

Agenda

- 1. Introductions & Quick Recap
- 2. Project Updates
 - A. Interim Flood Protection Measures (IFPM)
 - Installation Status
 - Art Competition
 - B. Battery Park City Resiliency Plan
 - Design Progress
 - C. The Battery Coastal Resilience
 - Project Extents, Current Status, and Project Goals
 - Existing Conditions
 - Schematic Promenade Reconstruction
 - Project Milestones
 - D. FiDi-Seaport Climate Resilience Master Plan
 - Conceptual Timeline
 - Climate Coalition Approach
- 3. End of Year Lookahead & Next Steps



Lower Manhattan Coastal Resiliency (LMCR) is a comprehensive strategy to adapt Lower Manhattan to the impacts of climate change.

LM Climate Resilience Study

Developed **comprehensive climate risk assessment**, examining the full range of climate hazards and incorporating latest science

Tested/analyzed **engineering of coastal resiliency tools,** from flood walls to deployable barriers to raising streets and hardening buildings



Capital Projects Implementing \$500M of on-land capital projects to be under construction before the end of administration



Master Plan

Advancing Climate Resilience Master Plan for Financial District and Seaport, where on-land adaptation measures were not deemed viable

Core Project Goals: Reduced climate risks, viable implementation strategy, and integration of waterfront uses and urban co-benefits where possible



Study Areas



Since Hurricane Sandy, the City has been working to find a solution for climate resilience for Lower Manhattan.



A Stronger, More Resilient New York

Released with initial idea for outboard development in Lower Manhattan



NY Rising Community Reconstruction Plan

Community calls for resilience investments in Lower Manhattan



Lower Manhattan Climate Resilience Study

First comprehensive risk assessment and strategy for Lower Manhattan, with engineering analysis of multiple on-land alternatives

2012

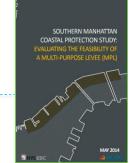
2014

2019

Rebuild By Design: The Big U

Incorporated variety of on-land concepts and secured funding through HUD Rebuild by Design competition





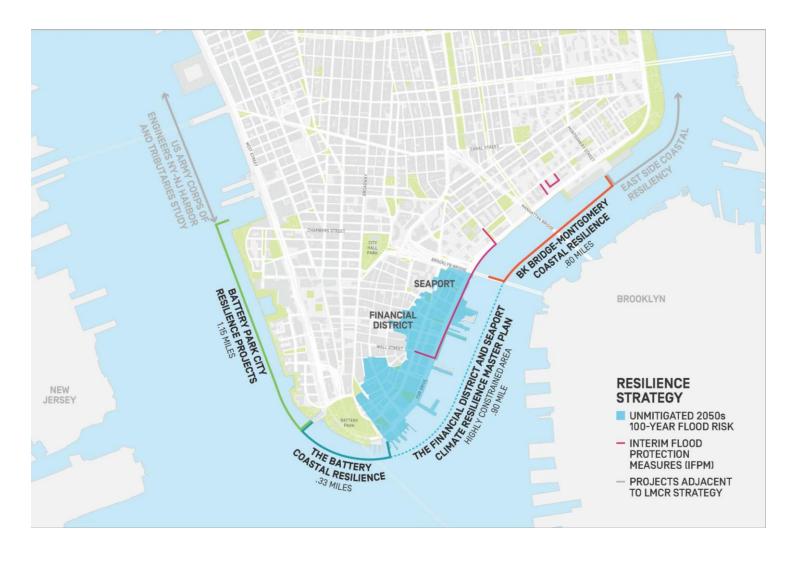
Southern Manhattan Coastal Protection Study (Seaport City) Released with further analysis of outboard development



Upon release of 2014 study, Lower Manhattan leaders and stakeholders called for a more comprehensive solution for the District and exploration of on-land alternatives

Coordinated interagency team is implementing \$500M in on-land capital projects and advancing a Master Plan for FiDi-Seaport.

