

BK Bridge - Montgomery Coastal Resilience

CB3 Parks and Waterfront Committee
Feb 13, 2020

New York City is implementing \$500M in on-land capital projects and advancing a Master Plan for FiDi-Seaport

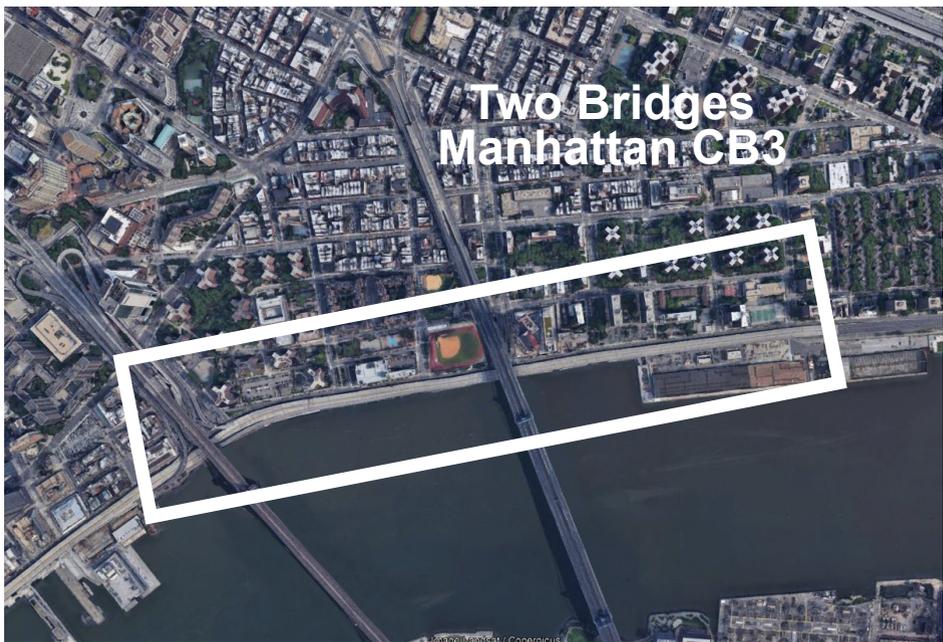
Capital projects to protect 70% of the shoreline of Lower Manhattan, and Master Plan for remaining 30%





City

1 MI



Neighborhood

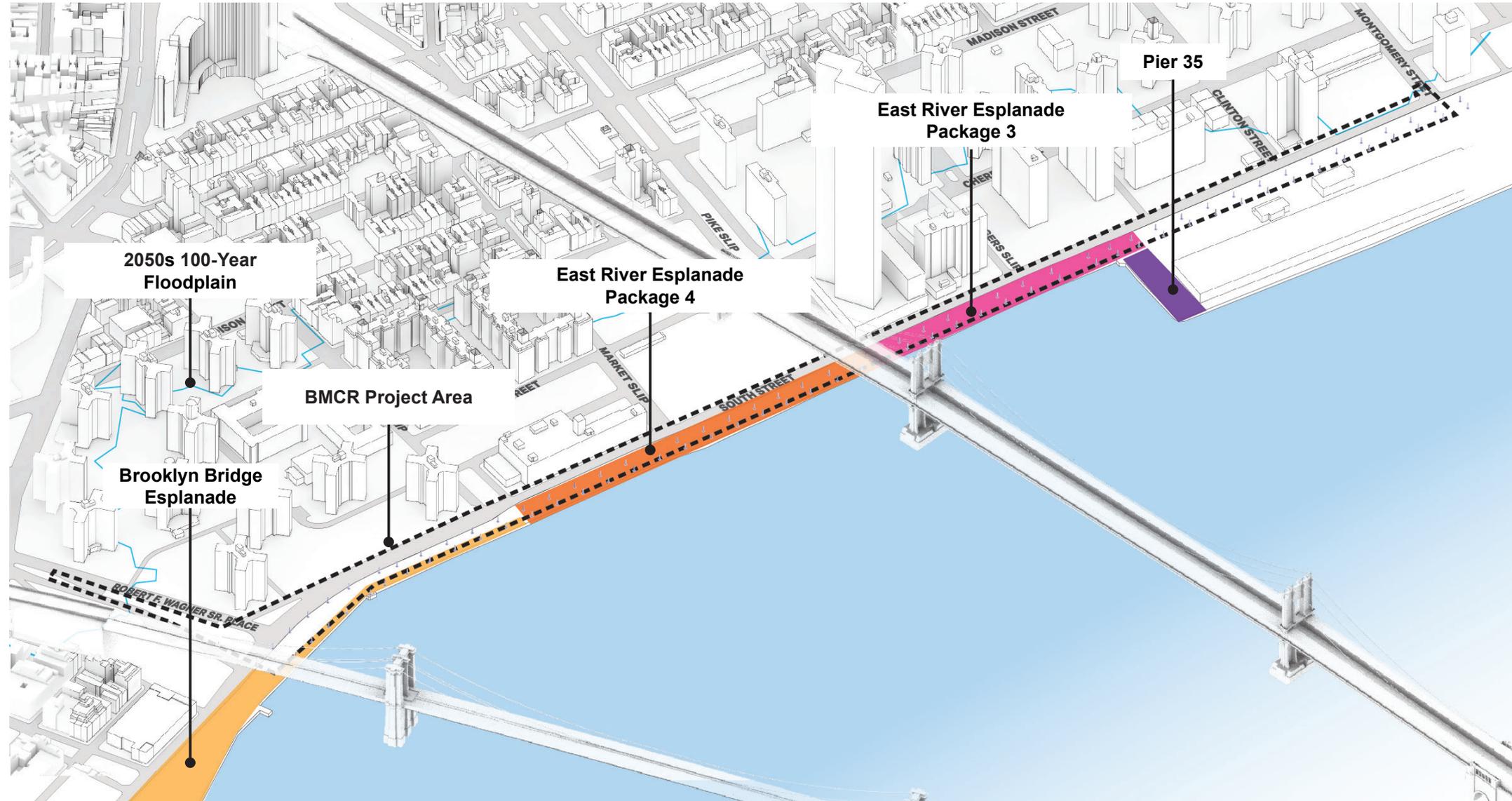
1000 FT



Site

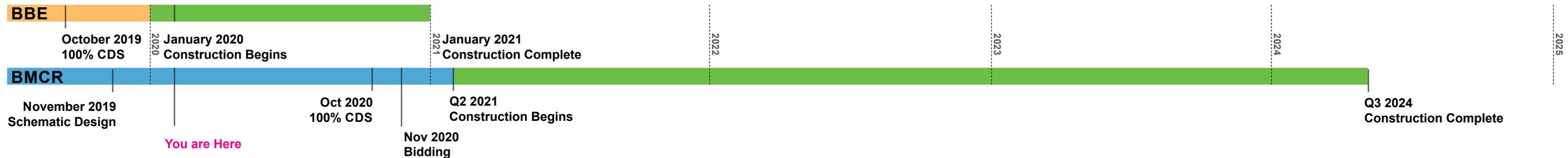
500 FT

PROJECT COORDINATION



Timelines

- Pier 35**
2019 Completed
- East River Esplanade - Package 3**
2014 Completed
- East River Esplanade - Package 4**
Under Construction, Completion 2020
- Brooklyn Bridge Esplanade (BBE)**
October 2019 - 100% Construction Documents
January 2020 - Construction begins
January 2021 - Complete
- Brooklyn Bridge-Montgomery Coastal Resilience**
November 2019 - Schematic Design complete
October 2020 - 100% Construction Documents
November 2020 - Bidding
Q2 2021 - Construction Starts
Q3 2024 - Construction Complete



