

# East Side Coastal Resiliency

Community Board 3  
Parks, Recreation, Waterfront and Resiliency  
Committee

30 Delancey Street  
(BRC Senior Services Center )

July 11, 2019





# **PRESENTATION AGENDA**

**PROJECT OVERVIEW & SCHEDULE**

**SITE SYSTEMS AND STRATEGY**

**DESIGN REVIEW**

**SITE ELEMENTS**



An aerial photograph of a city, likely New York City, showing a dense urban area with a large bridge crossing a body of water. The bridge has a suspension structure. Along the waterfront, there are several green sports fields, possibly baseball or soccer fields, and some trees. The image is overlaid with a semi-transparent teal color.

# **PROJECT OVERVIEW & SCHEDULE**



# PROJECT GOALS & ORIGIN

**Provide a reliable, integrated flood protection system; minimize use of closure structures.**

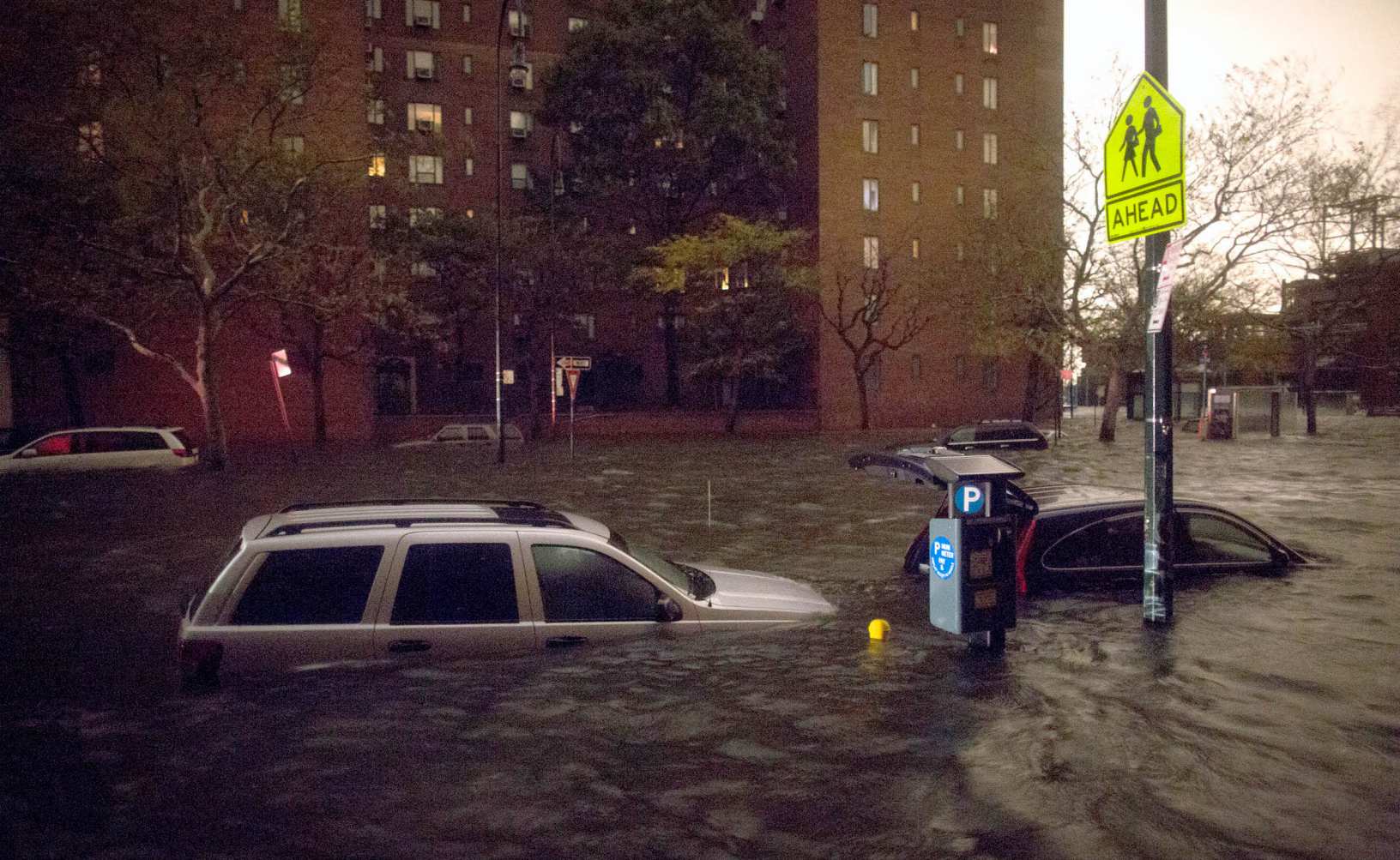
**Improve waterfront open spaces and access.**

