

Engagement Process & Findings

Financial District and Seaport Climate Resilience Master Plan

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1. Overview & Objectives

This appendix is intended to supplement the *Financial District and Seaport Climate Resilience Master Plan* – Chapter 2: Master Plan Process. The appendix provides additional detail on the two-year stakeholder engagement process and describes the outreach strategies and tools used. Additionally, the appendix outlines by phase and stakeholder event the goals, main takeaways, and ways in which the Project Team responded to and incorporated stakeholder feedback into the design.

2. Engagement Principles and Plan

Meaningful engagement of the community and key stakeholders was critical to the success of the Master Plan process. Engagement ensured the Master Plan met the needs and served the priorities of stakeholders identified above and laid a foundation for successful project implementation. The following goals helped shape the engagement process:

- **Empower community members** by advancing their understanding of the science of climate change and its potential impacts and the technical constraints and tradeoffs of building flood protection in the study area.
- **Ensure opportunities for co-creation** to develop resilience infrastructure solutions that meet the needs and priorities of local and citywide groups.
- **Delegate power** to planning partners to expand engagement and bring more people into the conversation.
- **Actively consult** with individuals and organizations and incorporate their feedback into the Master Plan.
- **Keep the community informed** of the planning process and crucial decision points and highlighting how their input shaped the Master Plan.
- **Closely coordinate** across local, state, and federal agencies to ensure that the proposed conceptual design is feasible and implementable.

2.1 Stakeholder Engagement Plan

2.1.1 Purpose

The Stakeholder Engagement Plan – written at the start of the project – documented the overall schedule and engagement strategy for the *Financial District and Seaport Climate Resilience Master Plan*. The document was prepared to:

- Broaden awareness of and transparency into the Master Plan process.
- Provide stakeholders with a project overview, including its background, objectives, and schedule.
- Present the goals and principles of the engagement process.
- Identify and define project stakeholder groups.
- Outline the events, strategies, and tools for engaging with project stakeholders.



Figure 1: Cover image of the Master Plan's Stakeholder Engagement plan accessible at <https://fidiseaportclimate.nyc>.

2.1.2 Project Stakeholders

A wide range of individuals and organizations were a key part of the Stakeholder Engagement Plan (SEP) and performed an important role in developing and implementing the Master Plan.

Major Stakeholder Groups

The following list encompasses a variety of diverse project stakeholders ranging from residents of Lower Manhattan to university students, to city, state, and federal agencies. All stakeholders were welcomed to have a voice in the planning process and played a critical role in ensuring that the project addressed the flooding risks they face. As this project will be long-term and phased, building a coalition across these stakeholder groups sets the stage for near- and long-term implementation.

- **Elected Officials and Community Boards**

Elected Officials and Community Boards play the critical role of representing residents in the planning process and advancing the plan's implementation. The Financial District and Seaport are located within Community Board 1 of Manhattan within City Council District 1. At the time of report release, this community board was represented by Council Member Margaret Chin, Manhattan Borough President Gale Brewer, State Senator Brian Kavanagh (Senate District 26), State Assembly Member Yuh-Line Niou (Assembly District 65), U.S. Congressional Representative Jerold Nadler (Congressional District 10), and U.S. Senators Charles Schumer and Kirsten Gillibrand. As of 2022, Christopher Marte has succeeded Margaret Chin as local Council Member, and Mark Levine has succeeded Gale Brewer as Manhattan Borough President.

Regulators

There are many rules and regulations—city, state, and federal—that guide and influence the feasibility and ultimately design and construction of the flood defense strategy. To develop a realizable Master Plan, it is important to engage the City, state, and federal agencies with regulatory jurisdiction over aspects of the project during the planning process. In particular, agencies who regulate the aquatic environment are critical stakeholders and were convened as a specific advisory group to ensure close coordination (see below on “Aquatic Regulatory Advisory Committee”).

- **Financial District and Seaport Residents**

Sixty-two thousand people live in the Financial District and Seaport, many within the projected 100-year floodplain in 2100. All residents—whether homeowners or renters—have a personal stake in the Master Plan and planning process. Many residents were impacted by Hurricane Sandy in 2012 and remain at risk from flooding.

- **Financial District and Seaport Workers**

The Financial District and Seaport includes one of New York City’s largest central business district. An immense concentration of city and regional residents work here every day—290,000 before the outbreak of COVID-19 in New York. These individuals have a stake in the long-term financial viability and physical character of Lower Manhattan and thus have an interest in its resilience.

- **Financial District and Seaport Business & Small-Business Owners**

The Financial District and Seaport are home to numerous small businesses that provide a range of key services to residents and workers and are key to fostering a unique sense of place in the neighborhood.

- **Youth & Students**

Youth stakeholders include students ranging from elementary school to university, including 55,000 students enrolled in 21 institutions of higher learning in Lower Manhattan in 2019. Comprising the next generation of New Yorkers who will have to contend with the burden of climate change as they look to their futures, this is a critical stakeholder group to build a generational coalition of climate advocates for decades to come.

- **Neighborhood Community Groups & Organizations**

There are numerous neighborhood, civic, and community groups representing or advocating for local residents, businesses, public spaces, and special local interests who have a vested interest in resilience planning in Lower Manhattan. It is critical to connect with these organizations and engage their constituencies in the planning process.

- **Local Institutions & Large Employers**

Local institutions and large employers, such as large businesses, universities, and hospitals, have a long-term investment in protecting the area from climate risks to ensure its continued viability as a place of business, education, employment, and other operations.

- **City-wide & Regional Users**

In addition to people who live and work in Lower Manhattan, thousands of people rely on or visit the Financial District and Seaport including commuters passing through, visitors, and patrons who frequent Lower Manhattan’s restaurants, retail, and other businesses. This includes the 510,000 daily riders who rely on the 14 subway lines, 17 ferry lines, and PATH transit system that pass through Lower Manhattan, in addition to Lower Manhattan’s 17.7 million annual visitors.

- **City-wide & Regional Organizations**

This stakeholder group includes city-wide organizations with a stake in the Master Plan. These organizations have interests that align with the Master Plan, and include resilience, environmental, transportation, business, advocacy, and racial and environmental justice groups.

- **City & State Agencies**

While the City led the development of the Climate Resilience Master Plan, the Master Plan, and ultimately the project, requires the close collaboration of many City and state agencies to be realized successfully. Thoughtful coordination with these agencies is key to developing a project that is achievable and complements the long-term needs of Lower Manhattan. This includes agencies that are responsible for operating infrastructure, utilities, and services in the area and advancing plans for other improvements.

- **Financial District and Seaport Private Property Owners**

Property owners in the Financial District and Seaport area have a major stake in the Master Plan. They stand to benefit in terms of flood protection of their property and lower flood insurance rates. In addition, property easements may be necessary to implement the Master Plan.

Project-Specific Advisory Groups

The following advisory groups helped inform the development of the Master Plan, providing input on the design development and implementation strategies.

- **Climate Coalition of Lower Manhattan (CCLM)**
The CCLM is a coalition specifically convened to serve as a community advisory group for this and the other Lower Manhattan Coastal Resiliency (LMCR) projects. The CCLM helped inform the process by advising the New York City Economic Development Corporation (EDC) and the project team and by providing feedback on and guiding broader public engagement. The CCLM is composed of local experts knowledgeable about Lower Manhattan’s complex context and served as a partner in jointly developing the Master Plan and shaping an implementation strategy. The coalition communicated project information with other stakeholders, ensured accessibility of information, expanded the reach of engagement to the broadest potential audience, and encouraged others to act on climate change. The coalition helped develop an expanding cohort of advocates that can ensure the wider Lower Manhattan community is actively involved and engaged in advancing adaptation to climate change. CCLM members represented a wide array of interests in the long-term resilience of Lower Manhattan, including organizations with expertise in climate resilience as well as civic organizations, environmental and business organizations, youth and student organizations, New York City Community Boards 1 and 3, the offices of several elected officials, and various major institutions. Many of the stakeholder groups outlined above are represented in the CCLM.
- **Aquatic Resources Advisory Committee (ARAC)**
For this Master Plan, regulations governing construction at the shoreline edge had a particularly strong influence on project feasibility and cost. To support early coordination on these regulatory considerations, the Project Team convened an Aquatic Resources Advisory Committee (ARAC). The ARAC was chaired by the U.S. Army Corps of Engineers and included representatives from New York State Department of Environmental Conservation, New York State Department of State, and the National Marine Fisheries Service.
- **Technical Advisors**
The Project Team coordinated with technical experts in various fields including climate risk and resilience, hydrodynamic modeling, structural engineering, ecological resources, and others as necessary to lend their external review and guidance into technical elements of the Master Plan. Advisors include scientists, engineers, and planners representing leading academic and research institutions from the New York City region and beyond.

2.2 Overview of Approach

Engagement Timeline

Over two years, the City conducted extensive community outreach to ensure the *Financial District and Seaport Climate Resilience Master Plan* reflected a shared vision. The work was broken into four phases through which the Project Team identified, evaluated, and refined project options. Stakeholder engagement was a key element of each phase and the Project Team organized meetings around key decision points and milestones to ensure transparency and meaningful engagement around Master Plan priorities and decision-making.



Figure 2: Master plan engagement timeline accessible in 'Chapter 2: Master Plan Process' of the final report.

2.2.1 Stakeholder Meetings & Events

In addition to the milestones noted on the engagement timeline, the following outreach strategies were deployed and included a combination of community events and stakeholder-specific meetings.

- **Community Board & Elected Officials Briefings**

Throughout the Master Planning process, the Community Boards served an important role in connecting to residents and civic organizations. The Mayor’s Office of Climate and Environmental Justice (MOCEJ; formerly the Mayor’s Office of Climate Resiliency) hosts quarterly briefings to Manhattan Community Boards 1 and 3 as well as to local elected officials to keep them updated on the LMCR Projects. Briefings throughout the duration of the project included updates on the Master Plan. MOCEJ and EDC are also in regular contact with the Community Boards, who are also represented on the Climate Coalition of Lower Manhattan.
- **Community Organization Briefings & Meetings**

Neighborhood and city-wide community organizations with interest and investment in the project, as well as interested individuals or informal groups, had the opportunity to receive project briefings and provide feedback during the project. The intent of these briefings was to provide project updates and gather input and insights on concerns and priorities as well as feedback on the planning process, analysis, and recommendations over the course of the project. The City hoped to foster meaningful dialogue about the to ground the project in stakeholders’ needs and align with their priorities for the Financial District and Seaport. The City also hoped that these organizations could be a bridge and conduit to their diverse constituencies, helping both to educate a wider group of stakeholders on the need for climate change adaptation and solicit broader input into the adaptation planning process.
- **Topic Area Workshops**

Throughout the process, three targeted workshops hosted focused on specific topic areas. These events were planned in collaboration with the CCLM and local organizations and covered three main themes: Ecology & Coastal Defense, Envisioning a 21st Century Waterfront, and Funding & Financing. Each workshop offered an opportunity for stakeholders with interests in a specific topic area to hear directly from the Project Team and consultants on the analysis conducted, discuss their concerns, and ask any questions.
- **Climate Coalition of Lower Manhattan (CCLM)**

The CCLM met regularly during the process, including six formal meetings over the course of the Climate Resilience Master Plan. Each meeting was timed around strategic milestones in the Climate Resilience Master Plan process and geared towards education, feedback, and advocacy. In addition to these full coalition meetings, EDC and the project team engaged members on specific topics to provide expertise and feedback through one-on-one meetings, group discussions, or technical “deep dives” with project consultants. The CCLM’s role was responsive to the project’s need over the course of the planning effort and is expected to serve a role in future stages of project implementation.
- **Community Open Houses**

Meaningful communication and feedback from the public and all stakeholders played a pivotal role in developing project options that were socially, culturally, and physically resilient. In addition to the targeted meetings described above, larger-scale Community Open Houses were the primary way of welcoming a diverse group of stakeholders to participate and provide feedback. There were four Open Houses, the first of which was an Interactive Open House held in-person in February 2020. After the emergence of COVID-19, the three remaining Open Houses were held virtually and incorporated interactive features to better facilitate dialogue and discussion. Following each public forum, all materials presented or shared were made available through the interactive engagement portal (see below under Stakeholder Outreach Strategies & Tools).

