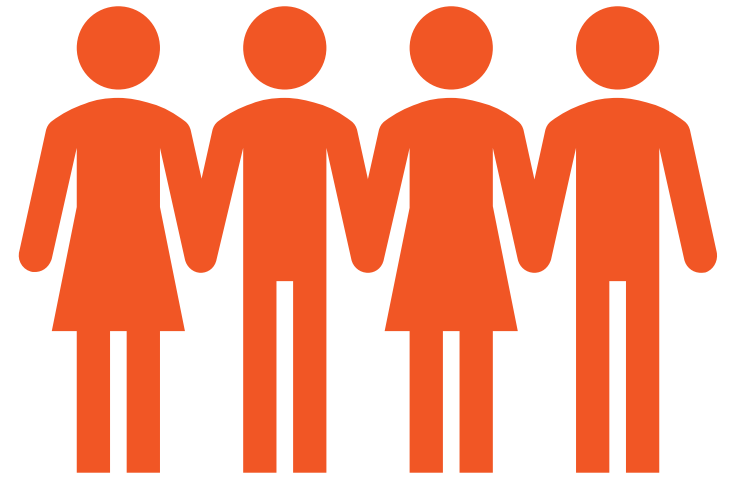


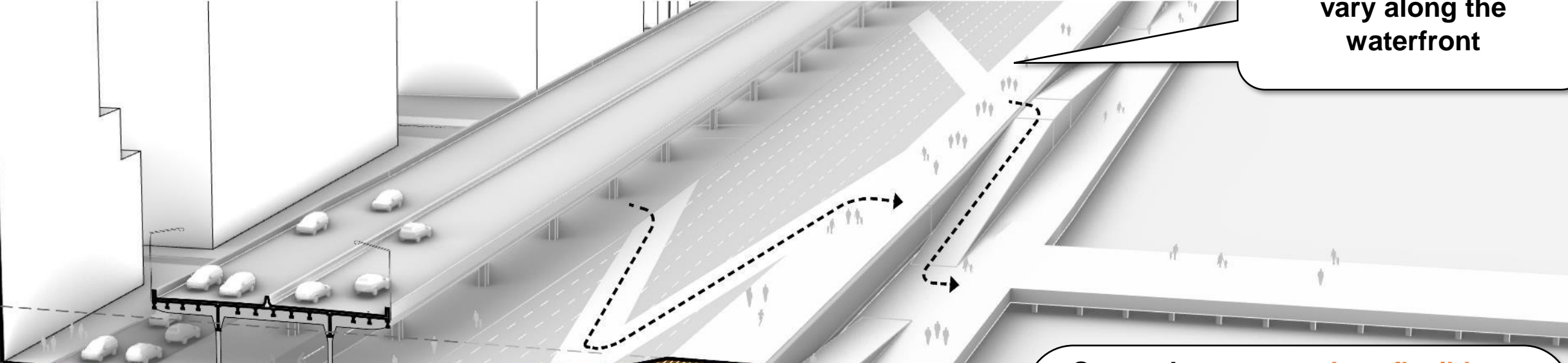
# Time for Discussion!

Welcome to our discussion room!  
We will begin momentarily.



Our design must get people **up to and down from** our flood protection, from the upland neighborhood back down to the waterfront.

Design conditions will vary along the waterfront



Some elements are **less flexible** as they are informed by engineering, policy, and regulatory considerations.

Other elements offer **more flexibility** to collectively reimagine the waterfront.

*Draft: Early illustration of flood defense system. Subject to refinement.*

EXIST. BULKHEAD

Transportation Corridor

Publicly Accessible Flood Protection

Continuous Waterfront Access & Maritime

Transportation and Access:  
*Future of the FDR Drive Viaduct*

# How can we provide a **safe environment for pedestrians and cyclists** while supporting **current and future traffic demands**?

We are considering options keeping the **FDR Drive viaduct** in-place or replacing it with an **at-grade boulevard**.

## What we've heard:

- Excitement about reimagining the FDR Drive
- Reduce traffic impact on local streets
- There are high concentrations of cyclists and pedestrians in the area

## Technical drivers:

- If we take down the FDR viaduct, we need to replace it with a boulevard that still supports both current and future traffic needs to maintain flow of traffic and avoid congestion.

