

East Side Coastal Resiliency

CB3 Full Board Meeting
166 Essex Street (PS 20)

December 19, 2019



PRESENTATION AGENDA

PROJECT BACKGROUND

DESIGN

PARK MATERIALS & PLANTING

SUSTAINABLE DESIGN

CONSTRUCTION



PROVIDE FLOOD PROTECTION



PROJECT BACKGROUND

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.



WHAT WE'VE HEARD

DESIGN PHASE

- Signage design and neighborhood identity
- Contextually appropriate design for buildings
- Skateboard deterrent
- Waterplay Feature
- Amphitheater design and canopy
- Emergency access: Houston St. and Colears Hook Bridge
- Additional BBQ areas in East River Park
- Tree plantings and shade
- Planted vs hardscape surface (permeable vs impermeable)
- Active vs passive space

CONSTRUCTION PHASE

- Fireboat House
- Accommodating LESEC
- Activate Waterside Pier and Pier 42 deck
- Mitigation strategies for interim rec and district amenities
- Phased construction timeline
- Spring-Summer 2020 construction work
- Noise and dust mitigation during construction
- Outreach and social media during construction



DESIGN

SITE DESIGN

WHAT WE'VE HEARD

WATER PLAY

NATURE PLAY

EMBAYMENTS

FITNESS FOR DIFFERENT USER GROUPS

BBQ

BASKETBALL COURTS

PROJECT AREA 1

SITE DESIGN



WATER PLAY FEATURES

EQUIPMENT PALETTE



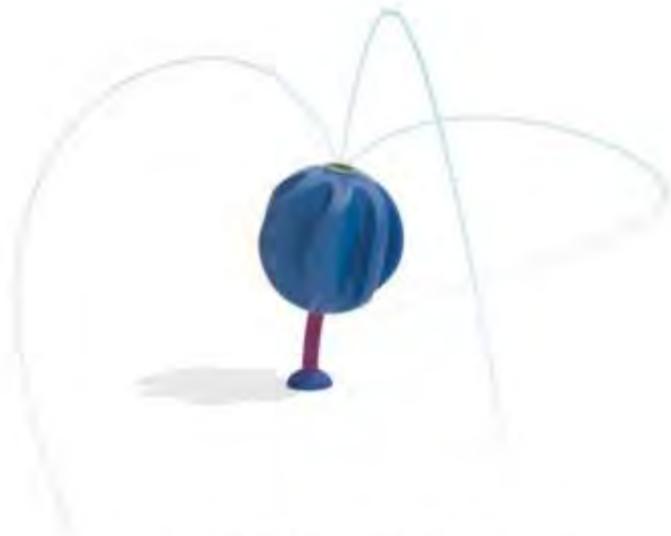
VORTEX AQUADOME 1



VORTEX AQUADOME 2



VORTEX HELIO 3



VORTEX HELIO 2



VORTEX HELIO 3



ESPLANADE EMBAYMENT AERIAL VIEW
WATER PLAY ENLARGEMENT

NATURE EXPLORATION

AERIAL VIEW



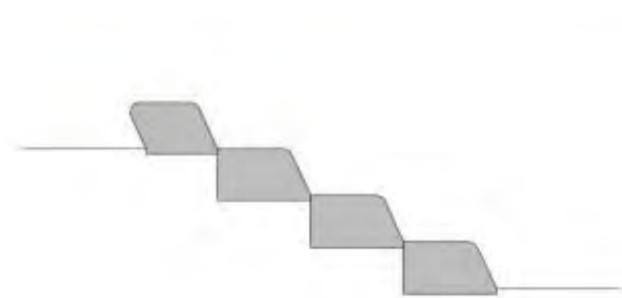
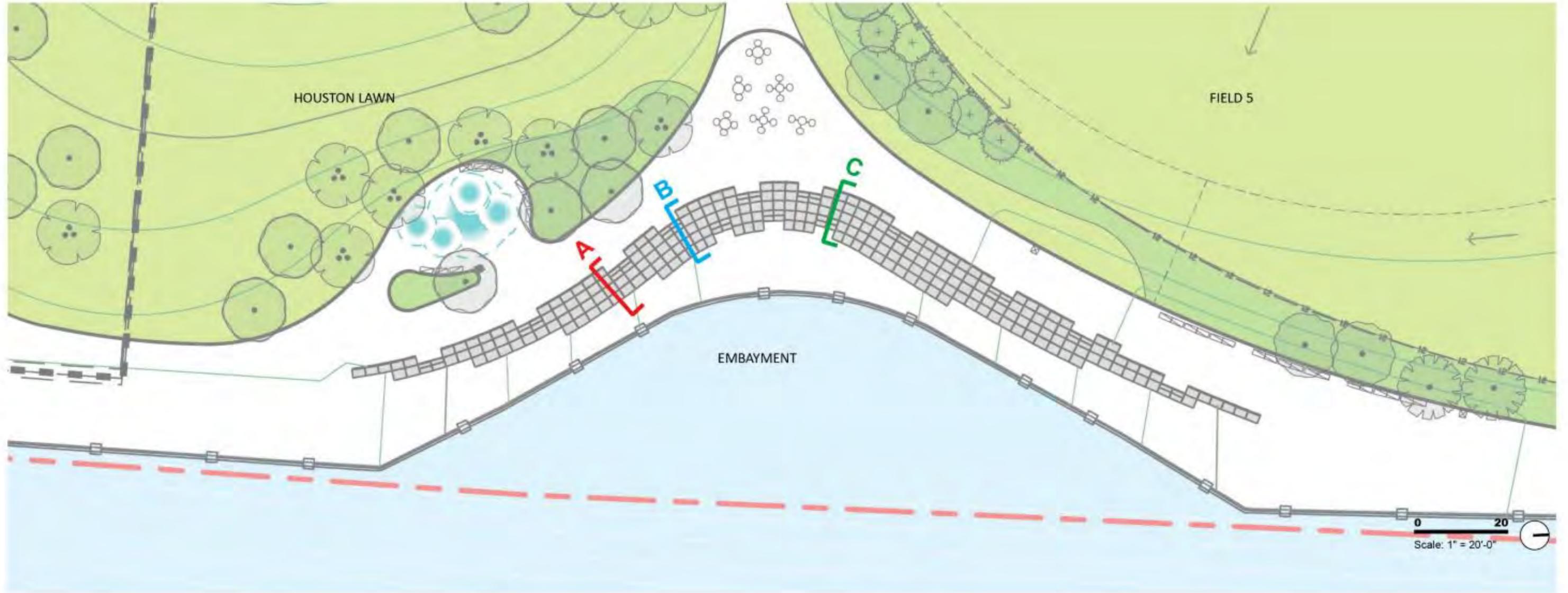
ESPLANADE EMBAYMENT

