

East Side Coastal Resiliency SANDRESM1

Final Review Public Design Commission

December 16, 2019

PRESENTATION CONTENTS

1. SITE DESIGN: PROJECT AREA 1 (PA1)

2. SITE DESIGN: PROJECT AREA 2 (PA2)

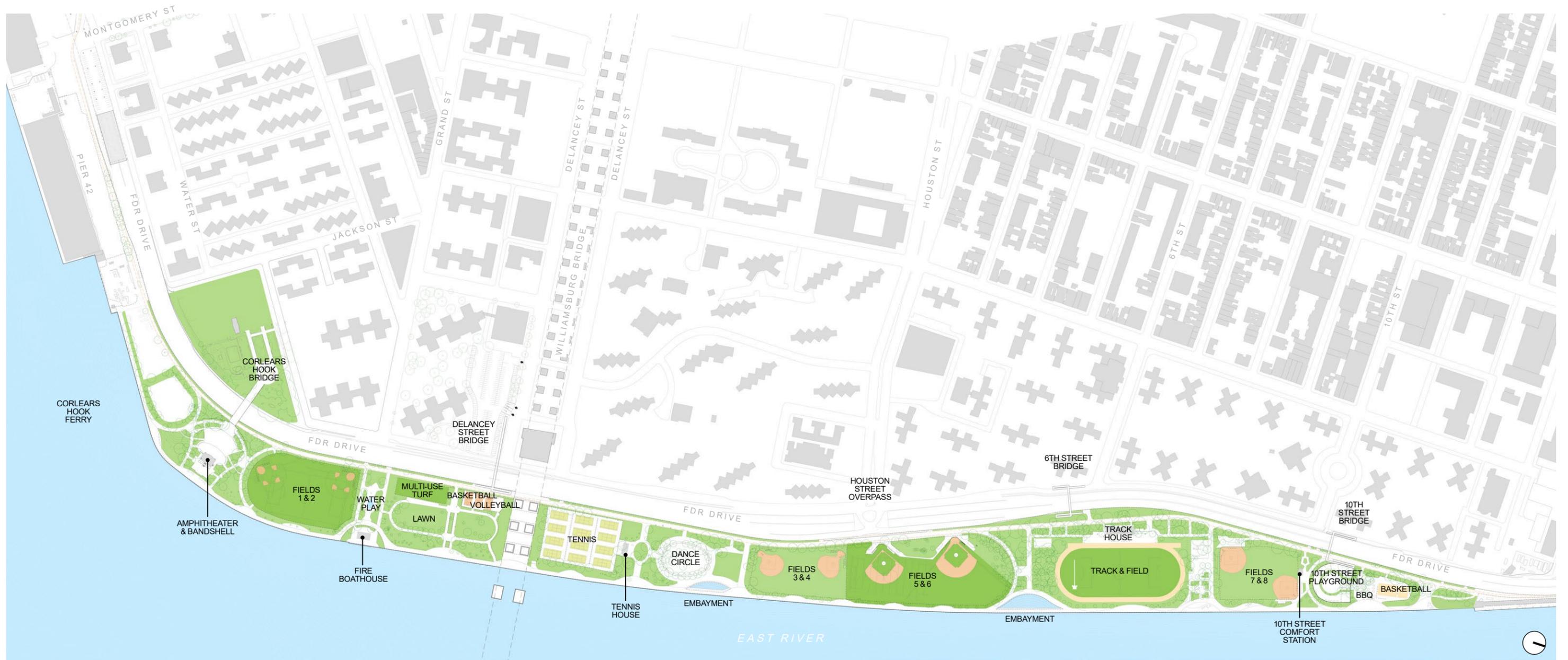
3. SITE ELEMENTS

PRESENTATION CONTENTS

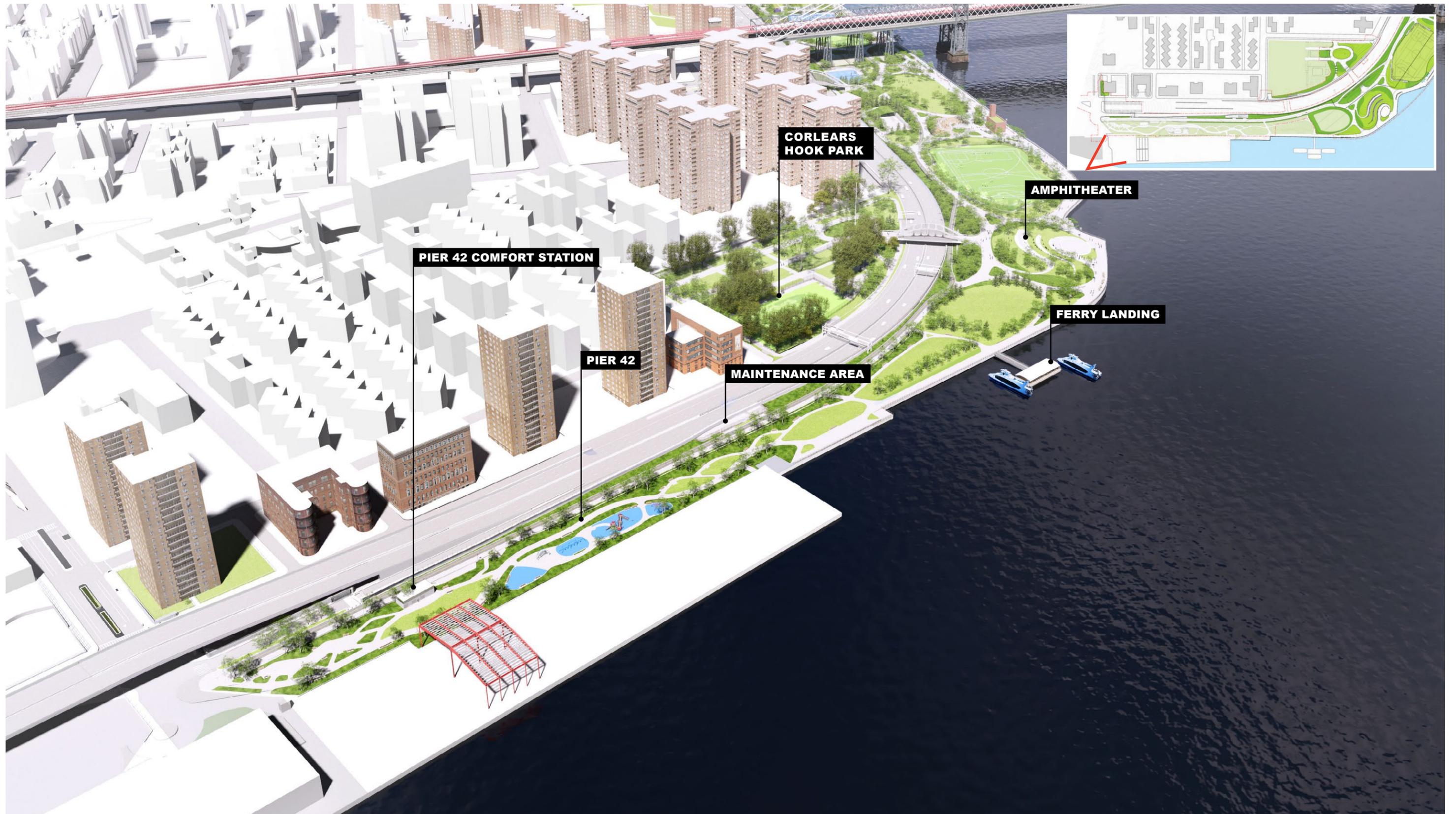
1. SITE DESIGN: PROJECT AREA 1 (PA1)

2. SITE DESIGN: PROJECT AREA 2 (PA2)

3. SITE ELEMENTS









REVISION 1.4
 SKATE BOARD DETERRENTERS
 AT GOUVERNEUR GARDENS

REVISION 1.3
 GATE DESIGN



REVISION 1.4
SKATE BOARD DETERRENTS
AT GOUVERNEUR GARDENS

REVISION 1.3
GATE DESIGN

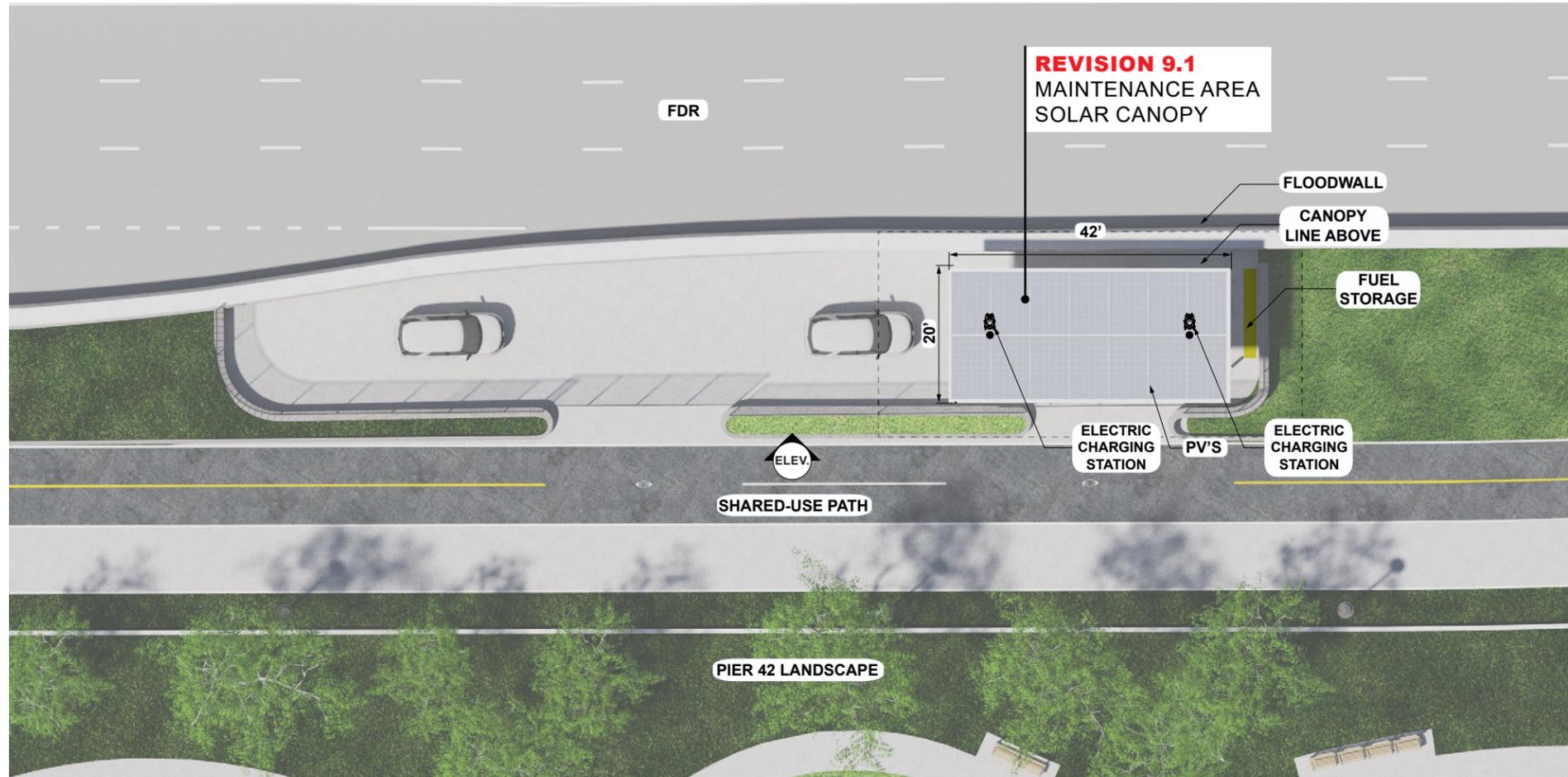


REVISION 1.3
GATE DESIGN

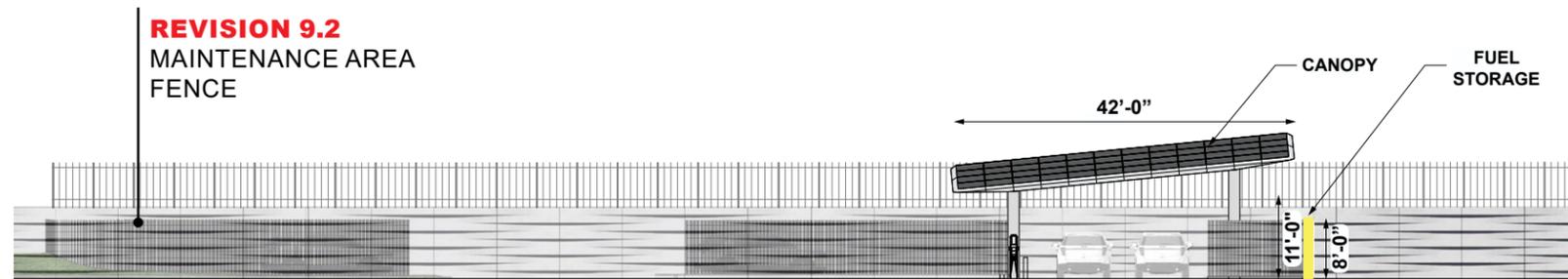
REVISION 2.1
SECURITY
MEASURES

REVISION 1.1
WALL PATTERN
RHYTHM & VARIATION

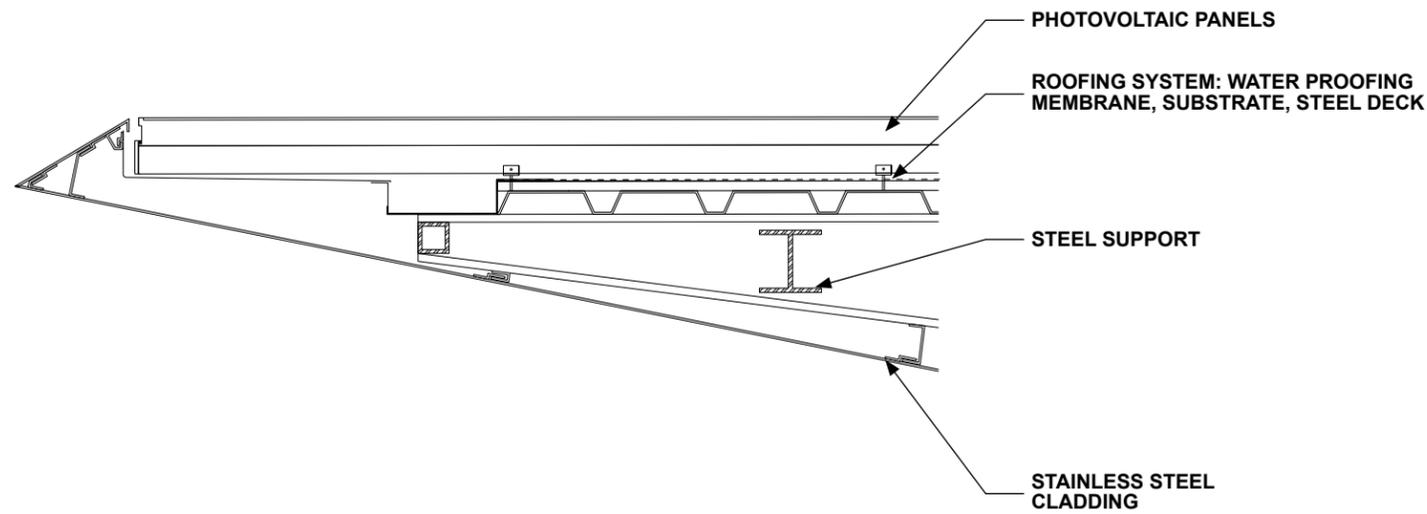
REVISION 1.2
INTEGRATED WALL
SIGNAGE



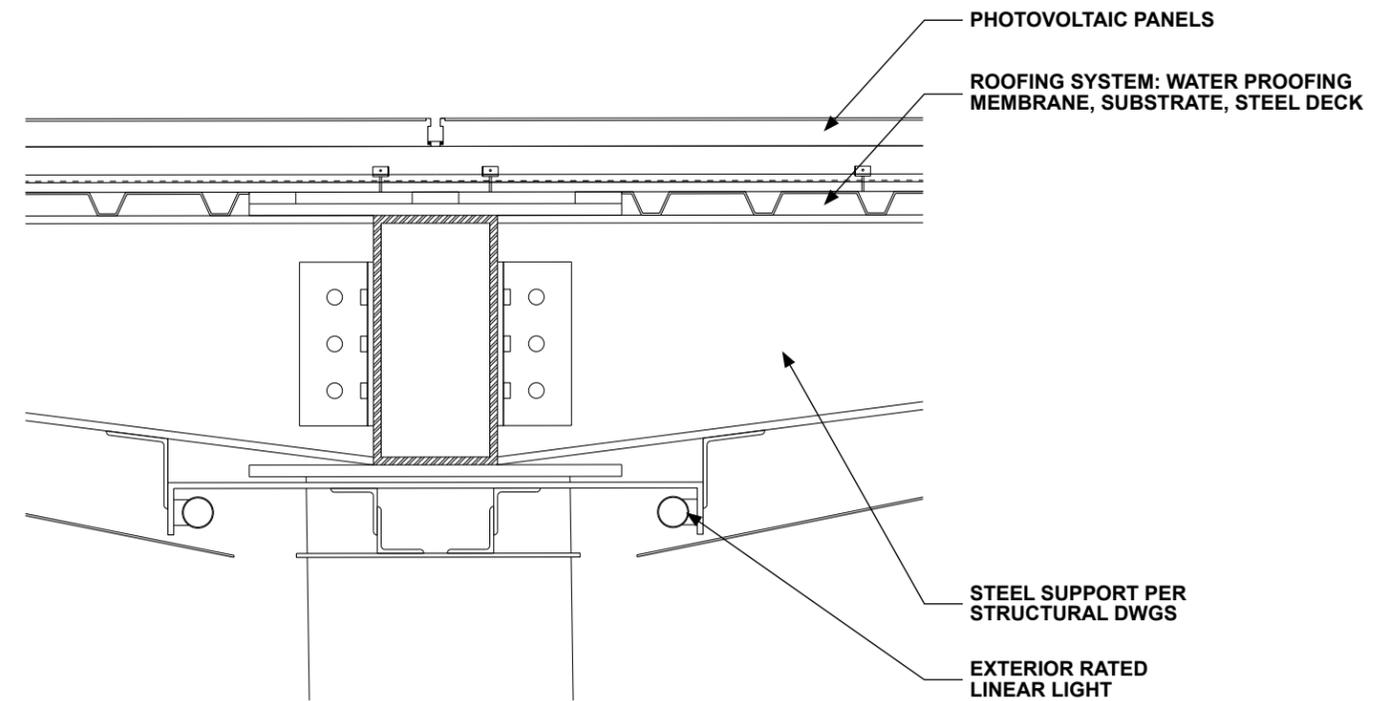
Pier 42 Maintenance Area Plan



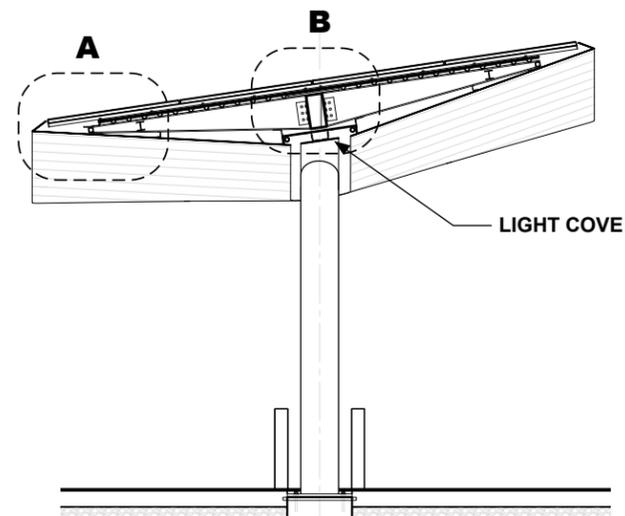
Pier 42 Maintenance Area Elevation



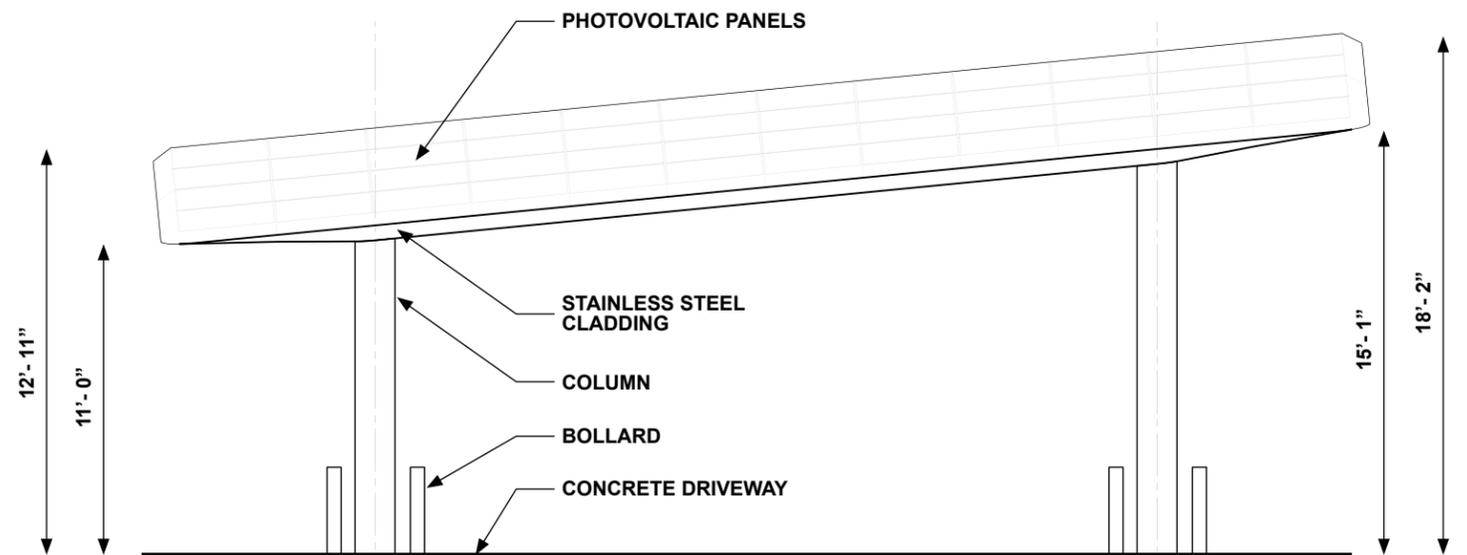
Detail A
Section at Canopy Edge



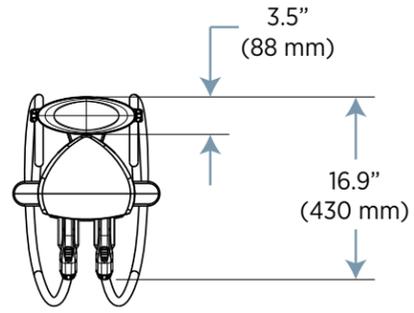
Detail B
Section at Light Cove and PV Panels



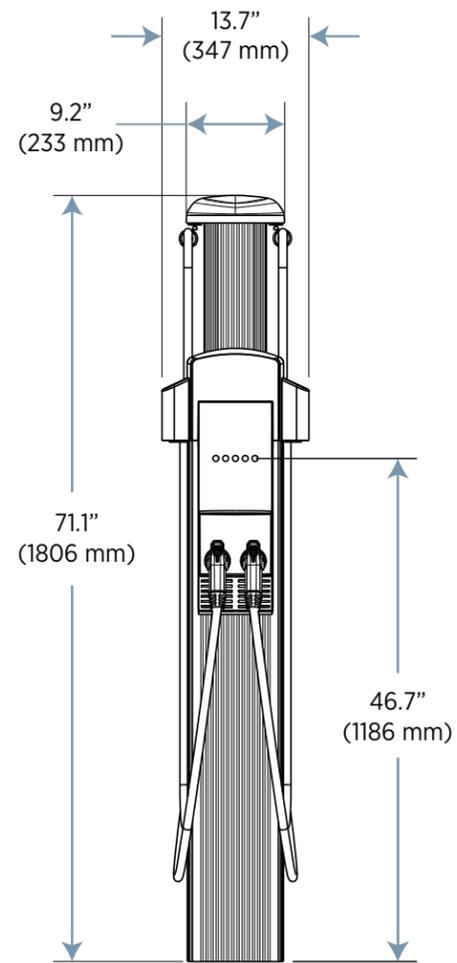
East Section



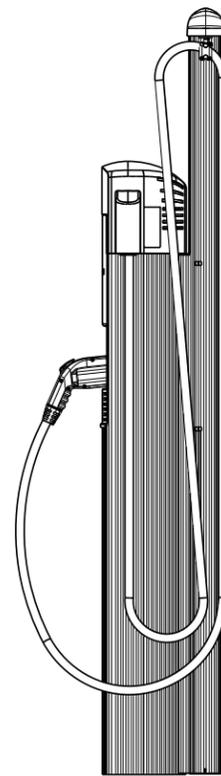
South Elevation



Plan



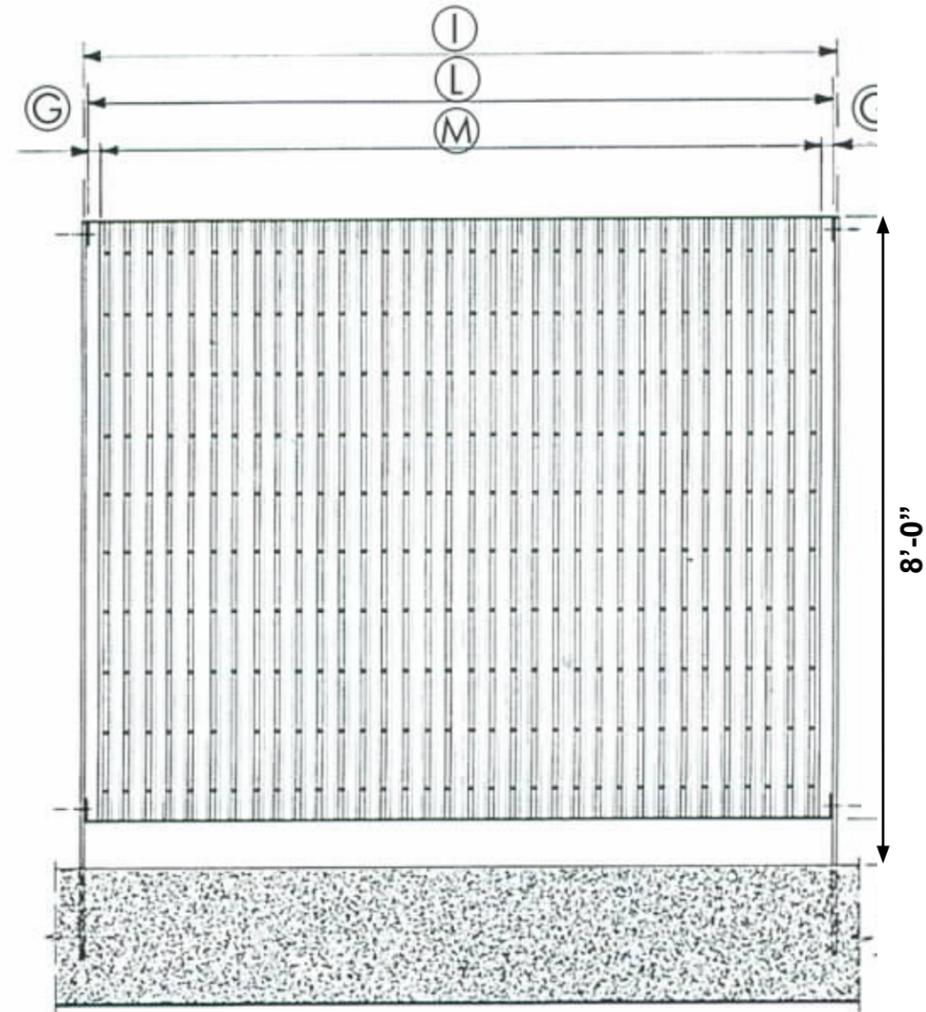
Front Elevation



Side Elevation



Fence Appearance

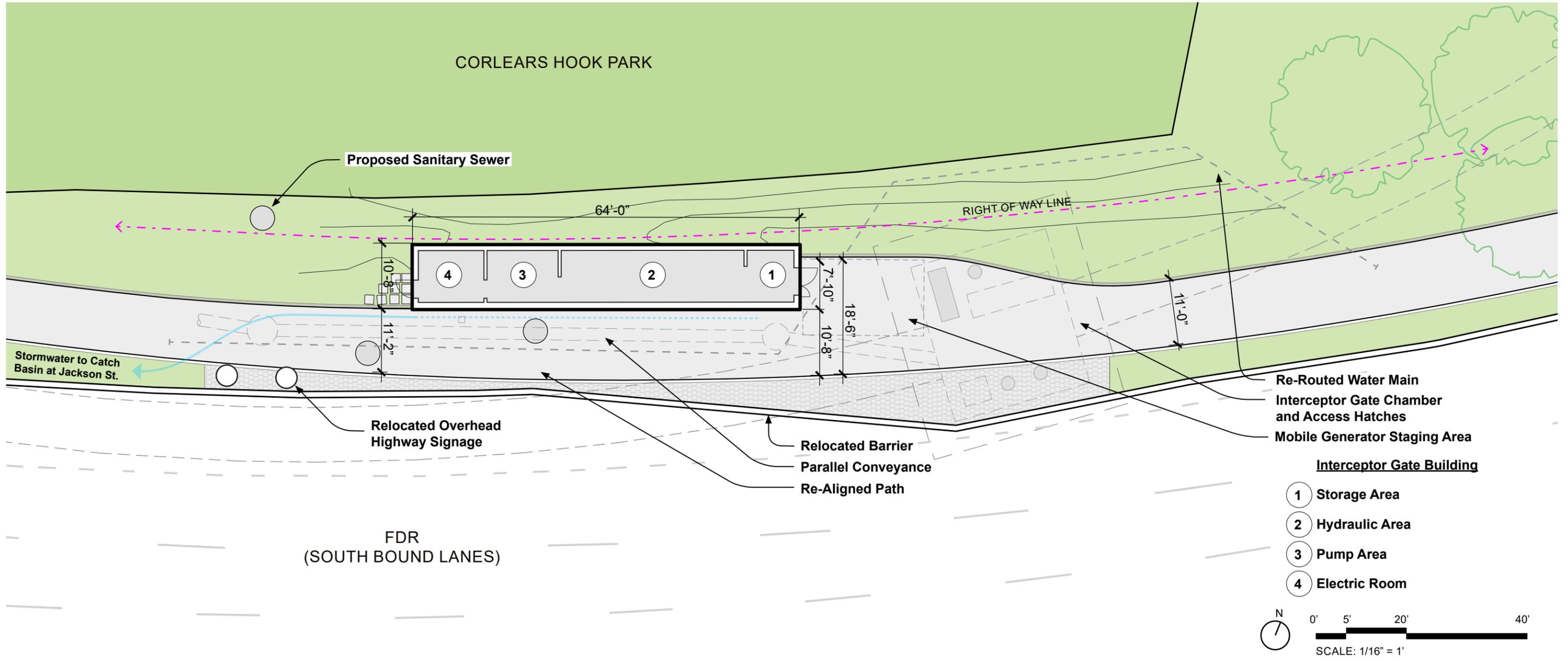


Fence Detail



REVISION 9.2
MAINTENANCE AREA
FENCE

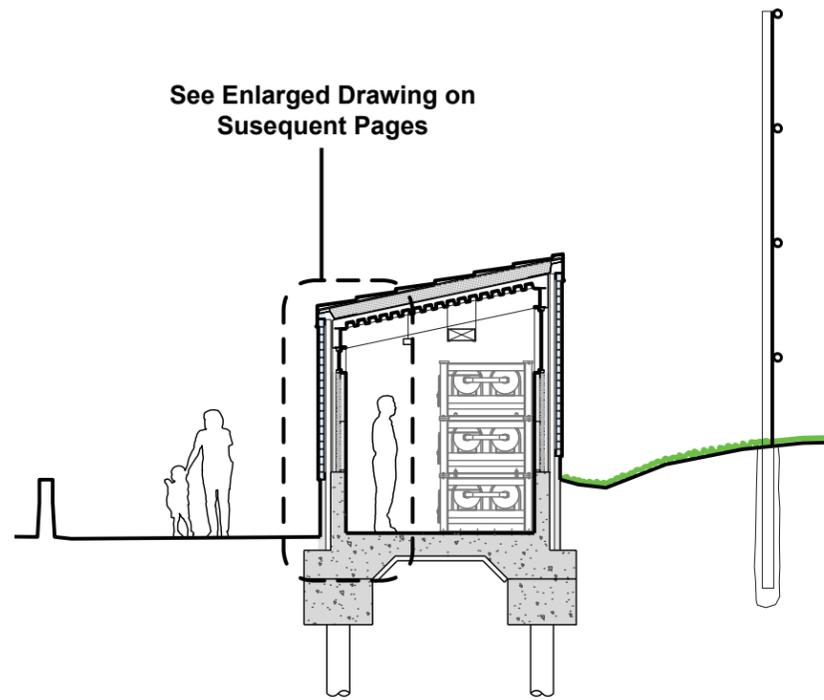
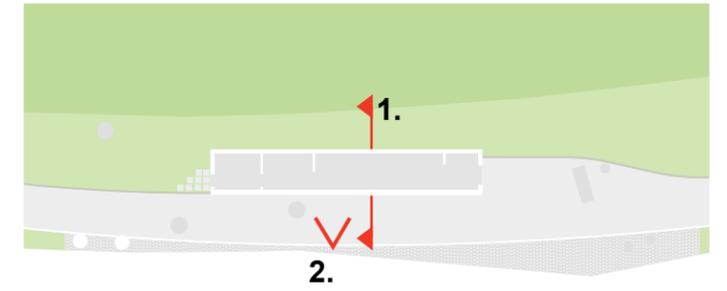
REVISION 9.1
MAINTENANCE AREA
SOLAR CANOPY



Re-Routed Water Main
Interceptor Gate Chamber and Access Hatches
Mobile Generator Staging Area

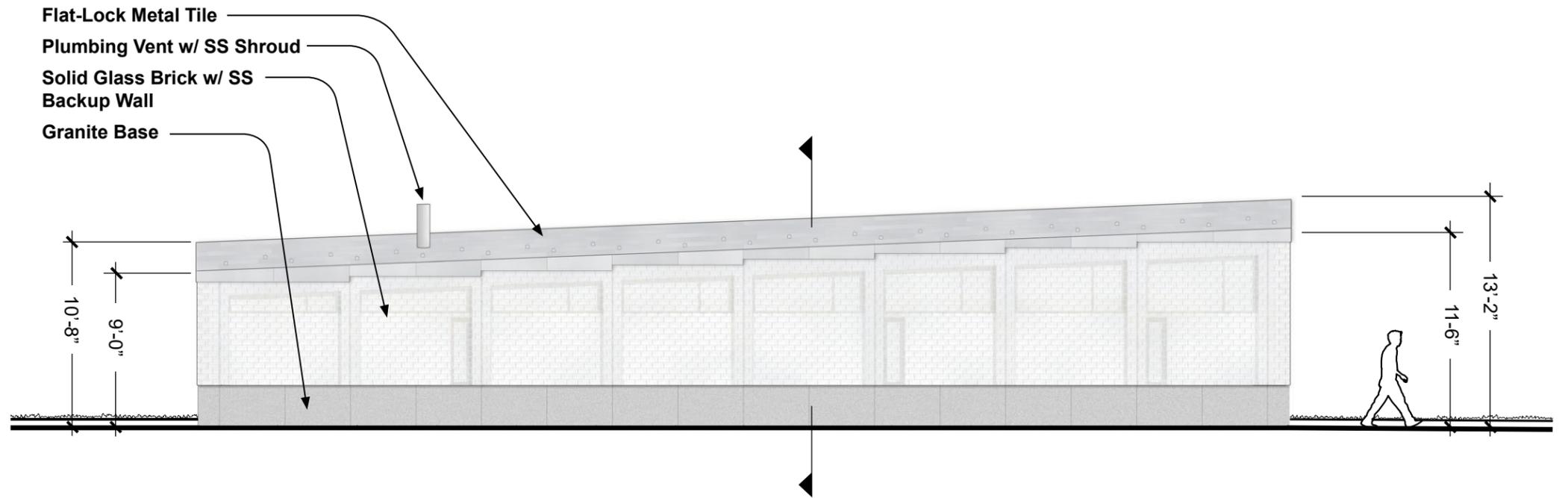
Interceptor Gate Building
 ① Storage Area
 ② Hydraulic Area
 ③ Pump Area
 ④ Electric Room

N
 0' 5' 20' 40'
 SCALE: 1/16" = 1'



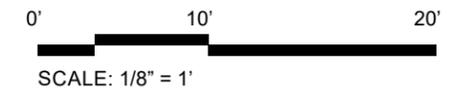
See Enlarged Drawing on
Susequent Pages

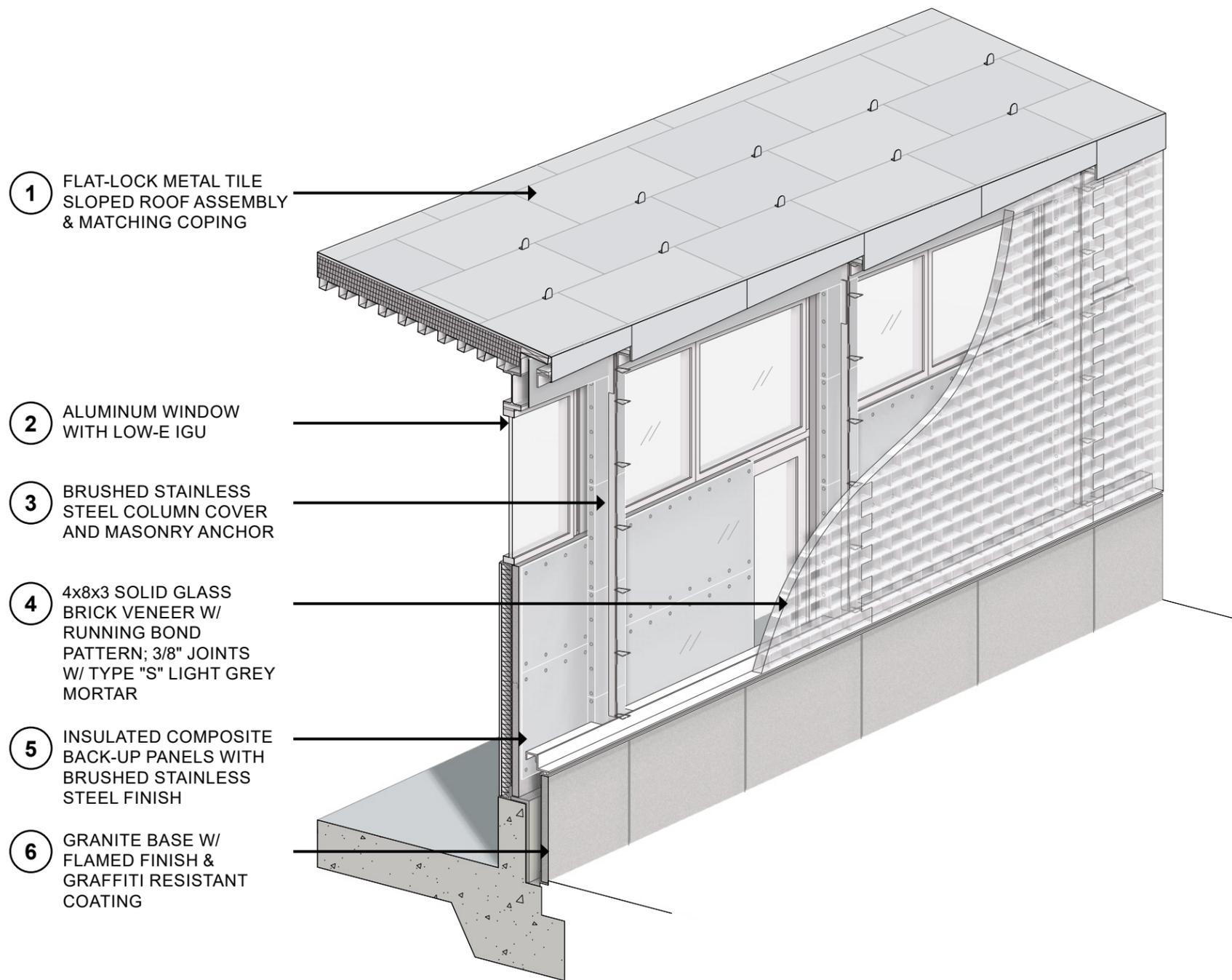
1. CROSS SECTION



- Flat-Lock Metal Tile
- Plumbing Vent w/ SS Shroud
- Solid Glass Brick w/ SS Backup Wall
- Granite Base

2. SOUTH ELEVATION





1 FLAT-LOCK METAL TILE SLOPED ROOF ASSEMBLY & MATCHING COPING

2 ALUMINUM WINDOW WITH LOW-E IGU

3 BRUSHED STAINLESS STEEL COLUMN COVER AND MASONRY ANCHOR

4 4x8x3 SOLID GLASS BRICK VENEER W/ RUNNING BOND PATTERN; 3/8" JOINTS W/ TYPE "S" LIGHT GREY MORTAR

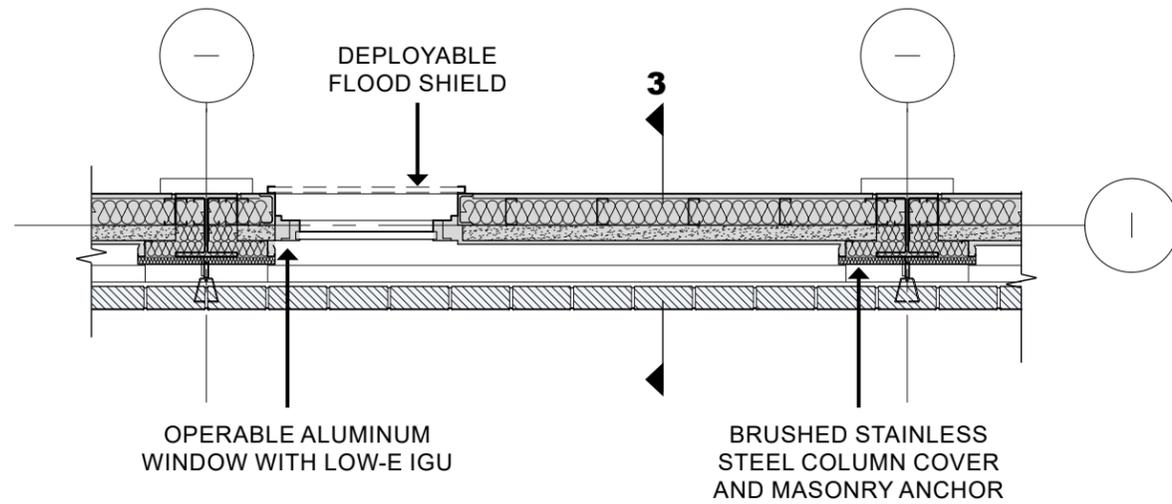
5 INSULATED COMPOSITE BACK-UP PANELS WITH BRUSHED STAINLESS STEEL FINISH

6 GRANITE BASE W/ FLAMED FINISH & GRAFFITI RESISTANT COATING

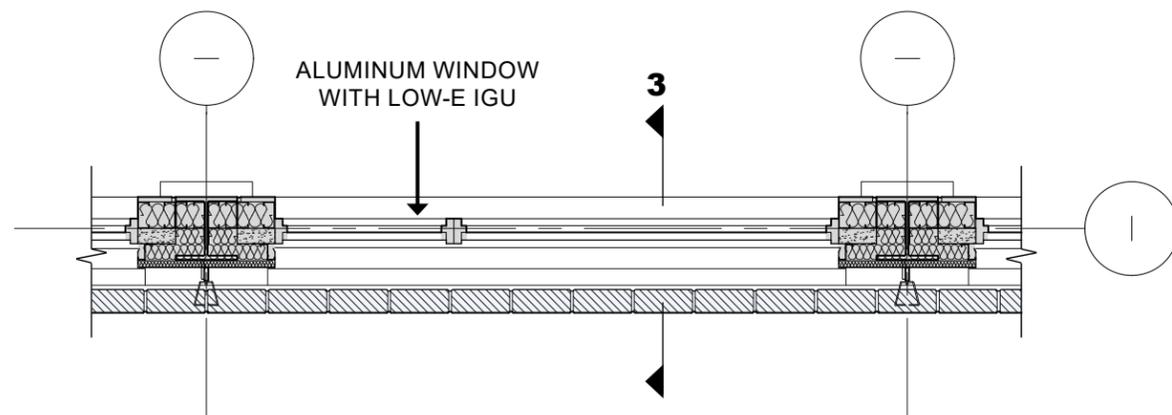
CUTAWAY AXONOMETRIC



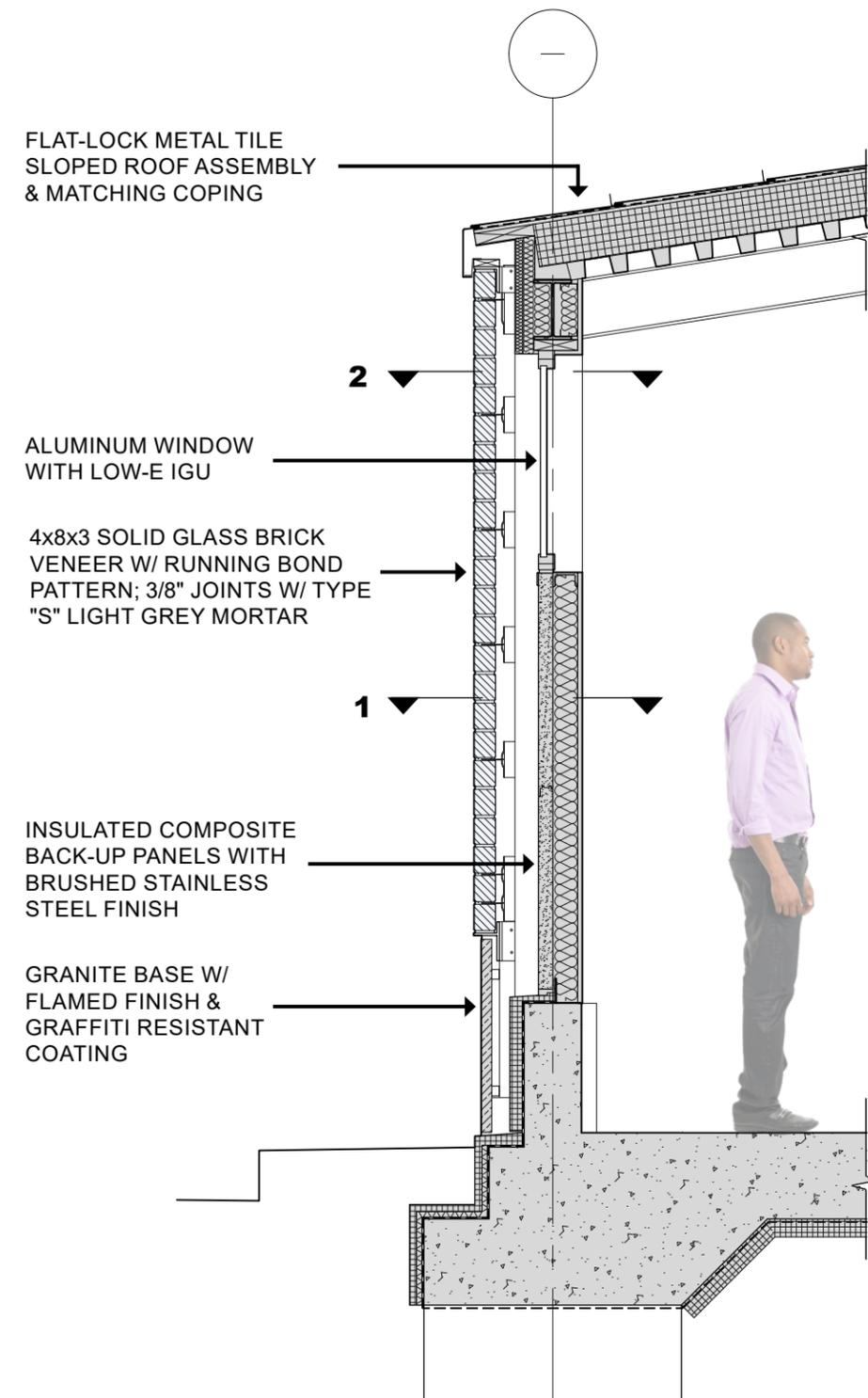
DETAILED RENDERED ELEVATION



1. TYPICAL WALL ASSEMBLY



2. TYPICAL WALL ASSEMBLY AT CLERESTORY WINDOW



3. TYPICAL WALL SECTION



AKRF-KSE, JV	BJARKE INGELS GROUP	MATHEWS NIELSEN LANDSCAPE ARCHITECTS, P.C.	ONE ARCHITECTURE AND URBANISM	NEW YORK CITY DEPT. OF DESIGN AND CONSTRUCTION	NEW YORK CITY DEPT. OF PARKS AND RECREATION	NEW YORK CITY DEPT. OF TRANSPORTATION	NEW YORK CITY DEPT. OF ENVIRONMENTAL PROTECTION	NEW YORK CITY MAYOR'S OFFICE OF RESILIENCY
--------------	---------------------------	--	-------------------------------------	--	---	---	---	---

**PDC FINAL REVIEW
EAST SIDE COASTAL
RESILIENCY PROJECT**

DECEMBER 16, 2019

**South Gate Building
View From Southwest** 19





AKRF-KSE, JV	BJARKE INGELS GROUP	MATHEWS NIELSEN LANDSCAPE ARCHITECTS, P.C.	ONE ARCHITECTURE AND URBANISM	NEW YORK CITY DEPT. OF DESIGN AND CONSTRUCTION	NEW YORK CITY DEPT. OF PARKS AND RECREATION	NEW YORK CITY DEPT. OF TRANSPORTATION	NEW YORK CITY DEPT. OF ENVIRONMENTAL PROTECTION	NEW YORK CITY MAYOR'S OFFICE OF RESILIENCY
--------------	---------------------------	--	-------------------------------------	--	---	---	---	---

**PDC FINAL REVIEW
EAST SIDE COASTAL
RESILIENCY PROJECT**

DECEMBER 16, 2019

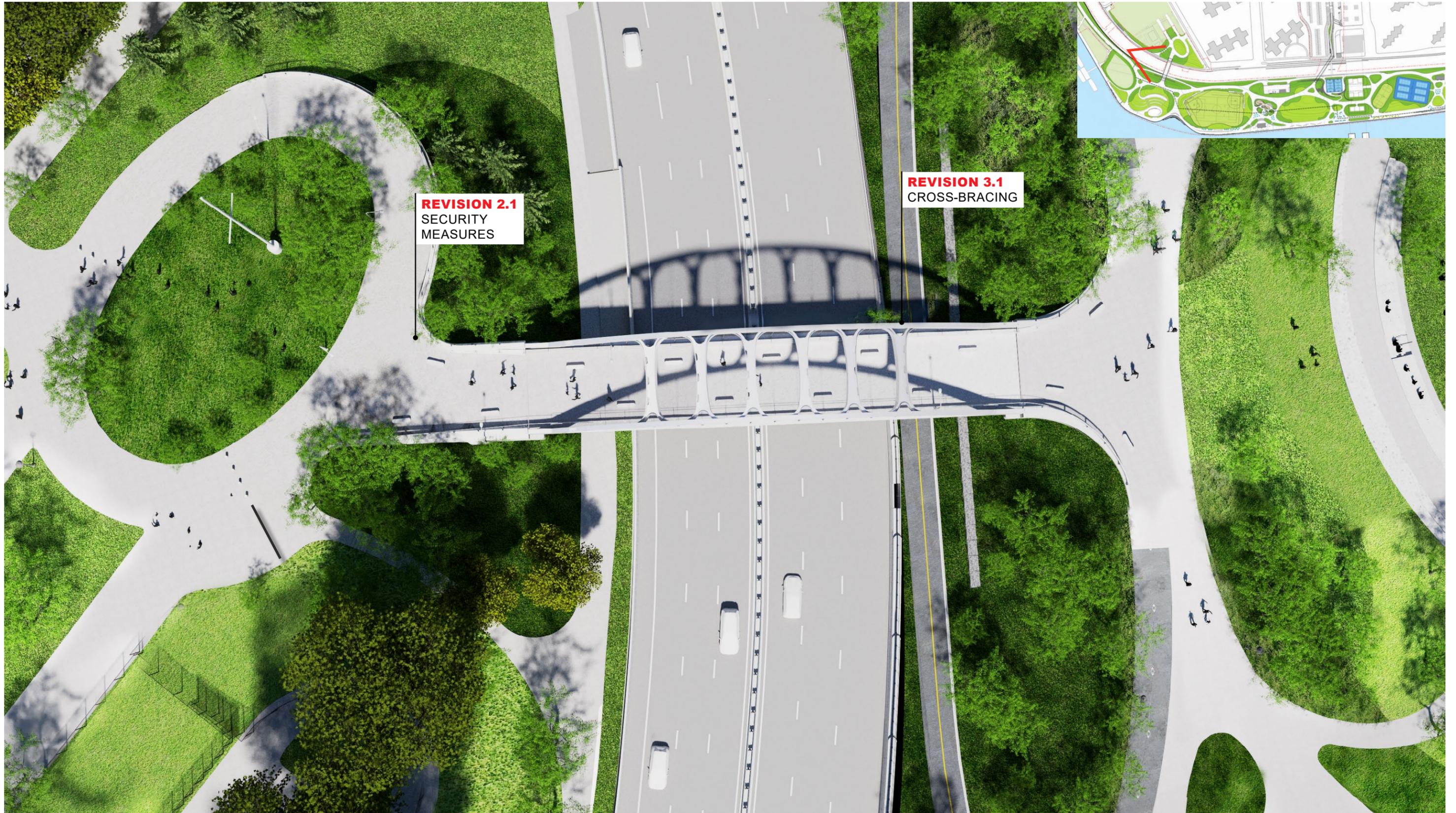
**Corlears Hook Bridge
FDR View 21**



REVISION 3.3
DETERRENT
FURNITURE

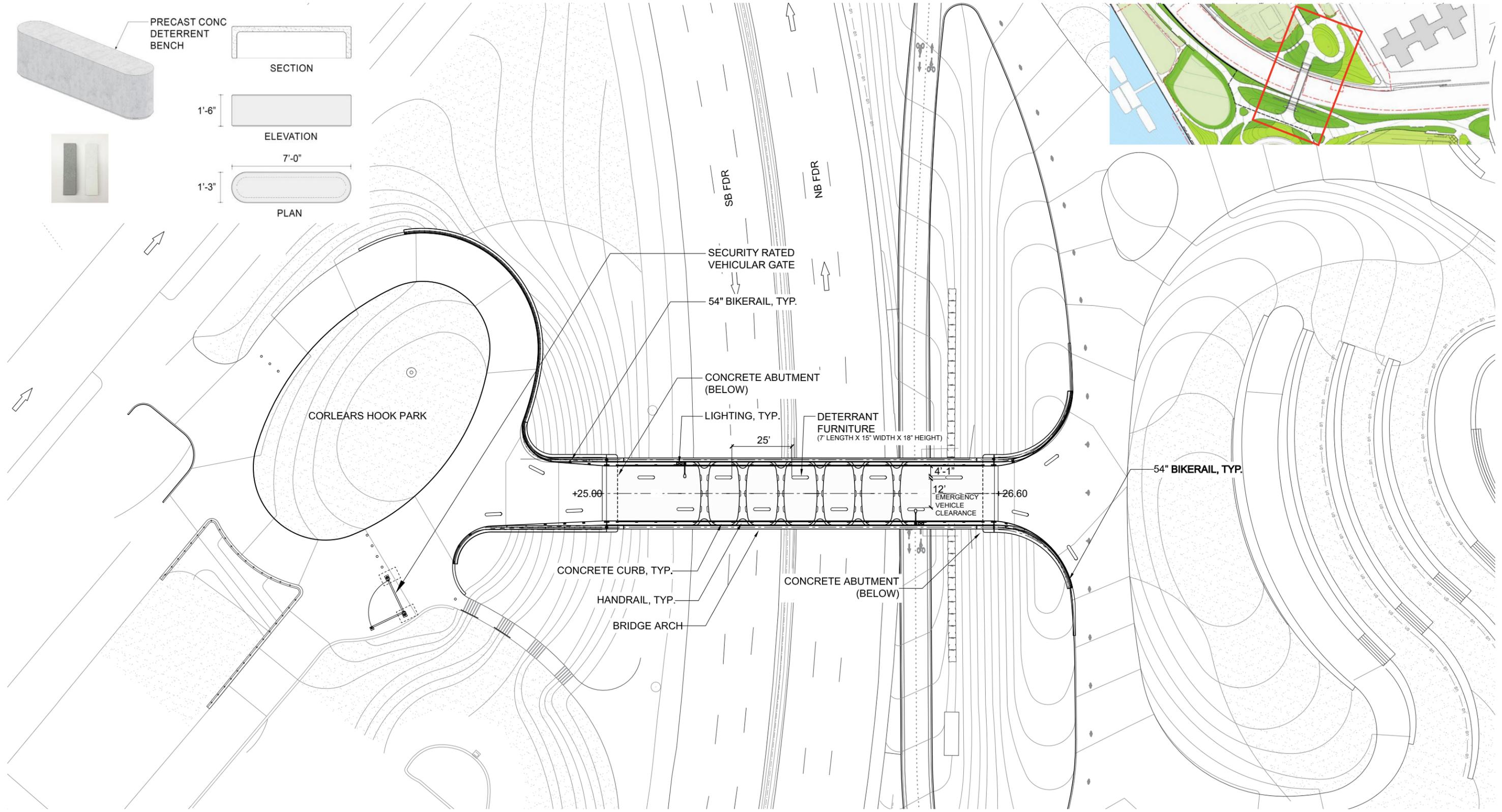
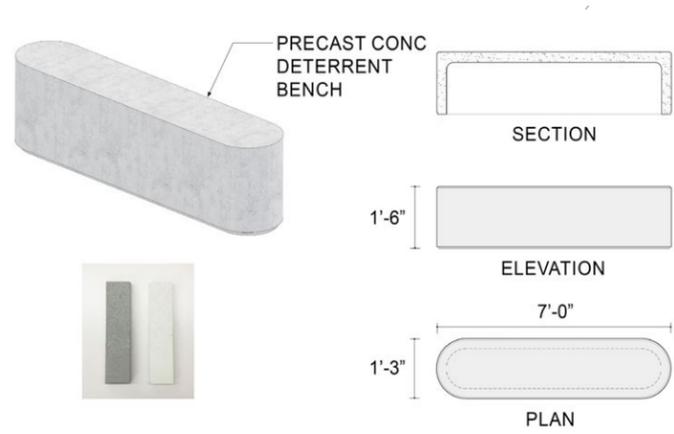
REVISION 3.1
CROSS-BRACING

