LOWER MANHATTAN COASTAL RESILIENCY

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Lower Manhattan Coastal Resiliency (LMCR) is the City's plan to adapt Lower Manhattan to climate change, for this generation and the next.

The City is taking bold, significant action, investing $500 million in climate adaptation projects to protect Lower Manhattan now, while planning for long-term climate adaptation to meet the challenges of tomorrow. These capital projects involve a range of adaptation tools tailored to each unique neighborhood context. A coordinated team of City agencies will begin construction on all of these projects by 2021.

NYC Mayor's Office of Resiliency

NYC EDC

View of landscaped berm and flood wall in the Battery looking west towards Pier A plaza.

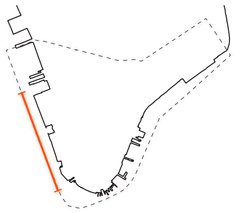
Bird's eye view of Wagner Park resilient design.

BATTERY PARK CITY RESILIENCE PROJECTS

The Battery Park City Authority (BPCA) is developing four coastal resiliency projects to reduce the risk to Battery Park City (BPC) and surrounding areas from the threats of coastal storms and sea level rise. These projects will be implemented in stages, stretching along the waterfront from Pier A Plaza and The Battery in the south to Stuyvesant High School and into Tribeca in the north, as well as at the BPC Ball Fields. They will mitigate against coastal storm flooding by incorporating raised park and garden spaces with deployable and fixed flood walls. The South BPC Resiliency project (pictured) will include a landscaped berm and flood wall along the northern edge of The Battery.

Tools: Deployable flip-up gates, glass-topped flood wall, raised park, landscaped berm and flood wall