*Draft: Early illustration of flood defense system. Subject to refinement.*

EXIST.  
BULKHEAD

Transportation Corridor

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Flood Protection

Continuous  
Waterfront  
Access &  
Maritime

# What are our **future opportunities** to transform the area, with or without the FDR Drive viaduct in-place?



## Design Opportunity

If we keep the FDR Drive viaduct in-place, what can we do to improve the quality of space under the viaduct?



## Design Opportunity

Is there interest in replacing the FDR Drive viaduct with an at-grade roadway as part of this project?

# How should we consider access to the waterfront and connections back to upland neighborhoods?

- Currently, waterfront access frequency ranges from 230' to over 1,300'
- Based on existing context, the recommended target access frequency is  $\pm 500'$ , (about every two blocks)
- Project strives to avoid reducing the number and frequency of waterfront access points
- Where access is lacking, additional access points are considered. The project aims to provide a new connection at Broad St. or Coenties Slip. Feasibility hinges on how the FDR is treated.

- Priority Street Corridor
- Priority access points (existing)
- Priority access points (proposed addition)
- Existing access points to be consolidated (routed to adjacent street corridor)
- Continuation of waterfront esplanade



# Open Space & Buildings

# How can we ensure **access for all** to move up and over the flood protection structure?

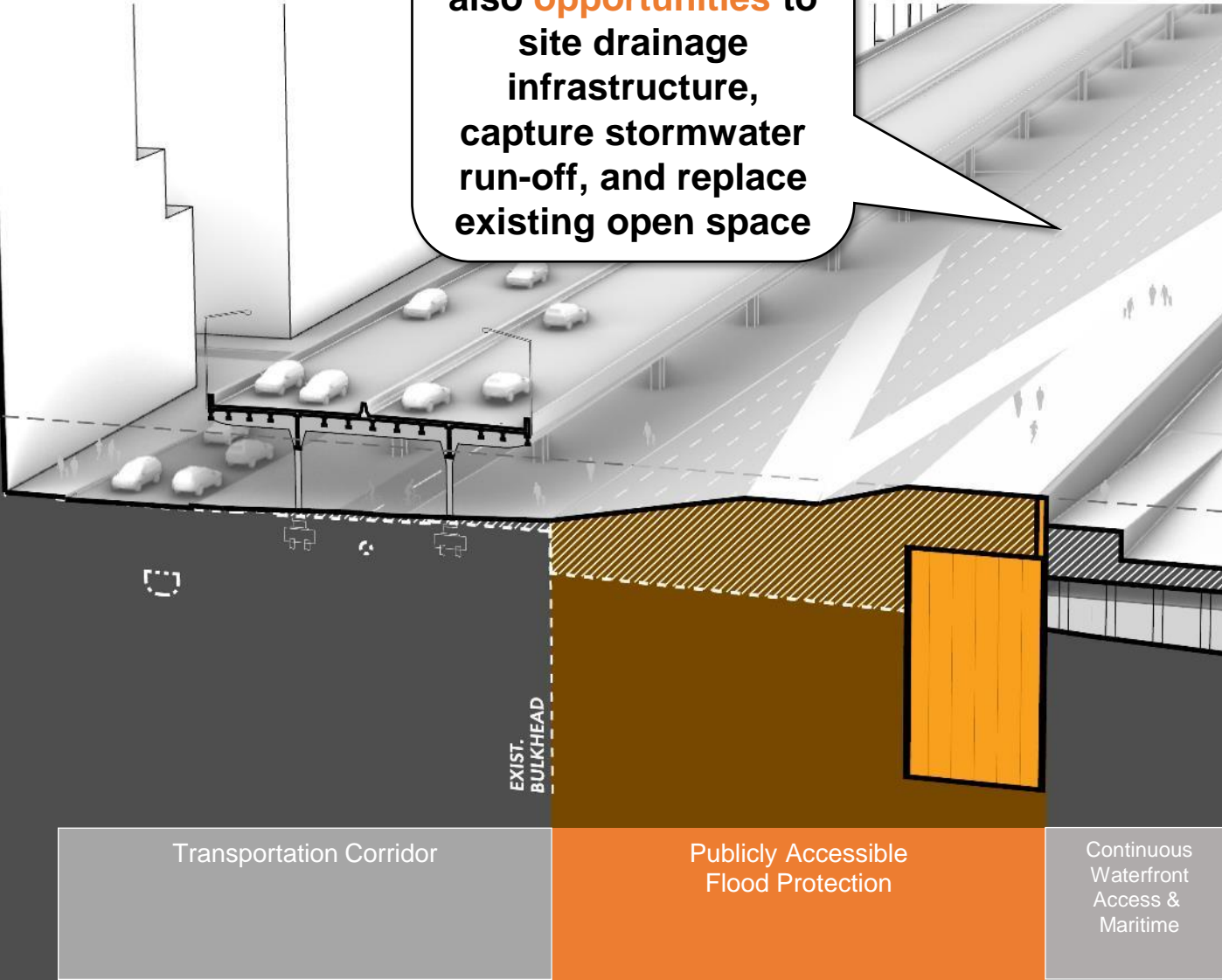
Within this space are also **opportunities** to site drainage infrastructure, capture stormwater run-off, and replace existing open space