AERIAL VIEW

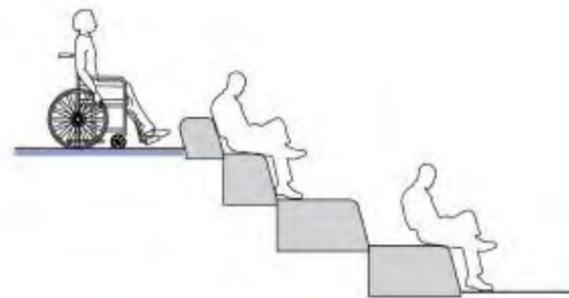


HOUSTON EMBAYMENT

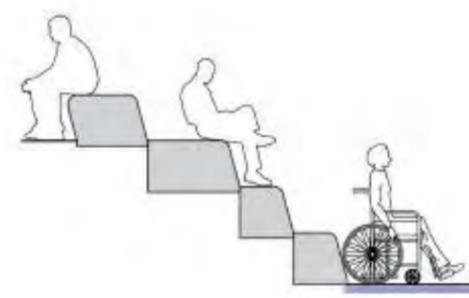
PLAN VIEW & SECTIONS



SECTION A



SECTION B



SECTION C

FITNESS AREA AND CHALLENGE COURSE

OVERVIEW



CHALLENGE COURSE

FITNESS AREA
(SENIOR AND ADULT WORKOUT)

0 40
Scale: 1" = 40'-0"



FITNESS AREA

EQUIPMENT PALETTE



BALANCE BEAM AND TRIPLE BARS (MODIFIED)



STEPS



HIGH TRIPLE BARS (MODIFIED)



**PUSH UP AND LEG LIFT &
UNIVERSAL CHEST PRESS**



ARM BIKE



HEXAGON PULL UP STATION



BENCH



COMBI 3 (MODIFIED)



PUSH UP BARS (MODIFIED)

CHALLENGE COURSE

EQUIPMENT PALETTE



DOUBLE OVERHEAD LADDER



OVER UNDER



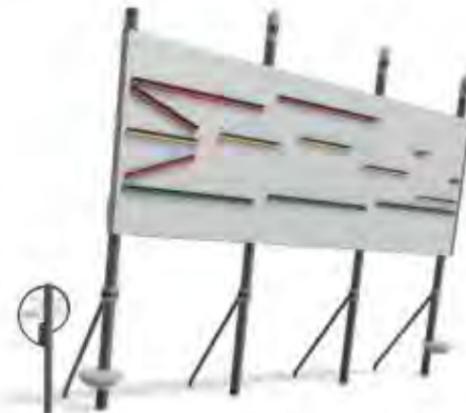
CHELSEA OVERHEAD



SQUARE PULL UPS



STEPS



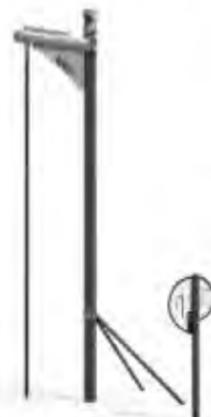
LEDGE HANGER (MODIFIED)



BALANCE BEAM



GLOBE GRASP (MODIFIED)



ROPE CLIMB (MODIFIED)