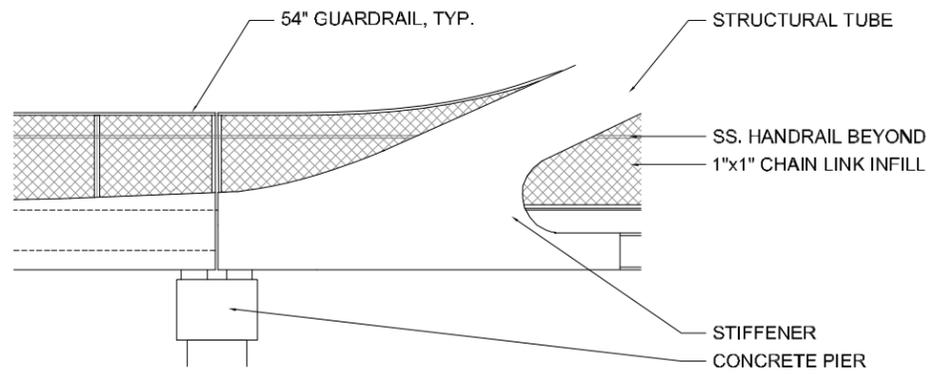
REVISION 3.2
NON-MOUNTABLE
CONCRETE CURB



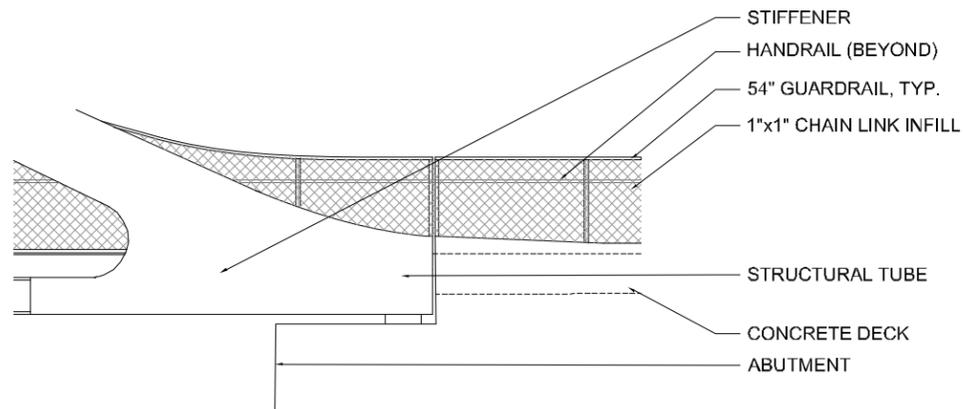
REVISION 2.1
SECURITY
MEASURES

REVISION 3.1
CROSS-BRACING

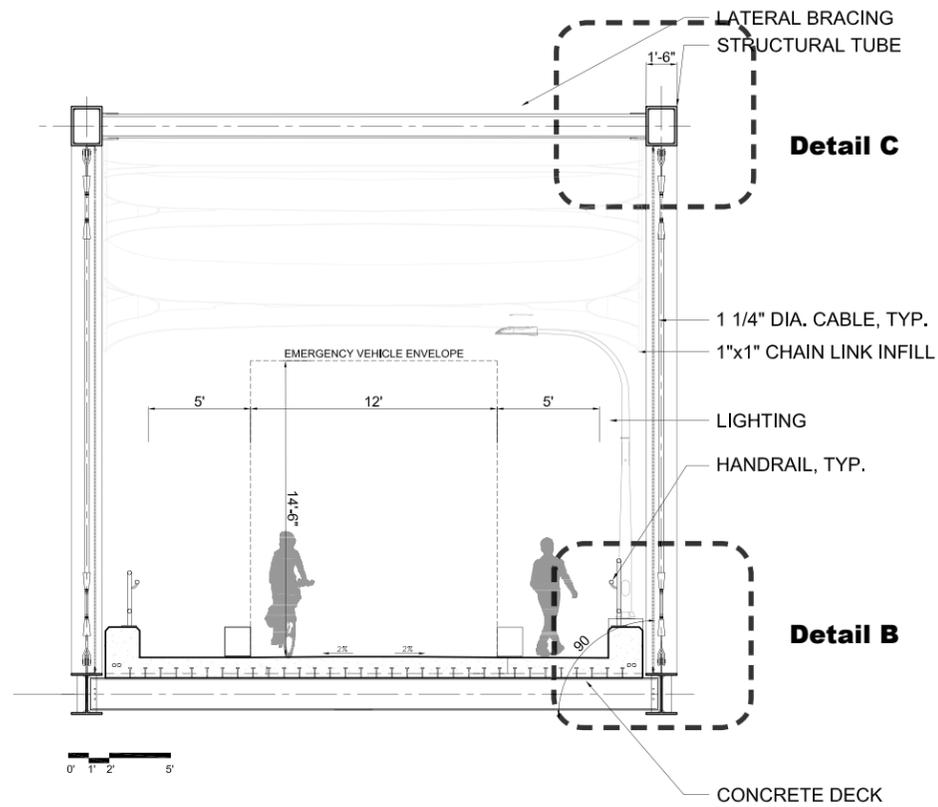




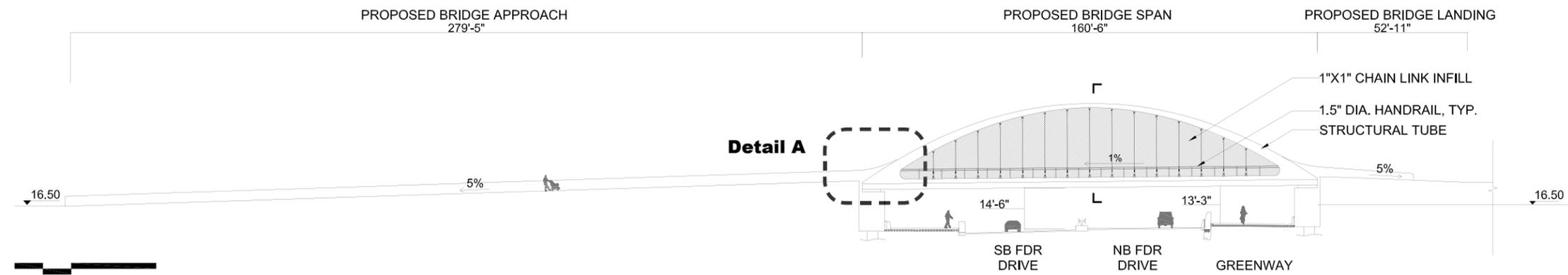
Transition Detail - Bridge to Concrete Pier



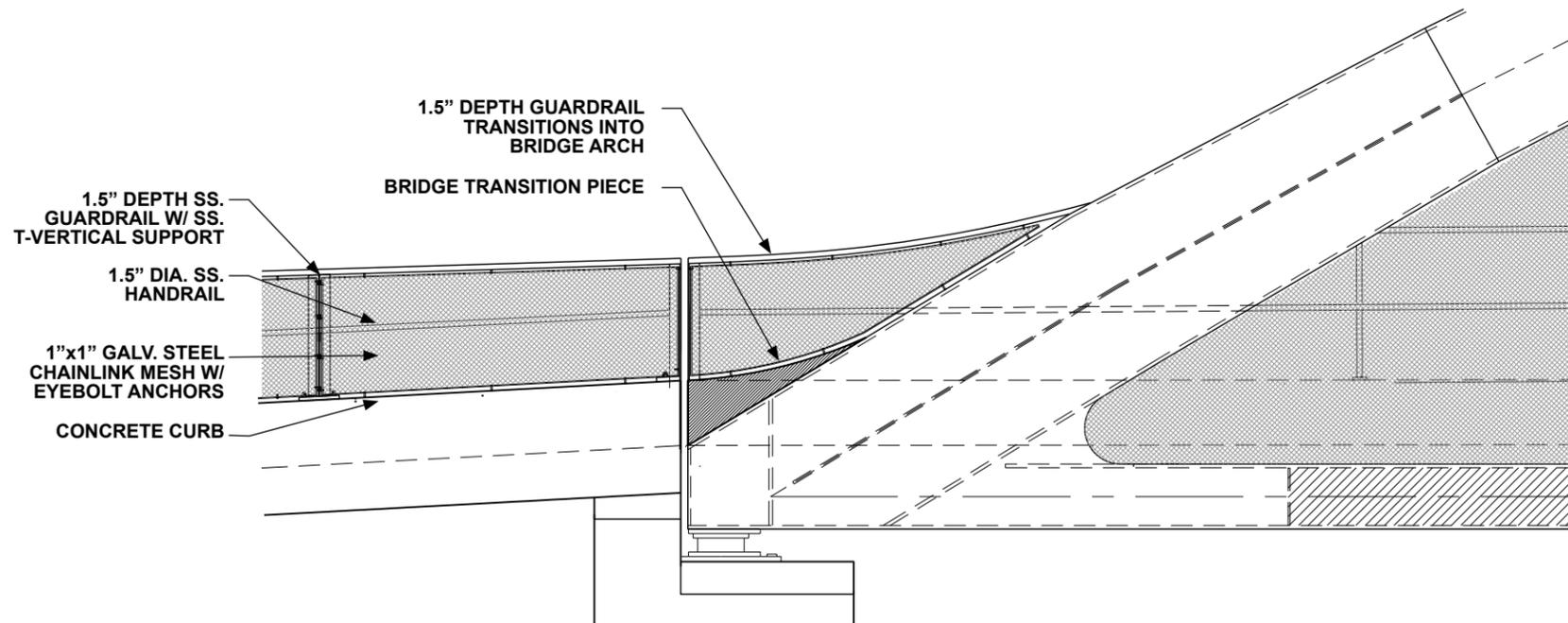
Transition Detail - Bridge to Abutment



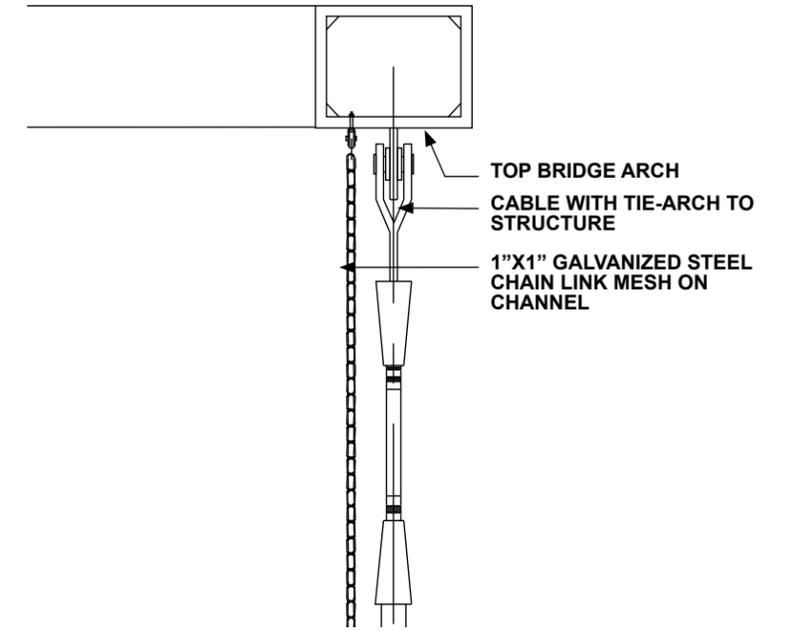
Section Through Bridge Arch



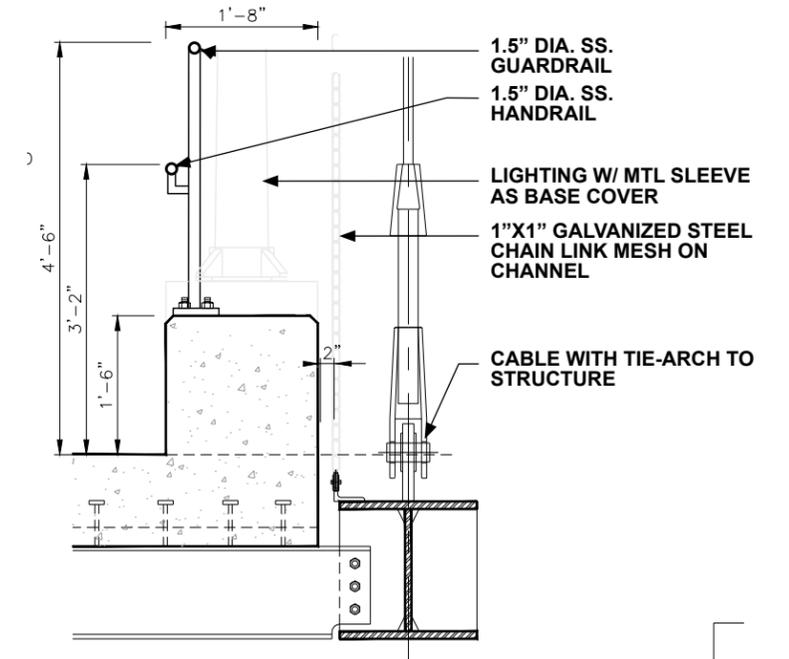
Bridge Elevation



Detail A
Section at Transition from Bridge to Concrete Pier



Detail C
Section at Top Structural Tube



Detail B
Section at Concrete Deck



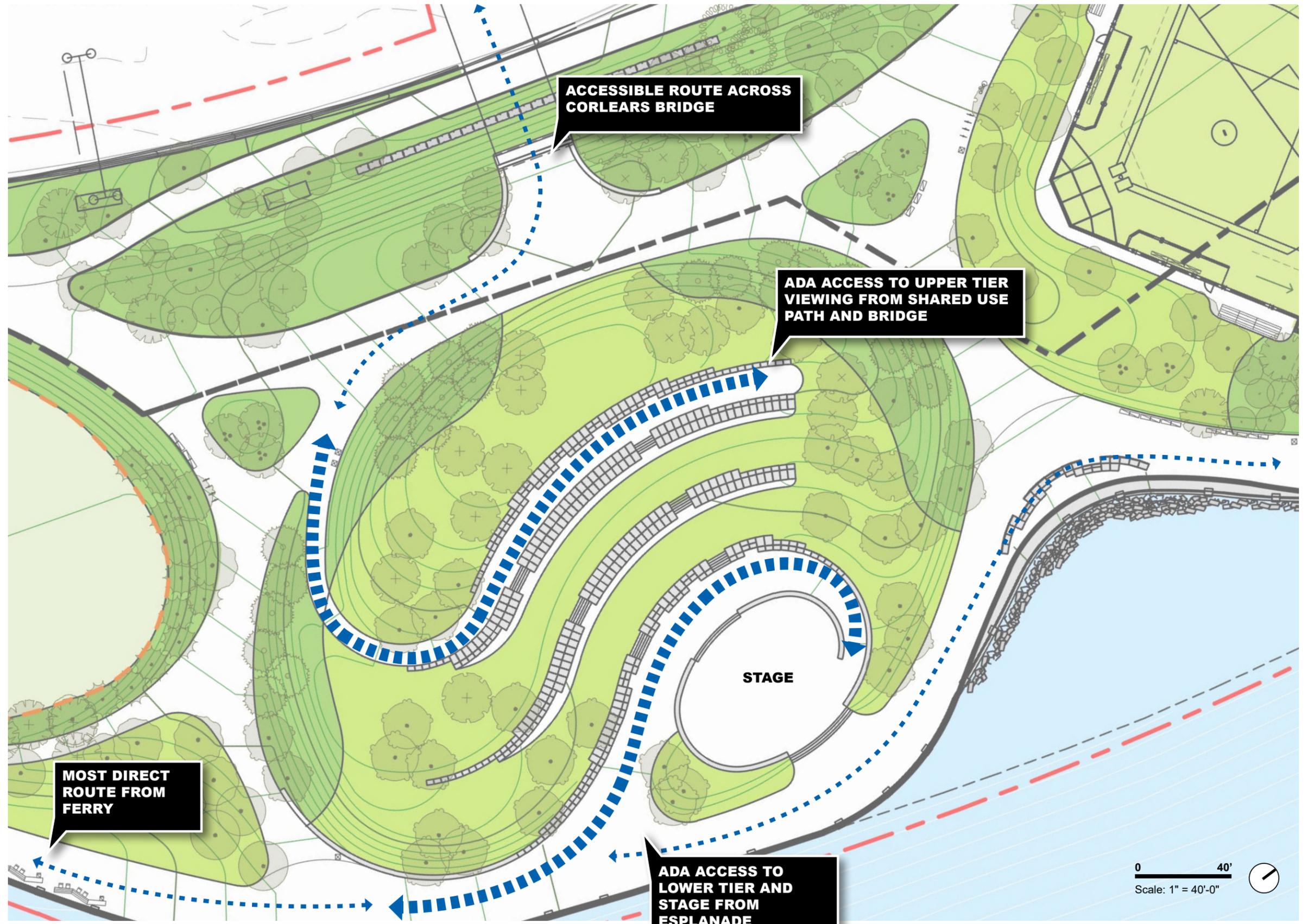
**CORLEARS
HOOK PARK**

**RE-CONSTRUCTED
CORLEARS HOOK BRIDGE**

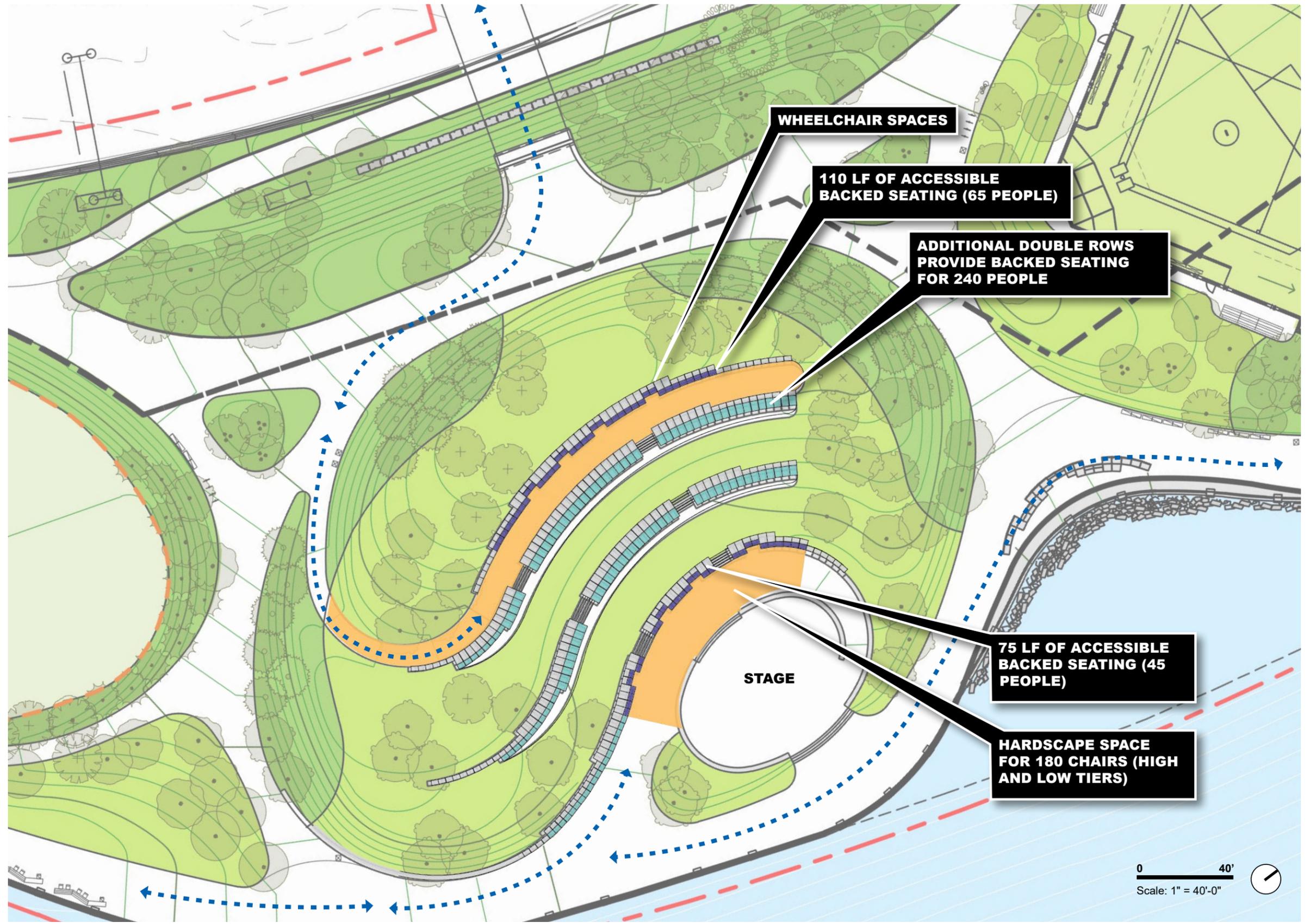
**ACCESSIBLE AREAS OF
HARDSCAPE INTERSPERSED
WITH FLEXIBLE LAWN
AREAS**

BACKED SEATING

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

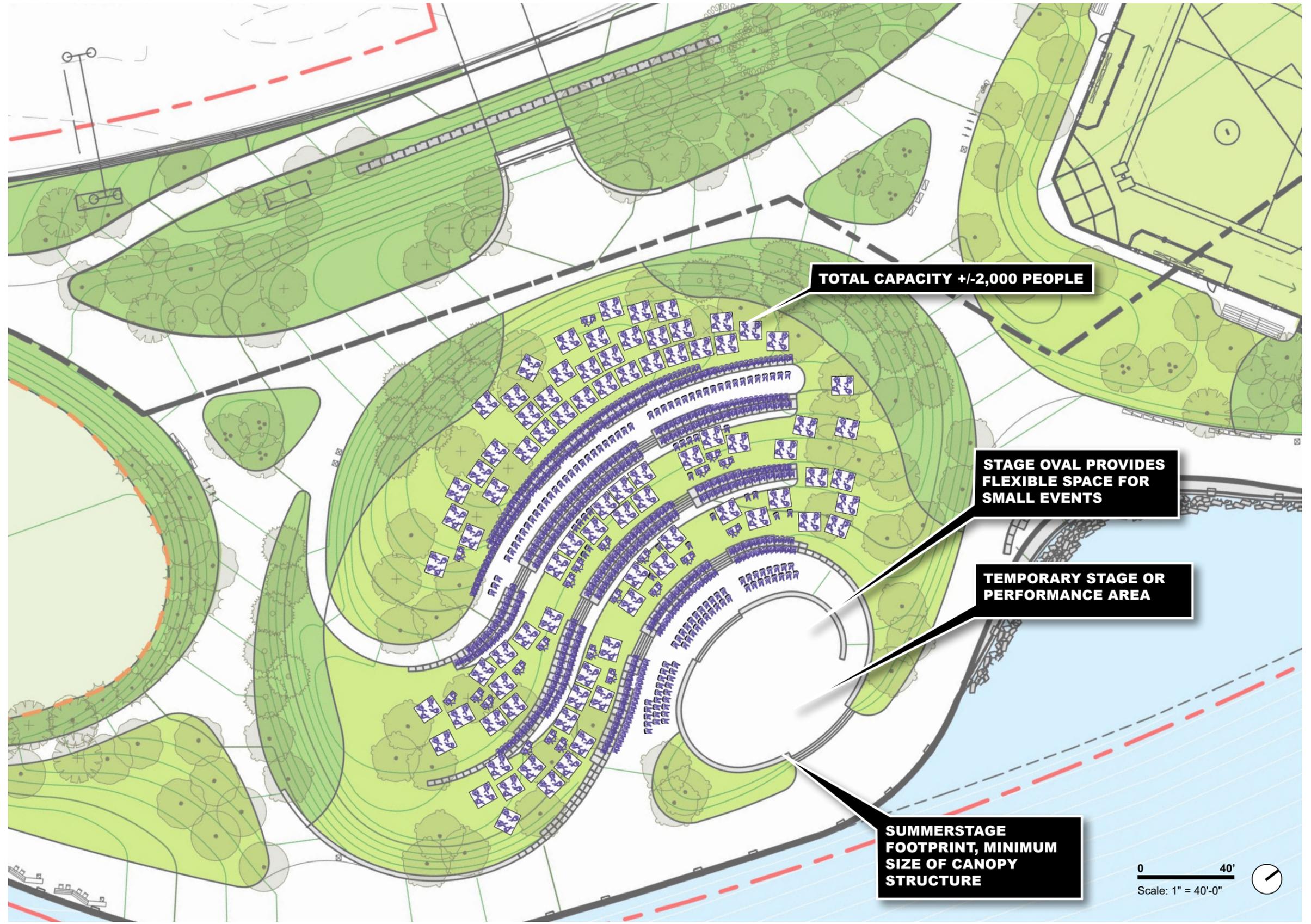


← - - - → ACCESSIBLE PATH



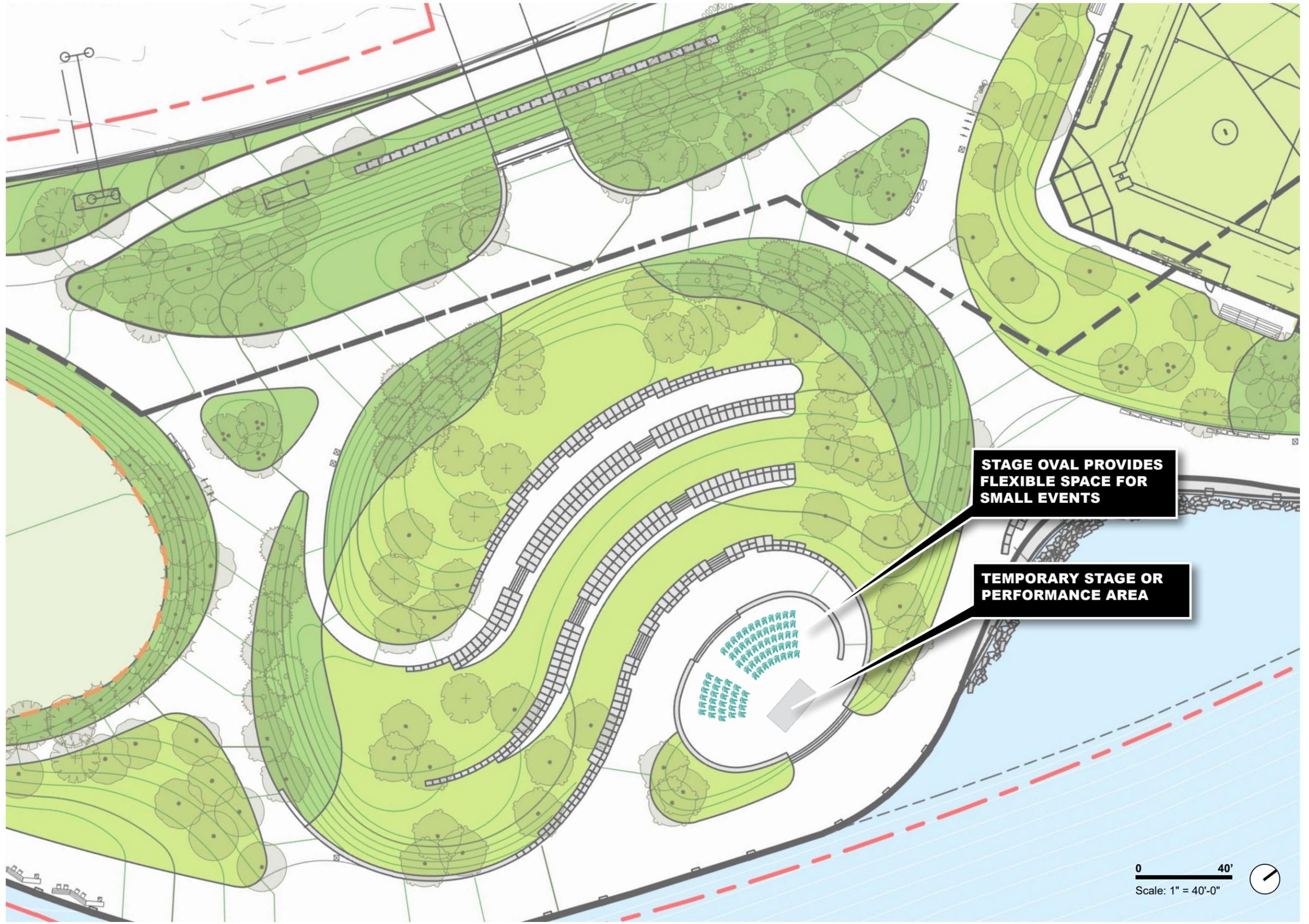
- ACCESSIBLE BACKED SEATING (110 PEOPLE)
- BACKED SEATING (220 PEOPLE)
- ACCESSIBLE HARDSCAPE (180 PEOPLE)
- ACCESSIBLE PATH

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



NOTE:
TOTAL SIZE: +/-40,000 SF
TOTAL CAPACITY: +/-2,000 PEOPLE
 LAWN CAPACITY: 1,070 PEOPLE
 FIXED SEATING CAPACITY: 750 PEOPLE
 HARDSCAPE CAPACITY = 180 PEOPLE

— 2000 PEOPLE

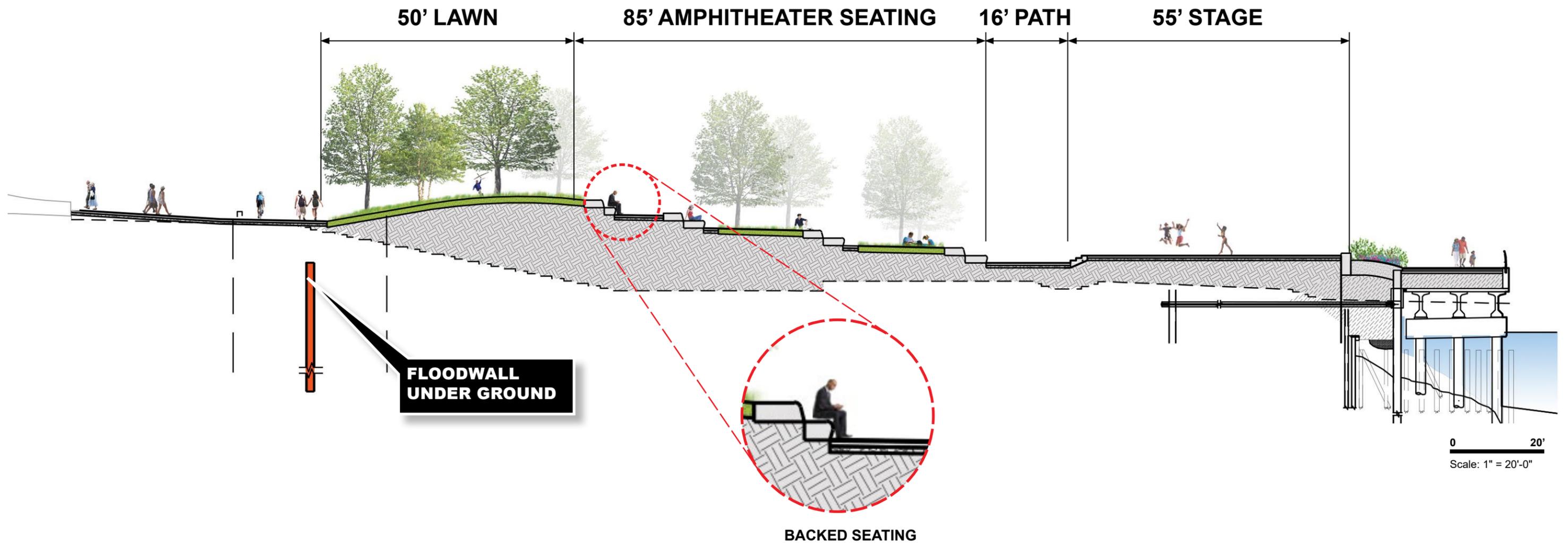


75 PEOPLE

STAGE OVAL PROVIDES FLEXIBLE SPACE FOR SMALL EVENTS

TEMPORARY STAGE OR PERFORMANCE AREA

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

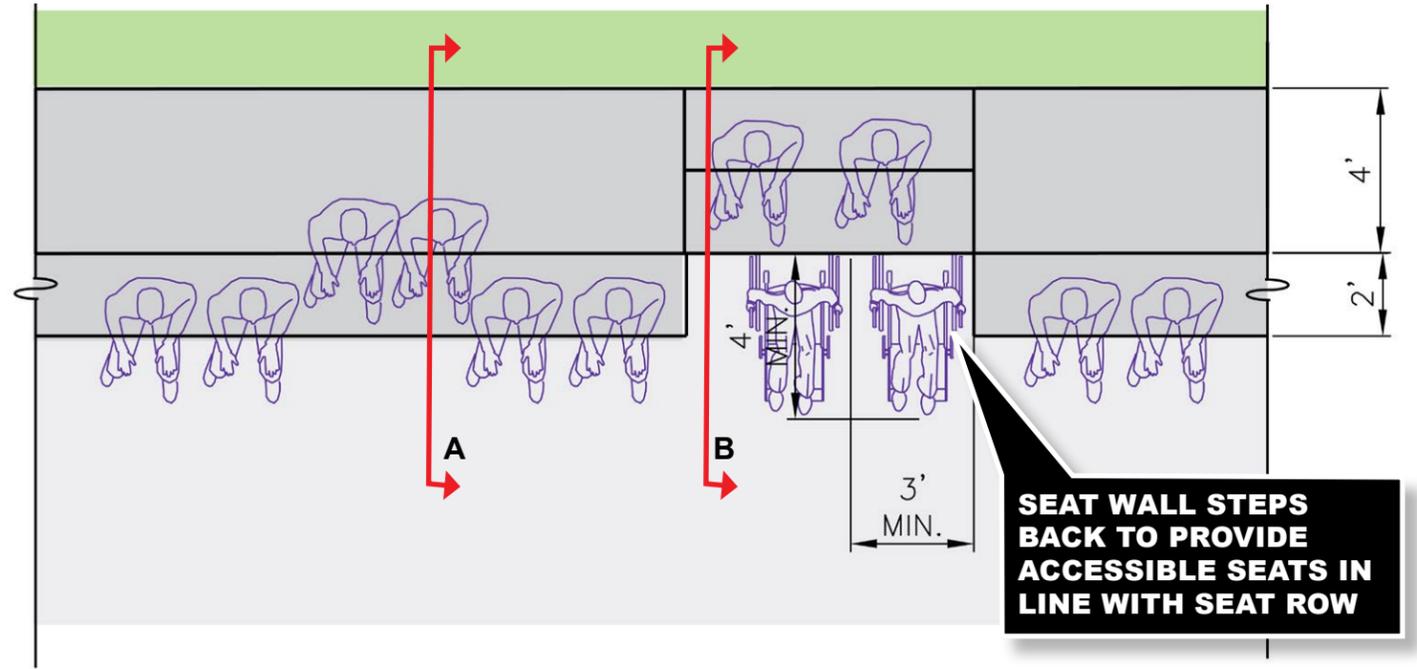


VIEW



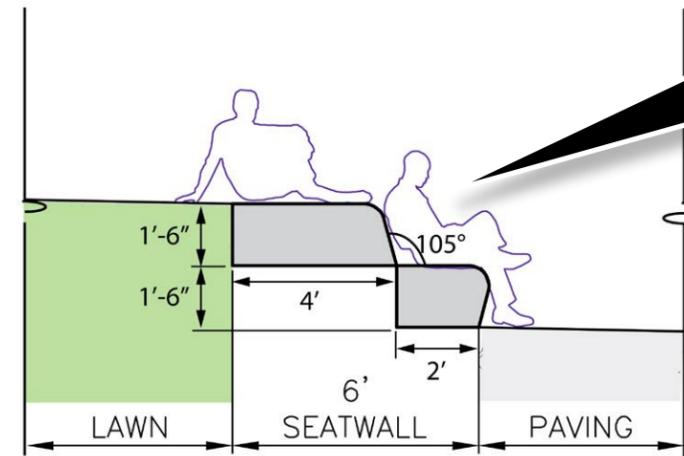
ACCESSIBLE SEAT AND BACKED COMPANION SEAT

PLAN



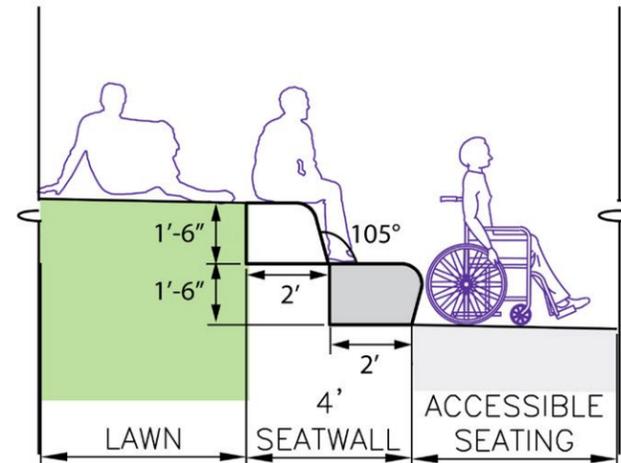
SEAT WALL STEPS BACK TO PROVIDE ACCESSIBLE SEATS IN LINE WITH SEAT ROW

SECTION A



UPPER ROW ACTS AS SEAT BACK

SECTION B





AKRF-KSE, JV	BJARKE INGELS GROUP	MATHEWS NIELSEN LANDSCAPE ARCHITECTS, P.C.	ONE ARCHITECTURE AND URBANISM	NEW YORK CITY DEPT. OF DESIGN AND CONSTRUCTION	NEW YORK CITY DEPT. OF PARKS AND RECREATION	NEW YORK CITY DEPT. OF TRANSPORTATION	NEW YORK CITY DEPT. OF ENVIRONMENTAL PROTECTION	NEW YORK CITY MAYOR'S OFFICE OF RESILIENCY
--------------	---------------------------	--	-------------------------------------	--	---	---	---	---

**PDC FINAL REVIEW
EAST SIDE COASTAL
RESILIENCY PROJECT**

DECEMBER 16, 2019

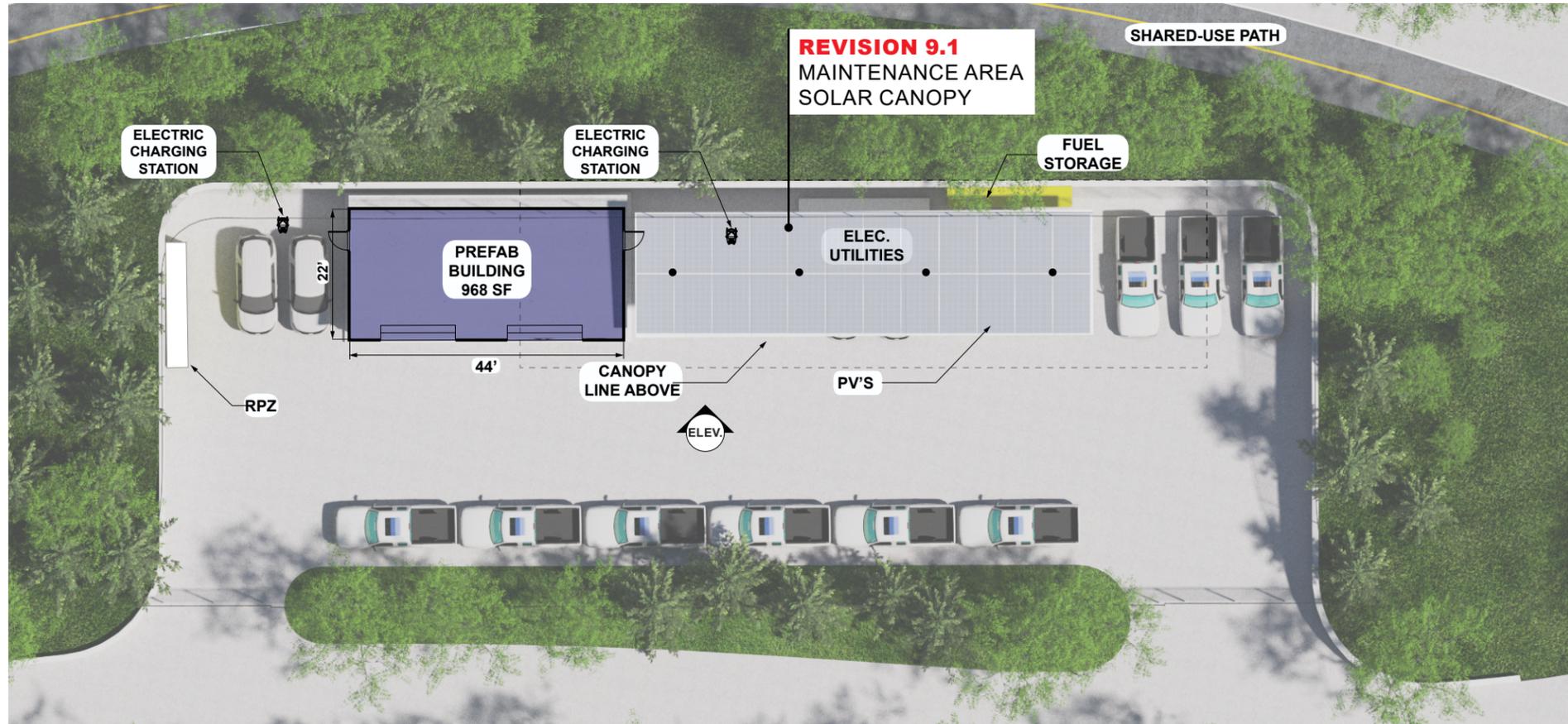
Corlears Hook Bridge Landing Final Review



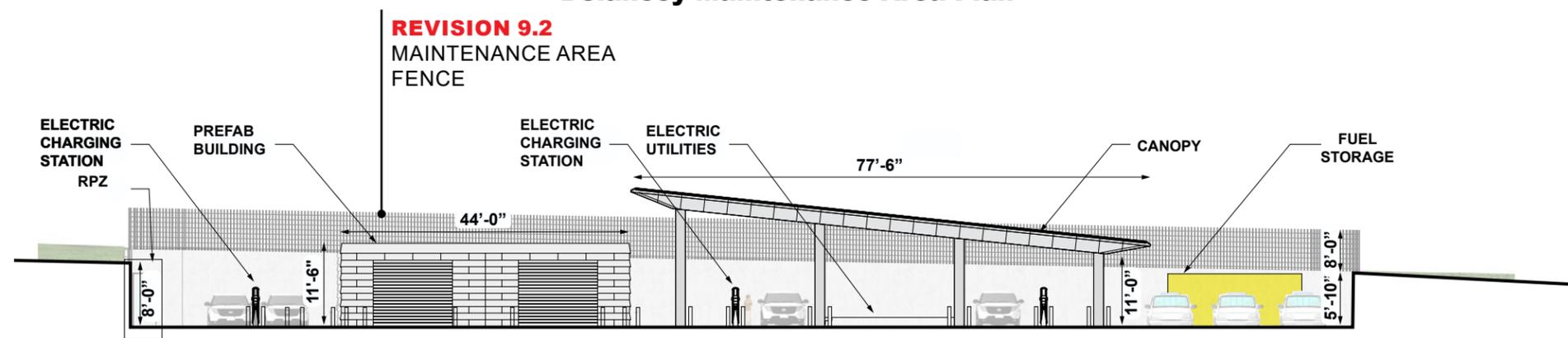
AKRF-KSE, JV	BJARKE INGELS GROUP	MATHEWS NIELSEN LANDSCAPE ARCHITECTS, P.C.	ONE ARCHITECTURE AND URBANISM	NEW YORK CITY DEPT. OF DESIGN AND CONSTRUCTION	NEW YORK CITY DEPT. OF PARKS AND RECREATION	NEW YORK CITY DEPT. OF TRANSPORTATION	NEW YORK CITY DEPT. OF ENVIRONMENTAL PROTECTION	NEW YORK CITY MAYOR'S OFFICE OF RESILIENCY
--------------	---------------------------	--	-------------------------------------	--	---	---	---	---