## What we've heard:

- Consider the diverse needs of everyone, including ADA accessibility
- Strong desire for more open space and a greater variety of programming in the area, making this an exciting destination
- Given the height of the flood protection, there are opportunities for new views and experiences at higher elevations

## Technical drivers:

- Provide space for coastal defense infrastructure and maintain access for inspection and maintenance.
- Maintain universal access
- Provide access for emergency vehicles
- Limited plantings on slopes and around flood protection infrastructure





# How do we provide **universal access** to get people to the waterfront?

## Who are we designing for?

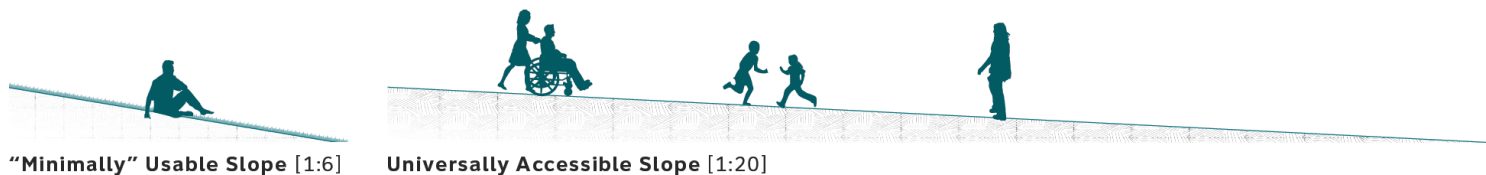


## Universal Access:

Means that everyone, regardless of ability or age, can access and participate in public life.

## Usable Open Space

- Any areas without obstructions that are 2% slope or less
- Create spaces with a low enough slope that people can sit on and enjoy
- Accessible program areas
- Stepped seating / amphitheatres if used sparingly
- Unobstructed sight lines to the end of paths



Astoria Park [under Robert F. Kennedy Bridge]



Brooklyn Bridge Park [Main Street Park]

