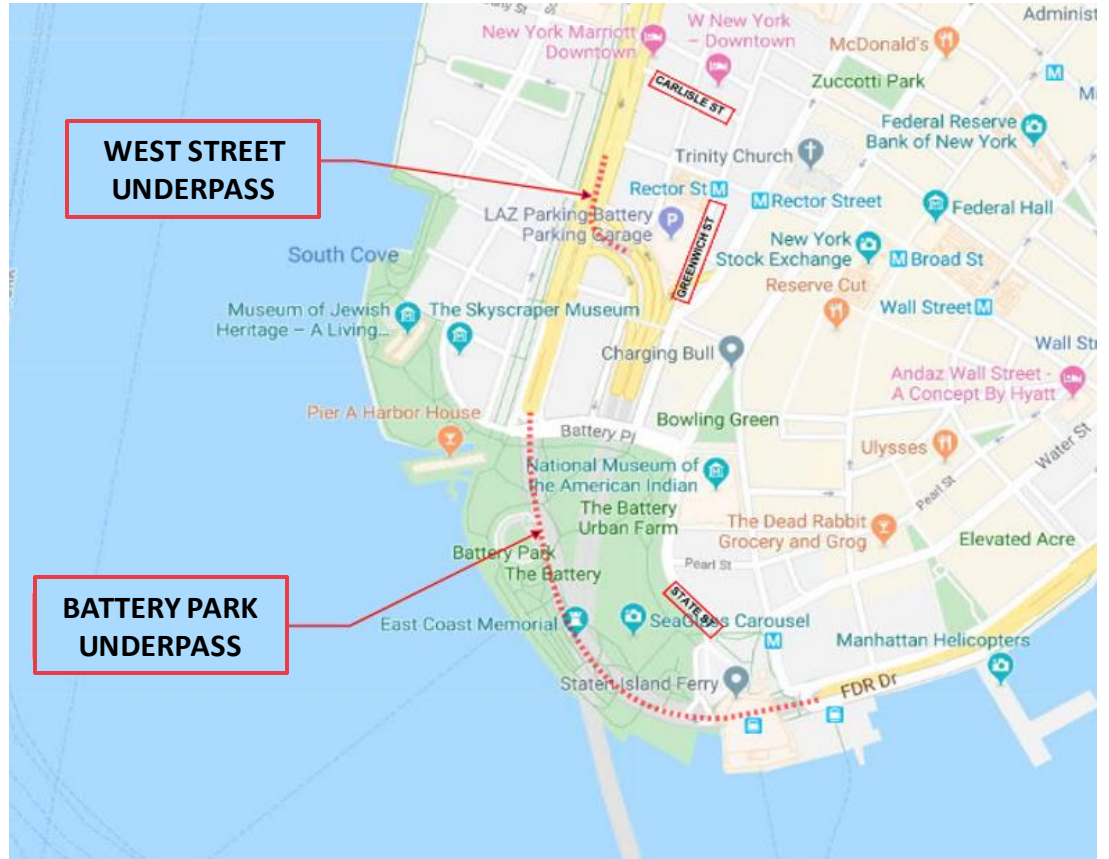
Battery/West Street Underpasses Floodproofing Project

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



Whitehall Terminal Flood Protection Project

Summary of Work

- Direct result of Sandy and need to protect from future Sandy-like events
- Flood mitigation and resiliency strategy across SI Ferry facilities, including St. George Terminal and maintenance facility in SI
- Safeguard infrastructure integrity and assets (mechanical, electrical, electronic/computerized systems)
- Wet and dry flood protection
- FTA & City funding