**PDC FINAL REVIEW
EAST SIDE COASTAL
RESILIENCY PROJECT**

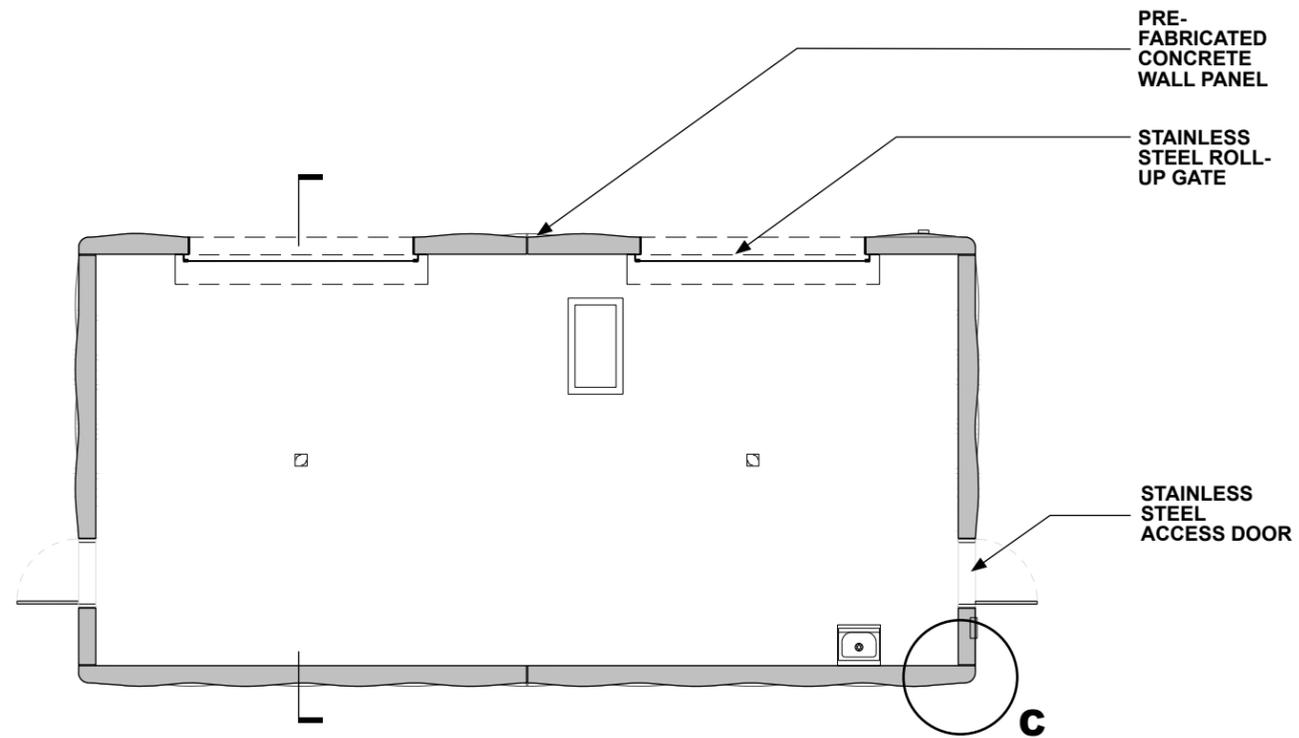
DECEMBER 16, 2019



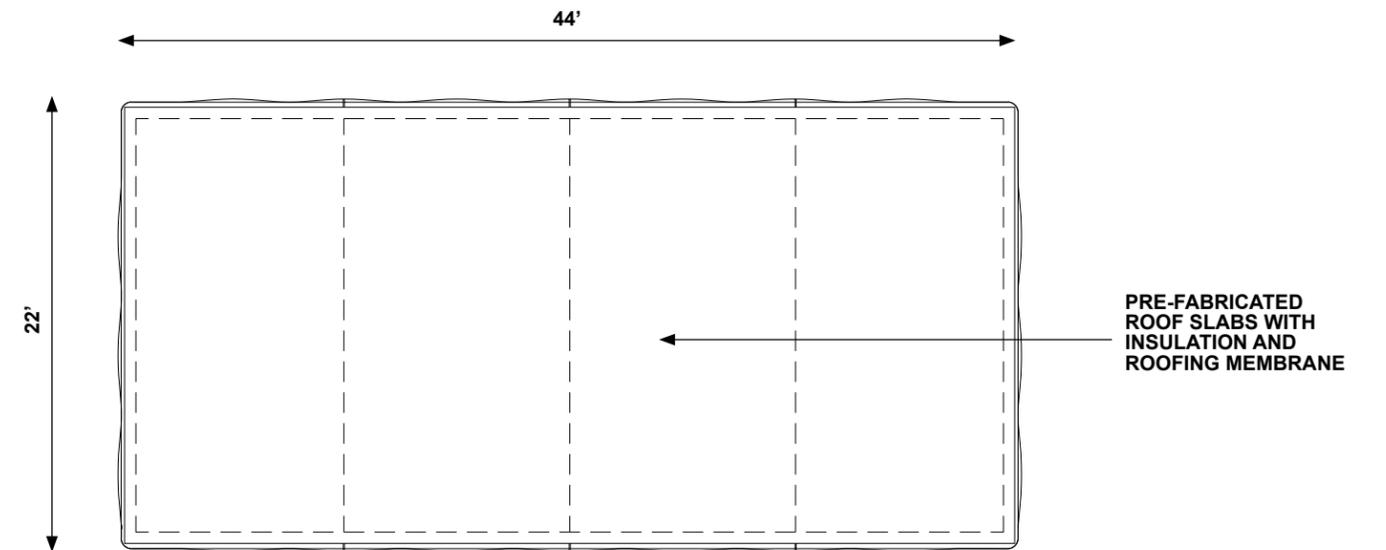
Delancey Maintenance Area Plan



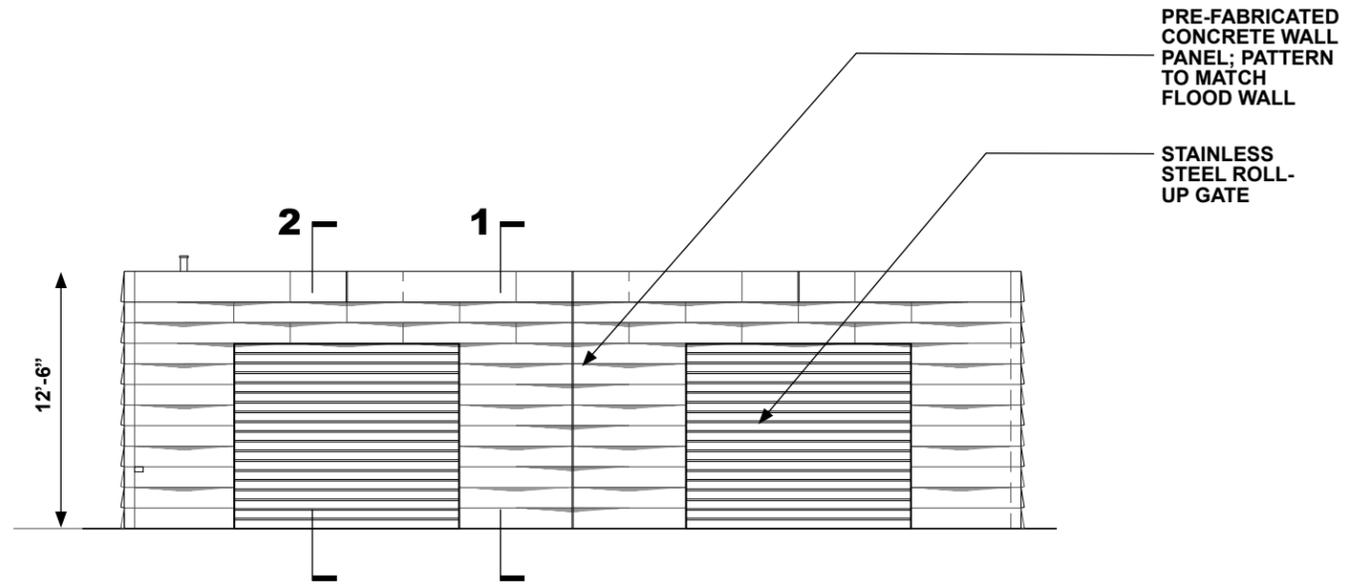
Delancey Maintenance Area Elevation



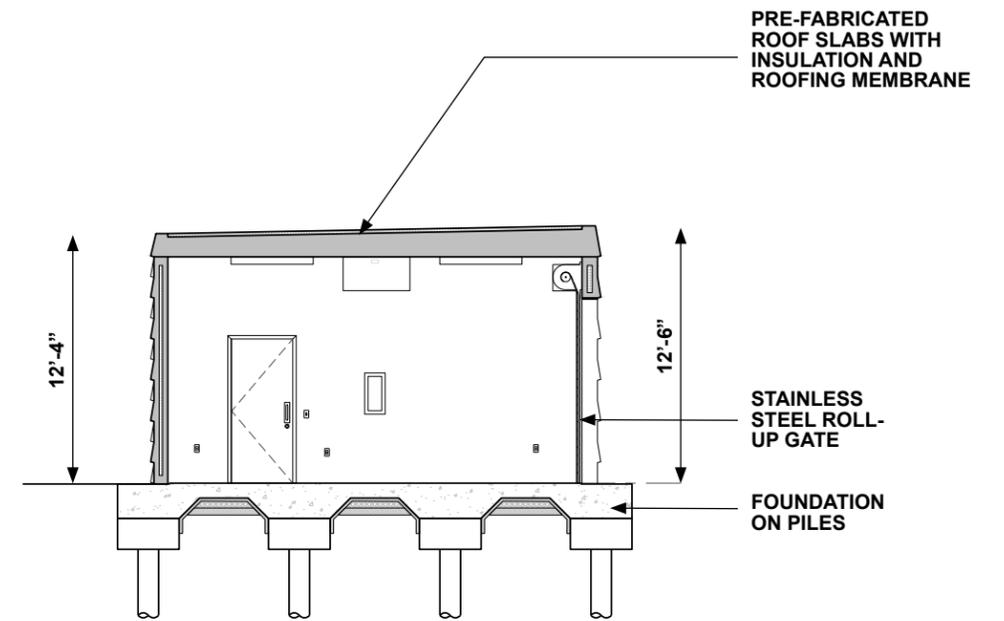
Prefab Building Floor Plan



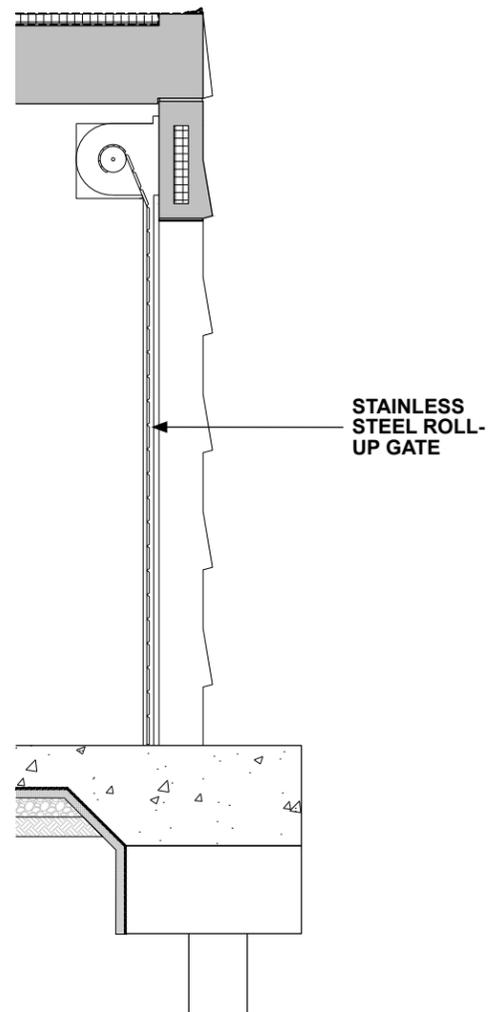
Prefab Building Roof Plan



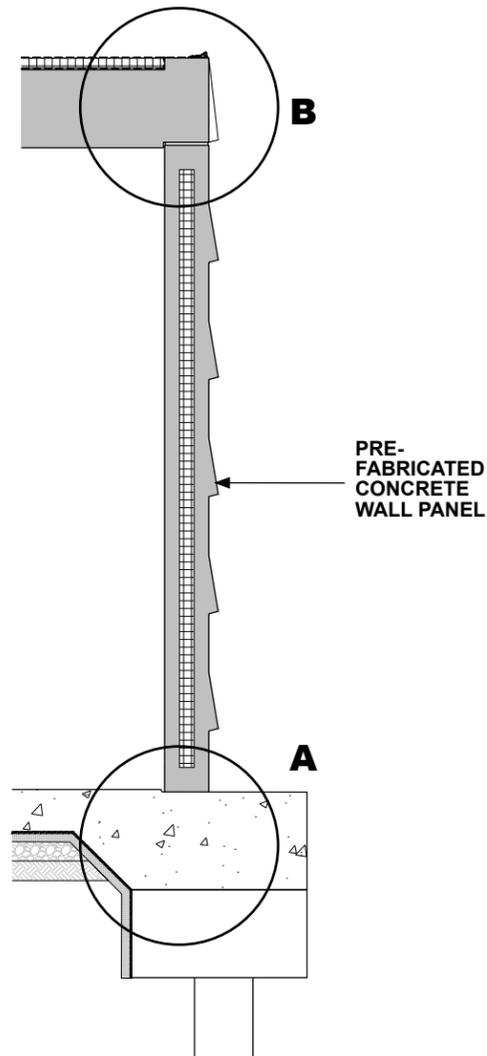
Prefab Building Elevation



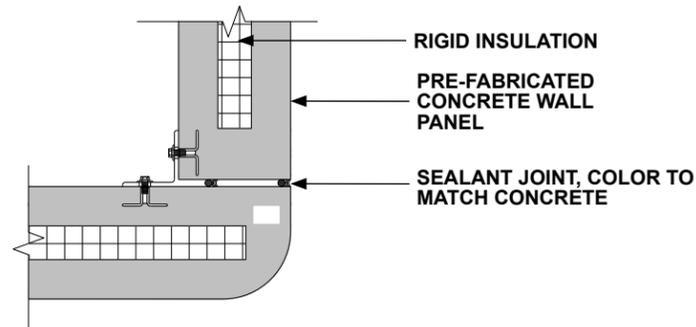
Prefab Building Section



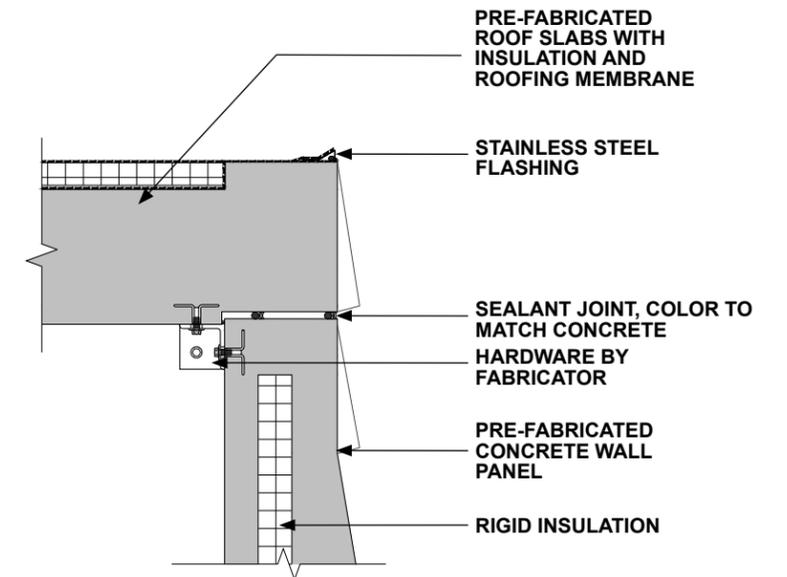
2: Section at Roll-up Gate



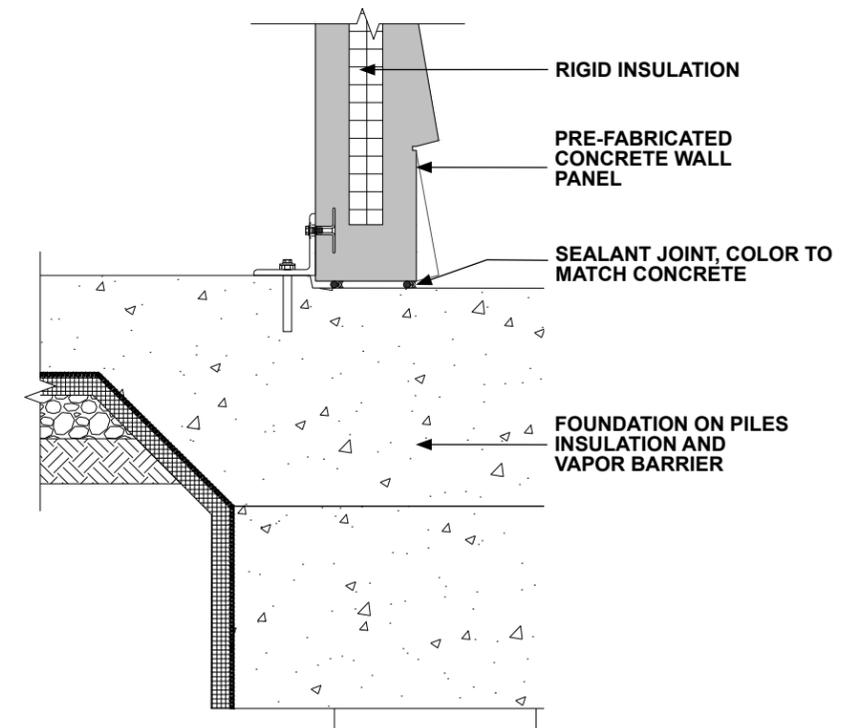
1: Section at Solid Wall



C: Detail Plan at Corner



B: Section Detail at Parapet



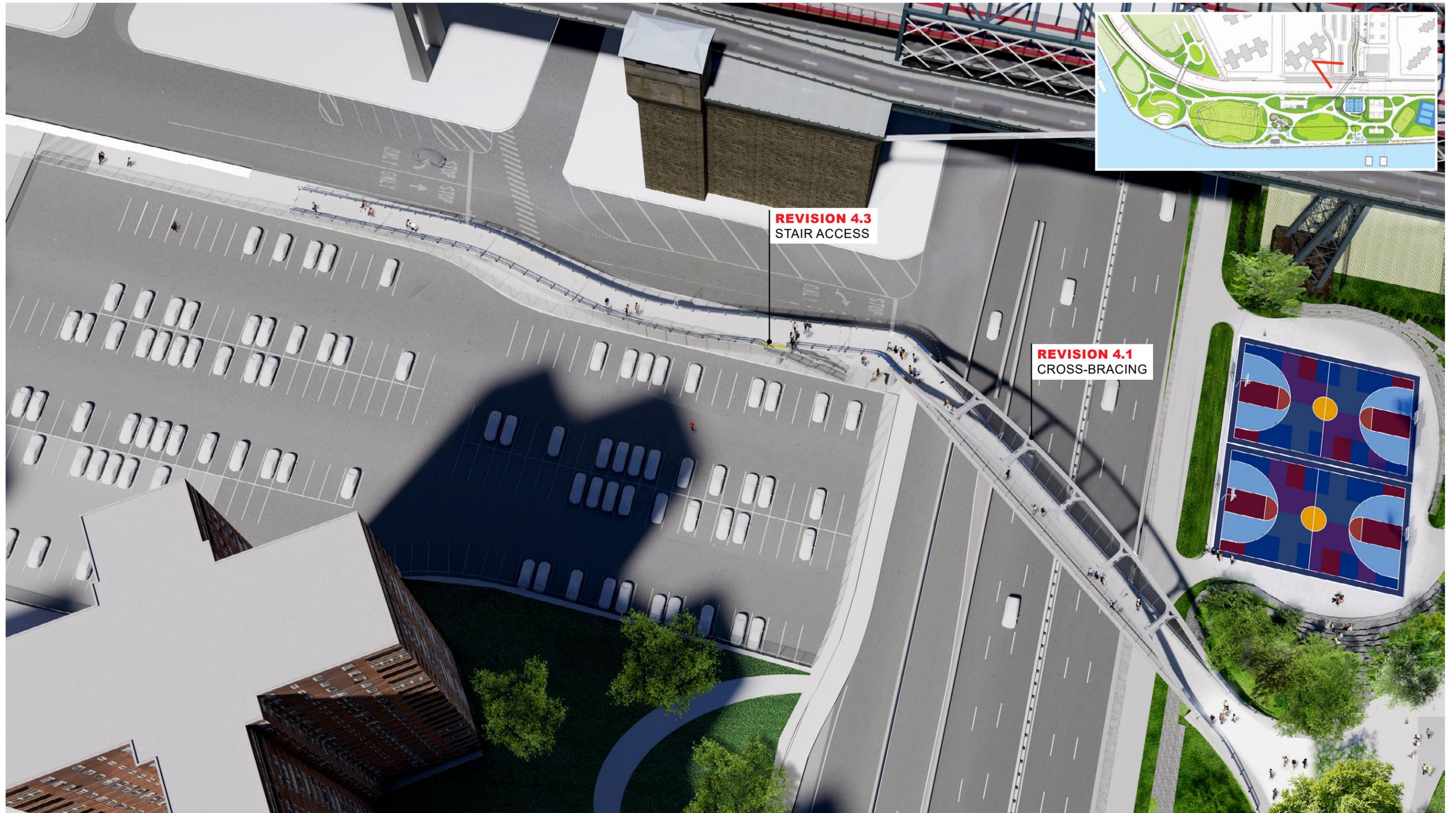
A: Section Detail at Base

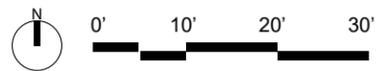
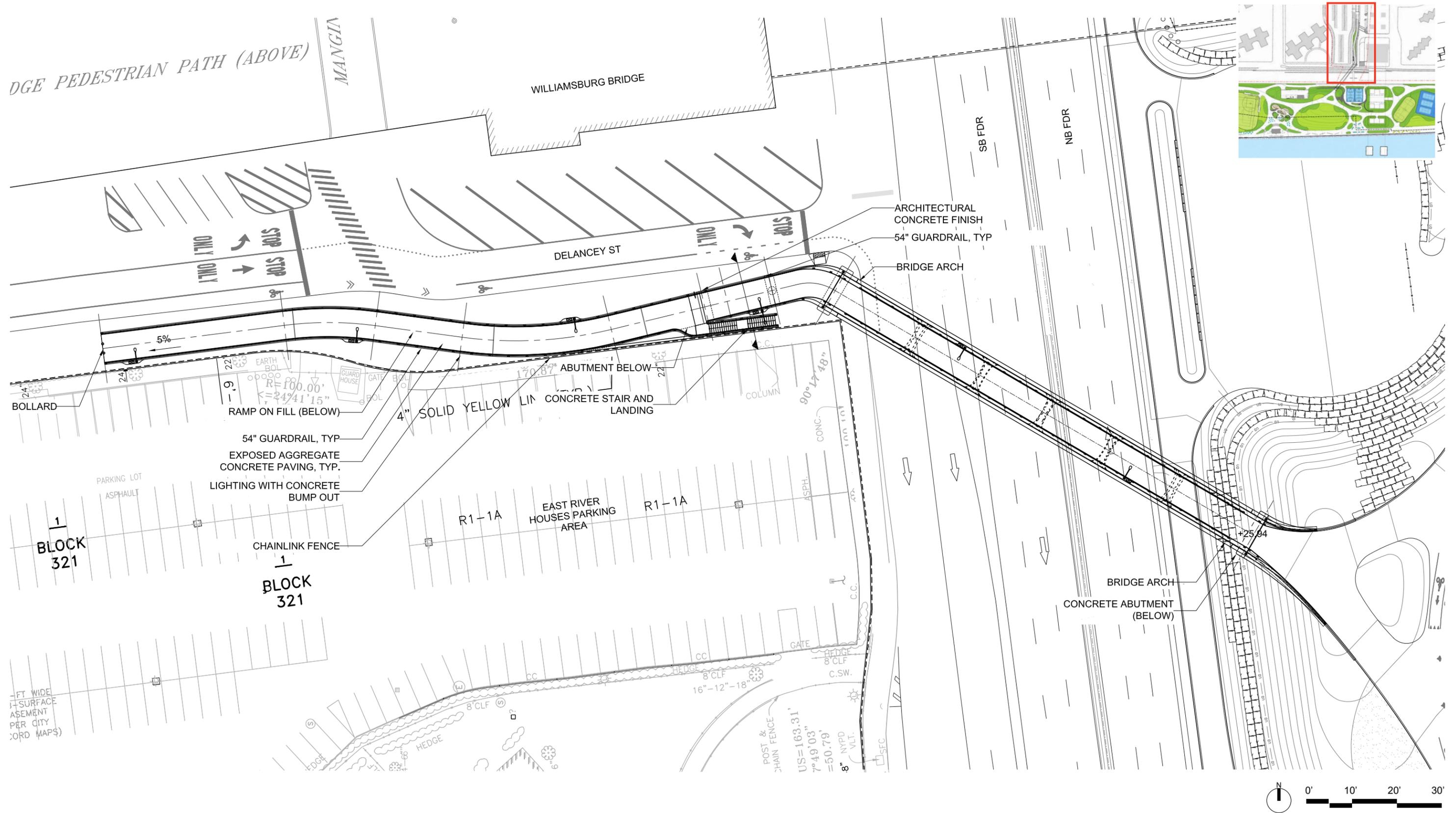




REVISION 10.1
COURT COLORS

REVISION 4.1
CROSS-BRACING



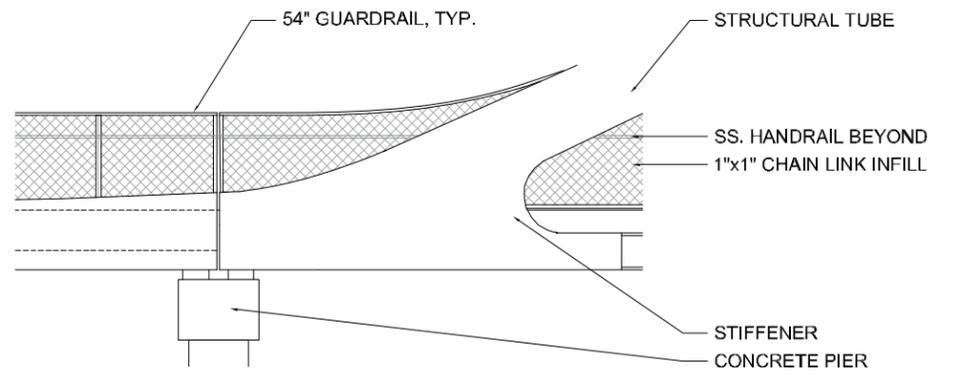


AKRF-KSE, JV | BJARKE | MATHEWS NIELSEN | ONE | NEW YORK CITY | NEW YORK CITY | NEW YORK | NEW YORK CITY DEPT. | NEW YORK CITY MAYOR'S
 INGELS | LANDSCAPE | ARCHITECTURE | DEPT. OF DESIGN AND | DEPT. OF PARKS AND | CITY DEPT. OF | OF ENVIRONMENTAL | OFFICE OF RESILIENCY
 GROUP | ARCHITECTS, P.C. | AND URBANISM | CONSTRUCTION | RECREATION | TRANSPORTATION | PROTECTION

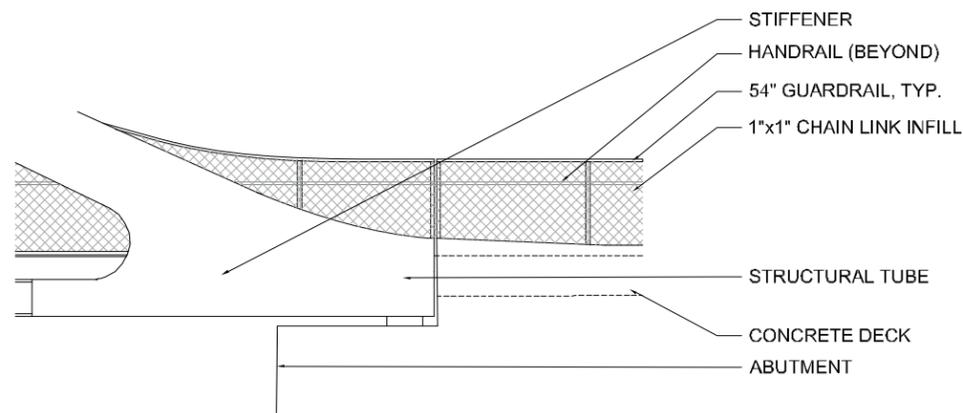
PDC FINAL REVIEW
EAST SIDE COASTAL
RESILIENCY PROJECT

DECEMBER 16, 2019

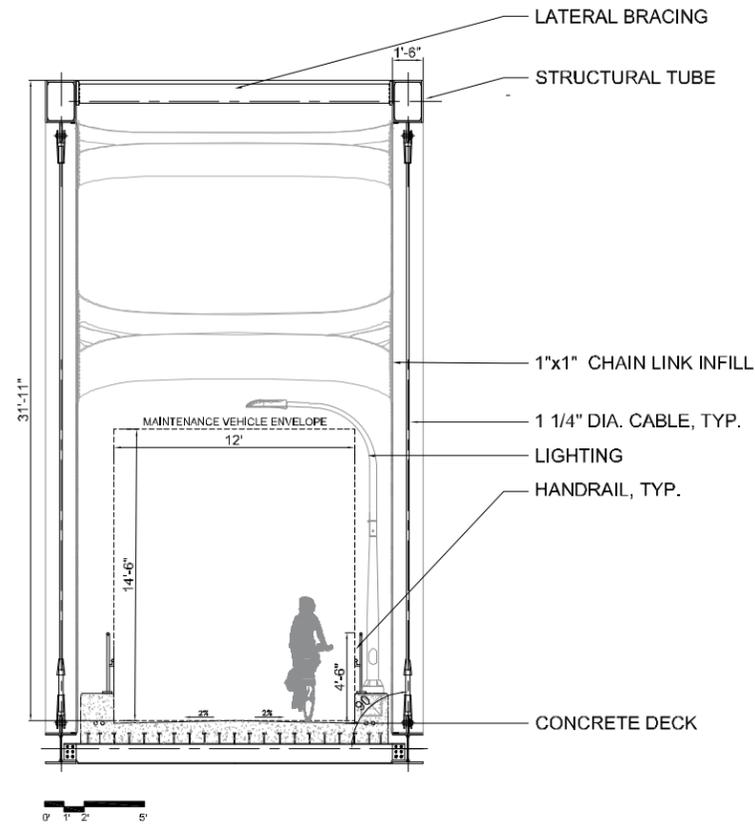
Delancey Street Bridge Enlargement Plan 43



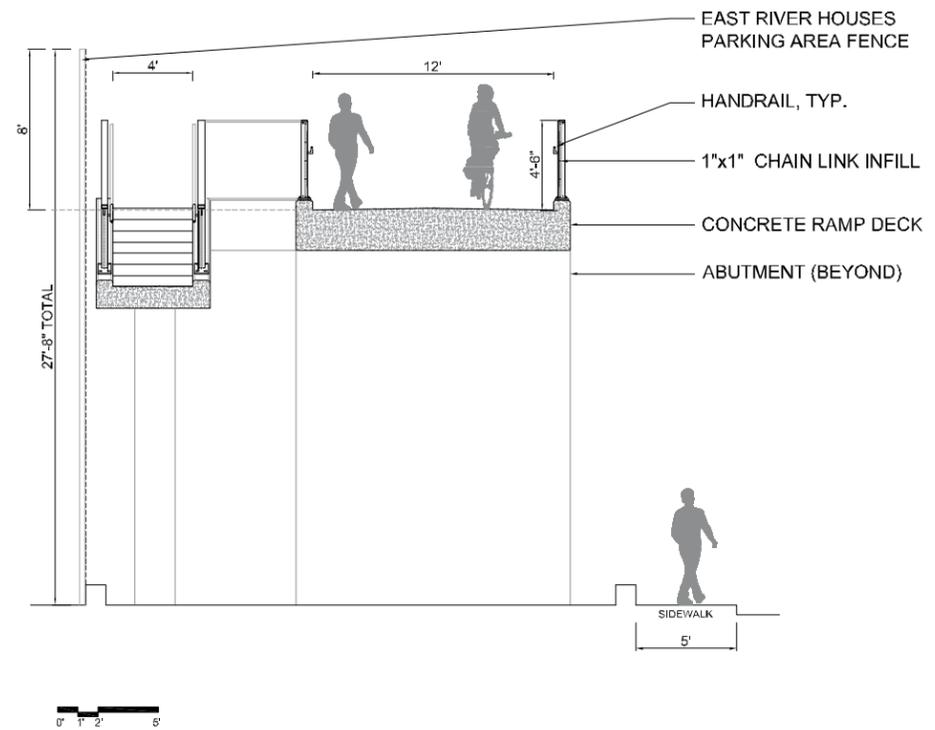
Transition Detail - Bridge to Concrete Pier



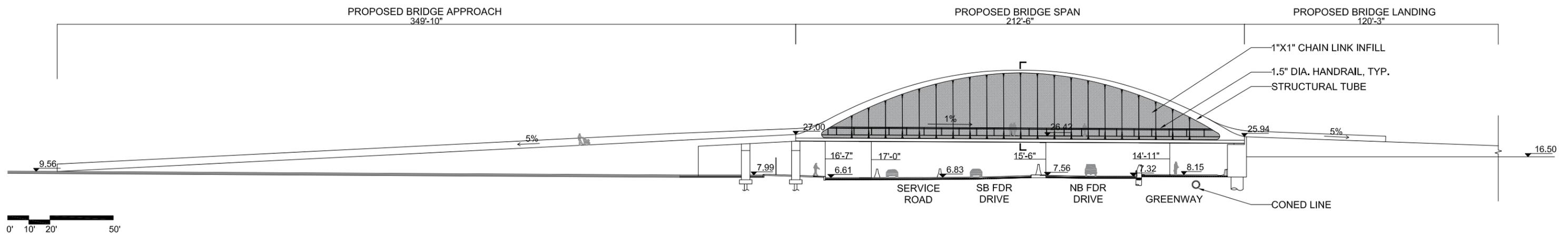
Transition Detail - Bridge to Abutment



Section Through Bridge Arch



Section Through Ramp & Stair



Bridge Elevation



AKRF-KSE, JV	BJARKE INGELS GROUP	MATHEWS NIELSEN LANDSCAPE ARCHITECTS, P.C.	ONE ARCHITECTURE AND URBANISM	NEW YORK CITY DEPT. OF DESIGN AND CONSTRUCTION	NEW YORK CITY DEPT. OF PARKS AND RECREATION	NEW YORK CITY DEPT. OF TRANSPORTATION	NEW YORK CITY DEPT. OF ENVIRONMENTAL PROTECTION	NEW YORK CITY MAYOR'S OFFICE OF RESILIENCY
--------------	---------------------------	--	-------------------------------------	--	---	---	---	---

**PDC FINAL REVIEW
EAST SIDE COASTAL
RESILIENCY PROJECT**

DECEMBER 16, 2019



REVISION 4.3
STAIR ACCESS



REVISION 4.1
CROSS-BRACING

REVISION 4.2
CONCRETE CURB &
VEHICULAR BARRIER



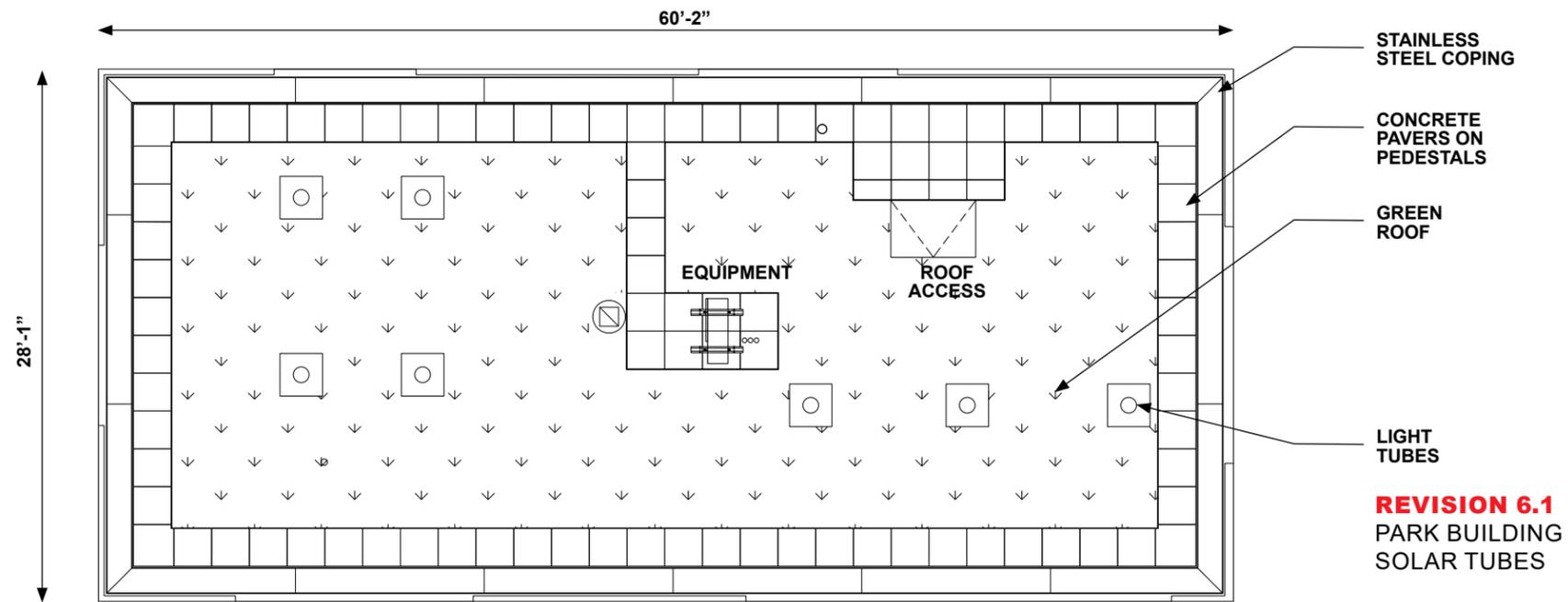
REVISION 10.1
COURT COLORS



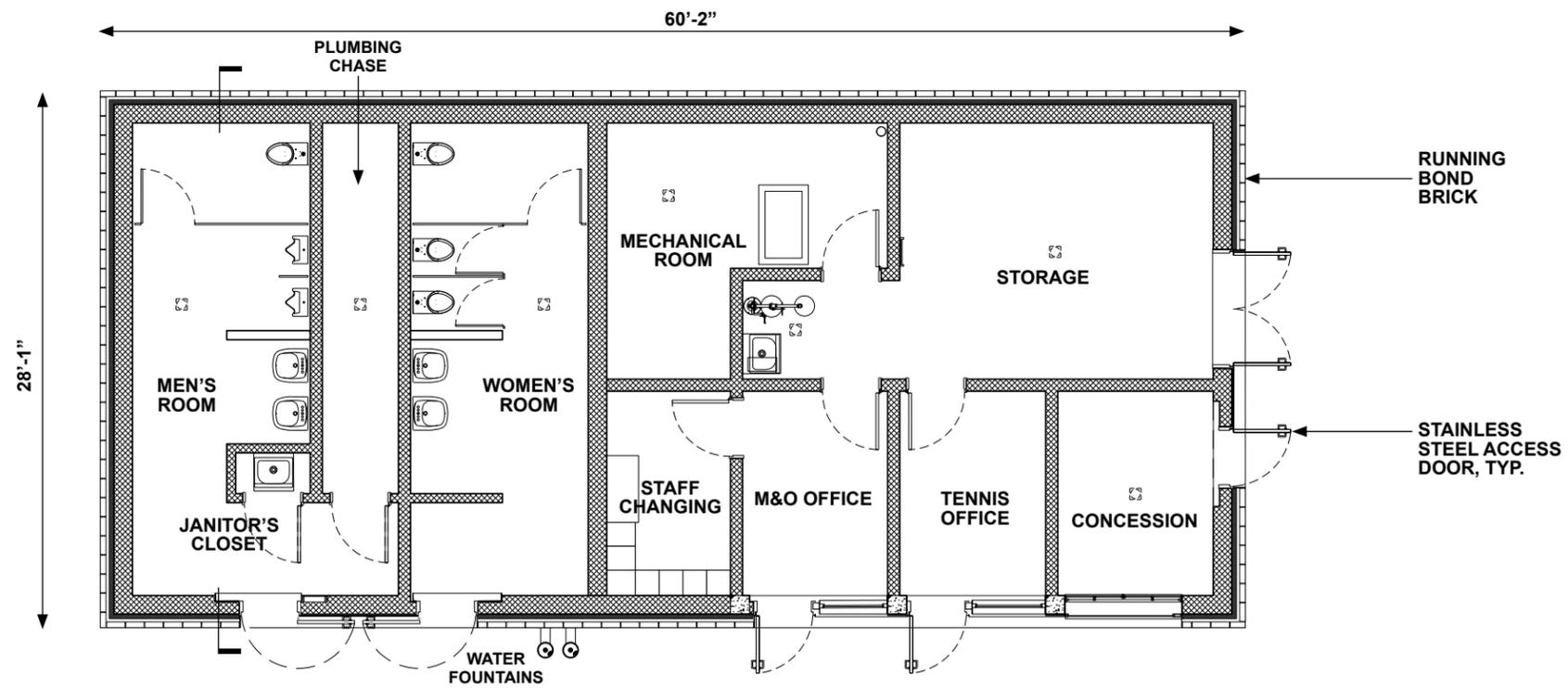
AKRF-KSE, JV	BJARKE INGELS GROUP	MATHEWS NIELSEN LANDSCAPE ARCHITECTS, P.C.	ONE ARCHITECTURE AND URBANISM	NEW YORK CITY DEPT. OF DESIGN AND CONSTRUCTION	NEW YORK CITY DEPT. OF PARKS AND RECREATION	NEW YORK CITY DEPT. OF TRANSPORTATION	NEW YORK CITY DEPT. OF ENVIRONMENTAL PROTECTION	NEW YORK CITY MAYOR'S OFFICE OF RESILIENCY
--------------	---------------------------	--	-------------------------------------	--	---	---	---	---

**PDC FINAL REVIEW
EAST SIDE COASTAL
RESILIENCY PROJECT**

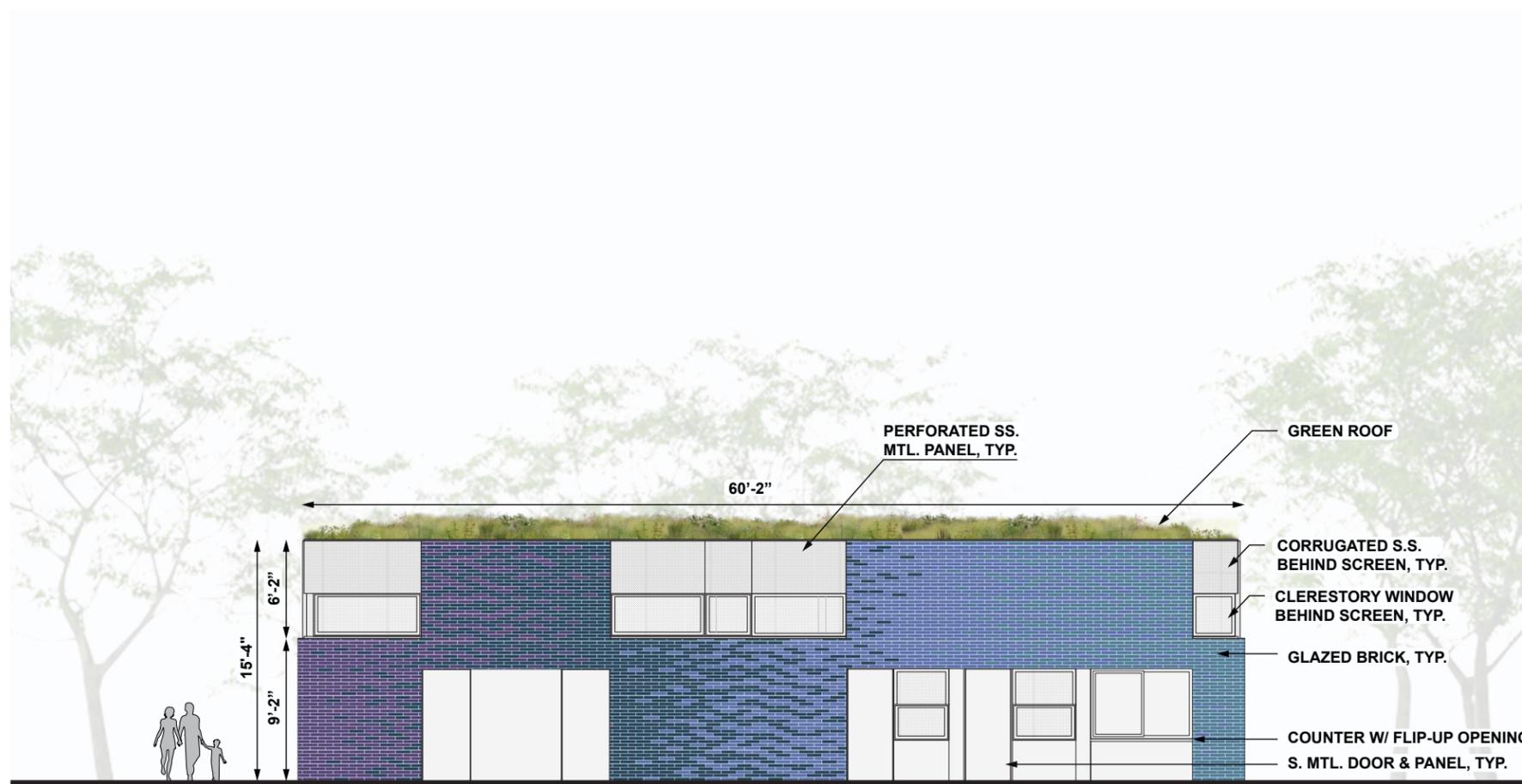
DECEMBER 16, 2019



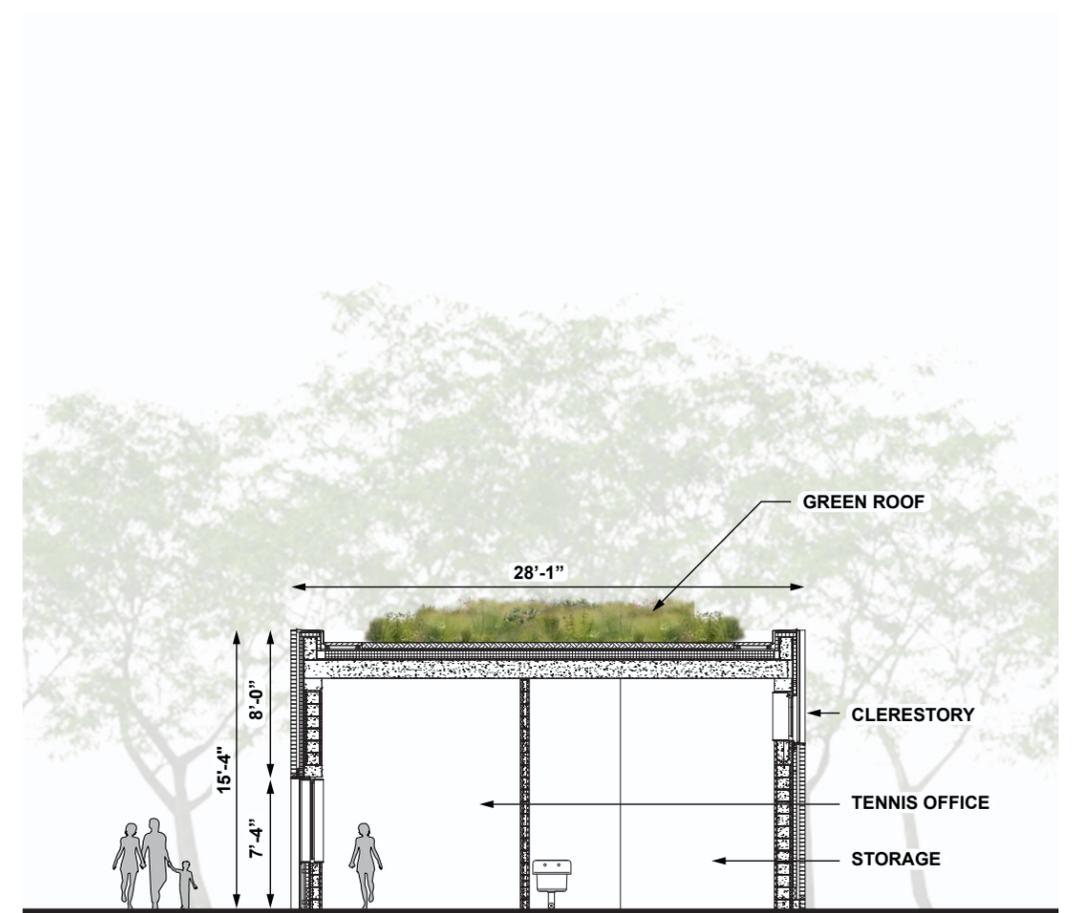
Tennis House Roof Plan



Tennis House Floor Plan

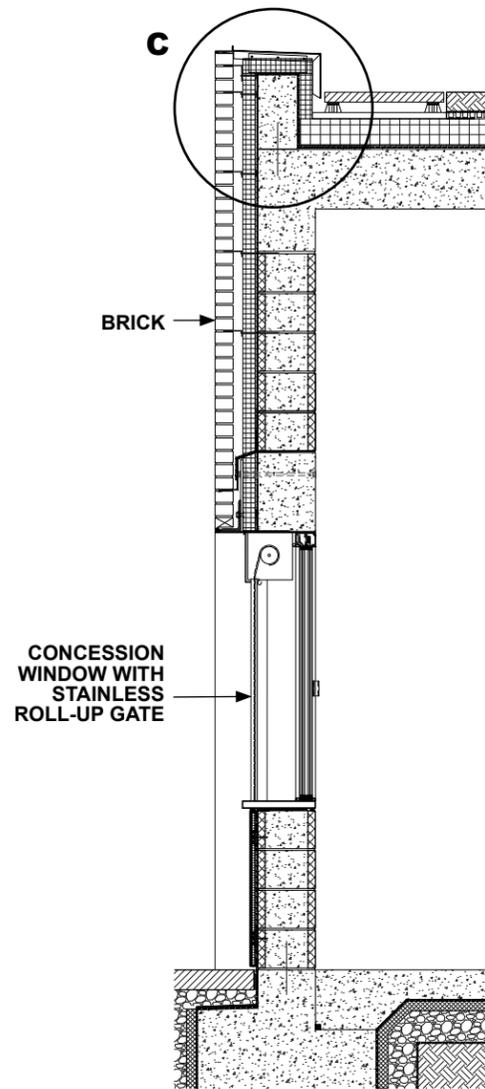


Tennis House Elevation

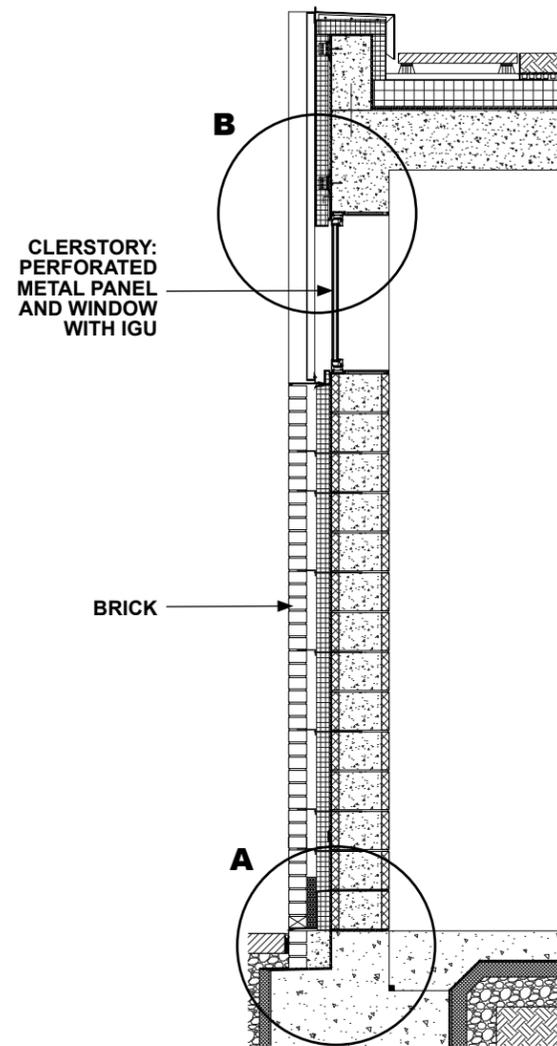


Tennis House Section

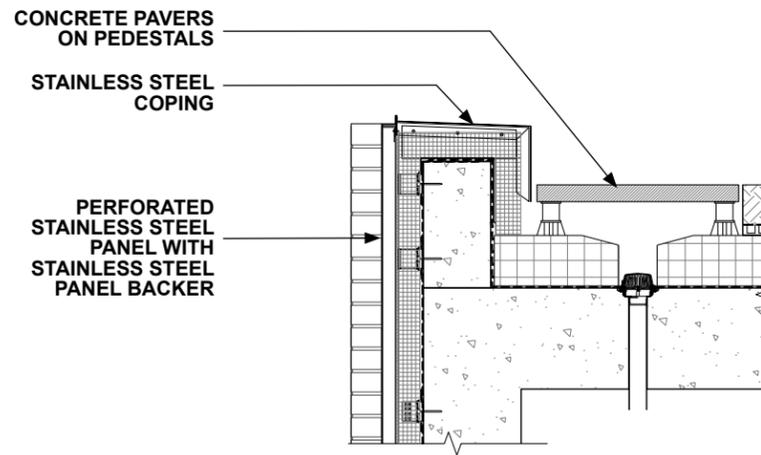




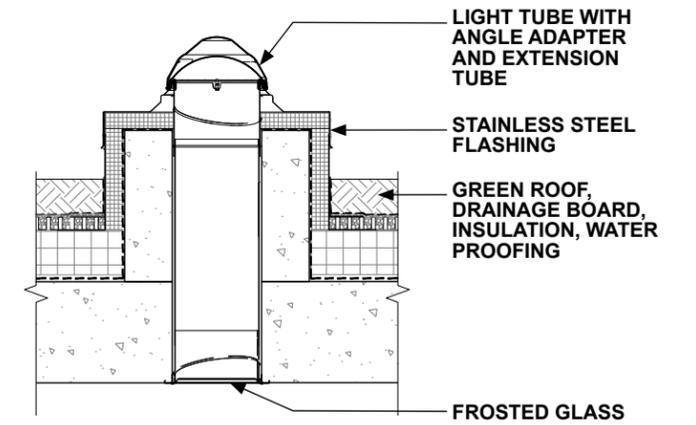
Section at Counter



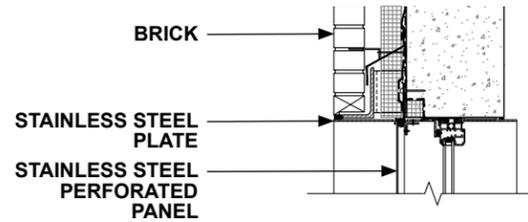
Section at Clerestory Window



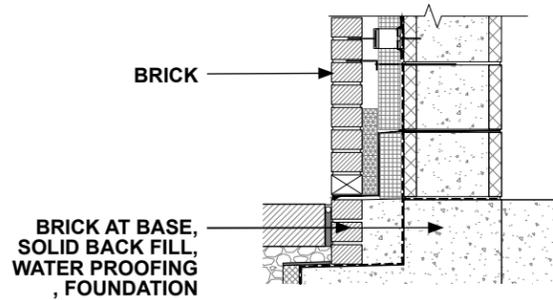
C: Section Detail at Roof Parapet



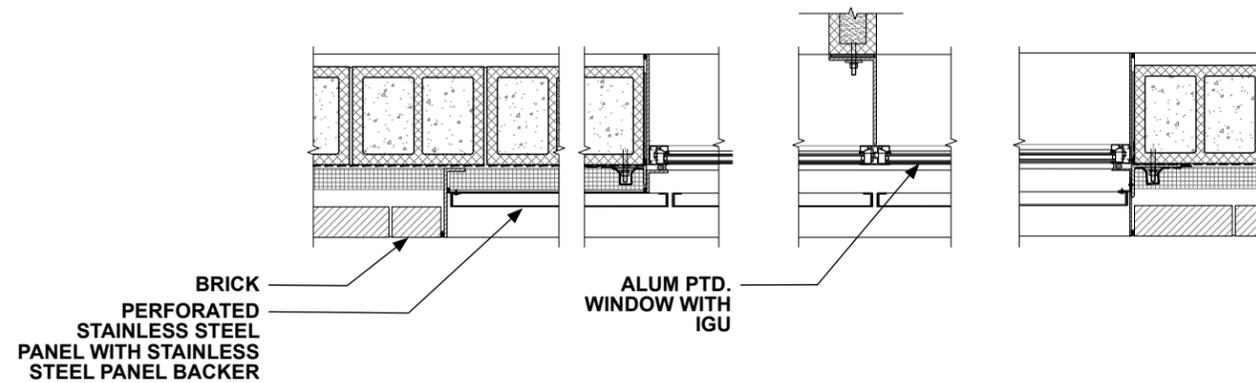
Section Detail of Light Tube



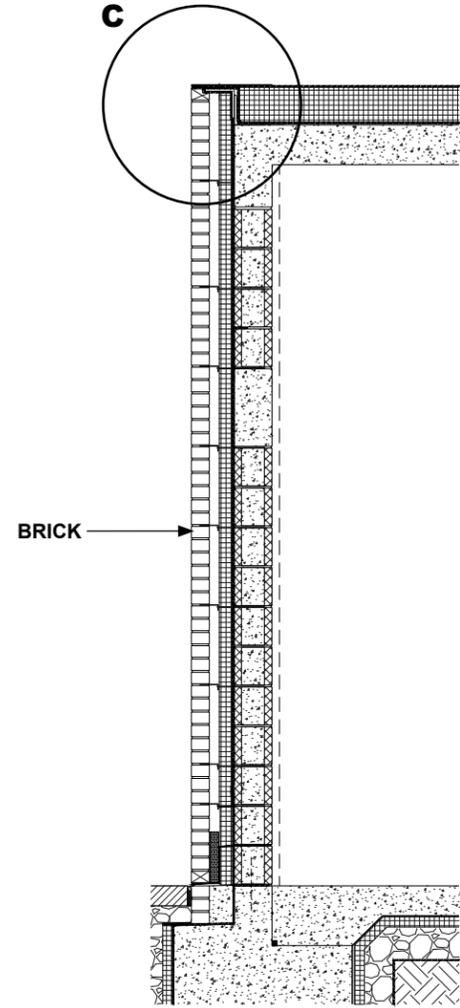
B: Section Detail at Clerestory Window



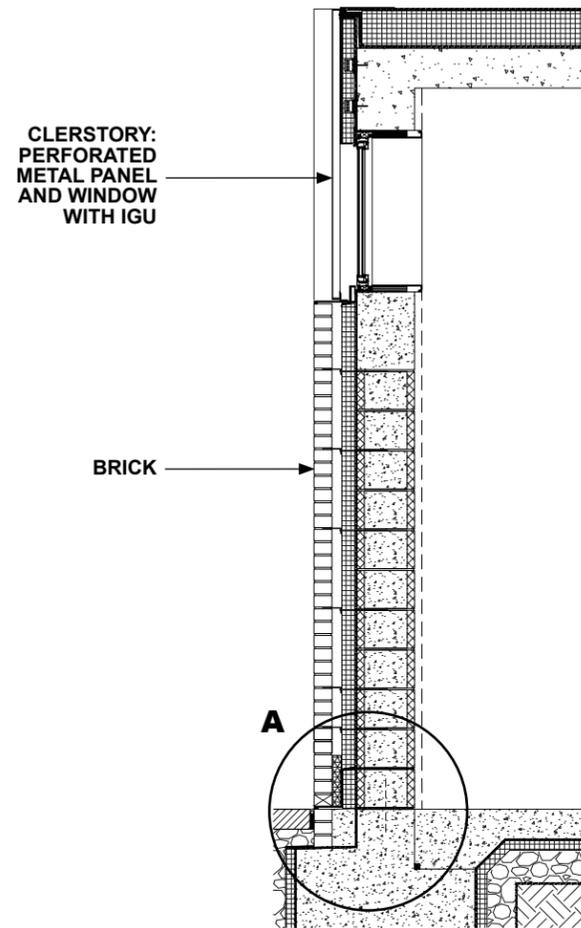
A: Section Detail at Wall Base



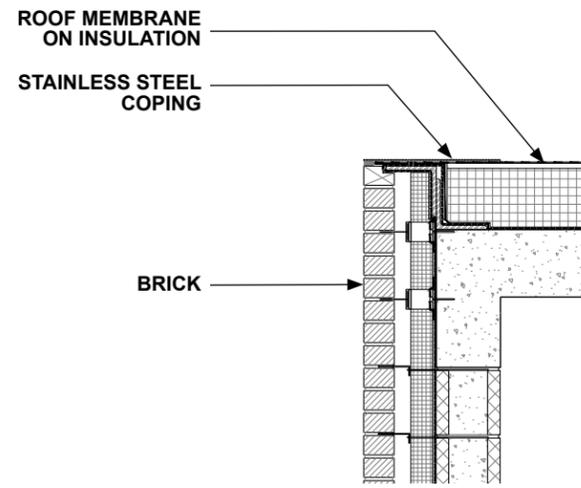
Detail Plan at Clerestory Screen, Metal Panel and Window Details