Timeframe: Construction will start in 2020



NYC Mayor's Office of Resiliency NYC/EDC

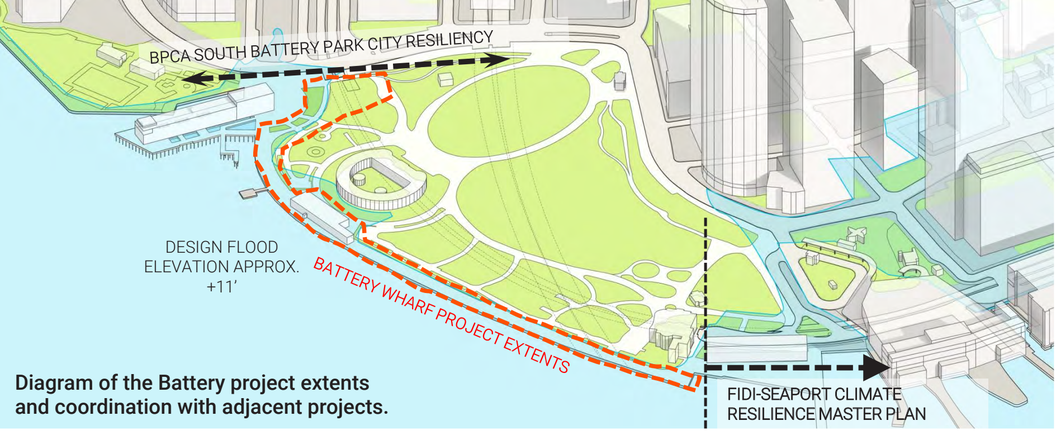
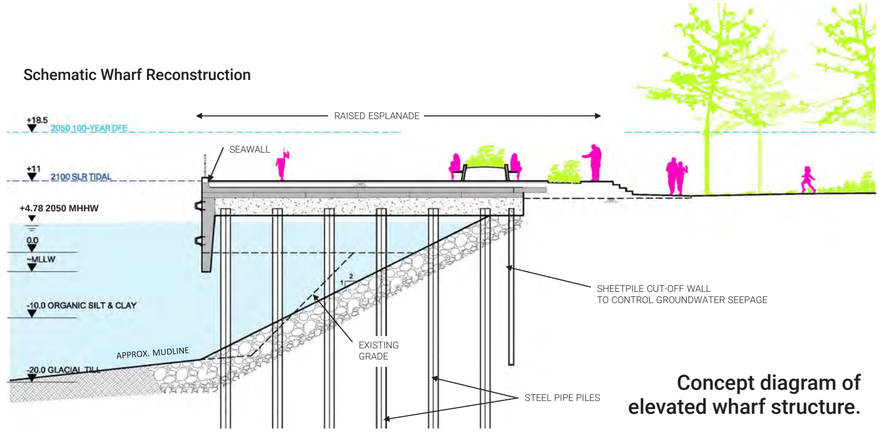
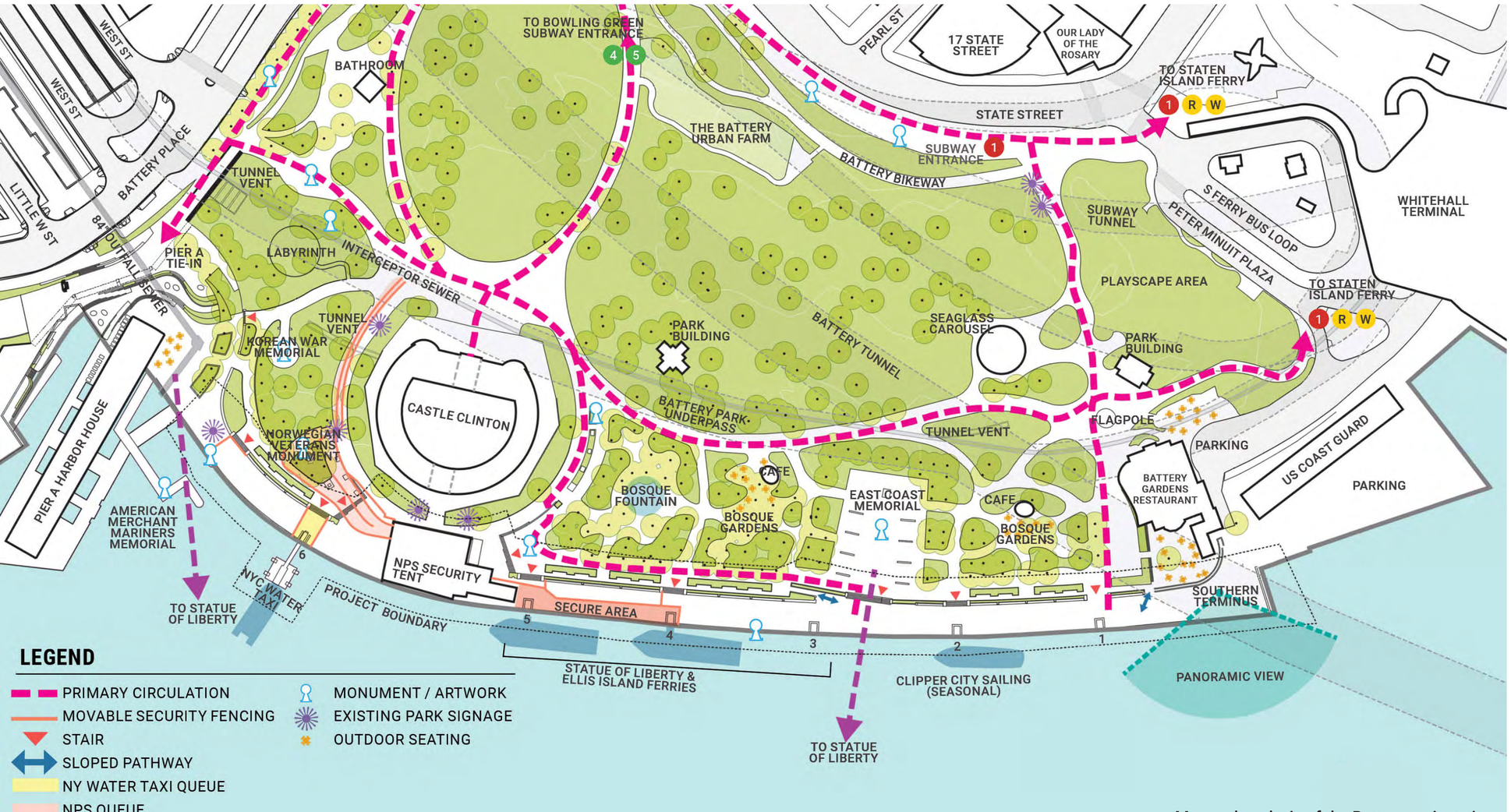


Diagram of the Battery project extents and coordination with adjacent projects.