The aim of the Open Houses was to:

- **Educate:** Educate stakeholders on the science behind climate hazards and the need for long-term adaptation in Lower Manhattan, as well as the unique shoreline conditions and challenges within the study area.
- **Establish Priorities:** Engage with stakeholders to understand priorities for building a stronger, more resilient Lower Manhattan, including priorities around the district as a place to live, work, and visit.
- **Empower Stakeholders:** Advance understanding of technical study area constraints and opportunities so stakeholders are empowered to engage in the development of feasible project options and the relative tradeoffs of each.
- **Get Feedback to Inform Decision Making:** Building upon an understanding of the potential options, engage the public in a dialogue on priorities and the tradeoffs of various approaches.

3. Stakeholder Outreach Strategies & Tools

To foster broad participation and reach a diversity of voices throughout the master planning process, the City employed a variety of digital and non-digital tools, conducted extensive marketing and outreach, and ensured the Project Team was available for one-on-one conversations.

The following section outlines the physical, digital, and web-based tools that were used for outreach and communications, the nature of the Master Plan’s interactive engagement portal (project website), and the outreach completed with local educational institutions.

3.1 Physical Outreach

3.1.1 Mailers, Flyers, and Posters

For each of the four Open Houses, mailers, flyers, posters, and various other print materials were distributed throughout the project area and Lower Manhattan to help engage different audiences and notify stakeholders of the event. Flyers and posters were distributed to different business and institutions, housing complexes, educational institutions and were distributed in English, Spanish, and Cantonese. The outreach team also tabled at neighborhood events and institutions to distribute flyers and posters like the Bowling Green Farmers Market and Pace University.



Figure 3: Example of multi-lingual posters distributed to residences and businesses around Lower Manhattan. For each Open House, posters and other outreach materials were printed in English, Spanish, and Cantonese.

3.1.2 Banners

For each Open House, large-format banners were hung along the esplanade and in the project area to notify residents, workers, and visitors of the upcoming event. Banners included a brief project description, the input the Project Team was looking to receive, and a QR code to direct people to the interactive engagement portal to learn more about the project and event.

FIDI-SEAPORT CLIMATE RESILIENCE PLAN

VIRTUAL OPEN HOUSE

Climate change isn't coming, it's here. The City and community are creating a plan to protect the Financial District and South Street Seaport neighborhoods, including many essential functions for the region, from increased coastal flooding.

Te invitamos a unirse a la jornada a puertas abiertas virtual para aprender más acerca del Plan Maestro de Resiliencia Climática para el Distrito Financiero y Seaport. Tendrás la oportunidad de compartir tus ideas para el futuro de Lower Manhattan.

我們邀請您參加在財區和南街海港氣候變化適應計劃中對將採取的行動，以了解有關該計劃的更多信息，並與您對海峽上城未來的想法提出意見。

Monday, June 28, 2021
6PM - 8PM

Wednesday, June 30, 2021
4PM - 6PM

FiDiSeaportClimate.NYC

NYC/EDC NYC Mayor's Office of Climate Resiliency

Scan

Figure 4: Example of large-scale banner hung along the waterfront esplanade to promote the Open House. For each event, banners were hung and included QR codes and multi-lingual text to learn more about the event.

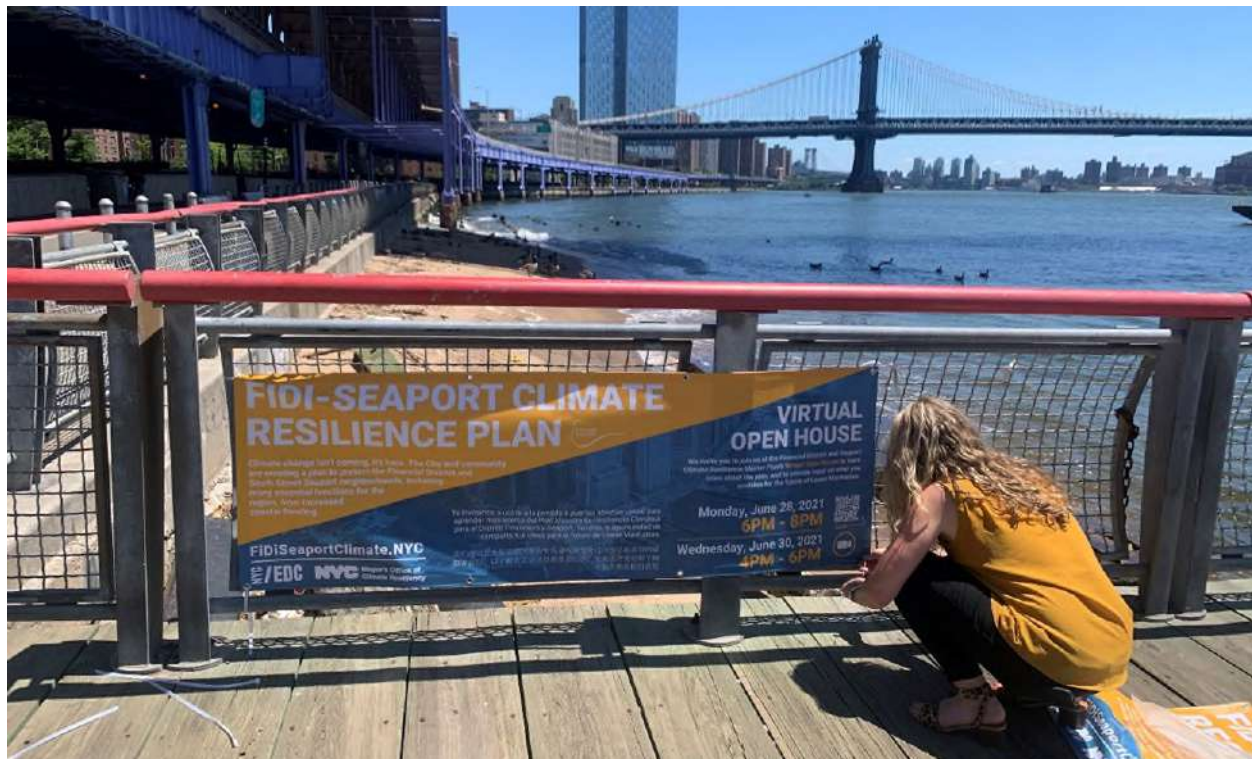


Figure 5: Example of banner being hung along the esplanade in the Seaport.

3.1.3 Canvassing

The Project Team conducted outreach directly to small businesses and local organizations in the study area to ensure that stakeholders received project information and knew how to engage in the planning process. The Project Team engaged with over 70 places, including around 60 small businesses and over 10 organizations. Most of this outreach relied on direct canvassing with small business staff and managers to share outreach materials and encourage participation in key events like the Open Houses. The Project Team also canvassed in high traffic areas like outside subway stations to share information with commuters. The Project Team also tabled at neighborhood events and institutions like the Bowling Green farmers market and Pace University.

3.2 COVID-19 & Transition to Digital Engagement Approach

Most of this engagement happened in the context of the COVID-19 pandemic, which dramatically shifted the framework for engagement. While the project kicked-off with an in-person Interactive Open House in February of 2020, the City and Project Team quickly had to make alternate plans for public engagement in place of in-person meetings and gatherings. The City transitioned its engagement to an online format, holding meetings over Zoom, building out an interactive online engagement portal, and live-streaming public meetings. While the format of community conversations changed, the quality of input and participation was sustained. The City learned valuable lessons around inclusive online engagement and how to ensure broad representation, even during an unprecedented time.

3.3 Digital Outreach

Given the limitations for in-person outreach channels due to the COVID-19 pandemic, digital outreach and communications was especially critical to the stakeholder engagement strategy. Digital outreach was centered around the interactive engagement portal (project website), which was used as a repository for project reports and other materials, landing platform for meetings, and general source of information for project updates.

3.3.1 Project Update E-mails/Texts

E-mails and texts were used to provide projects updates and alerts throughout the project. Community members could join a sign-up list through the website. Alerts were sent to the sign-up list in advance of and following community meetings and at major project milestones to keep community members informed. Text messages were sent using the ShoutOUT platform.

3.3.2 Social Media

Social media platforms, such as Instagram and Facebook, helped to engage a broader range of stakeholders and notify them of key project events and milestones. For each of the Open Houses, a series of about four social media posts were made from the EDC social media accounts encouraging community members to participate and providing the link to register. EDC utilized paid media on popular platforms like Instagram and Facebook to ensure that posts reached people who lived and worked in the project area.

3.3.3 Interactive Engagement Portal

In December 2020, the Project Team launched an engagement portal (website) dedicated to educating and engaging project stakeholders. This website provided stakeholders with resources to learn more about the project background and timeline as well as the climate risks that the Financial District and Seaport face. Information about climate risks and impacts from past storms like Hurricane Sandy is included on the website to provide context for the need for action. Through interactive features, such as surveys, forums, and maps, stakeholders can provide feedback that helps shape the planning process and project development.