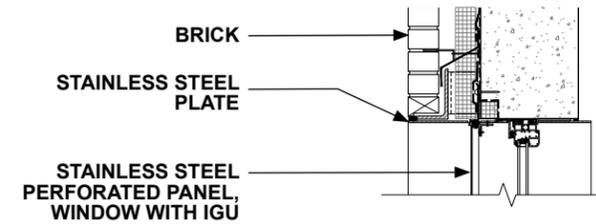
Section at Counter



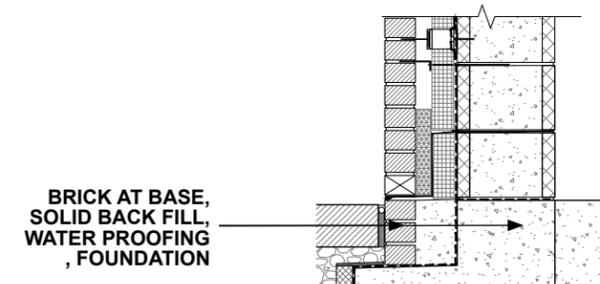
Section at Clerestory Window



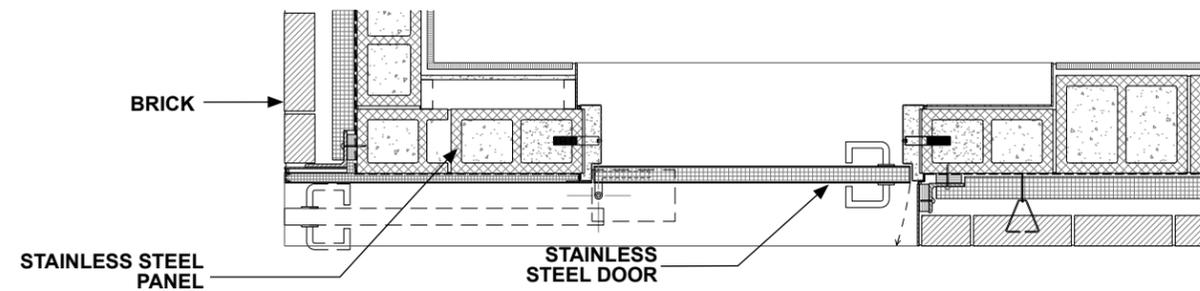
C: Section Detail at Roof Parapet



B: Section Detail at Clerestory Window



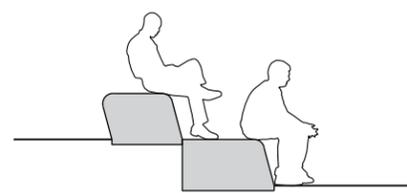
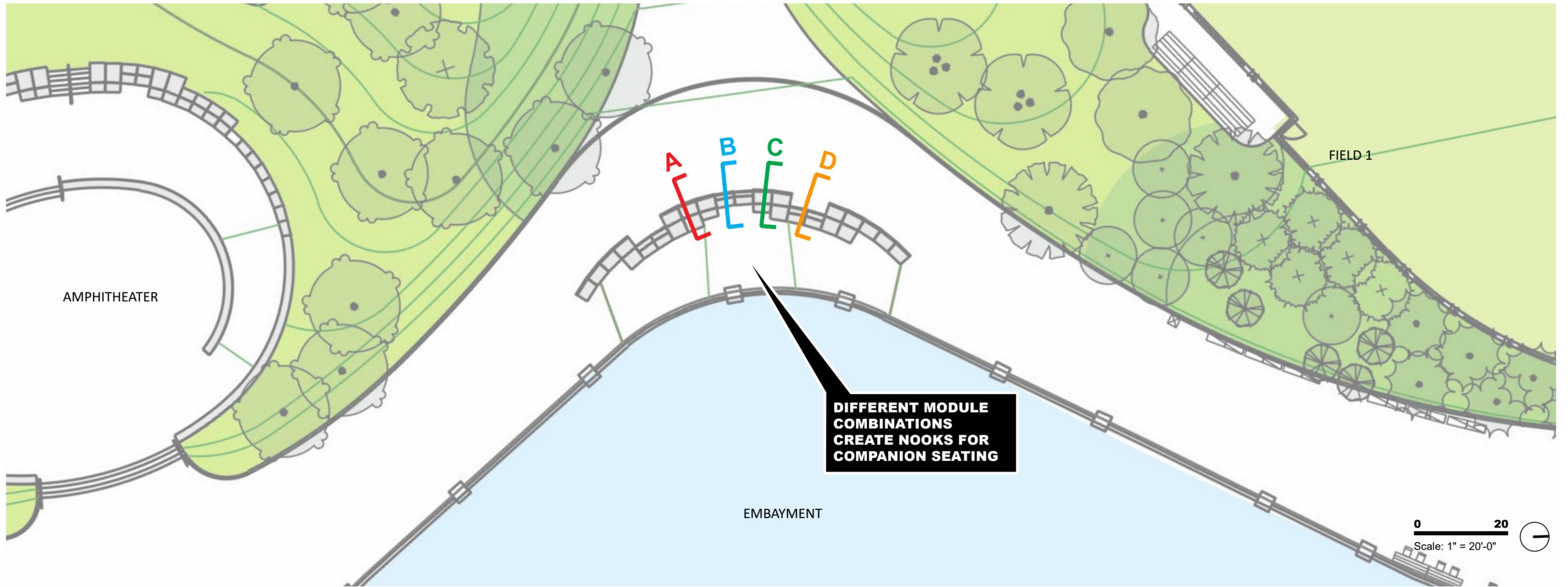
A: Section Detail at Wall Base



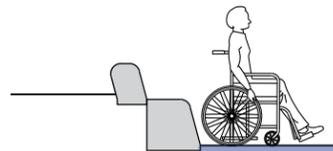
Detail Plan at Door



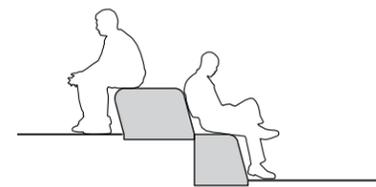
REVISION 7.1
ESPLANADE EMBAYMENT



SECTION A

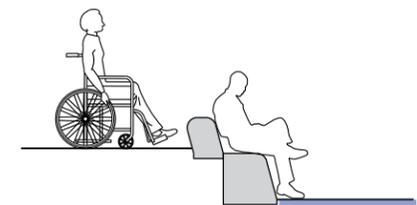


SECTION B

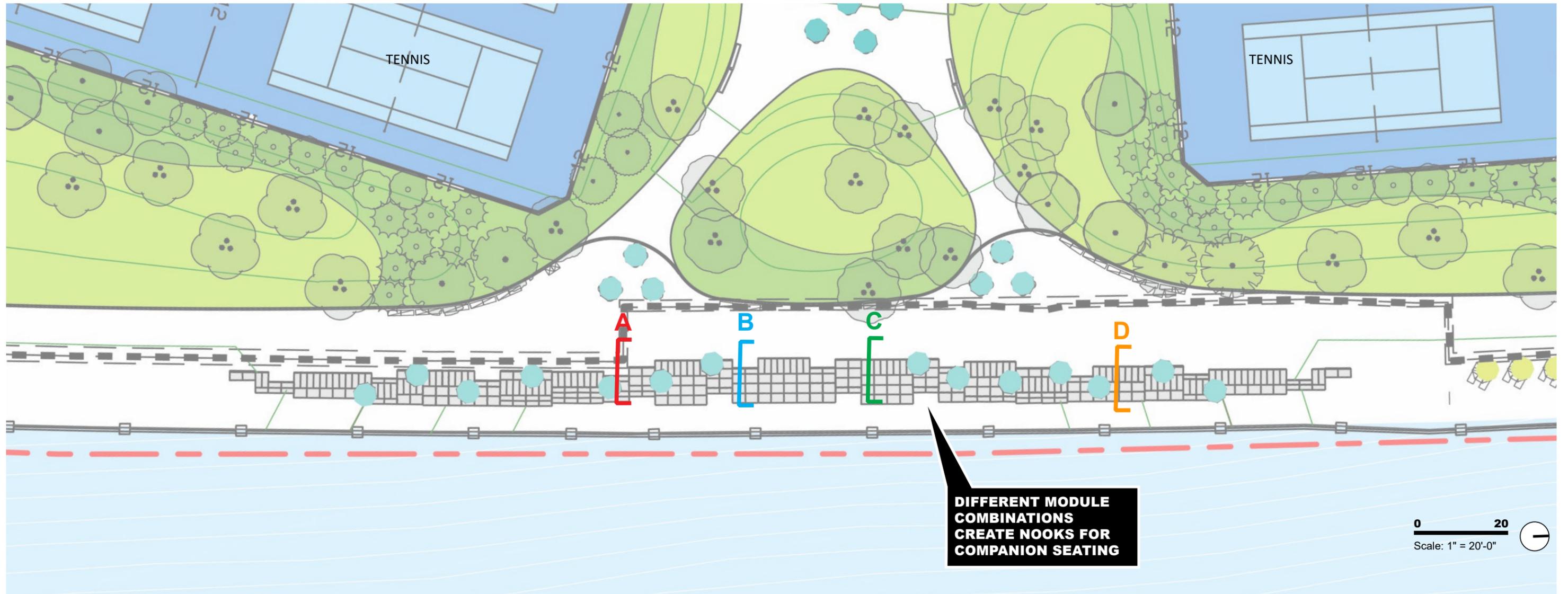


SECTION C

BACKED SEATING PROVIDED

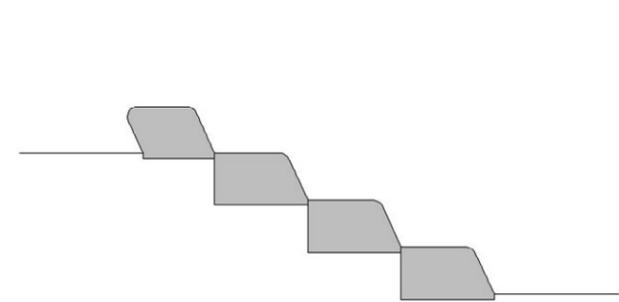


SECTION D

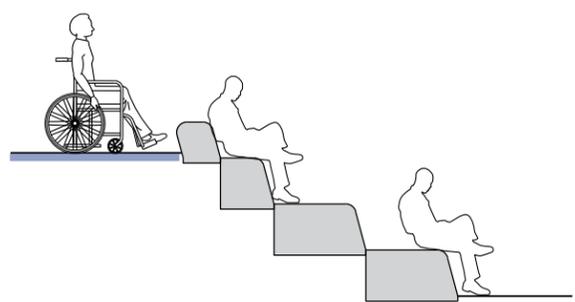


**DIFFERENT MODULE COMBINATIONS
CREATE NOOKS FOR
COMPANION SEATING**

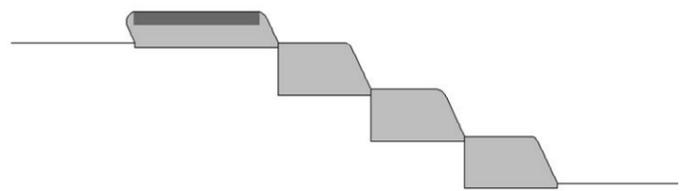
0 20
Scale: 1" = 20'-0"



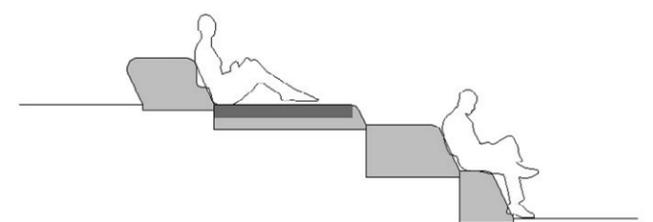
SECTION A



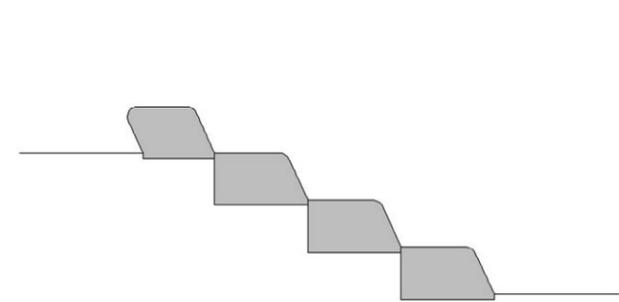
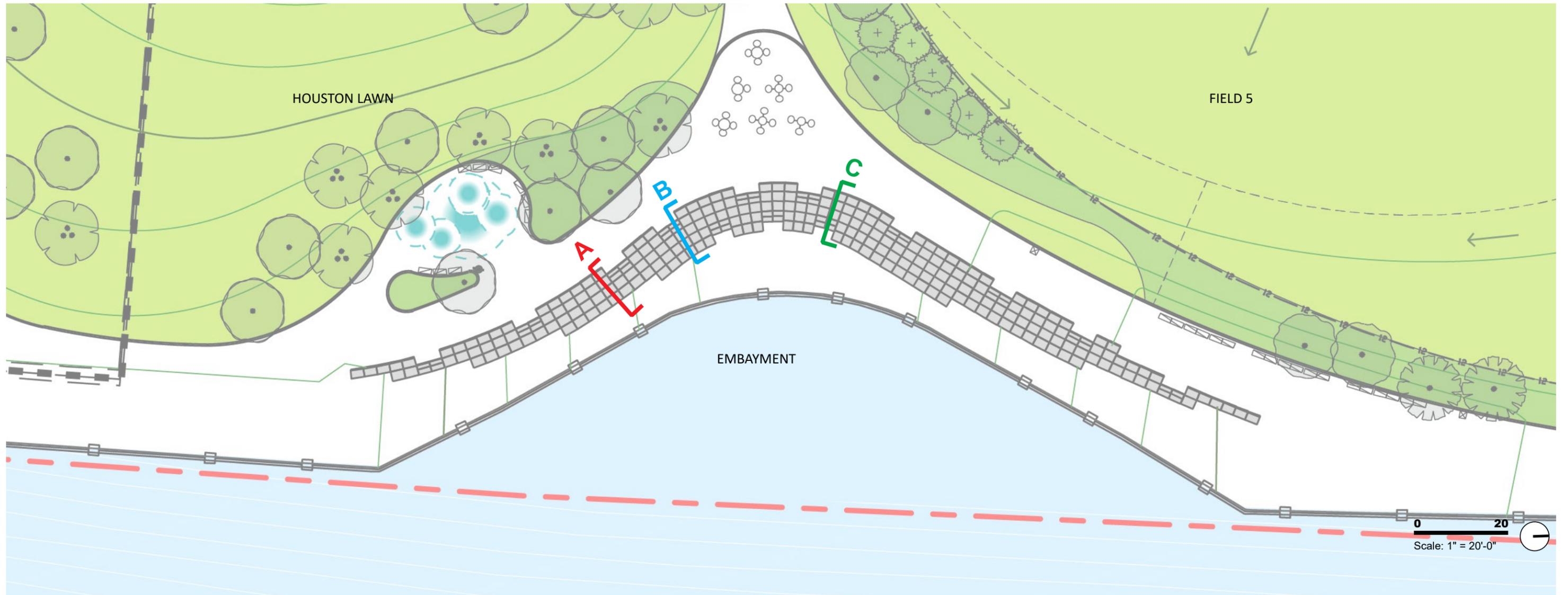
SECTION B



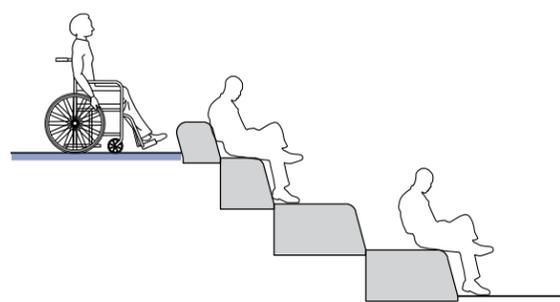
SECTION C



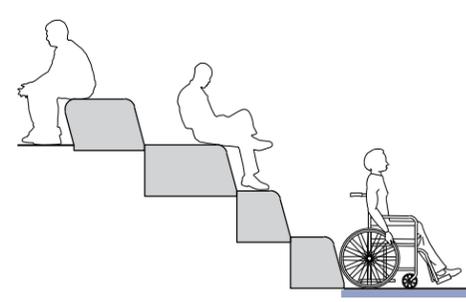
SECTION D



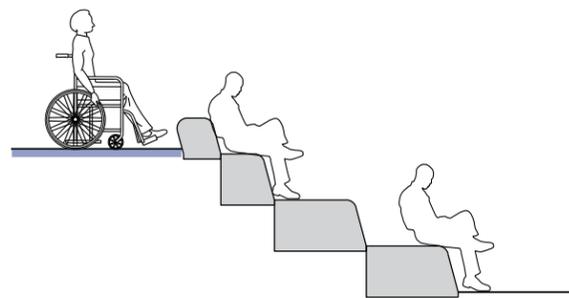
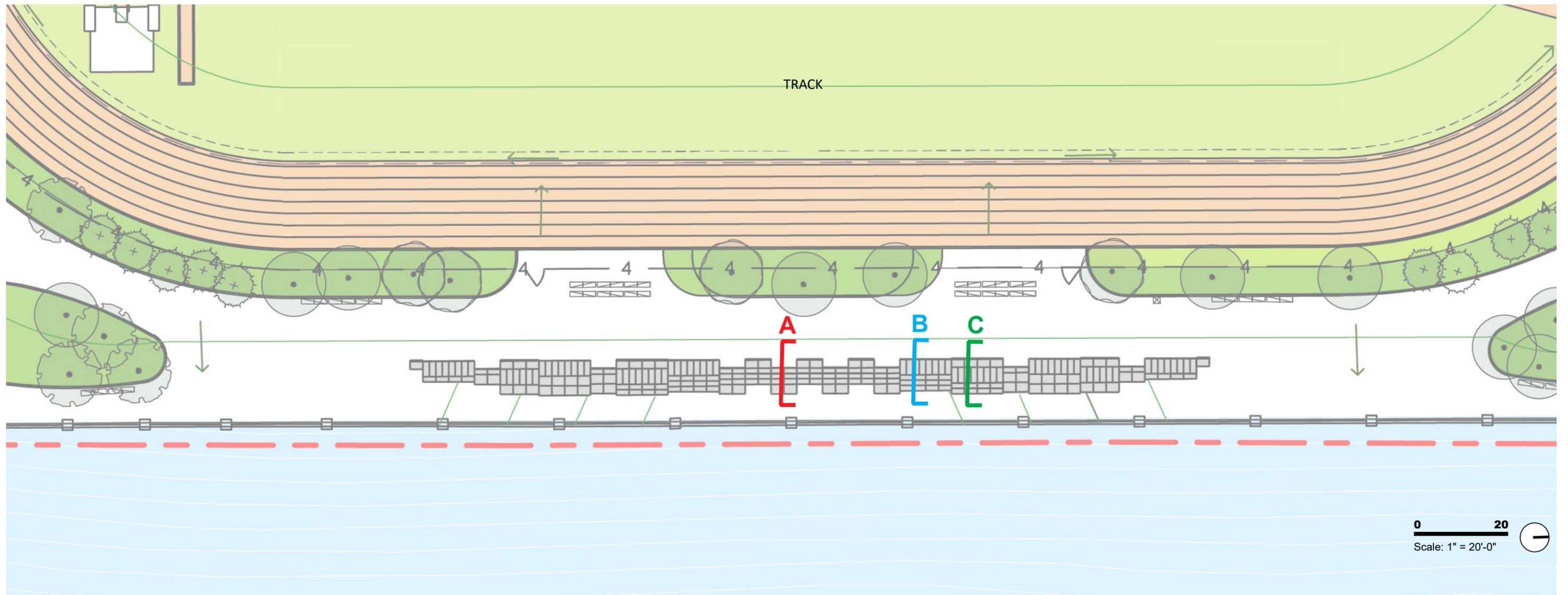
SECTION A



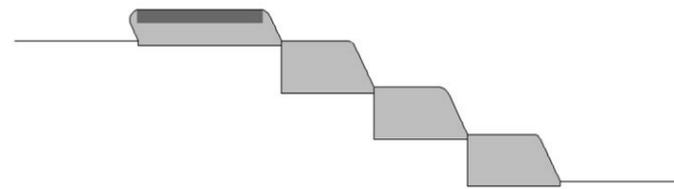
SECTION B



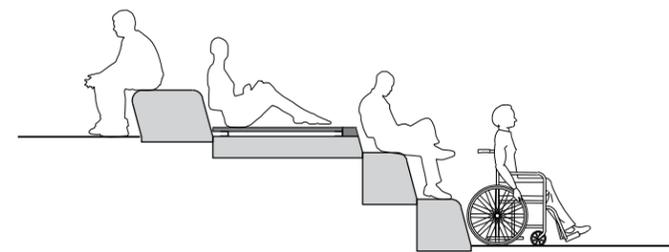
SECTION C



SECTION B

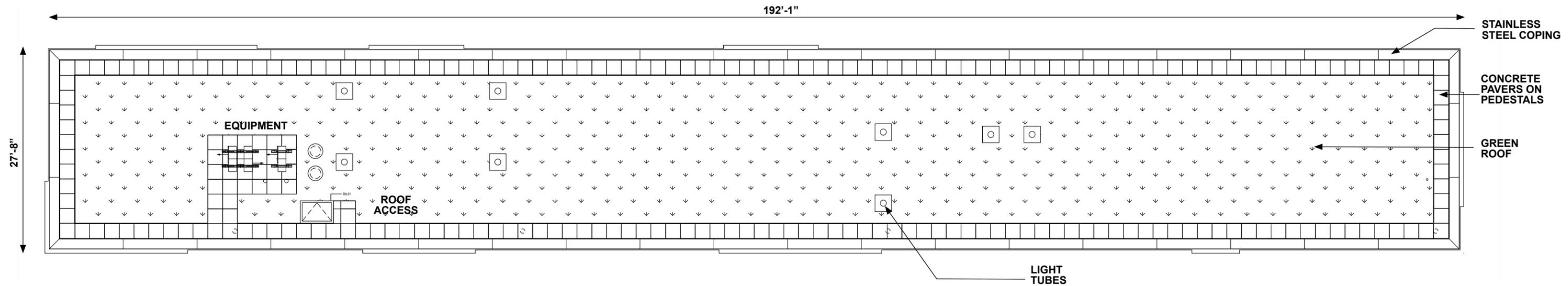


SECTION C



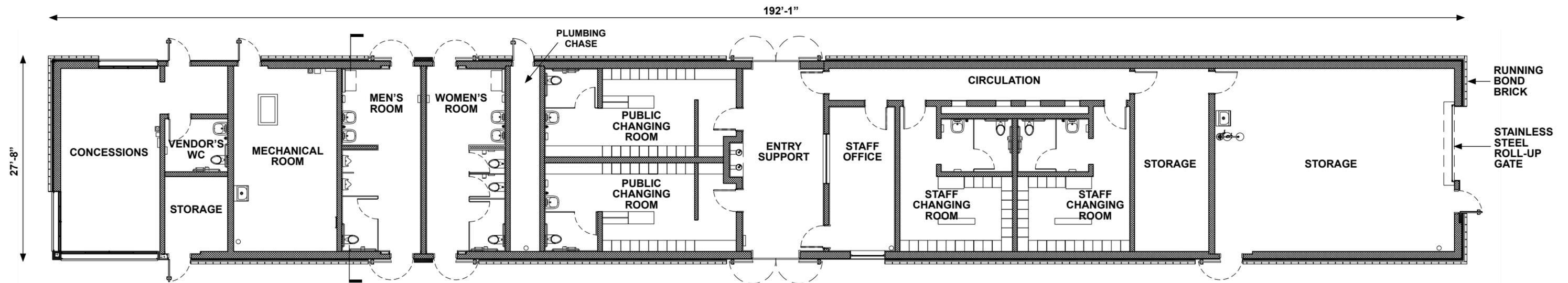
SECTION D



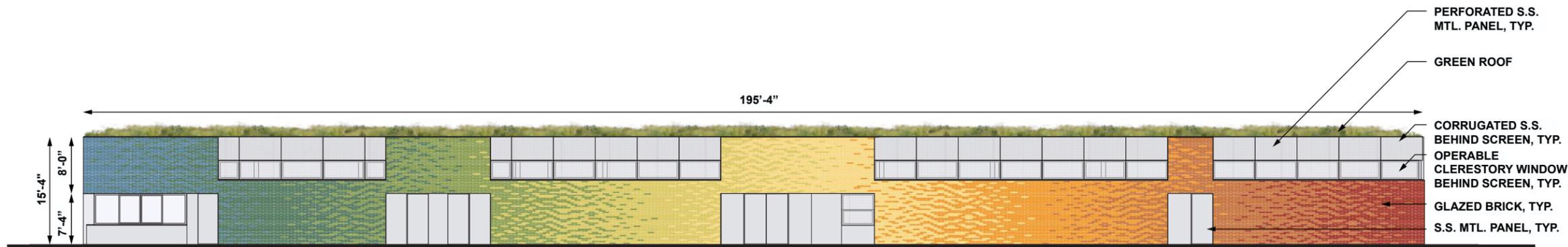


Track House Roof Plan

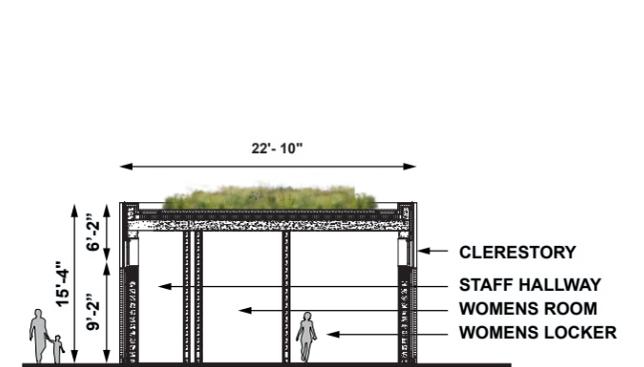
REVISION 6.1
 PARK BUILDING
 SOLAR TUBES



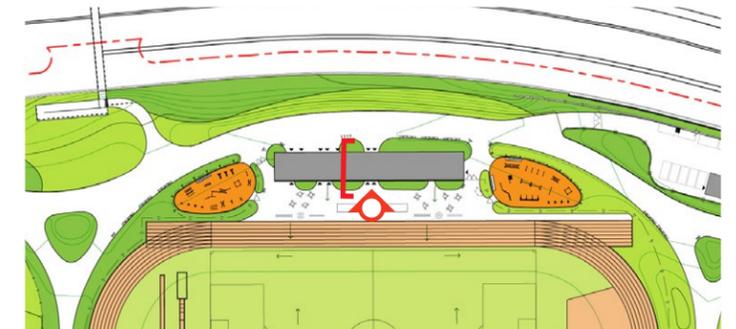
Track House Floor Plan



Track House Elevation



Track House Section

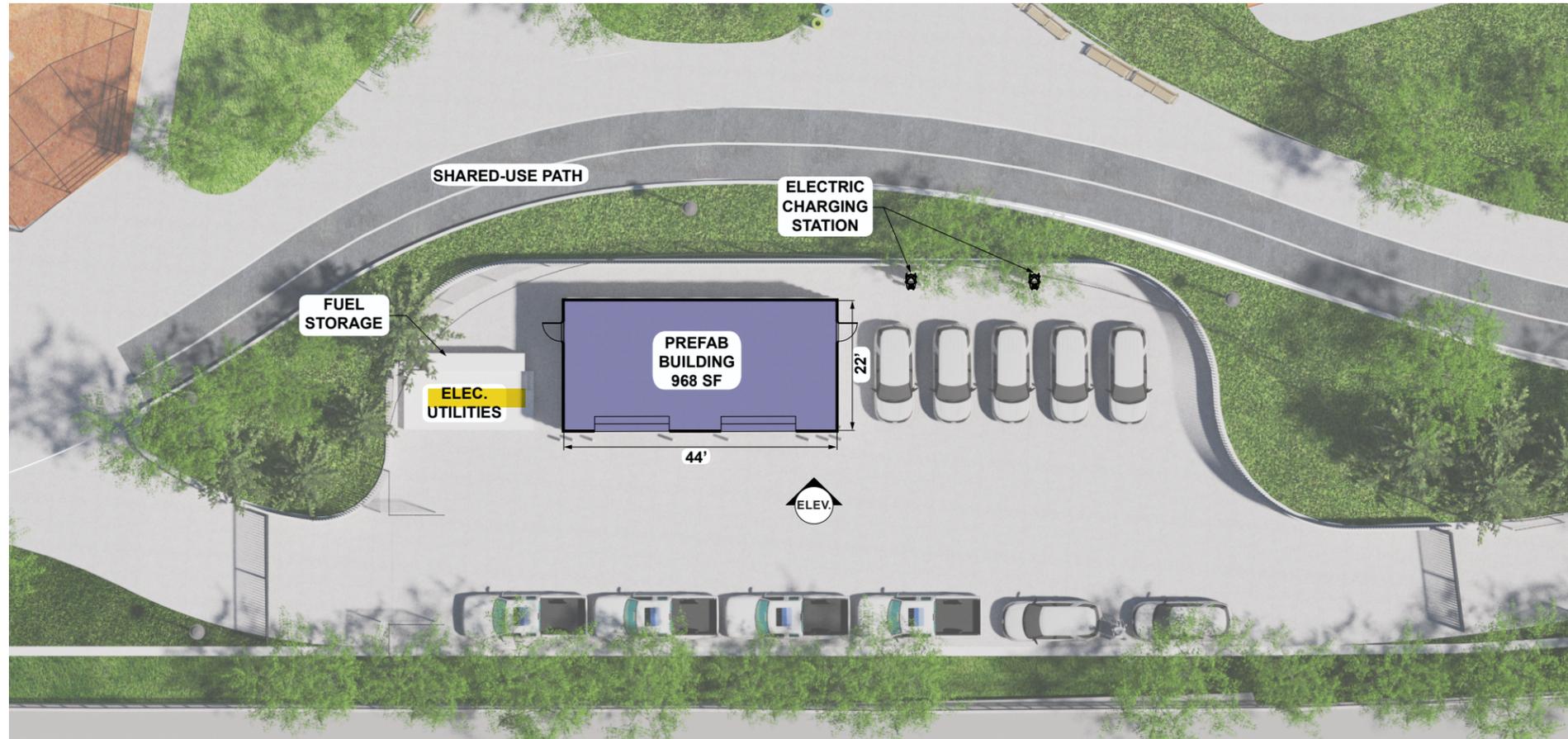




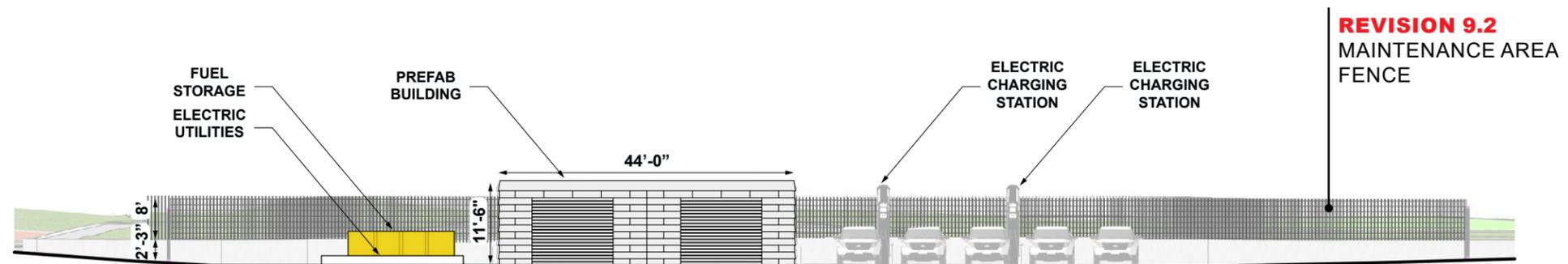
AKRF-KSE, JV	BJARKE INGELS GROUP	MATHEWS NIELSEN LANDSCAPE ARCHITECTS, P.C.	ONE ARCHITECTURE AND URBANISM	NEW YORK CITY DEPT. OF DESIGN AND CONSTRUCTION	NEW YORK CITY DEPT. OF PARKS AND RECREATION	NEW YORK CITY DEPT. OF TRANSPORTATION	NEW YORK CITY DEPT. OF ENVIRONMENTAL PROTECTION	NEW YORK CITY MAYOR'S OFFICE OF RESILIENCY
--------------	---------------------------	--	-------------------------------------	--	---	---	---	---

**PDC FINAL REVIEW
EAST SIDE COASTAL
RESILIENCY PROJECT**

DECEMBER 16, 2019



Track Maintenance Area Plan



Track Maintenance Area Elevation





AKRF-KSE, JV	BJARKE INGELS GROUP	MATHEWS NIELSEN LANDSCAPE ARCHITECTS, P.C.	ONE ARCHITECTURE AND URBANISM	NEW YORK CITY DEPT. OF DESIGN AND CONSTRUCTION	NEW YORK CITY DEPT. OF PARKS AND RECREATION	NEW YORK CITY DEPT. OF TRANSPORTATION	NEW YORK CITY DEPT. OF ENVIRONMENTAL PROTECTION	NEW YORK CITY MAYOR'S OFFICE OF RESILIENCY
--------------	---------------------------	--	-------------------------------------	--	---	---	---	---

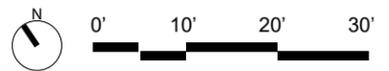
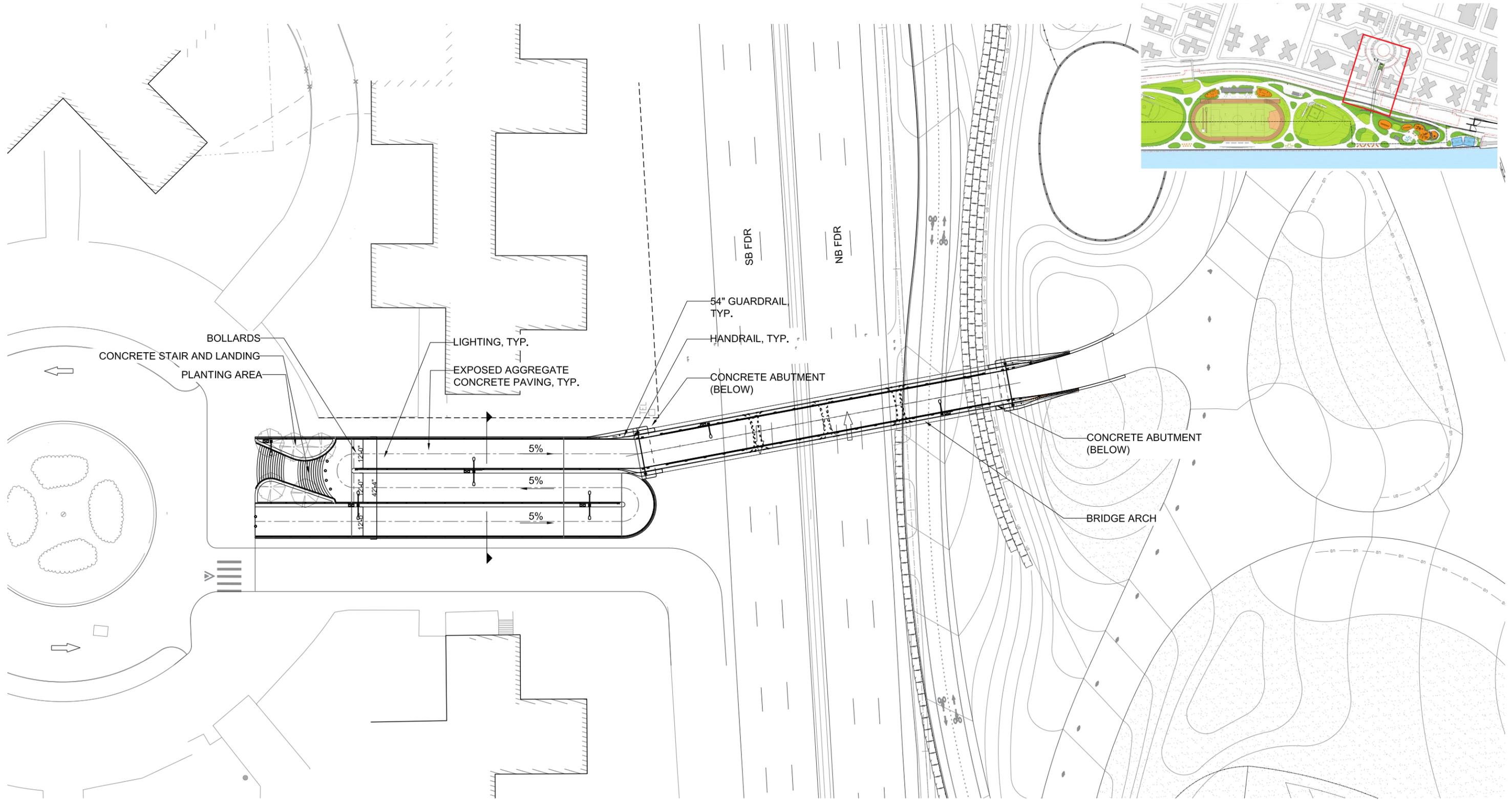
**PDC FINAL REVIEW
EAST SIDE COASTAL
RESILIENCY PROJECT**

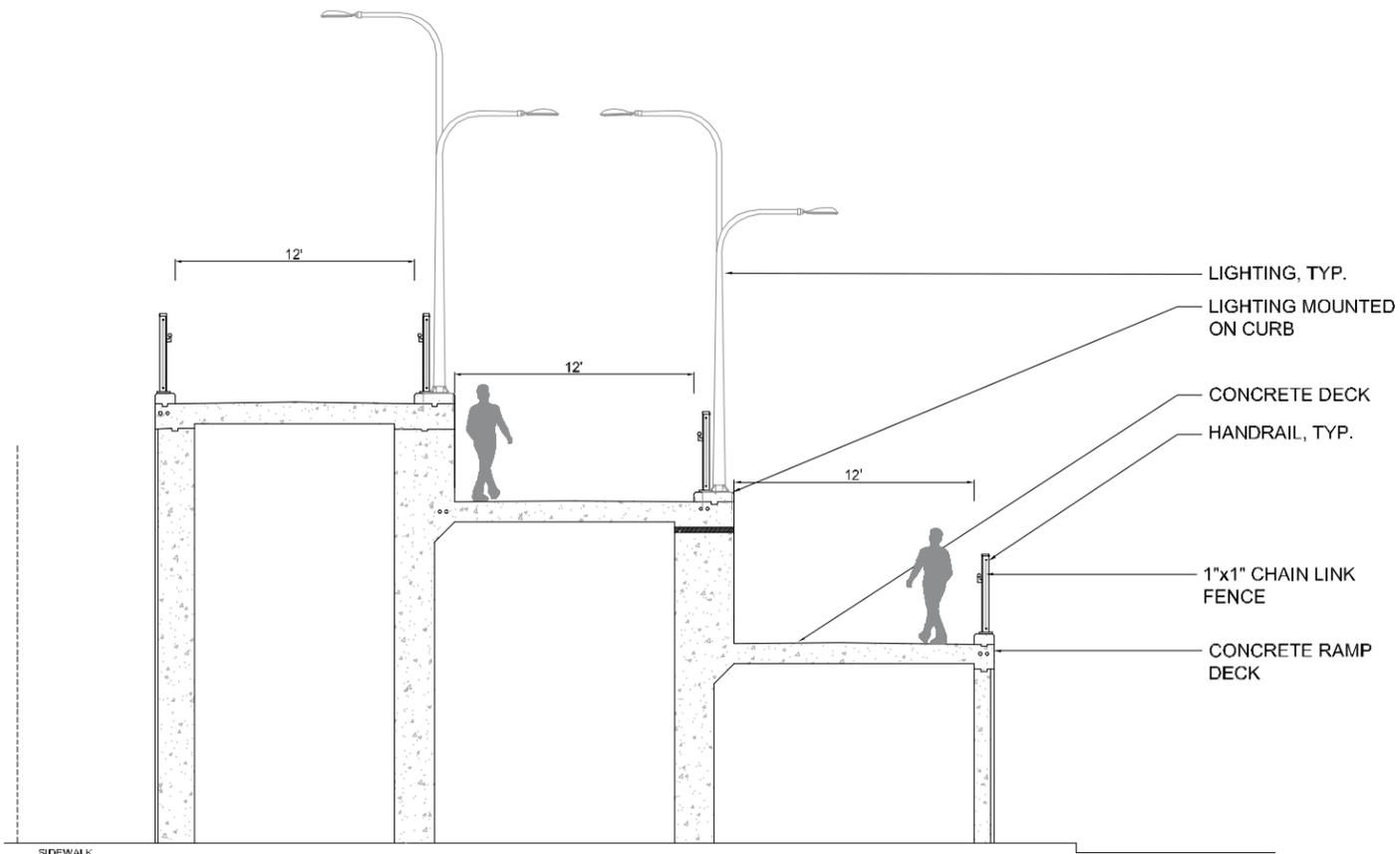
DECEMBER 16, 2019

**10th Street Bridge
FDR View 65**

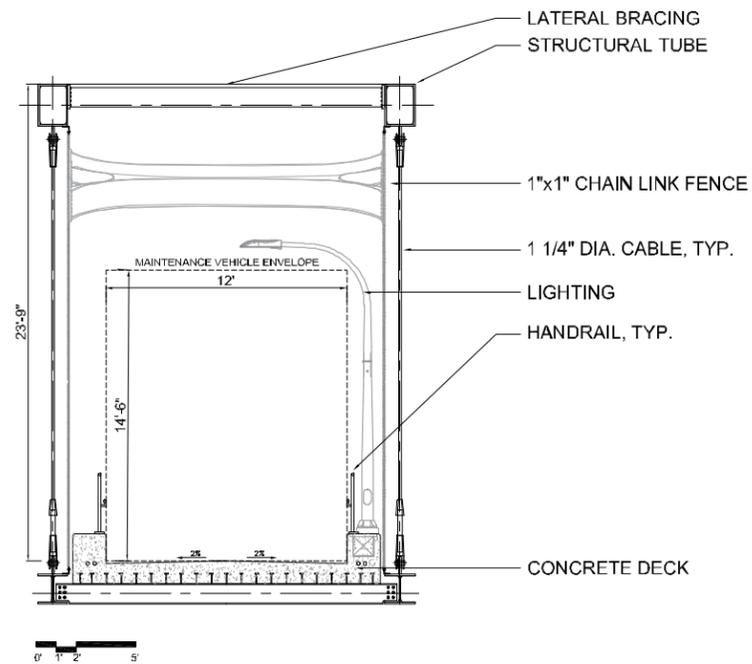


REVISION 5.1
CROSS-BRACING

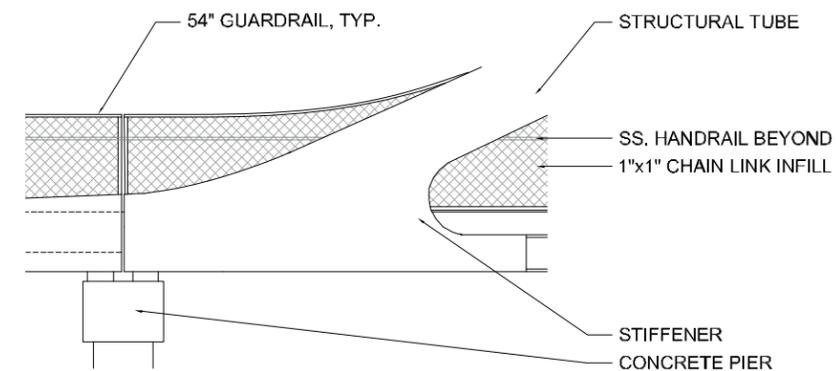
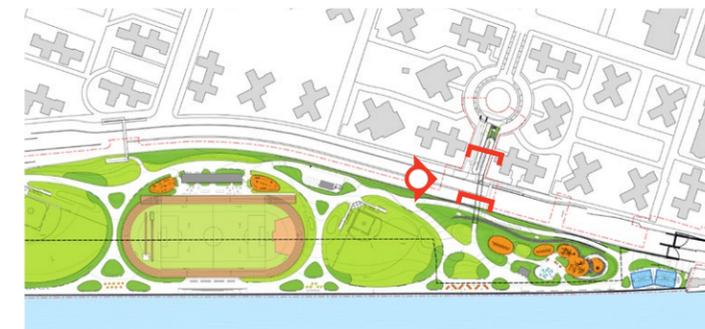




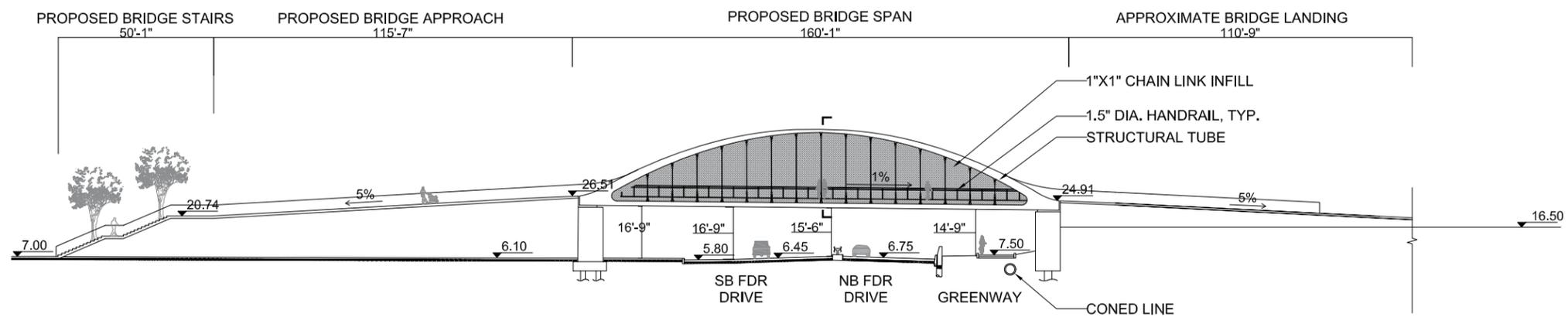
Section Through Ramp



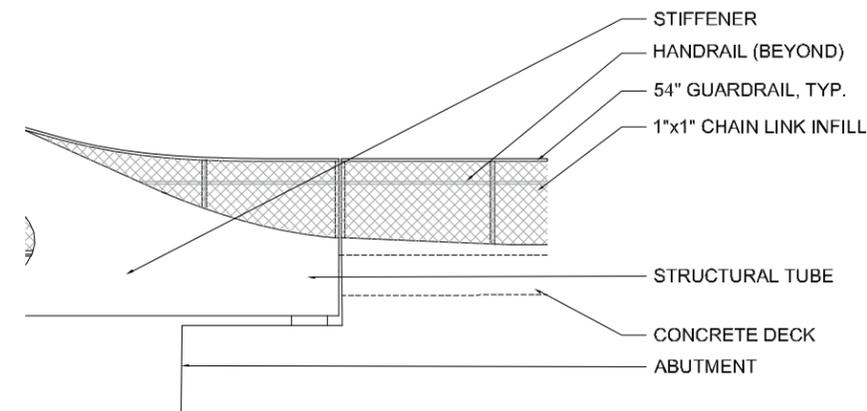
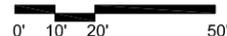
Section Through Bridge Arch



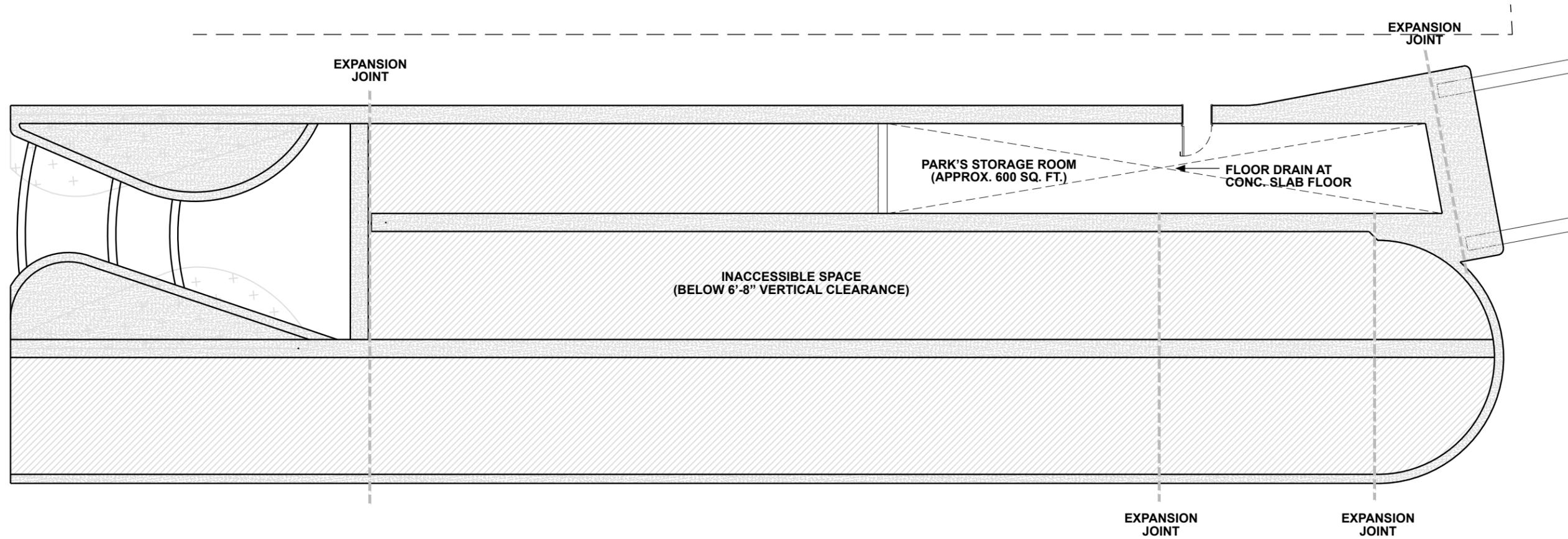
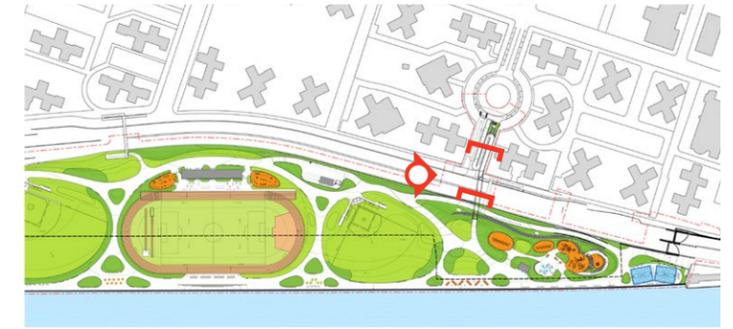
Transition Detail - Bridge to Concrete Pier



Bridge Elevation



Transition Detail - Bridge to Abutment



Enlarged Plan Through Ramp



AKRF-KSE, JV	BJARKE INGELS GROUP	MATHEWS NIELSEN LANDSCAPE ARCHITECTS, P.C.	ONE ARCHITECTURE AND URBANISM	NEW YORK CITY DEPT. OF DESIGN AND CONSTRUCTION	NEW YORK CITY DEPT. OF PARKS AND RECREATION	NEW YORK CITY DEPT. OF TRANSPORTATION	NEW YORK CITY DEPT. OF ENVIRONMENTAL PROTECTION	NEW YORK CITY MAYOR'S OFFICE OF RESILIENCY
--------------	---------------------------	--	-------------------------------------	--	---	---	---	---

**PDC FINAL REVIEW
EAST SIDE COASTAL
RESILIENCY PROJECT**

DECEMBER 16, 2019

**10th Street Bridge
Approach View 70**



REVISION 5.1
CROSS-BRACING

REVISION 5.2
CONCRETE CURB &
VEHICULAR BARRIER



AKRF-KSE, JV	BJARKE INGELS GROUP	MATHEWS NIELSEN LANDSCAPE ARCHITECTS, P.C.	ONE ARCHITECTURE AND URBANISM	NEW YORK CITY DEPT. OF DESIGN AND CONSTRUCTION	NEW YORK CITY DEPT. OF PARKS AND RECREATION	NEW YORK CITY DEPT. OF TRANSPORTATION	NEW YORK CITY DEPT. OF ENVIRONMENTAL PROTECTION	NEW YORK CITY MAYOR'S OFFICE OF RESILIENCY
--------------	---------------------------	--	-------------------------------------	--	---	---	---	---

**PDC FINAL REVIEW
EAST SIDE COASTAL
RESILIENCY PROJECT**

DECEMBER 16, 2019

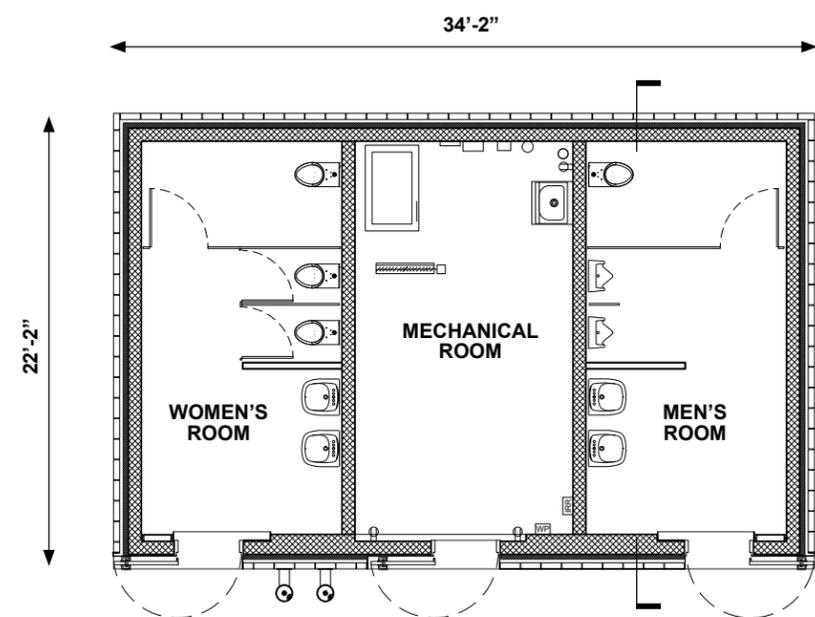


AKRF-KSE, JV	BJARKE INGELS GROUP	MATHEWS NIELSEN LANDSCAPE ARCHITECTS, P.C.	ONE ARCHITECTURE AND URBANISM	NEW YORK CITY DEPT. OF DESIGN AND CONSTRUCTION	NEW YORK CITY DEPT. OF PARKS AND RECREATION	NEW YORK CITY DEPT. OF TRANSPORTATION	NEW YORK CITY DEPT. OF ENVIRONMENTAL PROTECTION	NEW YORK CITY MAYOR'S OFFICE OF RESILIENCY
--------------	---------------------------	--	-------------------------------------	--	---	---	---	---

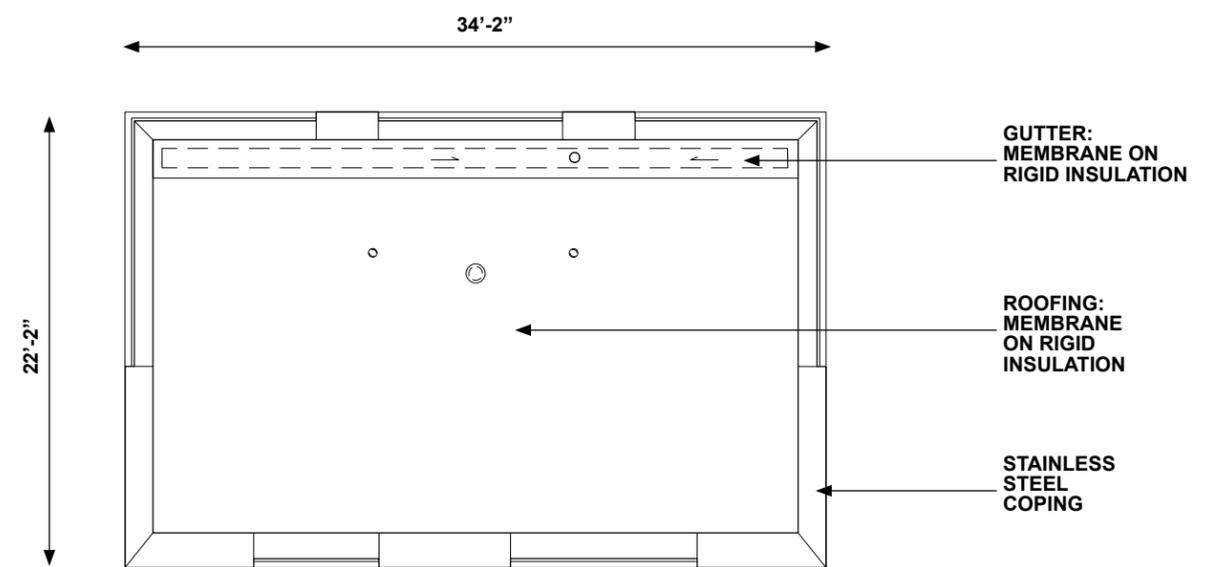
**PDC FINAL REVIEW
EAST SIDE COASTAL
RESILIENCY PROJECT**

DECEMBER 16, 2019

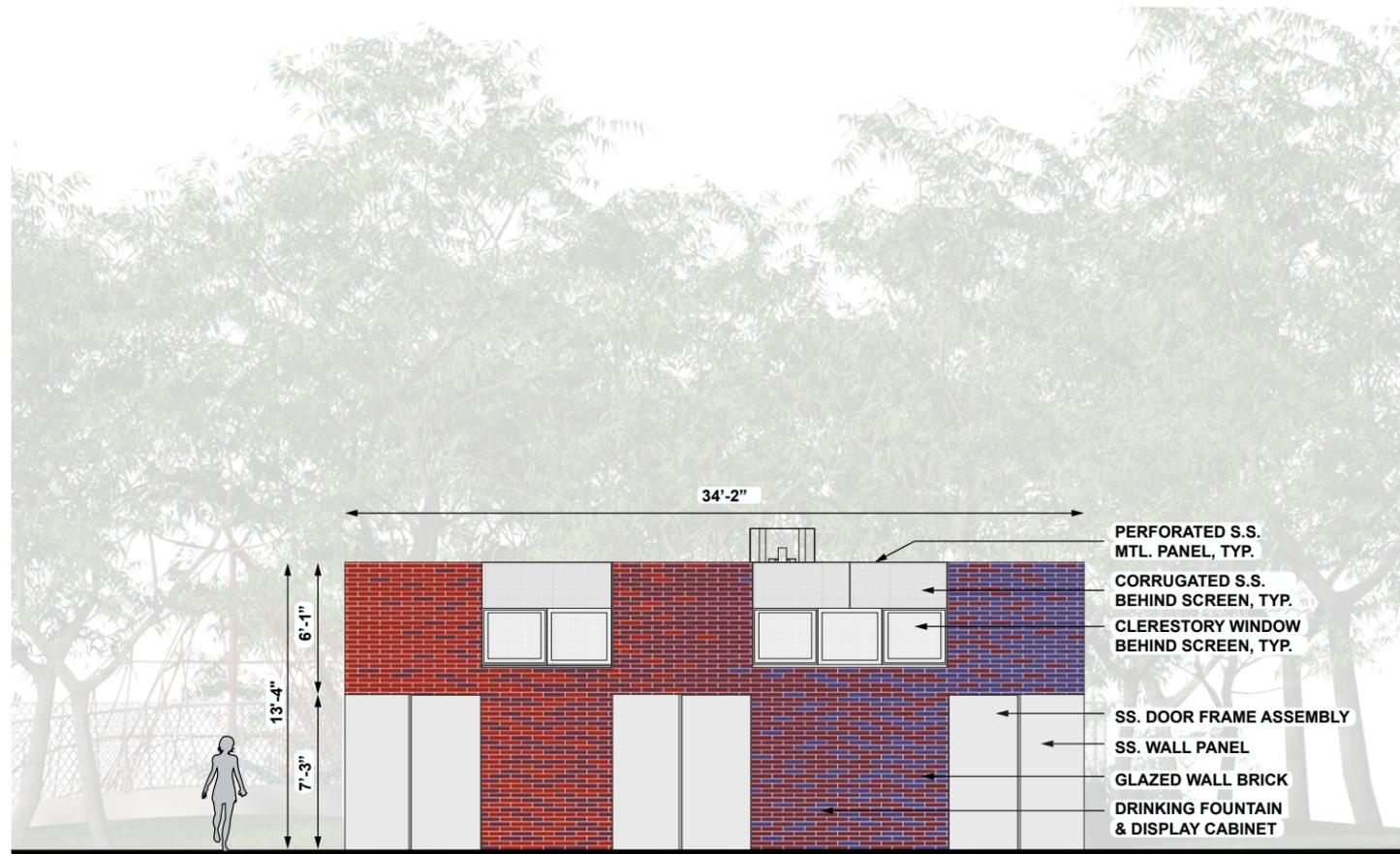
**10th Street Comfort Station
Final Review**