Concept diagram of elevated wharf structure.



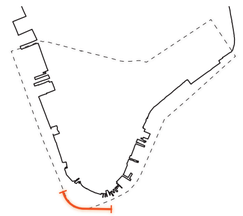
Map and analysis of the Battery project site.

THE BATTERY COASTAL RESILIENCE

This project will rebuild the wharf and promenade, which are currently in poor condition, and elevate them to protect the park from daily tidal flooding due to sea level rise through 2100. As part of a separate project, Battery Park City Authority will also integrate a landscaped berm and flood wall in the back of the park to mitigate coastal storm flooding.

Tools: Elevated wharf/esplanade, landscaped berm and floodwall

Timeframe: Construction will start in 2021



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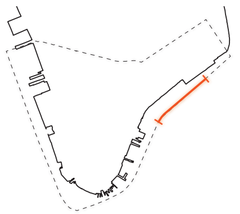
BROOKLYN BRIDGE MONTGOMERY COASTAL RESILIENCE

This integrated flood protection system consists of fixed and deployable barriers that lie flat with the esplanade in sunny day conditions and flip up before a storm to protect the Two Bridges neighborhood. These deployable barriers will sit on a raised platform to address tidal flooding due to sea level rise. The project will also incorporate investment in drainage to address inland flooding due to rainfall. The deployable barriers will preserve waterfront views and allow the community to continue accessing the waterfront, while protecting the neighborhood from coastal storm flooding.

Tools: Deployable flip-up and roller gates, raised platform, fixed flood walls, drainage improvements

Timeframe: Construction will start in 2021



View of deployable flip-up gates during a storm.

View of HESCO barriers on a sunny day.

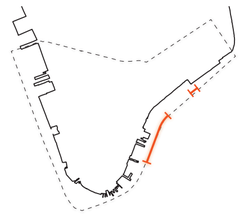
View of HESCO barriers and Tiger Dams during a storm.

INTERIM FLOOD PROTECTION MEASURES

Temporary flood protection barriers have been implemented, where feasible, in Two Bridges, the Financial District, and the Seaport to protect these areas from more frequent, less severe storms. The City is studying a potential expansion of this program to extend the implementation of similar barriers down to the Battery and in Tribeca.

Tools: Temporary sand-filled barriers that stay in place (HESCO barriers) and deployable water-filled tubes (Tiger Dams)

Timeframe: Implemented in fall 2019



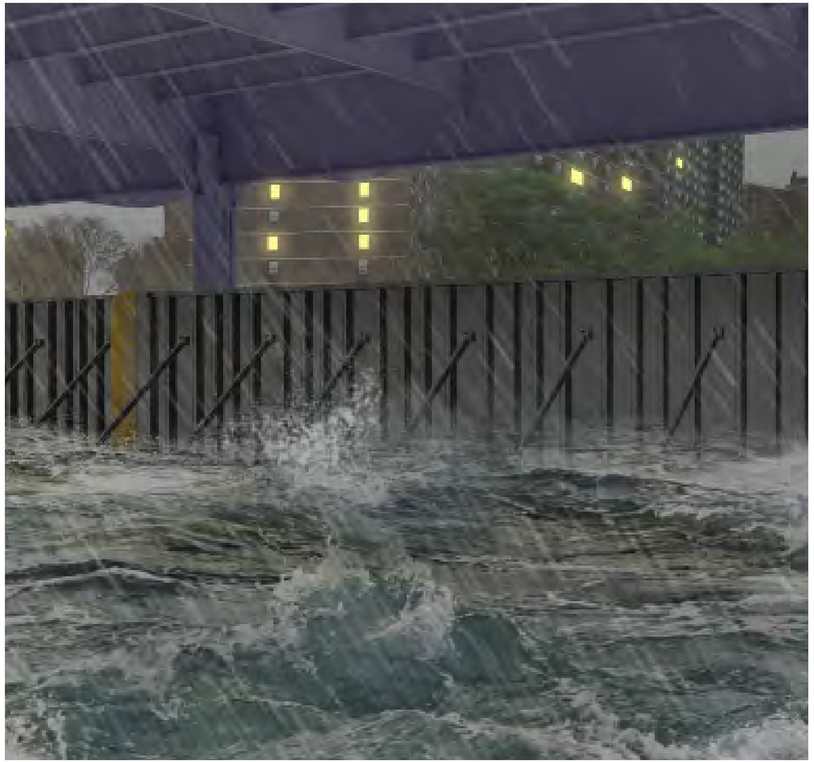
BROOKLYN BRIDGE-MONTGOMERY COASTAL RESILIENCE & BATTERY PARK CITY RESILIENCE PROJECTS