- 2019 Study has led to:
 - On-land capital projects for 70% of the district (including 45% of original Seaport City geography), advancing with \$500M of funding; and
 - Master Plan for Financial District and Seaport, where on-land solutions or technologies were not deemed viable.
- Additional and on-going community engagement needed to advance capital projects and Master Plan



IFPM Update

- South Street Seaport (SSSP)*
 - Status: Operational as of June 2019
 - Beautification unveiled September 26, 2019
 - Analyzing potential re-design of existing alignment (Catherine Slip to Wall Street)
 - Studying potential expansion (Wall Street to Battery Park)**
- Tribeca Analysis***
 - Analyzing potential IFPM installation from North Esplanade to Leroy Street

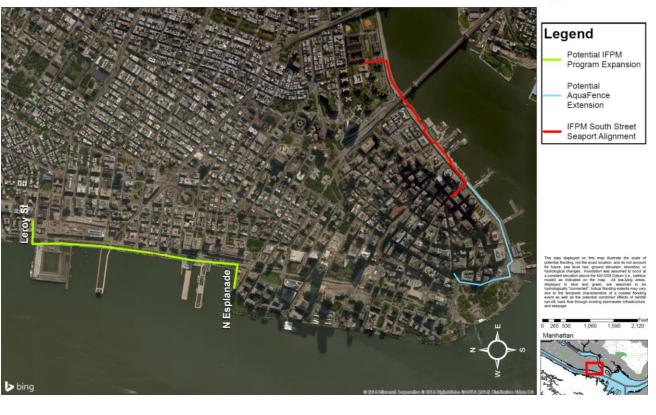
Beautification at South Street Seaport

- Two Bridges
 - Installation completed September 27, 2019













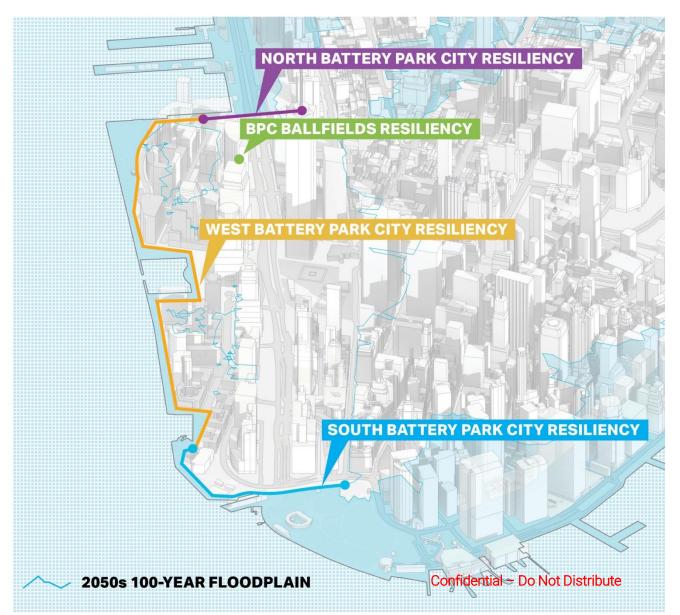
Redesign evaluating new measure - AguaFence