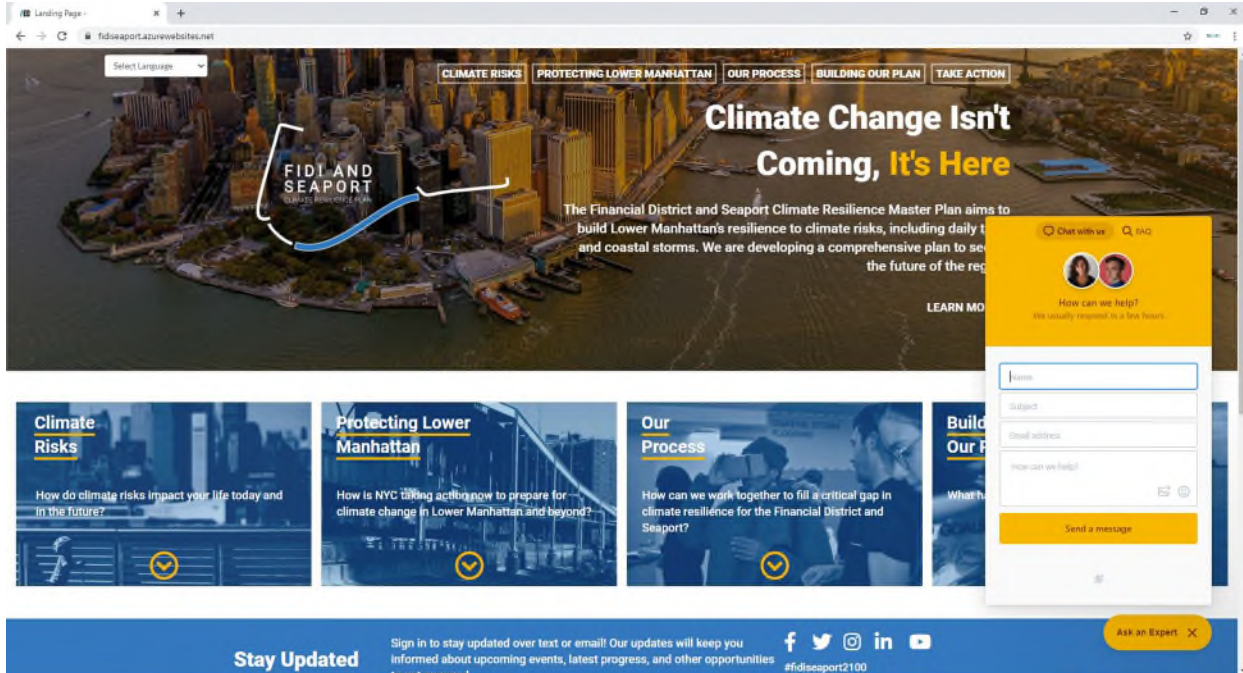


Figure 6: Image of project landing page



What Else Do We Need to Take Into Account to Keep Lower Manhattan from Flooding in the Future?

Figure 7: Interactive map

A Future Without Action



Figure 8: Interactive model to show impacts of flooding

The website was continuously modified throughout the project to provide updates and report-outs from CCLM meetings, community open houses, and other project milestones. A major website update was implemented for the launch of the final Master Plan to make the plan available for download and to provide summaries of the plan's key components.

The website featured various plug-ins to make it more accessible and interactive. For example, it included a plug-in that allowed for translation of content into other languages. Another plug-in, called HelpScout, included an "Ask an Expert" function that allowed website visitors to ask questions to EDC about the project.

3.4 Non-Digital Outreach

In addition to digital outreach methods, the Project Team employed the following non-digital outreach methods. These methods were aimed to complement the digital outreach activities and amplify the reach of engagement through local community-based organizations, leaders, and news outlets.

3.4.1 Tapping community-based organizations and local leaders

A key component of the engagement strategy was amplifying reach of engagement through local leaders and organizations that have existing relationships in the community. These groups were identified early in the project and included local elected representatives, school leaders, advocacy groups, environmental groups, housing managers, cultural institutions, and Project Teams from related initiatives. These groups were engaged at multiple touchpoints to encourage them to spread the word about the project. This included sending outreach packages, consisting of flyers and social media graphics, to each group via email in advance of community open houses and requesting that they help promote the meeting. These organizations shared flyers with their community, created unique and reshared social media posts, and advertised the Open Houses via community newsletters. Outreach with these groups was tracked to understand if this was an effective approach to spreading the word.

3.4.2 Advertisements

To promote community open houses, paid advertisements were included in local news outlets including Broadsheet, China Press, and El Diario. Ads were both print and digital and were run approximately one week in advance of the open houses. China Press and El Diario were selected to increase reach to Chinese- and Spanish-

speaking community members. The Project Team also advertised on social media to target local communities who may not rely on these local news outlets.

3.5 Educational Outreach

To engage youth stakeholders, the Project Team conducted educational outreach in partnership with nearby schools. For example, as part of the first Open House, the Blue School and Pine Street School hosted a field trip to visit the exhibit prior to start of the event for the general public. This provided students the opportunity to engage with the content and ask questions in a smaller group setting. Other schools, including teachers and students from the Harbor School and the Peck Slip School, also attended the first Open House. As the project transitioned to a digital engagement approach, schools were invited to participate in the virtual open houses, where both teachers and students were active participants in helping to shape the Master Plan.

In later phases of work, the Project Team also virtually connected with schools in the area, bringing the content of the Master Plan to the classroom environment. For example, the Project Team hosted a roundtable discussion with high school students at the Harbor School to discuss the master planning process, as well as the key technical disciplines that comprise the Project Team.

4. Stakeholder Engagement Feedback & Outcomes by Phase

It is critical that the future of the Financial District and Seaport waterfront reflects a shared vision between the City and the community. To accomplish this, the City worked closely with community members throughout the master planning process to share updates on the technical work, educate about climate change hazards and impacts, gather input and feedback, and incorporate diverse perspectives and voices. This feedback directly informed everything from the Master Plan process itself to the technical analysis as well as the eventual conceptual design proposal. The following sections describe the stakeholder engagement feedback and outcomes by project phase.

4.1 Phase I: Assess existing conditions, and begin key systems analyses

4.1.1 Overview

What was shared?

- What the latest science says about the climate hazards these neighborhoods face now and in the future
- How other cities and countries are adapting their waterfronts to climate change
- Possible flood defense strategies

What did the community give feedback on?

- How to make this an open, equitable, and transparent planning process
- The types of technical analyses to prioritize

4.1.2 Stakeholder Events

CCLM #1

December 17, 2019 from 8:30 to 11:00 AM at the Manhattan Borough Office

- a. **Goals**
 - i. Articulate and help one another understand climate risks and impacts to the study area
 - ii. Brainstorm creative ideas for education and advocacy
 - iii. Get Feedback on Master Plan Process and Goals
- b. **Format**



Figure 9: CCLM #1 Presentation

- i. In-Person Upfront Presentation
 1. Impacts of Climate Change on Lower Manhattan
 2. Overview of the Study Area

3. Goals and Timeline of the Master Plan
4. Overview of Proposed Engagement



Figure 10: CCLM #1 Breakout Groups

- ii. In-Person Breakout Groups:
 1. Goals and Structure
 2. Creating a Successful Master Plan Planning Process
 3. Engagement and Advocacy

c. **Key Takeaways**

i. **Goals & Structure of the CCLM**

1. *Organizational sustainability.* As a coalition supporting action to protect Lower Manhattan from the impacts of climate change, the coalition must be focused and strong enough to endure through the political changes that will occur over the coming years, and beyond the timeline of EDC’s current consultant contract.
2. *Constructive criticism.* The CCLM should serve as advocates for work being done, as well as devil’s advocates to ensure the work is being done well.
3. *Pathway to action.* Local stakeholders have participated in many processes for post-Sandy climate adaptation and waterfront planning. The CCLM must have the necessary background information to quickly make progress. This includes a complete understanding of both upland and shoreline-extension alternatives.

ii. **Creating a Successful Master Planning Process**

1. *Values up front.* The CCLM’s guiding principles need to be clear and clearly communicated. It should be clear that anything the CCLM advocates for to protect these neighborhoods won’t have negative impacts elsewhere, will be adaptable to future conditions, will protect quality of life and ensure safety and security, and will set an extraordinary precedent for the world.
2. *Get specific.* The CCLM should dig into the details and consider the technical issues at play. They are local experts who are familiar with the issues, theory, and broad ambitions – they now want to start discussing the practical options available to protect these neighborhoods.

3. *Engage broadly.* The CCLM wants the right people at the table to strengthen the work of this coalition and represent additional perspectives. The CCLM needs youth, scientists, engineers, principals, and public housing officials to round out the team.

iii. Engagement & Advocacy

1. *Positive framing.* Doom and gloom is not the only way to talk about climate change. The CCLM needs to connect with people in a way that makes them empowered to act.
2. *Regional scope.* The CCLM and the Project Team need to argue for the project's importance to the entire city and region, not just Lower Manhattan.
3. *Engage deeply.* The CCLM needs to engage the public on the political process, the engineering options, the funding pathways, and the broader regional impacts of any option they advocate for. They don't want shallow engagement with the public.
4. *Launch a campaign.* Flyers are not enough. The Project Team needs to target messages to specific audiences and meet them where they are, utilizing all available tools.

4.1.3 Community Events

Public Open House #1

The first Interactive Open House held on February 24, 2020, from 1pm-3pm and 4pm-8pm to identify shared goals for developing a resilient Financial District and Seaport. This Open House sourced firsthand thoughts on the importance of the neighborhood and goals for the planning process, shared information about climate risks, and identified avenues for further engagement.

a. Goals

- i. Build an immersive experience that encourages New Yorkers from a wide range of backgrounds to learn about the project and acute and chronic climate risks, enabling them to dive deeper into the challenges of climate change and the unique context of the project area.
- ii. Offer new perspectives and ways to engage with content to make concepts accessible and memorable.
- iii. Create opportunities for meaningful dialogue on the public's aspirations for building a stronger, more resilient Lower Manhattan and a successful master plan.
- iv. Generate content and feedback that can be leveraged for additional engagement activities (such as social media) and incorporated into the Guiding Principles.
- v. Provide tangible education on how climate risks will impact the local experience and how these risks interplay and intersect with infrastructure systems.
- vi. Discuss why Lower Manhattan is unique, why it needs to be protected, and how the City is taking action.
- vii. Bring everyone up to speed on the work completed to date and communicate the need for an outboard solution.
- viii. Initiate long-term public stakeholder engagement in this planning process and share how participants can stay engaged.

b. Format

- i. 30–60-minute experience for each Open House Participant
- ii. Three main rooms:
 1. The Welcome Room, where participants were oriented to the event and why Lower Manhattan is so critical to the city and the region.



Figure 11: Welcome Room at Open House #1

2. The Climate Risk Room, where participants learned about the flood risks facing Lower Manhattan because of climate change



Figure 12: Climate Risks Room at Open House #1



Figure 13: Virtual Reality Goggle Activity in Climate Risks Room

3. The Climate Adaptation Room, where participants learned about what the City is doing about climate change, and give their feedback.



Figure 14: Climate Adaptation Room at Open House #1

- iii. Main Lobby:
 1. Staffed with a greeter to direct people to the three rooms detailed above
 2. Included a station where participants could share their vision for a future resilient Lower Manhattan and ask questions of experts who are working on the project.
- iv. Kid-friendly activities throughout the event.



Figure 15: Coloring and Drawing Activity for Children at Open House #1

c. Main feedback and takeaways

- i. **Communications and Messaging:** Themes and/or concepts that informed content and messaging for newsletters, social media, the project website, and other channels of public communication and helped shape the project narrative around the need to protect Lower Manhattan.
 1. *Recognize Lower Manhattan as a live/work/learn/play district.* When asked what Lower Manhattan meant to them, many participants described their personal relationship to the project area, which included residents that had grown up and lived in the area for 42 years, current and former workers, students, and those that enjoyed its many recreational opportunities.
 2. *Recognize Lower Manhattan's rich history.* Participants said Lower Manhattan evoked ideas of "history," "living heritage," "America's front door," "the birthplace of NYC," and "where history meets NOW [sic]." Participants enjoyed this aspect of the project area and wanted to ensure that its historical character was not compromised as part of any long-term planning.
 3. *Recognize Lower Manhattan's exceptional character.* Participants used superlatives like "Birthplace of the greatest City in the World [sic]" and "The Center of the Known Universe [sic]" to emphasize how this part of the city is unique and unparalleled.
 4. *Acknowledge climate change is scary.* When asked how they're experiencing and thinking about climate change, participants expressed fear, grief, anxiety over loss of life, concern for future generations, and skepticism that a plan can be implemented in time.
 5. *Be precise with terms and measures.* One comment received from a participant requested that communications stop using the term "100-year flood" because it may mislead the general public. Station experts also heard many questions from participants about how climate projections were sourced and if there was a plan to adjust them over time.
 6. *Communicate clear ways to get involved.* Many participants asked how they could help with the planning process and get involved and wanted to be alerted to any upcoming opportunities.