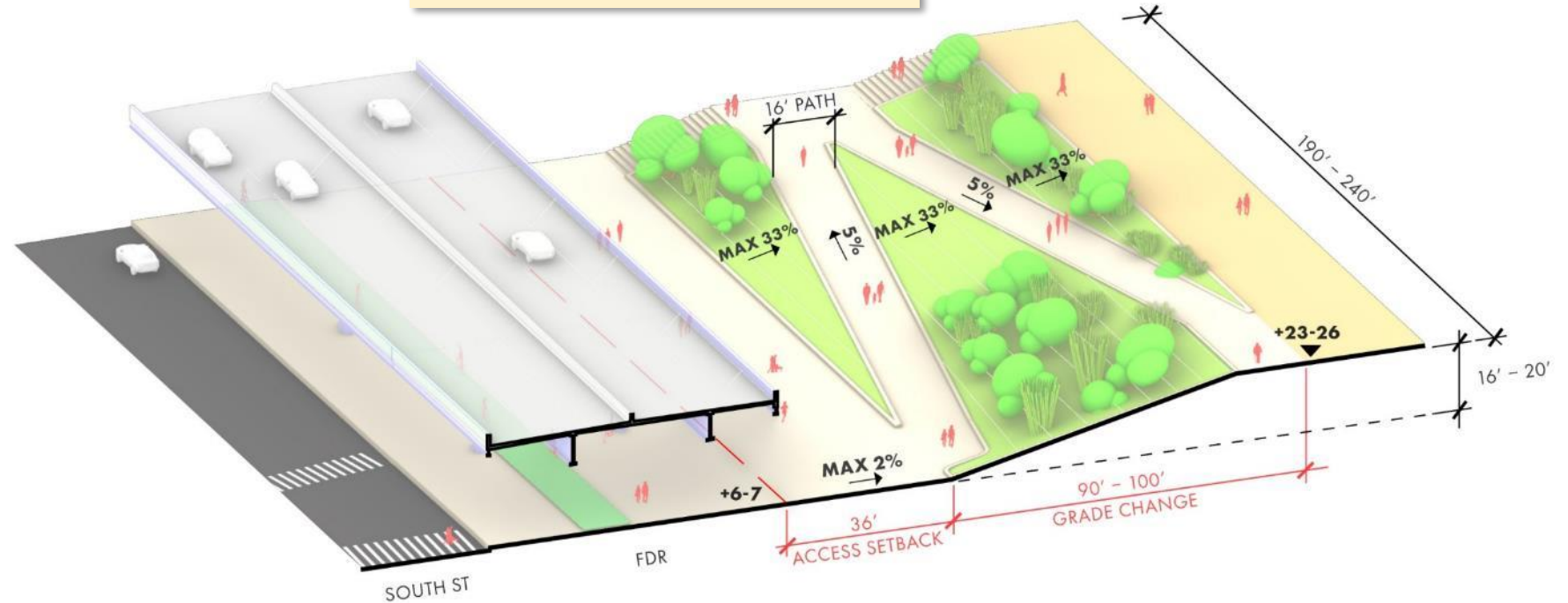
# How can we provide **universal access** at frequent access points in line with the East River Esplanade vision?



## Design Opportunity

What kinds of experiences should we create along our access paths?

- A switchback allows a user to arrive at a similar point along the waterfront to where they entered, as well as flexibility in connecting multiple access paths across the site
- Slopes that are not too steep ensure we can maintain plantings while also the ability to capture stormwater runoff
- A 16' wide path provides enough space for users to access the waterfront, as well as sufficient space for vehicles to access the site for operations & maintenance



### Case 1: 16' Change

(2) Access paths @16' ea = 32'  
16' vertical at 33% slope = 48'

80+ Contingency

### Case 2: 20' Change

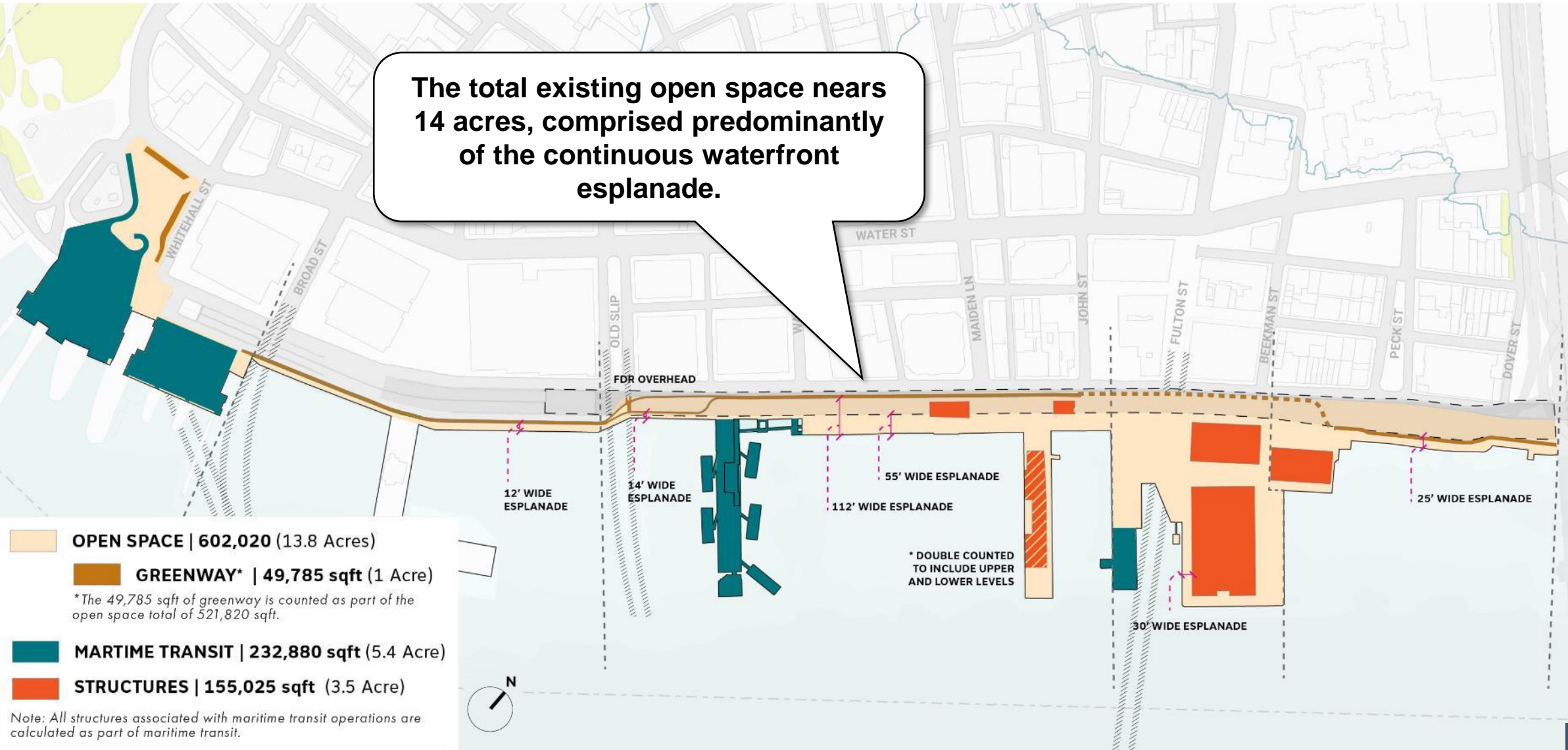
(2) Access paths @16' ea = 32'  
20' vertical at 33% slope = 60'