WALL NET

10TH STREET BBQ AREA

AERIAL VIEW



DELANCEY ST. OVERLOOK

AERIAL VIEW



BACKED SEATING
UNIVERSAL ACCESSIBILITY
EVENT POWER
SEATING CAPACITY
EVENT LOADING

AMPHITHEATER

AERIAL VIEW



**CORLEARS
HOOK PARK**

**RE-CONSTRUCTED
CORLEARS HOOK BRIDGE**

**ACCESSIBLE AREAS OF
HARDSCAPE INTERSPERSED
WITH FLEXIBLE LAWN AREAS**

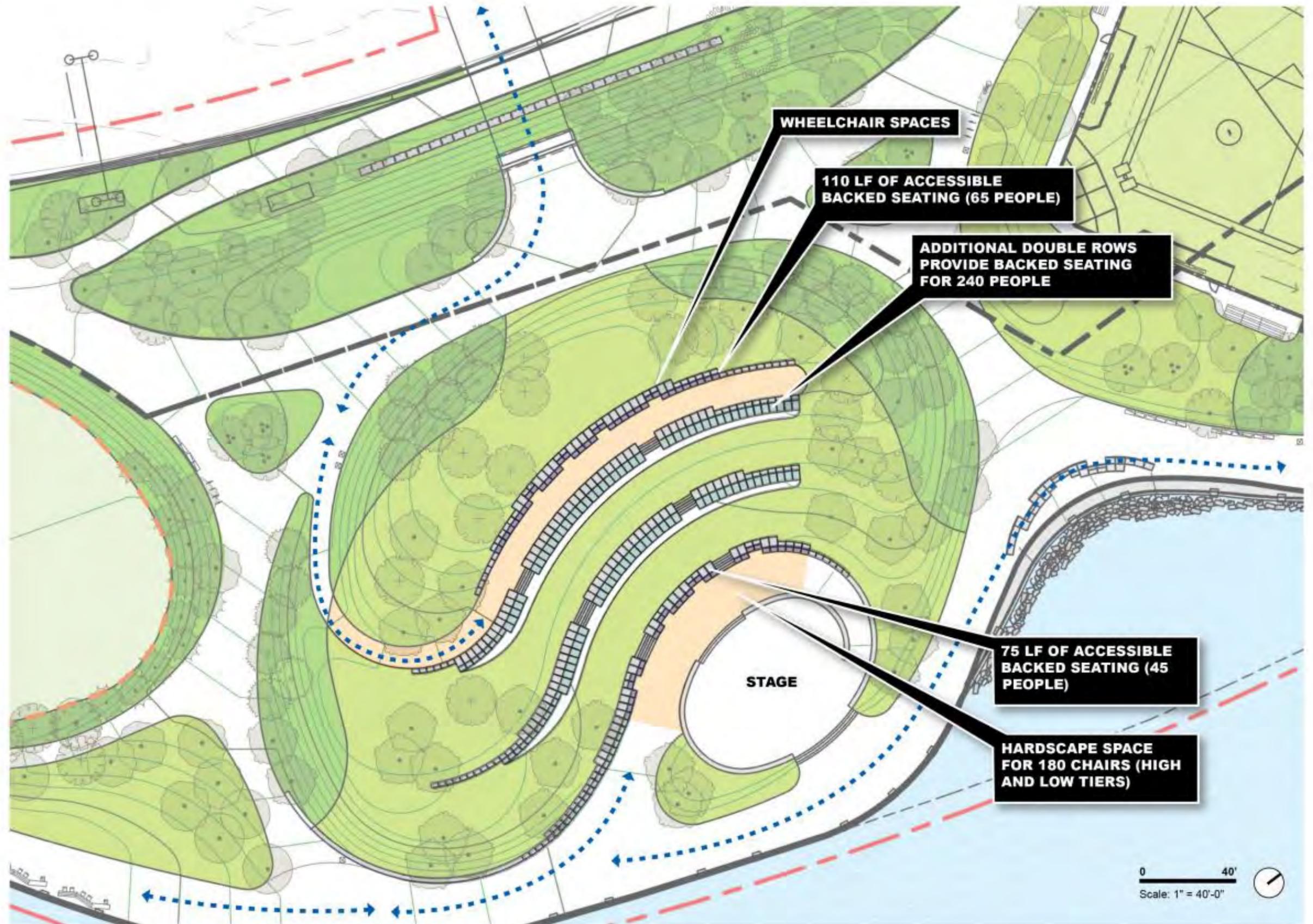
BACKED SEATING

**AMPHITHEATER STRUCTURE
TO BE CONSTRUCTED;
DESIGN IS IN DEVELOPMENT**

**AMPHITHEATER DESIGN
SUPPORTS DAY-TO-DAY USE,
COMMUNITY PROGRAMMING
& PASSIVE RECREATION**

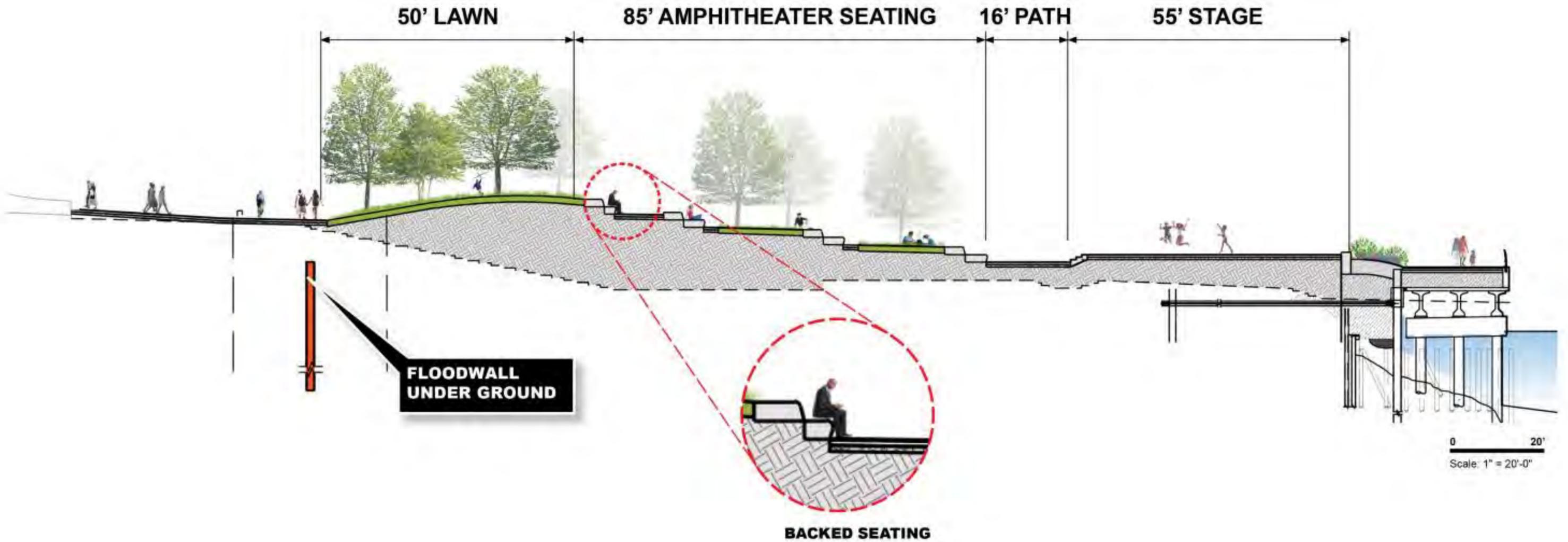
AMPHITHEATER

SEATING



AMPHITHEATER

SECTION



CONTEXTUALLY APPROPRIATE BUILDING DESIGN
SUSTAINABLE DESIGN
CONCESSION SPACES
ADDITIONAL COMFORT STATIONS

SOUTH INTERCEPTOR GATE BUILDING

Final Design



MATERIALS

- Extremely Durable & Vandal Resistant
- Scale & Character Respond to Neighboring Context
- Dynamic & Changing Appearance