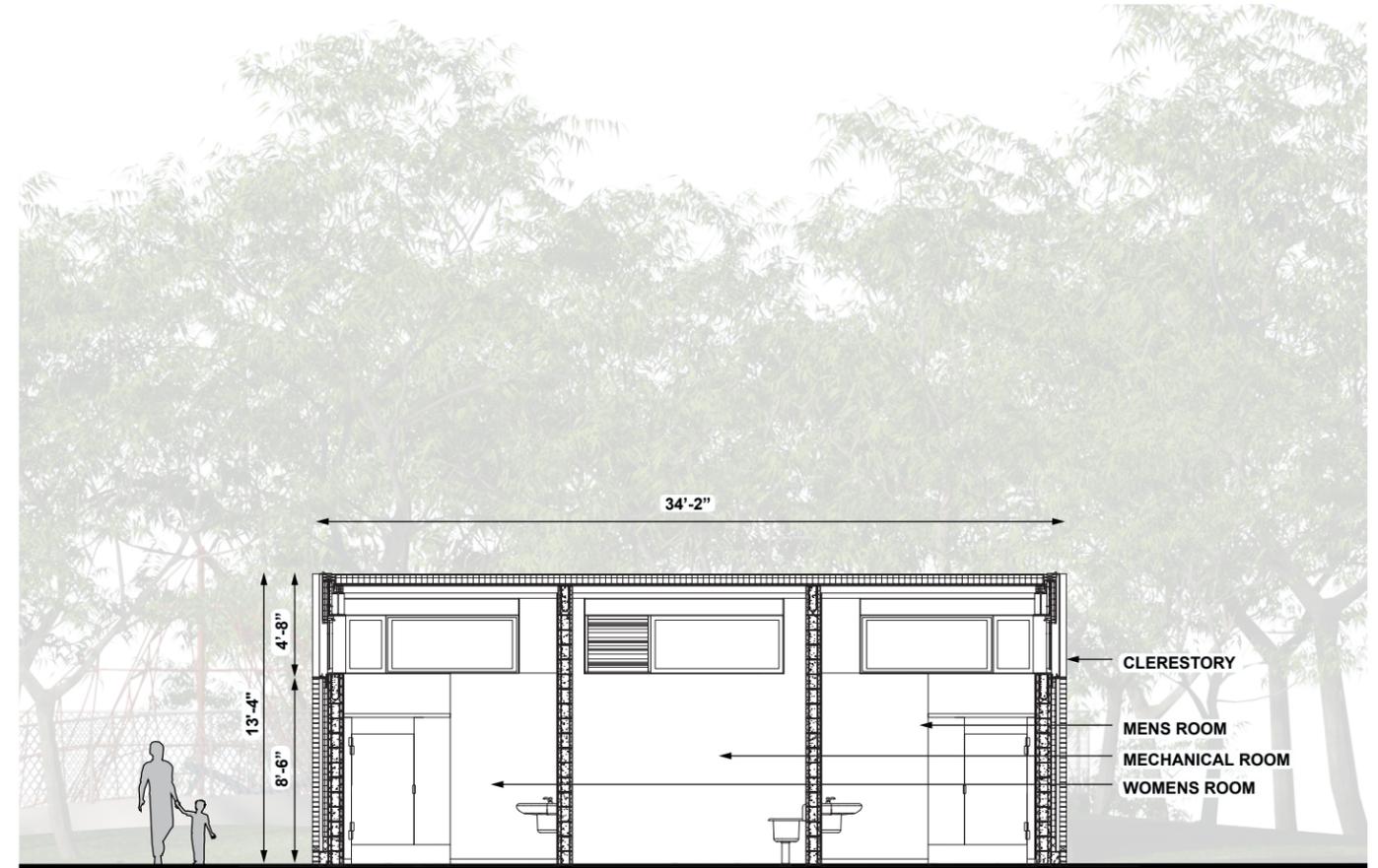
10th St. Comfort Station Floor Plan



10th St. Comfort Station Roof Plan



10th St. Comfort Station Elevation



10th St. Comfort Station Section





REVISION 10.1
COURT COLORS

REVISION 1.1
WALL PATTERN
RHYTHM & VARIATION

REVISION 1.3
GATE DESIGN



REVISION 10.1
COURT COLORS

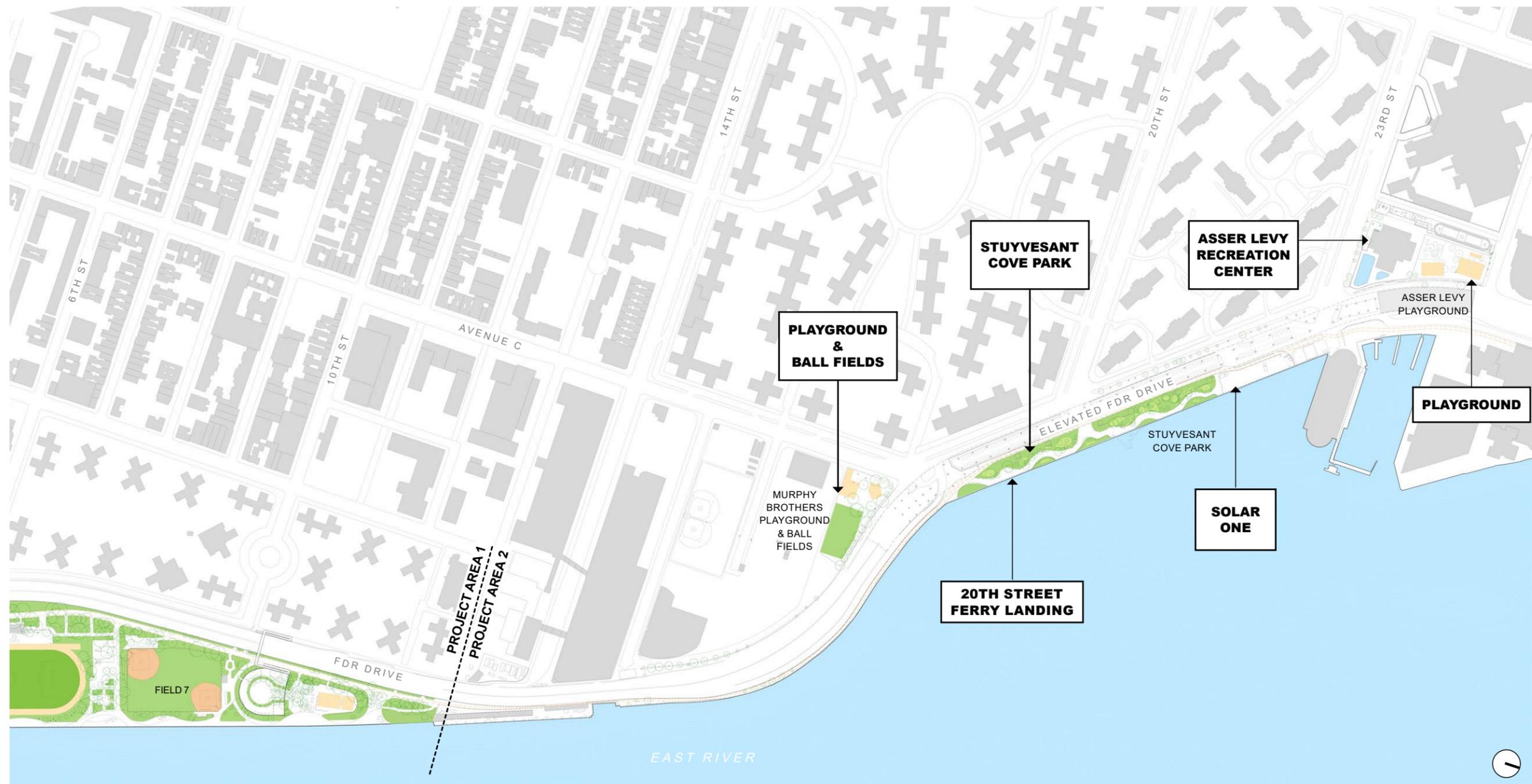
**BRIDGE SUPERSTRUCTURE
CURRENTLY UNDER DEVELOPMENT**

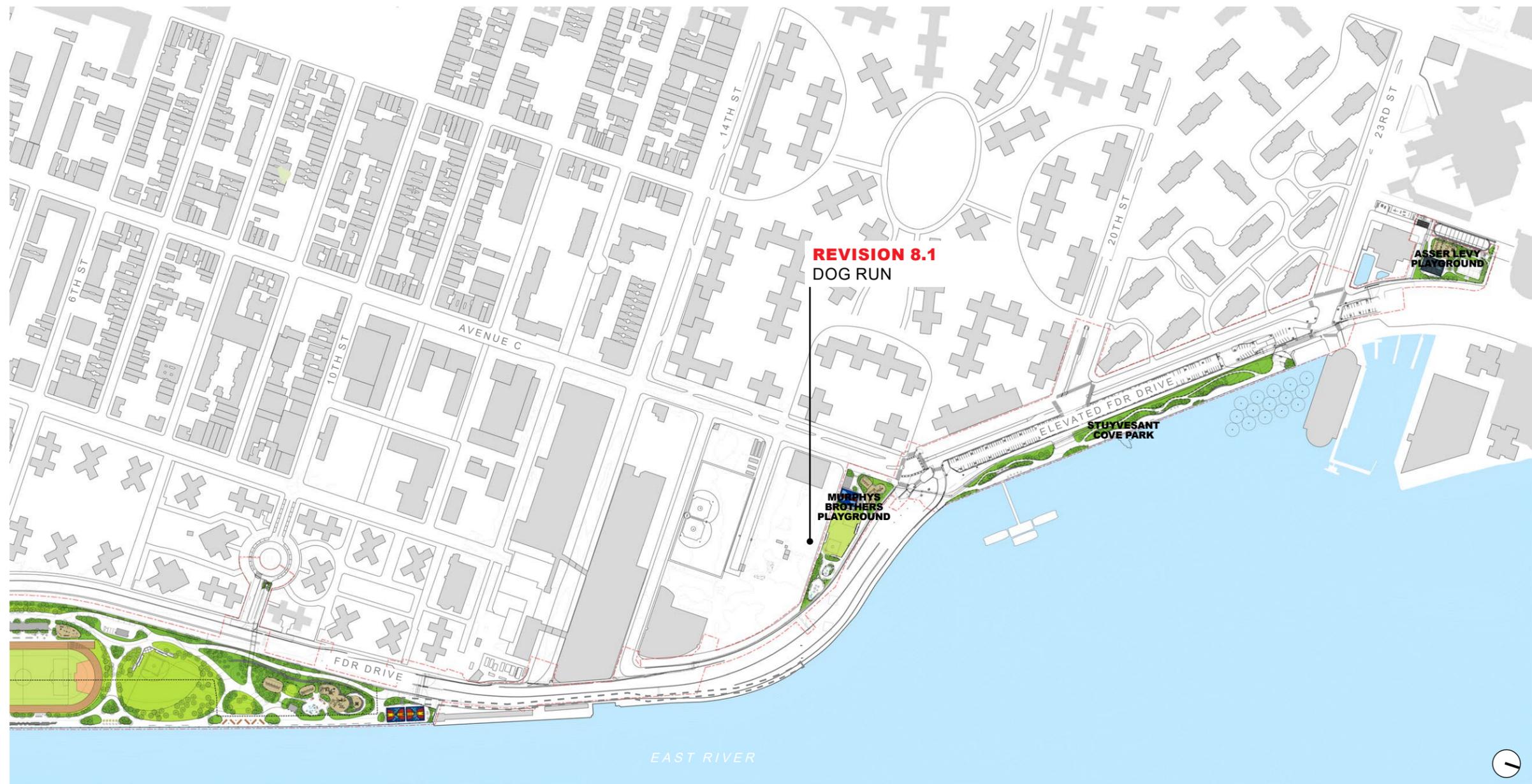
PRESENTATION CONTENTS

1. SITE DESIGN: PROJECT AREA 1 (PA1)

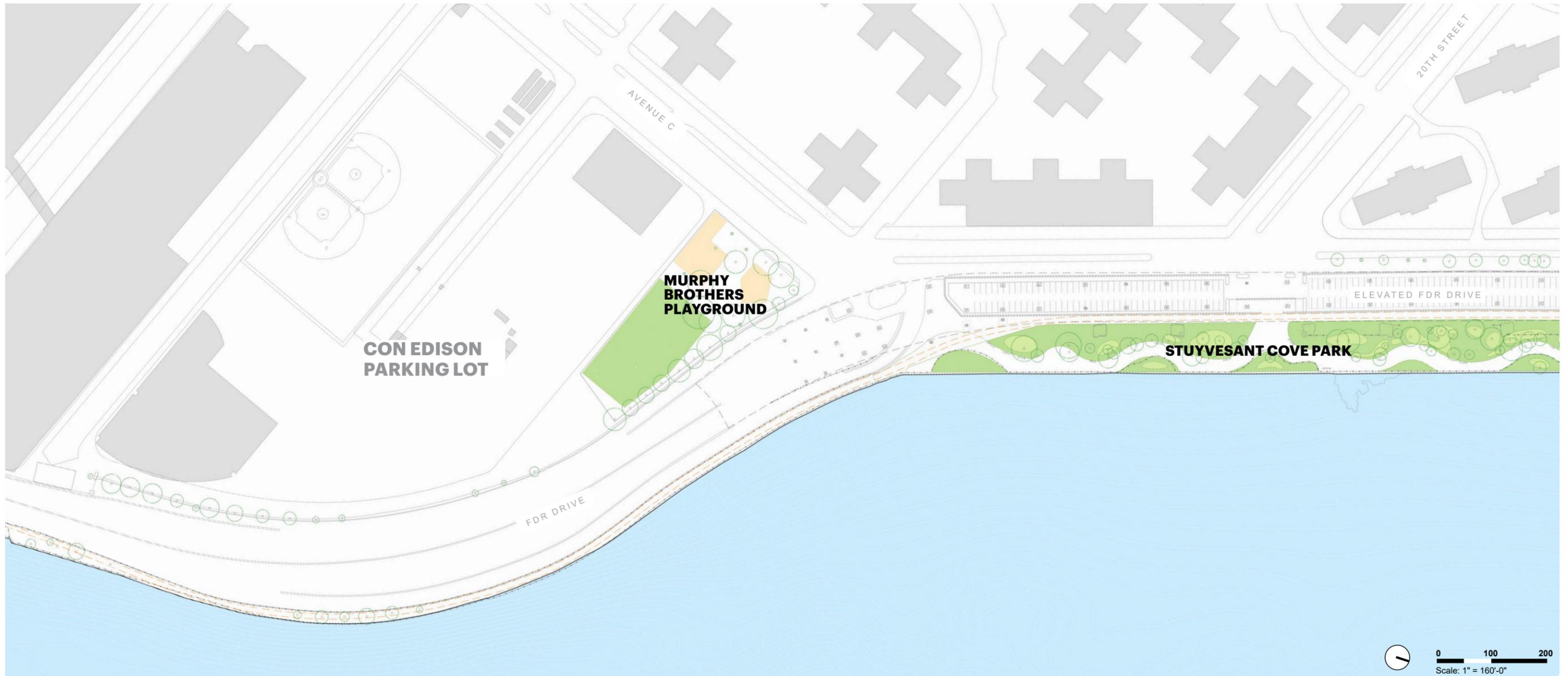
2. SITE DESIGN: PROJECT AREA 2 (PA2)

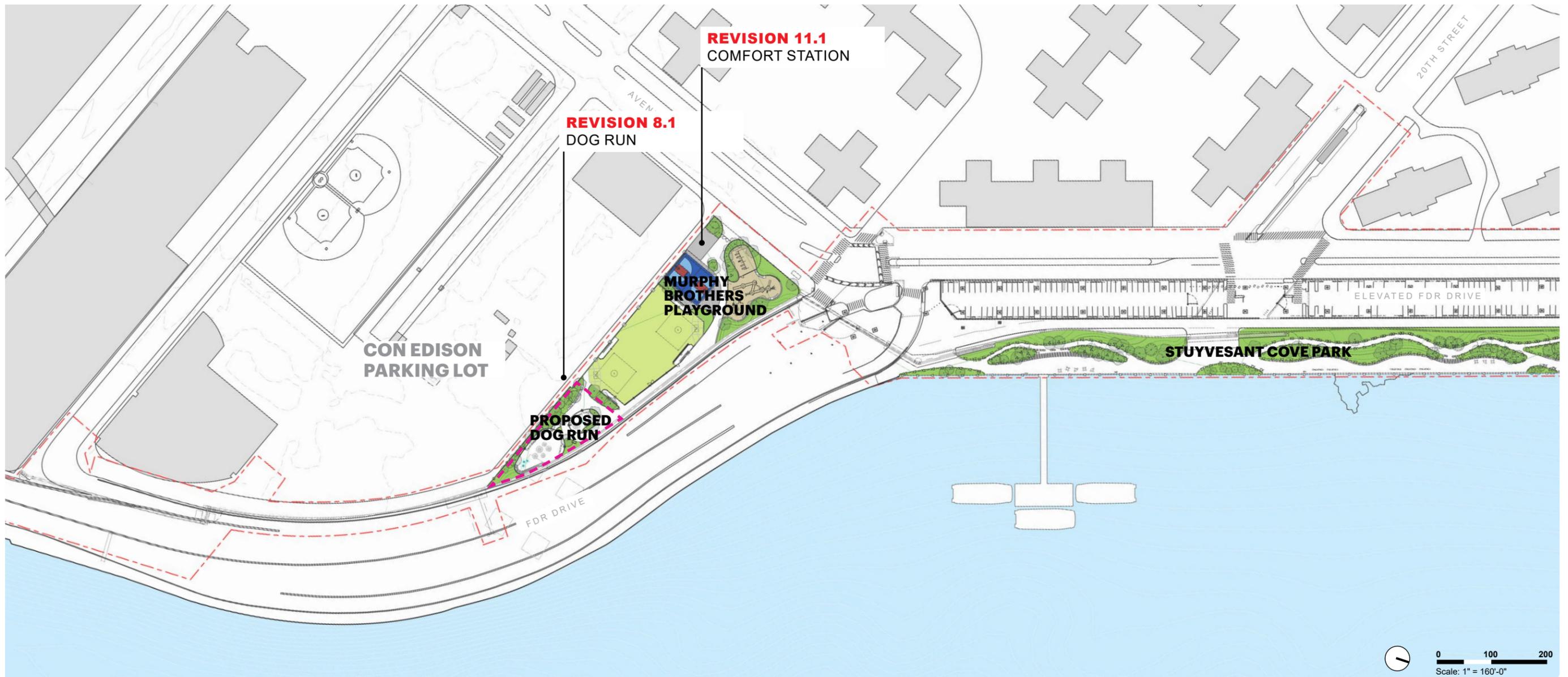
3. SITE ELEMENTS

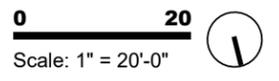


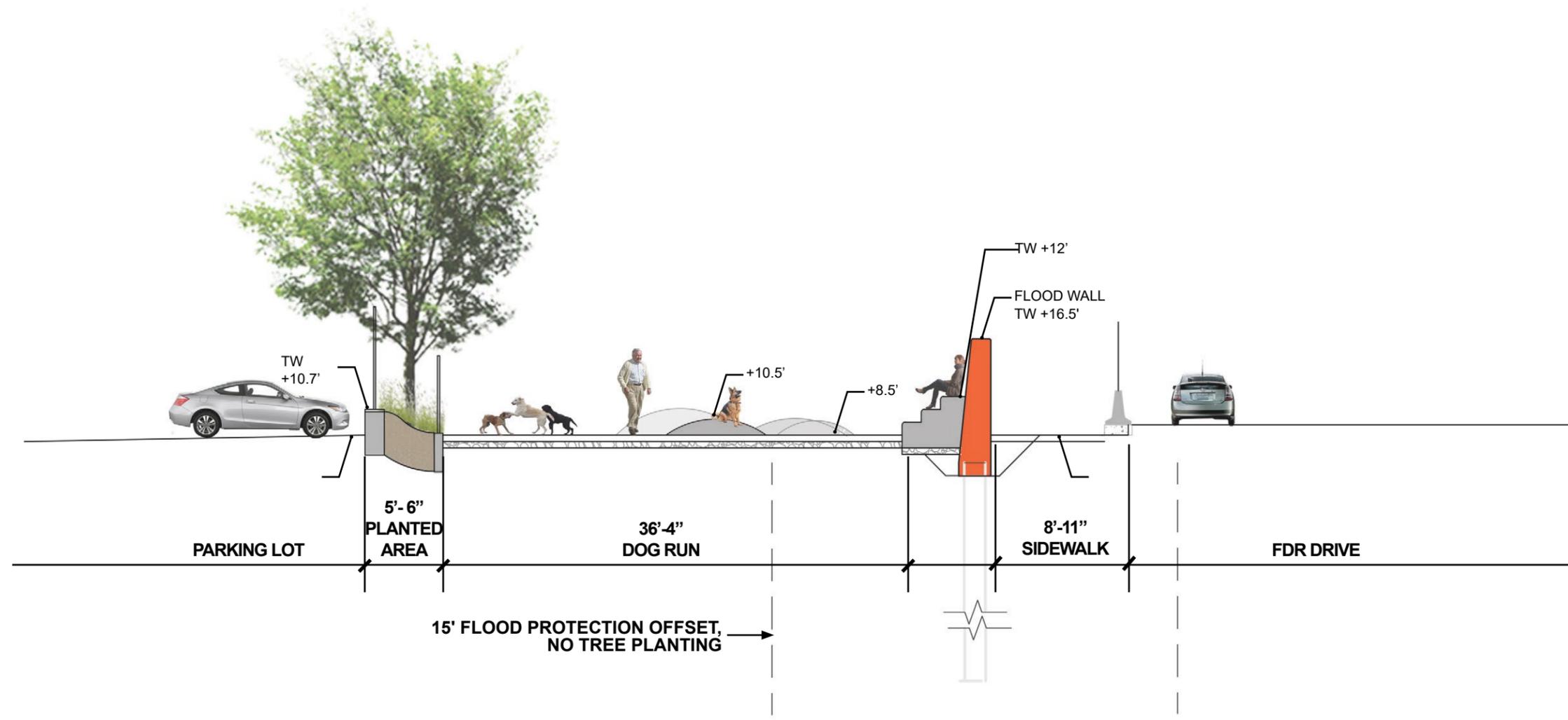




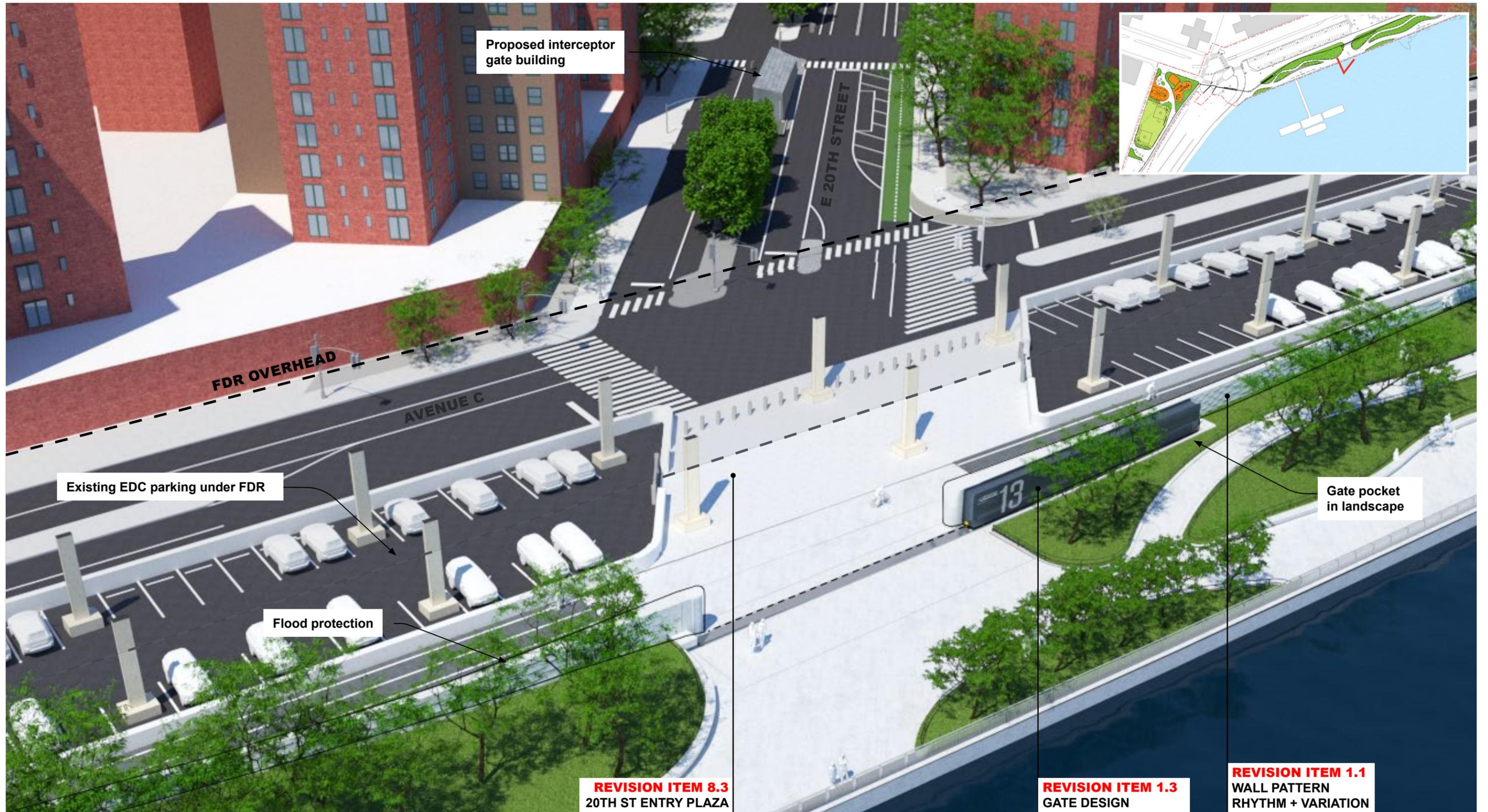


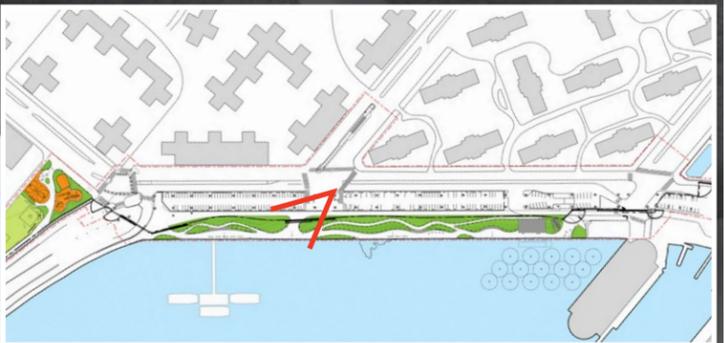






0 20
 Scale: 1" = 10'-0"





REVISION 1.1
WALL PATTERN
RHYTHM & VARIATION

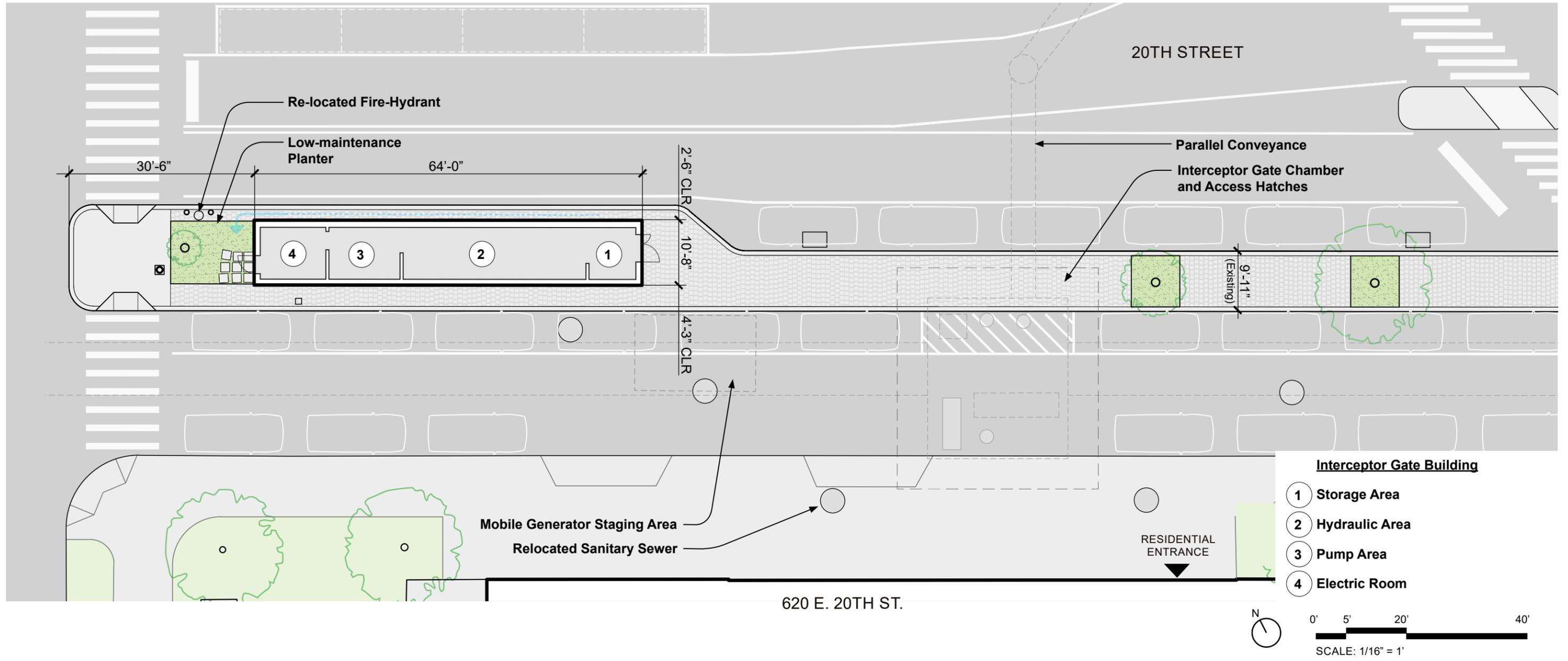
REVISION 1.2
INTEGRATED WALL
SIGNAGE

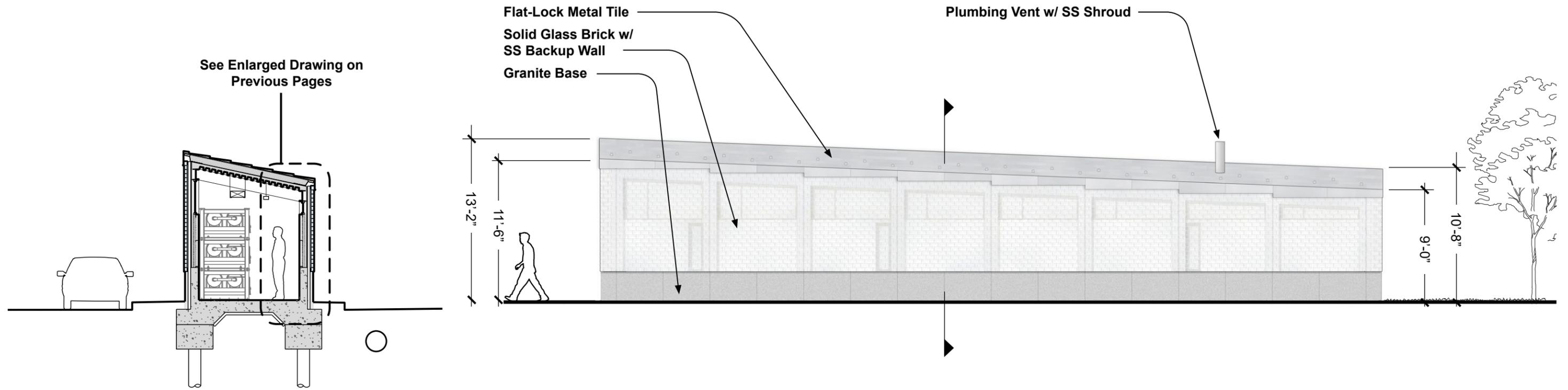
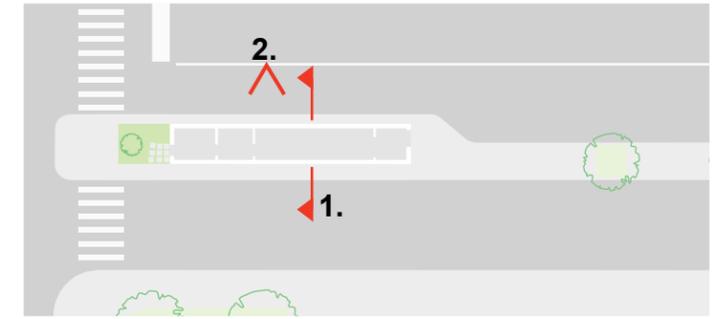
15'
14'
13'
12'
11'
10'
9'
8'





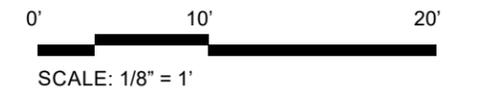
REVISION 2.1
SECURITY
MEASURES





1. CROSS SECTION

2. NORTH ELEVATION





AKRF-KSE, JV	BJARKE INGELS GROUP	MATHEWS NIELSEN LANDSCAPE ARCHITECTS, P.C.	ONE ARCHITECTURE AND URBANISM	NEW YORK CITY DEPT. OF DESIGN AND CONSTRUCTION	NEW YORK CITY DEPT. OF PARKS AND RECREATION	NEW YORK CITY DEPT. OF TRANSPORTATION	NEW YORK CITY DEPT. OF ENVIRONMENTAL PROTECTION	NEW YORK CITY MAYOR'S OFFICE OF RESILIENCY
--------------	---------------------------	--	-------------------------------------	--	---	---	---	---

**PDC FINAL REVIEW
EAST SIDE COASTAL
RESILIENCY PROJECT**

DECEMBER 16, 2019

**North Gate Building
View From Northwest 92**

PRESENTATION CONTENTS

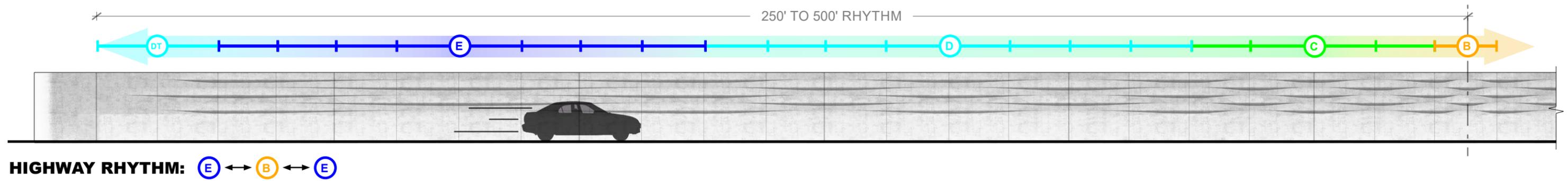
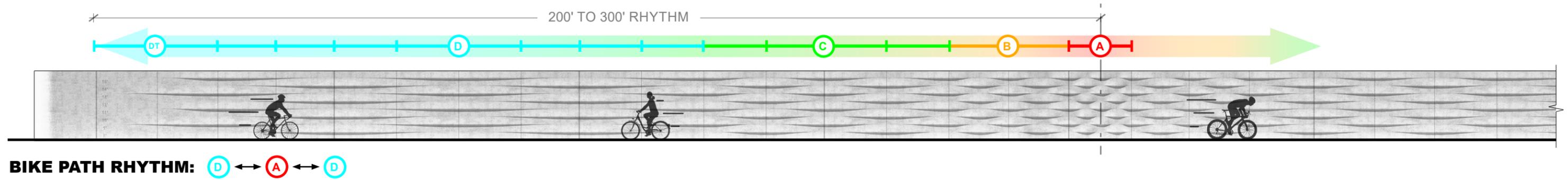
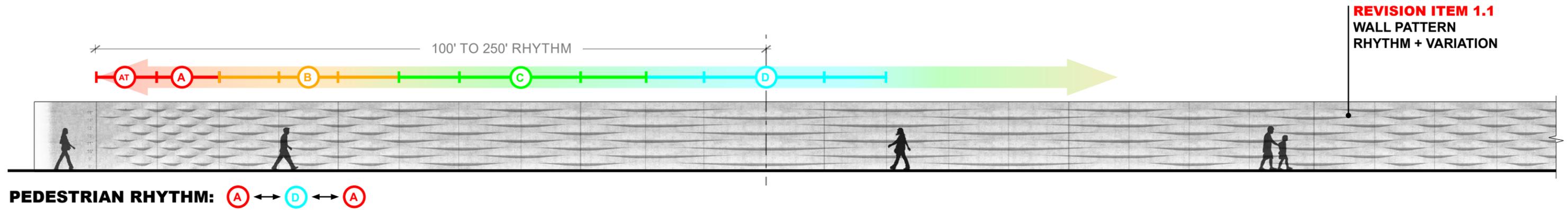
1. SITE DESIGN: PROJECT AREA 1 (PA1)

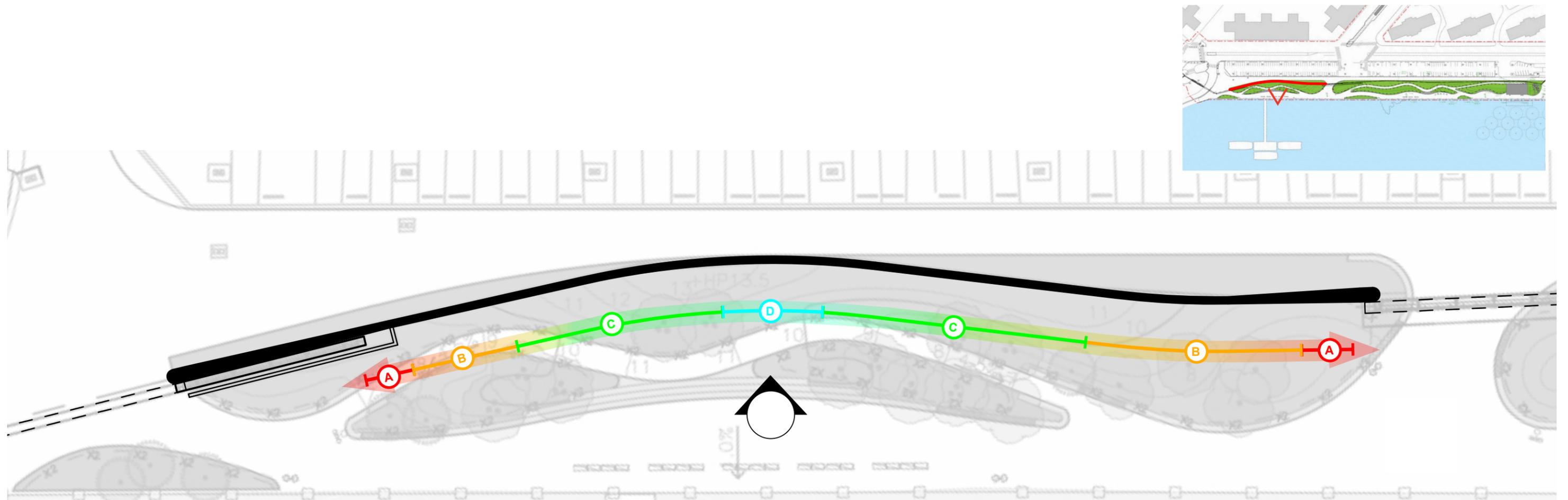
2. SITE DESIGN: PROJECT AREA 2 (PA2)

3. SITE ELEMENTS

WALL RHYTHM TOOLKIT:

INDIVIDUAL PANELS ARE ARRAYED TO REINFORCE USER EXPERIENCE, ACCELERATING AND DECELERATING THE PATTERN





REVISION ITEM 1.3
GATE DESIGN

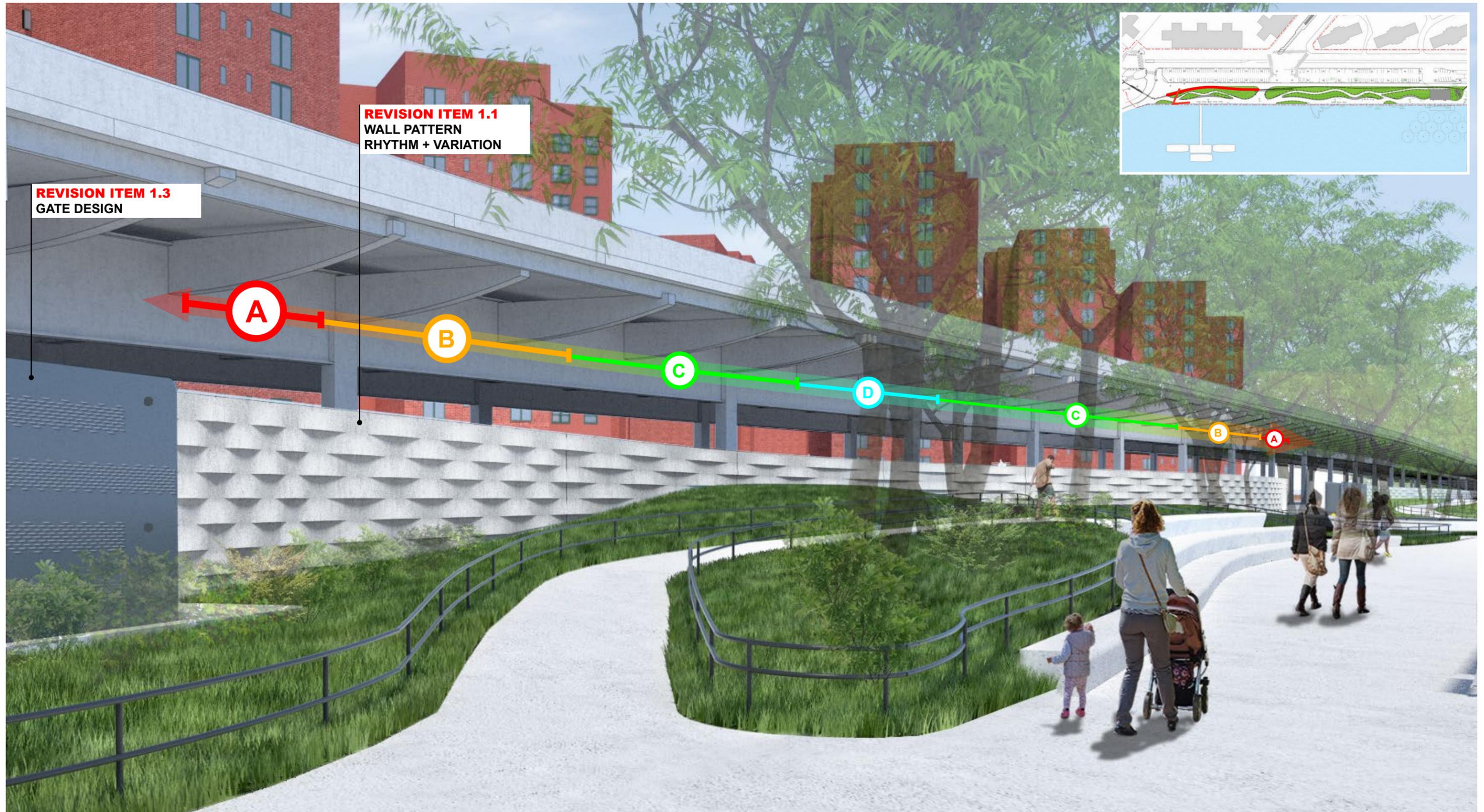


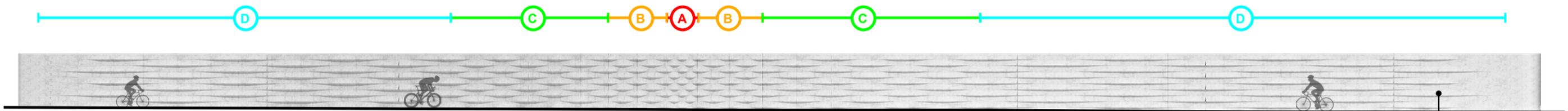
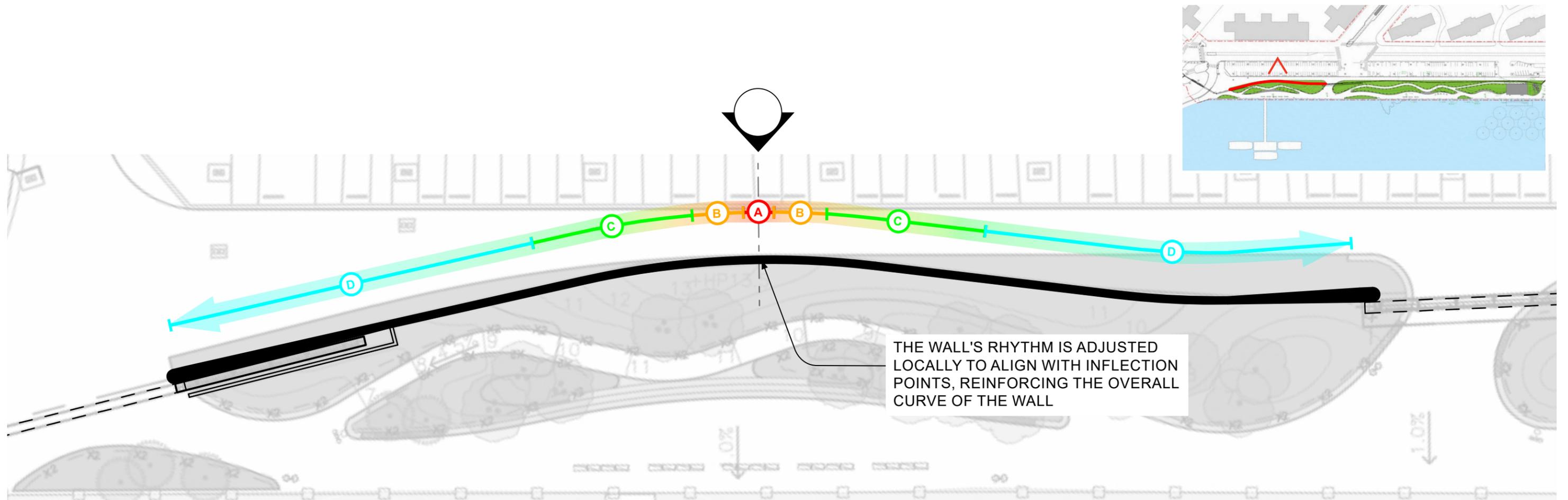
FLOOD SIDE ELEVATION



REVISION ITEM 1.1
WALL PATTERN
RHYTHM + VARIATION

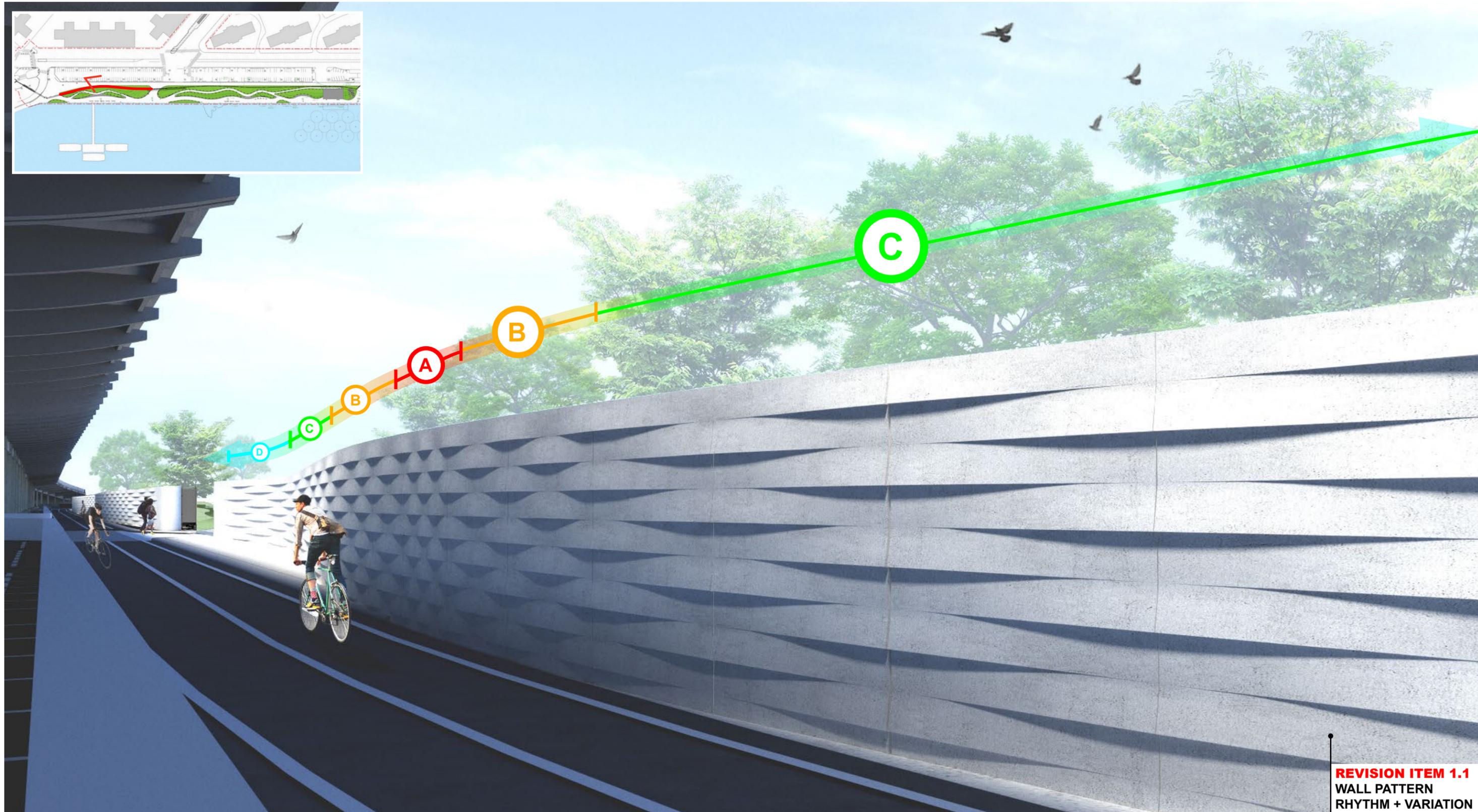
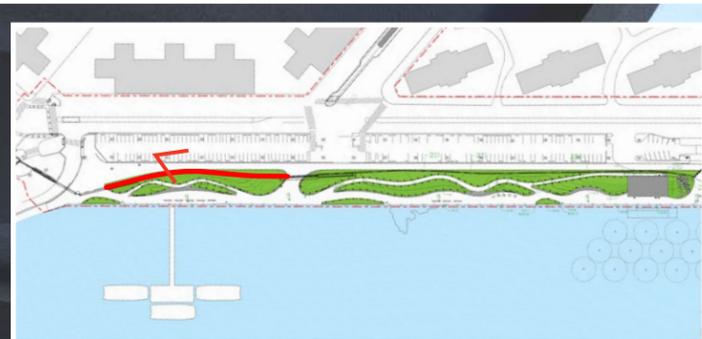
THE WAVE PATTERN INTENSIFIES
NEAR PARK ENTRANCES AND OTHER
LOCATIONS WHERE PEDESTRIANS
APPROACH THE WALL





PROTECTED SIDE ELEVATION

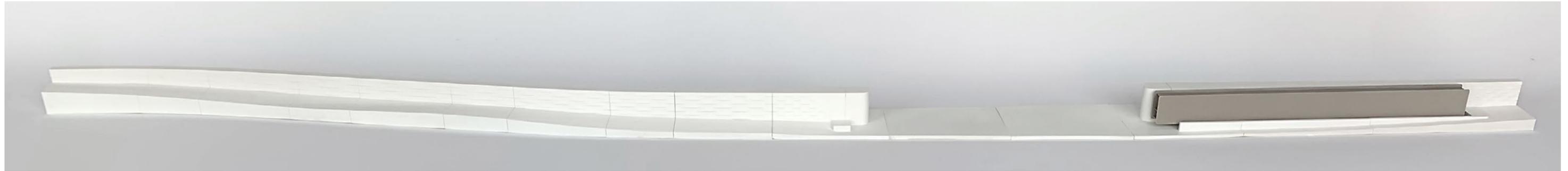
REVISION ITEM 1.1
WALL PATTERN
RHYTHM + VARIATION