ADDITIONAL IMAGES

Mayor's Office of Resiliency

NYC/EDC

01 BROOKLYN BRIDGE-MONTGOMERY COASTAL RESILIENCE



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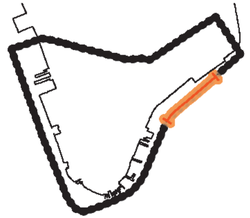
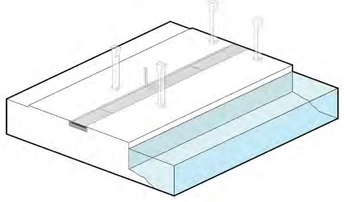
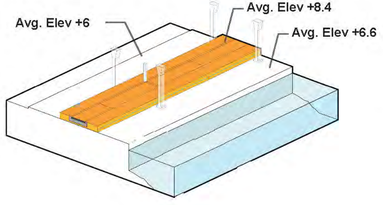


RAISED SILL TO MITIGATE LOW-LEVEL INUNDATION

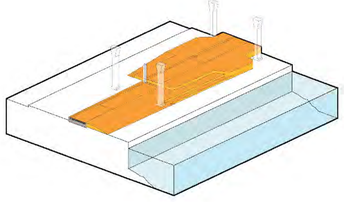
Alignment At Existing Grade
Approximately 70-80 low-level inundation events per year in 2050s



Raised Sill to Avg. Elev +8.4 NAVD88
Approximately 10-15 low-level inundation events per year in 2050s



Public Realm Program
Activated and accessible sill



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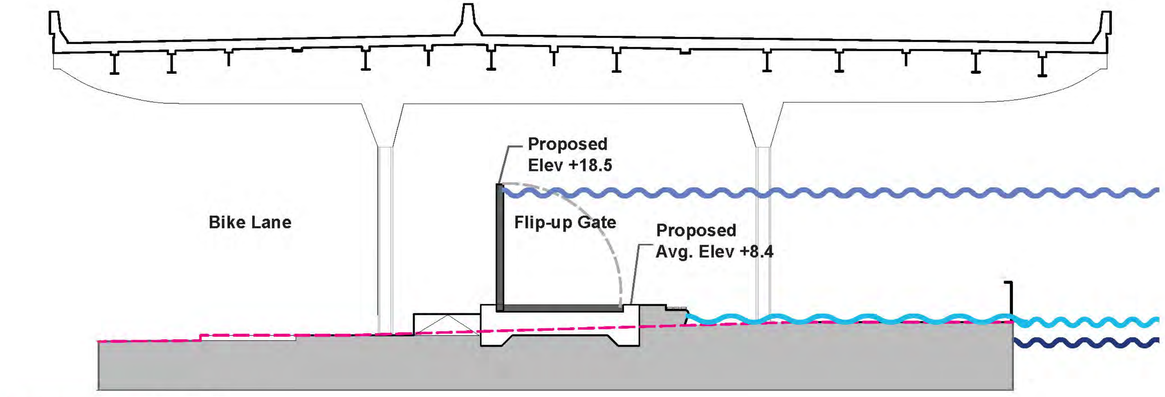
CONCEPTUAL SECTIONS