VIEW CORRIDORS



RUTGERS SLIP



PIKE SLIP



MARKET SLIP

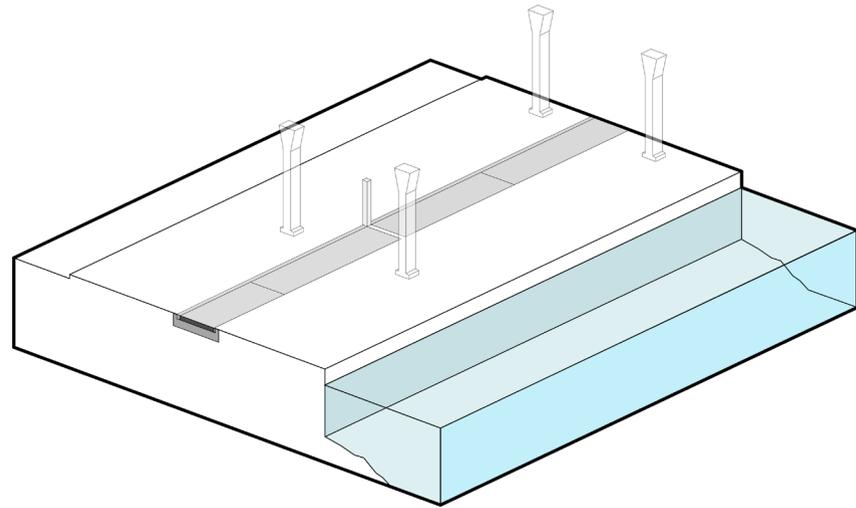


CATHERINE SLIP

RAISED SILL TO MITIGATE LOW-LEVEL INUNDATION

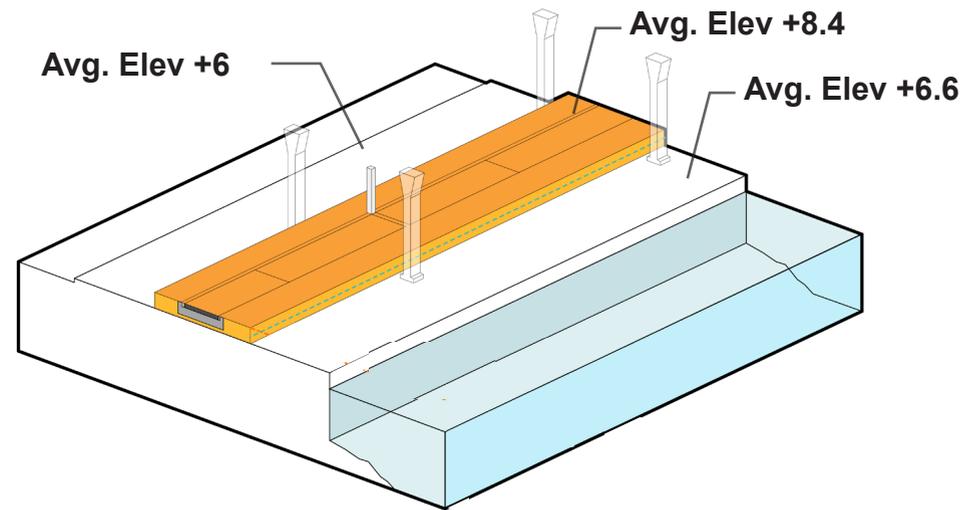
Alignment At Existing Grade

Approximately 70-80 low-level inundation events per year in 2050s



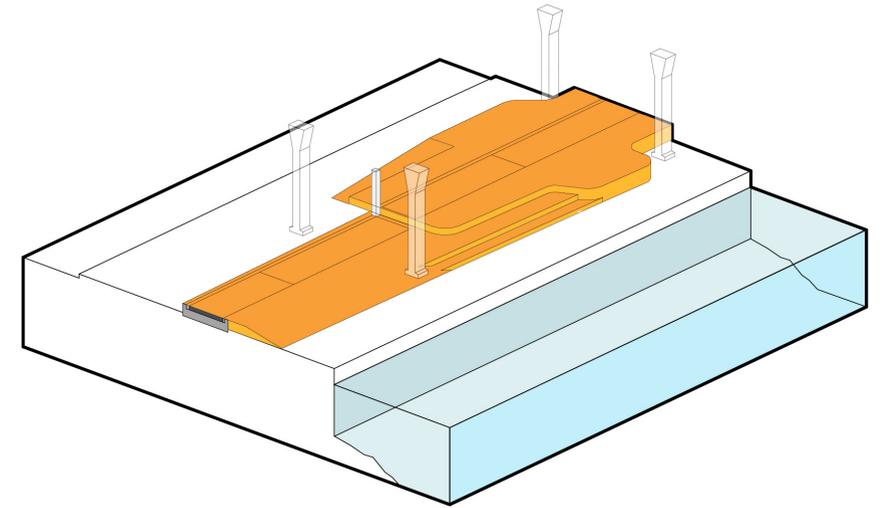
Raised Sill to Avg. Elev +8.4 NAVD88

Approximately 10-15 low-level inundation events per year in 2050s



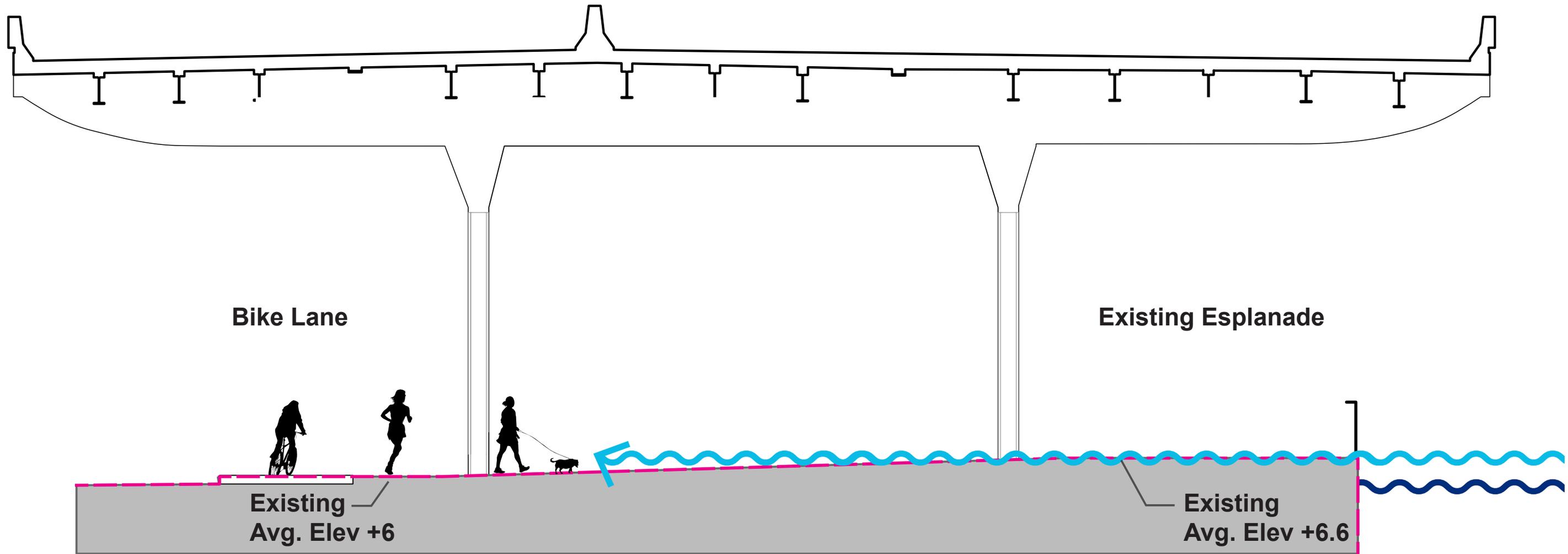
Public Realm Program

Activated and accessible sill



CONCEPTUAL SECTIONS

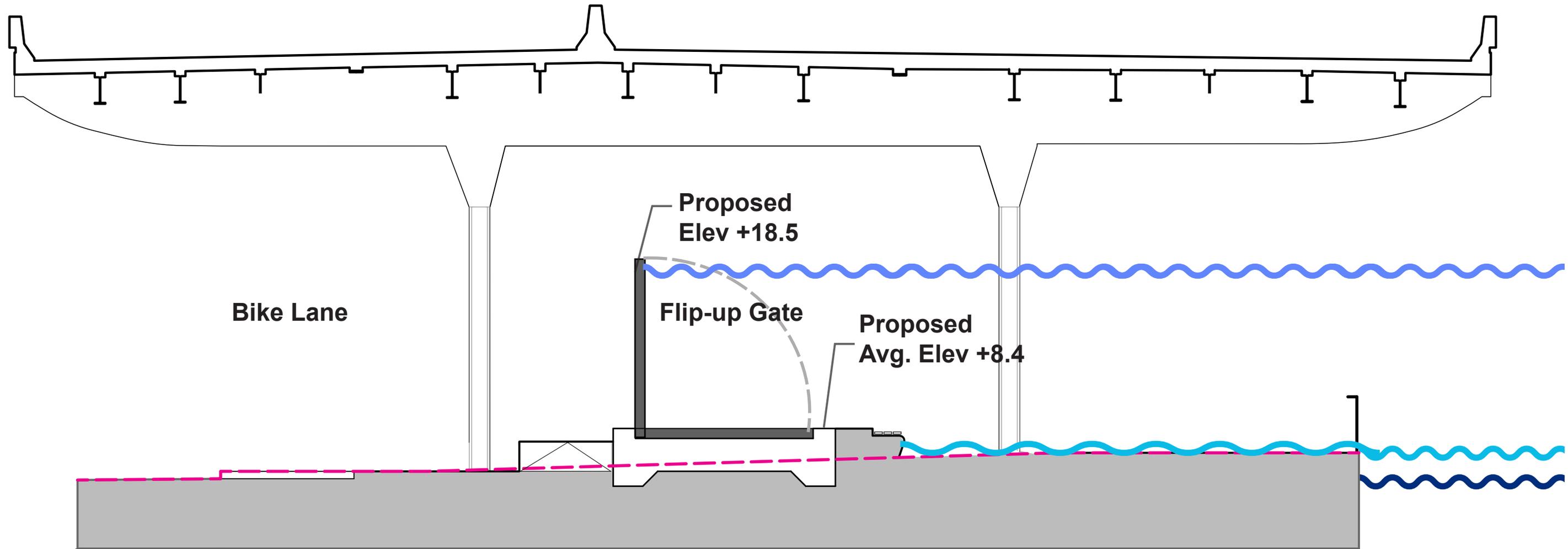
Raised Platform to Address Fair Weather Tidal Flooding from SLR