92+ Contingency

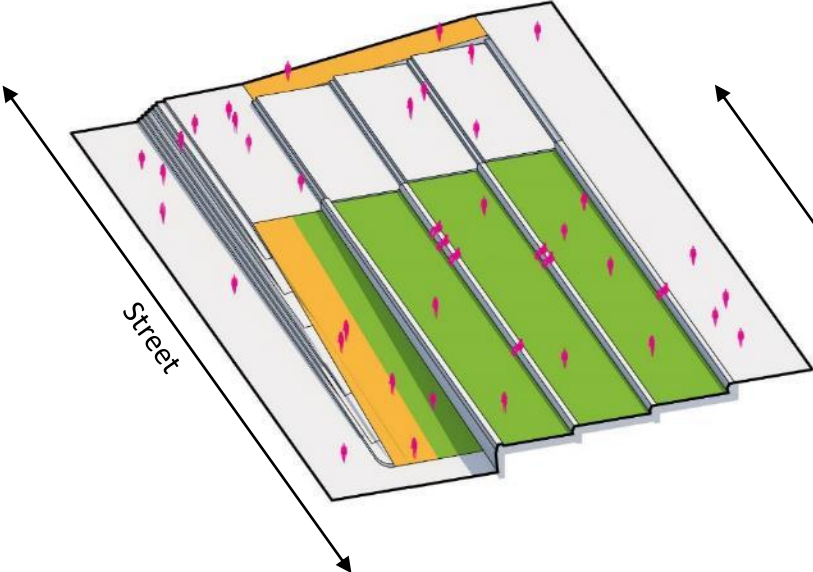
Note: this configuration is not a specific design, it is a basis for estimating space needs for access

# What is along our waterfront today and what is **most important to maintain** in terms of public space?

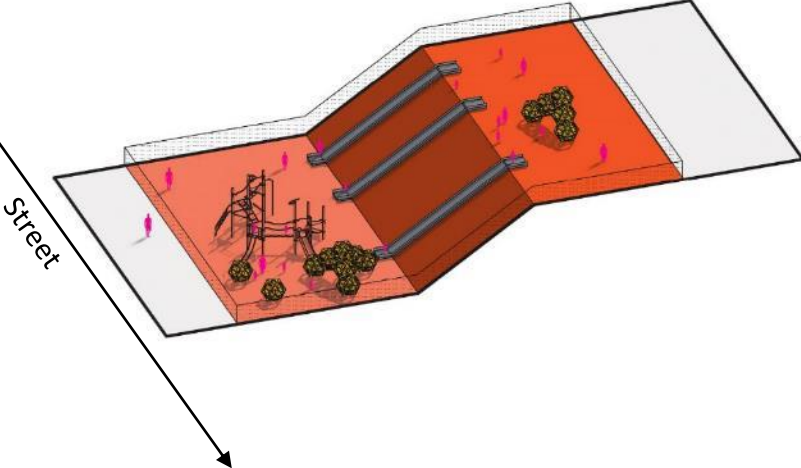
The total existing open space nears 14 acres, comprised predominantly of the continuous waterfront esplanade.