**Achieve implementation milestones and project funding allocations as established by HUD.**

**Respond quickly to the urgent need for increased flood protection and resiliency.**







**PROVIDE FLOOD PROTECTION**





# OVERALL PROJECT AREA

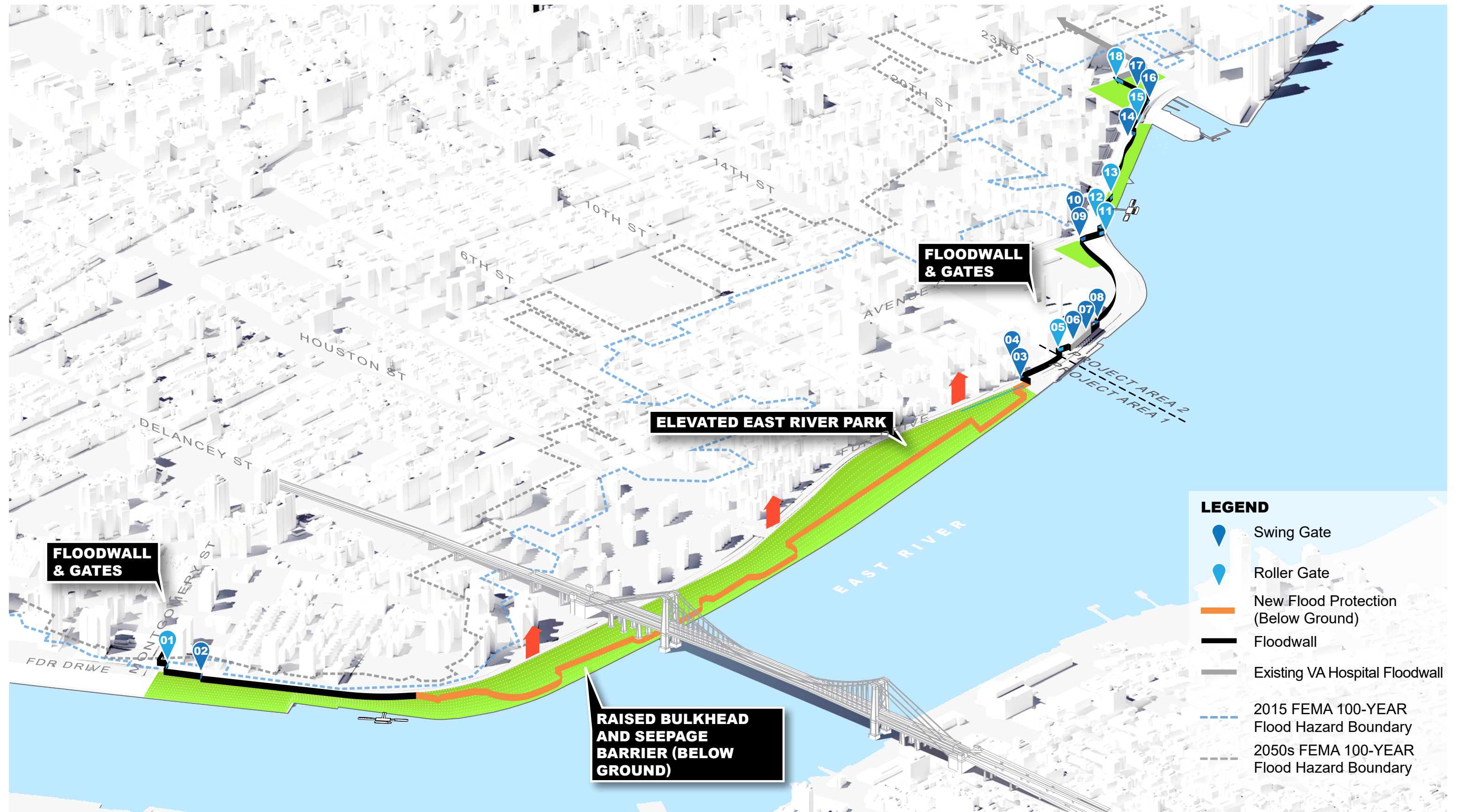
## PROJECT AREA 1 AND 2





# IMPROVED RESILIENCY FOR COMMUNITY

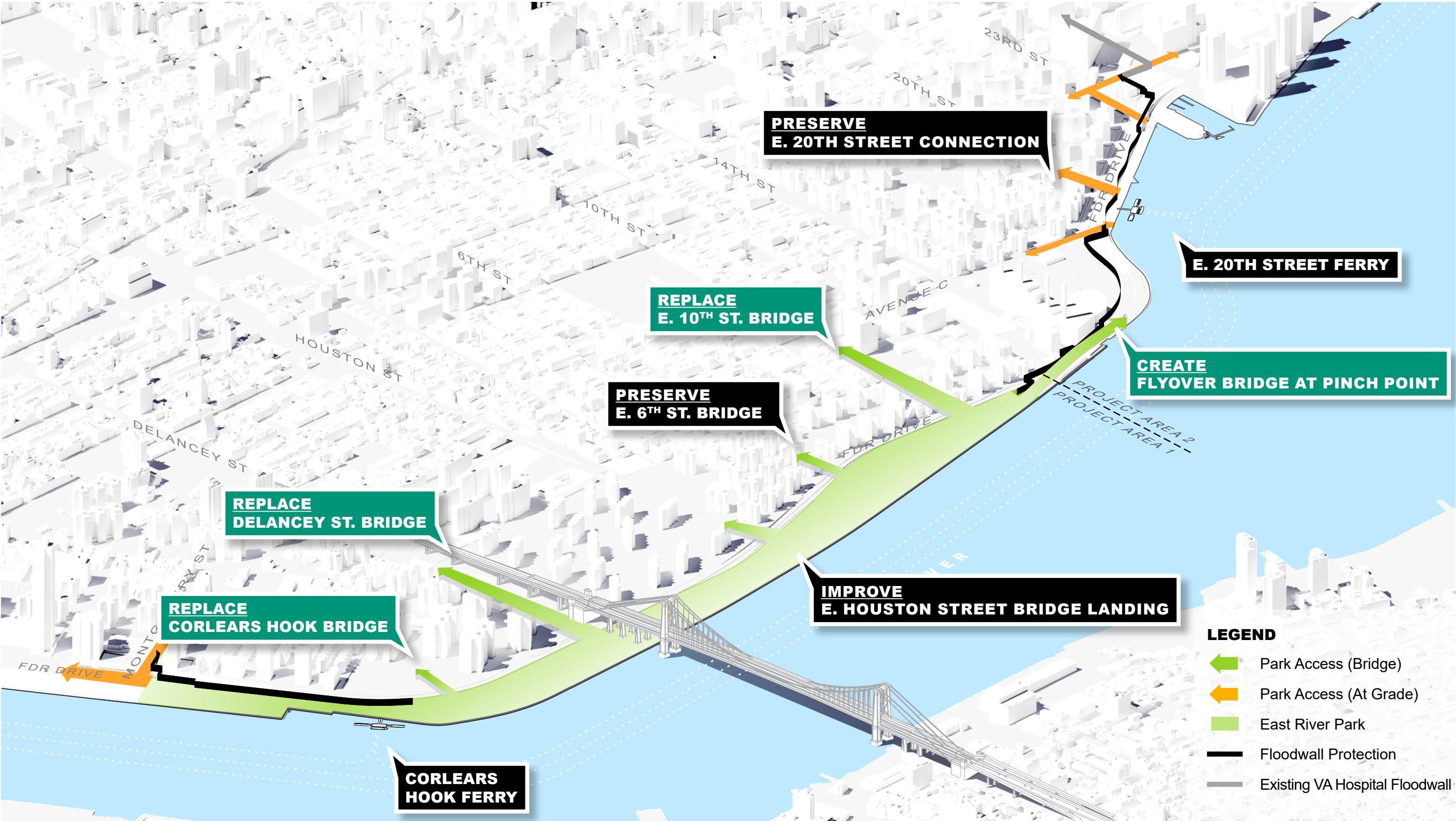
## INTEGRATED FLOOD PROTECTION SYSTEM





# IMPROVED WATERFRONT ACCESS

REPLACING, IMPROVING AND CREATING NEW CONNECTIONS





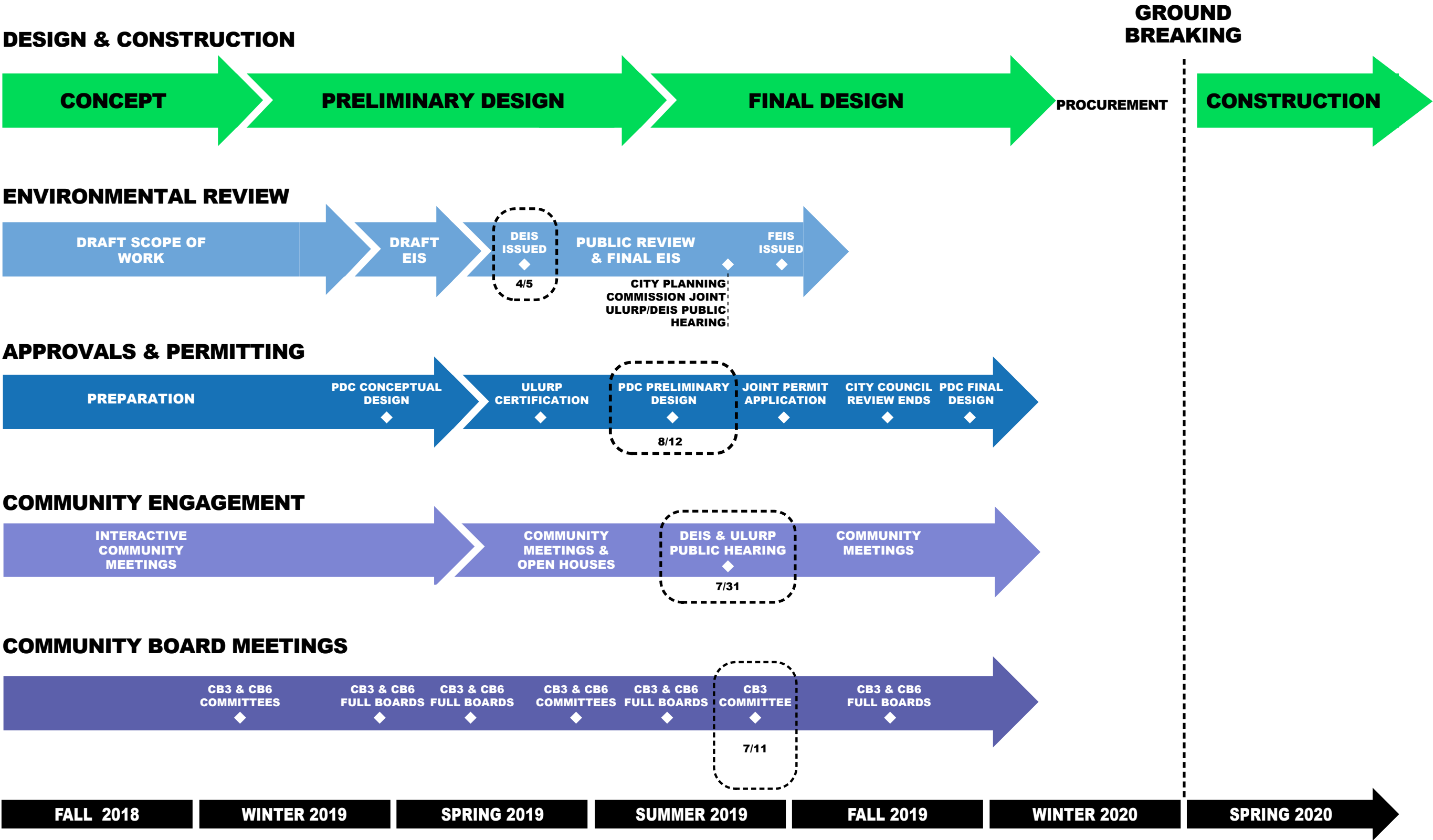
# IMPROVED SCHEDULE

OPERABLE SYSTEMS FOR 2023 HURRICANE SEASON





# PROJECT SCHEDULE OVERVIEW





An aerial photograph of a city, likely New York City, showing a dense urban grid. A prominent bridge, the Manhattan Bridge, spans a body of water in the lower right. Along the waterfront, there are several green spaces, including baseball fields and tennis courts, interspersed with buildings and infrastructure. The entire image is overlaid with a semi-transparent teal color.

# **SITE STRATEGY**

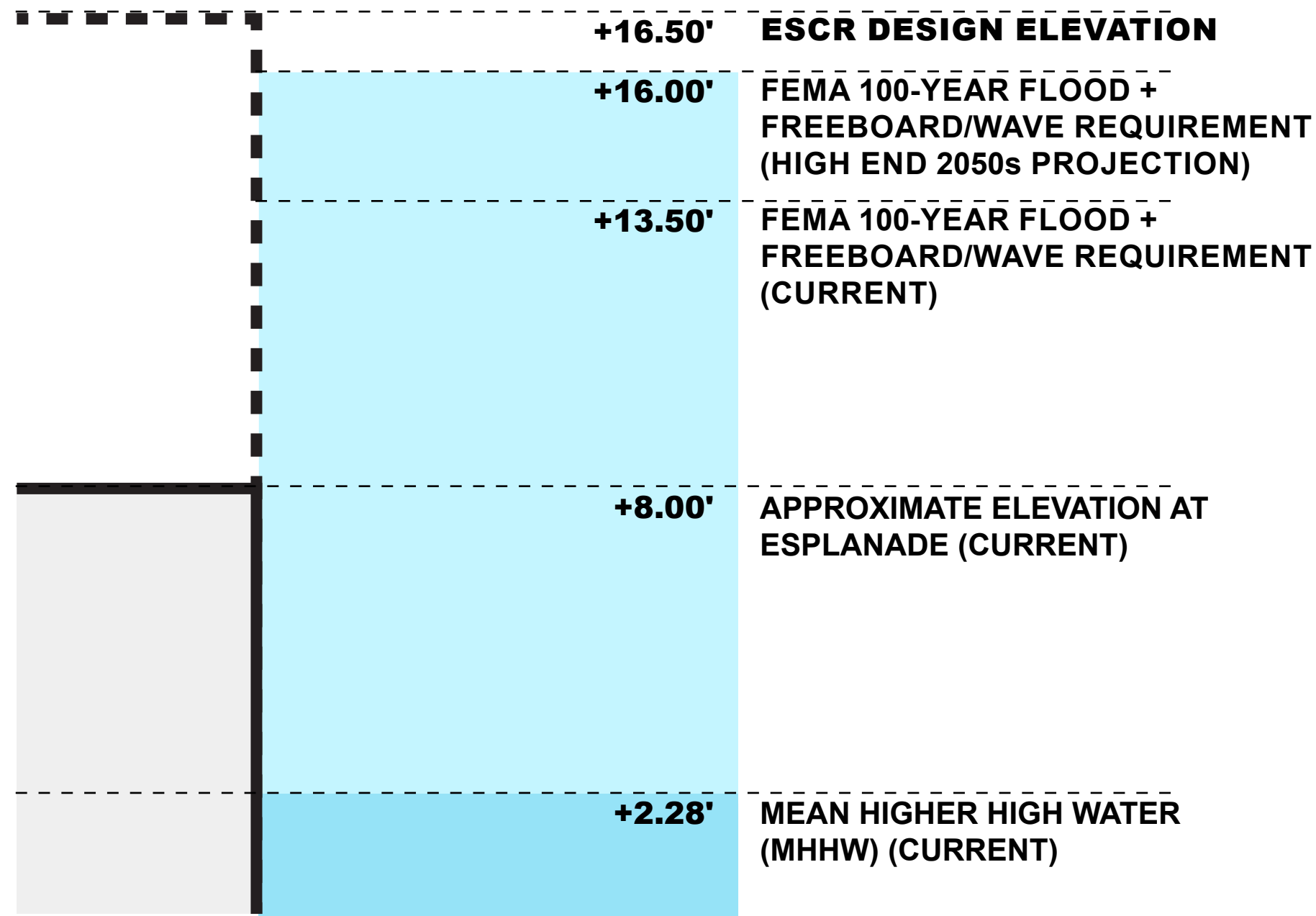


# SITE STRATEGY

## FLOOD DESIGN ELEVATIONS

**HUD FUNDING REQUIREMENT: THE SYSTEM MUST PURSUE FEMA ACCREDITATION WITH MINIMUM SYSTEM ELEVATION AT CURRENT FEMA 100-YEAR STORM ELEVATION + WAVE ACTION**

**DESIGN HEIGHT: DESIGN HEIGHT DETERMINED BY 2050s 100-YEAR STORM ELEVATION (INCL 30" SEA LEVEL RISE) + WAVE ACTION**





NOTE: ALL ELEVATIONS SHOWN IN NAVD88







# SITE STRATEGY

## FLOOD GATES



-  SWING GATE (11)
-  ROLLER GATE (7)

-  FLOOD PROTECTION (ABOVE GRADE)
-  FLOOD PROTECTION (BELOW GRADE)
-  CON EDISON PERIMETER PROTECTION (CLOSURE NOT SHOWN)
-  VA MEDICAL CENTER PERIMETER PROTECTION (CLOSURE NOT SHOWN)