- ii. **Engagement Strategies:** Outreach strategies that could be executed by the City, the consultant team, and CCLM to reach stakeholder groups, both to drive attendance to future events and promote education/advocacy regarding Lower Manhattan climate resilience.
 - 1. *Get personal.* Participants wanted an engagement approach that expressed how climate change would affect members of the public personally and was delivered in a manner that was honest, direct, and felt like they were being talked to “as a person.”
 - 2. *Promote frequent and diverse events.* Participants were interested in seeing more events similar to the Open House, workshops with City agencies, and community-centric events (e.g., potlucks that provided childcare).
 - 3. *Prioritize populations that need this information.* One of the “Experts” expressed concerns that many attendees of the Open House were not the target audience because they were already familiar with climate risks. They suggested more outreach to buildings on Water Street and the Downtown Alliance.
 - 4. *Design an education curriculum.* Participants intimated that there was still a lot of work that needed to be done around educating the general public on the realities of climate change and suggested collaborating with the DOE on creating a curriculum and partnering with educators.
 - 5. *Leverage the project website.* Several participants requested uploading project-related content to the website or through other digital means and, where possible, giving the public an opportunity to weigh-in through voting and comments.

- iii. **Guiding Principles:** This section highlights principles that attendees would like to see reflected in the planning process and in project outcomes.
 - 1. *Accessibility.* Accessibility (both generally and ADA compliance specifically) was mentioned several times as an overarching goal and a means of ensuring equitable development.
 - 2. *Affordability.* Participants emphasized that city life was increasingly unaffordable and emphasized that a resilient Lower Manhattan should be affordable for those who both work and live in the area.
 - 3. *Equity.* Participants asked that the Project Team prioritize voices of people of color and recognize their positions on the frontlines of climate change, being explicit in how this project will address racial and economic injustices in the neighborhood and promote equity.
 - 4. *Transparency.* Participants emphasized that community involvement was essential throughout the planning process, and it was important to apply lessons learned from East Side Coastal Resiliency (ESCR) with regard to stakeholder engagement and transparency.
 - 5. *Flexibility.* Participants discussed having iterative goals, the ability to adapt mid-process, and developing backup measures to ensure the success of the project.

- iv. **Planning Process:** key questions and concerns surfaced by event attendees that they would like to see addressed through the planning process and communicated explicitly during public engagement.
 - 1. *Prioritize sewers and Combined Sewer Outfalls (CSOs).* Sewers and CSOs were most frequently mentioned as an area that participants were interested in learning more about, where they had concerns, and wanted to see addressed in the planning process.

2. *Consider political challenges.* Participants recognized there would need to be significant work done to convince politicians to invest in this issue at all three levels of government.
3. *Go green.* Participants expressed a desire to see more parks, green space, and recreational areas for locals. They also expressed support for sustainable and carbon-neutral design elements, environmental protections, and solutions that would promote clean rivers and waterways. These comments were often coupled with an ask to avoid more development and high-rise buildings.
4. *Dig into the financing.* Participants expressed questions over appropriate funding mechanisms and the financial feasibility of the project with a desire to see it explored more deeply and communicated more explicitly.
5. *Define the options.* Participants were eager to understand the different options being explored, whether shoreline extension, managed retreat/relocation, etc., and how options might vary based on different scales (e.g., neighborhood vs. individual blocks).
6. *Consider project impacts at multiple scales.* Participants wanted the Project Team to consider impacts to surrounding neighborhoods, boroughs, and municipalities as part of any comprehensive planning.

4.1.4 How The Project Team Used the Feedback Received in Phase I

The feedback that the Project Team received in Phase I set the foundation for the Master Plan, informed future technical analyses and design studies, and advised future outreach strategies. For example, feedback received from the CCLM and the community informed the guiding principles, which helped shape the core values of the project and provided insight on what topics mattered most to the community. Early conversations with stakeholders also helped the Project Team understand the current level of knowledge around climate risk and ensure that outreach in later stages provided sufficient educational opportunities about the state of climate science and how select climate hazards are impacting the study area.

The feedback also helped shape technical analyses and design studies. For instance, at the first open house, the public expressed a desire to see more green spaces and natural ways to manage stormwater runoff before it entered the combined sewer system. This feedback informed the toolkit of drainage strategies that were and ultimately informed the proposed drainage strategy and program.

In addition to guiding technical work, the Project Team heard from both the CCLM and the broader public a desire to dig into the details alongside the Project Team and the local experts. As a result, the Project Team developed a series of workshops (as described in greater detail below) on coastal defense and ecology, envisioning a 21st century waterfront, and funding & financing. These workshops provided an opportunity to dive deeper into key project themes and engage in a conversation as to how each theme was shaping the Master Plan.

4.2 Phase II: Identify constraints and opportunities across systems and develop the broadest range of potential resilience solutions

Early in Phase II, the COVID-19 pandemic caused the City to pause efforts of the Master Plan to address other critical, citywide needs. When the project resumed in Summer 2020, the framework for engagement needed to shift dramatically. In place of in-person meetings and gatherings, the City transitioned its engagement to an online format, holding meetings over Zoom, building out an interactive online engagement portal, and live-streaming public meetings. While the format of community conversations changed, the quality of input and participation was sustained. The City learned valuable lessons around inclusive online engagement and how to ensure broad representation, even during an unprecedented time.

4.2.1 Overview

What was shared?

- How existing conditions in the study area shape what is feasible
- How the climate threats influence design
- Early thinking around flood defense infrastructure

What did the community give feedback on?

- Guiding principles for the overall master planning process
- What makes this area unique
- What people want to see here in the future
- Feedback on overall Master Plan footprint

4.2.2 Stakeholder Events

CCLM #2

a. Goals

- i. Refresh on project timeline, what we're studying, and work completed to date – responding to past CCLM requests for detailed information across all areas of analysis.
- ii. Develop a joint understanding of the core project opportunities and constraints to inform the development of project options and prepare us for a later discussion on tradeoffs.
- iii. Co-create a shared vision for the future of Lower Manhattan across transportation, drainage, ecology, and the public realm.
- iv. Engage around the project's education and advocacy campaign and different ways to get more involved – to be discussed further at a separate committee meeting.
- v. Inform the CCLM on upcoming technical analyses and deliverables, as well as specific next steps between now and the CCLM #3 meeting.

b. Format

- i. Zoom Meeting with Pre-Read
 1. Project Refresh & Engagement Approach
 2. Risk Overview and Site Constraints
 3. Guiding Principles
 4. Project Area and Drivers
- ii. Q&A
- iii. Breakout Groups
 1. Site Constraints
 2. Developing a Share Vision
- iv. Report Out
- v. Next Steps

c. Main feedback and takeaways

- i. *Be clear about project priorities.* There is an urgent need to provide flood protection as quickly as possible. Some residents get flooded every time it rains. The project should simultaneously improve drainage and keep the water out, using passive, non-deployable flood protection options. The Project Team should be very clear about what is critical to do now versus what can be done later. Open space and public waterfront access are critical considerations and should take high priority. However, this is a resilience project, first and foremost. Keeping the water out and the lights on is the #1 priority. Resilience is, and should remain, at the core of the project.
- ii. *Expect the unexpected.* Technical analysis informing project development should be based on best-available science and sufficiently account for future uncertainties.

- iii. *Maintain the neighborhood's unique character.* It is critical to maintain the function of existing businesses and the neighborhood's commercial vibrancy, as well as the cultural, maritime, and historic nature of the area. This is especially true given concerns that many people left Lower Manhattan during COVID-19. The project should therefore also emphasize livability and minimize disruption to peoples' lives.
- iv. *Consider all options.* The Project Team should continue exploring options that are not limited to land extension options.
- v. *Plan regionally and holistically.* This project presents a tremendous opportunity to rethink the City's infrastructure downtown and to improve connectivity throughout the area, which could also be a driver of employment, bolstering the economic vitality of the city and the region. Further, NYC can position itself as a global visionary and leader in confronting climate change by planning for long-term climate risks with a project that integrates seamlessly into other projects and initiatives as well as the surrounding environment.
- vi. *Be responsive to the community.* It is critical to listen to the residential community's concerns and desires, and make sure this large investment works great for everyone in the neighborhood and is responsive to their needs.

CCLM #3

a. Goals

- i. Solicit CCLM member feedback on the key project objectives across different project drivers, including coastal defense, drainage, transportation, waterfront access & open space, historic & cultural resources, environmental resources, and funding & financing.
- ii. Engage with technical experts in the fields of hydrodynamics, coastal engineering, waterfront structures, and ecology to understand how each will inform the way project options are developed and designed.
- iii. Develop a shared understanding for how project options will be developed, including hearing from the CCLM about what should be studied and what options should be considered.
- iv. Inform the CCLM about upcoming technical analyses and deliverables as well as specific next steps between now and the next CCLM meeting.

b. Format

The meeting began with opening remarks and project updates from the City, followed by a panel presentation by content experts on the Project Team. The panelists dove deeper into technical elements of the project, including hydrodynamics and wave modeling, maritime systems and structures, and aquatic ecosystems. Arcadis and EDC then hosted a panelist Q&A session to answer the CCLM's questions on the information shared. After this, EDC and Arcadis shared a presentation on project options and development and gave updates on the range of project options under consideration, including on-land and in-water options. The CCLM then used the remainder of the meeting to ask questions of the Project Team and provide feedback on the project's direction.

c. Main feedback and takeaways

- i. *Ensure wave modeling encompasses full extent of impacts and addresses them accordingly.* The wave modeling will look at a broad geography (all the way from Canada to the Bahamas!) and future conditions with impacts of sea level rise. Minimizing and mitigating impacts will be a key piece of project design and is important from a regulatory standpoint as well.
- ii. *A thoughtful approach to storm water detention and drainage.* A drainage strategy that addresses upland impacts and compliments coastal defense interventions is critical. Further, ensure that the Project Team is carefully considering siting for facilities like a

- pump station, and opportunities to explore a pump station that is carbon neutral or carbon positive.
- iii. *The project design fully accounts for impact to existing infrastructure.* One of the biggest challenges for this project is designing around existing infrastructure and ensuring that project design is fully addressing and mitigating impacts to structures like the FDR Drive viaduct, Whitehall Ferry Terminal, the piers, and others. As a part of this, carefully considering the way that aquatic systems and ecologies have adapted to these existing structures (piers, berms, etc.).
 - iv. *Understanding design alternatives is a critical next step for this project.* Design options to be determined based on information from engineers, regulatory landscape, infrastructure, and financing. All of this is still under careful consideration, and the Project Team is excited to discuss this concretely, with an understanding of options and tradeoffs.