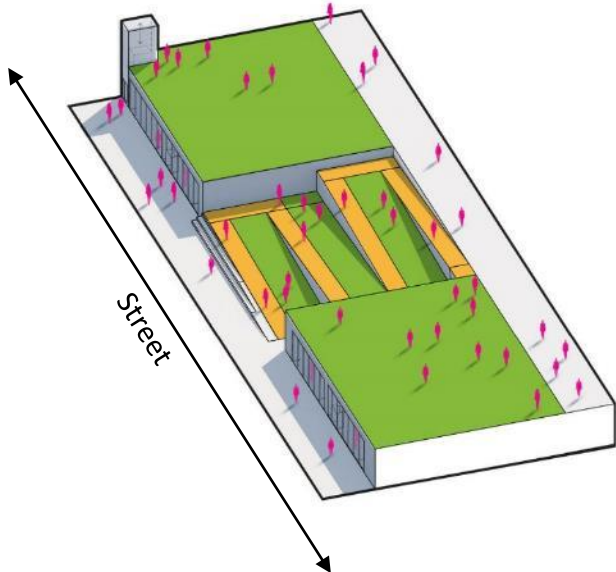
We have many options to **integrate amenities and public spaces into the slope** of the flood protection system.




**Multi-level Open Space**



**Programming**



**Buildings**

 Design Opportunity

What types of new amenities should we prioritize?

 Design Opportunity

What amenities should face the water? Face the city?

## Should buildings be considered as a part of our project? If so, what type, scale, size and placement do you want to see?

The size of the **shoreline extension is solely driven by the space needed for our flood protection infrastructure**. Within that envelope, there is space that can be used for various purposes, including buildings.

When considering buildings, there are many variables:

- Uses (retail, office, community facility, residential)
- Size (height, bulk, square footage)
- Placement relative to surrounding open space, streets, and buildings
- Number of buildings
- Circulation

Today, **we want to understand how (if at all) you think buildings should be considered and what type and extent of buildings you think would be appropriate.**

# How might **buildings** help achieve our project goals?

*The size of the shoreline extension is solely driven by coastal defense and core project goals. Within these constraints, Some of the space created by the shoreline extension could be used for new buildings. Today, we want to discuss some key considerations and hear your feedback!*



**Support:** Some low-rise buildings will be necessary, such as a pump station and ticket kiosks for ferries. These types of buildings exist on the esplanade today.



**Activate:** Buildings may provide space for retail and cultural facilities that would bring people to the waterfront throughout the day. An active waterfront is an enjoyable and safe waterfront!



**Grow:** Larger buildings may help pay for the flood protection infrastructure and support Lower Manhattan as a major job center and residential community.

# What **constrains** the size and location of building footprints?



**Visual corridors:** We should not block views to the East River from upland streets (e.g. Wall St, Maiden Ln, etc.).



**Access:** We should provide space for universally-accessible ramps up to the line of defense at existing and new access points.



**Infrastructure setbacks:** We will need to leave space around the FDR viaduct and flood defense infrastructure for maintenance access.



**Open Space:** We should replace the amount of waterfront open space that exists today and, as much as possible, improve on it.

# If buildings are considered appropriate beyond essential infrastructure, **where and to what extent?**

 Design Opportunity

Where are new buildings desirable? Not desirable?