MASSING

- Minimize Overall Building Height & Footprint
- Prevent Climbing from Park Side

PERFORMANCE

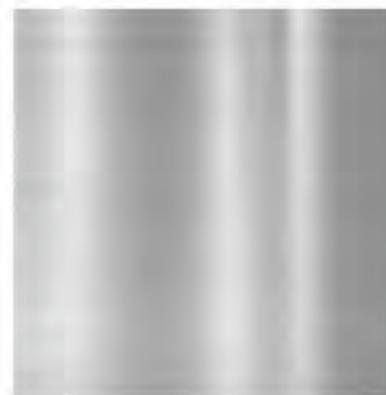
- Critical Infrastructure & Emergency Preparedness Standards
- Exceeds Energy Code Insulation Values
- Natural Daylighting



SOLID GLASS BRICK
Facade
(Pictured: Office Mockup)



BARRE GREY GRANITE
Stone Base



STAINLESS STEEL
Back Up Wall,
Doors, & Trim Elements



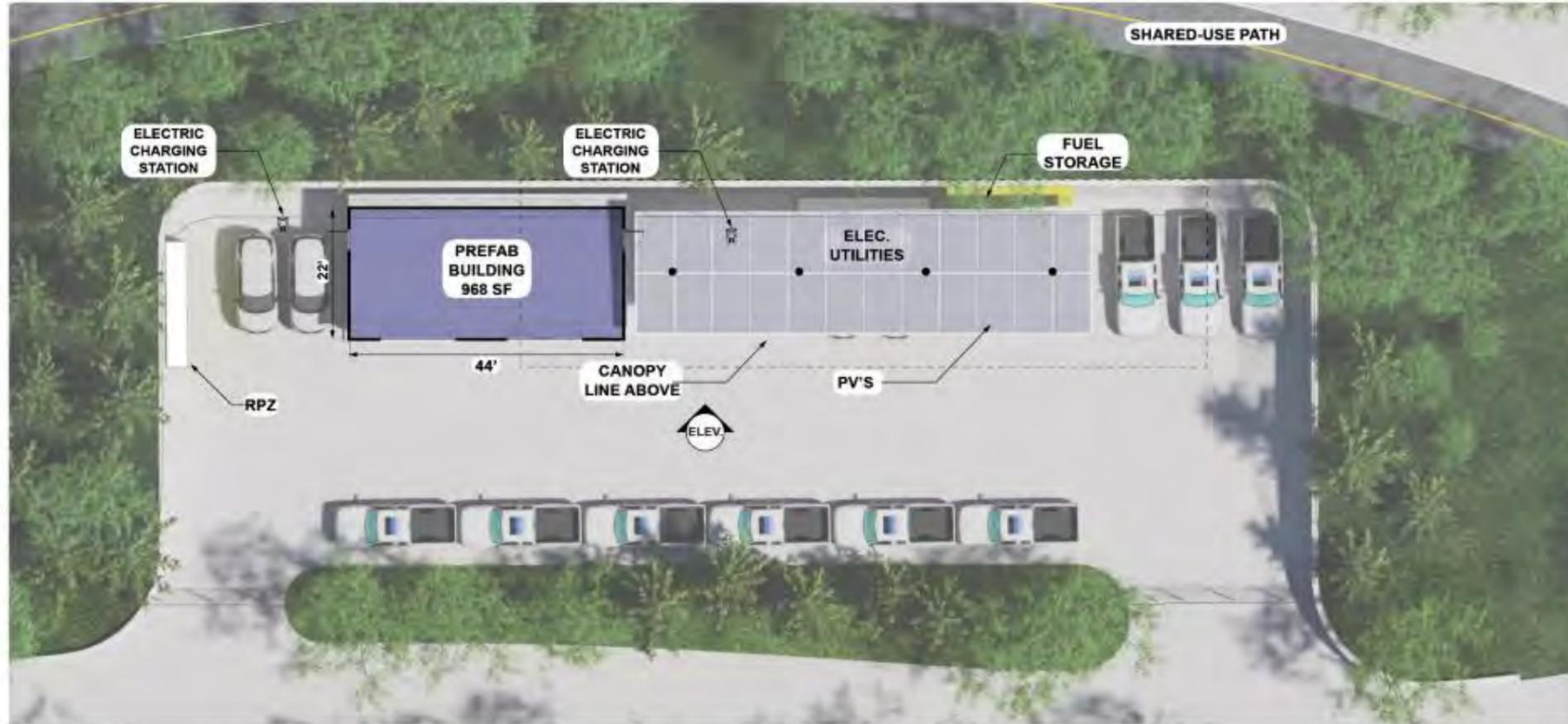
METAL TILE
Sloped Roof Assembly



FACADE DETAIL
Enlarged Elevation

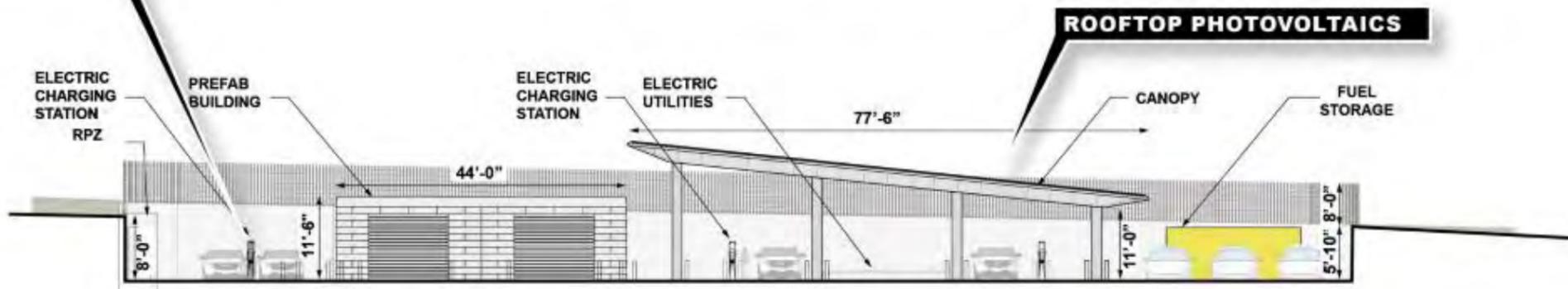
DELANCEY ST. MAINTENANCE AREA

PLAN VIEW AND ELEVATION



Delancey Maintenance Area Plan

EV CHARGING STATION



Delancey Maintenance Area Elevation

TENNIS HOUSE

PARK VIEW



TRACK HOUSE

PARK VIEW



E. 10TH ST. COMFORT STATION

PARK VIEW



PARK OVERVIEW & BRIDGES

CORLEARS HOOK TO DELANCEY ST.