Schedule

- Design-Build RFP targeted for Spring 2023



Opportunities for Community Engagement

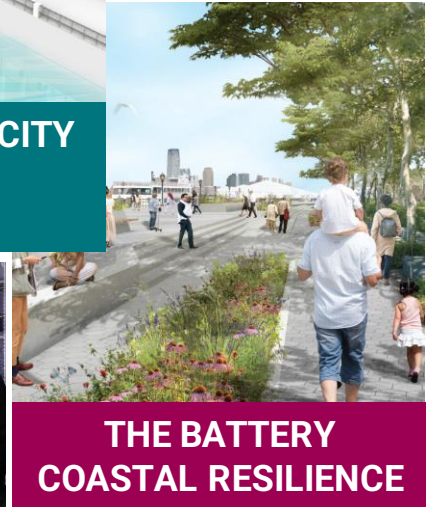
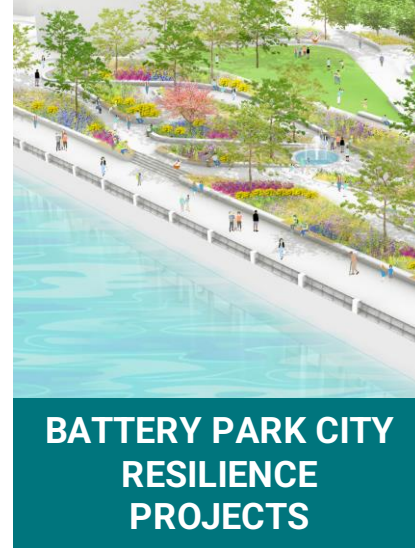
Project	Community Engagement Opportunities
BMCR	Ongoing Construction Updates & Communication
The Battery	Ongoing Construction Updates & Communication
Battery Park City	South BPC: Ongoing Construction Updates & Communication North/West BPC: Reach by Reach Workshops February- Early March 2023 , Public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

Thank you!

Appendix

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**



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:

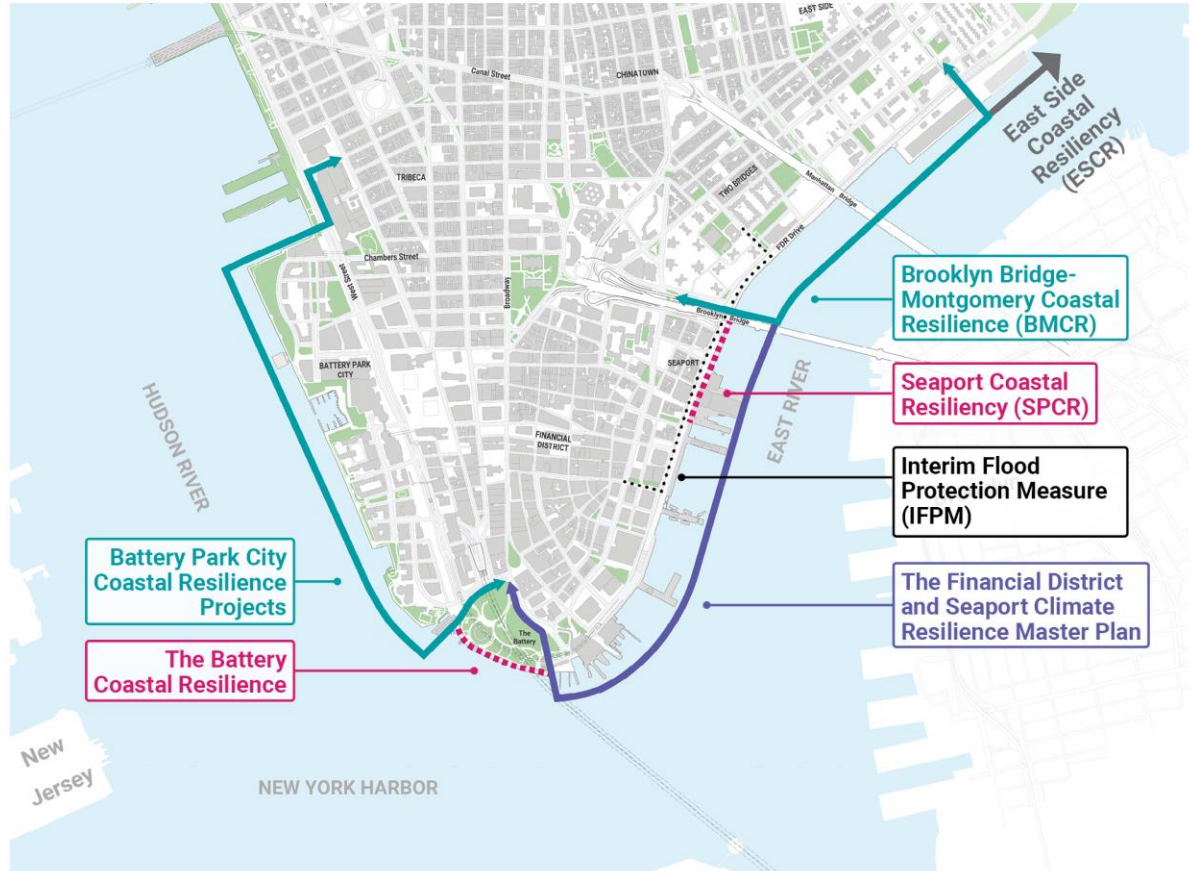
- The Battery Coastal Resilience
- Seaport Coastal Resilience (SPCR)