Raised Platform with Deployed Flood Infrastructure



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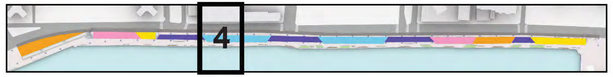
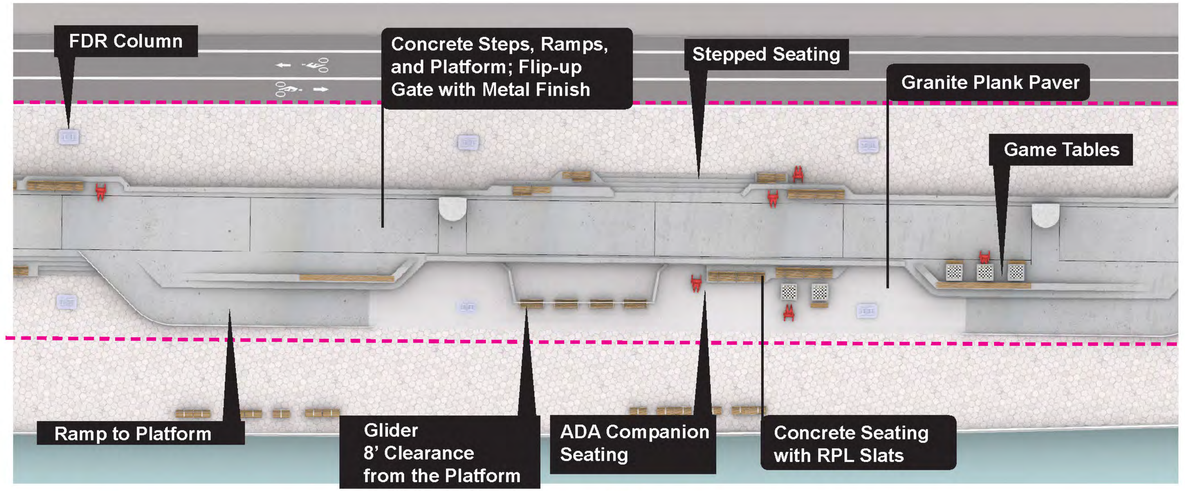
SITE PLAN 4

Assorted Seating North of Catherine Slip





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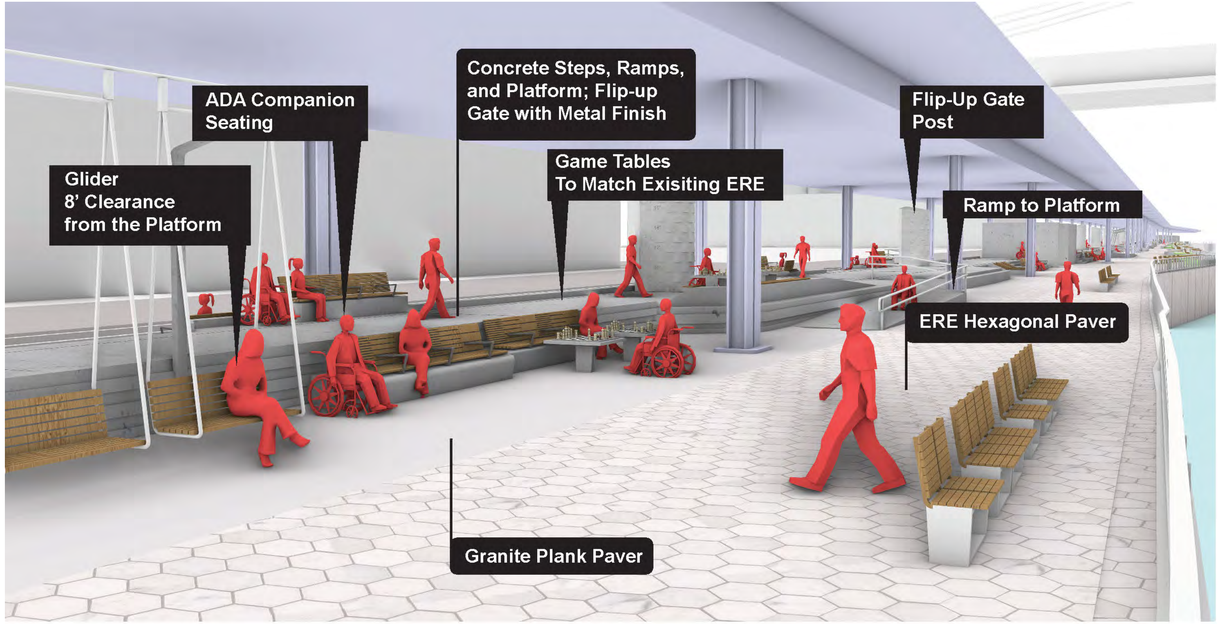
PRELIMINARY DESIGN RENDERING