AERIAL OVERVIEW



CORLEARS HOOK BRIDGE

RENDERING



CORLEARS HOOK BRIDGE

RENDERING



DELANCEY ST. BRIDGE

RENDERING



DELANCEY ST. BRIDGE

AERIAL VIEW



DELANCEY ST. TO HOUSTON

AERIAL VIEW



HOUSTON TO E. 10TH ST.

AERIAL VIEW



E. 10TH ST. BRIDGE

FDR VIEW



E. 10TH ST. BRIDGE

CITY-SIDE LANDING



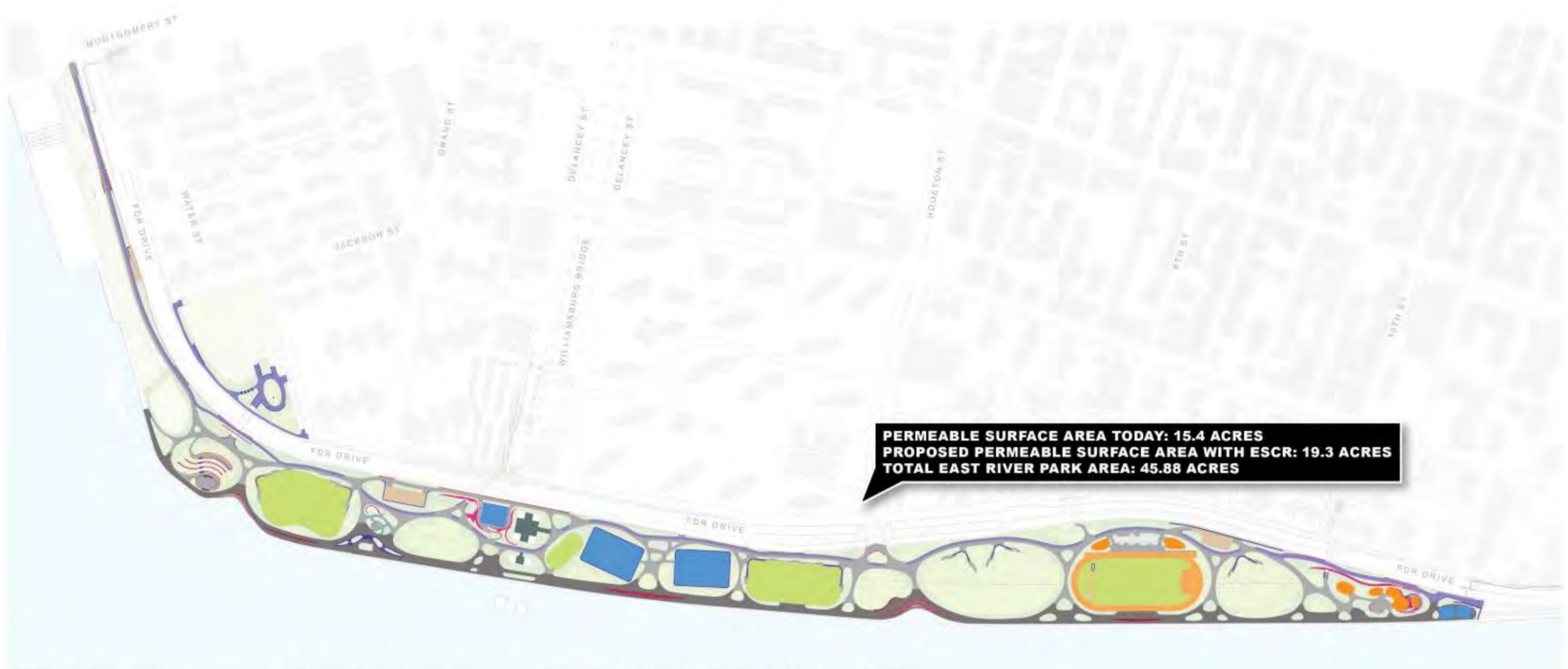
E. 10TH ST. BRIDGE

RENDERING



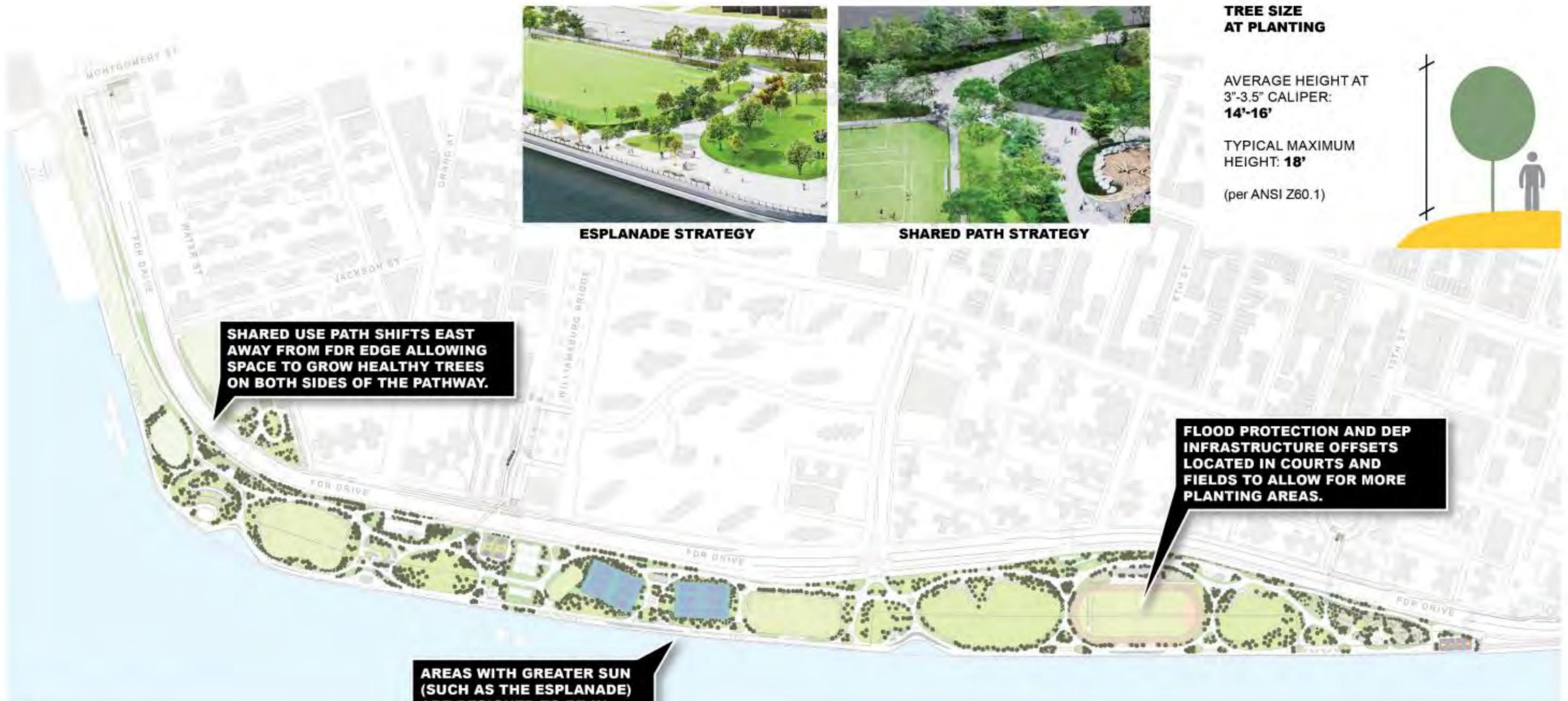
An aerial photograph of a park area, featuring a prominent bridge crossing a waterway. The park includes various green spaces, paths, and what appears to be a sports field. The entire image is overlaid with a semi-transparent teal color.

MATERIALS & PLANTING



- | | |
|---|--|
|  EXPOSED AGGREGATE CONCRETE PAVEMENT (PATHWAYS) |  SAFETY SURFACE (PLAY AND FITNESS AREAS) |
|  CONCRETE UNIT PAVERS (ESPLANADE) |  RESILIENT SPORT SURFACE (TRACK) |
|  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 (UNDER WILLIAMSBURG BRIDGE) |  STONE (SLOPE AND EDGES) |
|  SYNTHETIC TURF (FIELDS 1, 2, 3, 4 & TRACK INFIELD) |  STEEL EDGE (NATURE EXPLORATION AREA) |

**Park Materials
Key Plan PA1**

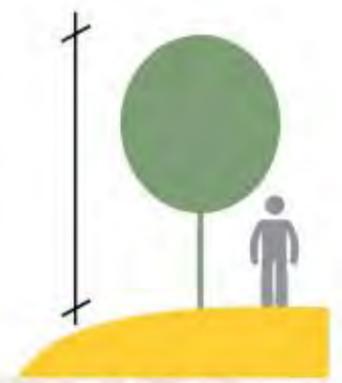


TREE SIZE AT PLANTING

AVERAGE HEIGHT AT 3"-3.5" CALIPER:
14'-16'

TYPICAL MAXIMUM HEIGHT: **18'**