moffatt & nichal

Battery Park City Update

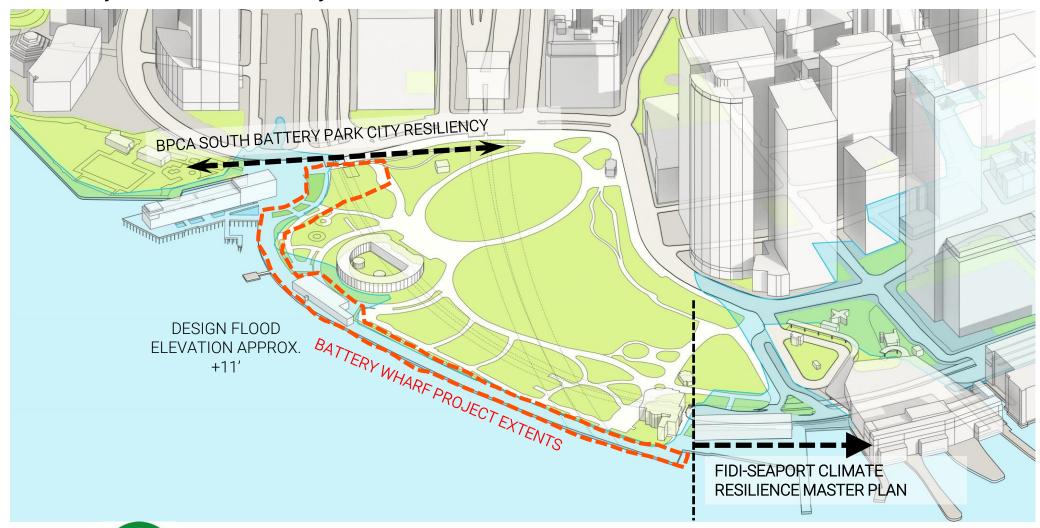
- Bond cap announcement
- South Battery Park City
 - PDC submission
 - Ongoing stakeholder engagement
 - Public meeting #4
- North Battery Park City
 - Design kick-off
 - Public Meeting #1
 - Stakeholder Meeting
- Ballfields Resiliency
 - Public Meeting #4
- West Battery Park City
 - RFP release (Fall)





The Battery Coastal Resilience

The Battery Coastal Resilience Project Extents





GOALS

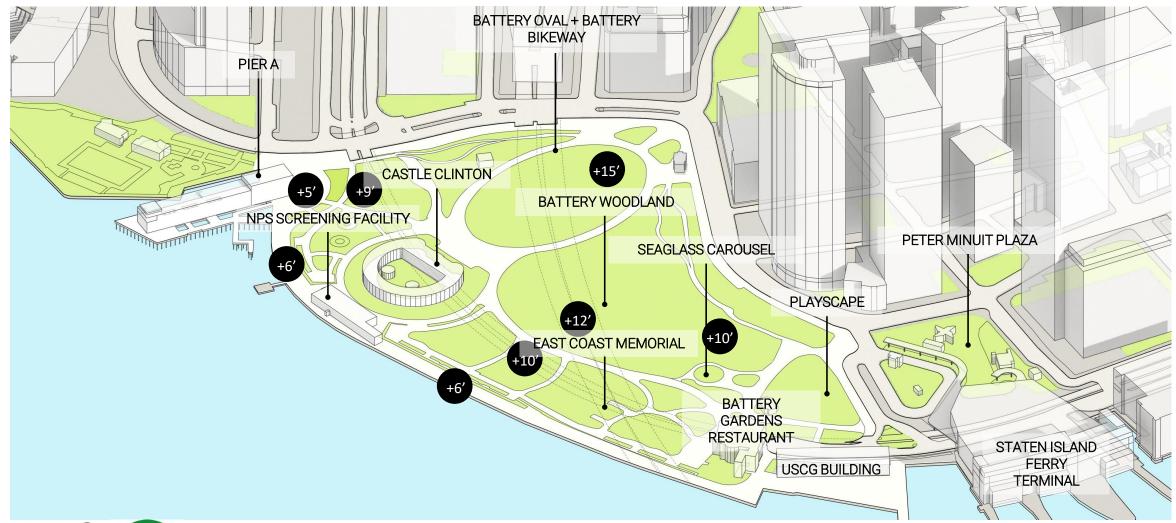
- Full reconstruction of wharf structure
- Elevate wharf to 2100 Sea Level Rise level (approx. elevation 11')
- Tie-in to BPCA South Battery Park City Resiliency project
- Close Coordination with Stakeholders and Public
- Maintain NPS Operations
- Retain existing materials & aesthetic
- Equal access and universal design
- Build a sustainable wharf