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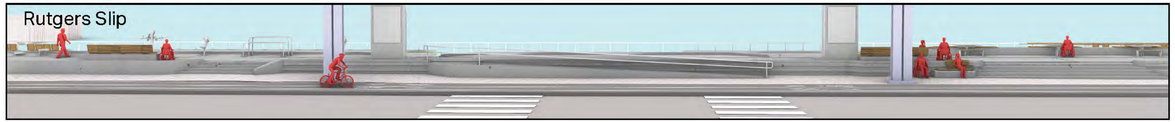
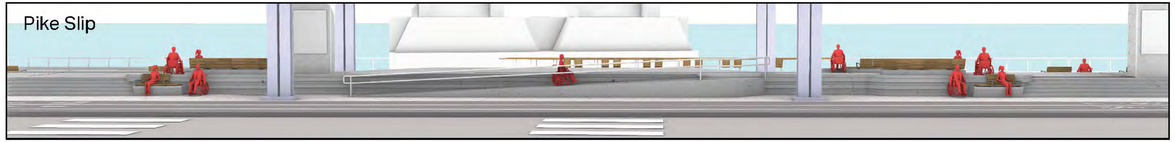
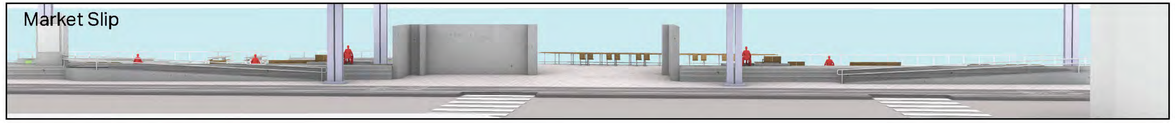
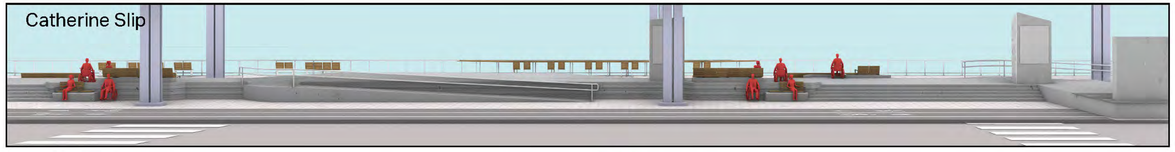
ENTRY RAMPS