- Existing Grade
- 2050s Fair Weather Tidal Flooding
- Current sea level

CONCEPTUAL SECTIONS

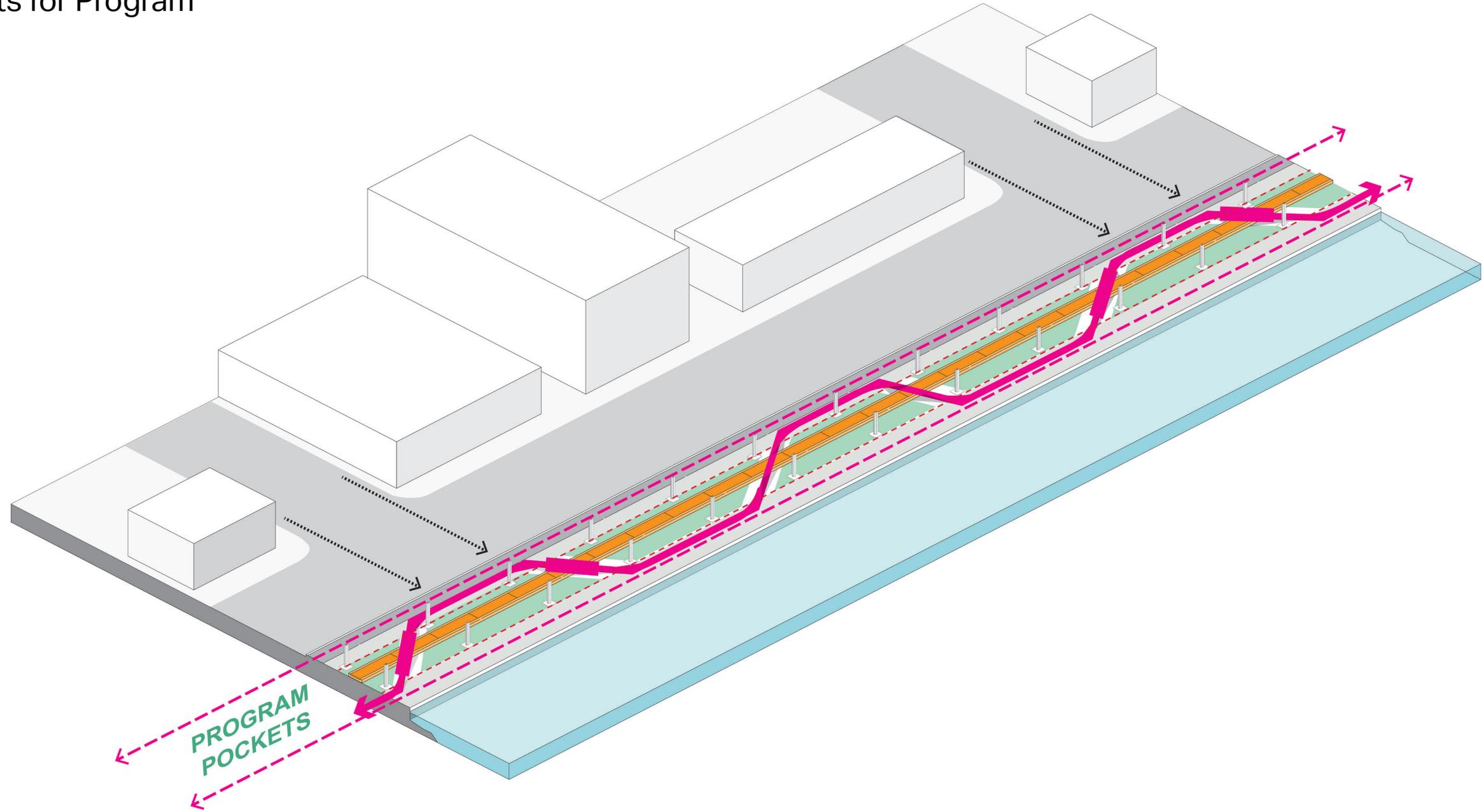
Raised Platform with Deployed Flood Infrastructure



- Existing Grade
- 2050s 100-year Storm Surge
- 2050s Fair Weather Tidal Flooding
- Current sea level

SITE DESIGN CONCEPT

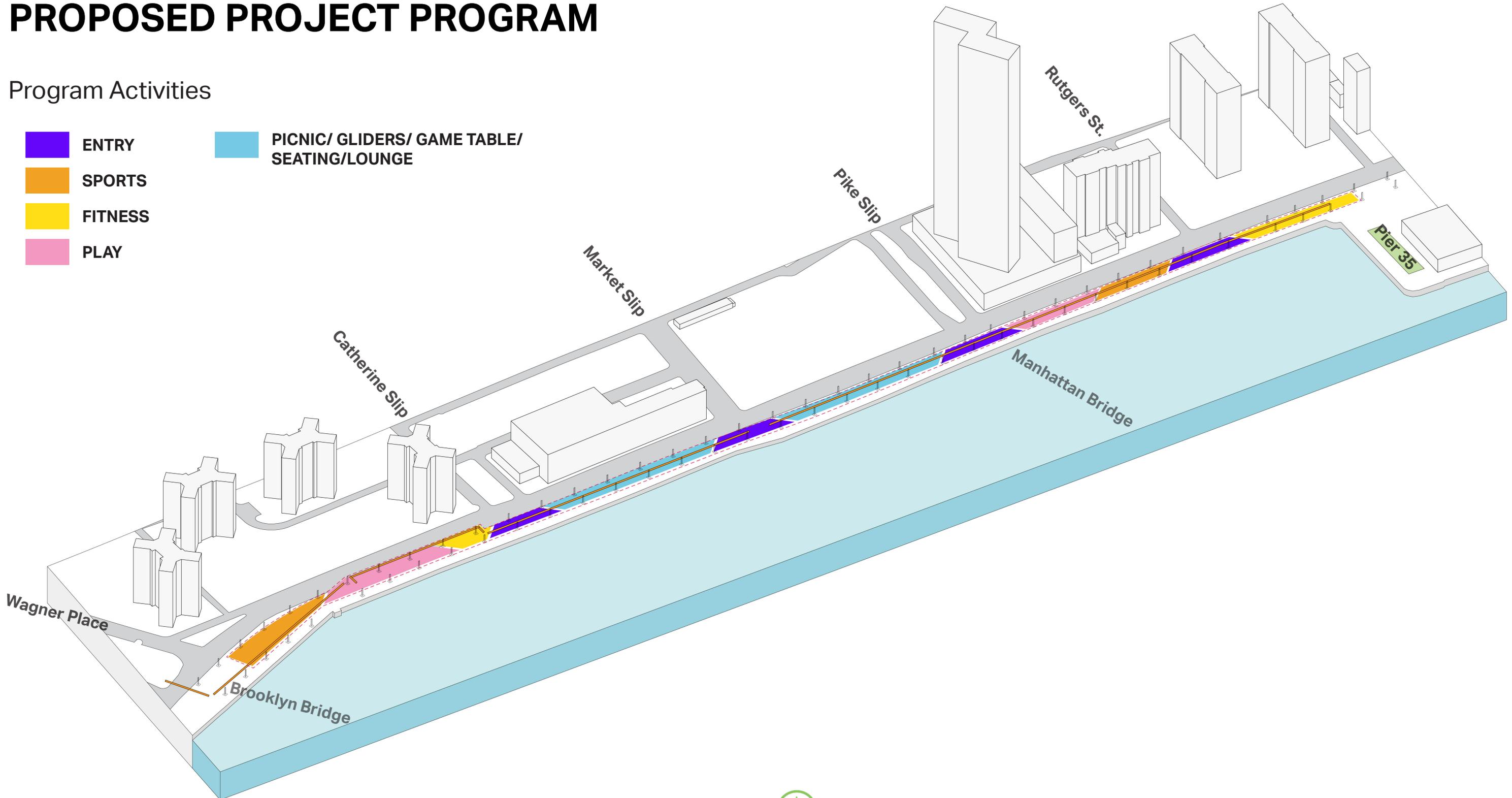
Enable Access
Create Pockets for Program



PROPOSED PROJECT PROGRAM

Program Activities

-  ENTRY
-  SPORTS
-  FITNESS
-  PLAY
-  PICNIC/ GLIDERS/ GAME TABLE/ SEATING/LOUNGE



COMMUNITY FEEDBACK



Fall 2019 Community Engagement

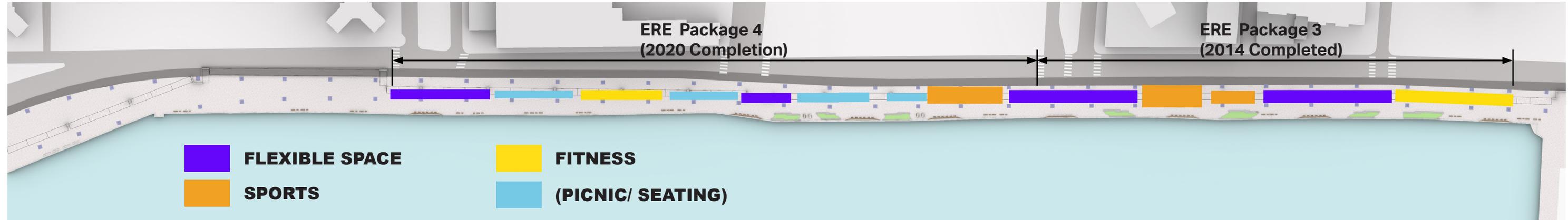
- Oct 2, 2019 Public Meeting
- Nov & Dec, 2019 Small Group Sessions
- Community members provided feedback on a conceptual program plan