TYPICAL SWING GATE

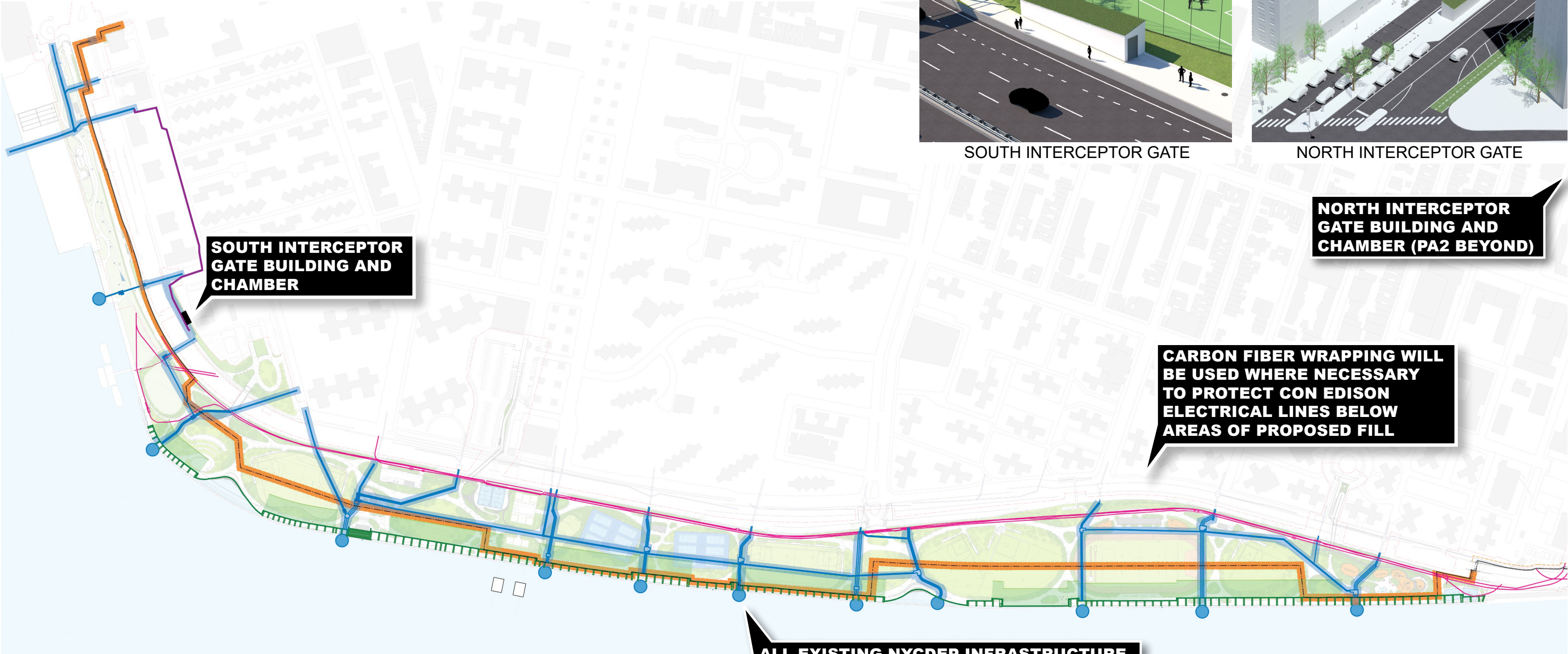


TYPICAL ROLLER GATE



# SITE STRATEGY

## UTILITIES



- ESPLANADE PIERS (LOADING CONSTRAINTS)
- ESPLANADE TIEBACKS & DEADMAN (ESTIMATED ZONE)
- ESPLANADE CUTOFF WALL
- FLOODWALL 15' PLANTING OFFSET
- FLOOD PROTECTION (ABOVE GRADE)
- FLOOD PROTECTION (BELOW GRADE)
- CONED ELECTRIC LINES
- DEP STRUCTURES
- DEP 15' PLANTING OFFSET
- PARALLEL CONVEYANCE