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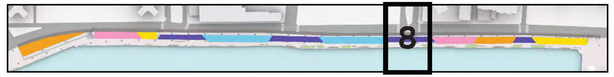
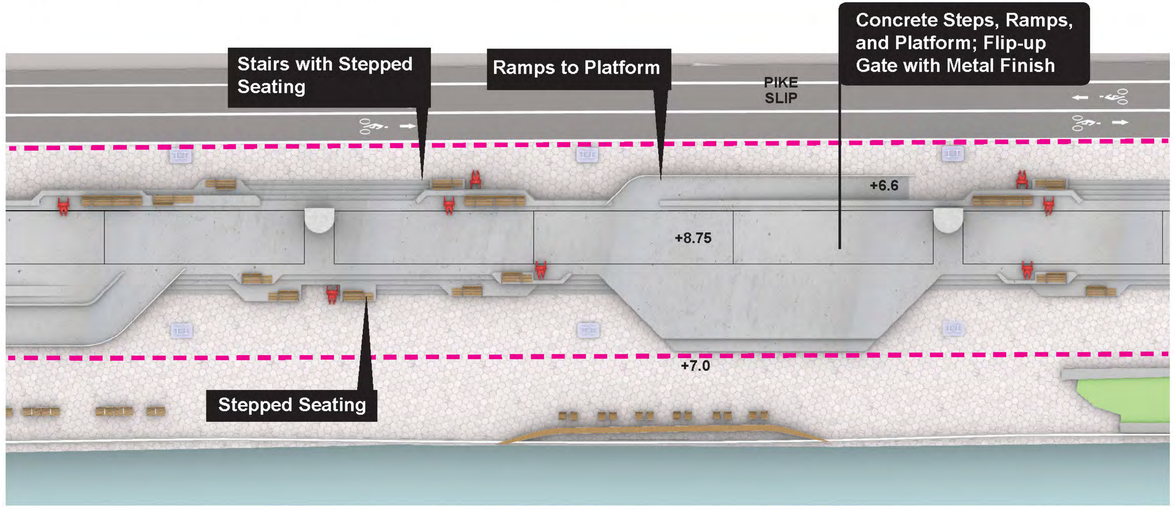
SITE PLAN 8

Entry, Overlook and Seating at Pike Slip





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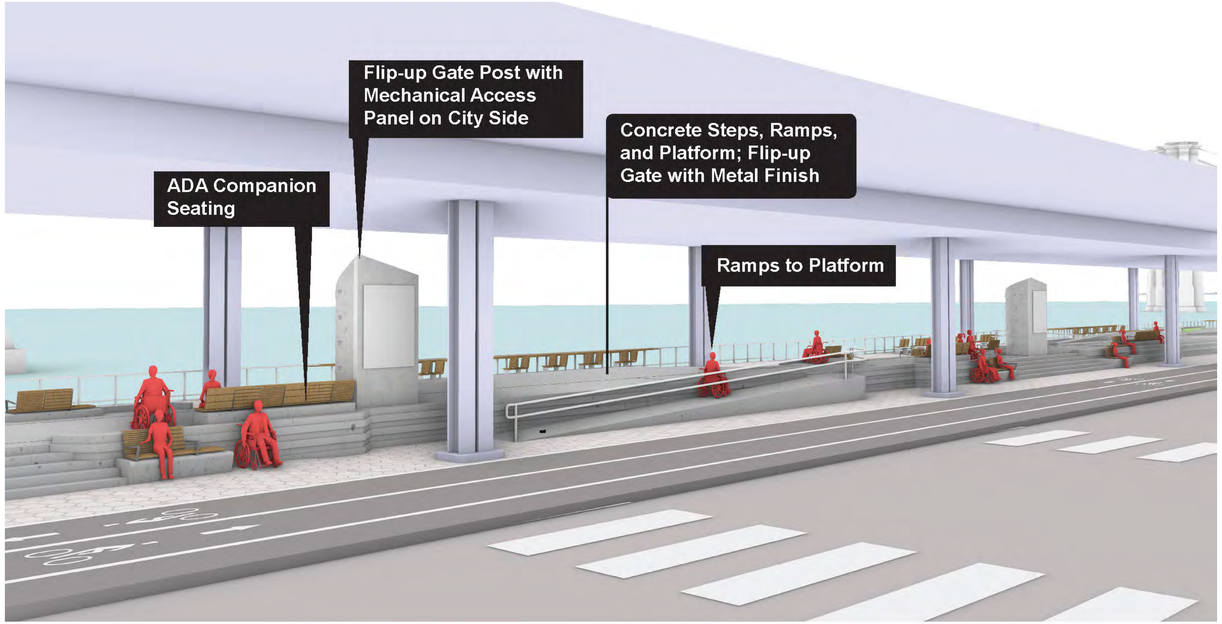
WEAVING PROGRAM & ACCESSIBILITY WITH FLOOD PROTECTION