Ecology & Coastal Defense Workshop

Building on the feedback the Project Team heard from both the CCLM and the broader public to dive deeper into project details alongside the Project Team and the local experts who are familiar with the subject matter, the Project Team developed a series of workshops. The first was on Ecology & Coastal Defense, an important project tension that shaped the conceptual design development of the master plan. On January 27, 2021, the City convened a workshop on Ecology and Coastal Defense to foster a conversation with project stakeholders and content experts about the relationship between coastal defense infrastructure and ecology in the East River. The Project Team covered topics such as: the Master Plan's general approach to ecology and coastal defense, how the Project Team is studying local ecology to learn more about existing conditions and habitats, and strategies for project design to minimize and mitigate any potential effects alongside opportunities to incorporate restoration. The Project Team answered questions from the participants and heard directly about their priorities related to the environment for this area.

a. Goals

- i. Share information with a broader group of stakeholders about the Master Plan and gain specific perspectives from content experts on ecological and environmental considerations.
- ii. Get input on priorities and concerns related to ecosystems, ecosystems services, and environmental benefits and impact.
- iii. Incorporate this feedback into the Master Plan as it moves into the next phase of project work.
- iv. Build relationships with stakeholders for continued engagement throughout the planning process, building new relationships and incorporating new perspectives.

b. Format

The City and the Project Team led the first half of the meeting, which consisted of opening remarks, project background, and a deep dive into the technical aspects around coastal ecology. This information helped level set and fed into the second portion, which was spent in open discussion and Q&A moderated by MOCEJ. In this forum participants asked questions about the project and the information shared, and voiced their priorities and concerns related to coastal ecology in this project.

c. Key Questions from Participants and Team Responses

- i. *How is the Project Team approaching analyzing the East River's ecology?* The analysis is multi-pronged, using sampling to understand the specific ecosystems in this area (a 2-mile stretch along the East River), and computer-based models to understand broader/regional potential impacts from a coastal defense project. The sampling study is the most robust study done to date in the East River and will reveal more about the existing ecosystems and species that live in this area. The study is a yearlong process during which samples are taken during different seasons to capture the full landscape of

ecosystems. In addition to aquatic sampling, hydrodynamic models look at the possible effects that a shoreline extension would have on water velocities in the surrounding East River, informing the Project Team about potential project effects within a broader geography.

- ii. *Is there a technical group that is helping evaluate the study findings?* Yes – technical experts and Federal and State regulators are reviewing the findings. As a part of this process, the Project Team convened a group of Technical Advisors, who are experts from academic and research institutions in the New York City area. The Advisors provide consultations and third-party reviews of technical analyses, including looking at the results from the ecological analysis and sampling study. Further, the Advisors bring expertise from a variety of fields including marine ecology, hydrology and water resources, urban infrastructure, and structural engineering and represent institutions including Columbia University, Cary Institute of Ecosystem Studies, and NYU Wagner. Additionally, the Project Team meets regularly with a group of Federal and State regulatory agencies, the Aquatic Resources Advisory Council (ARAC), which is coordinated by the U.S. Army Corps of Engineers. Much of the analysis is dictated by requirements set by the regulatory community, who mandate that any in-water project demonstrates that the project is necessary, that in-water work is minimized, and any potential impacts are mitigated. ARAC will be reviewing the findings with a specific lens of potential impacts and mitigations.
- iii. *How is the Project Team analyzing the potential footprint of this project and the need for shoreline extension?* In the current phase of analysis, the Project Team is analyzing and developing a range project options which will be shared with the public in Spring 2021. There are several constraints in this area that make it challenging to site the necessary coastal defense infrastructure on land, which is driving the analysis of a shoreline extension. As a part of this analysis, the Project Team is looking at the feasibility of an entirely on-land project, a minimal shoreline extension, and a larger shoreline extension. The regulators require this kind of analysis to demonstrate that going into the water is necessary. The project options will be informed by community conversations, technical analysis, and ensuring that a comprehensive coastal defense project will protect this area into the 2100s, which could bring up to 20ft of storm surge and daily high tide flooding.

4.2.3 Community Events

Public Open House #2

On February 25, 2021, the Project Team hosted an interactive Virtual Open House that brought together students, community leaders, residents, and workers from Lower Manhattan, with City agency representatives, urban planners, engineers, and designers, to talk about the climate risks that Lower Manhattan faces, some of the early project designs to mitigate those risks, and share feedback.

- a. **Goals**
 - i. Discuss the climate risks that Lower Manhattan, and specifically the Financial District and Seaport, faces.
 - ii. Share early project designs to mitigate flood risk in the study area.
 - iii. Share perspectives on the open space, transportation, and community resources that currently exist within the study area, as well as desires for the future.

- b. **Format**

Virtual Open House #2 was the first of 3 virtual open houses. It consisted of an upfront presentation followed by 30-minute small group workshops in individual breakout rooms that

addressed public open space, transportation and mobility and community resources. A fourth room was available for Project Q&A with the Project Team for the duration of the virtual open house. At any point, a participant could also use the chat function on the project website to chat directly with an expert.

What should I expect during today's Virtual Open House?



Figure 16: Example of slide from Open House #2 informing participants of the virtual event structure.

c. Main feedback and takeaways

- i. *The Financial District and Seaport neighborhoods have high concentrations of cyclist and pedestrian activity, and many participants expressed support for improving connectivity, safety, and congestion for these uses.* The study area sees a lot of cyclists and pedestrians, especially along the esplanade. However, narrow lanes, car congestion, and a lack of clearly defined pathways can make it difficult for cyclists and pedestrians to get around, creating an unpleasant and often times dangerous experience, particularly near the Battery Maritime Building. Participants expressed a desire for improvements such as wider pedestrian walkways, increased bike access, clear pathways, and more connections between these pathways and the transportation nodes in the area.
- ii. *Participants expressed frustrations with the FDR Drive viaduct, though they acknowledge the importance of car roadways in this area.* The FDR Drive serves an important purpose as a highly used roadway to get through Manhattan. However, noting vehicle congestion and the unattractiveness of overhead infrastructure, participants expressed a general desire to reimagine the FDR Drive and improve the neighborhood's public space. Some participants reacted positively to the prospect of making changes to the FDR Drive in order to site on-land flood protection. Additionally, some participants emphasized that the FDR Drive is a barrier to the waterfront and limits space for pedestrians.
- iii. *Participants prioritize public safety and well-being, both in the short- and long-term.* Mitigating noise pollution, air pollution, and urban heat island is important to participants. Participants support solutions that would decrease the number of cars and vehicles that pass through this area, which would also address safety concerns for pedestrians and cyclists. Some participants also highlighted a desire for more shaded areas to address extreme heat risks. In the longer-term, many participants also

expressed a desire to explore opportunities that encourage improved sustainability in the Financial District and Seaport area.

- iv. *Participants asked for improvements to connections between the transportation system, existing public open space, and the waterfront.* Many participants noted that the east side of Manhattan does not have good connections to the East River and other open space. Participants noted that the area's limited bus access and pedestrian walkways contribute to this, making it challenging to go between the inland neighborhood and the waterfront. This also negatively impacts inland small businesses, highlighting a desire to encourage more foot traffic between the waterfront and the rest of the neighborhood. The subway network plays an important role in access to the waterfront, highlighting the critical need for flood protection of the subway system -- though some participants noted that it can still be challenging to access the waterfront using subways alone. Additionally, the limited connections between the existing open spaces along the waterfront, and a lack of water touchpoints, natural grass areas, and public spaces make the area less enjoyable and usable. Participants expressed a desire for direct access to the water via bikeways and walkways, waterfront access by the FDR Drive, and more open promenades for all types of users.
- v. *Access to the water is also a social equity issue.* Participants noted that they experience inequitable access to the waterfront, due to limited parking, a lack of waterfront accessibility for people with disabilities, and limited bus access to the waterfront.
- vi. *Participants asked for more water-related experiences, and both passive and active open space.* Many participants highlighted a desire for a greater variety of recreational programs and types of open and community space in the Financial District and Seaport area, especially active spaces for residents, children, and families. Participants suggested a variety of ideas, including more playgrounds, outdoor gyms and exercise spaces, educational programs, public art opportunities, public gardens, kayaking, and a community center for the Financial District and Seaport neighborhoods.
- vii. *Maritime activity and water-related uses are defining elements of the Financial District and Seaport neighborhood's character.* This area has frequent and concentrated maritime activity including ferries and boats, in addition to recreational activities such as sailing and fishing. Participants highlighted the importance of protecting and preserving access to maritime assets and ferry service. Participants especially noted the importance of maintaining utilities (electricity service, drinkable water, etc.) on both sides of the coastal defense system to ensure continuity of maritime service and ability to program the piers. Participants also noted that a shoreline extension should consider and minimize potential impacts to water navigability and should not limit direct access to the water.
- viii. *The historic and cultural integrity of the Financial District and Seaport area should be preserved.* Participants emphasized that it is critical to protect historical resources in the area. Additionally, participants expressed the importance of preserving the neighborhood's character and existing viewsheds and minimizing dense infrastructure and dense development.

What should I expect in the **workshops** and how will my feedback be used?

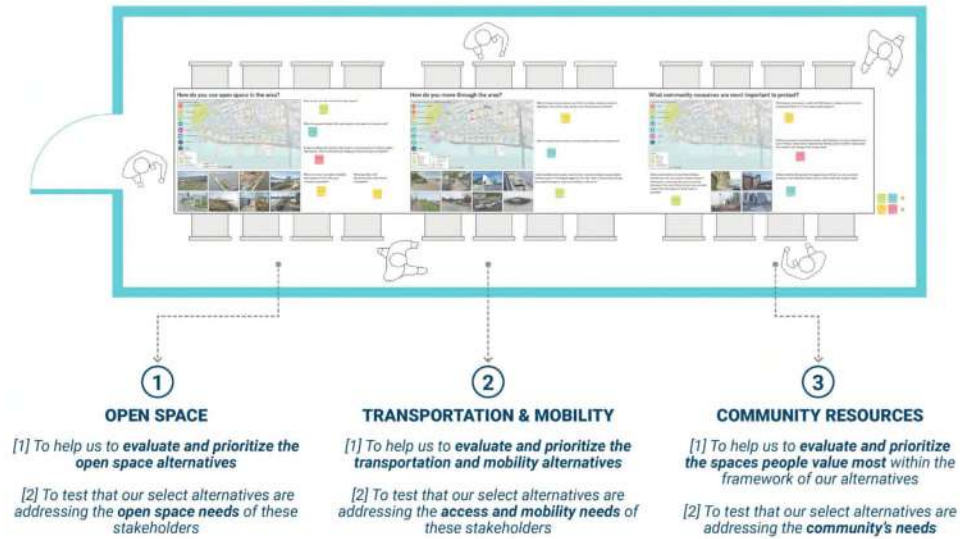


Figure 17: Example slide from Open House #2 introducing the workshop portion of the event and how their feedback will be incorporated into the design process.

4.2.4 How The Project Team Used the Feedback in Phase II

The feedback received in Phase II helped the Project Team refine the options under development, informed how different trade-offs were weighed, and informed the open space and program design proposal. For example, the feedback received at the open house emphasized improved connections between, to, from, and along the waterfront, as well as asking for more water-related experiences. Both elements shaped the access and circulation design proposal for the Master Plan, ensuring universal access to all to, from, and along the waterfront, as well as opportunities to get closer to the water. A similar theme heard at both the CCLM and the open house included the role of maritime activity in shaping the neighborhood's character and waterfront. As a result, the Project Team looked to ensure flexibility in future maritime uses and adaptability of the shoreline to more water-related uses in the future.