# SITE STRATEGY

## PARK CIRCULATION



ESPLANADE STRATEGY



GREENWAY STRATEGY



BRIDGE STRATEGY



- ESPLANADE CIRCULATION
- BIKE + PEDESTRIAN
- BIKE LANE ONLY
- BRIDGE CONNECTIONS
- EMBAYMENT



# NEW PARK BUILDINGS

PRELIMINARY DESIGN



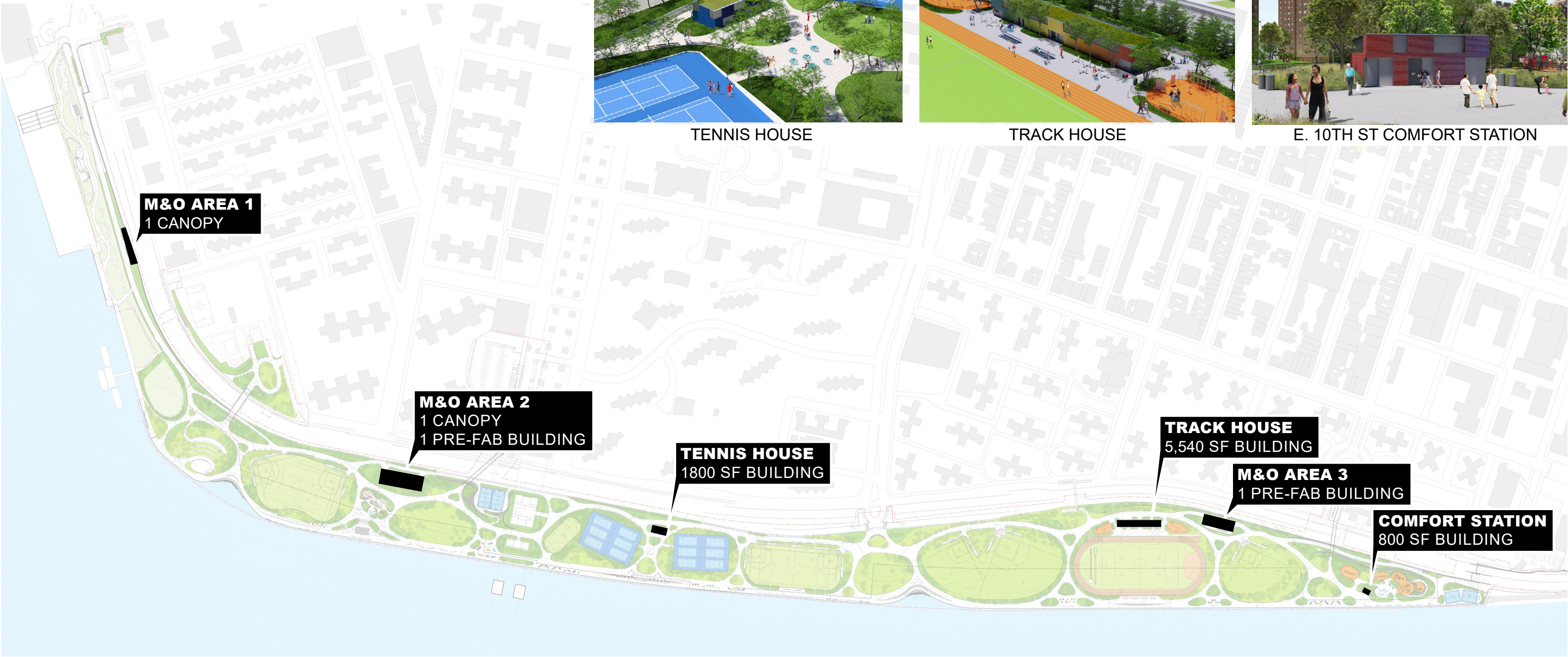
TENNIS HOUSE



TRACK HOUSE



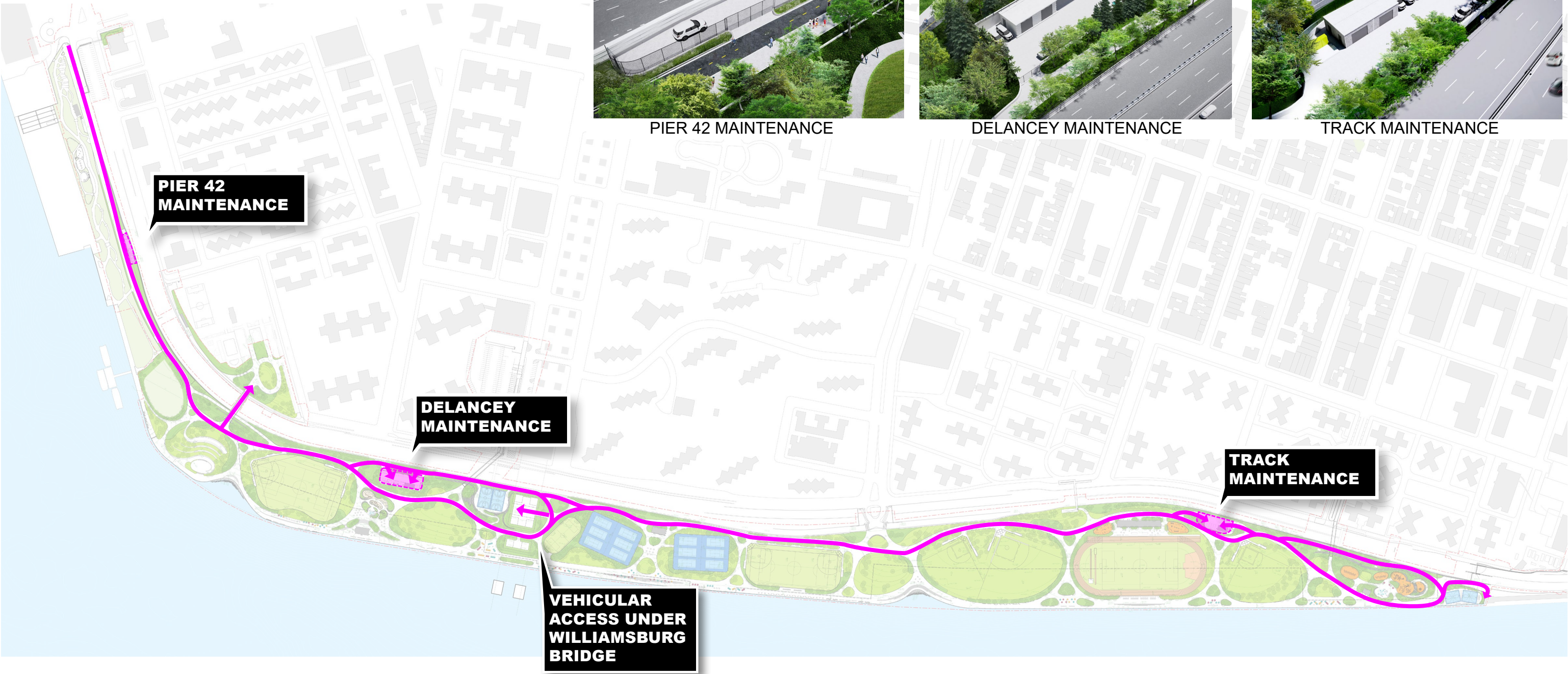
E. 10TH ST COMFORT STATION





# M&O AREAS

PRELIMINARY DESIGN



PIER 42 MAINTENANCE



DELANCEY MAINTENANCE



TRACK MAINTENANCE



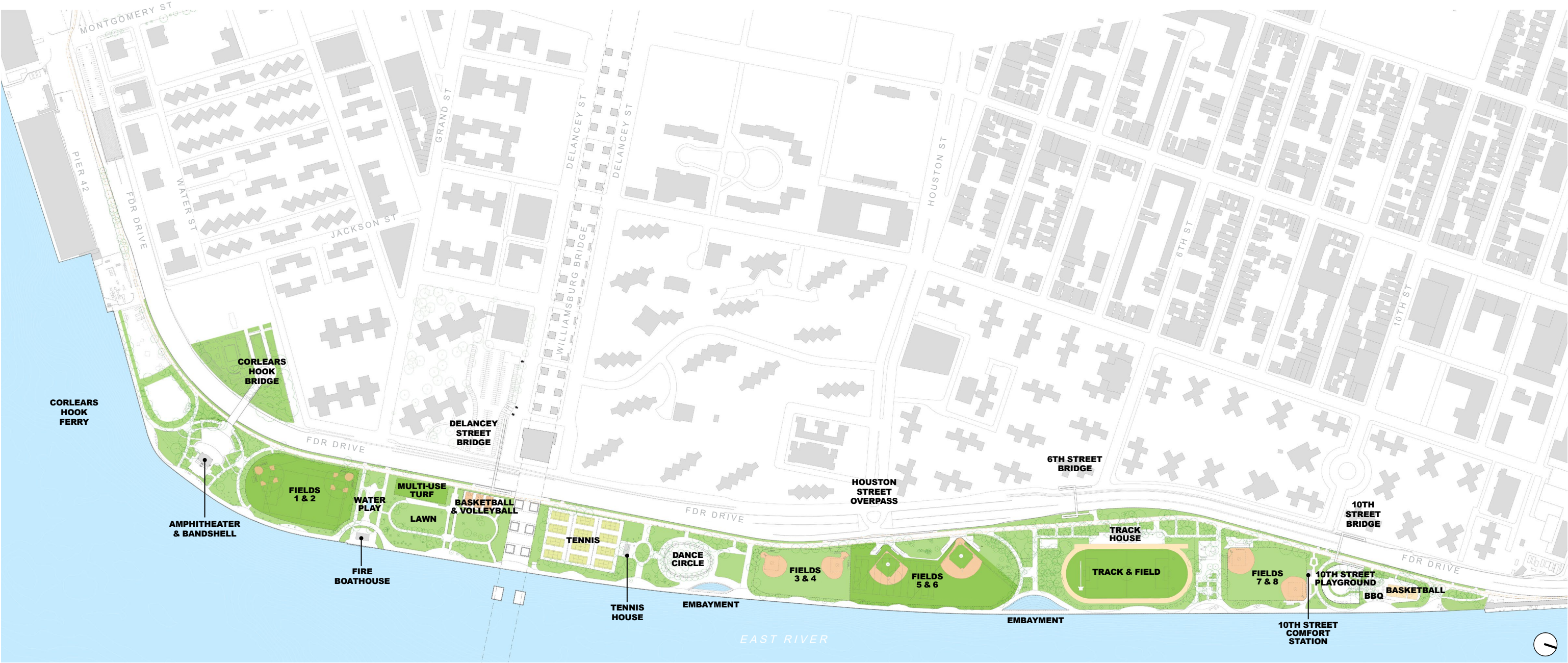
An aerial photograph of a city, likely New York City, showing a dense urban grid, a large river, and a suspension bridge. The image is overlaid with a semi-transparent teal gradient. In the center, the text "SITE DESIGN: PROJECT AREA 1" is displayed in a bold, white, sans-serif font.