PRELIMINARY DESIGN RENDERING



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02 BATTERY PARK CITY RESILIENCE PROJECTS

BATTERY PARK CITY RESILIENCE PROJECTS

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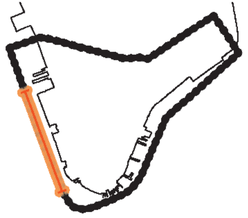

VIEW ON BATTERY BERM LOOKING WEST TOWARDS PIER A PLAZA

VIEW ON BATTERY BERM LOOKING EAST TOWARDS BOWLING GREEN

VIEW ON MUSEUM OF JEWISH HERITAGE LAWN LOOKING NORTH TOWARDS THE MEMORIAL

VIEW FROM PIER A HARBOR HOUSE LOOKING NORTH TOWARDS PLAZA AND WEST STREET

VIEW ABOVE WAGNER PARK LOOKING AT PERFORMATIVE GARDENS AND THE EVENTS TERRACE

VIEW TOWARDS PIER A FROM THE WAGNER PARK ESPLANADE

BIRDS EYE VIEW OF WAGNER PARK

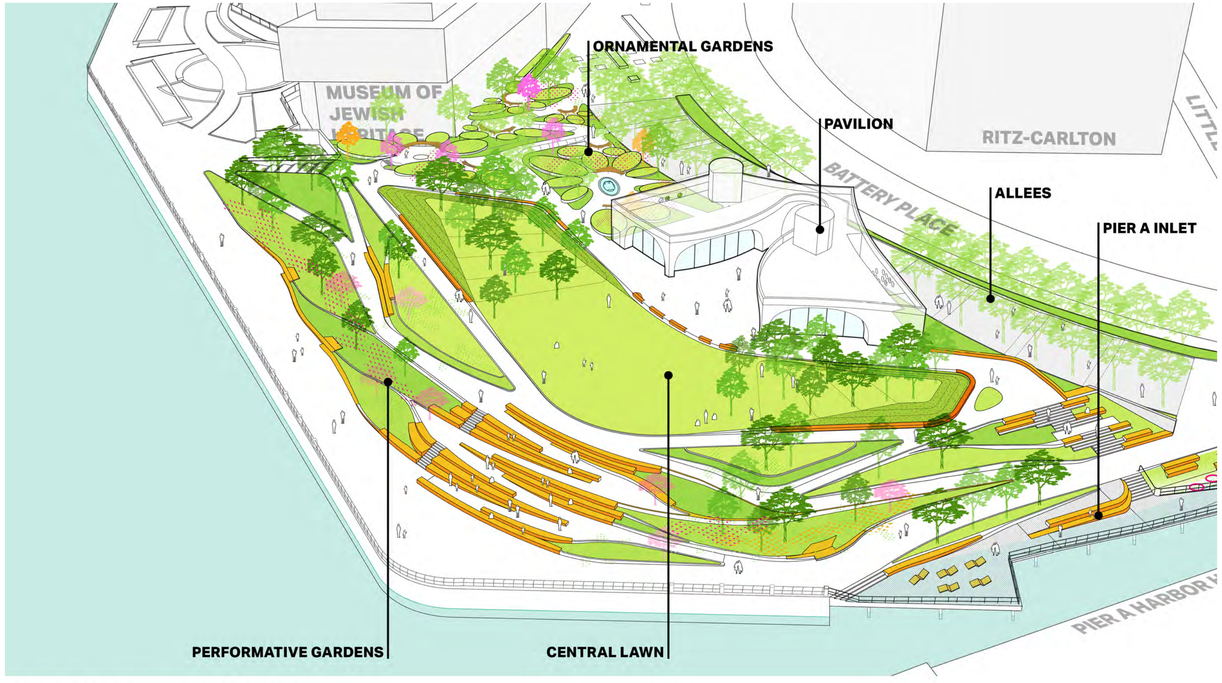

DIAGRAM OF WAGNER PARK FEATURES