Moreover, the feedback received in Phase II fundamentally shaped the outreach and engagement strategy. In the middle of Phase II, the Project Team had to shift its framework for engagement in response to the COVID-19 pandemic. This was a learning experience for all, including the Project Team, as it had never had to solely rely on a virtual outreach strategy. As the Project Team rethought its approach to outreach and engagement, the CCLM provided invaluable feedback on how best to remain connected to the community, how to ensure inclusive online engagement, and reinforced the importance of continuing both digital and non-digital outreach strategies. This feedback was critical in ensuring broad representation, sustained participation, and quality input to shape the Master Plan, even during an unprecedented time.

4.3 Phase III: Narrow the resilience solutions based on technical feasibility and community and regulatory feedback

4.3.1 Overview

What was shared?

- Flood defense proposal focusing on a narrow-to-moderate shoreline extension to achieve the master plan's goals and reflect community feedback

What did the community give feedback on?

- How to make this an exciting and inviting public space in the future

4.3.2 Stakeholder Events

Envisioning a 21st Century Waterfront Workshop

The City hosted a workshop on Envisioning a 21st Century Waterfront on March 23, 2021. This workshop drew urban design and transportation experts and advocates, along with members of the Climate Coalition of Lower Manhattan—a forum of individuals and groups who have expertise on Lower Manhattan’s complex context and are invested in the climate resilience of Lower Manhattan.

a. Goals

The City’s objectives for this meeting were to:

- Have participants leave with an understanding of the overall project purpose and drivers, the transformational opportunities that accompany this kind of large-scale coastal resilience infrastructure project, and the unique constraints of the project area.
- Provide a forum for participants to express their priorities and vision for the future of Lower Manhattan’s public waterfront to help inform project design.
- Engage stakeholders, both new and old, and build relationships to foster active partners in this project.

b. Format

The Project Team led the first half of the meeting, which consisted of opening remarks, project background, and a deep dive into transformational opportunities around open space, waterfront access, and transportation. EDC then led participants through an open discussion of their vision for this waterfront. As a part of this workshop, participants were asked to submit answers to prompting questions, which populated to a word cloud. Those word clouds are posted below:

What do you love about the Lower Manhattan waterfront?



Participants also noted that accessing the waterfront is important, and a preference for coastal defense infrastructure options that allow for that access.

- iii. *Participants expressed enthusiasm for embracing the area's history and interest in leveraging that history for educational opportunities.* This part of Lower Manhattan's waterfront is rich with history, and there is an exciting opportunity to highlight its history in the waterfront design. Focusing on the maritime history in this area – exploring historic moments like the Seaport's role in the Atlantic slave trade, George Washington's arrival at this dock, and the area's indigenous history, etc. could be highlighted as educational opportunities. The Maritime Museum focuses on these ideas, and many schools use the museum as a resource – especially schools in the area. The Master Plan could provide an opportunity to enhance these educational resources and connect residents and visitors to the rich history of this area – building connections and community through shared knowledge of the area's history. Participants also noted that historic vessels could draw additional visitors.
- iv. *Participants noted their support for leveraging green technologies and sustainability.* During conversations about mitigating the impacts of climate change, participants asked the City to consider issues of sustainability. Participants encouraged the City to look into more sustainable forms of transportation and ensure that piers have the necessary utilities to support electric-powered ferries.
- v. *Participants shared a desire to increase the quantity and quality of open space in the area and preserve beloved parts of the waterfront.* Participants expressed a strong desire for more open space in this area. They noted that Fredrick Law Olmstead's approach to landscape design could serve as a good example, as the parks he designed incorporate topography, grade change, and natural geographies well. Participants also expressed that they enjoy some of the existing open spaces in the area, like the beach beneath the Brooklyn Bridge, and that access to these spaces should be preserved and expanded.
- vi. *Participants would like to see an overall reduction of roadway traffic and are excited about the opportunity to reimagine the FDR Drive viaduct.* Participants noted that car traffic is a big concern in this area, and that infrastructure such as the FDR Drive contributes to this traffic. Community members expressed a desire for bold thinking to reorient attitudes around automobiles. Representatives from Community Board 1 requested a traffic study to better understand how people are using these roadways. Participants also noted the high volume of commercial loading vehicles in this area and encouraged the City to look into this.
- vii. *Participants urged the City to consider how the project's construction may impact nearby neighborhoods.* While participants acknowledge the importance of a large-scale infrastructure project to protect Lower Manhattan and enthusiasm about the prospect of taking down the FDR Drive viaduct, they noted that the project's construction may negatively affect surrounding neighborhoods, such as air quality issues associated with dirt and debris. The participants urged the City to keep the neighborhood informed of potential construction impacts and asked the City to find ways to mitigate these impacts through the project's design.
- viii. *Participants highlighted that community engagement remains critical.* Participants noted that transparency around this project is important. They want to ensure that the public is brought along and can be a partner with the City. They also noted how

important it is to engage youth through this process, and they encouraged the Project Team to continue reaching out to local schools.

Funding & Financing Workshop

The City hosted a panel discussion on funding and financing on April 13, 2021. An overview of key funding and financing sources that are available for resilience projects and the different benefits and tradeoffs associated with each was discussed. The City shared an overview of resilience projects across the city, calling out specific case studies to highlight ongoing work and demonstrate precedents for how resilience projects have been funded in New York City.

- a. **Goals:**
 - i. Provide greater context to participants about funding considerations for projects across the city, where the Master Plan fits in, and how other case studies inform the funding and financing approach.
 - ii. Ensure participants leave with an understanding of the Master Plan's purpose and key cost drivers, the unique constraints of the Financial District and South Street Seaport project area, and the many other considerations that will need to be made to create an effective flood defense system, in addition to the cost of inaction.
 - iii. Provide insight and transparency into how the project is approaching the financial analysis and assessing possible funding sources.
 - iv. Collect feedback from a broad range of stakeholders, including residents and neighborhood stakeholders, finance professionals, and other project implementation specialists.

- b. **Format:** The panel featured experts in financing resilience and large-scale infrastructure projects: Amy Chester, Managing Director of Rebuild by Design, Elizabeth Yee, Executive Vice President, Program Strategy and Chief of Staff at the Rockefeller Foundation, and Tom Rousakis, Senior Managing Director at Ernest & Young Infrastructure Advisors (and a member of the consultant team). The panel was moderated by Eric Clement, then-Senior Managing Director of Strategic Investments Group at EDC. Panelists were asked questions about their experiences financing resilience projects, the different roles that federal, state, and private sector play, the challenges with securing funding and financing for resilience projects, and more.

- c. **Main feedback and takeaways:**
 - i. There are several potential funding and financing sources; it is unlikely that any one source can cover the full needs of a large-scale project which will likely require mixing and matching of several sources.
 - ii. Within these funding and financing sources, participants expressed a strong desire for financing mechanisms that are equitable.
 - iii. Building widespread support and momentum for these projects is critical in making the case for their funding.
 - iv. Benefit-Cost Analysis is an important metric for understanding the value of a project.
 - v. There is a real opportunity to create a world-class space here; development should be limited and consider neighborhood context.

CCLM #4

The City hosted Climate Coalition of Lower Manhattan's (CCLM's) third meeting on December 15, 2020.

- a. **Goals**

The City's objectives for this meeting were to:

 - i. Update the CCLM on findings from both technical and engagement workstreams.
 - ii. Share updates on key technical analyses driving how the Project Team is approaching the shoreline extension width.

- iii. Share technical findings from on-land analysis and conclusions around why an entirely on-land project is not feasible.
- iv. Share updates on hydrodynamic modeling and conversations with the regulators about the infeasibility of a maximum shoreline extension.
- v. Share information about early project design and how the Project Team has begun to incorporate community feedback, and preview the opportunities for co-creation through the design workshop to be held with the CCLM in June.

b. Format

The meeting began with opening remarks and project updates from the City, followed by a panel presentation by content experts on the Project Team. The panelists presented key findings from the on-land feasibility analysis and shared why an entirely on-land project is not feasible. This included discussing the constraints posed by the FDR Drive, limitations of on-land flood protection such as deployable measures and raised streets, and the challenges associated with all the subsurface infrastructure in this area. The next panelist shared an update on hydrodynamic modeling and sampling and testing, and how that is guiding conversations with the regulators around taking a maximum shoreline extension off the table. The final panelists dove into some early project designs for programming, identifying key goals based on community feedback and previewing the design opportunities that will be further explored at the next CCLM meeting. There was a robust Q&A portion where panelists and members of the City team answered questions from the Coalition members.

c. Key Question from CCLM Members

- i. *Would taking down the FDR Drive viaduct be feasible? How would it impact the Brooklyn Bridge?*

The study includes robust transportation analysis -- looking at the FDR Drive viaduct and feasibility of removing it, traffic patterns, impacts to the Brooklyn Bridge, Battery Park Underpass, and more. The Project Team has heard very clearly from the community that there is a lot of interest in taking down the FDR Drive viaduct, which is something the Project Team has been looking more closely at. The studies do not indicate that taking down the FDR Drive viaduct will cause impacts to the Brooklyn bridge. The Brooklyn Bridge is an important citywide asset, and the Project Team is working to ensure that the project will not negatively impact it.

As part of this analysis, traffic impacts are being examined so that any possible impacts can be considered with project design. This plan puts forward a conceptual design, but any project that moves into implementation will undergo environmental review, which will further assess traffic impacts.

- ii. *How does the proposed coastal defense infrastructure in Financial District and Seaport compare to other coastal resilience projects in Lower Manhattan, like Brooklyn-Bridge Montgomery Coastal Resiliency ("BMCR")? Why can't we use the same technologies as these projects?*

The Financial District and Seaport area is uniquely constrained, low-lying, and vulnerable to wave action, which is driving the resilience strategy. The Master Plan is addressing two major impacts from climate change – protecting against storm surge from major storms and protecting against frequent flooding from tidal inundation. While major storms happen less frequently, they bring very high water levels from which key assets must be protected, which drives the high Design Flood Elevation. On the other hand, tidal inundation will bring lower levels of flooding, but this will happen more frequently – even daily in some parts of the study area. While the water volume may be less than storm surge, daily flooding at key assets like ferry terminals, piers, or even walkways will negatively impact their use and the general quality of life in this area. So, the design is

accommodating for these different kinds of risks by providing a passive level of constant protection against daily flood heights while ensuring that key assets are protected from major storms.

The mitigation strategies used in the Financial District and Seaport are different than other projects citywide for a number of reasons. Since the Financial District is uniquely low lying, a constant level of passive protection must be achieved in the area. Deployable measures, which are being used at BMCR, are effective at protecting against major storms but do not provide passive levels of protection because they require time and labor to be set up and put away, which would not be viable for protecting against frequent tidal flooding. Further, deployable measures are not recommended for areas that see significant wave action – since the Financial District and Seaport areas are further to the South than BMCR, the area is susceptible to greater wave action.

Further, the time horizon for the Financial District and Seaport plan is different than other projects that are currently in implementation which are protecting against 2050s projected sea level rise. The Financial District and Seaport plan is in an earlier stage than those projects, so the implementation timeline is pushed further out. A project of this scale will take 15 to 20 years, perhaps even more, to fully implement. Therefore, the Master Plan accounts for projected risk in the 2100s.

iii. Would the change in water velocity cause additional flooding on the Brooklyn side of the river?