# **SITE DESIGN: PROJECT AREA 1**



# PA1 SITE DESIGN

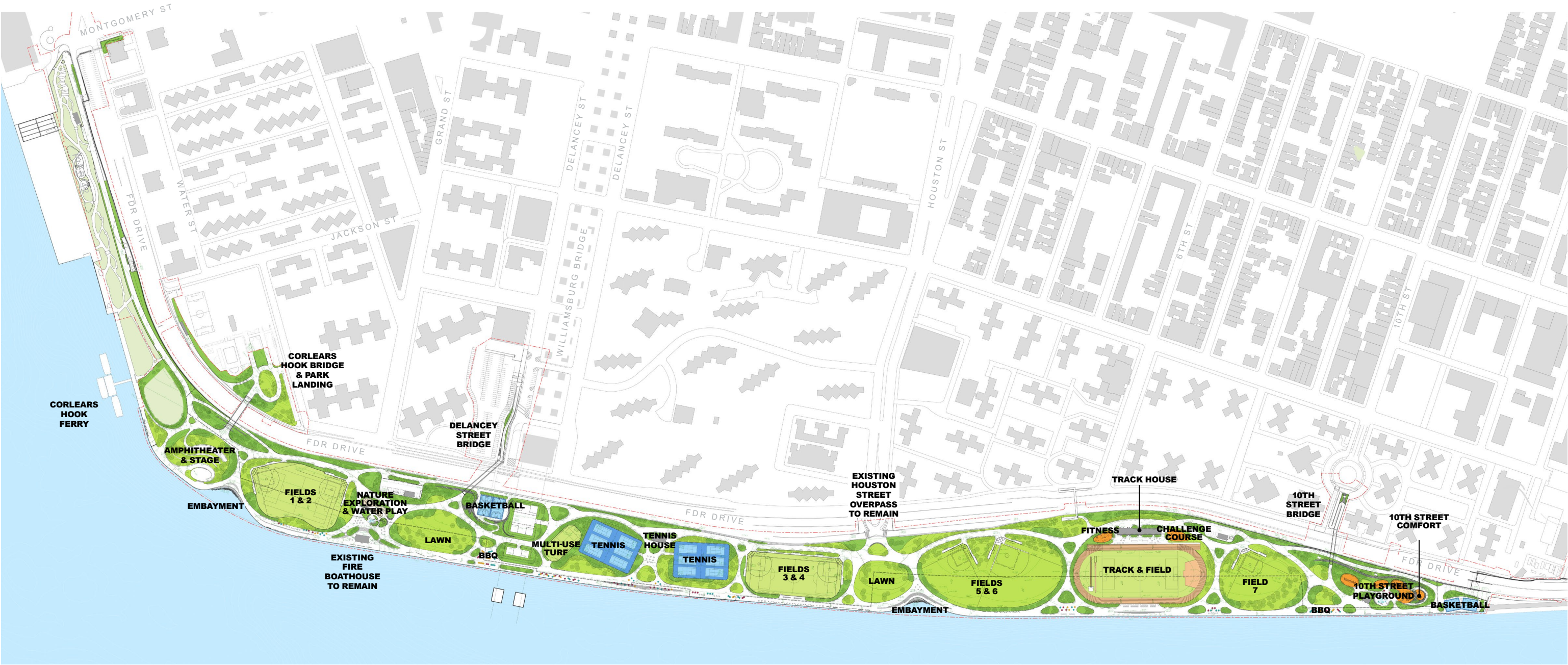
EXISTING CONDITIONS





# PA1 SITE DESIGN

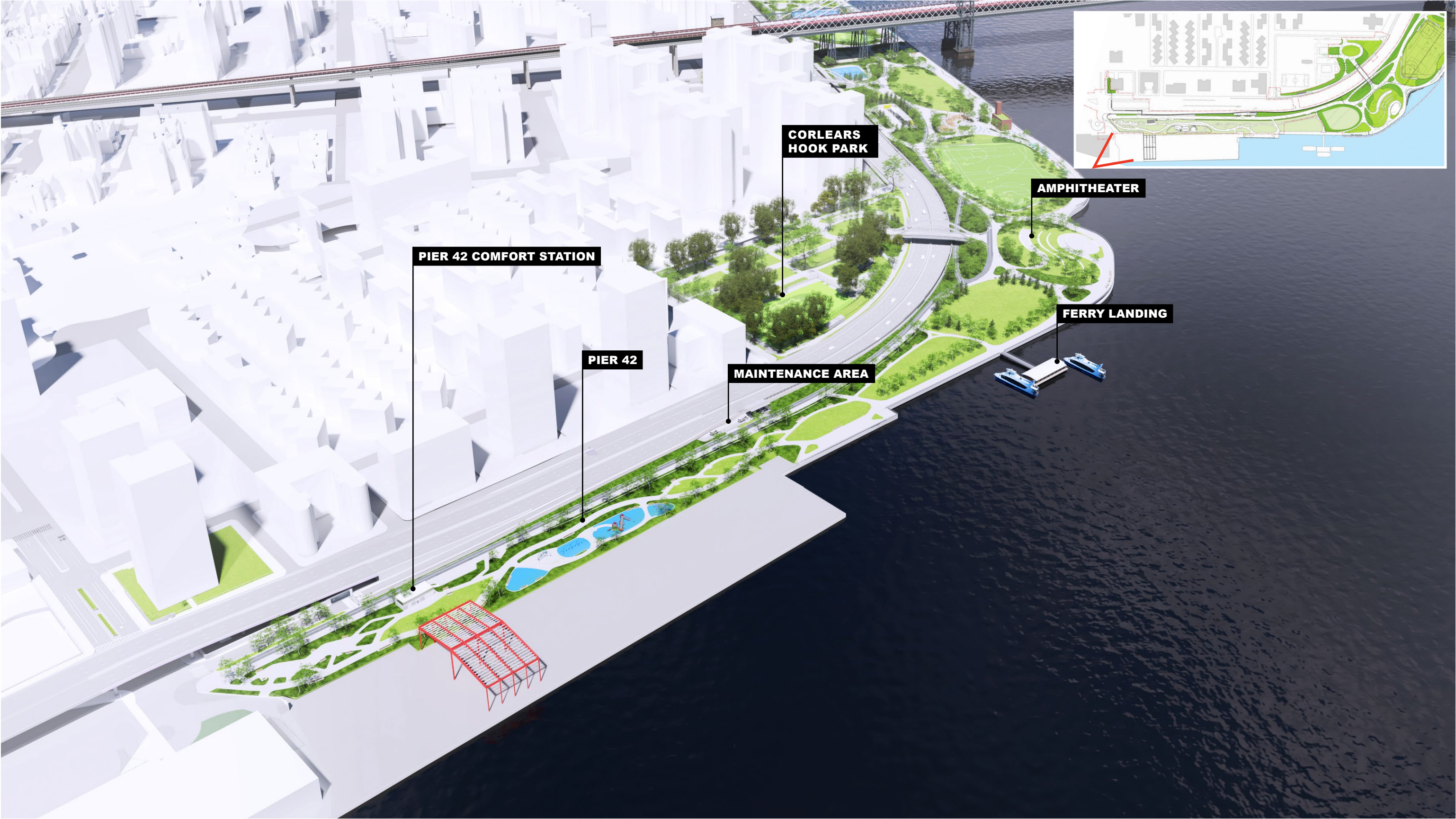
PRELIMINARY DESIGN





# PIER 42 AREA

PRELIMINARY DESIGN





# MONTGOMERY STREET TIE-BACK

FLOOD GATE IN OPEN POSITION



**FLOODWALL**  
TOP OF WALL: EL. +16.5  
WALL HT: APPROX. 1.5'

**FLOODWALL**  
TOP OF WALL: EL. +16.5  
WALL HT: APPROX. 4.5'

**FLOOD GATE IN  
OPEN POSITION**

**DESIGN TEAM IS STUDYING  
FLOODWALL FINISHES**



# MONTGOMERY STREET TIE-BACK

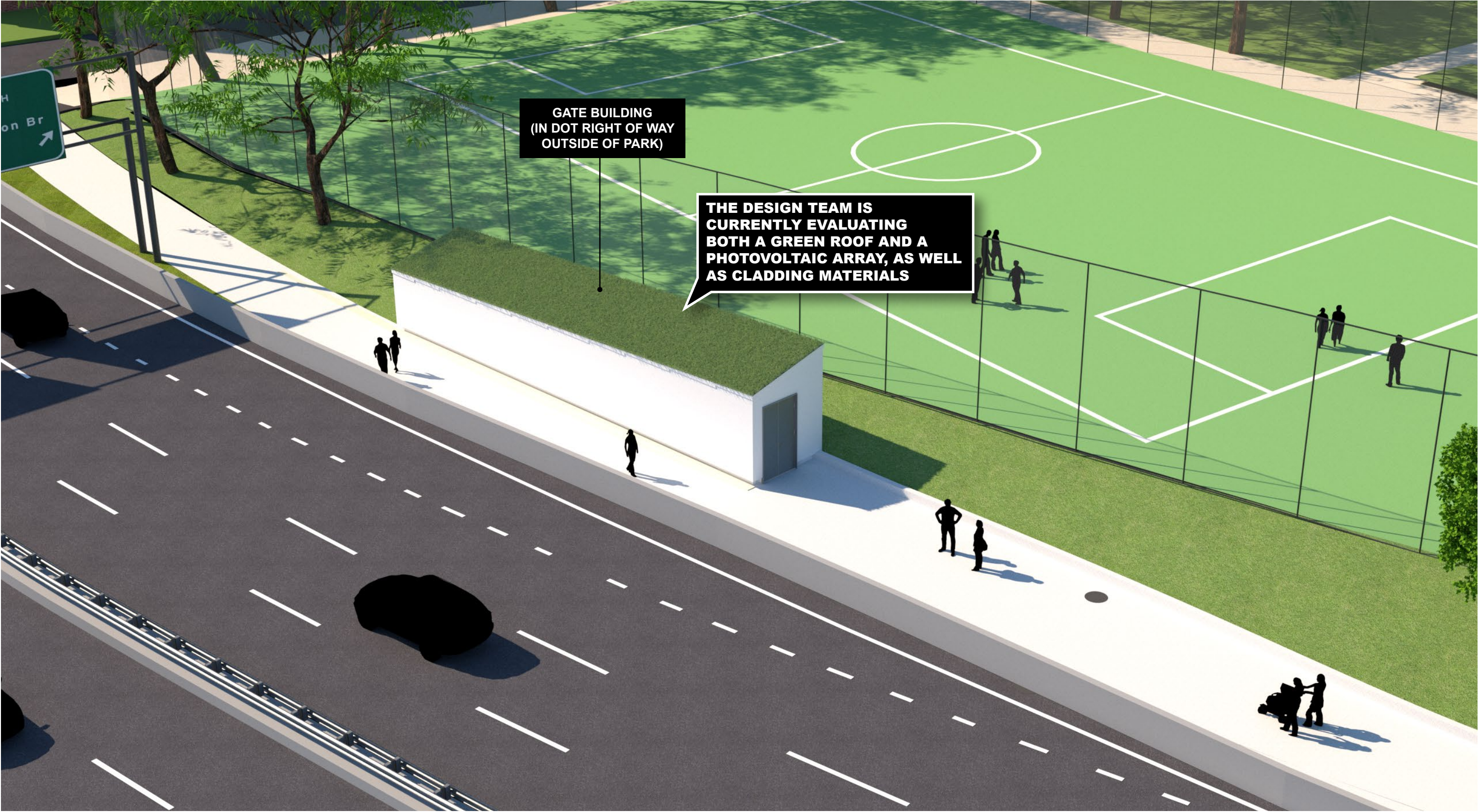
FLOOD GATE IN CLOSED POSITION





# SOUTH GATE BUILDING

PRELIMINARY DESIGN





# CORLEARS HOOK TO DELANCEY STREET

PRELIMINARY DESIGN





# CORLEARS SHARED USE PATH

PRELIMINARY DESIGN





# AMPHITHEATER

PRELIMINARY DESIGN





# CORLEARS HOOK BRIDGE LANDING

PRELIMINARY DESIGN



**AMPHITHEATER DESIGN  
IS IN PROGRESS**



# NATURE EXPLORATION & WATER PLAY

PRELIMINARY DESIGN





# NATURE EXPLORATION & WATER PLAY

PRELIMINARY DESIGN





# DELANCEY BRIDGE

PRELIMINARY DESIGN





# DELANCEY BRIDGE LANDING

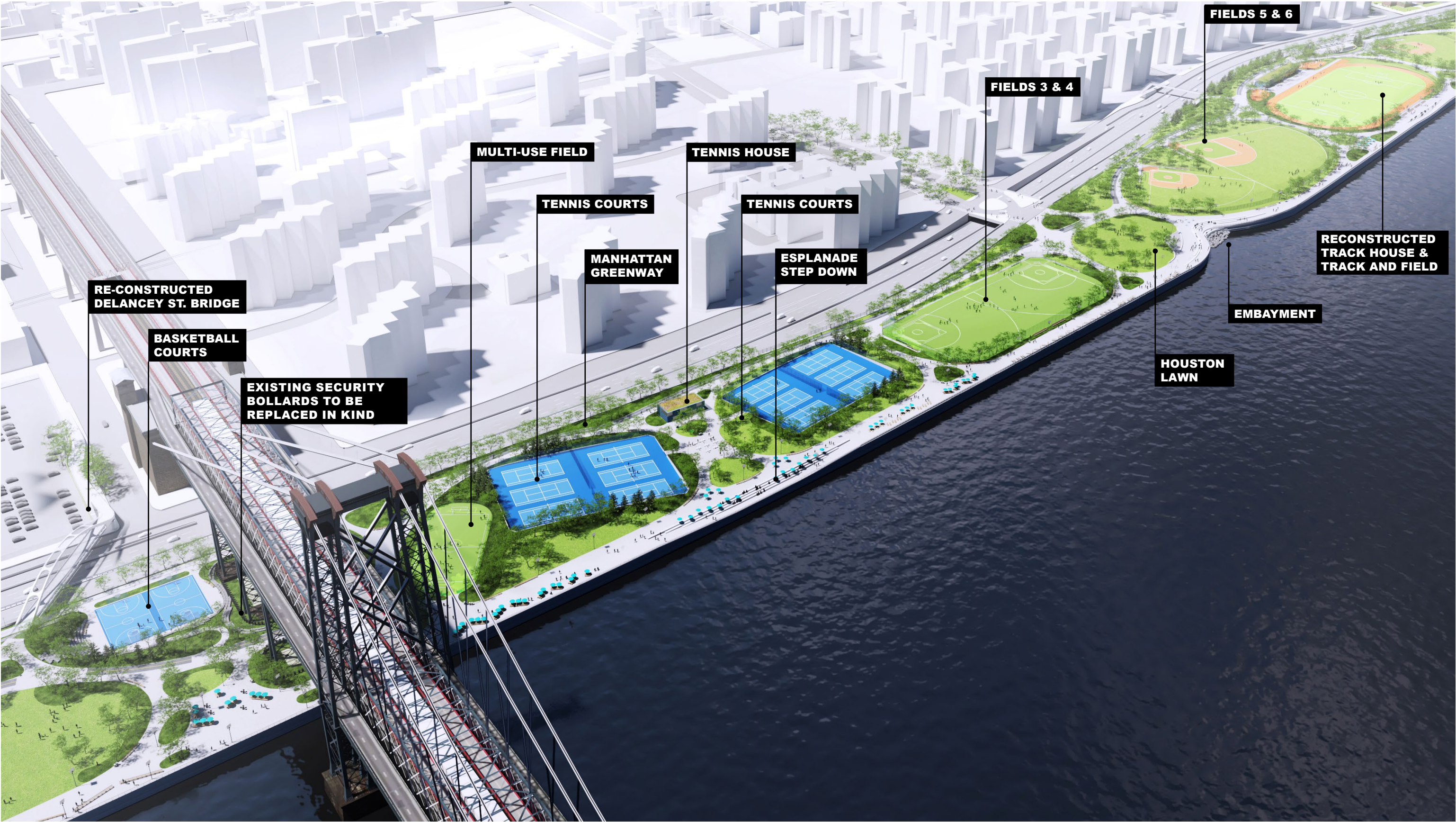
PRELIMINARY DESIGN





# HOUSTON STREET

PRELIMINARY DESIGN





# TENNIS HOUSE

PRELIMINARY DESIGN





# TENNIS HOUSE

PARK VIEW





# HOUSTON STREET ENTRANCE

PRELIMINARY DESIGN





# ESPLANADE EMBAYMENT

PRELIMINARY DESIGN





# TRACK & EAST 10TH STREET

PRELIMINARY DESIGN





# TRACK AND FIELD

PRELIMINARY DESIGN





# TRACK AND FIELD

PRELIMINARY DESIGN



**FITNESS AREA DESIGN  
IS IN PROGRESS**

**CHALLENGE COURSE  
DESIGN IS IN PROGRESS**



# TRACK HOUSE

PARK VIEW





# 10TH STREET BRIDGE

FDR VIEW





# 10TH STREET BRIDGE

PARK VIEW





# 10TH STREET BBQ

PRELIMINARY DESIGN





# 10TH STREET COMFORT STATION

PRELIMINARY DESIGN





# 10TH STREET PLAYGROUND

PRELIMINARY DESIGN





# FDR DRIVE GATE

GATE IN OPEN POSITION





# FDR DRIVE GATE

GATE IN CLOSED POSITION





# E. 13TH ST. FLOOD PROTECTION

FUTURE FLYOVER AERIAL VIEW





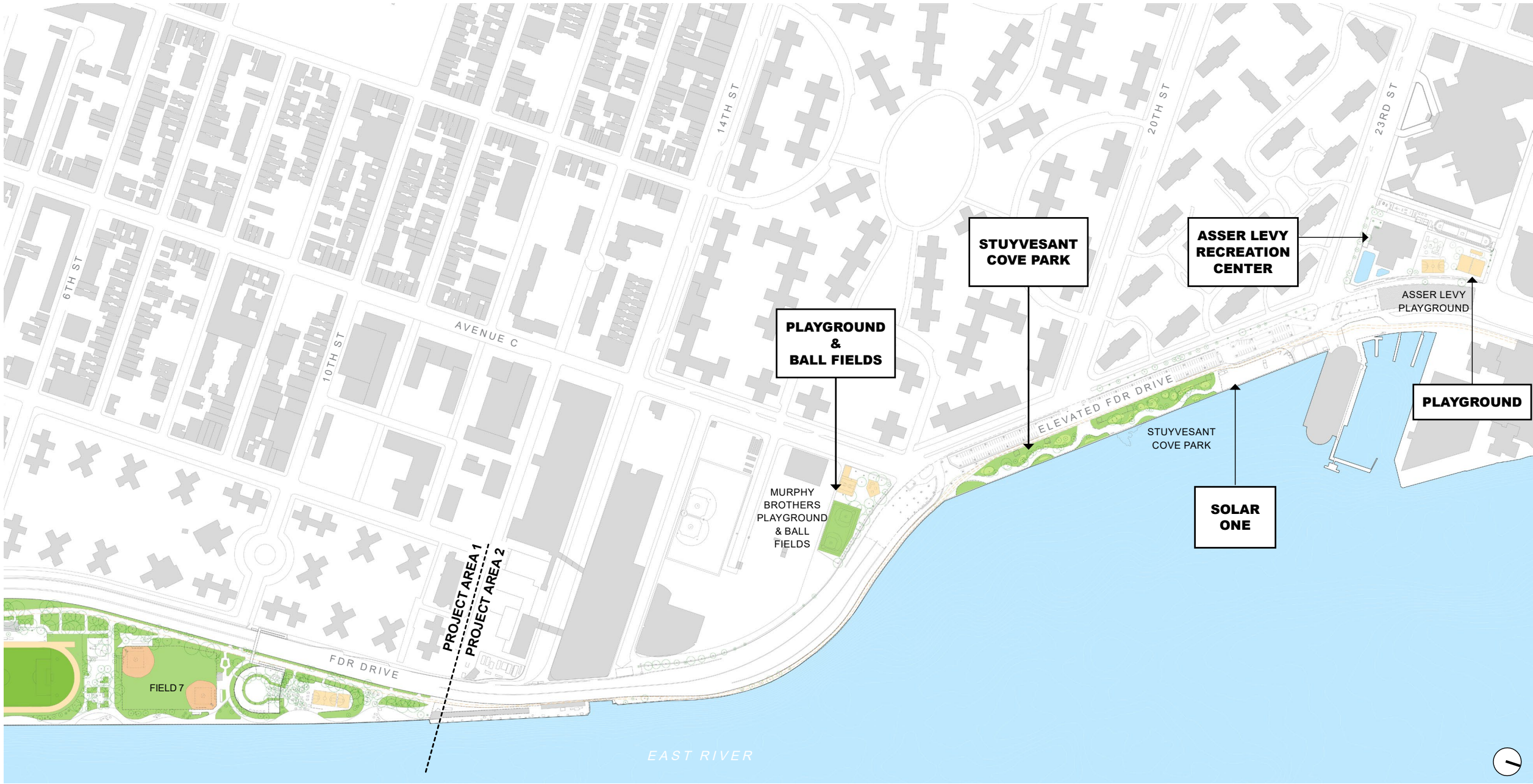
An aerial photograph of a city, likely New York City, showing a dense urban grid, a large river, and a suspension bridge. The image is overlaid with a semi-transparent teal filter. In the foreground, a park area with green fields and trees is visible along the riverbank. The text "SITE DESIGN: PROJECT AREA 2" is centered over the image in a bold, white, sans-serif font.