What we heard

- Desire for open, flexible space
- Strong concerns about relocating the existing basketball half courts
- Existing fitness area is very popular and should be replaced-in-kind with more universal equipment
- Existing bocce court is under-used and should be replaced
- Strong desire for playgrounds at the waterfront
- Gliders at Pier 35 are very popular
- Desire for bathroom facilities
- Desire for improved signage & wayfinding, lighting, skate deterrents

PROPOSED PROGRAM TYPE

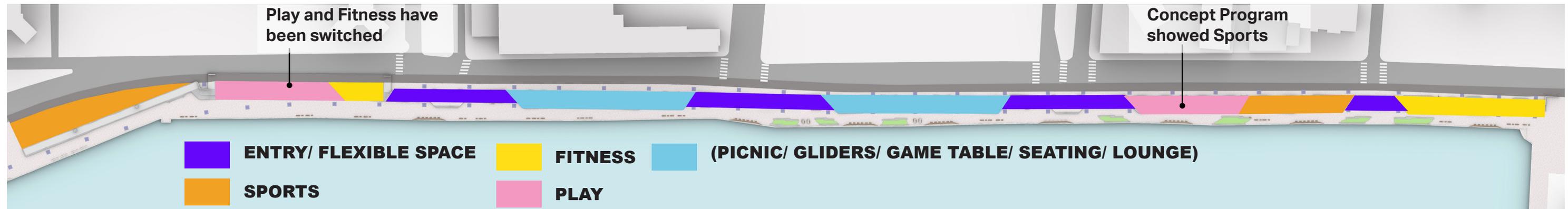
Existing Program



Proposed Program Zones - PDC Conceptual Review (October 2019)

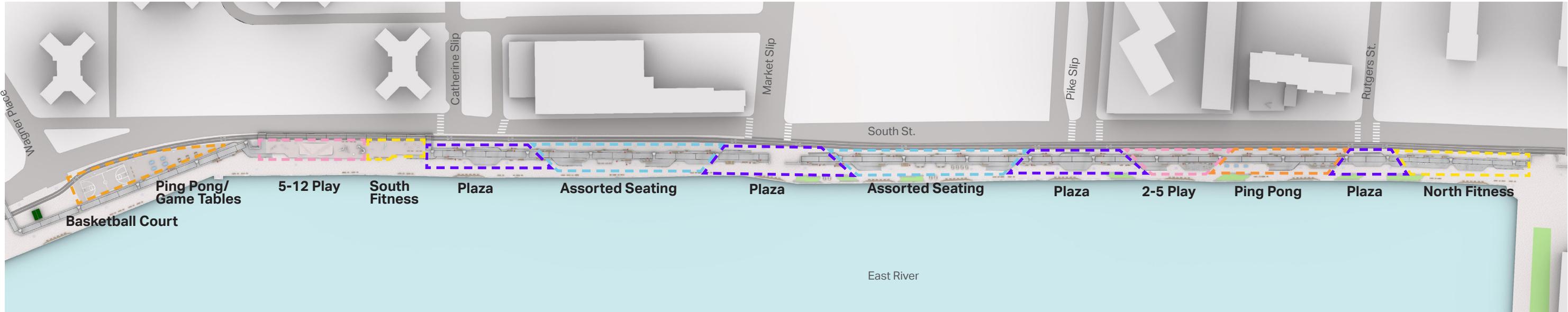


Proposed Program Zones - PDC Preliminary Review (February 2020)

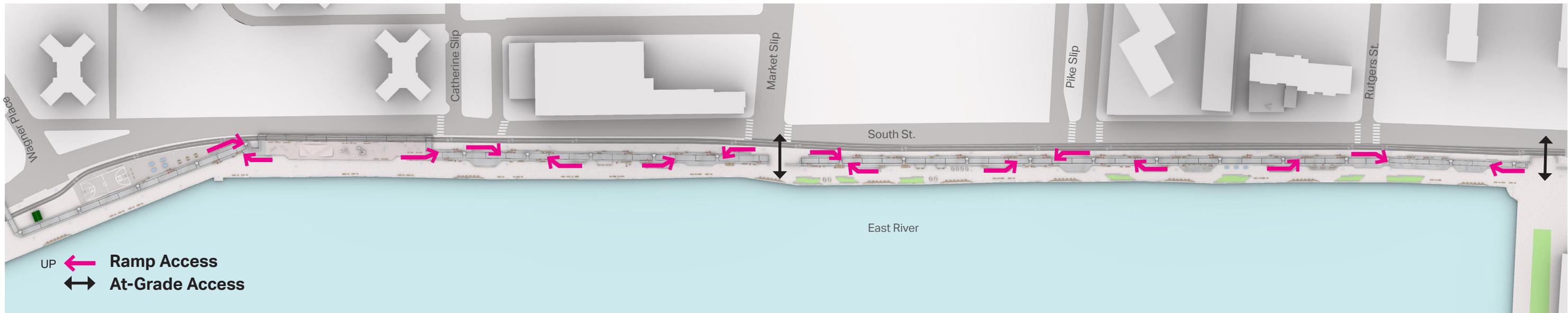


PROPOSED PROGRAM AND ACCESS

Site Plan



Ramps and Access

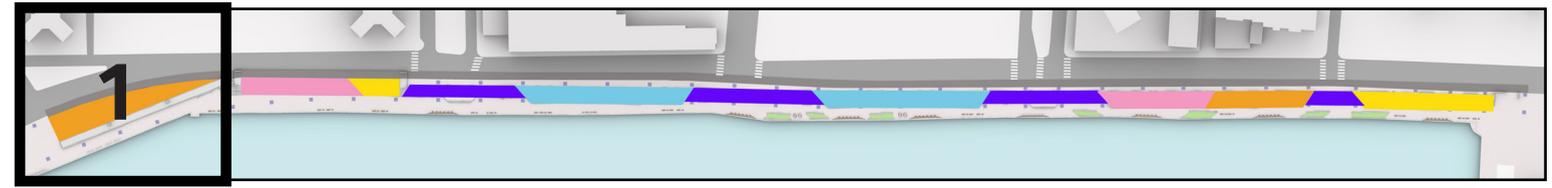


SITE CONSTRAINTS

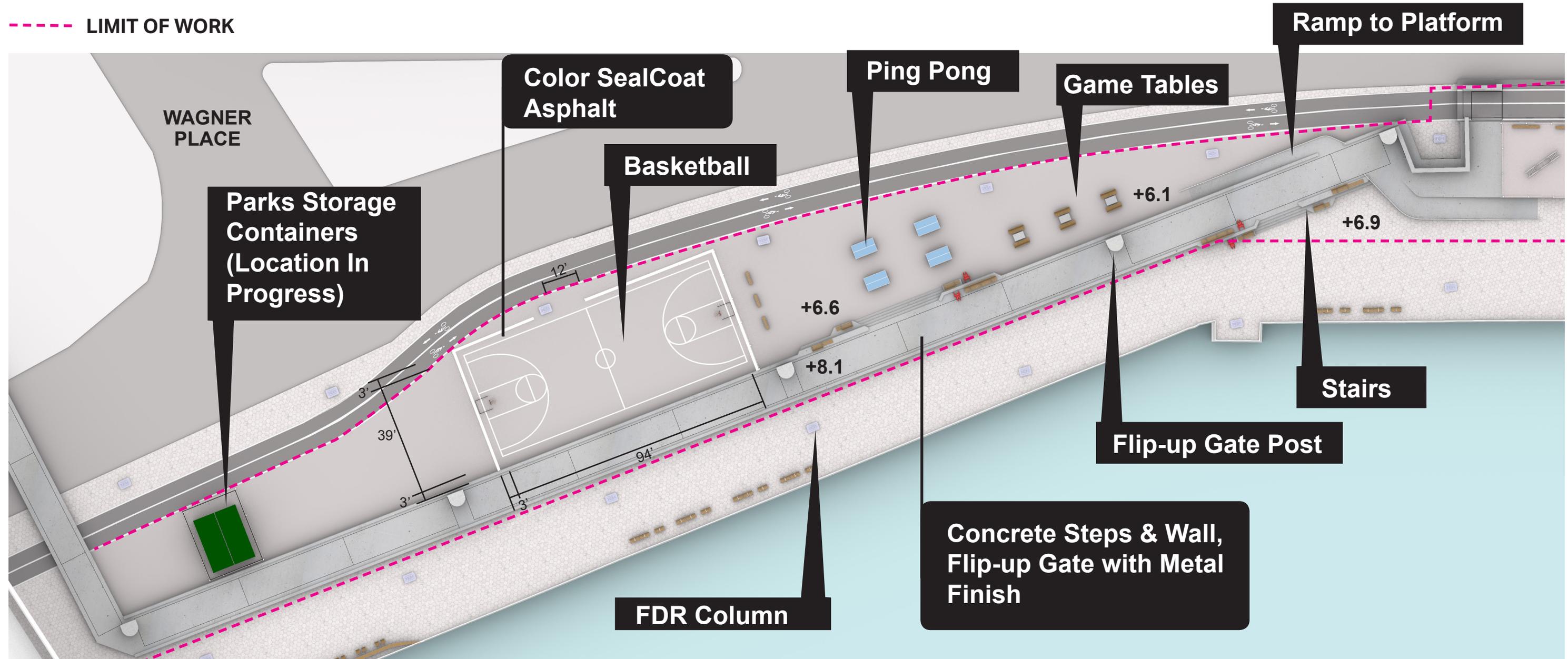
- 3' clearance around FDR columns
- 15' clearance around DEP sewer infrastructure
- 12' (Typ) vehicular access corridor along waterfront
- 12' (TBD) clearance on dry side of each flip-up gate for DOT manual deployment
- 24 Hydraulic Power Units, used to mechanically deploy flip-up gates, will be housed within concrete gate posts, spaced approximately 120' apart
- 4' clearance in front of HPU posts