(per ANSI Z60.1)



SHARED USE PATH SHIFTS EAST AWAY FROM FDR EDGE ALLOWING SPACE TO GROW HEALTHY TREES ON BOTH SIDES OF THE PATHWAY.

FLOOD PROTECTION AND DEP INFRASTRUCTURE OFFSETS LOCATED IN COURTS AND FIELDS TO ALLOW FOR MORE PLANTING AREAS.

AREAS WITH GREATER SUN (SUCH AS THE ESPLANADE) ARE DESIGNED TO BE IN CLOSE PROXIMITY OF AREAS WITH GREATER SHADE.

- PROPOSED TREES
- EXISTING TREES TO REMAIN

NOTES:
TREE GROWTH WILL VARY BY SPECIES, BUT IN NURSERY SETTINGS A RULE OF THUMB IS THAT TREES WILL OFTEN ADD 1/2" CALIPER PER YEAR WITH 1'-2' OF GROWTH IN THE CANOPY.

THE DESIGN TEAM IS WORKING WITH PARKS PROCUREMENT TO IDENTIFY WHETHER SOME SPECIES MAY BE ABLE TO BE SOURCED AT LARGER SIZES WITHOUT COMPROMISING TREE HEALTH.

**Shade Strategy PA1
Tree Canopy**



**SOLSTICE UMBRELLA -
ALTAIR LANDSCAPE FORMS**



UMBRELLA + CAFE TABLE



**UMBRELLA + STEPPED
SEATING**



**UMBRELLA + CHAISE
LOUNGES**



**UMBRELLA + PICNIC TABLE
(PRECEDENT IMAGE)**

**THE PROPOSED LIGHTER COLORED
EXPOSED AGGREGATE CONCRETE
AND CONCRETE PAVERS WILL REDUCE
HEAT GAIN ON PAVED SURFACES.**

**PERMANENT METAL UMBRELLAS
ARE LOCATED IN AREAS WHERE
PLANTING IS LIMITED DUE TO
STRUCTURAL LIMITATIONS, IN THE
OFFSET AREAS AND BBQ AREAS.**