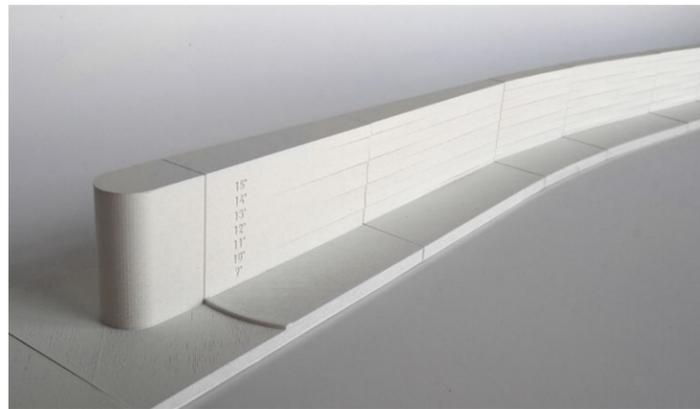
REVISION ITEM 1.1
WALL PATTERN
RHYTHM + VARIATION



E 20TH STREET WALL SEGMENT - PROTECTED SIDE



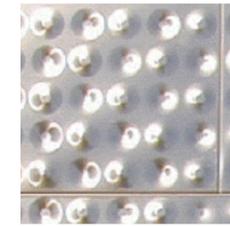
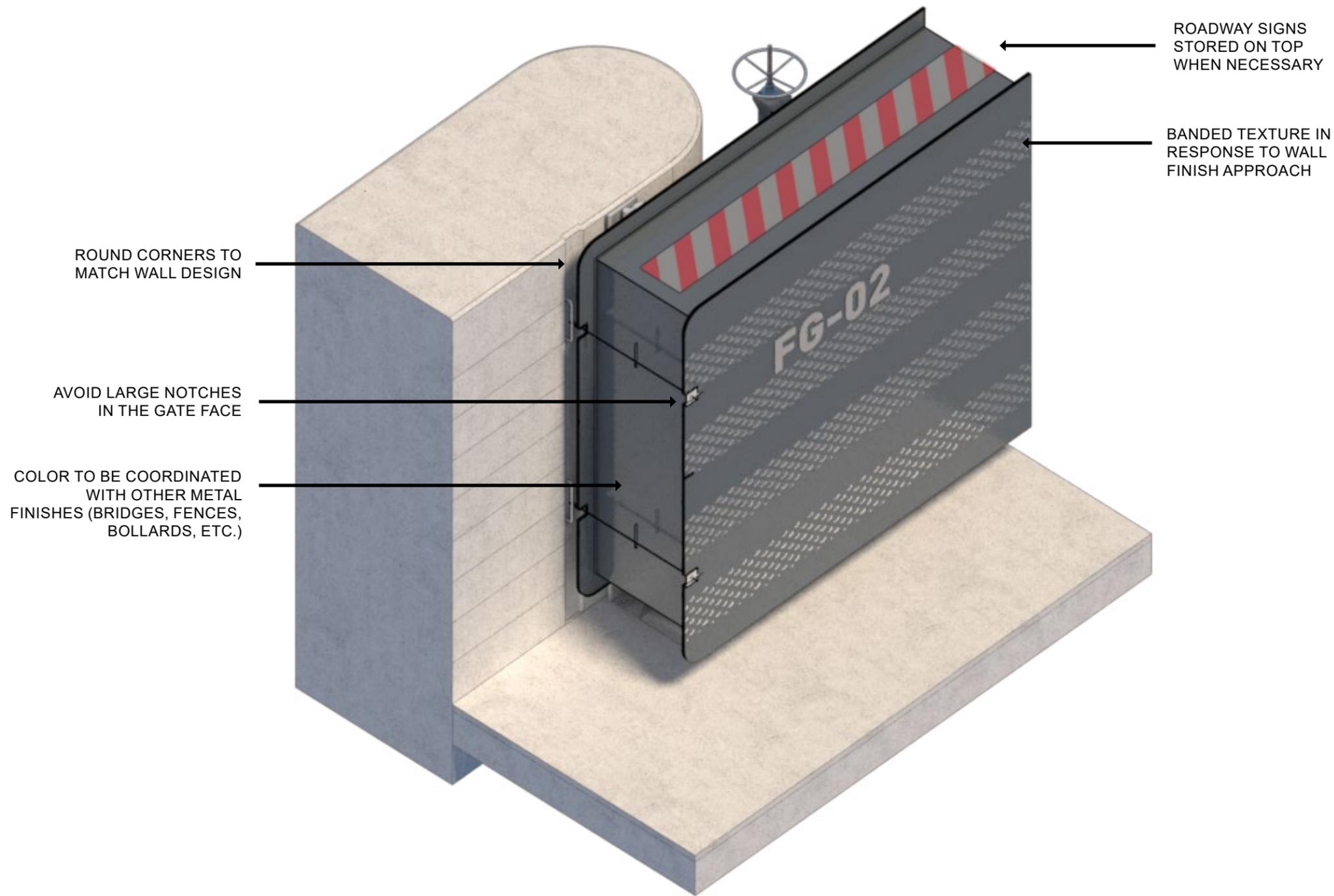
E 20TH STREET WALL SEGMENT - FLOOD SIDE



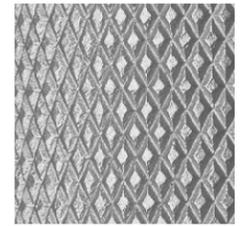
DETAIL 1



DETAIL 2



EMBOSSED



KNURLED

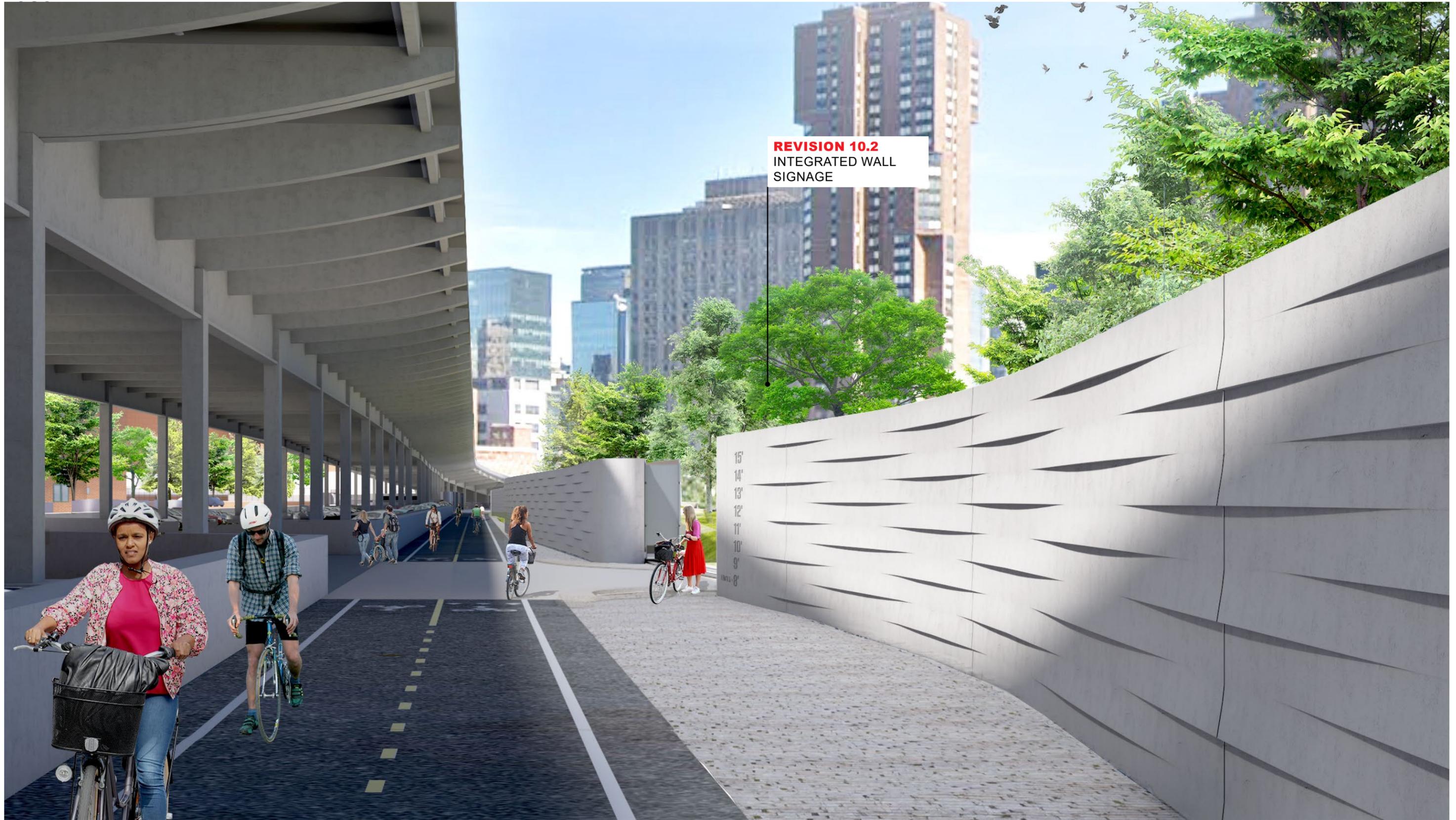


**TEXT + LABELING
MUNSEL GREY PAINT (TYP)**

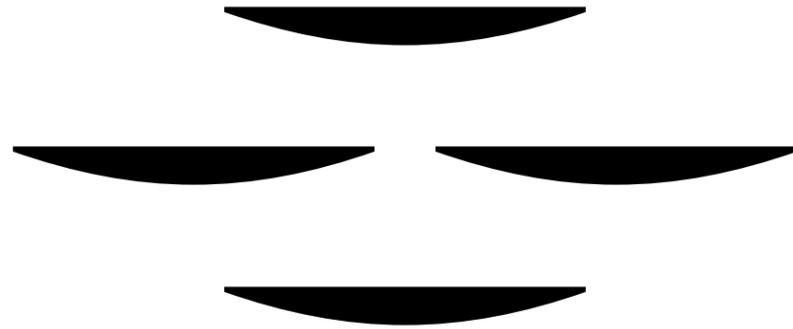


**TEXT + LABELING
GW GREY PAINT (ASSER LEVY)**

PREVIOUSLY REVIEWED



REVISION 10.2
INTEGRATED WALL
SIGNAGE



ABCDEFGHIJKLM

NOPQRSTUVWXYZ

0123456789

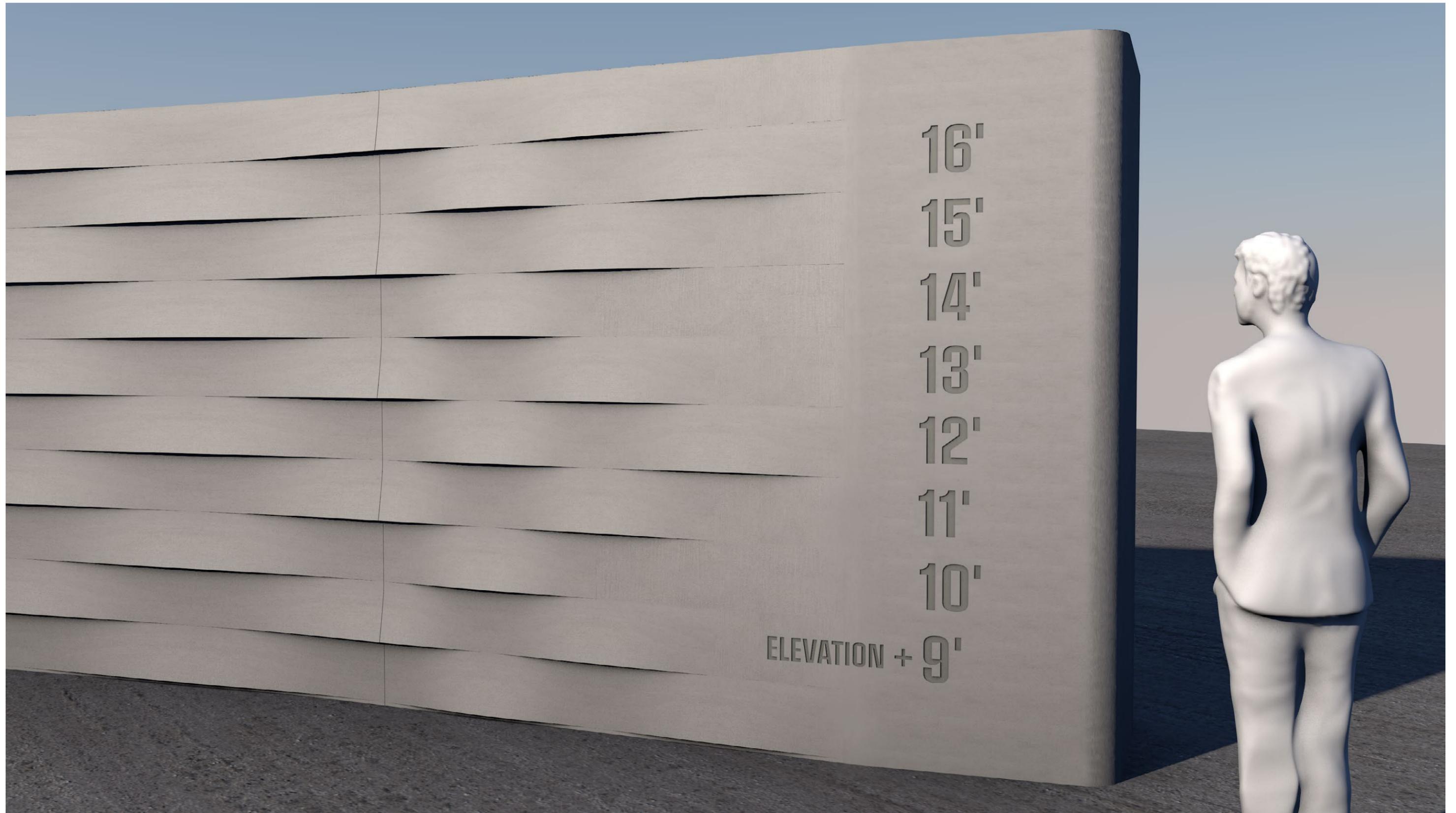
BLANK PAGE

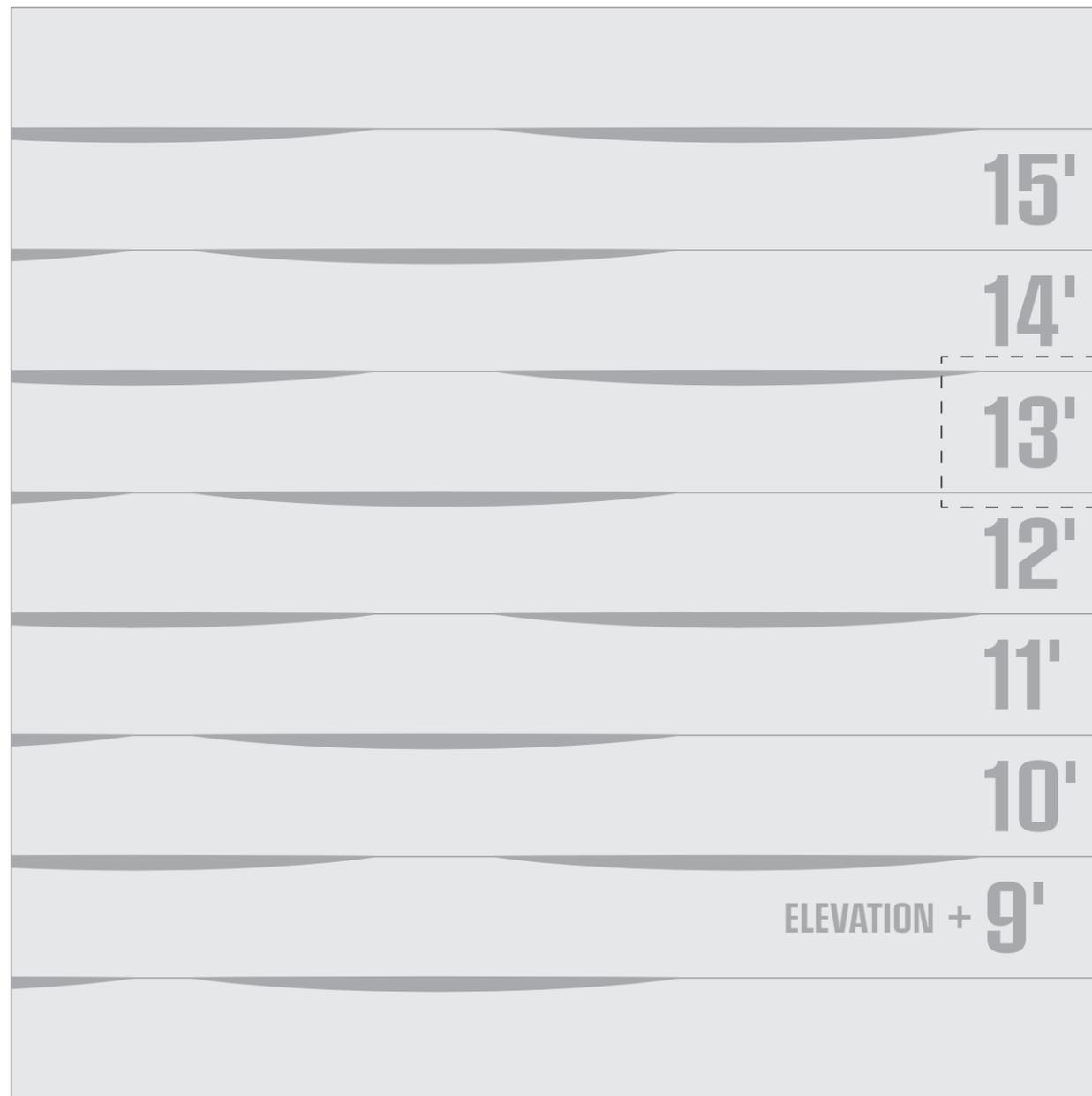
BLANK PAGE

BLANK PAGE

BLANK PAGE

BLANK PAGE

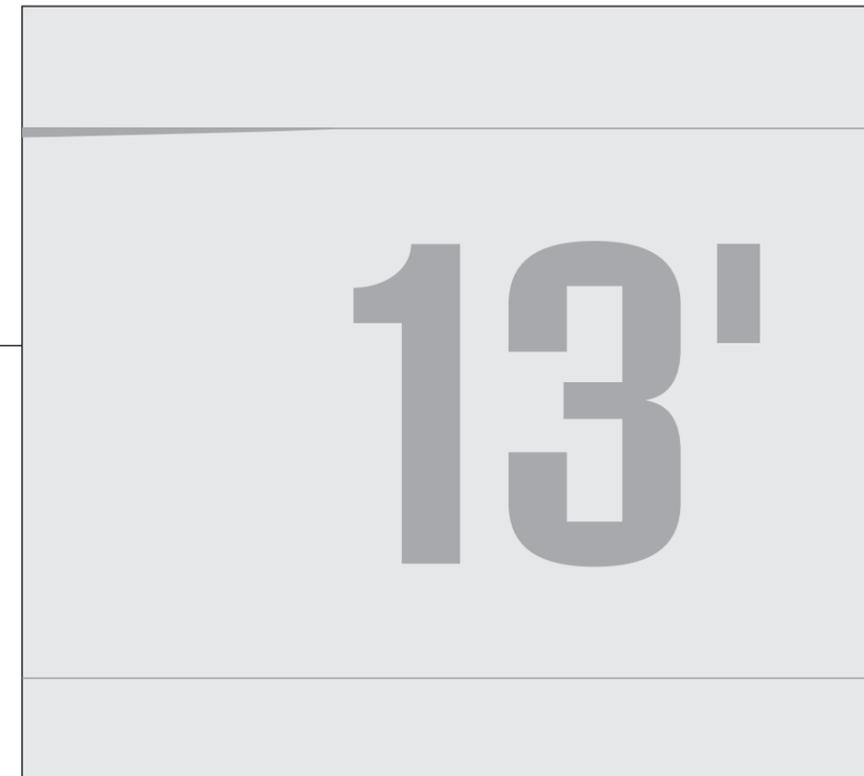




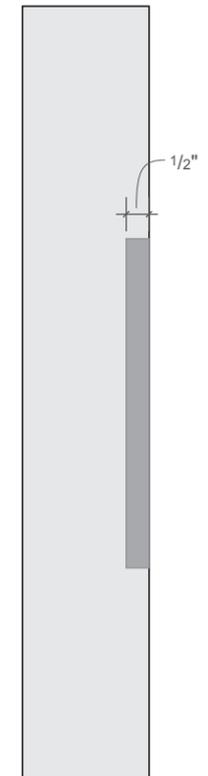
1. FLOODWALL SIGNAGE TYP. ELEVATION

← No elevation marker for top 12"

2 1/2"
7"
2 1/2"



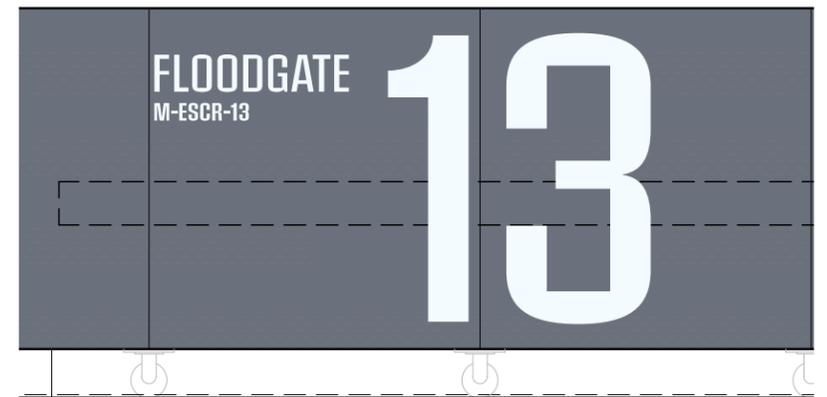
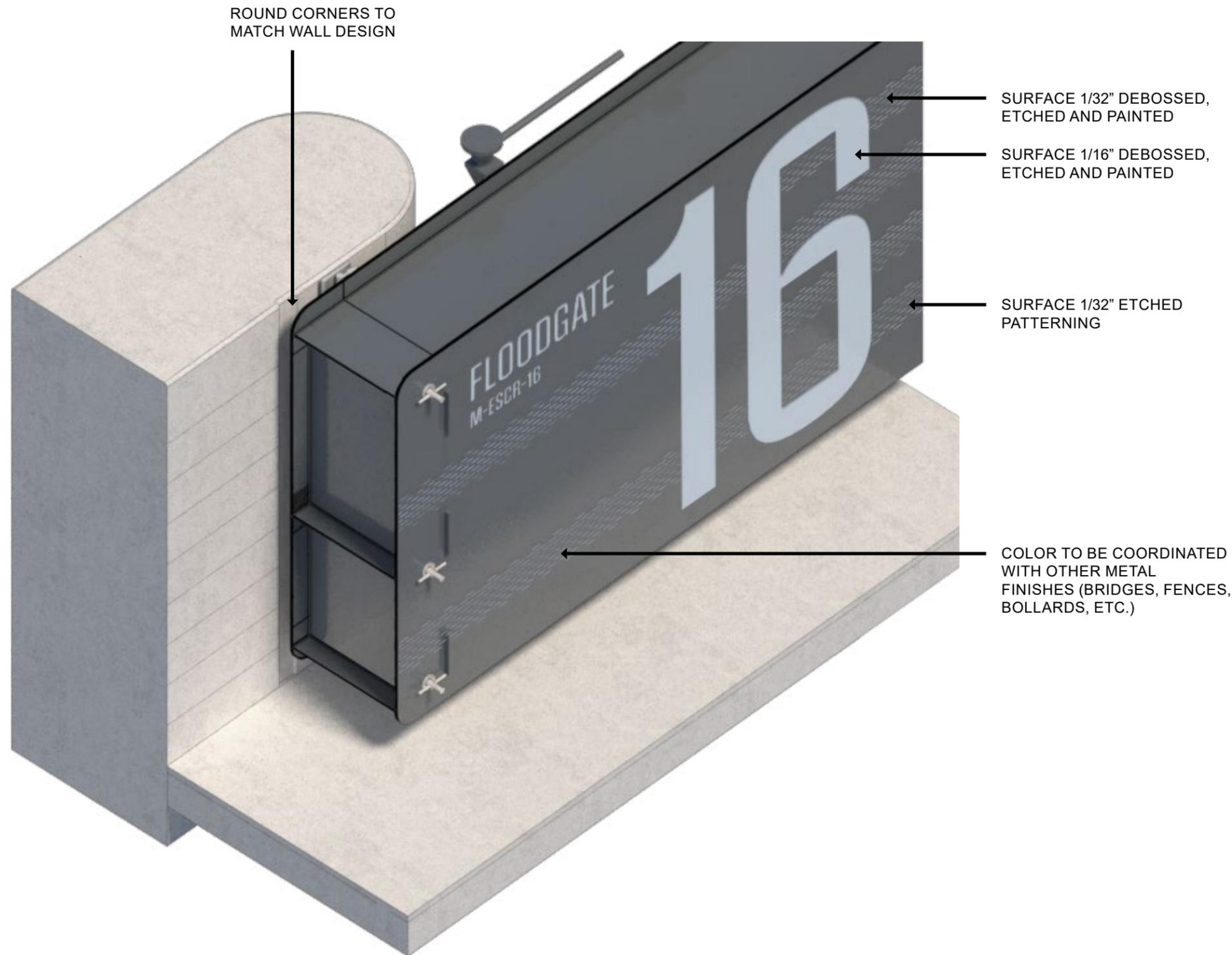
2. FLOODWALL SIGNAGE DETAIL



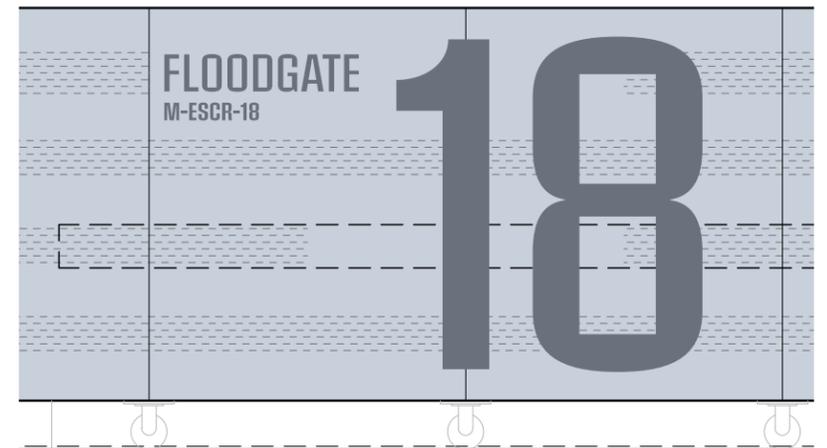
3. FLOODWALL SIGNAGE DETAIL - SECTION

← No elevation marker for bottom 12"

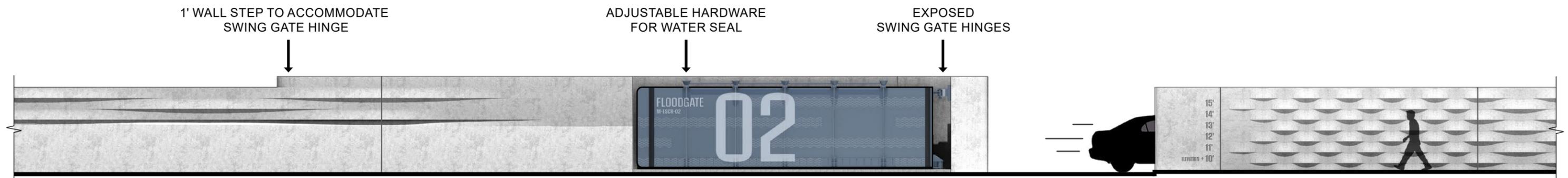




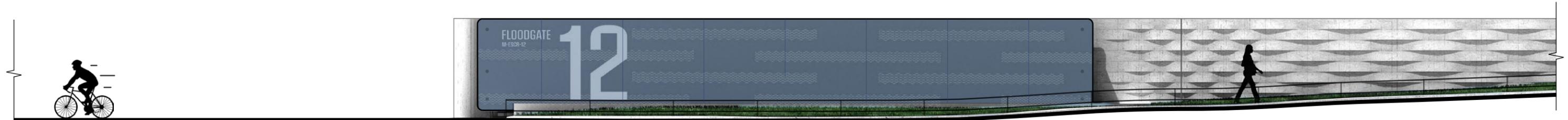
**TEXT + LABELING
MUNSEL GREY PAINT (TYP)**



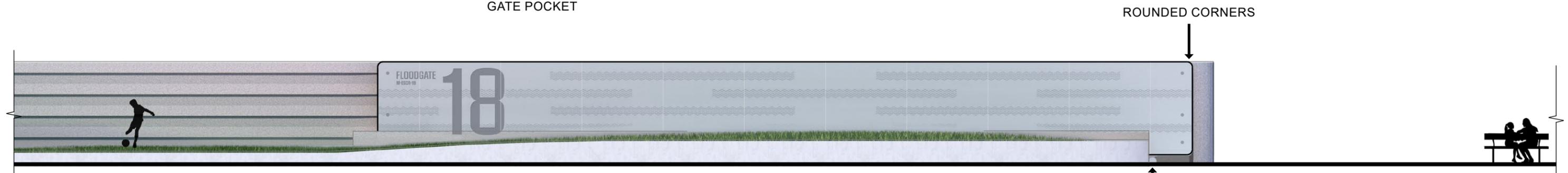
**TEXT + LABELING
GW GREY PAINT (ASSER LEVY)**



TYPICAL SWING GATE (PIER 42)



TYPICAL ROLLER GATE (STUY COVE SOUTH)



ROLLER GATE WITHIN ASSER LEVY PLAYGROUND



REVISION ITEM 1.3
GATE DESIGN

TEXTURED FACE
PLATE

SILL AND LATCH
POINT

SILL PLATE

CONCRETE APRON

COVER PLATE

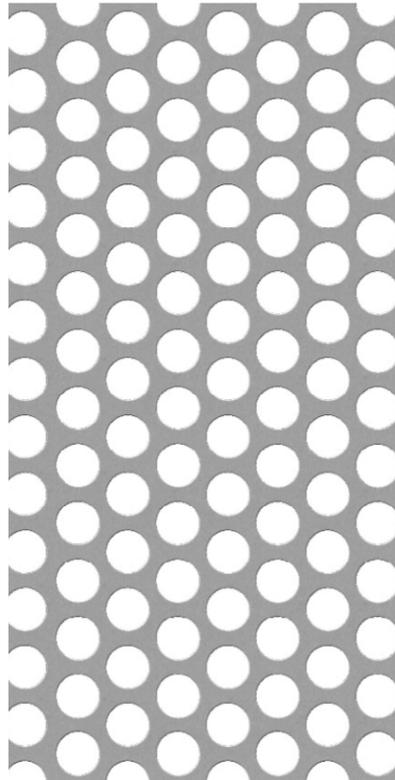
REVISION ITEM 1.2
INTEGRATED WALL SIGNAGE

REVISION ITEM 1.1
WALL PATTERN
RHYTHM + VARIATION

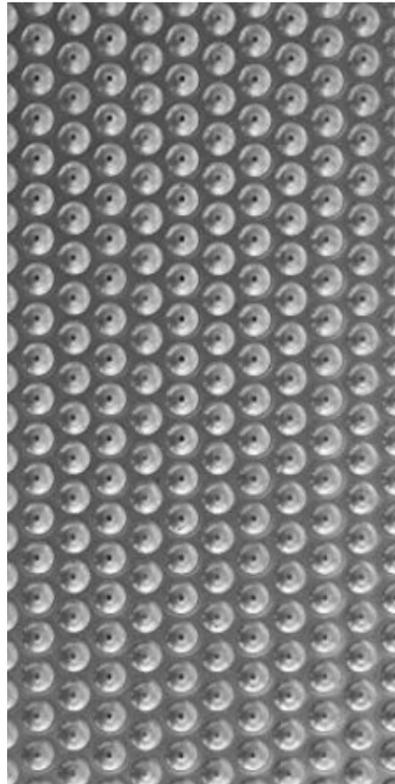


REVISION ITEM 1.2
INTEGRATED WALL SIGNAGE

REVISION ITEM 1.1
WALL PATTERN
RHYTHM + VARIATION



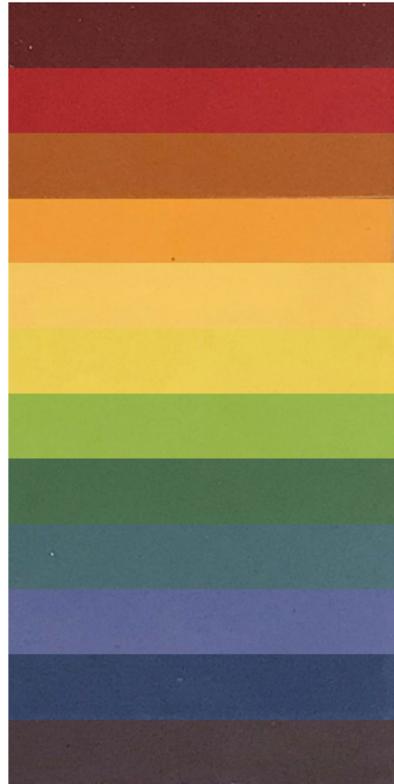
Stainless Steel Perforated
Clerestory Screen



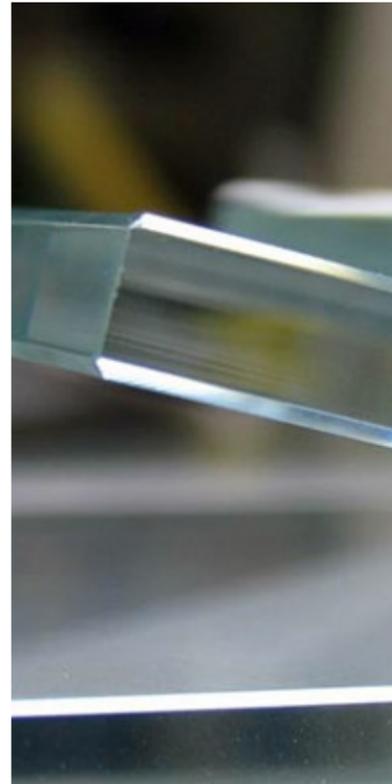
Stainless Steel Embossed
Doors and Fixed Panels



Stainless Steel
Facade Openings Trim
Coping
Roll-up Gates



Glazed Brick Various Colors
Building Facade



Glass
Building Windows



Roof Access
Pre-cast Concrete
Paver



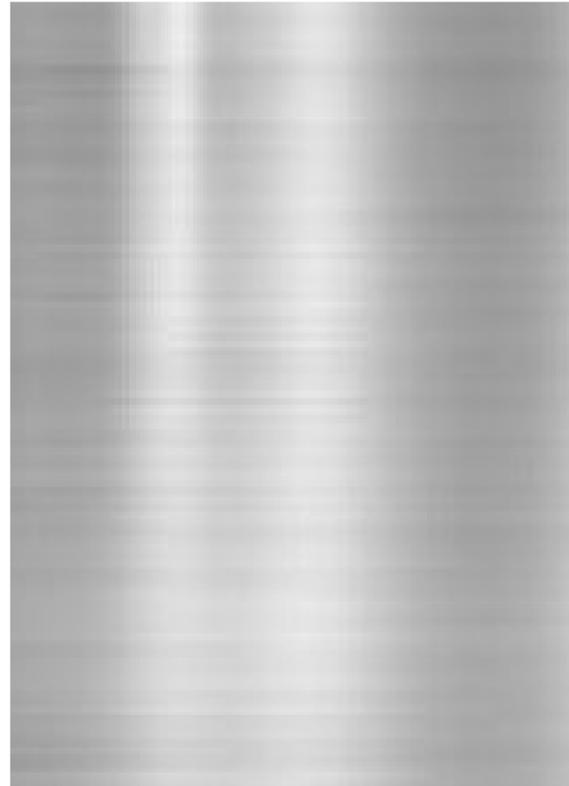
Green Roof
NYC Parks
Sustainability Initiative



Louver Style Steel Fencing
M&O Fencing
Painted Black



Precast Concrete Building
M&O Area Buildings



Stainless Steel Canopy
M&O Area Canopy & Access Doors



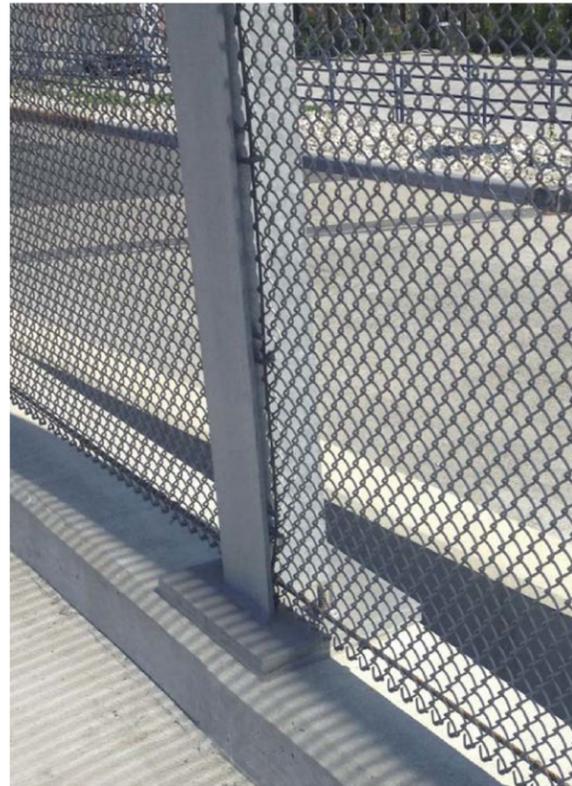
Stainless Steel Roll-Up Door
M&O Area Access Doors



Photovoltaic Cells
M&O Area Canopy



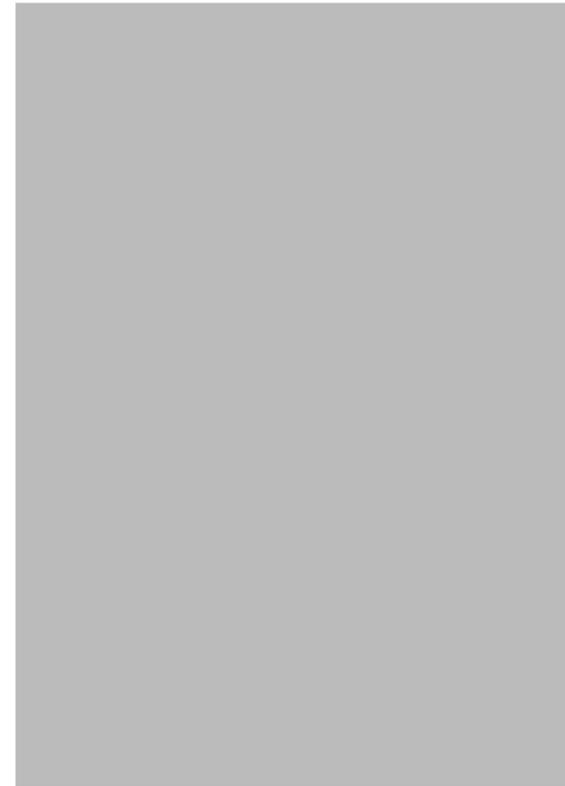
Bridge Handrail
Stainless Steel



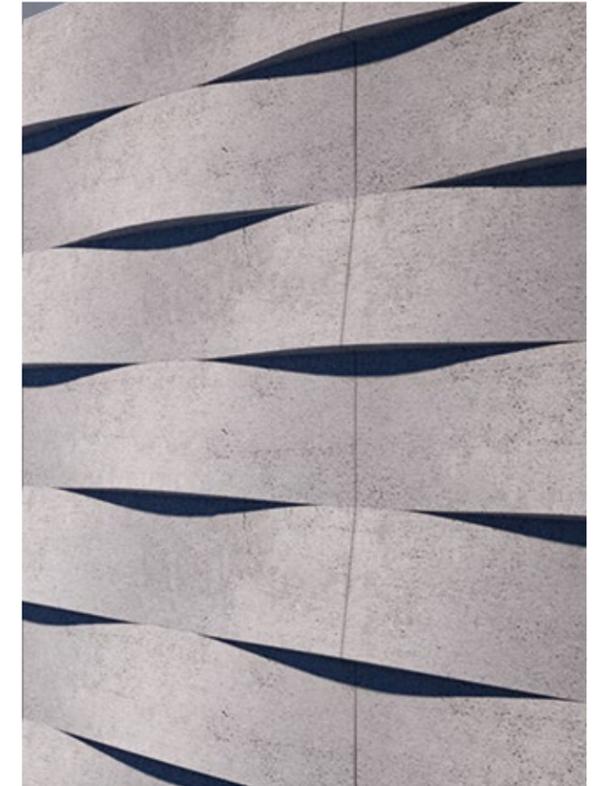
Bridge Guardrail + Fence
Galvanized Steel



Bridge Deck
Exposed Concrete



Bridge Structure
Painted Steel: Color George
Washington Gray



Bridge Ramp + Abutments
Cast-In-Place Concrete



STAINLESS STEEL
Back Up Wall,
Doors, & Trim Elements



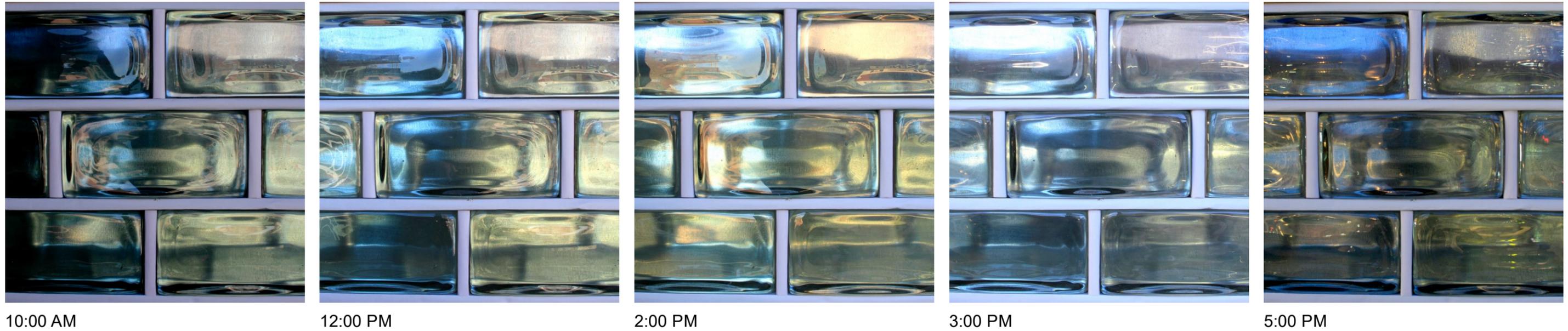
SOLID GLASS BRICK
Facade
(Pictured: Office Mockup)



BARRE GREY GRANITE
Stone Base



FLAT-LOCK METAL TILE
Sloped Roof Assembly



10:00 AM

12:00 PM

2:00 PM

3:00 PM

5:00 PM

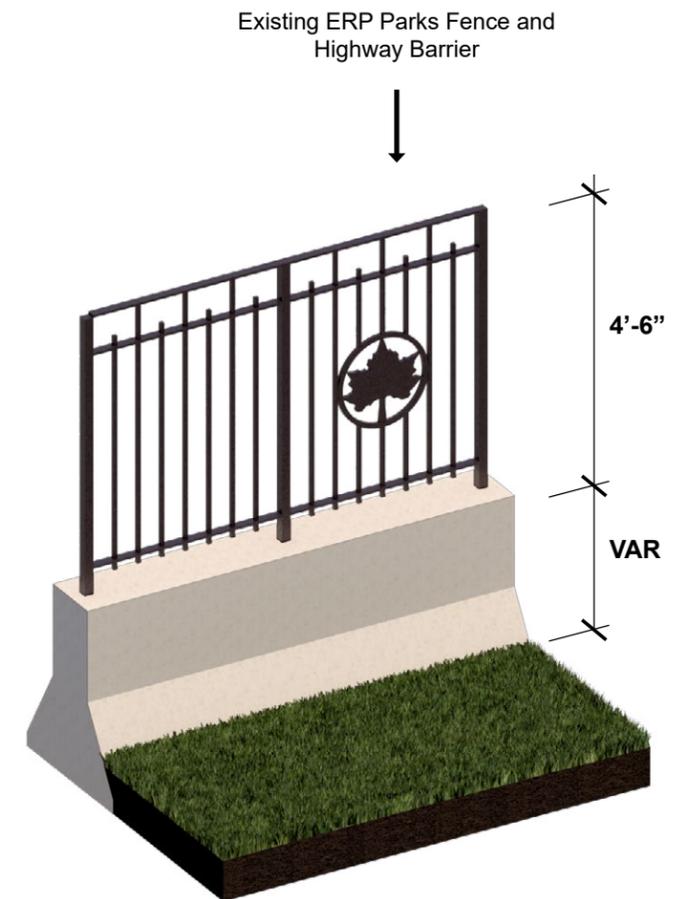
OFFICE MOCKUP PHOTOGRAPHS

December 12th, 2019

NO CHANGE FROM APPROVED

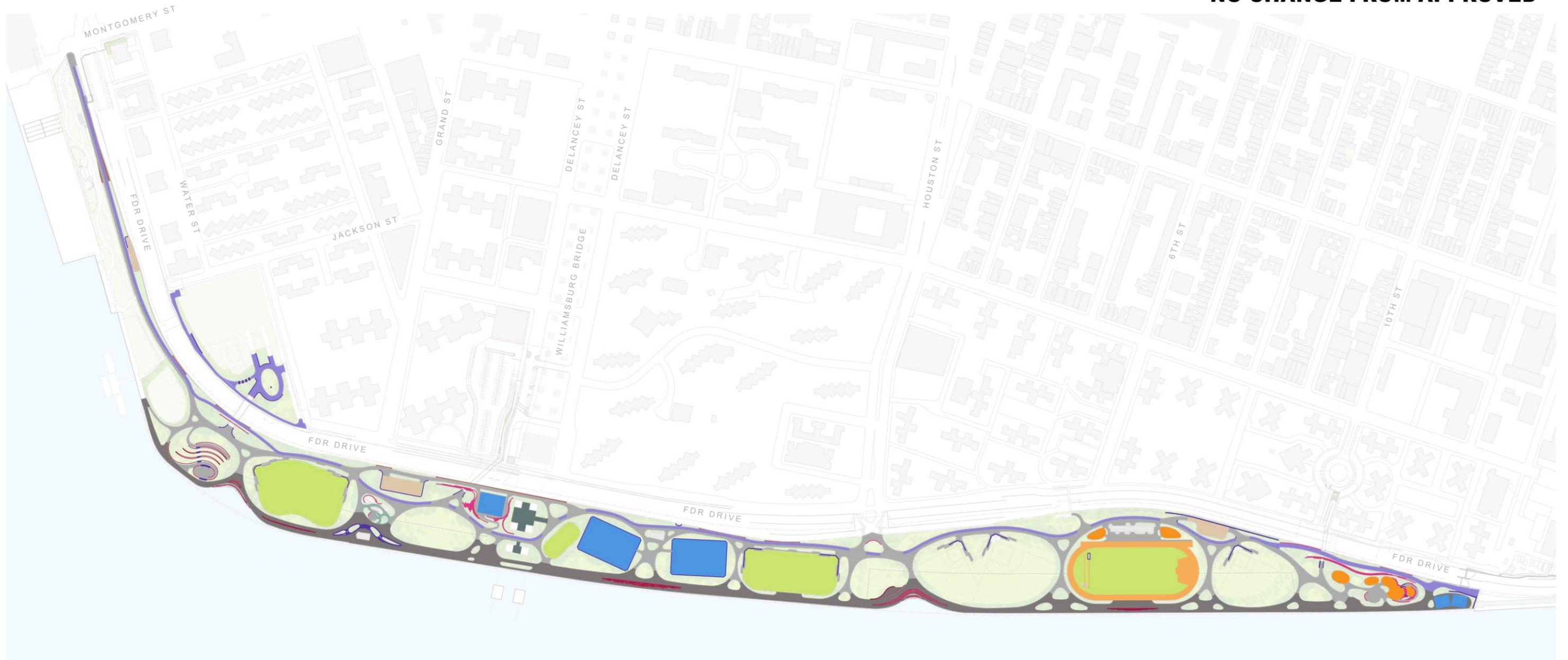


NEW WALL AND FENCE



EXISTING TO REMAIN

NO CHANGE FROM APPROVED



- | | |
|--|--|
| ■ 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) |

NO CHANGE FROM APPROVED



(NOT TO SCALE)

- | | |
|--|--|
| 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) |

PRIMARY PATHWAYS



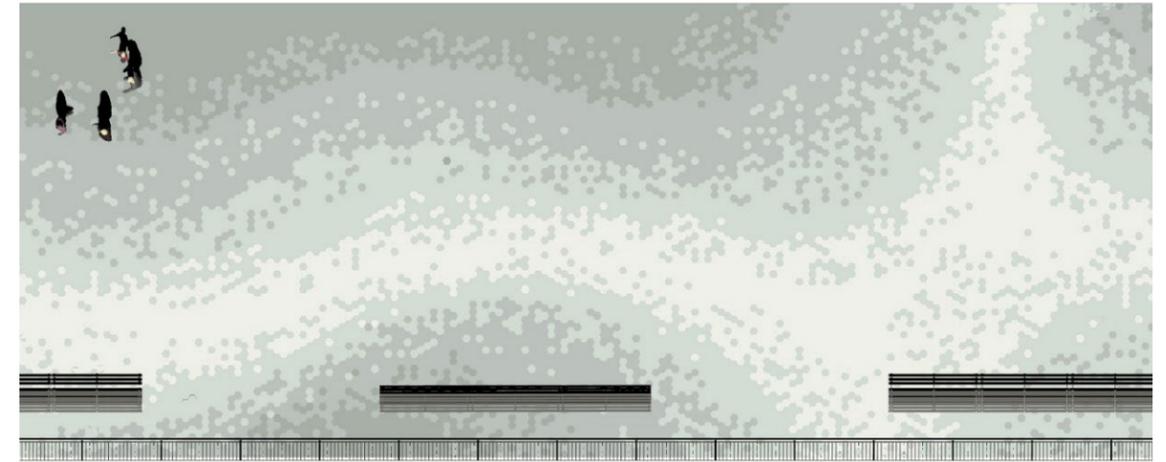
FULL DEPTH ASPHALT PAVEMENT
BIKE LANE



EXPOSED AGG. CONCRETE PAVEMENT W/ SAW CUT JOINTS
PARK PATHWAYS



CONCRETE UNIT PAVER
ESPLANADE
8" HEX PAVER



CONCRETE UNIT PAVER PATTERN

10'

NO CHANGE FROM APPROVED

SECONDARY PATHWAYS



CEMENT CONCRETE PAVEMENT
MAINTENANCE AREAS



RECYCLED BARK MULCH
UNDER EXISTING TREES &
NATURAL EXPLORATION AREAS

NO CHANGE FROM APPROVED



LANDSCAPE STONE
SLOPE AND EDGES



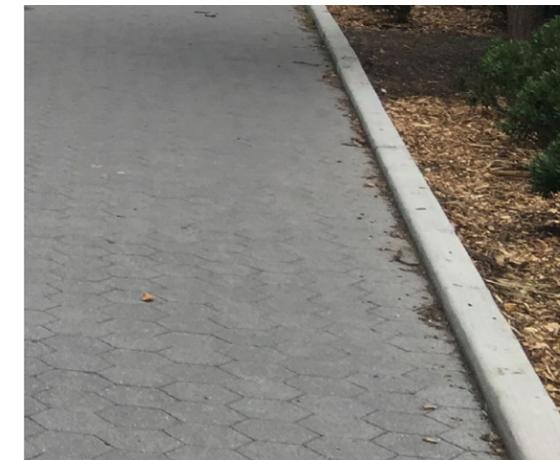
CONCRETE SEATWALLS
PRECAST CONCRETE



CONCRETE WALLS
POURED IN PLACE CONCRETE



AVERAGE CONCRETE
CONCRETE STEPS



STANDARD CONCRETE CURBS
6" WIDE; FLUSH OR 2" HEIGHT
POURED IN PLACE
AVERAGE CONCRETE



STANDARD SAFETY SURFACE
MITCHELL RUBBER TILES
8' & 10' DROP HEIGHTS
COLOR: SAND
EAST RIVER PARK



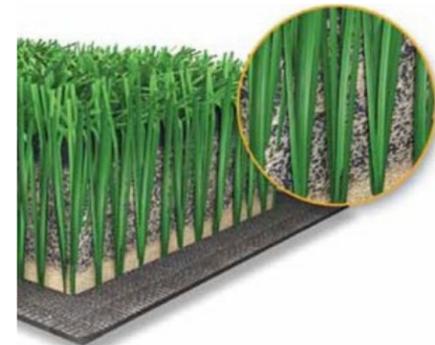
STANDARD SAFETY SURFACE
MITCHELL RUBBER TILES
8' & 10' DROP HEIGHTS
COLOR:#12, #17, #2
MURPHY BROTHERS
PLAYGROUND



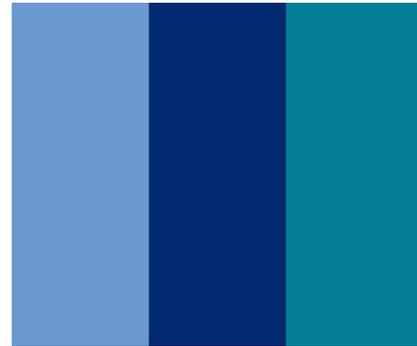
STANDARD SAFETY SURFACE
MITCHELL RUBBER TILES
8' & 10' DROP HEIGHTS
COLOR:#14, #16, #20
ASSER LEVY
PLAYGROUND



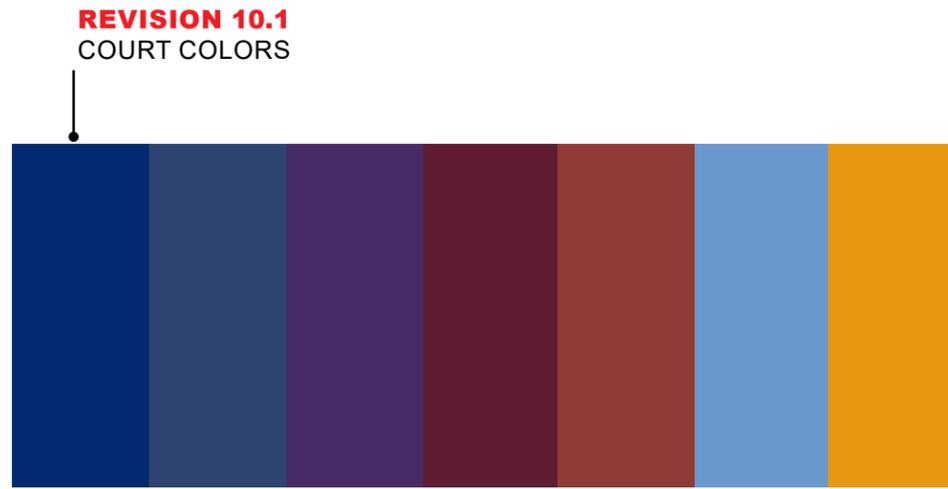
SKINNED INFIELD
FOR BASEBALL & SOFTBALL
STANDARD INFIELD MIX



SYNTHETIC TURF W/ INFILL
FIELDS 1, 2, 3, 4



**TENNIS COURTS
ASPHALT WITH COLOR SEAL**
COLORS: ARCTIC, MIDNIGHT, TEAL
EAST RIVER PARK TENNIS



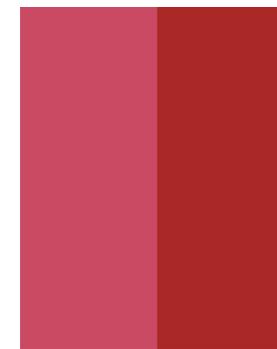
**BASKETBALL COURTS
ASPHALT WITH COLOR SEAL**
COLORS: MIDNIGHT, PRO BLUE, ROYAL PURPLE,
BURGUNDY, BRICK RED, ARCTIC BLUE, PUMPKIN
EAST RIVER PARK DELANCEY STREET