SITE PLAN 1

Basketball and Ping Pong North of Wagner Place

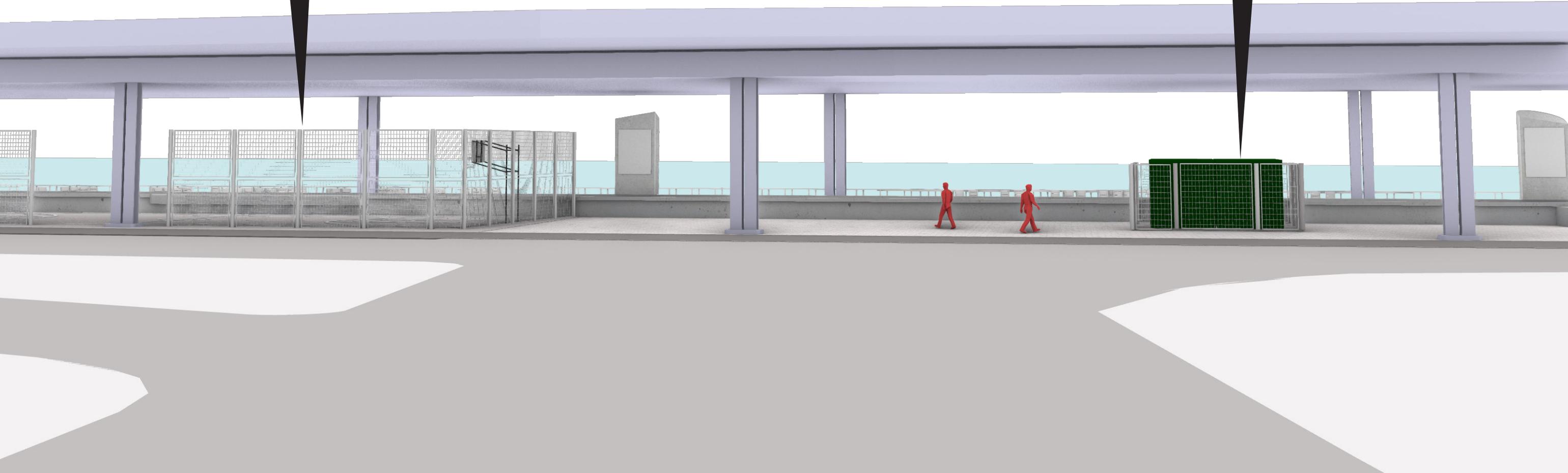


--- LIMIT OF WORK



Basketball Court

**Parks Storage Containers
(Location In Progress)**

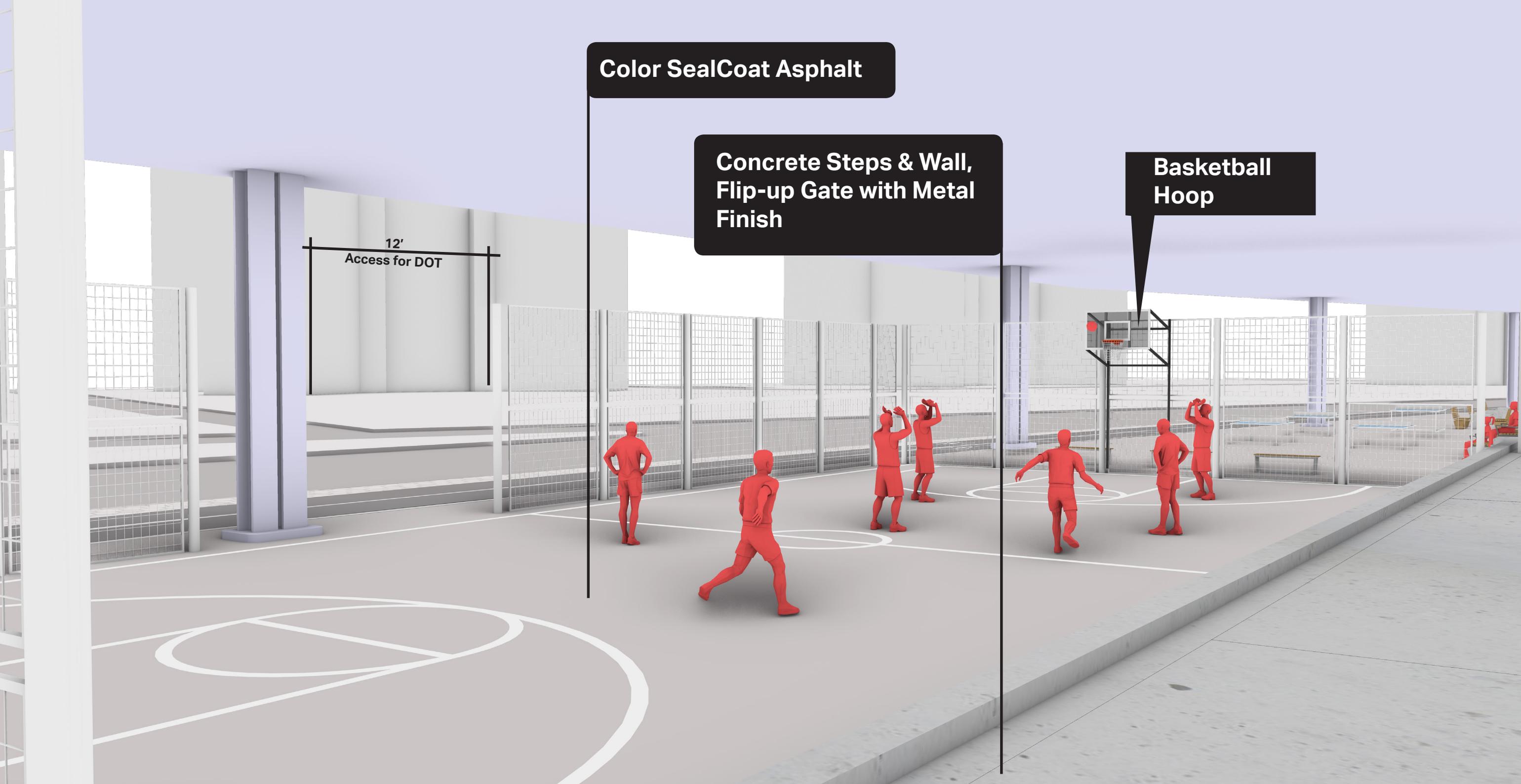


Color SealCoat Asphalt

**Concrete Steps & Wall,
Flip-up Gate with Metal
Finish**

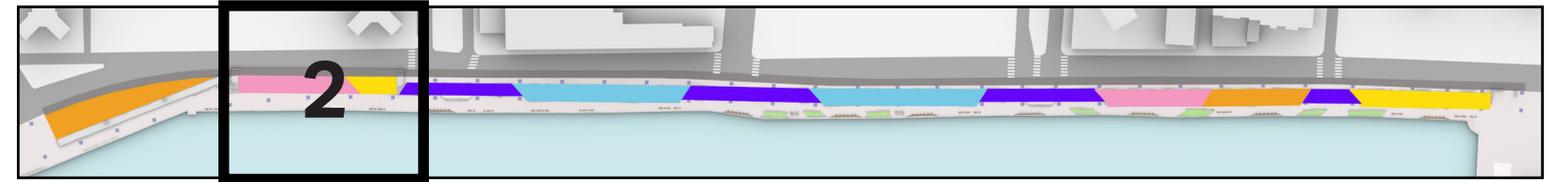
**Basketball
Hoop**