 Design Opportunity

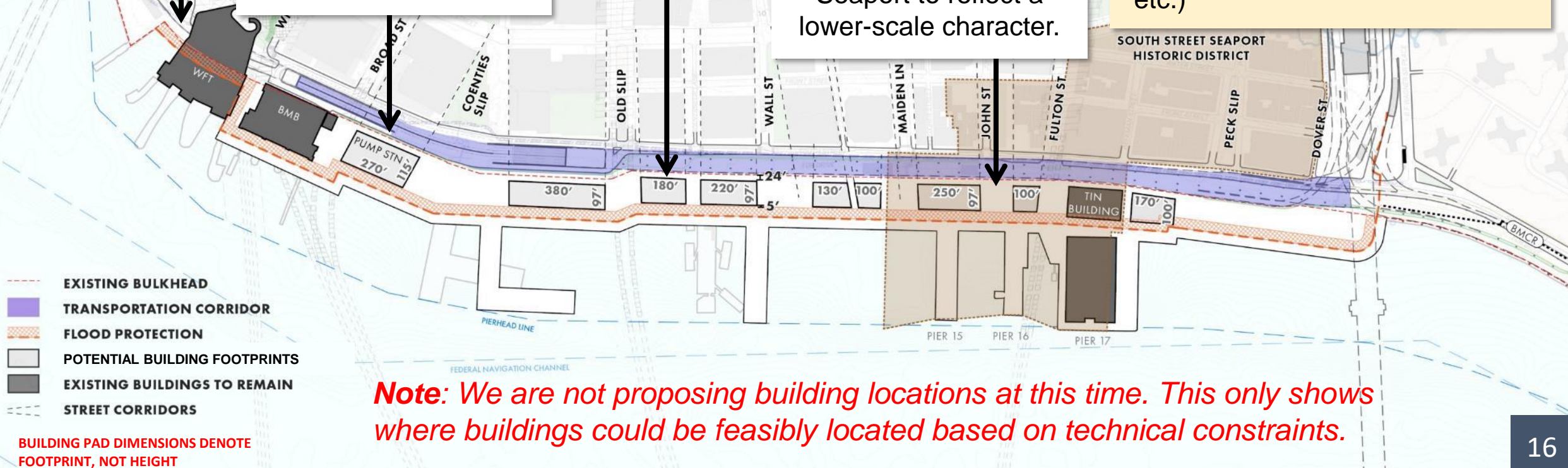
What uses should we prioritize, and where should we locate those uses? (e.g. residential, office, retail, community facilities, etc.)

We're studying **maritime-related buildings** at the southern end of the site.

We're exploring **taller buildings** South of Maiden Lane.

We're studying a **pump station** at this location.

We're exploring **shorter buildings** near the Seaport to reflect a lower-scale character.





We are analyzing a wide range of **building heights**, and we want to hear your feedback on these options today.



## Design Opportunity

What building heights are most appropriate?



**One- to two-story pavilions** may accommodate smaller-scale uses like retail, restaurants, and daycares.



**Four- to five-story buildings** may accommodate civic and cultural uses like schools, theaters, and museums.



**Mid-rise towers** may accommodate uses like housing, offices, and hotels.



**Taller towers** may accommodate most uses, at higher densities, especially large office tenants.

# We are analyzing the potential for new buildings to **generate funding** for flood defense infrastructure.

Early estimates suggest revenue from new buildings on a shoreline extension may help offset a portion of project costs.

- The amount of revenue available would vary greatly based on the *location, size, and types of uses* in new buildings.
- A more revenue-driven approach would mean a focus on denser residential and commercial uses, whereas adding more social infrastructure (e.g., civic and cultural spaces) would produce less revenue to help support the construction and/or operations & maintenance of the project.
- Revenue would only be available after constructing the shoreline extension, and the real estate market fluctuates over time.
- Revenue may also help support the project's long-term operations and maintenance costs.
- If we pursue less revenue from buildings, we will be more reliant on other Federal, State, and City funding sources.

***Next steps:*** We will continue to work with you to explore the most appropriate role for buildings to help achieve our project goals.

# Waterfront Esplanade and Maritime Activity

# How can we provide universal access back down to the water's edge - including continuous waterfront and maritime access?

At the water's edge, we need to accommodate both **current and future maritime uses**, including the space demands of growing ferry ridership, as well as a **continuous waterfront esplanade**.