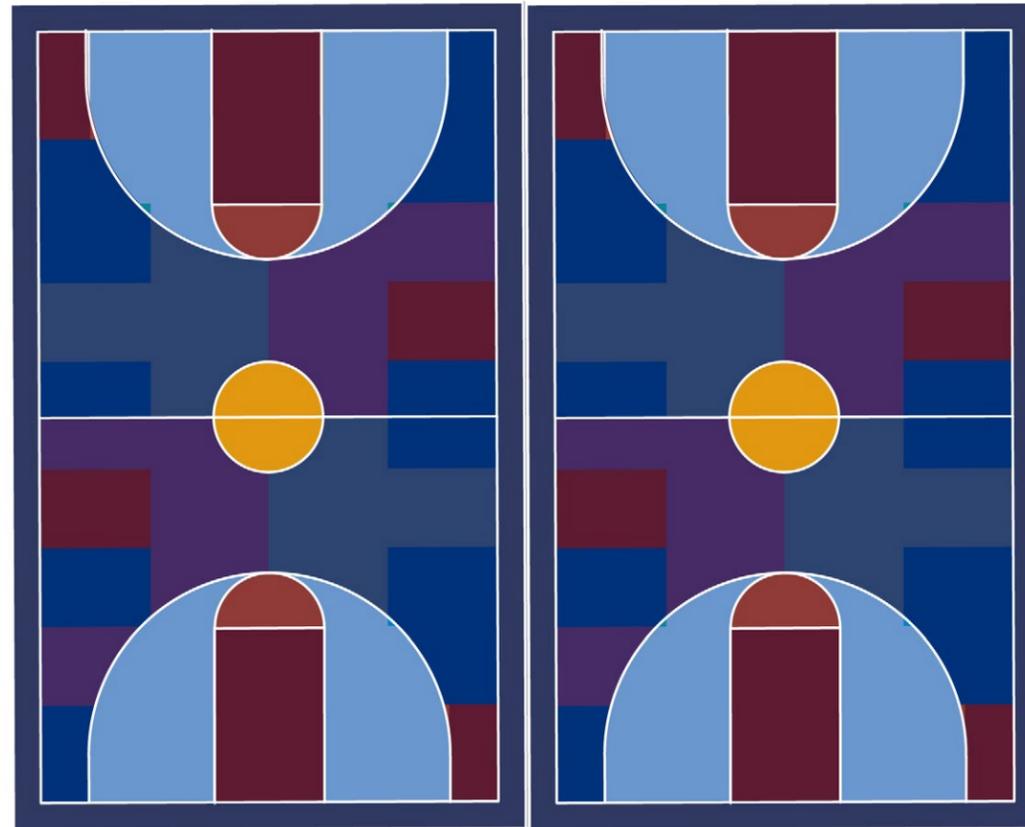
**BASKETBALL COURTS
ASPHALT WITH COLOR SEAL**
COLORS: MIDNIGHT, LIGHT BLUE,
ARCTIC BLUE, TEAL, PUMPKIN
EAST RIVER PARK 10TH STREET



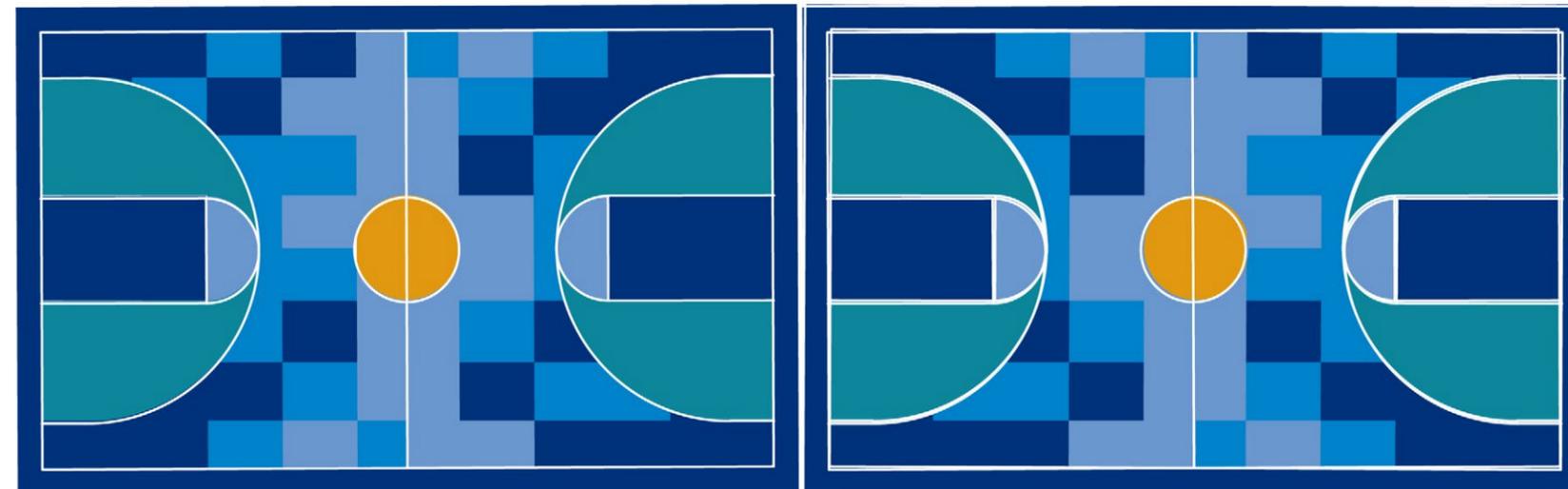
**BASKETBALL COURTS
ASPHALT WITH COLOR SEAL**
COLORS: DARK GREEN, GRASS
GREEN, KIWI, KEY LIME
MURPHY BROTHERS BASKETBALL



**BASKETBALL COURTS
ASPHALT WITH COLOR SEAL**
COLORS: CORAL, SCARLET
ASSER LEVY BASKETBALL



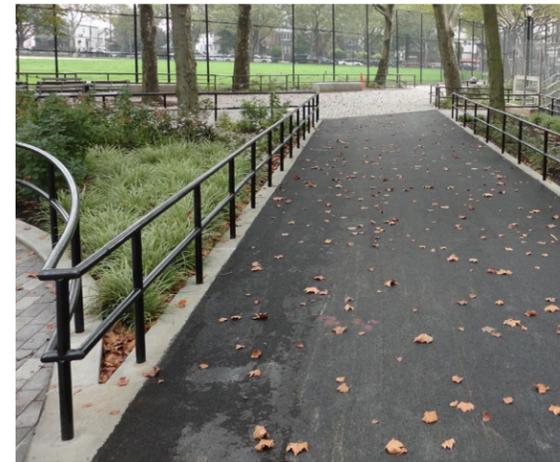
BASKETBALL COURT PATTERN - DELANCEY STREET



BASKETBALL COURT PATTERN - 10TH STREET



PARK FENCING
COATED CHAINLINK
4', 6', 8', 12' & 16' HEIGHTS
SPORTS FIELDS, PLAYGROUNDS,
MAINTENANCE AREAS
COLOR: BLACK



PLANT RAIL FENCE
PAINTED STEEL PIPE
2' 6" HEIGHT
COLOR: BLACK
STUYVESANT COVE PARK



HAND RAILS & GUARDRAILS
PAINTED STEEL PIPE
42" HEIGHT
COLOR: BLACK
EAST RIVER PARK



**PARKS STANDARD PROMENADE
RAIL**
42" HEIGHT
BLACK
ESPLANADE



**STANDARD BENCH (BACK)
1964 WORLD'S FAIR**
WITH ARMS
8'-0" & 4'-0" LENGTH
RPL SLATS, WEATHERED WOOD
LOCATION: ALL PROJECT AREAS



**STANDARD BENCH (NO BACK)
1964 WORLD'S FAIR**
WITH OR WITHOUT ARMS
8'-0" LENGTH
RPL SLATS, WEATHERED WOOD
LOCATION: EAST RIVER PARK
AND STUYVESANT COVE PARK
WATERFRONT ESPLANADES



**STANDARD TYPE 'C'
SPORTS BENCH**
WITHOUT ARMS & BACKS
7'-0" LENGTH
RPL SLATS, WEATHERED WOOD
LOCATION: SPORTS FIELDS



**STANDARD PICNIC TABLE &
ACCESSIBLE PICNIC TABLE**
7'-0" LENGTH
RPL SLATS, WEATHERED WOOD
LOCATION: BBQ AND PICNIC AREAS
IN EAST RIVER PARK, MURPHY
BROTHERS PLAYGROUND & ASSER
LEVY PLAYGROUND



CAROUSEL SEATING
3 OR 4 SEATS WITH BACKS
DINING HEIGHT, LANDSCAPE FORMS
COLOR SILVER
LOCATION: EAST RIVER PARK
ECOLOGY PLAZA



**STANDARD BOTTLE FILLER WITH
HI-LO DRINKING FOUNTAINS**
ELKAY MODEL LK4430BF1UNYC
COLOR GRAY/SILVER



**STANDARD SPORTS STEEL
SPRAY FIXTURE**
AQUAJEUX MODEL 1507-MALF-08
COLOR GRAY/SILVER



**BBQ GRILL
CLUSTER OF THREE**
MDF, INC.
COLOR BLACK



NYC DOT CITYRACK "HOOP"
COLOR GRAY/SILVER



**STANDARD PUB-
LIC SPACE BINS**
TRASH
RECEPTACLE
MAGLIN MODEL:
CMLWR9074032HST
COLOR GRAY W/
BLACK LID



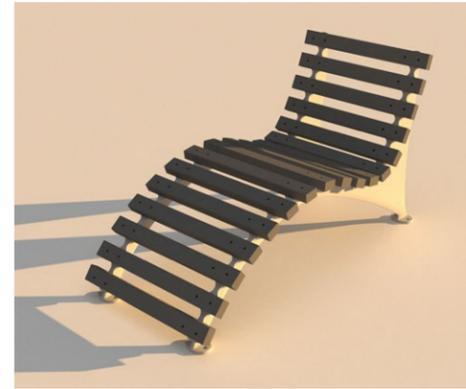
**BIGBELLY
RECYCLING
RECEPTACLE**



BAR STOOL, 1964 WORLD'S FAIR
 1'-6" WIDTH 4'-9" LENGTH
 RPL SLATS, WEATHERED WOOD
 LOCATION: ESPLANADE



CHAIR, 1964 WORLD'S FAIR
 1'-6" WIDTH
 RPL SLATS, WEATHERED WOOD
 LOCATION: ESPLANADE



CHaise LOUNGE, 1964 WORLD'S FAIR
 2'-1" WIDTH
 RPL SLATS, WEATHERED WOOD
 LOCATION: ESPLANADE



BAR TOP TABLE HIGH HEIGHT
 22'-0" LENGTH
 RPL SLATS, WEATHERED WOOD
 LOCATION: ESPLANADE



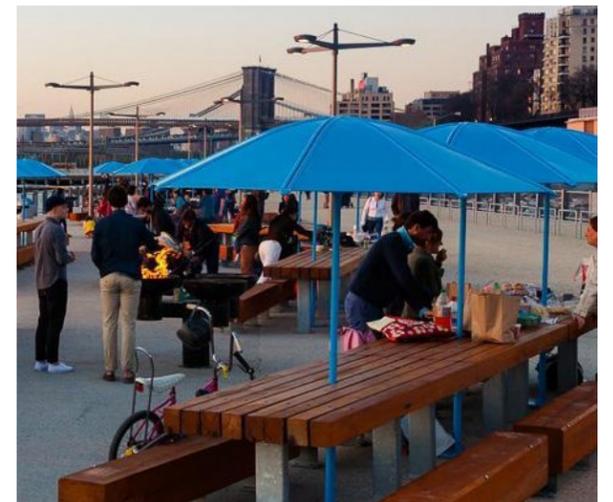
BAR TOP TABLE LOW HEIGHT
 22'-0" LENGTH
 RPL SLATS, WEATHERED WOOD
 LOCATION: ESPLANADE



SOLSTICE UMBRELLA - ALTAIR LANDSCAPE FORMS
 LOCATION: ESPLANADE
 COLORS:
 OCEAN / SEAGREEN/GREEN /
 FLAMBEE ORANGE / TANGERINE



STANDARD PICNIC TABLE & ACCESSIBLE PICNIC TABLE
 8'-0" LENGTH
 PERFORATED METAL
 LOCATION: EAST RIVER PARK



SOLSTICE UMBRELLA - ALTAIR LANDSCAPE FORMS PRECEDENT IMAGE



TYPE B LIGHT
12' POLE
LED
COLOR: BLACK
ASSER LEVY
PLAYGROUND



FLUSHING MEADOWS
12' POLE
LED
COLOR: BLACK
EAST RIVER PARK,
STUYVESANT COVE
PARK, MURPHY
BROTHERS
PLAYGROUND



WORLD'S FAIR
12' POLE
LED
COLOR: BLACK
CORLEARS HOOK PARK



PROPOSED
EVERGEN M SERIES
SOLAR LIGHT BY SOL, INC.
POLE HEIGHT 18'
SOLAR LIGHT
COLOR BLACK
EAST RIVER PARK
ESPLANADE
(UNDER REVIEW)



**DOT STANDARD
DAVIT W/ COBRA
HEAD**
30' POLE
LED LIGHT
COLOR: SILVER
MAINTENANCE AREAS,
BRIDGES



**DOT STANDARD
DAVIT W/ COBRA
HEAD**
14' POLE
LED LIGHT
COLOR: SILVER
DELANCEY BRIDGE



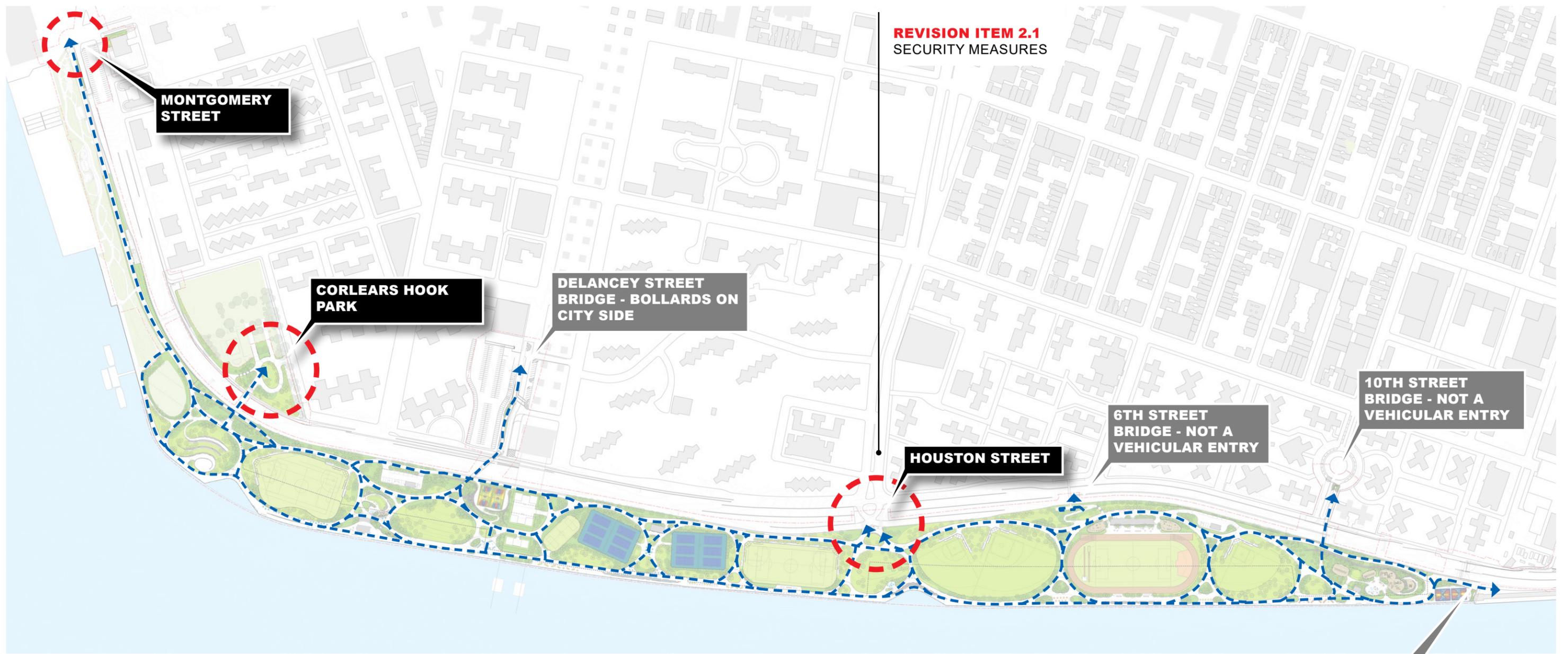
SPORTS TOWER
60'-80' POLE
LED FLOODLIGHT
COLOR: SILVER
FIELDS 1,2 & 6



**SPORTS
TOWER**
30' POLE
LED
FLOODLIGHT
COLOR: SILVER
AMPHITHEATER



TYPE M
27'-7" POLE
LED
ROW



REVISION ITEM 2.1
SECURITY MEASURES

MONTGOMERY STREET

CORLEARS HOOK PARK

DELANCEY STREET BRIDGE - BOLLARDS ON CITY SIDE

HOUSTON STREET

6TH STREET BRIDGE - NOT A VEHICULAR ENTRY

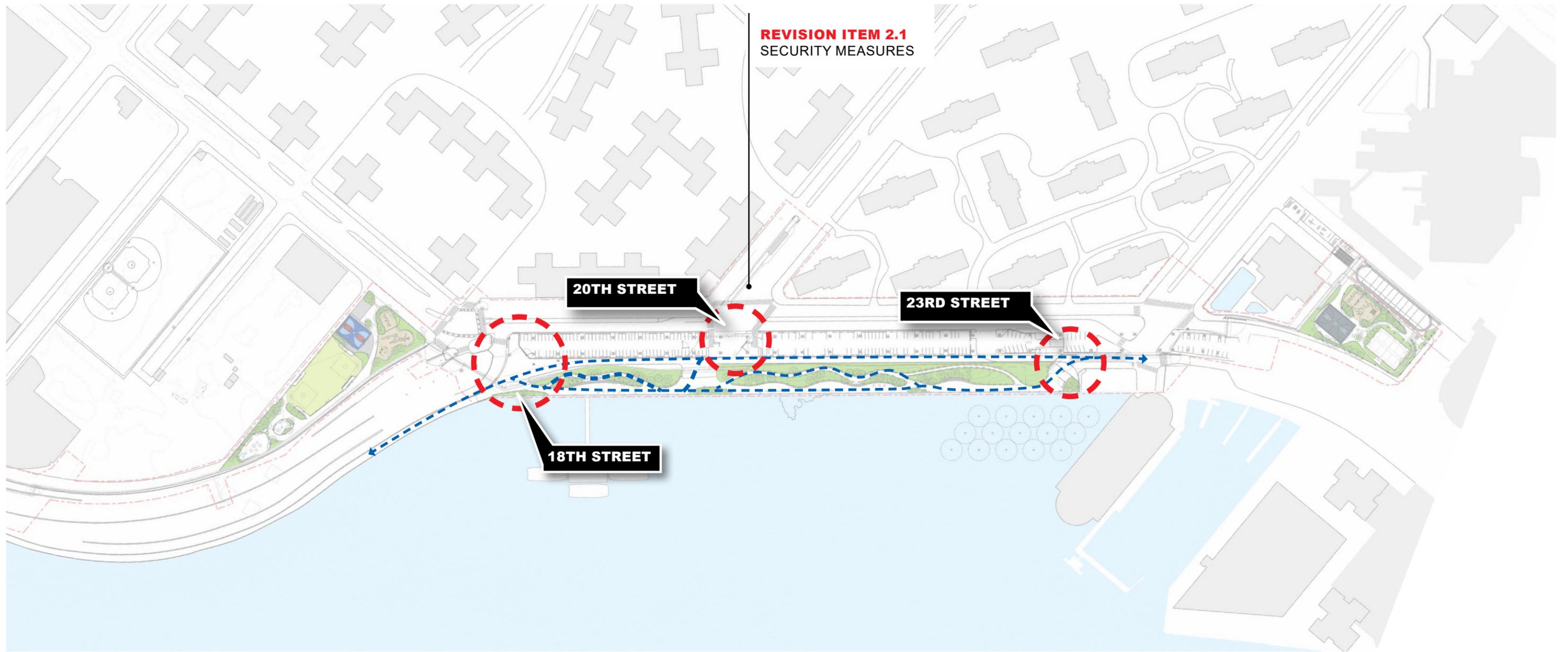
10TH STREET BRIDGE - NOT A VEHICULAR ENTRY

ENTRY PROTECTED AT STUY COVE SIDE

LEGEND

--- MAJOR CIRCULATION PATHS (EAST RIVER PARK)

() VEHICULAR ENTRIES FOR SECURITY MEASURES



LEGEND

--- MAJOR CIRCULATION PATHS (EAST RIVER PARK)

 VEHICULAR ENTRIES FOR SECURITY MEASURES

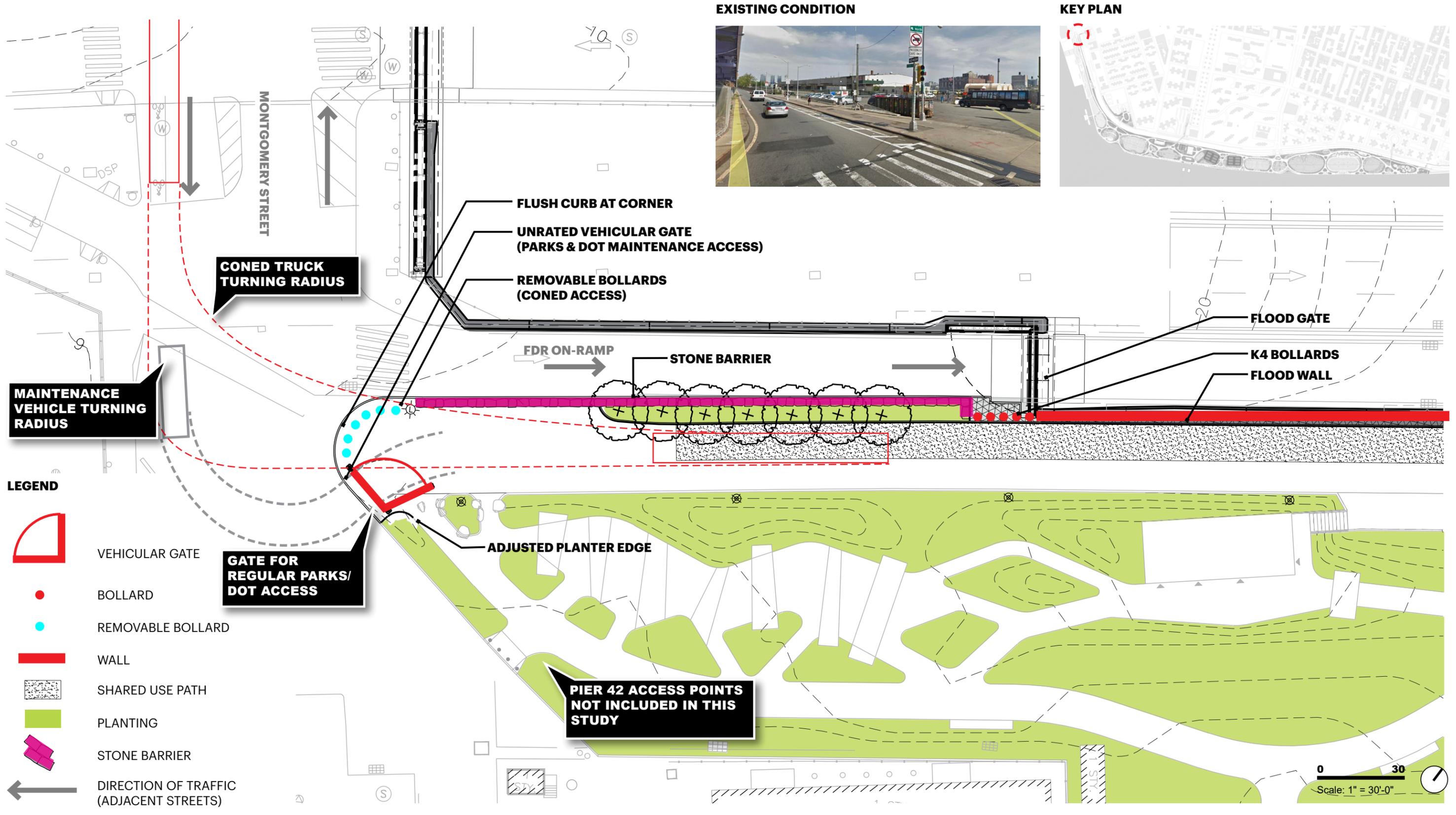


**SECURITY RATED BOLLARDS
FIXED OR REMOVABLE
(STAINLESS STEEL)**



**SECURITY RATED VEHICULAR GATE
(GEORGE WASHINGTON GRAY)**





EXISTING CONDITION



KEY PLAN

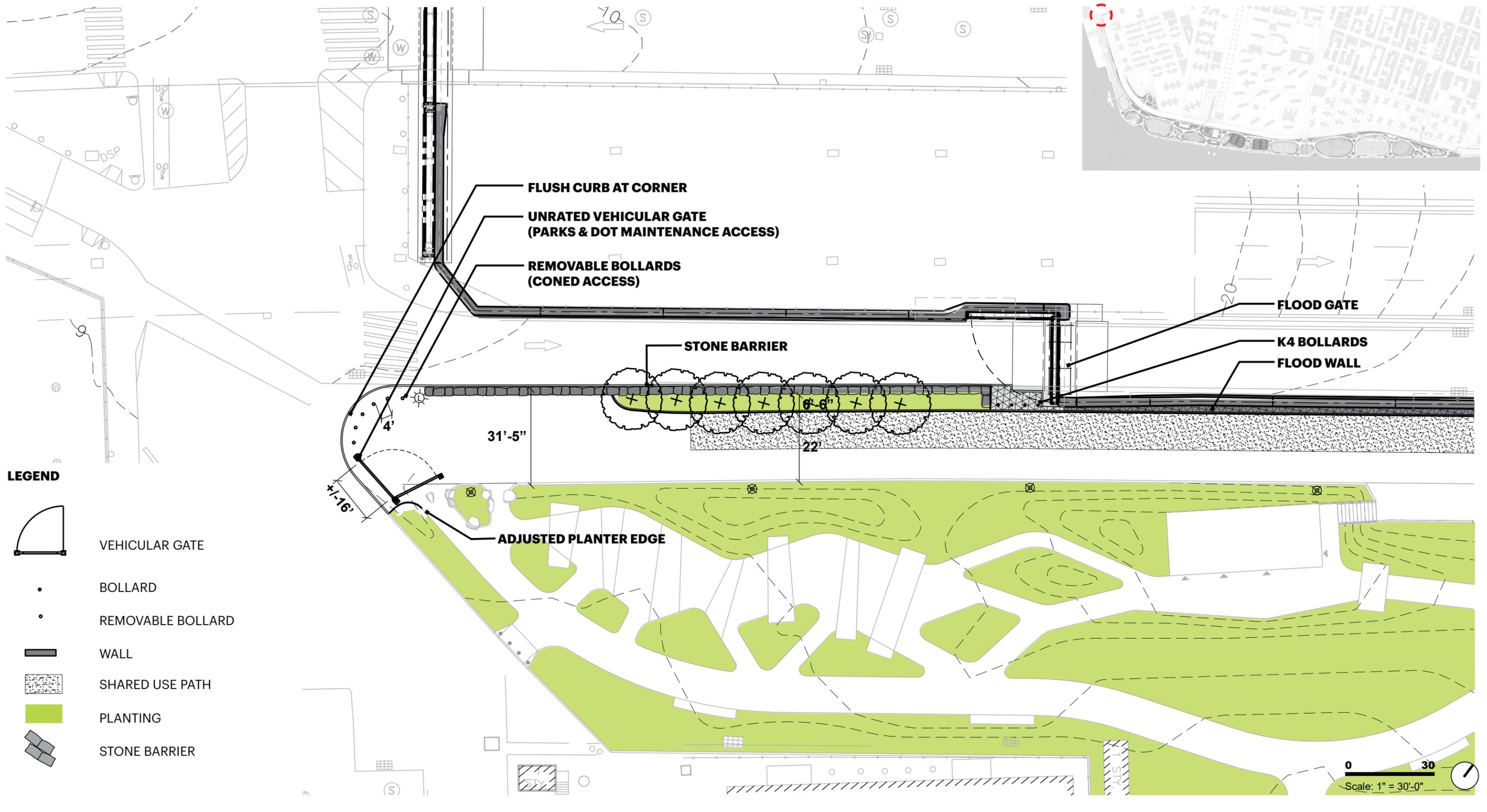


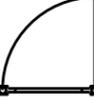
- LEGEND**
- VEHICULAR GATE
 - BOLLARD
 - REMOVABLE BOLLARD
 - WALL
 - SHARED USE PATH
 - PLANTING
 - STONE BARRIER
 - DIRECTION OF TRAFFIC (ADJACENT STREETS)

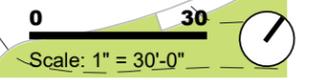
AKRF-KSE, JV | BJARKE | MATHEWS NIELSEN | ONE | NEW YORK CITY | NEW YORK CITY | NEW YORK | NEW YORK CITY DEPT. | NEW YORK CITY MAYOR'S
 INGELS | LANDSCAPE | ARCHITECTURE | DEPT. OF DESIGN AND | DEPT. OF PARKS AND | CITY DEPT. OF | OF ENVIRONMENTAL | OFFICE OF RESILIENCY
 GROUP | ARCHITECTS, P.C. | AND URBANISM | CONSTRUCTION | RECREATION | TRANSPORTATION | PROTECTION

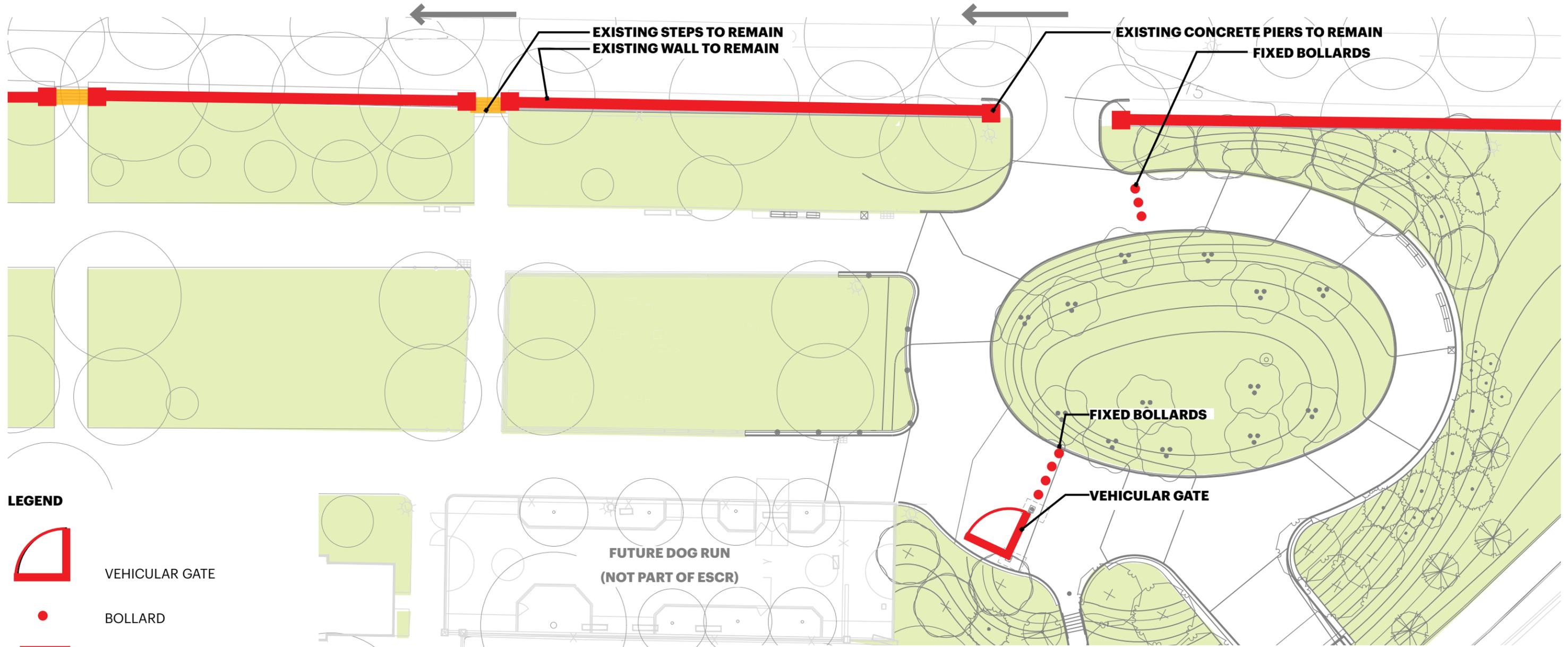
**PDC FINAL REVIEW
 EAST SIDE COASTAL
 RESILIENCY PROJECT**
 DECEMBER 16, 2019

**Security Measures
 Montgomery Street 135**

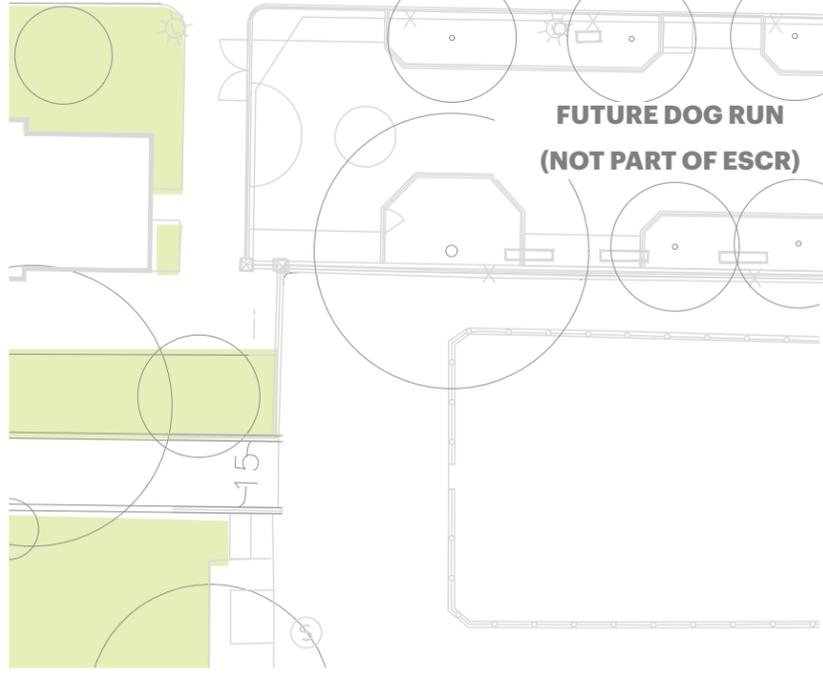


- LEGEND**
-  VEHICULAR GATE
 -  BOLLARD
 -  REMOVABLE BOLLARD
 -  WALL
 -  SHARED USE PATH
 -  PLANTING
 -  STONE BARRIER





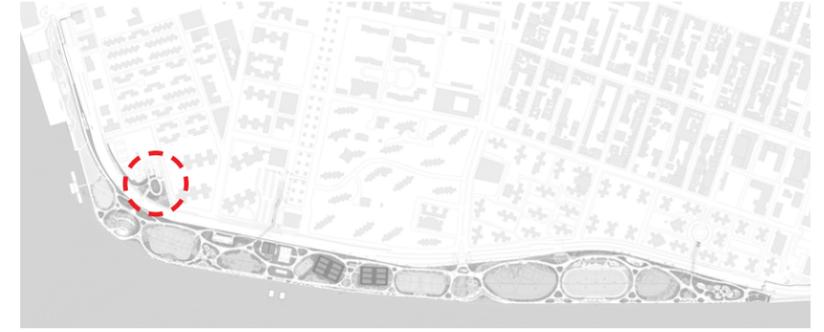
- LEGEND**
-  VEHICULAR GATE
 -  BOLLARD
 -  WALL
 -  SHARED USE PATH
 -  PLANTING
 -  STONE BARRIER
 -  STEPS
 -  DIRECTION OF TRAFFIC (ADJACENT STREETS)

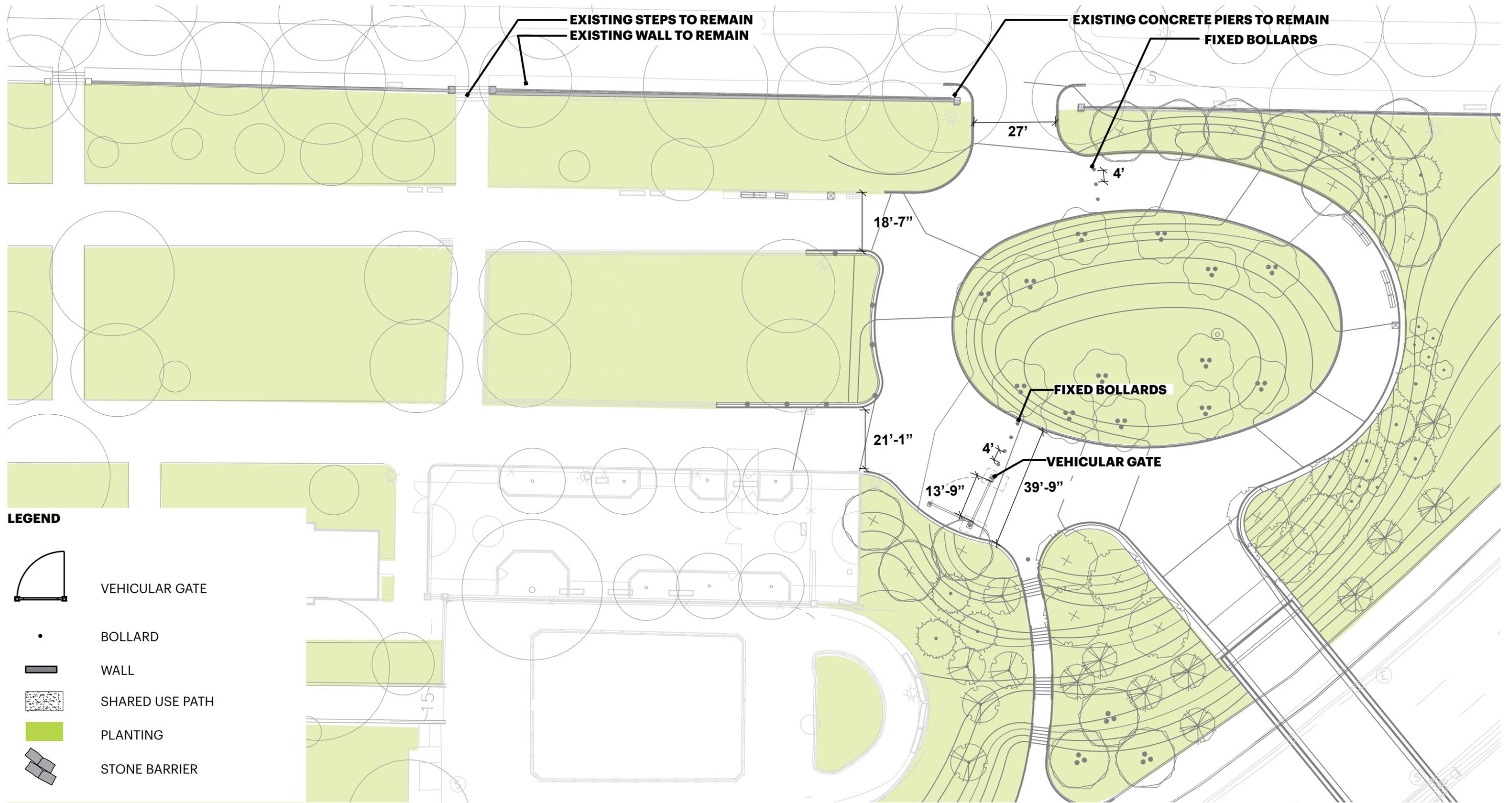


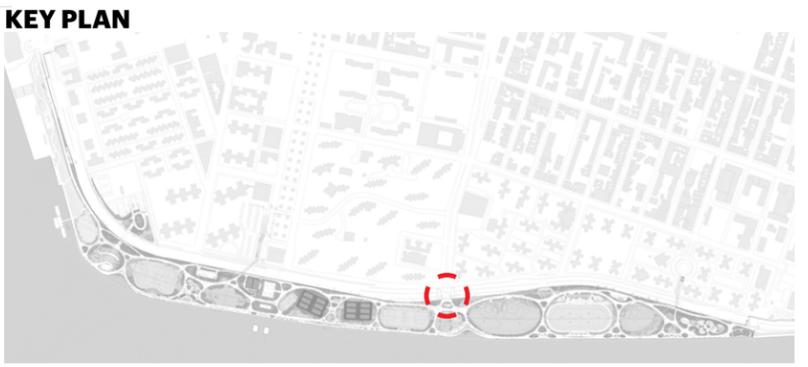
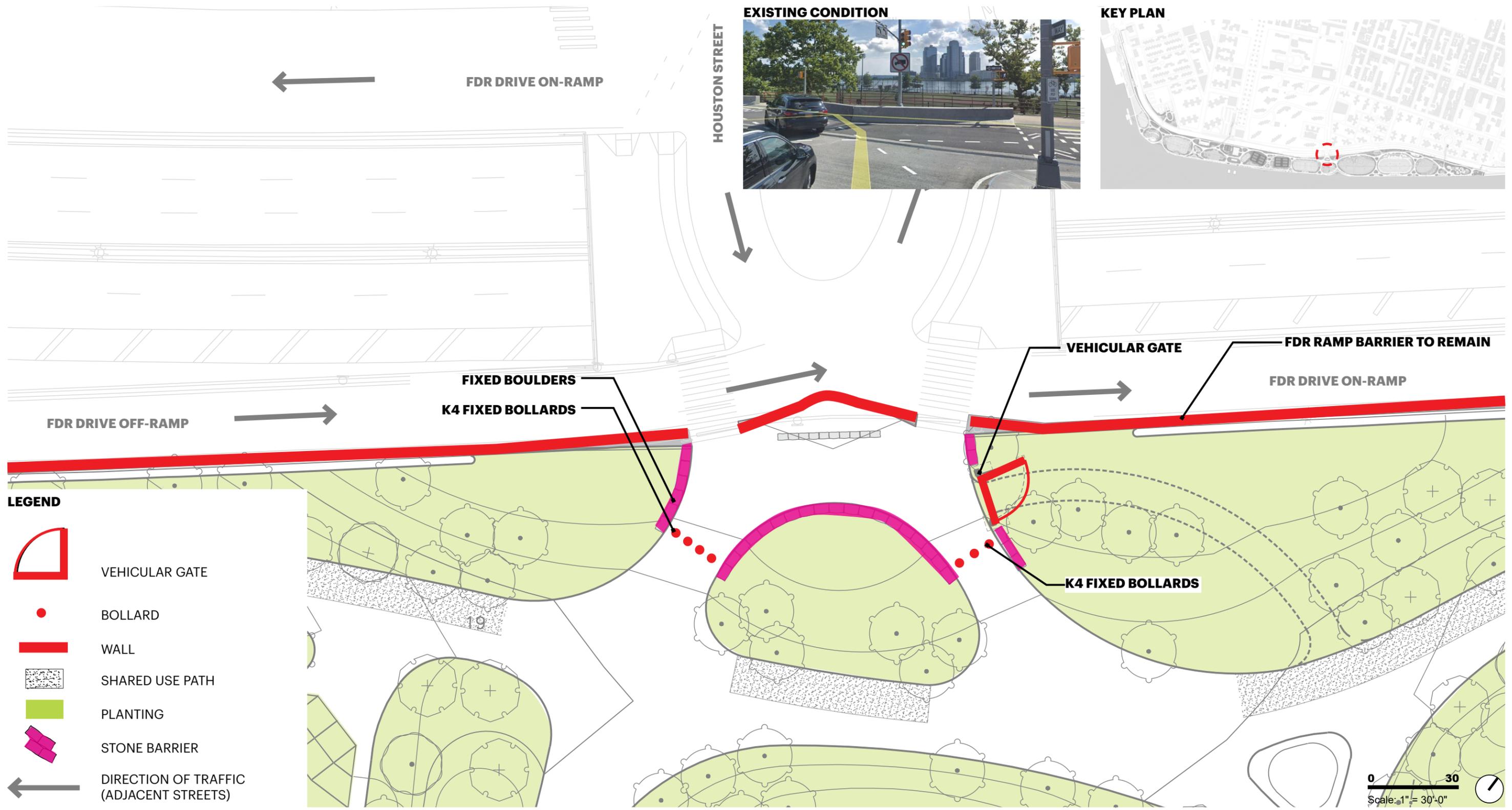
EXISTING CONDITION

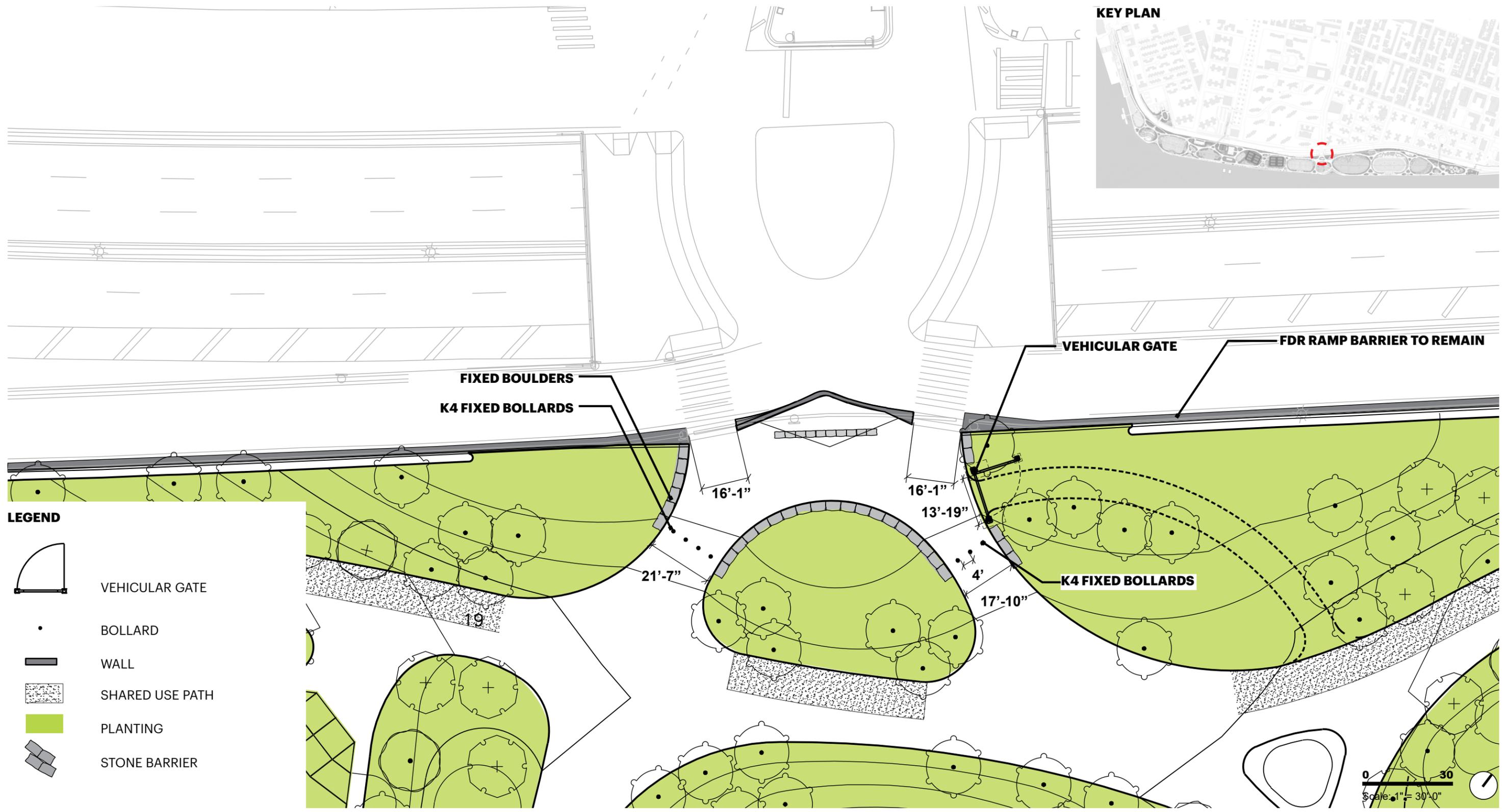


KEY PLAN









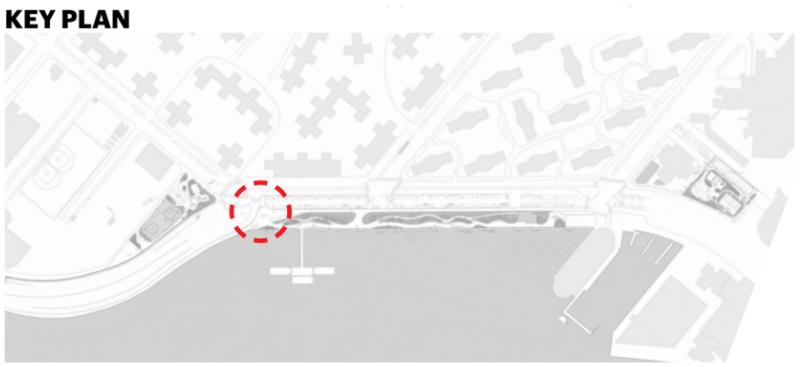
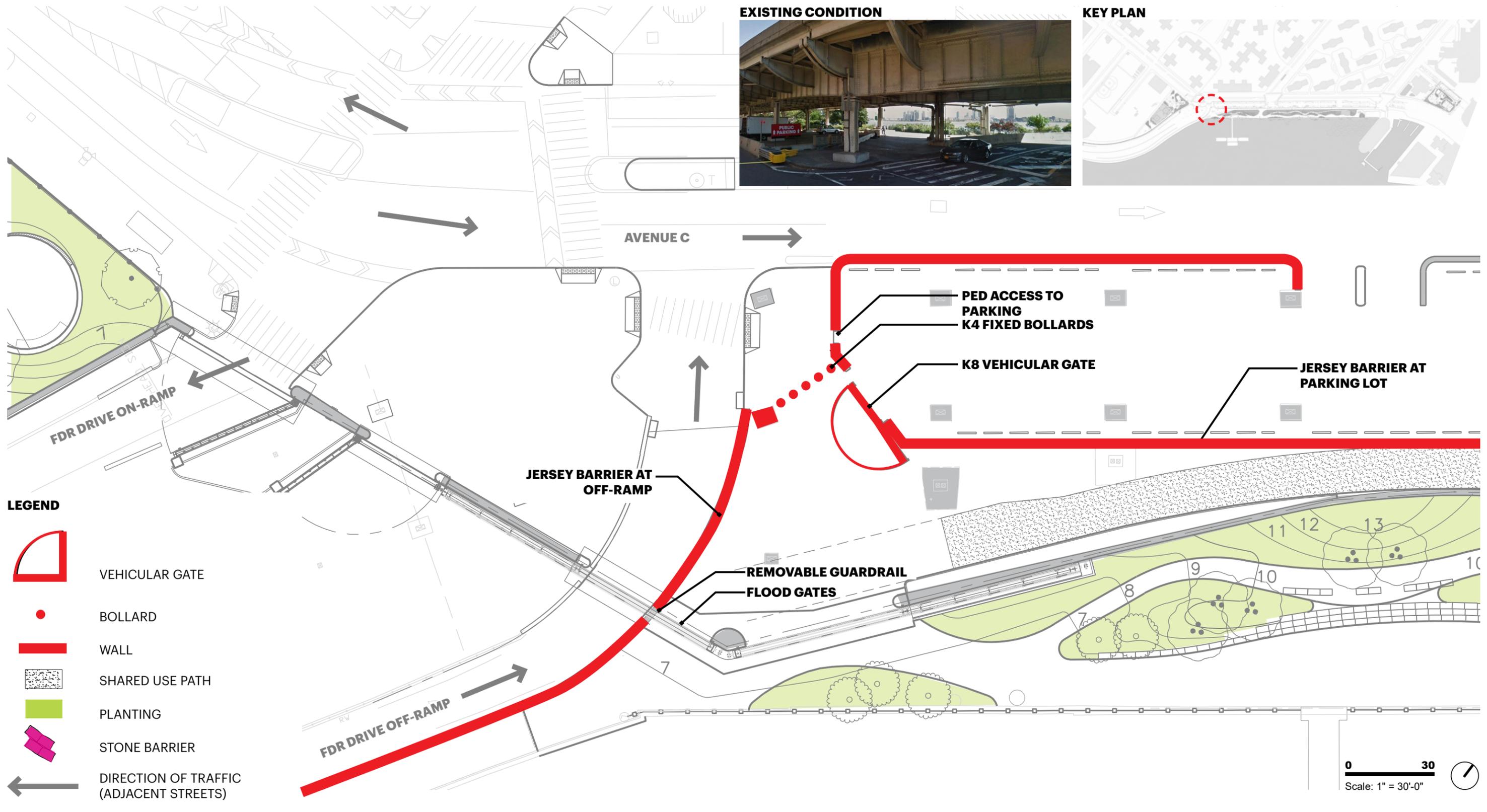
- LEGEND**
-  VEHICULAR GATE
 -  BOLLARD
 -  WALL
 -  SHARED USE PATH
 -  PLANTING
 -  STONE BARRIER

AKRF-KSE, JV | BJARKE | MATHEWS NIELSEN | ONE | NEW YORK CITY | NEW YORK CITY | NEW YORK | NEW YORK CITY DEPT. | NEW YORK CITY MAYOR'S
 INGELS | LANDSCAPE | ARCHITECTURE | DEPT. OF DESIGN AND | DEPT. OF PARKS AND | CITY DEPT. OF | OF ENVIRONMENTAL | OFFICE OF RESILIENCY
 GROUP | ARCHITECTS, P.C. | AND URBANISM | CONSTRUCTION | RECREATION | TRANSPORTATION | PROTECTION