CURRENT STATUS

- EDC managing on behalf of NYC Parks
- Ongoing stakeholder engagement:
 - Community Board 1
 - Elected Officials
 - The Battery Conservancy
 - Battery Park City Authority
 - National Parks Service
 - Various City Agencies
- Design Consultant selection: Stantec
- Overall design schedule ON TRACK:
 - Kick-off Fall 2019
 - Completion anticipated Summer 2021



Existing Site Features and Elevations



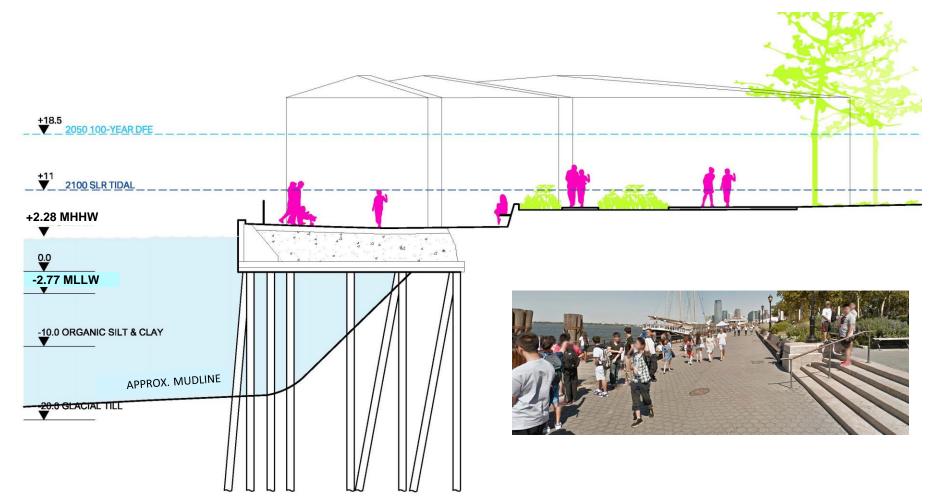


2100 Sea Level Rise / Present Day 10-Year Storm Design Flood Elevation (Including 1' Freeboard)





Wharf Existing Conditions





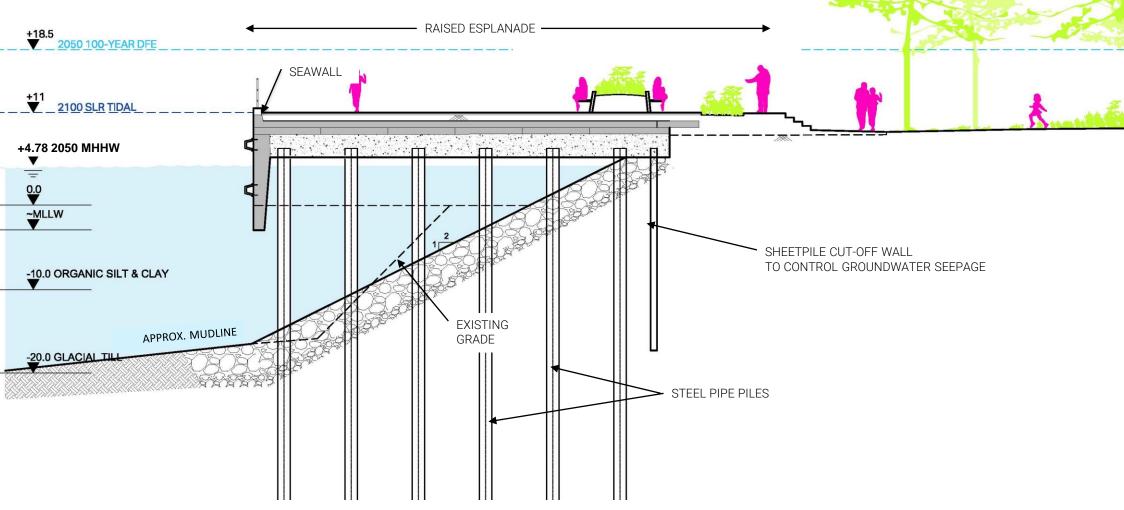


Wharf Conditions

- Deteriorating condition of wharf structure
- Emergency repairs under way
- Periodic overtopping