# **SITE DESIGN: PROJECT AREA 2**



# SITE DESIGN PA 2

EXISTING CONDITIONS





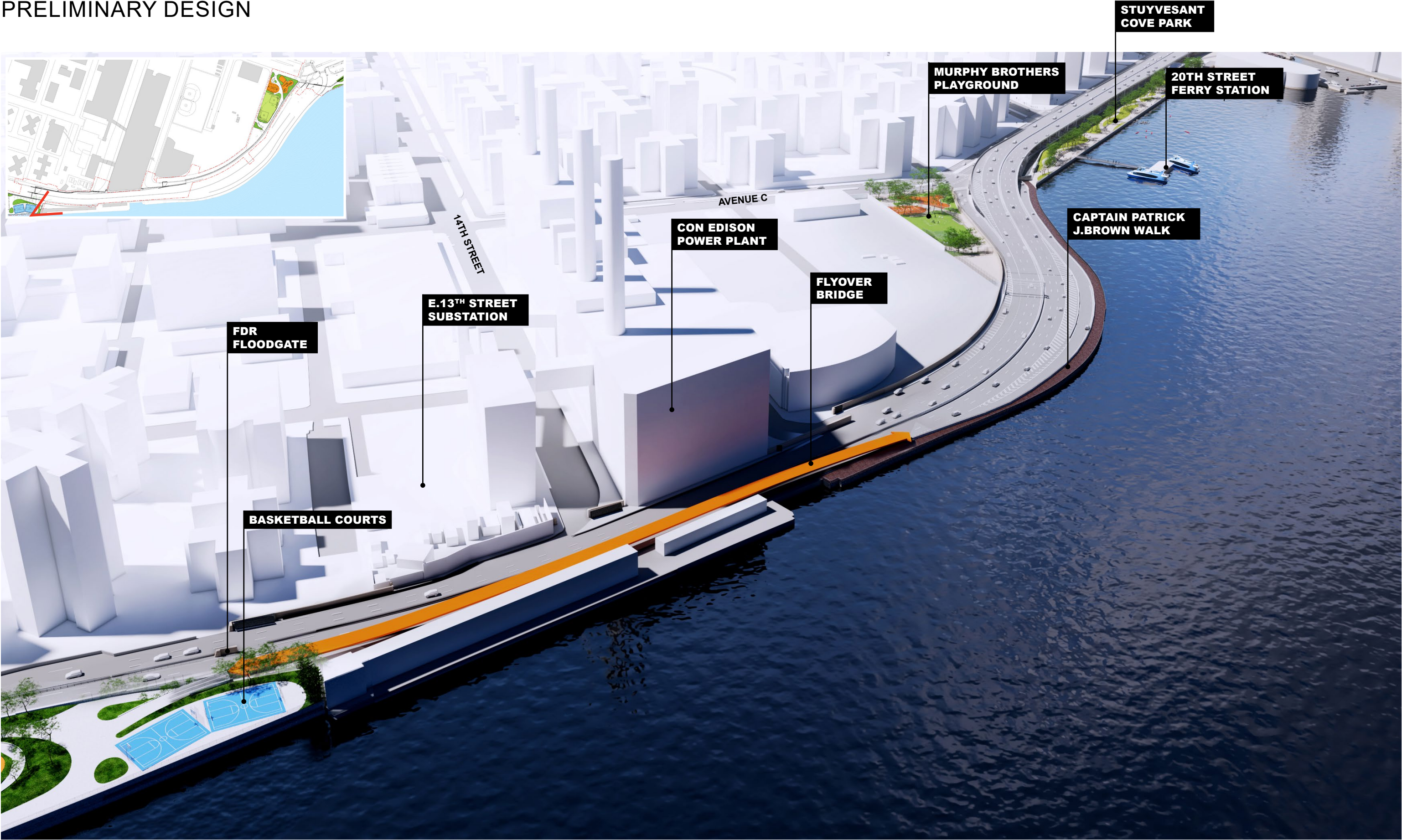
**SITE DESIGN PA 2**  
PRELIMINARY DESIGN





# FLYOVER BRIDGE

PRELIMINARY DESIGN





# PROJECT AREA 2

PRELIMINARY DESIGN





# MURPHY BROTHERS PLAYGROUND

PRELIMINARY DESIGN





# MURPHY BROTHERS PLAYGROUND

PRELIMINARY DESIGN





# STUYVESANT COVE PARK

PRELIMINARY DESIGN





# STUYVESANT COVE PARK

PRELIMINARY DESIGN





# NORTH GATE BUILDING

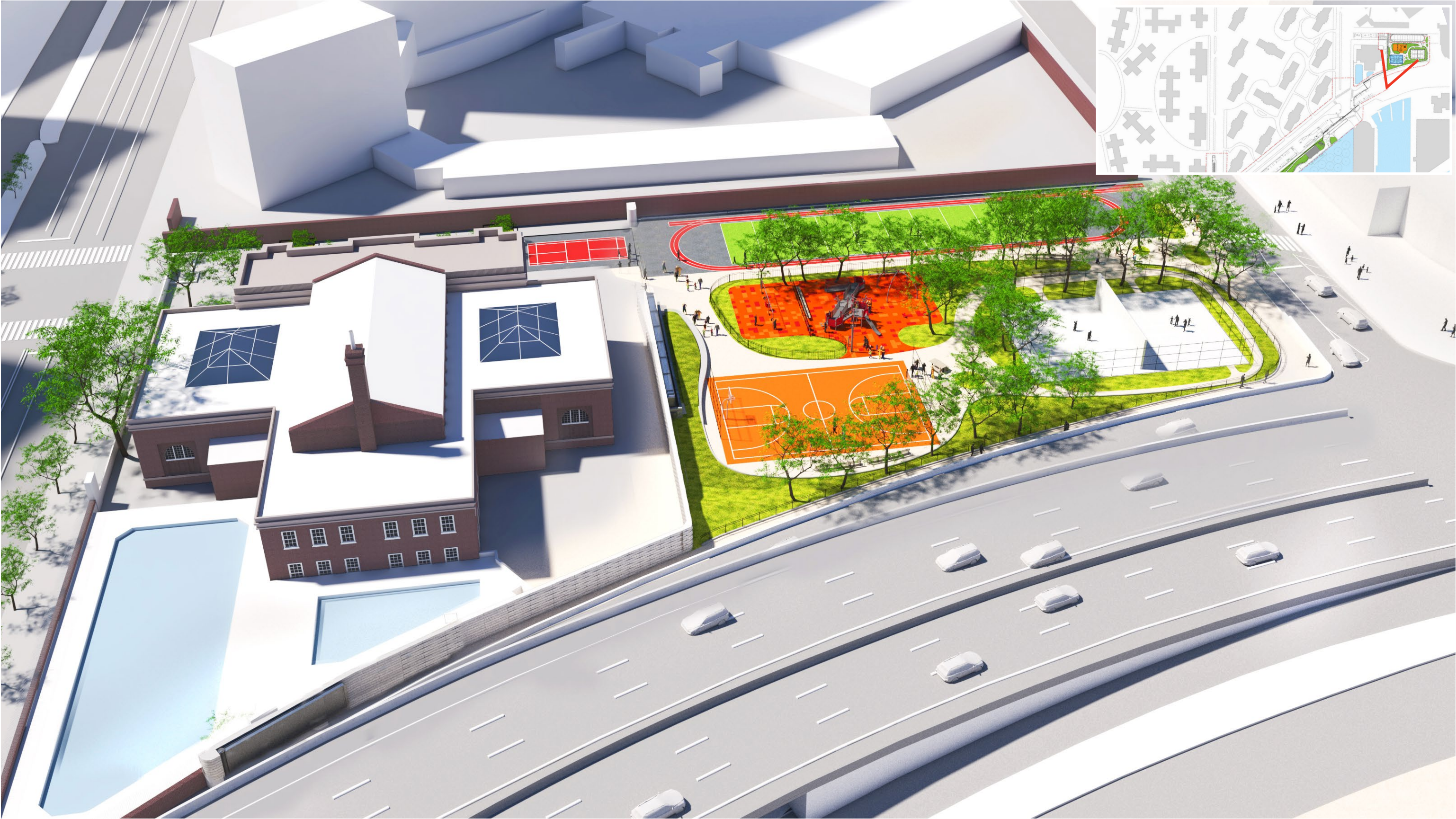
PRELIMINARY DESIGN





# ASSER LEVY PLAYGROUND

PRELIMINARY DESIGN





# DESIGN RESPONSE TO COMMUNITY INPUT

## PRELIMINARY DESIGN

- **NEW LIGHTING** INTRODUCED THROUGHOUT THE PARK INCLUDING EVEGEN SOLAR, FLUSHING MEADOW, TYPE B, SPORTS TOWER, DOT DAVIT AND TYPE M LIGHTS;
- **SOLAR LIGHTING** ADDED ALONG THE ESPLANADE IN EAST RIVER PARK (UNDER REVIEW);
- **FLYOVER BRIDGE** TO BE BUILT BY THE CITY AS A SEPARATE PROJECT TO CONNECT EAST 13TH & EAST 15TH STREETS;
- **PREVENTATIVE MEASURES TO DISCOURAGE SKATEBOARDING** INCLUDED IN DESIGN CRITERIA;
- **NEW AMPHITHEATER, TWO BBQ AREAS, OUTDOOR FITNESS AREA & CHALLENGE COURSE** ADDED WITHIN EAST RIVER PARK;
- **BASKETBALL COURTS** ARE PROVIDED BOTH AT DELANCEY AND 10TH STREETS;
- **TREES** PLANTED TO MAXIMIZE SHADE WHEREVER POSSIBLE;
- **THE HIGHWAY FENCE** HAS BEEN REVISED TO A DESIGN BASED ON NYC PARKS' STANDARD STEEL FENCE. THE DESIGN ALSO MINIMIZES THE EXTENT OF THE HIGHWAY FENCE TO ONLY THOSE LOCATIONS REQUIRED BY DOT TRAFFIC PROTECTION STANDARDS.