## What we've heard:

- Maritime activity and water-related activities are defining elements of the neighborhood
- Protecting ferry service and maritime assets is important

## Technical drivers:

- Provide universal access to the waterfront and maritime uses
- Provide access for emergency vehicles
- Replace existing waterfront open space with new waterfront open space
- Ensure the project maintains continuity of operations of existing uses, including the Staten Island Ferry, intracity and regional commuter ferries, and the heliport

**Note:** This area will likely be flooded during larger storm events, so programming is limited.

Transportation Corridor

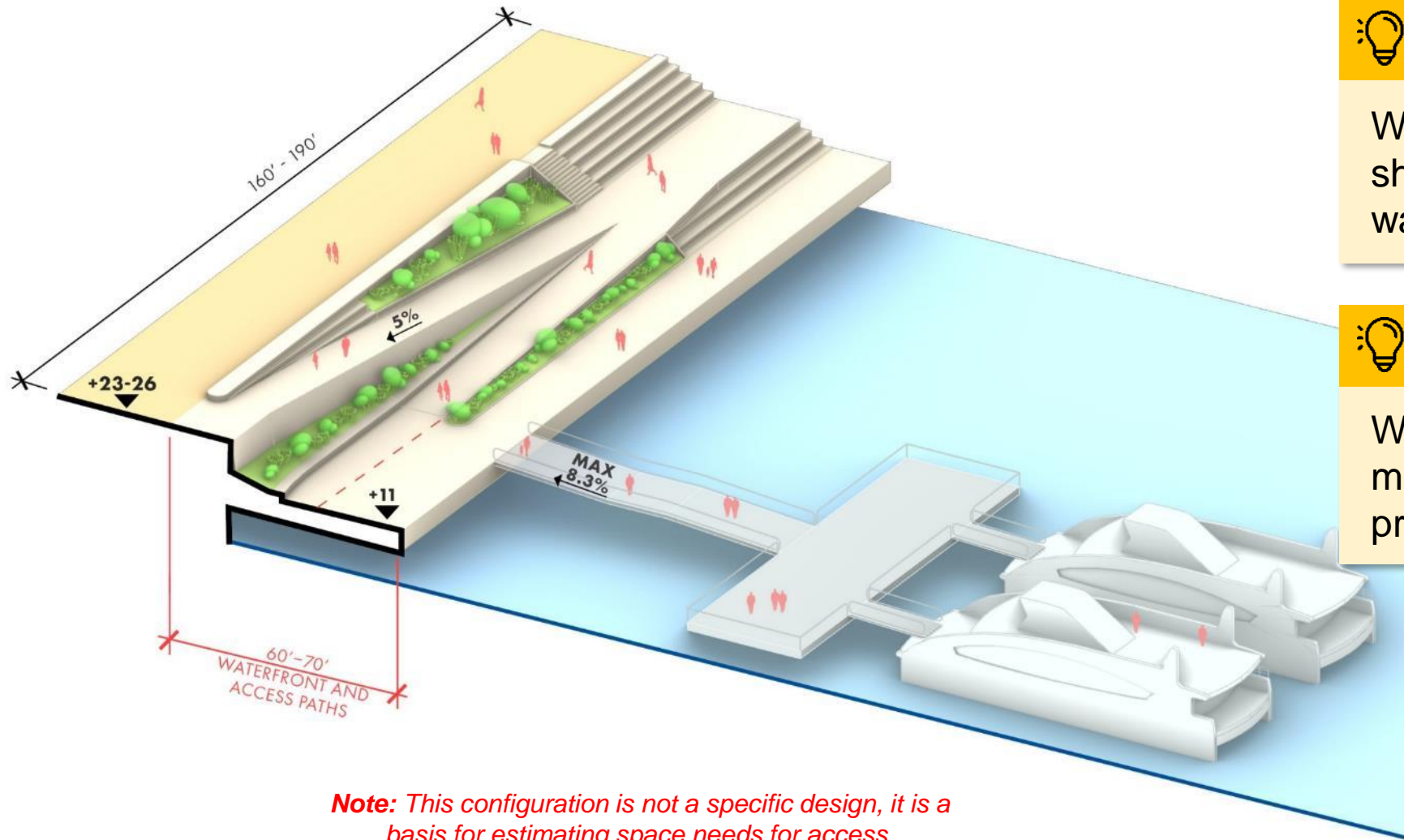
Publicly Accessible  
Flood Protection

Continuous  
Waterfront  
Access &  
Maritime

EXIST.  
BULKHEAD

# Waterfront & Maritime Access


Getting back down to the water, maritime uses, and a continuous waterfront esplanade along the East River



**Note:** This configuration is not a specific design, it is a basis for estimating space needs for access.

 Design Opportunity

What kinds of activities should we prioritize along the waterfront edge?

 Design Opportunity

What new or expanded maritime activities should we prioritize?