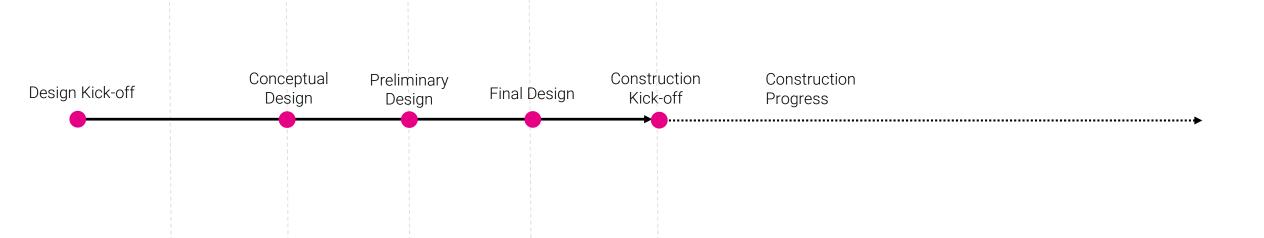


Schematic Wharf Reconstruction





The Battery Project Milestones





Financial District-Seaport Climate Resilience Master Plan Update

The Financial District-Seaport Climate Resilience Master Plan will develop a shoreline extension solution to increase resilience of Lower Manhattan.

What can we achieve in two years?

- Determine extent of shoreline extension.
- Develop a conceptual design of shoreline extension and preliminary design of a first phase project
- Create a detailed implementation plan for financing, construction, and governance
- Advance permits with State and Federal agencies
- Create a drainage plan to upgrade sewer system in response to severe climate risks

Next Step: Kick-off with consultant team and plan for first large-scale community meetings



Location and extent of shoreline extension to be determined through community engagement and permitting



Consultant Selection

- Team Lead: Arcadis
- Climate resilience leader with over 100 years of global experience in the adaptation and flood protection of cities
 - Land reclamation projects across the globe
 - Design & construction for land reclamation projects in Rotterdam and Amsterdam
 - Coastal resilience projects in Boston, San Francisco, and New Orleans
- Core team has strong local presence in Lower Manhattan and proven track record on NYC's key resilience initiatives
 - Continuity from LMCR, ESCR, Big U, Southern Manhattan Coastal Protection Study, and NY Rising
 - Other NYC experience includes Living Breakwaters in Staten Island, Coney Island Creek Resiliency, drainage study for DEP in Gowanus, and Climate Adaptation Roadmap for NYC
 - Strong relationships with Army Corps and other permitting agencies



Living Breakwaters



Rotterdam Climate Proof



Master Plan Services

- Engineering and design of the shoreline extension, including upland components and tie-ins
- Transportation, maritime and drainage infrastructure analysis
- Strategies for placemaking, urban design and programming
- Drainage modeling under multiple storm scenarios
- Analysis of environmental impacts to inform design and permitting considerations
- Developing a pathway to implementation, including strategies for permitting, financing, and governance
- Public and stakeholder engagement
- Background analysis and site investigations
- Analysis of in-water impacts, including habitats and ecology, water rebound, navigational concerns, and scour