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

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

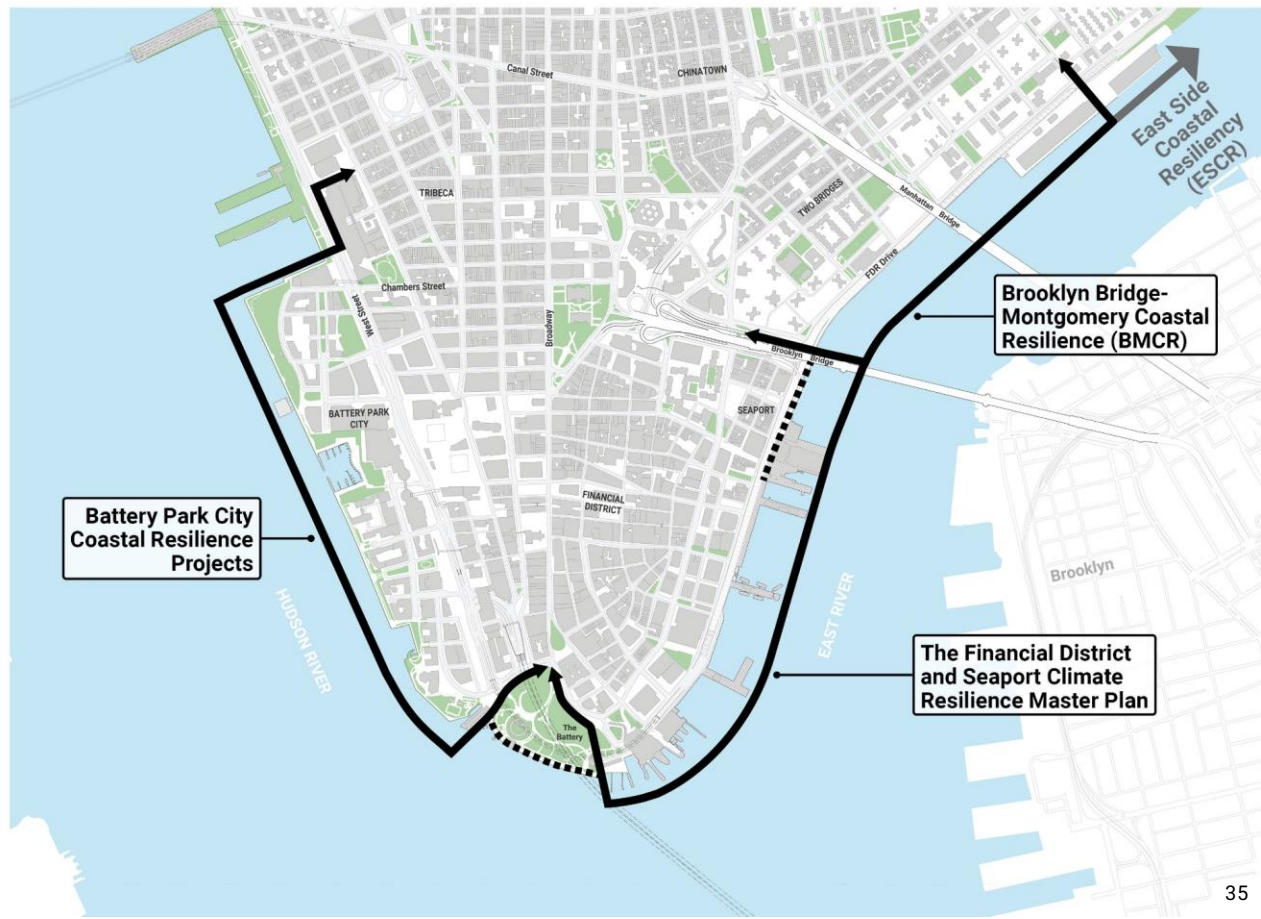
Long term planning to address both storm surge and tidal flooding:

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



All LMCR projects are based on the same underlying principles