An aerial photograph of a city waterfront, likely New York City, featuring a large suspension bridge crossing a body of water. The city skyline is visible in the background, and several green sports fields are situated along the waterfront. The image is overlaid with a semi-transparent teal filter.

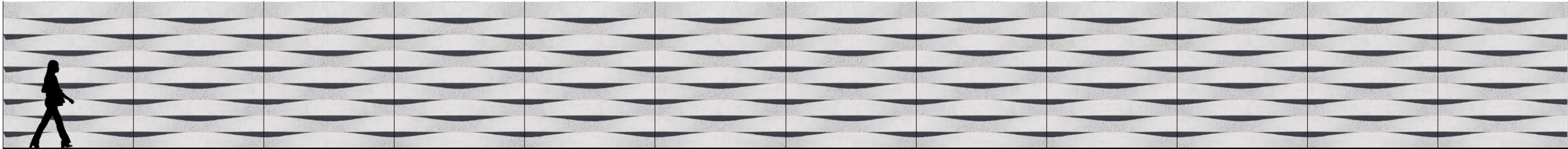
# **SITE ELEMENTS**



# FLOOD AND HIGHWAY WALLS

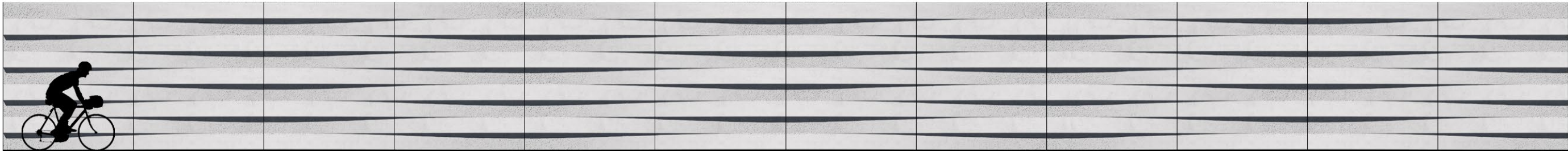
## WALL FINISH TOOLKIT

SHORT MODULES



PEDESTRIAN PATH 3.1 MPH = 4.5 FT/S

MEDIUM MODULES



BIKING PATH 9.6 MPH = 14 FT/S

LONG MODULES

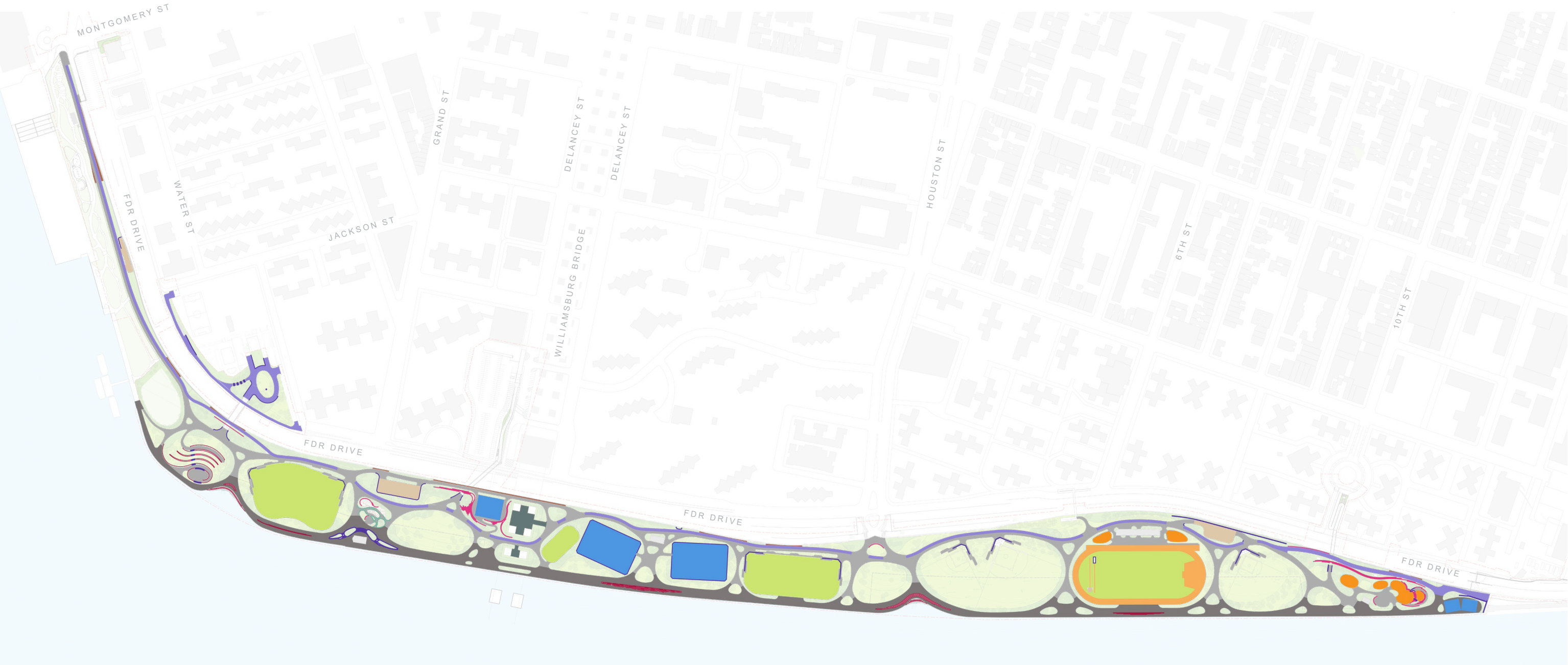


FDR DRIVE 40 MPH = 58.6 FT/S



# PARK MATERIALS

## KEY PLAN



- |  |  |
|--|--|
| EXPOSED AGGREGATE CONCRETE PAVEMENT (PATHWAYS)     | SAFETY SURFACE (PLAY AND FITNESS AREAS)          |
| CONCRETE UNIT PAVERS (ESPLANADE)                   | RESILIENT SPORT SURFACE                          |
| ASPHALT PAVEMENT (BIKE LANE, PATHWAYS)             | ASPHALT PAVEMENT WITH COLOR SEAL (SPORTS COURTS) |
| CEMENT CONCRETE PAVEMENT (MAINTENANCE)             | PRECAST CONCRETE (SEATWALLS)                     |
| GRANITE BLOCK PAVEMENT (ALONG FLOODWALL)           | POURED IN PLACE CONCRETE (WALLS AND STAIRS)      |
| PERMEABLE PAVERS                                   | STONE (SLOPE AND EDGES)                          |
| SYNTHETIC TURF (FIELDS 1, 2, 3, 4 & TRACK INFIELD) | STEEL EDGE (NATURE EXPLORATION AREA)             |



# LIGHTING

## KEY PLAN



--- ESCR LIMIT OF WORK

● EVERGEN M SERIES SOLAR LIGHT 18' POLE  
(UNDER REVIEW)

● FLUSHING MEADOWS 12' POLE

● TYPE B LIGHT 12' POLE

▲ SPORTS TOWER 60'-80' POLE

▲ SPORTS TOWER 30' POLE

● DOT DAVIT 30' POLE

● DOT DAVIT 14' POLE

● EXISTING LIGHT TO REMAIN

● TYPE M LIGHT

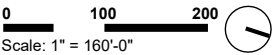
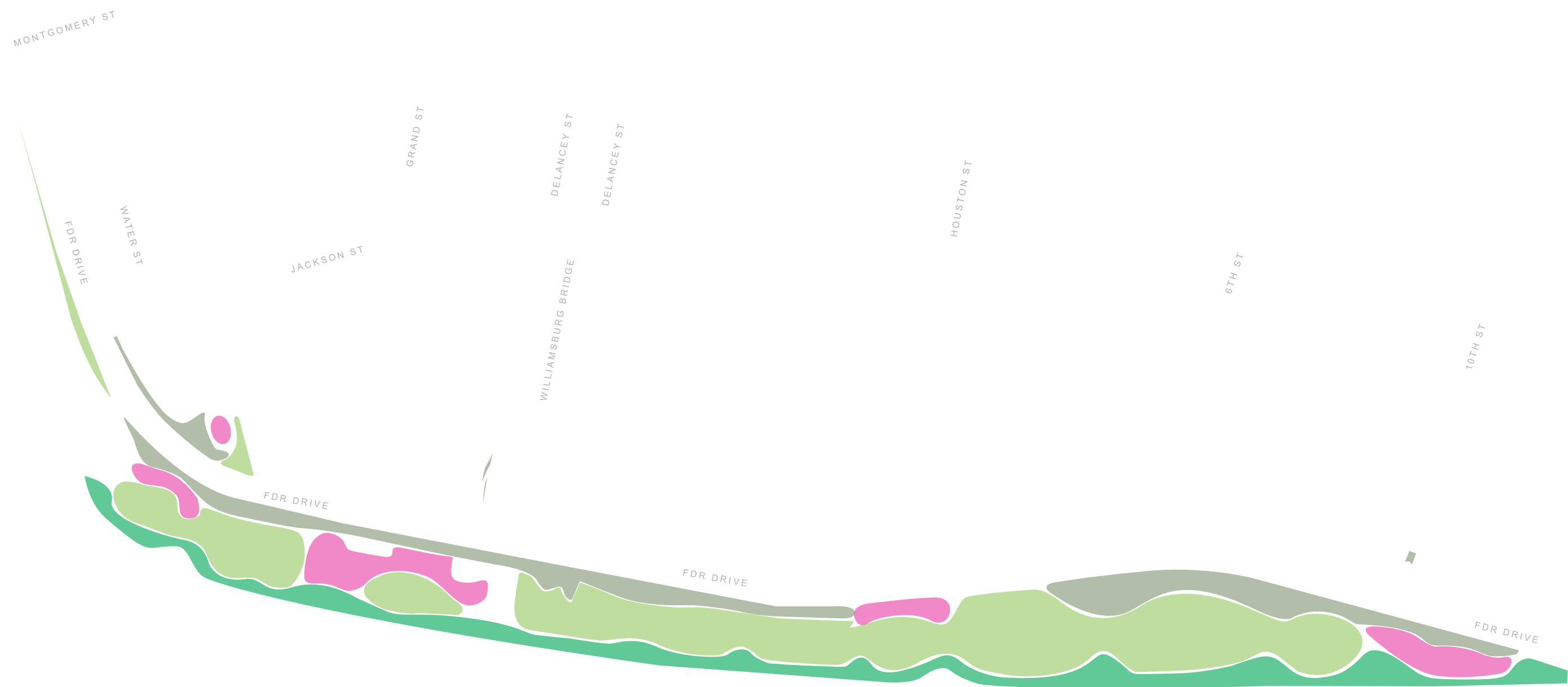
● TYPE M LIGHT MOUNTED ON FLOODWALL