12'
Access for DOT

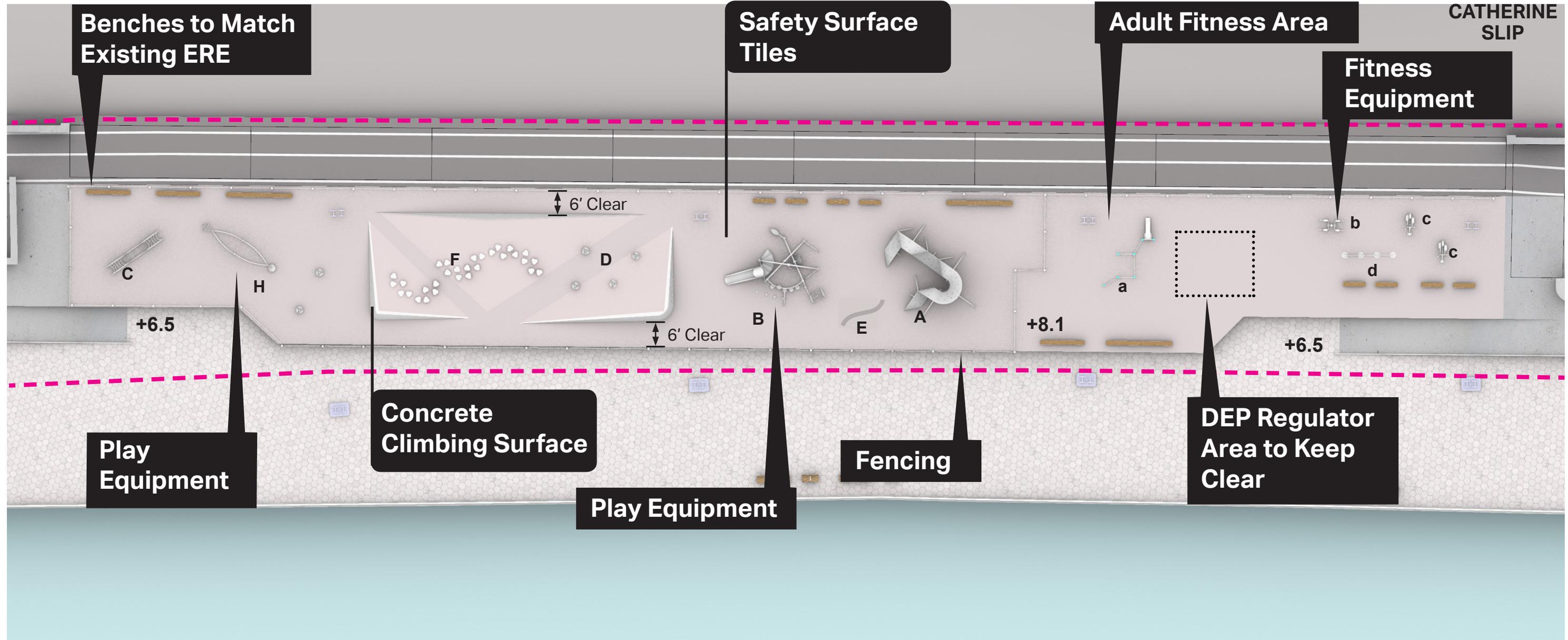


SITE PLAN 2

5-12 Play and Adult Fitness South of Catherine Slip



--- LIMIT OF WORK

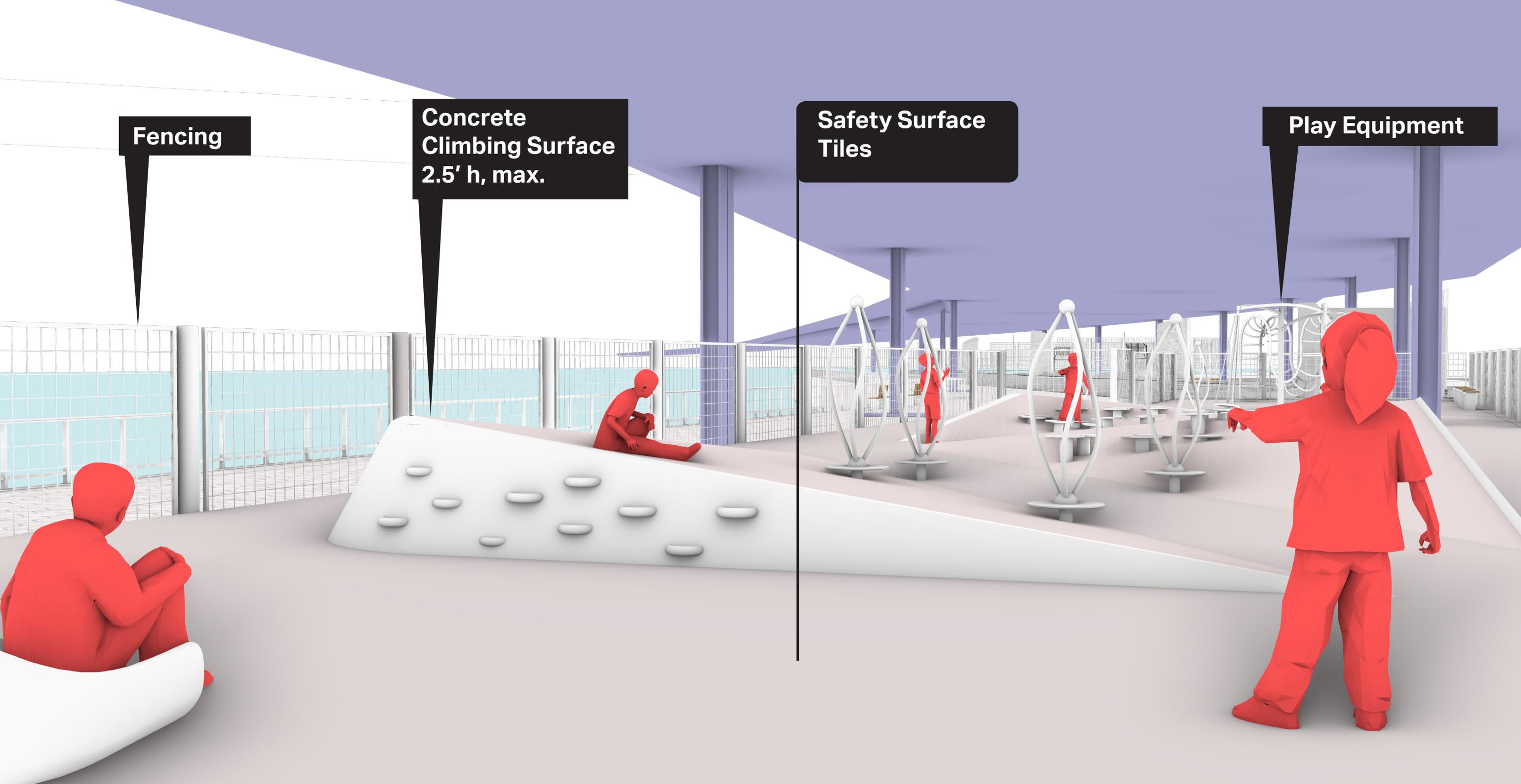


Fencing

Concrete Climbing Surface
2.5' h, max.

Safety Surface
Tiles

Play Equipment

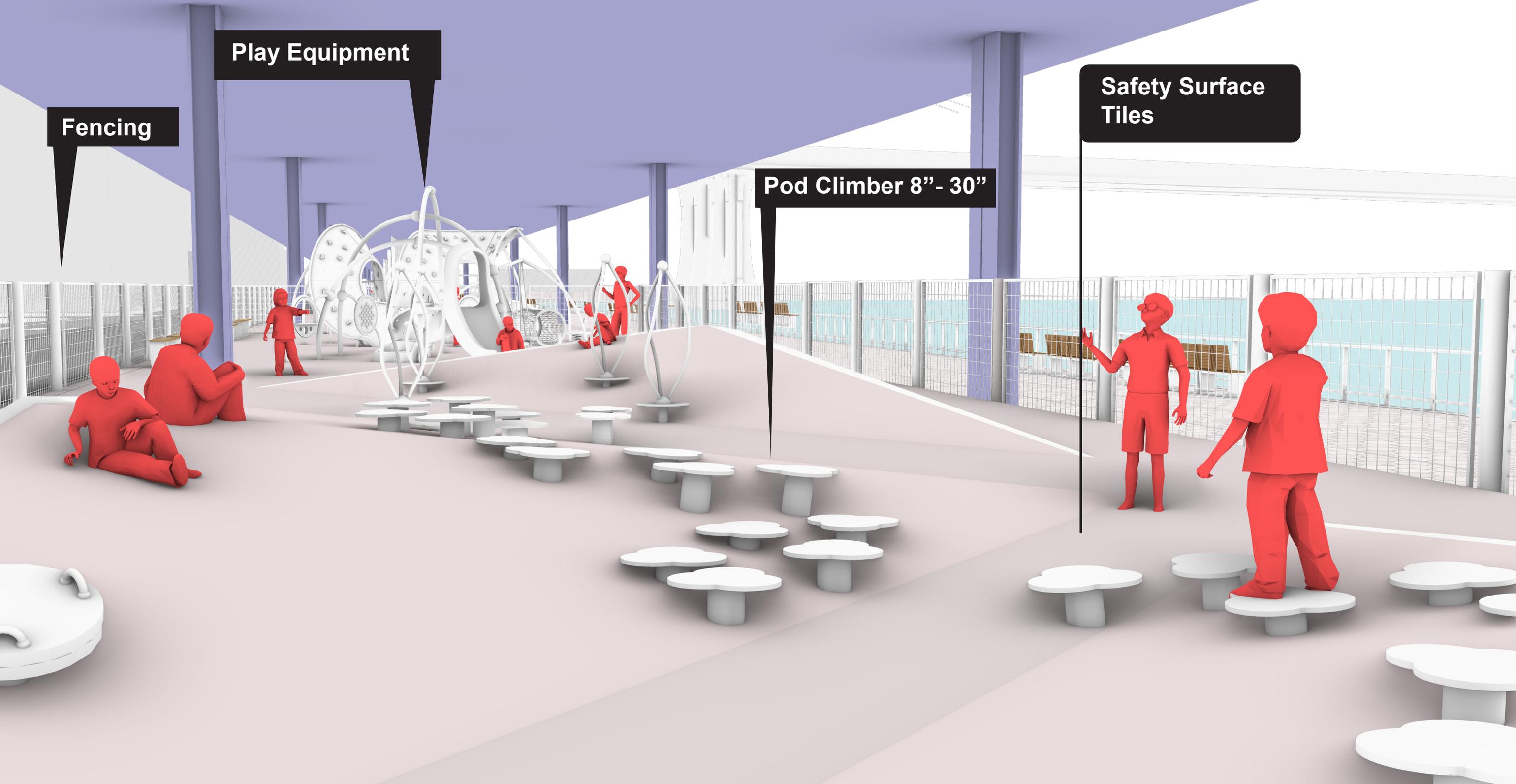


Fencing

Play Equipment

Pod Climber 8" - 30"