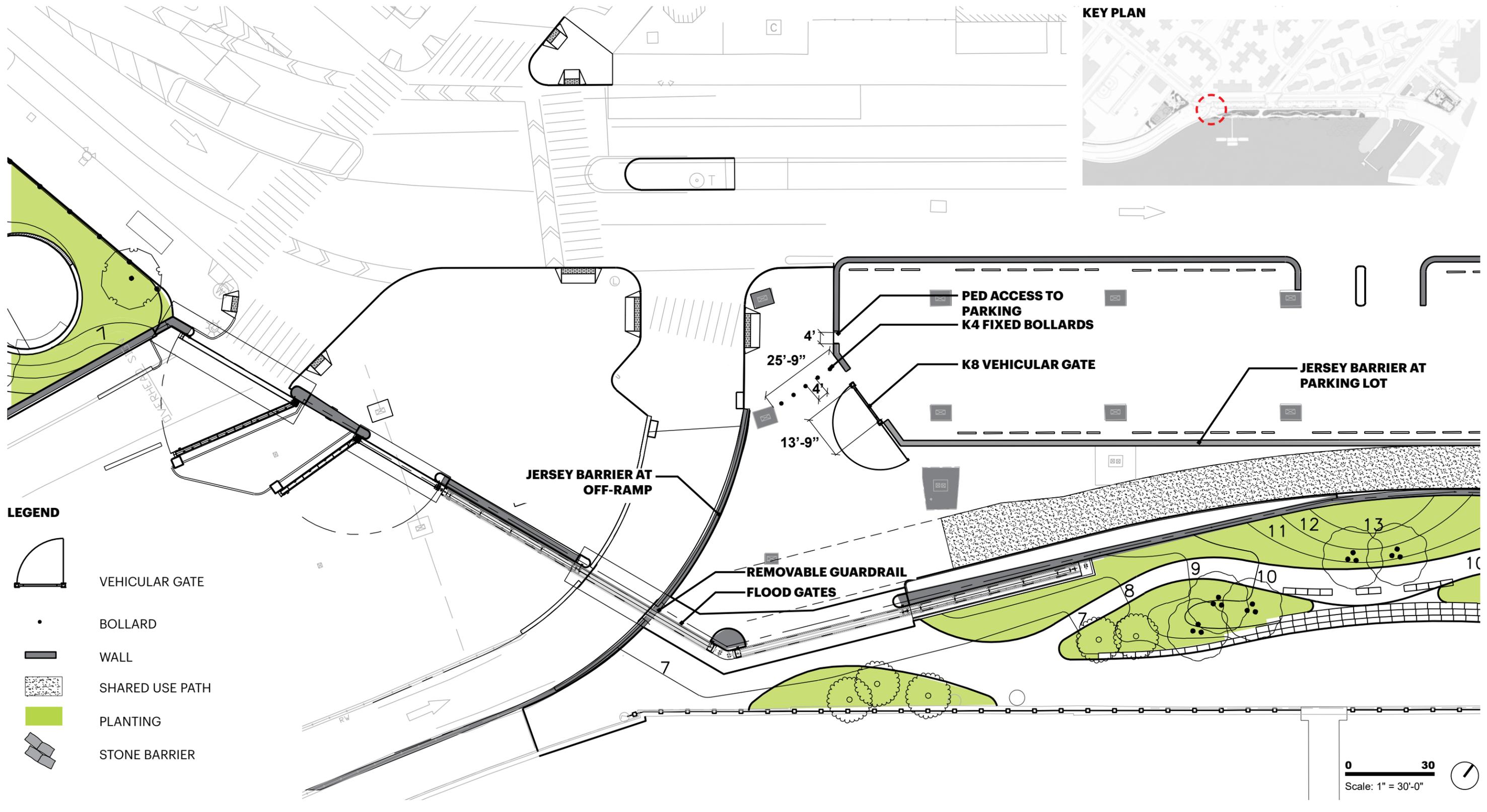
**PDC FINAL REVIEW
 EAST SIDE COASTAL
 RESILIENCY PROJECT**

DECEMBER 16, 2019

Security Measures Houston Street 140

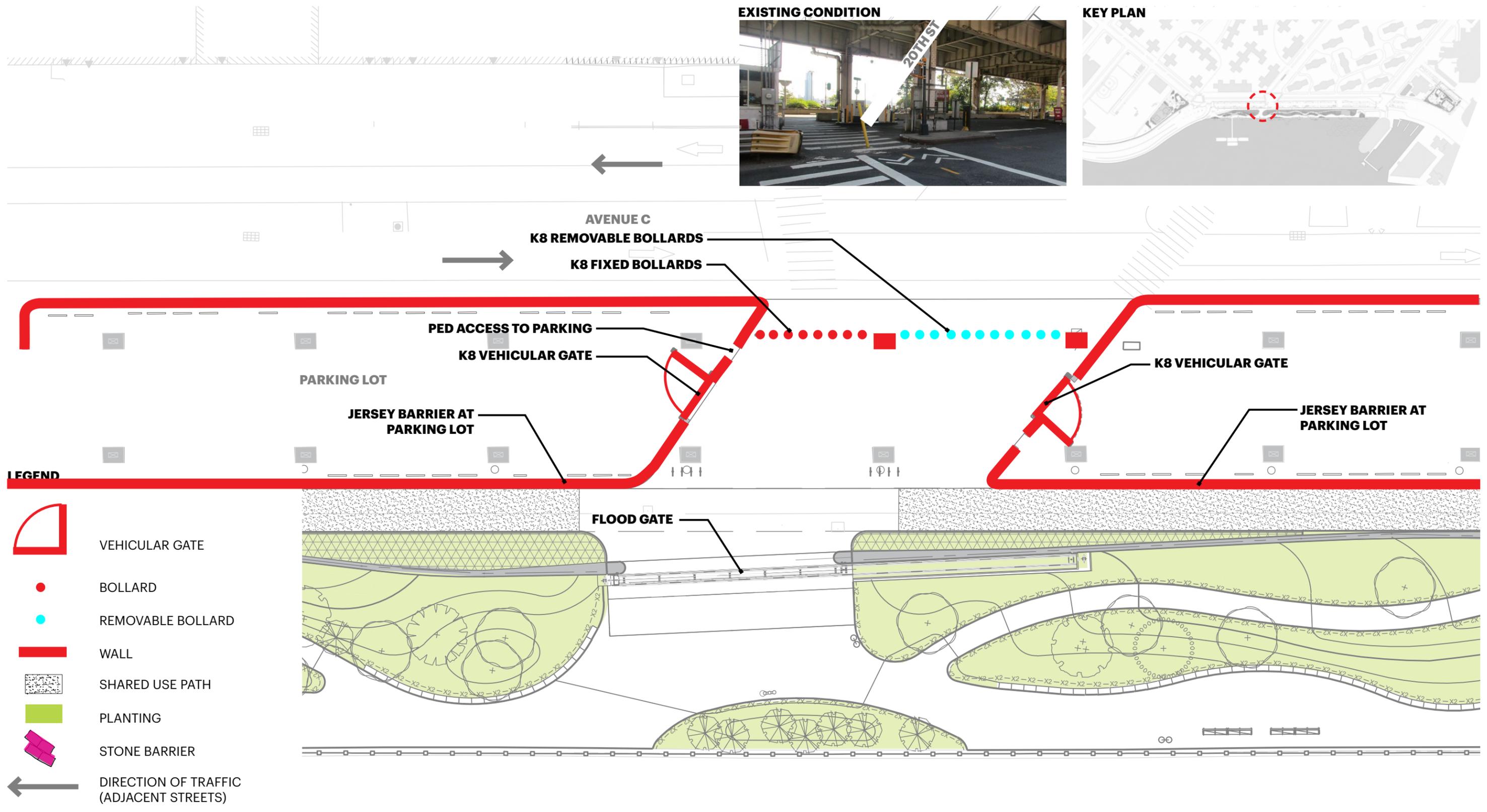


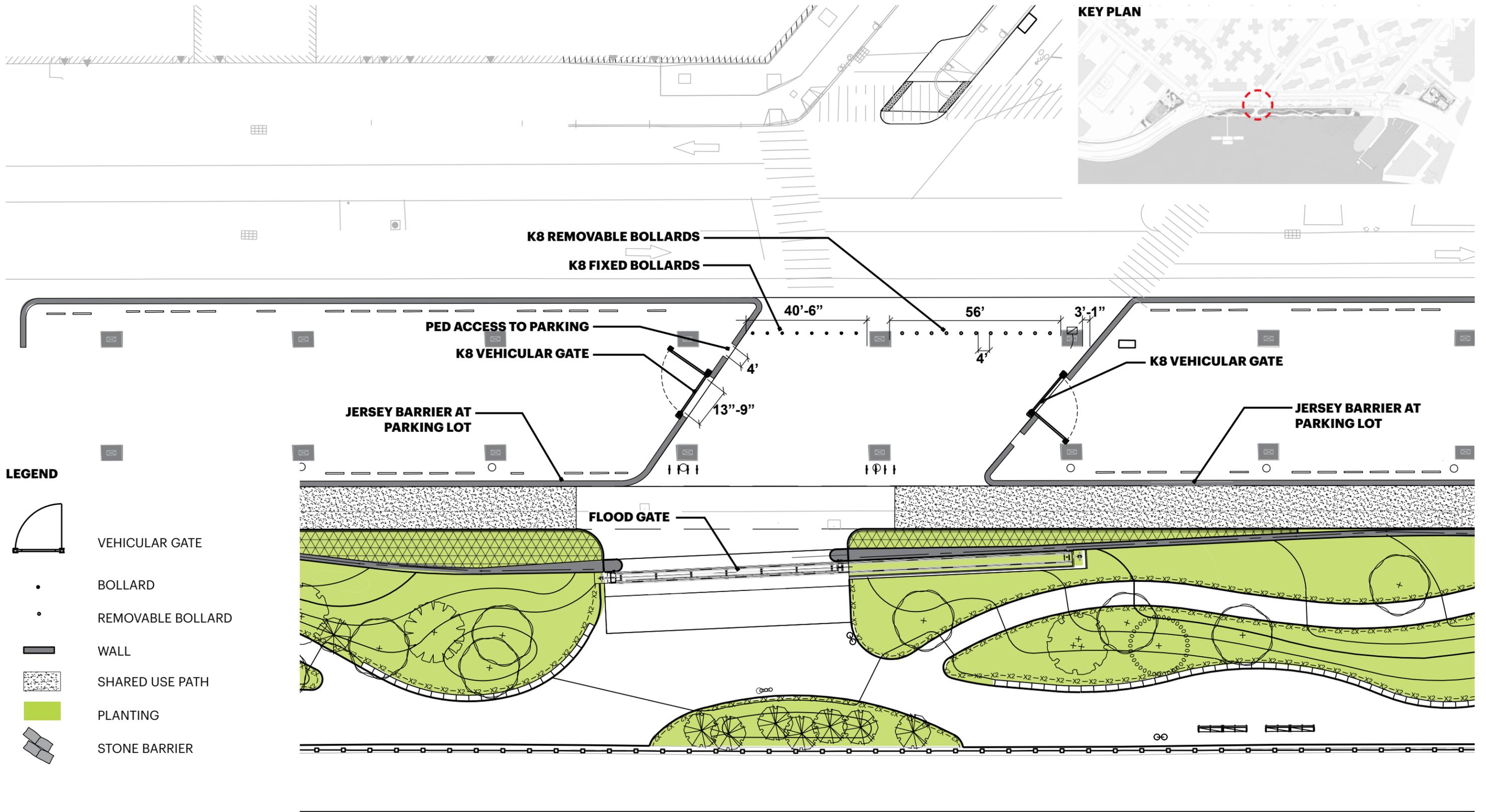
- LEGEND**
-  VEHICULAR GATE
 -  BOLLARD
 -  WALL
 -  SHARED USE PATH
 -  PLANTING
 -  STONE BARRIER
 -  DIRECTION OF TRAFFIC (ADJACENT STREETS)

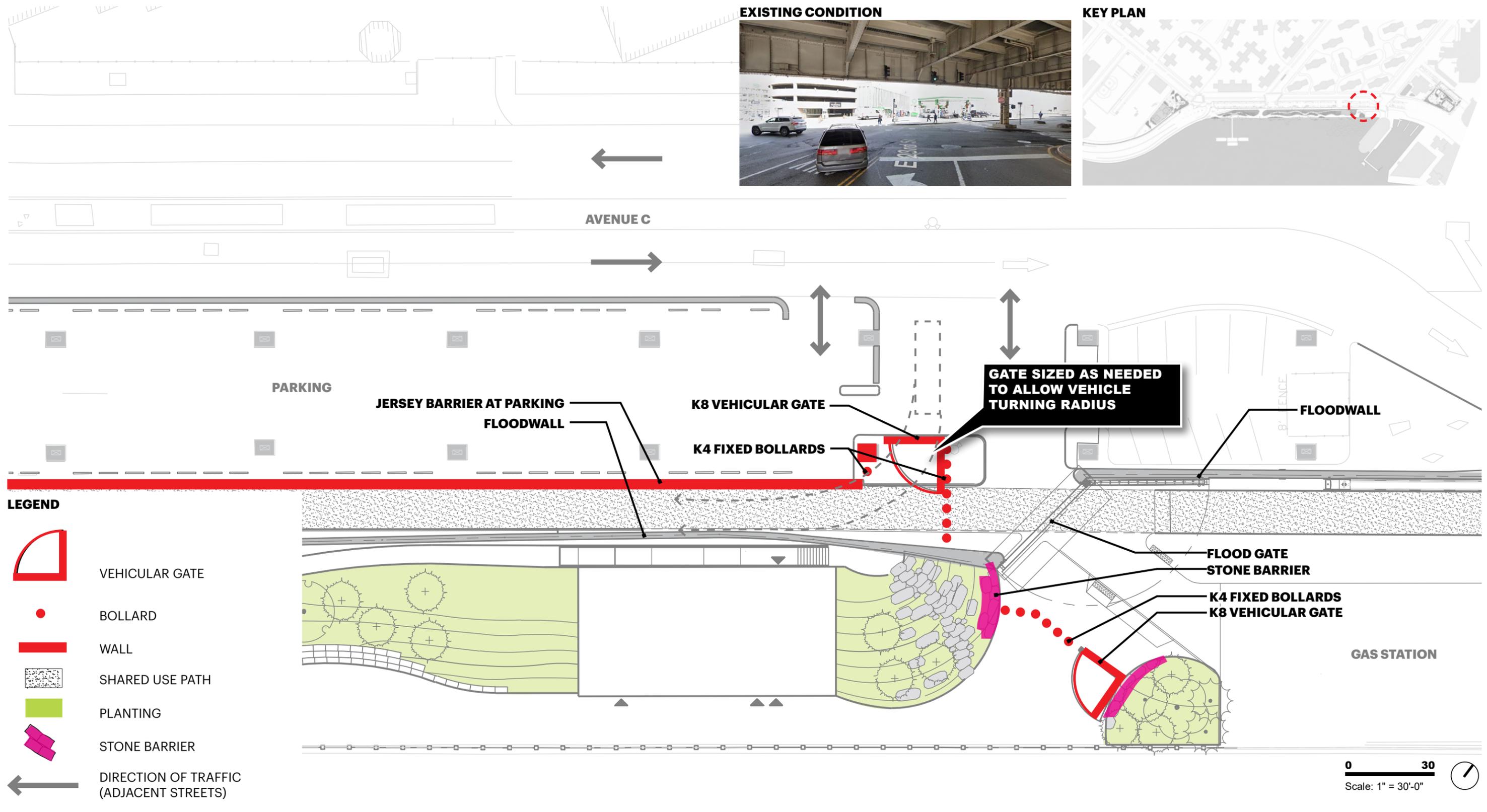


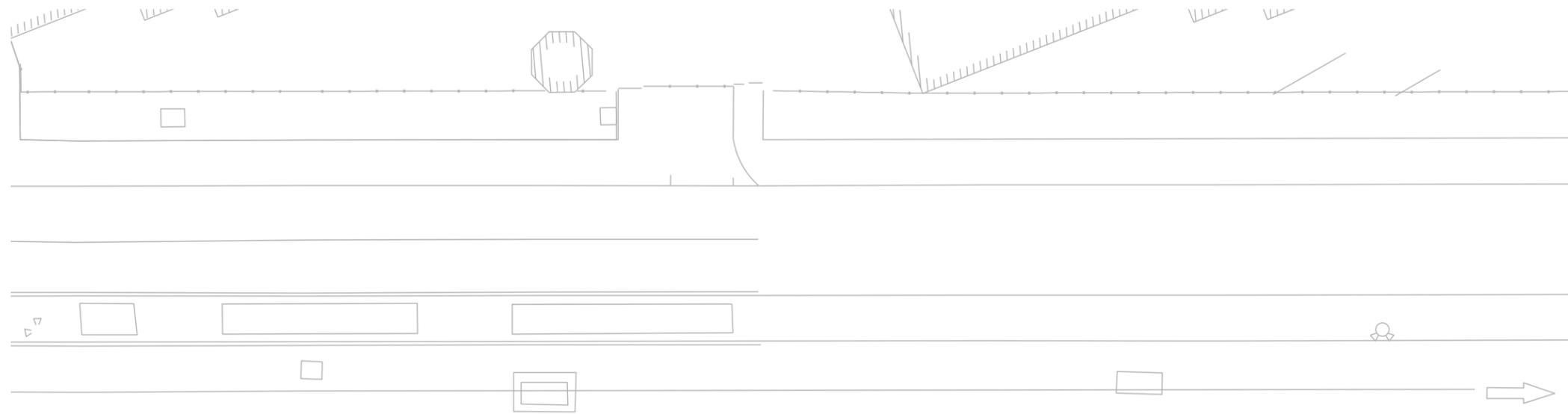
- LEGEND**
-  VEHICULAR GATE
 -  BOLLARD
 -  WALL
 -  SHARED USE PATH
 -  PLANTING
 -  STONE BARRIER

0 30
 Scale: 1" = 30'-0"

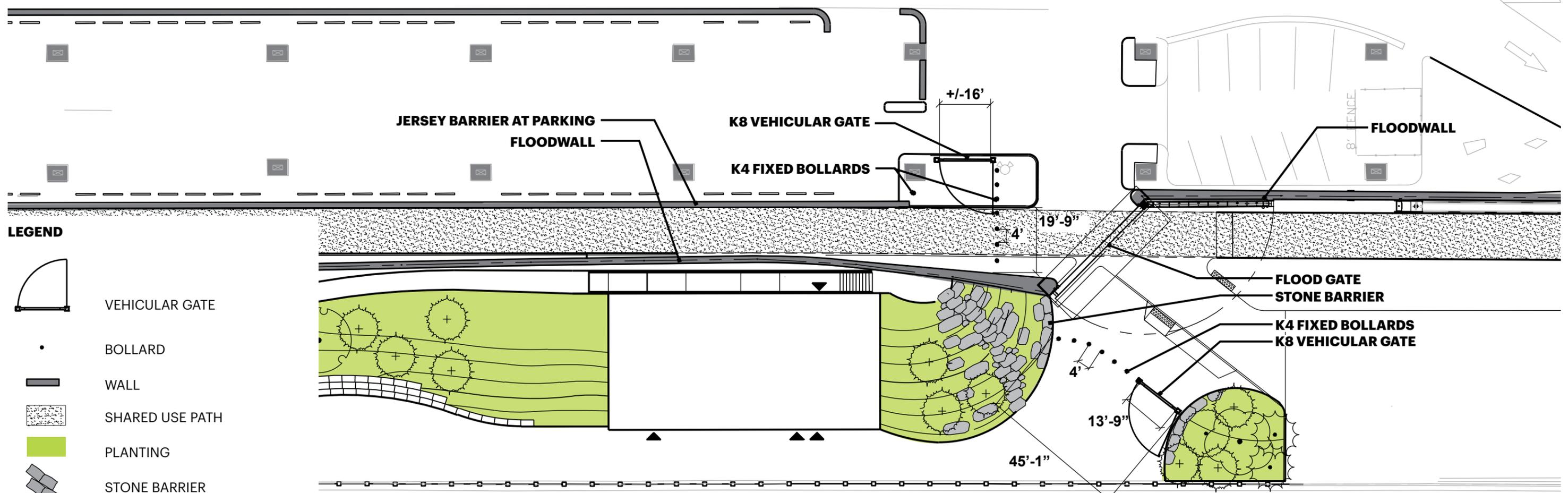






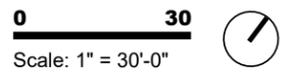


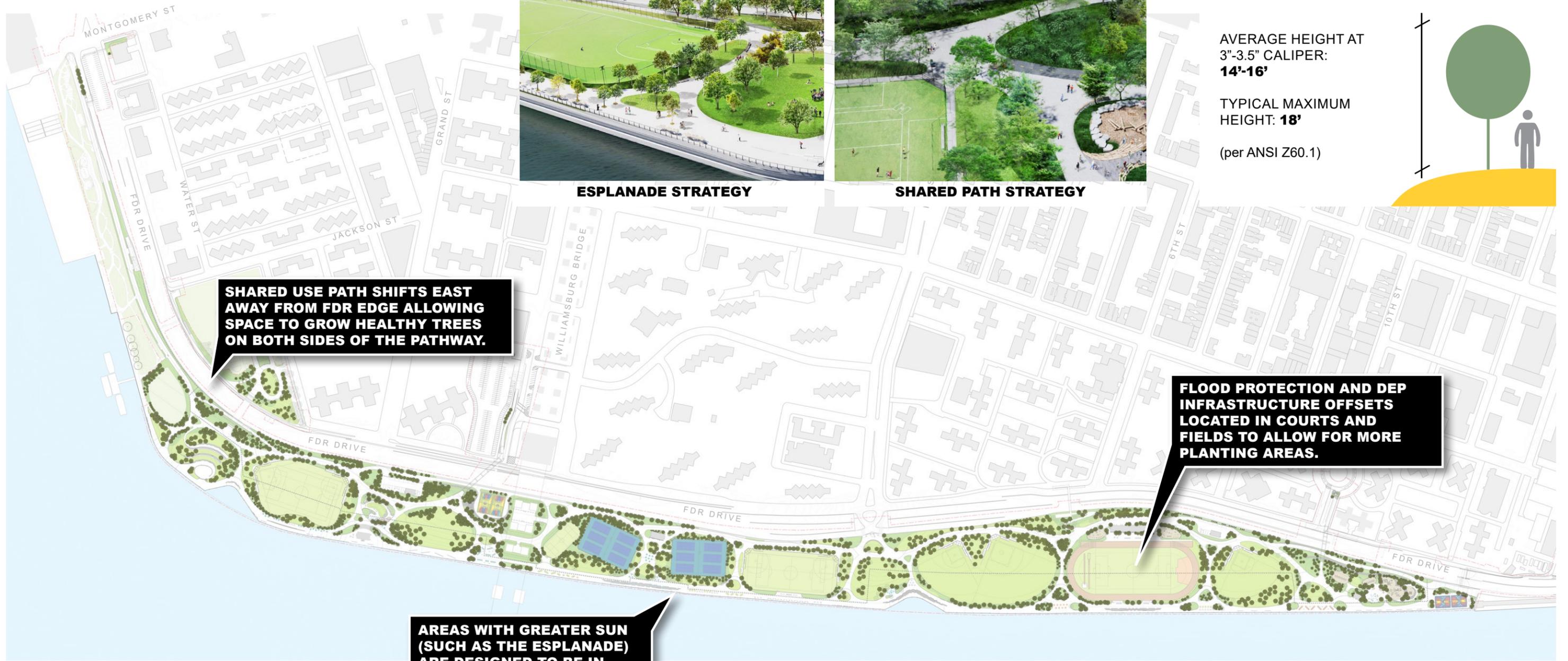
KEY PLAN



LEGEND

-  VEHICULAR GATE
-  BOLLARD
-  WALL
-  SHARED USE PATH
-  PLANTING
-  STONE BARRIER





ESPLANADE STRATEGY



SHARED PATH STRATEGY

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.

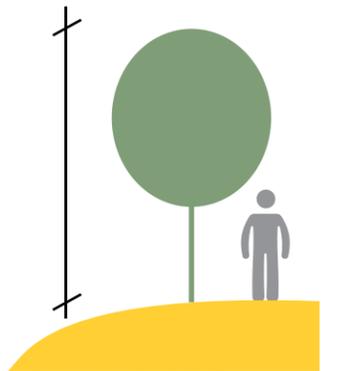
AREAS WITH GREATER SUN (SUCH AS THE ESPLANADE) ARE DESIGNED TO BE IN CLOSE PROXIMITY OF AREAS WITH GREATER SHADE.

TREE SIZE AT PLANTING

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

TYPICAL MAXIMUM HEIGHT: **18'**

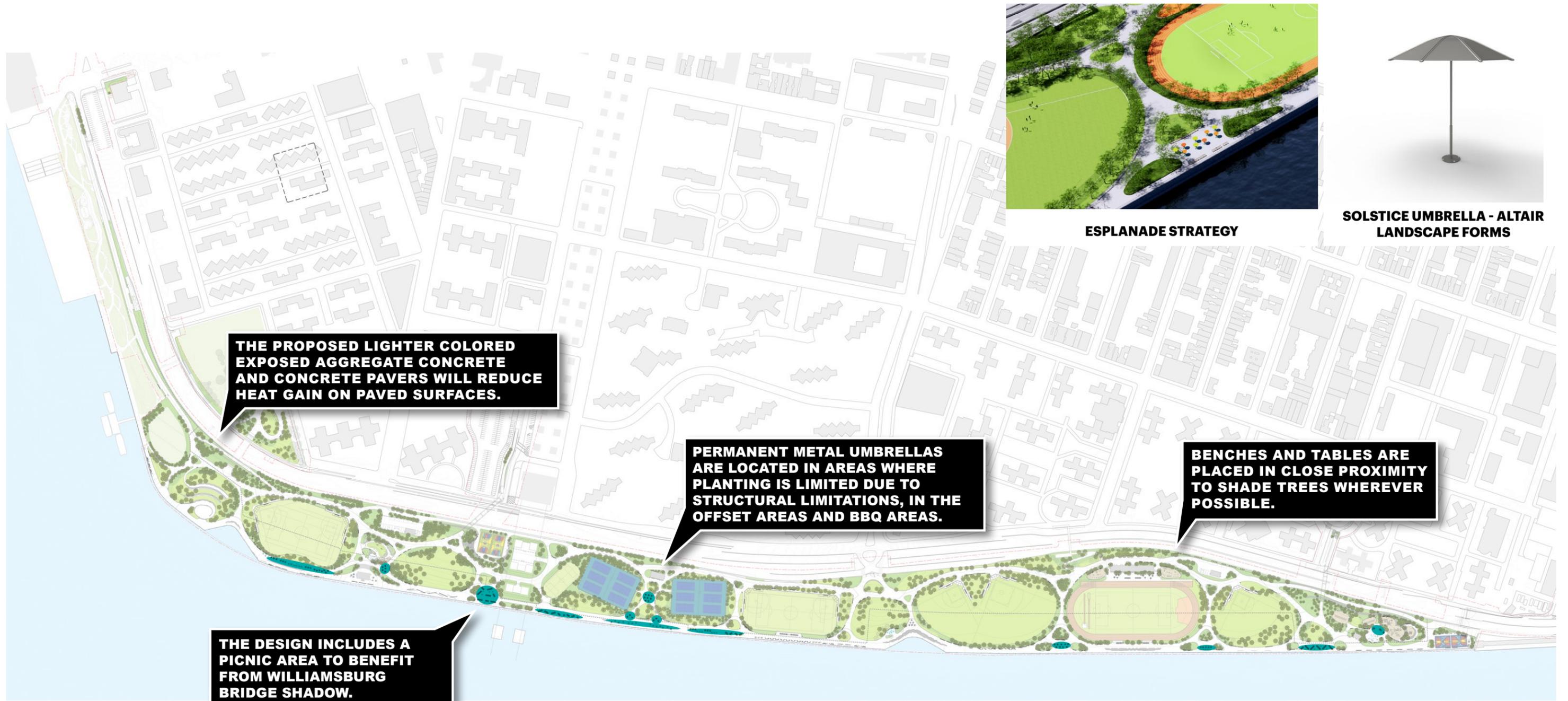
(per ANSI Z60.1)



- 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.



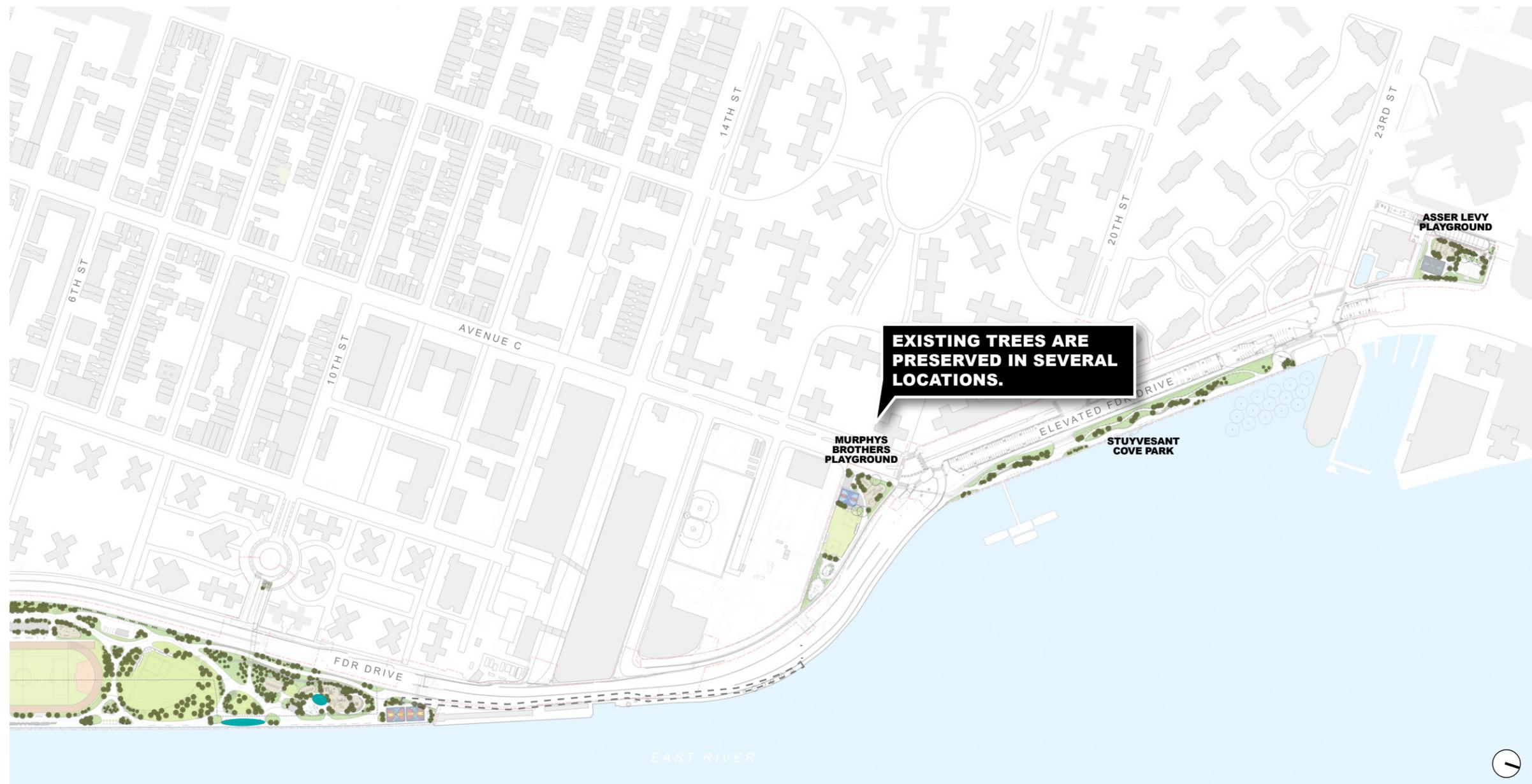
ESPLANADE STRATEGY



SOLSTICE UMBRELLA - ALTAIR LANDSCAPE FORMS

- PROPOSED TREES
- UMBRELLA CLUSTERS

NOTES:
 TO MAXIMIZE TREE PLANTING, SOLAR LIGHTING IS IMPLEMENTED ONLY ALONG THE ESPLANADE. AREAS INTERIOR TO THE PARK UTILIZE STANDARD FLUSHING MEADOW LIGHT POLES.



- PROPOSED TREES
- EXISTING TREES TO REMAIN
- UMBRELLA CLUSTERS

**THE PLANTING DESIGN
MAXIMIZES TREE PLANTING IN
THE PARK AND INCLUDES A HIGH
PROPORTION OF FAST TO MEDIUM
GROWING TREES.**

PRIMARY SPECIES



Acer rubrum
Red Maple 'Oct Glory'

GROWTH RATE:
MEDIUM



Quercus palustris
Pin Oak

GROWTH RATE:
MEDIUM

PRIMARY SPECIES



Quercus bicolor
Swamp White Oak

GROWTH RATE:
MEDIUM



Celtis occidentalis
Hackberry

GROWTH RATE:
FAST

PRIMARY SPECIES



Betula nigra 'Heritage'
Heritage River Birch

GROWTH RATE:
FAST



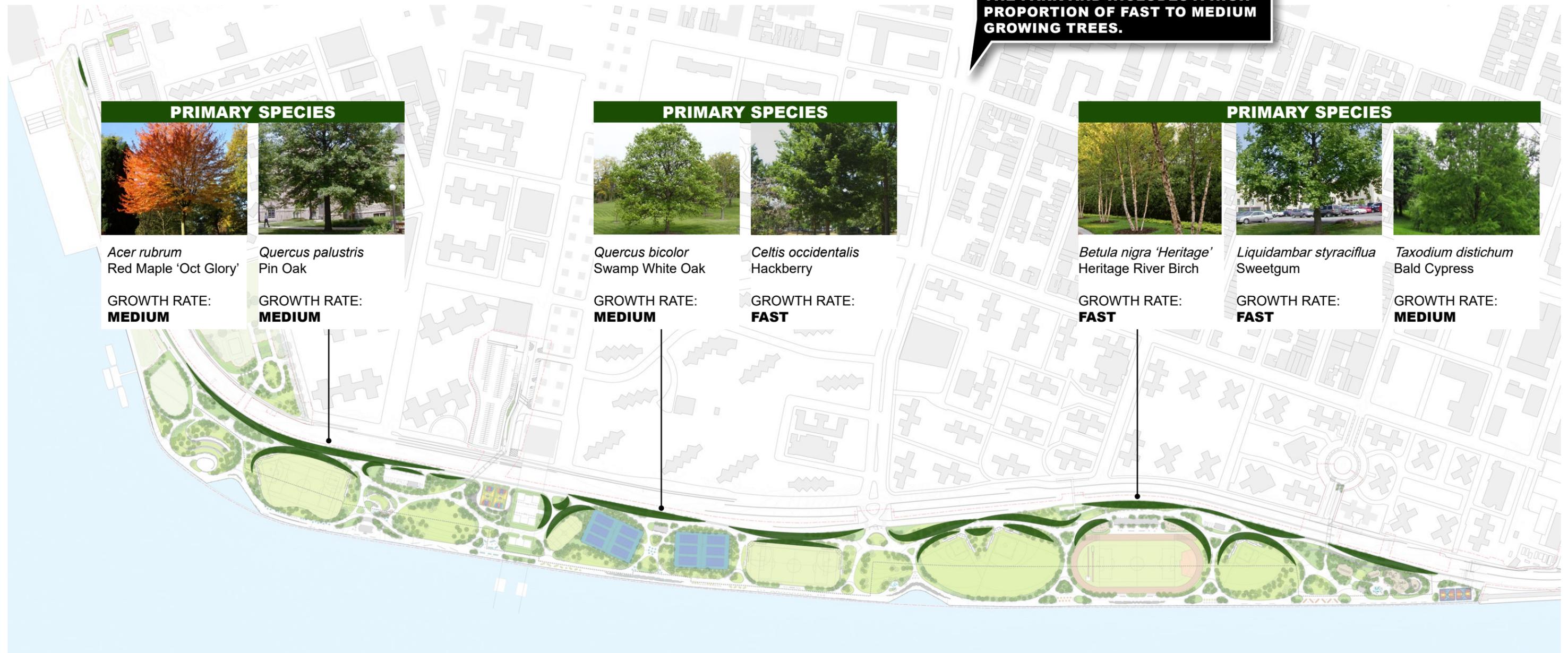
Liquidambar styraciflua
Sweetgum

GROWTH RATE:
FAST



Taxodium distichum
Bald Cypress

GROWTH RATE:
MEDIUM

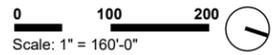






NO CHANGE FROM APPROVED

NOTE:
 901 TREES TO BE REMOVED IN EAST RIVER PARK;
 1,606 NEW TREES ARE PROPOSED IN EAST RIVER PARK;

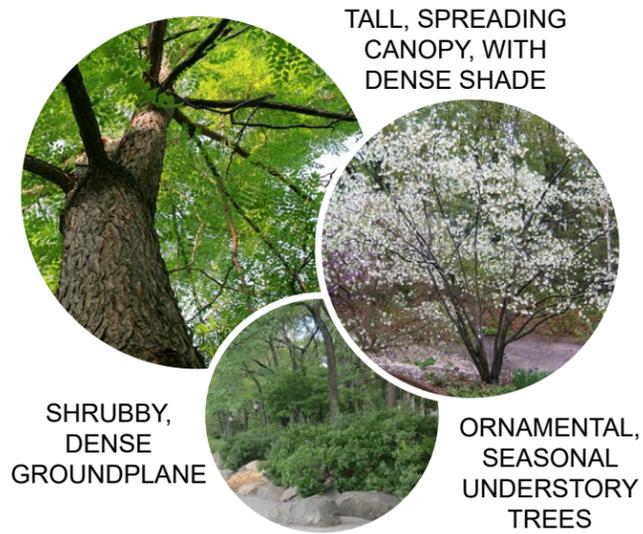


WOODLAND EDGES

PASTORAL OPENINGS

LAYERED GROVES

MARITIME EDGES



TALL, SPREADING CANOPY, WITH DENSE SHADE

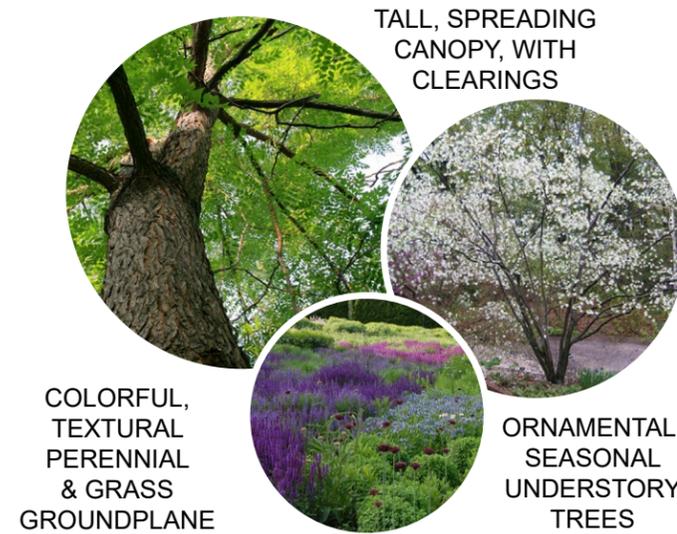
SHRUBBY, DENSE GROUNDPLANE

ORNAMENTAL, SEASONAL UNDERSTORY TREES



TALL, SPREADING CANOPY, WITH DAPPLED SHADE

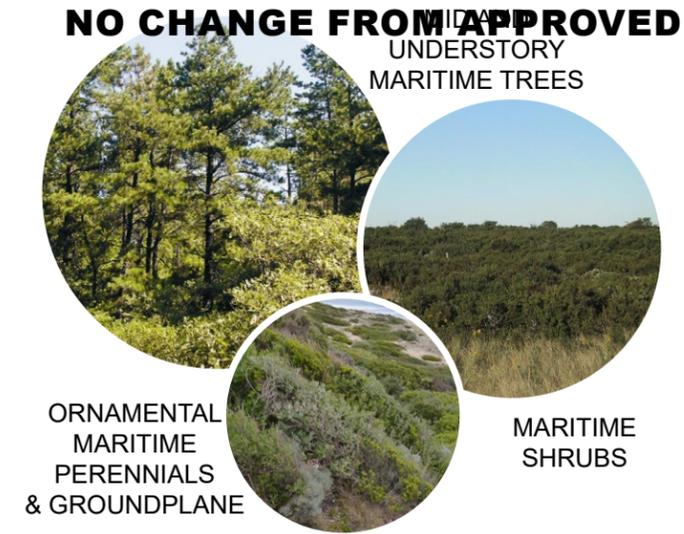
CLEAR UNDERSTORY WITH OPEN LAWN



TALL, SPREADING CANOPY, WITH CLEARINGS

COLORFUL, TEXTURAL PERENNIAL & GRASS GROUNDPLANE

ORNAMENTAL, SEASONAL UNDERSTORY TREES



NO CHANGE FROM APPROVED

MID 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

TREES



Catalpa speciosa
Catalpa



Gleditsia triacanthos
Honey Locust



Ilex opaca
American Holly



Metasequoia glyptos.
Dawn Redwood



Nyssa sylvatica
Blackgum



Pinus rigida
Pitch Pine



Pinus thunbergii
Japanese Black Pine



Pinus virginiana
Virginia Pine



Quercus alba
White Oak



Quercus rubra
Northern Red Oak



Quercus velutina
Black Oak



Ulmus Americana 'Princeton'
Princeton Elm

SHRUBS



Aronia melanocarpa
Black chokeberry



Ceanothus americanus
New Jersey Tea



Clethra alnifolia
Summersweet



Diervilla lonicera
N. Bush Honeysuckle



Prunus maritima
Beach Plum



Rhus aromatica 'Gro-Low'
Fragrant Sumac



Rosa carolina
Carolina Rose



Rosa virginiana
Virginia Rose



Morella penslyvanica
Northern Bayberry



Rhus copallinum
Winged Sumac



Rhus typhina
Staghorn Sumac



Viburnum dentatum
Southern Arrowwood

GROUNDCOVERS



Baptisia australis
Blue Indigo



Bouteloua curtipendula
Sideoats Grama



Deschampsia cespitosa
Tufted Hair Grass



Eutrochium dubium
Coastal Joe Pye Weed



Eragrostis spectabilis
Purple Lovegrass



Liatris spicata
Blazing Star



Panicum amarum, Bitter
Panicgrass 'Dewey Blue'



Pycnanthemum mutic.
Mountain Mint



Schizachyrium scoparium
Little Bluestem



Solidago sempervirens
Seaside Goldenrod



Solidago juncea
Early Goldenrod



Sporobolus cryptandrus
Sand Dropseed



- Location: 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

TREES



Aesculus octandra
Yellow Buckeye



Betula nigra 'Heritage'
Heritage River Birch



Cercis canadensis
Eastern Redbud



Crataegus crus-galli iner.
Cockspur Hawthorne



Gymnocladus dioica
Kentucky Coffee Tree



Liquidambar styraciflua
Sweetgum



Magnolia Virginiana
Sweetbay Magnolia



Malus 'Royal Raindrops'
Crabapple Royal Raindrops



Prunus serrulata 'Mt Fuji'
Flowering Cherry



Prunus x yed. 'Akebono'
Flowering Cherry



Quercus phellos
Willow Oak



Syringa vulgaris 'Monge'
'Monge' Lilac

SHRUBS



Amorpha fruticosa
False indigo bush



Calicarpa americana
Beautyberry



Comptonia peregrina
Sweetfern



Cotinus obovatus
Smokebush



Fothergilla major
Fothergilla Major



Hydrangea quercifolia
Oakleaf Hydrangea



Hydrangea tardiva
Panicle Hydrangea



Itea virginica
Virginia Sweetspire



Ilex glabra
Inkberry



Physocarpus opulifolius
Common Ninebark



Prunus laurocerasus
Cherry Laurel



Spiraea tomentosa
Steeplebush

GROUNDCOVERS



Amsonia hubrichtii
Hubricht's Bluestar



Anemone canadensis
Canada anemone



Asclepias incarnata
Swamp Milkweed



Asclepias tuberosa
Butterfly Milkweed



Echinacea purpurea
Purple Coneflower



Hibiscus coccineus
Scarlot Rose Mallow



Mertensia virginica
Virginia bluebells



Monarda punctata
Spotted Beebalm



Panicum virgatum Ruby
Ribbons Switchgrass



Phlox paniculata
Garden Phlox



Rudebeckia hirta
Black-Eyed Susan



Symphyotrichum novi-angelli
New Eng. Aster



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

TREES



Acer rubrum
Red Maple 'Oct Glory'



Amelanchier canadensis
Serviceberry



Carya ovata
Shagbark Hickory



Cornus florida
Dogwood



Ginkgo biloba
Ginkgo



Liriodendron tulipifera
Tulip Poplar



Ostrya virginiana
Hop Hornbeam



Quercus bicolor
Swamp White Oak



Quercus coccinea
Scarlet Oak



Quercus nuttalli
Nuttall Oak



Sassafras albidum
Sassafras



Taxodium distichum
Bald Cypress

SHRUBS



Clethra alnifolia
Summersweet



Cornus sericea
Redtwig Dogwood



Hammelis vernalis
Ozark Witch Hazel



Hammelis virginiana
Witch Hazel



Lindera benzoin
Spicebush



Ilex verticillata
Inkberry



Lindera glauca
Greybush Spicebush



Rubus allegheniensis
Blackberry



Vaccinium corymbosum
Highbush Blueberry



Vaccinium angustif.
Lowbush Blueberry



Viburnum acerifolium
Mapleleaf Viburnum



Viburnum dentatum
Southern Arrowwood

GROUNDCOVERS



Ajuga reptans
Bungleweed



Carex pensylvanica
Pennsylvania Sedge



Carex albicans
White-Tinged Sedge



Galium odoratum
Sweet Woodruff



Geranium macrorrhizum
Bigroot Geranium



Pynanthemum tenuif.
Slender Mountain Mint



- 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



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

WOODLAND

WET MEADOW

GRASS LAND

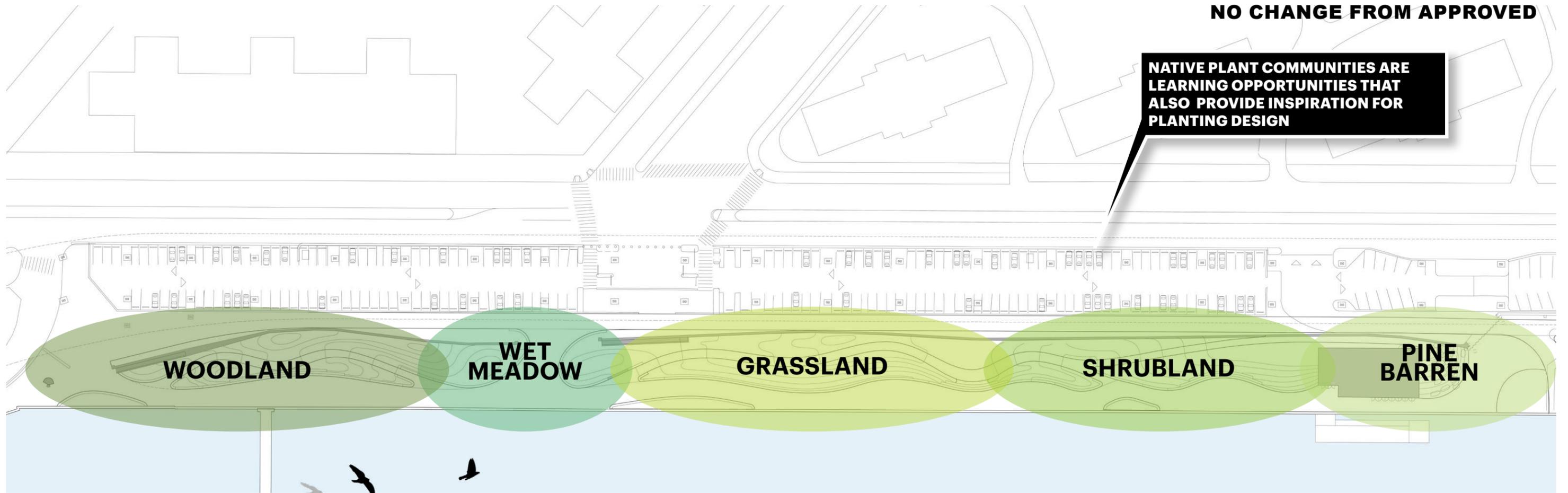
SHRUB LAND

PINE BARREN

PLAY GROUNDS

NO CHANGE FROM APPROVED

NATIVE PLANT COMMUNITIES ARE LEARNING OPPORTUNITIES THAT ALSO PROVIDE INSPIRATION FOR PLANTING DESIGN





Acer rubrum



Amalanchier laevis



Celtis occidentalis



Gleditsia triacanthos



Juniperus virginiana

NO CHANGE FROM APPROVED

TREES



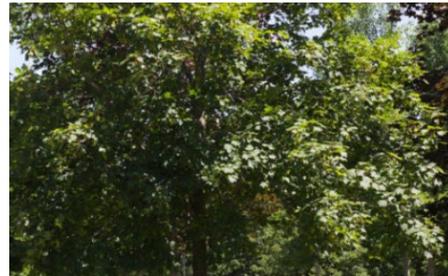
Nyssa sylvatica



Pinus rigida



Pinus virginiana



Quercus bicolor



Quercus coccinea



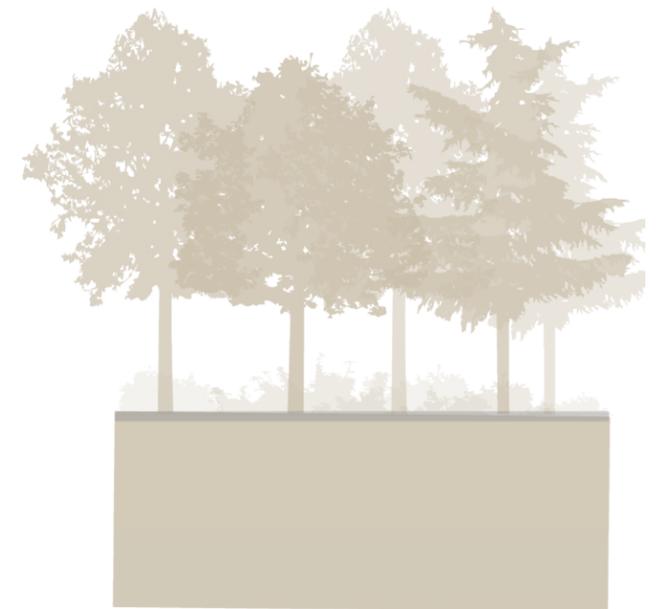
Quercus nuttallii



Quercus palustris



Rhus typhina



SHRUBS



Hydrangea quericifolia
Pee Wee



Viburnum acerfolium

GRASSES



Carex albicans



Carex appalachica



Carex bicknelli



Carex pensylvatica



Deschampsia flexuosa



Panicum virgatum
'Ruby Ribbons'

PERENNIALS



Ageratina altissima



Amsonia hubrichtii



Anemone virginiana



Penstemon calycosus



Aster prenanthoides



Conoclinium
coelestinum



Dicentra cucullaria



Eurybia divaricata



Geranium maculatum



Heuchera Americana



Mertensia virginica[^]



Phlox divaricata



Podophyllum peltatum



Polystichum
acrostichoides



Pynanthemum
muticum



Pynanthemum
tenuifolium



Tiarella cordifolia



Tradescantia virginiana



Tradescantia ohiensis



Viola labradorica



Viola sororia



NO CHANGE FROM APPROVED

WET MEADOW

GRASSES



Carex stricta



Carex pensylvatica



Carex vulpinoidea



Juncus effusus



Juncus tenuis



Panicum virgatum
'Ruby Ribbons'

PERENNIALS



Anemone canadensis



Aquilegia canadensis



Asclepias incarnata



Echinacea purpurea



Equisetum hyemale



Eutrochium dubium



Helianthus decapetalus



Hibiscus coccineus



Hibiscus moscheutos



Iris versicolor



Liatris spicata



Lobelia cardinalis[^]



Monarda didyma



Monarda punctata



Onoclea sensibilis



Verbena hastata

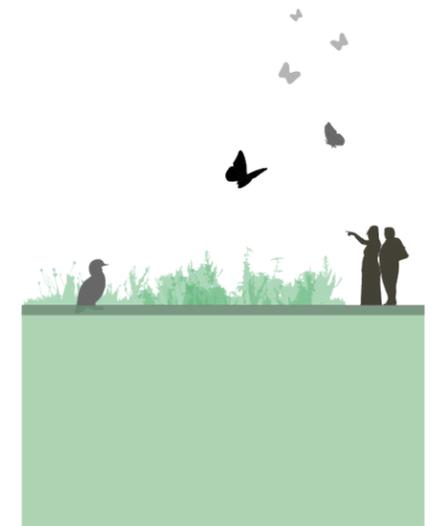


Vernonia noveboracensis



Zizia aurea^{*}

^{*}Solar1 Plant List (2016)
[^]Short-Lived



NO CHANGE FROM APPROVED

GRASS
LAND

GRASSES



Bouteloua curtipendula



Bouteloua gracilis



Carex albicans



Carex pensylvanica



Chasmanthium latifolium



Deschampsia cespitosa



Deschampsia flexuosa



Panicum virgatum
Ruby Ribbons



Schizachyrium scoparium



Sporobolus cryptanandrus



Sporobolus heterolepis



Sorghastrum nutans

PERENNIALS



Amsonia hubrichtii



*Asclepias syriaca**



*Asclepias tuberosa**



*Asclepias verticillata**



Baptisia australis



*Echinacea purpurea**



Eryngium yuccifolium



*Eutrochium purpureum**



*Geum triflorum**



Helianthus decapetalus



Liatris aspera



*Liatris scariosa novae angliae**



Monarda fistulosa



Phlox paniculata



*Rudbeckia fulgida**



Solidago juncea



*Solidago rigida**



*Symphyotrichum novi-angellii**



Symphyotrichum novi-belgii



*Symphyotrichum oblongifolium**



Zizia aptera / aurea**



SHRUBS



Amorpha fruticosa



Ceanothus americanus



Clethra alnifolia



Diervilla lonicera



Diervilla sessifolia



Hypericum prolificum



Itea virginica



Morella pensylvanica



Prunus maritima



Rhus aromatica



Rosa carolina



Rosa virginica

GRASSES



Andropogon virginicus



Bouteloua gracilis



Carex albicans



Carex pensylvanica



Chasmanthium latifolium



Deschampsia flexuosa



Panicum virgatum
Ruby Ribbons



Schizachyrium scoparium



Sporobolus heterolepis

PERENNIALS



Achillea millefolium



Amsonia hubrichtii



*Asclepias verticillata**



Aster prenanthoides



Eryngium yuccifolium



*Monarda punctata**



Phlox divaricata



*Physostegia virginiana**



*Pycnanthemum tenuifolium**



Rudbeckia fulgida / hirta*



Solidago odora



*Solidago graminifolia**



*Solidago sempervirens**



*Symphyotrichum oblongifolium**



Zizia aptera / aurea**



TREES



Acer rubrum



Celtis occidentalis



Gleditsia triacanthos



Ilex opaca 'Jersey Queen'



Liquidambar rotundiloba

NO CHANGE FROM APPROVED

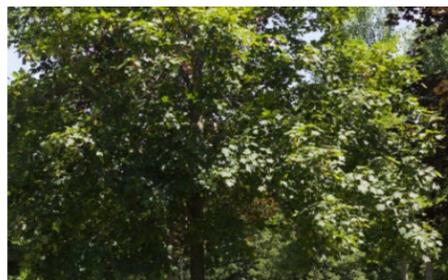
PLAY-
GROUNDS



Quercus rubra



Quercus phellos



Quercus bicolor



Quercus coccinea

SMALL TREES



Amelanchier canadensis
'Autumn Brilliance'



Chionanthus retusus



Magnolia Virginiana



Prunus serrulata 'Mt. Fuji'

CANOPY TREES FOR
PLAYGROUND SHADE



NO CHANGE FROM APPROVED

**PLAY-
GROUNDS**

SHRUBS



Aronia melanocarpa



Callicarpa dichotoma



Diervilla lonicera



Hydrangea quericifolia
Pee Wee



Ilex glabra



Prunus laurocerasus
'Otto Luyken'



Rosa carolina



Rhus aromatica
'gro-low'

GROUNDCOVERS



Amsonia hubrichtii



*Asclepias tuberosa**



Carex pensylvatica



Chasmanthium
latifolium



Echinacea purpurea



Geranium maculatum



Liatris spicata



Monarda punctata



Schizachyrium
scoparium