**BENCHES AND TABLES ARE
PLACED IN CLOSE PROXIMITY
TO SHADE TREES WHEREVER
POSSIBLE.**

**THE DESIGN INCLUDES A
PICNIC AREA TO BENEFIT
FROM WILLIAMSBURG
BRIDGE SHADOW.**

- PROPOSED TREES
- UMBRELLA CLUSTERS

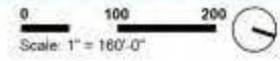
SHADE
ADAPTABILITY & RESILIENCY
DIVERSITY
HABITAT
POLLINATORS



991 TREES TO BE REMOVED IN PROJECT AREAS 1 AND 2

1,815 NEW TREES ARE PROPOSED FOR ESCR IN PROJECT AREAS 1 AND 2

***ADDITIONAL PLANTING OPPORTUNITIES BEING STUDIED**



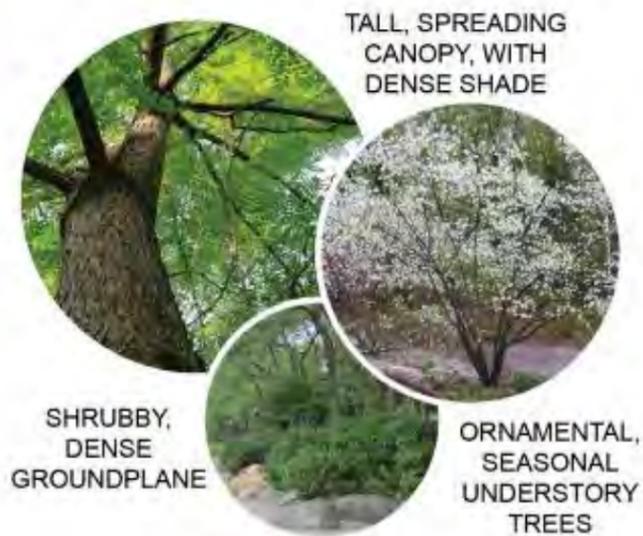
WOODLAND EDGES

PASTORAL OPENINGS

LAYERED GROVES

MARITIME EDGES

Planting Key Plan PA1



TALL, SPREADING CANOPY, WITH DENSE SHADE

SHRUBBY, DENSE GROUNDPLANE

ORNAMENTAL, SEASONAL UNDERSTORY TREES



TALL, SPREADING CANOPY, WITH DAPPLED SHADE

CLEAR UNDERSTORY WITH OPEN LAWN



TALL, SPREADING CANOPY, WITH CLEARINGS

COLORFUL, TEXTURAL PERENNIAL & GRASS GROUNDPLANE

ORNAMENTAL, SEASONAL UNDERSTORY TREES



MID AND UNDERSTORY MARITIME TREES

ORNAMENTAL MARITIME PERENNIALS & GROUNDPLANE

MARITIME SHRUBS

HIGH, FULL CANOPY CREATES CONNECTED, DAPPLED SHADE



WOODLAND EDGES

- 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



PASTORAL OPENINGS

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



LAYERED GROVES

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



MARITIME EDGES

- 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

Planting Spatial Concept PA1

An aerial photograph of a city, likely New York City, showing a grid of streets and a large body of water. The image is overlaid with a semi-transparent teal color. The text 'SUSTAINABLE DESIGN' is centered in white, bold, uppercase letters.

SUSTAINABLE DESIGN

ENVISION AND ESCR

A framework that includes 64 sustainability and resilience indicators, called 'credits', organized around 5 categories:



Project's *Envision Pre-Assessment Checklist* Preliminary Results, conducted by PM/CM:

Credit Category	Applicable	Pre-Assessment Review	Percentage
Quality of Life	200	159	80%
Leadership	182	99	54%
Resource Allocation	196	25	13%
Natural World	194	64	33%
Climate and Resilience	146	121	83%
Total Points/%	918	468	51%