Safety Surface Tiles



PLAY EQUIPMENT



A: Landscape Structures-Mobius climber



B: Landscape Structures- Evos



C: Landscape Structures- Humpty Climber



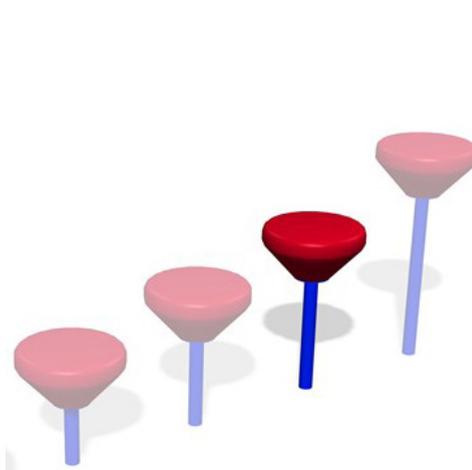
D: Landscape Structures- Spinner



E: Landscape Structures-Curved Balance Beam



F: Landscape Structures: Pod Climber 8" - 30"



G: Climbing Surface



H: Landscape Structure WhooshWinder Slide

FITNESS EQUIPMENT



a. Combine (South Fitness)



c. Push Up & Leg Lift Station - ADA



b.. Arm Bike - ADA



d. Triple Bars- ADA

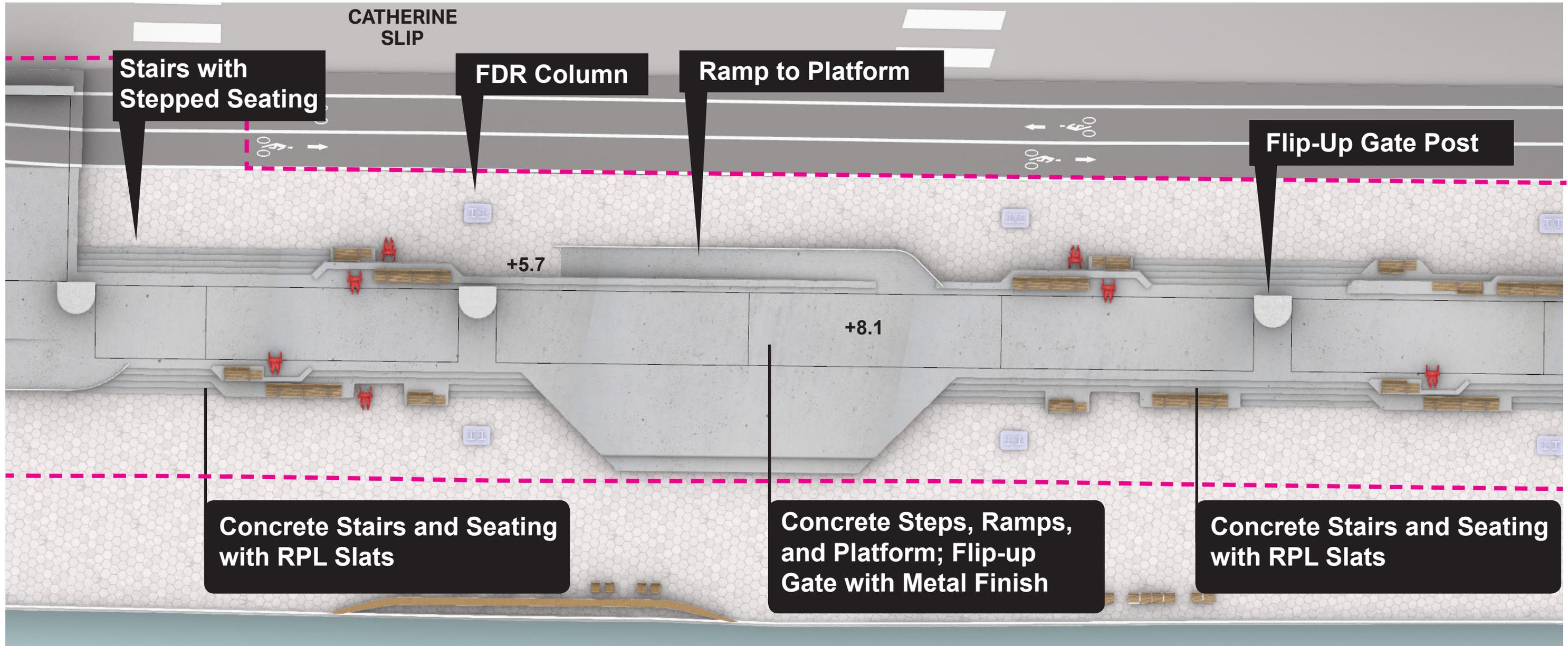
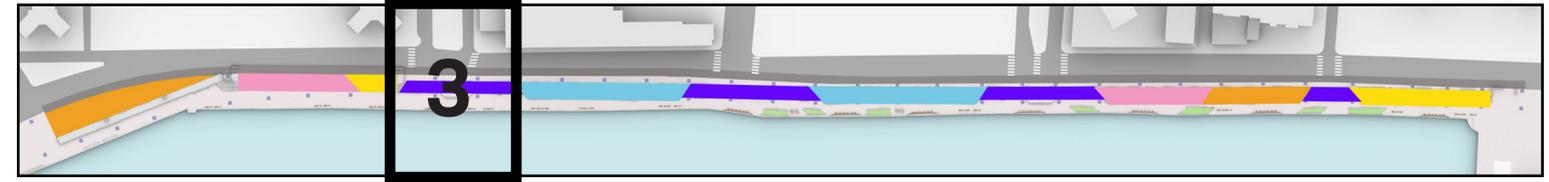
SAFETY SURFACE TILES



Mitchell EZ Fall Safety Surface Tiles

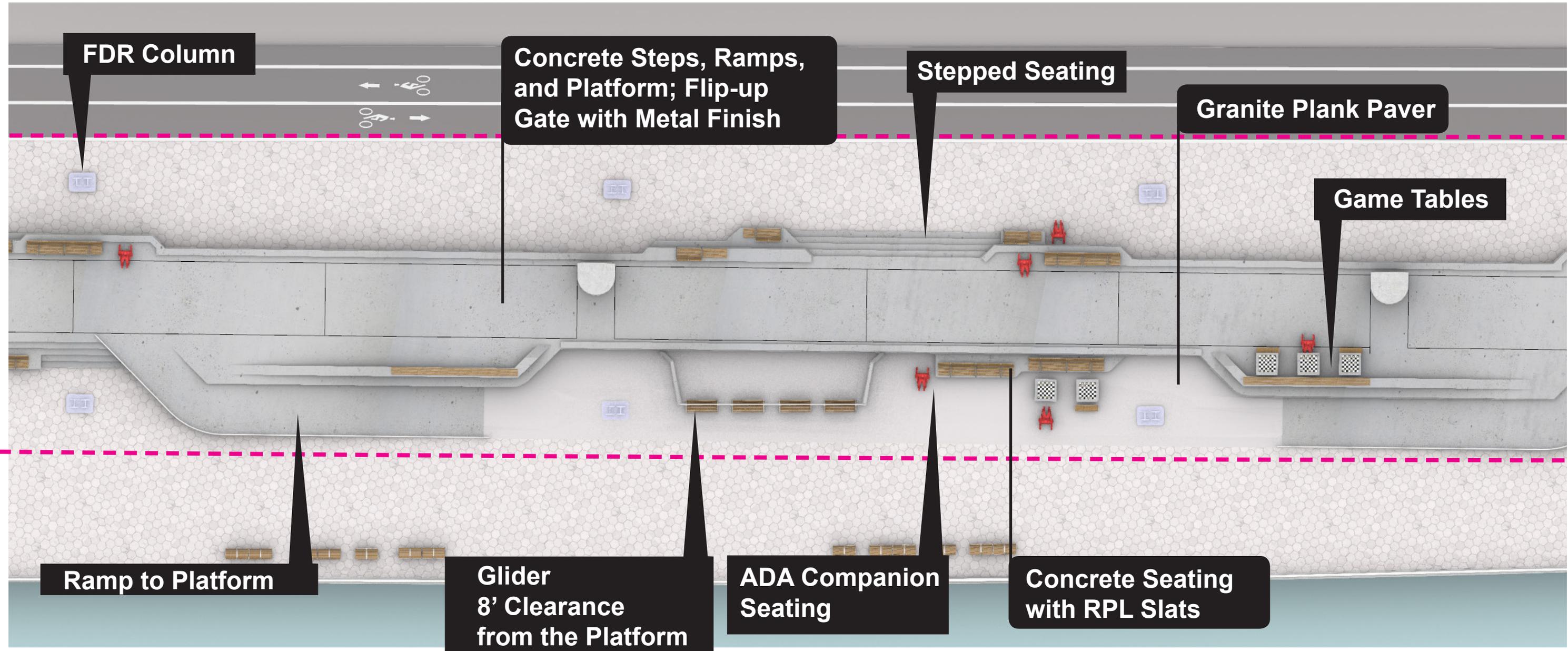
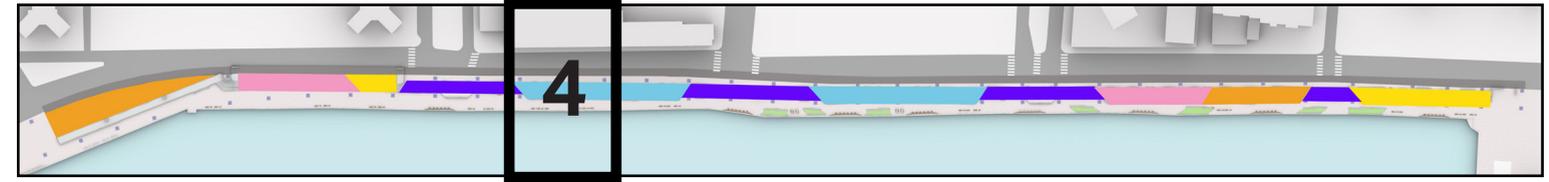
SITE PLAN 3