The Project Team undertook extensive technical analysis as a part of the project, including hydrodynamic modeling to better understand any impacts to the East River. According to the analysis, the project will not cause flooding in either this area or in Brooklyn. Because the East River is so massive and contains so much water, any water that this project displaces is comparatively very small and it will not cause ripple flood effects.

iv. What is the scale of the relationship between shoreline extension and velocity impacts?

The Project Team undertook extensive technical analysis as part of the project, including hydrodynamic modeling to understand how the shoreline extension might impact the water velocity in the East River. The Phase II analysis looked at three different shoreline extension test case widths to broadly understand the range of impacts, though the shoreline extension itself will not be a uniform width and future analysis will require more granular measures. These test cases were: narrow (100ft), moderate (250 ft), and maximum (500ft). While any shoreline extension will cause some degree of velocity change since the area that water flows through will be narrowed, the regulators require velocity impacts to be minimized. Early modeling showed that maximum extension created a substantial velocity increase, while the narrow and moderate options created a far smaller velocity increase. The relationship between extension width and velocity increases are not linear, and the next phase of analysis will include more detailed models of the narrow and moderate widths. However, those impacts are expected to be much smaller than the 500 foot test case.

v. Where in the study area are you looking at raising streets?

Raising streets is only being considered at the ties backs where the ground elevation is much closer to the design flood elevation.

vi. Are there any partially on-land projects that are feasible?

While an entirely on-land project has been ruled out, it is likely that there will be certain areas within the project area that use on-land solutions. The project area is large and

there are a number of specific constraints and considerations that are unique to each of the “reaches” – the stretches of the study area geography-- and the recommended coastal defense infrastructure will vary from section to section. As Phase III analysis wraps up, a clearer picture of those specific constraints and how they impact the recommended flood protection system will emerge.

vii. *Is the project considering the use of “floodable assets” and creating safe floodable areas, or identifying assets that can flood, in order to protect priority areas?*

The Project Team is still examining this, but the core goal is to provide protection to the many critical assets in the study area. The Project Team is considering two DFEs – one for projected major storms in the 2100s (which is the higher DFE), and one for projected daily flooding in the 2100s (the lower DFE). Frequent flooding for any asset would essentially render it unusable, so at a minimum, the project must protect to the level of frequent tidal flooding. However, a core project goal is maintaining connections to the water. Any of the spaces that facilitate contact with the water will be designed to allow for occasional flooding that would come from a major storm while remaining protected from frequent tidal flooding. Further, a core goal is ensuring that major assets are protected at the higher DFE to protect from major storms.

viii. *Which regulatory agencies is the Project Team working with?*

The Project Team has engaged state and federal agencies, including US Army Corps of Engineers, Environmental Conversation, Department of State, Fish and Wildlife. Conversations with these bodies have driven the avoid, minimize, mitigate framework – avoid going into the water where possible; since the project must go into the water, minimize impacts from doing so; mitigate any impacts that are made.

ix. *Are you considering removing any existing piers to mitigate against tidal velocity increases caused by the shoreline extension? How do you value one use over another?*

Yes, the Project Team is considering removal or replacement of piers are part of the project. However, the hydrodynamic modeling has shown that pile supported structures, such as those used for piers, impact velocities a lot less than fill would.

x. *What will programming on the extension look like – will it all be parkland? How will development factor in?*

The Project Team is excited that there is a lot of flexibility around programming of the space. The Project Team has really been looking to the feedback provided by the CCLM and broader community so far and looks forward to the next CCLM meeting and public Open House to dive into this more. From previous engagement events, the Project Team has heard a clear desire for more open space, active and passive recreation, playgrounds, safer bike and pedestrian routes, and more.

Since the study area is so large, it is unlikely that any one typology will cover the entire area. A mix of uses will make this an exciting new asset for the Financial District and Seaport neighborhoods. The Project Team is looking at buildings and thinking about how they can help activate the space and achieve community goals.

xi. *Who is making decisions for the different reaches?*

This is a master planning process that will produce a series of recommendations for how to protect the Financial District and Seaport neighborhoods. As part of this planning process, the Project Team will be advancing conceptual designs and recommending first phase project options. However, this is a long-term planning effort and the whole project will not happen all at once. The decisions for this project will continue to be driven by technical feasibility, community engagement and input, and City policy goals.

CCLM #5

a. Goals

The City's objectives for this meeting were to:

- i. Recap how key technical findings and feedback from stakeholders are shaping and advancing the design of project options.
- ii. Present the flood protection alignments that are still being evaluated, as well as where community feedback will be critical to guiding the development of project options.
- iii. Workshop key project elements such as access, program, and open space.

b. Format

The meeting began with opening remarks and project updates from the City, followed by a presentation by content experts on the Project Team. The Project Team gave a detailed presentation on how they have been approaching design, approaches to building a shoreline extension that meets all the Master Plan goals, the key elements driving design in each "zone," how the proposed design options vary across the study area, what a new resilient waterfront could look like, and how much the project could cost and what funding and financing sources are available. This presentation was followed up by a robust Q&A portion and small group design workshops to discuss sitewide considerations, the future of the transportation corridor, public access and multi-level programming, and waterfront and maritime programs.

c. Key questions from CCLM members

- i. *Would this project allow for potential public access to the beach under the Brooklyn Bridge?*

The project is not quite at a stage in the process to determine this, but the Project Team understands that many folks want to see access to that area. As part of the Brooklyn Bridge Esplanade project (separate project), there will be ADA-accessible access to the sandy area beneath the bridge. This will include managed access with community partners, but not open to the public for safety reasons.

- ii. *Has the City done any thinking around how the development of the project would be managed and maintained?*

This is something that will be looked at in the next phase of work. Governance is key to the master plan. This will necessarily involve ongoing conversations as design progresses.

- iii. *How does the FDR Drive viaduct height relate to the upper-level height of the flood protection?*

The coastal protection will likely be very tall—not as tall as the FDR Drive viaduct, but quite close. The height of the FDR Drive viaduct varies throughout the study area, but generally ranges from 30-35 feet above ground at the top of the structure. The bottom of the superstructure is a little lower, generally ranging from 20-25 feet above the ground. This poses a significant constraint to siting the flood protection on existing land.

- iv. *Would the proposed flood protection be redundant with new coastal resiliency zoning measures?*

The new zoning regulations are designed to work in conjunction with protection measures such as the ones proposed as part of the Master Plan. Redundancy is key to resilience. The zoning measures are focused on a large voluntary suite of options for current property owners to retrofit buildings. The Master Plan focuses on neighborhood-wide coastal protection. The City's strategy is to generate resilience across multiple fronts. There won't be any conflict.

- v. *Does the projected cost of \$5-7 billion include removing the FDR Drive viaduct? What is the scope for the area under consideration regarding removal of the FDR Drive viaduct?*
The \$5-7 billion—an early-stage estimate—includes replacement of the FDR Drive viaduct with an at-grade boulevard. The exact stretch is yet to be determined. Based on project precedents, removal of the viaduct structure is only included up to the Brooklyn Bridge but will continue to refine the scope and cost estimates.
- vi. *Would removing the FDR Drive viaduct impact access to the Battery Park Underpass?*
Impact is not anticipated. There would have to be a large reconstruction of the street, but this would likely involve routing drivers through the BPU.
- vii. *If we decide that removing the FDR Drive viaduct isn't feasible as part of this project, can the flood protection infrastructure be designed in such a way that it can accommodate removal of the FDR Drive viaduct in the future?*
Yes, the flood protection infrastructure can be designed in a way that could accommodate removing the FDR Drive viaduct in the future.
- viii. *Is there any consideration of how the project will interact with bicycle lanes, especially with increasing ridership?*
At this stage, it is a priority to consider options that really separate bicyclists from pedestrians to create a better user experience for both.

d. Main feedback takeaways from small group workshops

- i. *Participants expressed a general openness to removal of the FDR Drive viaduct but emphasized the importance of considering potential consequences.* For example, participants highlighted the FDR Drive viaduct's importance as a transportation hub (with potential impacts to the interior of the neighborhood and the West Side Highway if taken down) and drew attention to the viaduct's role in providing shade to the area.
- ii. *Participants emphasized that pedestrian and bicyclist experience and safety must be a priority.* Participants highlighted that the space underneath the existing FDR Drive viaduct raises serious safety concerns. The Master Plan should include deliberate consideration of the location of bikeways with respect to roads and walkways. Some participants also expressed interest in the idea of preserving a portion of the elevated viaduct for biking and pedestrian use.
- iii. *Participants reiterated the clear need to expand and enhance the open space, recreational opportunities, and waterfront access throughout the study area.* In particular, participants emphasized the need for interconnectivity rather than discontinuous patches and a holistic approach to ensuring touchpoints with the water. Ensuring fluid circulation through the area and accessibility to the water will likely need to involve strong wayfinding. Any new open space or design elements must be of high quality and variety, evoking a quirky New York feel.
- iv. *Participants emphasized the importance of ensuring a sustainable governance structure, especially for safe and long-term operations and maintenance.* Participants noted the need to secure sustainable funding sources which do not include development.
- v. *Participants raised concerns about the impacts to residents during construction.* Participants noted that the study area has many renters and that disruption due to construction could result in a loss of population.

4.3.3 Community Events

Public Open House #3

a. Goals

- i. Share updates from technical workstreams to identify what is fixed and what is flexible.
- ii. Discuss design concept of narrow-to-moderate shoreline extension that achieves project goals and reflects community feedback to-date.
- iii. Gather feedback on critical areas of flexibility: open space, programming, FDR Drive, access points, pathways, buildings, and more.

b. Format



Figure 19: Example slide shown at the beginning of Open House #3 to explain the virtual event structure.

c. Main feedback and takeaways

- i. **Transportation & Access:** The project is evaluating options to keep the FDR Drive elevated as a viaduct or to replace the viaduct with an at-grade roadway. Here's what the Project Team heard about the future of the FDR Drive viaduct:
 1. Some participants noted the value of the elevated FDR Drive viaduct for providing shade and for keeping pedestrians separate from high-speed vehicular traffic. They expressed concerns about the feasibility of transforming the viaduct into an at-grade boulevard, particularly because of safety impacts to pedestrians who will need to cross the roadway to access the waterfront.
 2. However, many participants view the FDR Drive viaduct as a barrier to the waterfront and see it as an eyesore. Many feel strongly that taking down the elevated viaduct would improve overall access to the waterfront. Taking down the viaduct would also enhance views of the Financial District and Seaport neighborhood from the newly created space along the river.
 3. The study area for this project extends to the Brooklyn Bridge, but participants from the Two Bridges neighborhood, north of the Brooklyn Bridge, were interested in exploring taking down the FDR Drive viaduct further north.
 4. If the FDR Drive viaduct is kept in place, some participants were excited about the opportunity to improve the quality of space underneath the structure through measures such as enhanced lighting, public art, or new programming, while others expressed hesitation about the ability to successfully transform

the space beneath the viaduct. There was some interest in converting the FDR Drive viaduct into a highline.

5. Participants emphasized the need to maintain and enhance bike lane connectivity, as well as to address congestion and smog under the roadway.