0 100 200  
Scale: 1" = 160'-0"



# PLANTING

## SPATIAL CONCEPT KEY PLAN



**WOODLAND  
EDGES**

**PASTORAL  
OPENINGS**

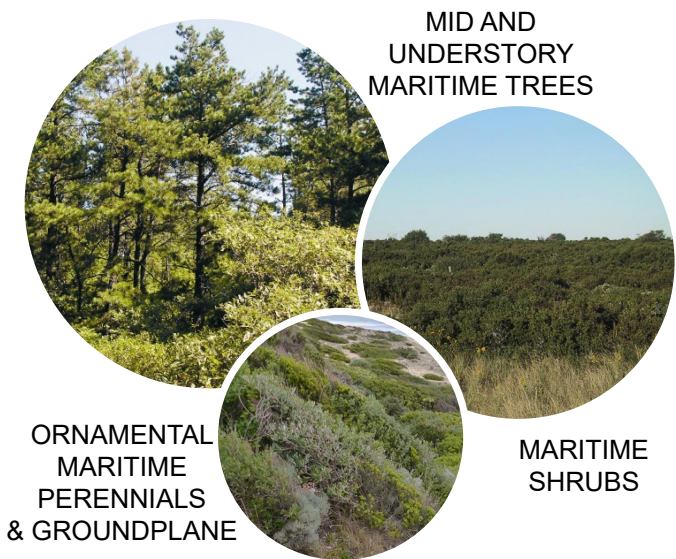
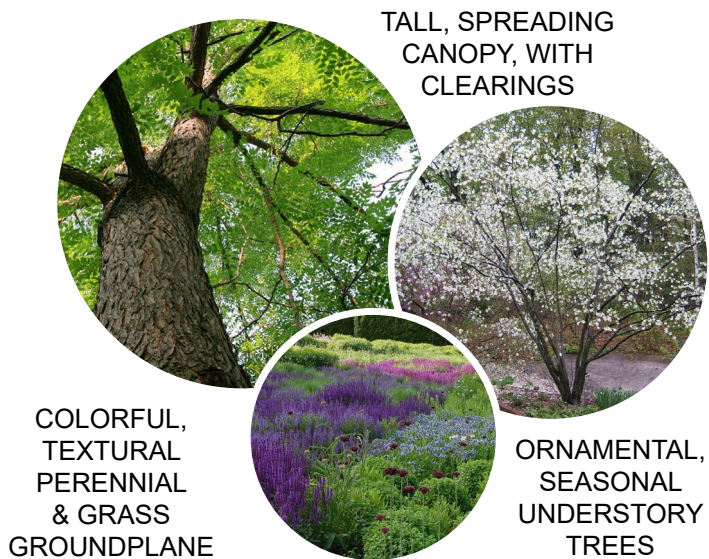
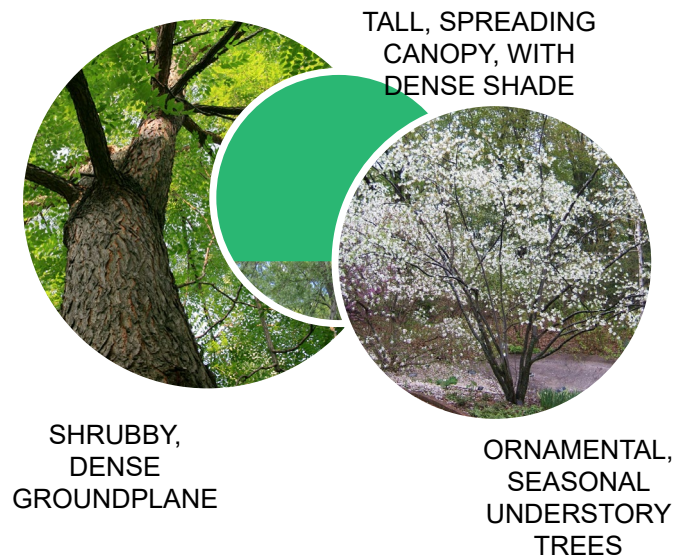
**LAYERED  
GROVES**

**MARITIME  
EDGES**

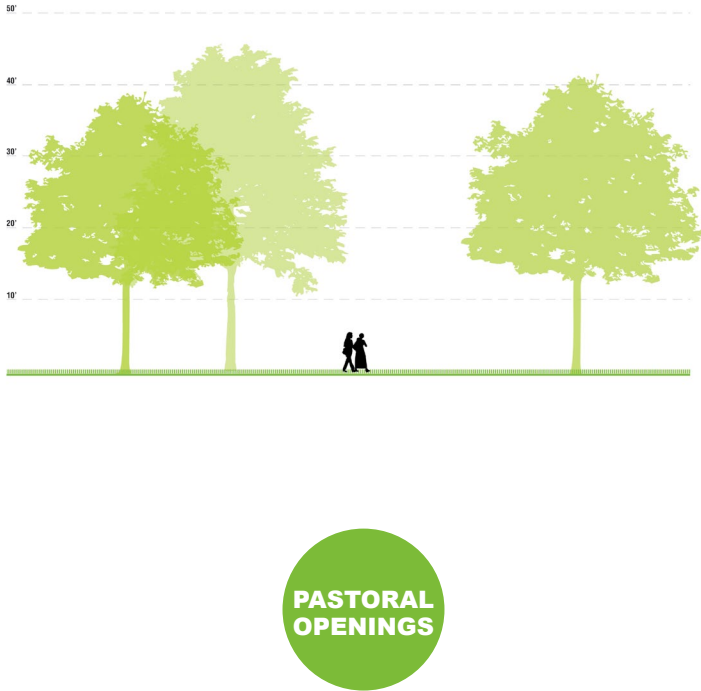


# PLANTING

## SPATIAL CONCEPT



- Location: Western urban edge of park. Ornamental understory trees, conifers, shrubs, and perennials provide visual interest along paths and slopes while buffering views
- Maintenance: Trees, shrubs, groundcovers



- Location: Open lawns and spectator areas
- Lawn groundplane maintains open sight lines and open circulation
- Maintenance: Trees, lawn



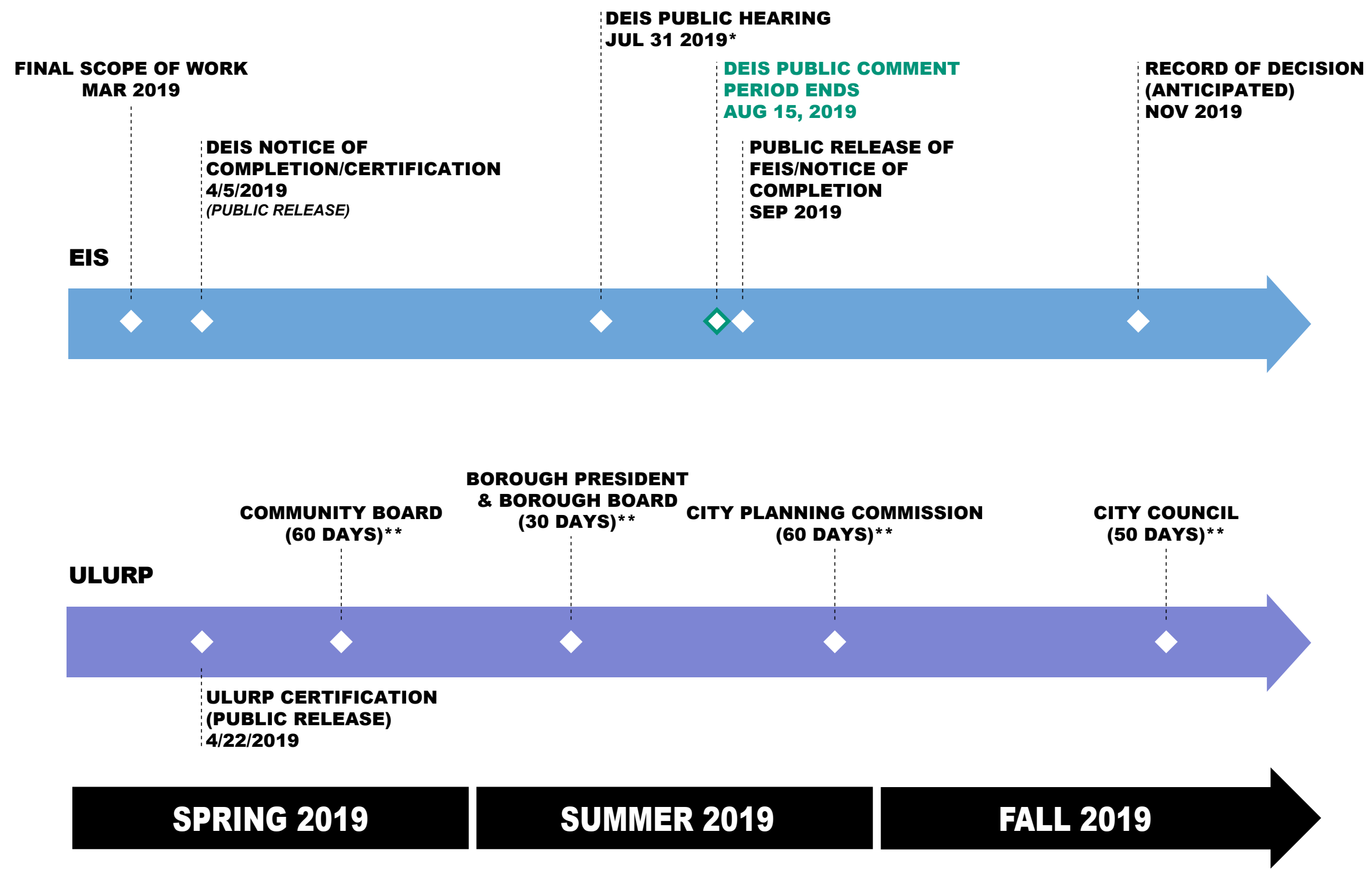
- Location: Clearing edges and special areas
- Ornamental understory trees and a low perennial groundplane maintain veiled, eye-level sight lines
- Maintenance: Trees, garden beds



- Location: Maritime edges of open spaces and esplanade
- Mid and Understory trees, maritime evergreens, shrubs, and grasses provide shade and interest along the river edge
- Maintenance: Trees, shrubs, grasses



# NEXT STEPS: PUBLIC INPUT TO THE EIS/ULURP PROCESSES



\* DEIS COMMENT PERIOD EXTENDS 15 DAYS AFTER PUBLIC HEARING  
\*\* INCLUDES PUBLIC HEARING



# Website

NYC

East Side Coastal Resiliency

311

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The East Side Coastal Resiliency Project

Home

Vision


Background

Progress

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Draft Environmental Impact Statement (DEIS) Now Available for Review and Comments ▸

The East Side Coastal Resiliency Project

The East Side Coastal Resiliency (ESCR) Project is a coastal protection initiative, jointly funded by the City of New York and the federal government, aimed at reducing flood risk due to coastal storms and sea level rise on Manhattan's East Side from East 25th Street to Montgomery Street.

The ESCR Project is a priority of the City of New York as outlined in the 2015 *One New York: The Plan for a Strong and Just City* and by the innovative Rebuild by Design competition sponsored by the U.S. Department of Housing and Urban Development (HUD). The project design intends to integrate flood protection into the community fabric, improving access to the waterfront rather than walling off the neighborhood.

Partners

NYC DDC

Department of Design and Construction

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