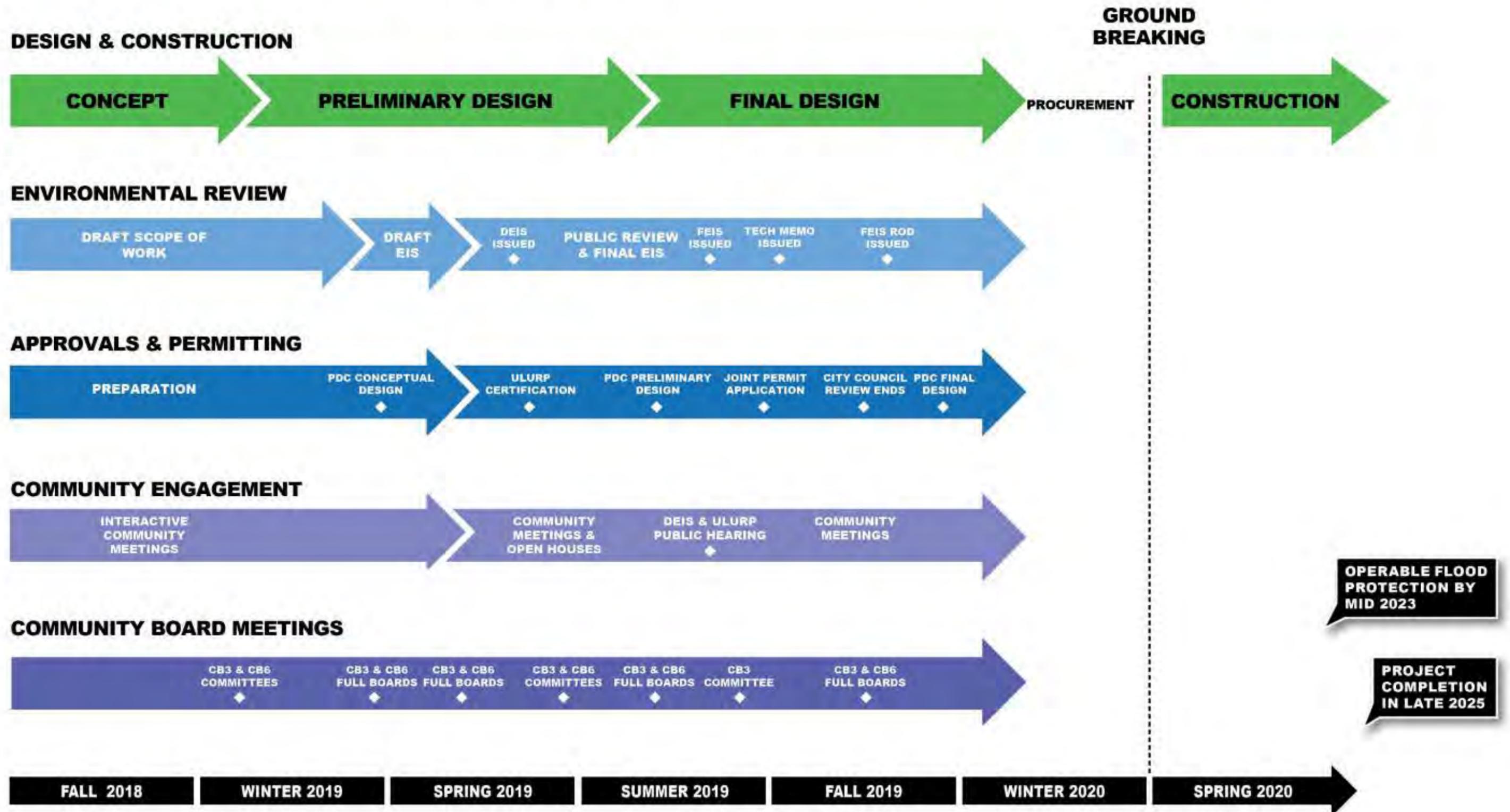
CONSTRUCTION

CONSTRUCTION PHASING FOR EAST RIVER PARK: 2020

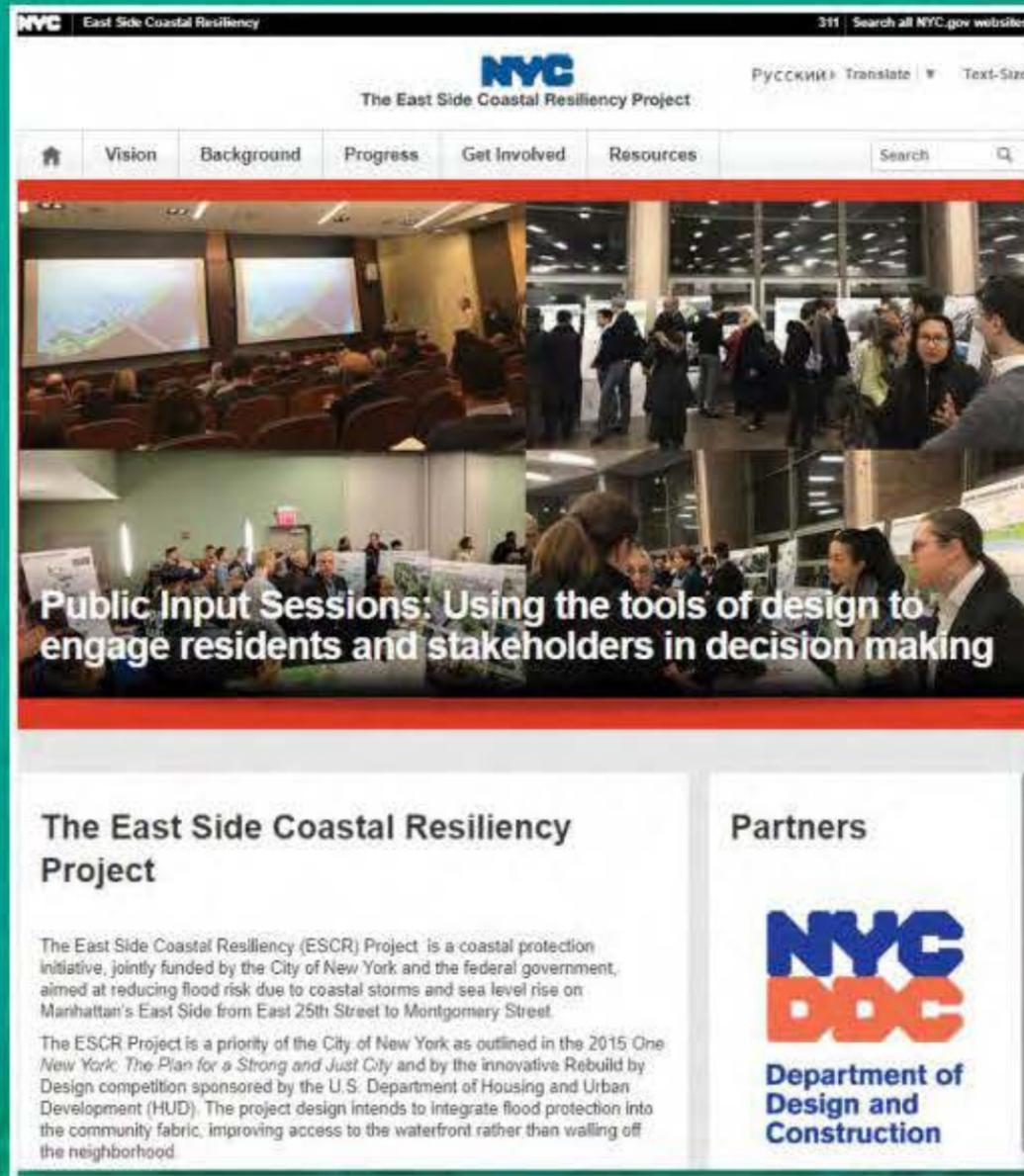
- **Spring and Summer 2020:** East River Park remains open with early construction packages:
 - Tree Transplants
 - Interim Passive Recreation Space
- **Fall 2020 – Summer 2022:** ~40% will remain open
- **Fall 2020:** ~60% will close
- **Summer 2023:** ~50% will re-open
- Esplanade to be fully closed for only one year
- **Mid-2023:** flood protection to be completed; **End of 2025:** project to be completed



PROJECT SCHEDULE OVERVIEW



Website



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