4.3.4 How The Project Team Used the Feedback in Phase III

In Phase III, the Project Team received feedback on the early project options, which fundamentally shaped the project goals, including flood defense, drainage, maritime, access & circulation, and public open spaces and public serving uses. For example, the feedback received at both workshops and both CCLM meetings reinforced the importance of an increase in quality and quantity of open space in the area and the preservation of beloved parts of the waterfront. This feedback and interaction with stakeholders informed the balance of active and passive recreational activities across the site, as well as the frequency and quality of uses proposed that are both city-facing and along the water.

In addition, the Project Team received feedback about the FDR Drive – including a desire to see a reduction in the overall traffic and an opportunity to reimagine the FDR Drive. While the Master Plan does not include a specific proposal to remove the FDR Drive viaduct, given the long-time horizon of the Master Plan, the Project Team felt it was important to ensure the compatibility of the Master Plan with potential alterations to the roadway. As a result of the community’s feedback, the Project Team conducted a high-level analysis of many possible ways that the roadway could be reconfigured to ensure that the flood defense will not limit the City’s options for the viaduct.

4.4 Phase IV: Develop the conceptual design and implementation roadmap

4.4.1 Overview

What was shared?

- Conceptual design that incorporates community feedback
- An implementation roadmap for funding and financing

What did the community give feedback on?

- Feedback on the proposed design
- Priorities for implementation

4.4.2 Stakeholder Events

CCLM #6

The City hosted the 6th Climate Coalition for Lower Manhattan (CCLM) meeting on November 4, 2021.

a. Goals

The City’s objectives for this meeting were that:

- i. Share the latest design proposal from the Brooklyn Bridge to the Battery.
- ii. Provide an experiential walk through of the Master Plan conceptual design that demonstrates what this 21st century resilient waterfront could look and feel like.
- iii. Share how community feedback has continued to be incorporated into the design as it has evolved.

b. Format

The meeting began with opening remarks from the City, which included the exciting news that the Mayor announced a \$110M commitment to advance Seaport Coastal Resilience, which will protect the lowest-lying and most vulnerable portion of the Master Plan study area. The Project Team then presented an update on the design and laid out a shared vision for what the Financial

District and Seaport waterfront can be in the future. The Project Team highlighted the project goals' influence on the proposed design.

c. Main feedback and takeaways

- i. *Green Infrastructure & Sustainable Measures:* The CCLM expressed interest in integrating green infrastructure and sustainable measures across the waterfront, including measures such as rain gardens or softscapes. The Project Team noted that the design does, and will continue to aim to, maximize green open spaces and porous pavements across the area. Since green infrastructure is better suited for smaller rainfall events, grey infrastructure, like a pump station, is also integrated into the project to help with the bigger rainfall events associated with coastal storms. The project also aims to integrate renewable energy opportunities and sustainable technologies wherever possible.
- ii. *Battery Maritime Building & the Governors Island Ferry:* The CCLM asked about the future of the Battery Maritime Building and the current uses that exist at the facility today. The Project Team explained that the future of the Battery Maritime Building is not determined, but that the Master Plan aims to protect the historic structure and integrate the line of coastal flood defense around the building. The current proposal also recommends relocating maritime uses to an alternative building. The Trust for Governors Island (TGI) has been consulted in conversations about the Governors Island (GI) ferry terminal location and capacity. Access to the subway and pedestrian pathways are critical for TGI, and this Master Plan improves those aspects.
- iii. *Heliport:* Community members expressed that the heliport is disliked by community residents and inquired whether it could be relocated to a building rooftop so it wouldn't disturb other waterfront uses. The heliport is currently anticipated to remain in its location as the only heliport that can perform specific functions like accommodating the President of the United States, but this will be further analyzed as a part of future work. The current proposal aims to concentrate the heliport further to the south and separate it from the public open space along the waterfront to the extent possible.
- iv. *Development:* At prior CCLM meetings, the Project Team discussed the potential for development as a funding source and showed where there could be development pads. The City received a lot of feedback from the community on the desire to limit taller buildings in the study area and is no longer proposing any residential or large-scale commercial development as a part of the Master Plan. The current design includes 1-2 story buildings, including a pump station to manage storm water, buildings for operations and maintenance, and community-serving uses like restaurants, cafes and other potential community facilities.
- v. *New Market Building:* The CCLM inquired if there are any plans for the New Market Building. The City explained that there are no plans for this building. The Master Plan allows space for a new development on this site that could serve the community, but any planning for that site will happen as a part of future work and in close consultation with the community.
- vi. *United States Coast Guard Site:* The Project Team acknowledges that this is a promising location for many purposes and services, including potentially siting a pump station. However, the City does not control the site because it is federally-controlled land. The City and elected officials have started early conversations with the Coast Guard on how the flood defense could be accommodated on the site.

- vii. *Beach near Brooklyn Bridge:* As shared in prior meetings, the CCLM reiterated the community’s desire to access the beach near Brooklyn Bridge. The current Brooklyn Bridge Esplanade (BBE) project plans to build this beach access and the Seaport Coastal Resilience project will integrate with the planned BBE get-down. The Financial District and Seaport Master Plan will need to consider how to design and stabilize the area, including how climate change may impact the beach.
- viii. *Minimizing Construction Disruption:* The Project Team noted that it is early in thinking about how this will be constructed, given the current level of design in the master plan. The project will incorporate lessons learned from the implementation of other construction and coastal resilience projects.
- ix. *FDR Drive:* The CCLM asked for more details on the status of the FDR Drive viaduct options shared in the upfront presentation. Because of the timeline of this project, it is important to imagine a future both with and without the elevated FDR Drive viaduct. While the Project Team is not proposing removing the FDR Drive viaduct as a part of this plan, the Project Team has designed the Master Plan to maintain flexibility so that it could work with or without the FDR Drive viaduct in place.
- x. *Funding and Financing:* The Project Team has assessed City, state, and federal sources – existing and new – and found there is no single funding source that would fully fund the Master Plan. Funding sources at all levels of government, including significant federal investment, will be needed to realize this plan.
- xi. *Early Capital Investment (Seaport Coastal Resilience):* The goal of the early capital investment is to elevate the shoreline 3-5 feet above the existing esplanade from the Brooklyn Bridge to John Street. The project is anticipated to take about five years from initiation to the end of construction. The Master Plan is still necessary in this area to reach the full level of protection needed from future coastal storms. EDC will continue to engage with the community board as design progresses.

4.4.3 Community Events

Public Open House #4

On November 17th and November 18th, 2022, the City hosted its fourth and final virtual Community Open House.

a. Goals

- i. Share background on the *Financial District and Seaport Climate Resilience Master Plan* and an update on the conceptual design of the Master Plan.
- ii. Discuss early investments to reduce flood risk in the Seaport District.
- iii. Begin to discuss implementation and next steps, including an implementation roadmap for funding, financing, and phasing.

- b. **Format:** As with previous Open Houses, the presentation and workshops were hosted through Zoom. The presentation began with a reiteration of the project scope, goals, and progress thus far. EDC shared the conceptual design framework and discussed next steps towards implementation. Following the presentation attendees were invited to join break out rooms where individual questions could be addressed at a more intimate level.



Figure 20: Example slide shown at the beginning of Open House #4 to explain the virtual event structure.

- i. Main feedback and takeaways:
 - I. **Transportation & Access:** In terms of project implementation, participants wanted to understand how different modes of transportation would operate within the project area. Some were energy efficiency questions, such as how the numerous ferry systems and terminals would work in this newly envisioned waterfront. Others were concerned about safety and congestion-- mainly how the project design will fully protect bike lanes and how the project will address tourist bus parking in the area. The area is recognized as a transit hub, and many had concerns about how long-term planning will affect various systems.
 - II. **Connectivity & Phasing:** Participants wanted to understand how the Financial District and Seaport project connects with other LMCR projects to the north and south of the project area and how each task relates to one another technically. This curiosity also surfaced questions about how each project would prevent water from breaching. Others were concerned that there was no interim flood protection plan to the south of the ferry terminal. Some were eager to understand the phasing of the project, seeking to understand the most demanding challenges for completing the project, such as permitting.
 - III. **Open Space & Buildings:** Participants mentioned obstacles that pedestrian walkways pose against creating more open space availability. Others noted that the open space should be actively programmed and designed towards families and older children. In terms of buildings, participants raised a Seaport working group and CB1 resolutions that provided a lot of actionable feedback for future building use considering the next 5 years.
 - IV. **Waterfront Access & Maritime Activity:** The topic of water flow and its movement was a frequent topic. Participants sought to understand how the increased landfill area caused by the project would narrow the water path and how water will flow in this area. Concerns about marine freight and sail slip access surfaced multiple times.
 - V. **Funding:** Participants wanted to understand if the project is a public-private partnership and asked for clarification on what that partnership looks like and how it would help to bring this project to fruition.

4.4.4 How The Project Team Used the Feedback in Phase IV

In Phase IV, the Project Team received both broad feedback on the Master Plan and specific feedback on key project elements, such as the heliport and the Governors Island Ferry. For example, community members expressed that the heliport is disliked by community residents and inquired whether it could be relocated to a building rooftop so it wouldn't disturb other waterfront uses. While the Project Team had little ability to move the

heliport from its current function, the conceptual design proposal does aim to concentrate the heliport further to the south and separate it from the public open space along the waterfront to the degree possible.

Moreover, the Project Team received feedback on implementation, which will inform next steps as the project advances towards design and construction. This feedback included themes such as thinking about project phasing and minimizing construction disruption to the community to the greatest extent possible. As the Master Plan progresses, design studies responsive to the feedback given in Phase IV will help in supporting permit applications for future construction.

The community also advocated for continued and sustained participation as the project advances into later stages to ensure that the project continues to represent a shared vision between the community and the City. While the Master Plan has been released, the community can and should continue to provide feedback via the interactive engagement portal to inform later stages of design.

5. Next Steps

5.1 What Do We Do Next?

A project of this scale will take 15 to 20 years, perhaps even more, to fully implement. If the Master Plan is fully funded and designated a priority for regulatory agencies, complete flood protection for this area could be in place as early as 2035. Given this, it is critical that the City act now. As a next step, the City will progress design of the Master Plan to a level sufficient to begin permitting and environmental review. Advancing design will also unlock additional federal funding opportunities. Beyond design, it will be critical to continue to work closely with the regulatory agencies that will ultimately decide the fate of this plan and continue studies and analysis, including sampling and testing in the East River, to determine a baseline for potential environmental impacts. The City will also explore options for future governance structures to shepherd implementation of the master plan. Throughout all of this, the City will work closely with the community, advocates, and local, state, and federal elected officials to ensure the Master Plan continues to represent a shared vision between the community and the City.

5.2 A Call to Action

This Master Plan is the first step towards realizing a more resilient Lower Manhattan, but its long-term success will rely on the continued support and advocacy by all who care about this place. It is critical to build an ongoing coalition of support, and your participation matters. For all readers of this report: Whether you are a local resident, worker or student, commute through Lower Manhattan, or simply care about resilience and the future of New York City, you can act now by:

- Visiting the Master Plan website (fidiseaportclimate.nyc) to sign up for the latest updates;
- Sharing this Master Plan and website with your colleagues, friends, and family to generate awareness;
- Reaching out to your local, state, and federal elected representatives to share your support and enthusiasm; and
- Reaching out to the Project Team if you have any additional questions.