Engineering





Planning/Design







Engagement





Financing/ Governance



Permitting/ Environmental

SIVE PAGET RIESEL



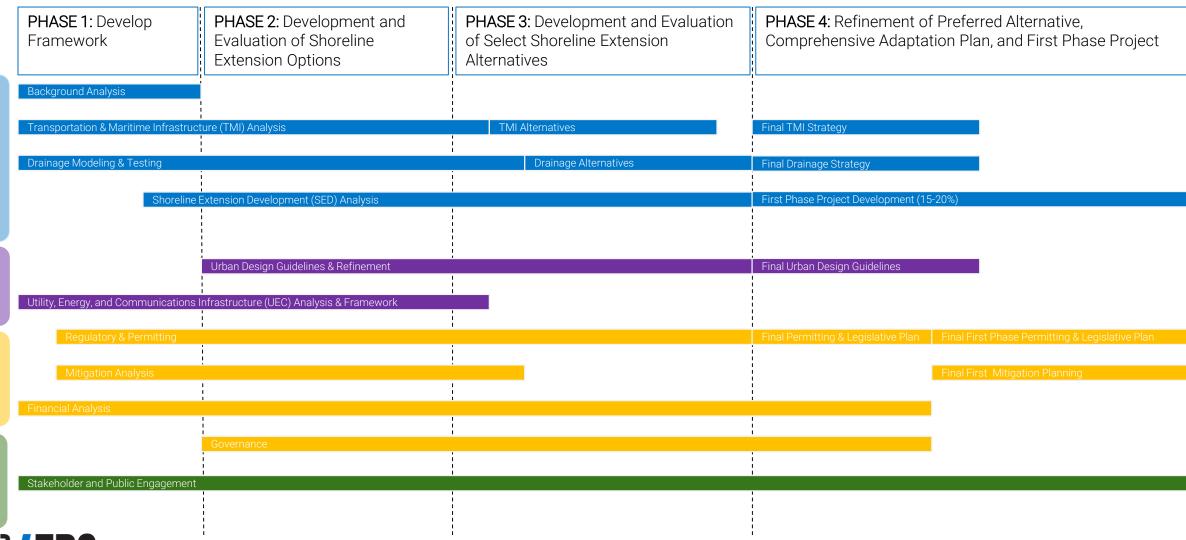
MATRIXNEWORLD

Transportation

Sam Schwartz



Conceptual Timeline





Engagement Proposal

Climate Coalition

Goals:

- Provide robust education for LM community on climate change, resilience, and infrastructure
- Build foundation for generational coalition and advocacy for climate adaptation in FiDi-Seaport
- Develop shared City and community vision for the shoreline extension

Structure:

 Group of local stakeholders and climate resilience and environmental groups to start, with opportunities to grow over time

Frequency of Meetings:

Every quarter

Technical Advisors

Goals:

- Review and provide input on technical analysis
- Act as educational resource for community stakeholders

Structure:

 Body of third party experts on climate science, resilience, infrastructure and engineering

Frequency of Meetings:

 TBD based on consultant schedule

Public Engagement

Goals:

- Foster broad understanding of climate issues and City's strategy
- Build public advocacy for City to take action to protect LM from climate change

Structure:

- Large-format public forums
- Creative public engagement tools, like public art and youth education
- Digital outreach

Frequency of Meetings:

Every 6 months (for formal meetings)



Public Engagement Milestones

Projects	Timeline			
	September	October	November	December
IFPM	Announce art competition winners (9/26)			
Battery Park City	South BPC Resiliency PDC submission Ballfields Resiliency Public Meeting #4 (9/26)	North BPC Resiliency Public Meeting #1 (10/1) South BPC Resiliency CB1 Update (10/3)	South BPC Resiliency Public Meeting #4	
The Battery		CB1 Update (10/3)		
FiDi-Seaport	Executive Committee (9/26) Climate Coalition Formation	CB1 Update (10/3)	Climate Coalition Kickoff (TBD)	Public Meeting #1 (TBD)
BK Bridge-Montgomery	CB3 Update	Public Meeting #1 (10/2) PDC conceptual review		
Overall LMCR Strategy	Quarterly electeds and CBs update (9/26) Office Hours (Pier 16/17, Go Fish! Festival) Additional briefings	LinkNYC ads Office Hours (Bowling Green, Pier 35, The Battery)	LinkNYC ads	LinkNYC ads