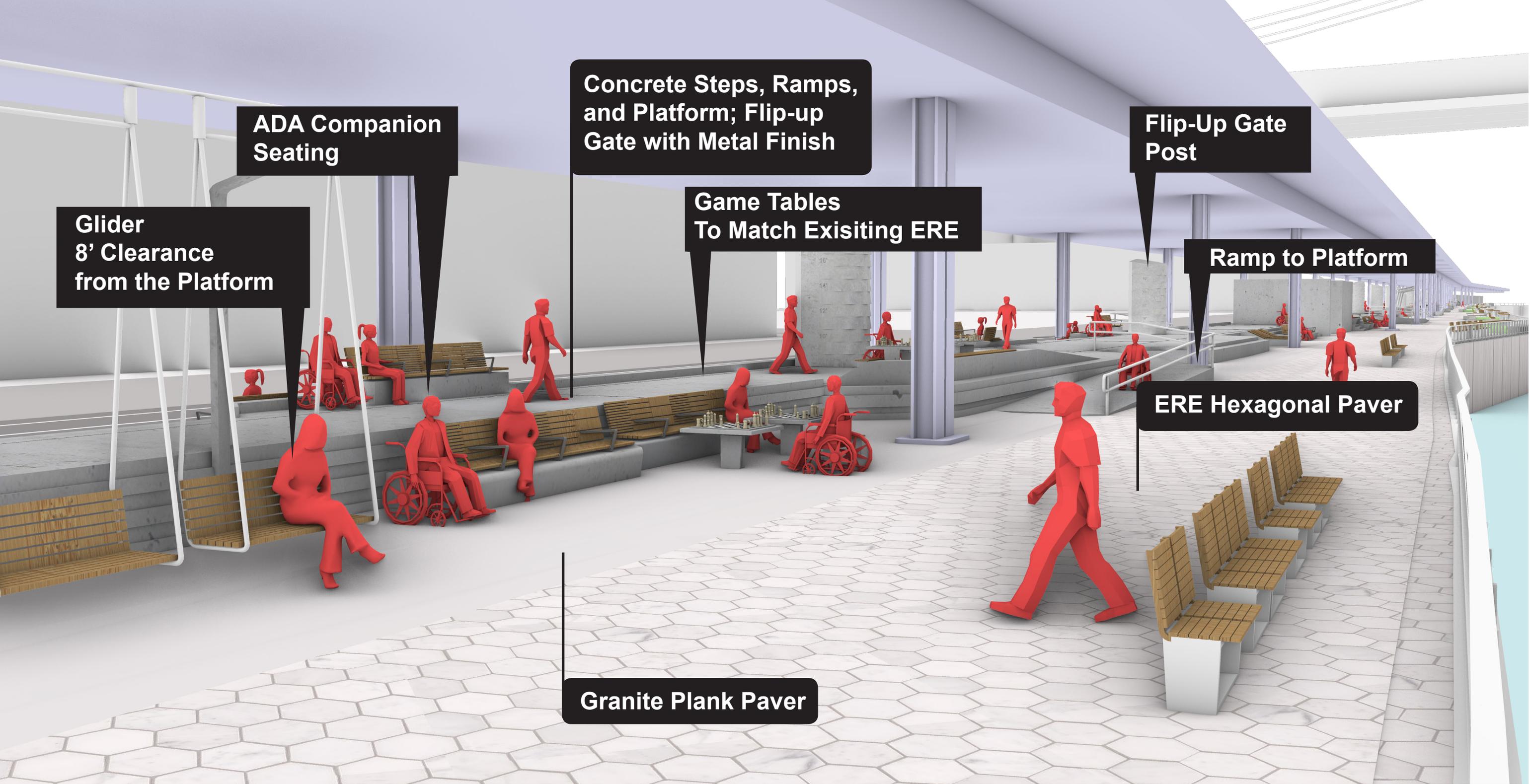
Entry, Overlook and Seating at Catherine Slip



SITE PLAN 4

Assorted Seating North of Catherine Slip





ADA Companion Seating

Concrete Steps, Ramps, and Platform; Flip-up Gate with Metal Finish

Flip-Up Gate Post

Glider 8' Clearance from the Platform

Game Tables To Match Existing ERE

Ramp to Platform

ERE Hexagonal Paver

Granite Plank Paver

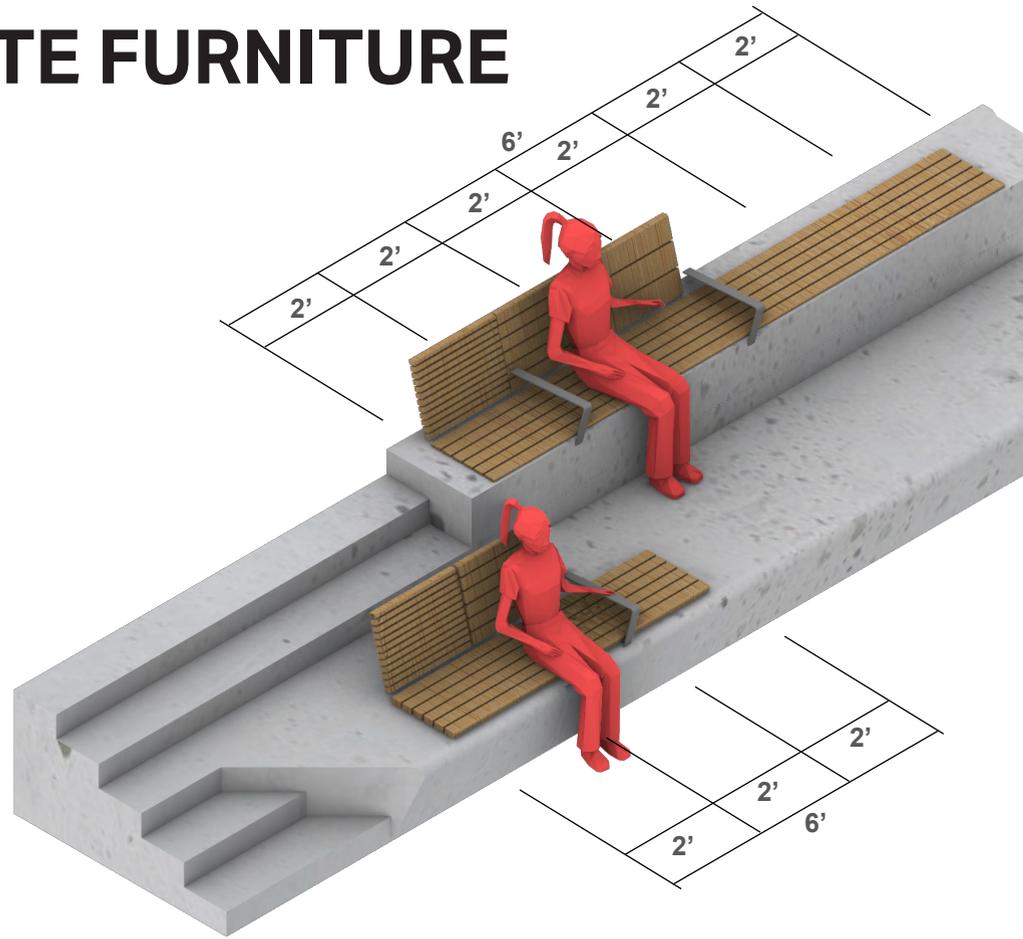
EDC EAST RIVER ESPLANADE SITE FURNITURE PALETTE



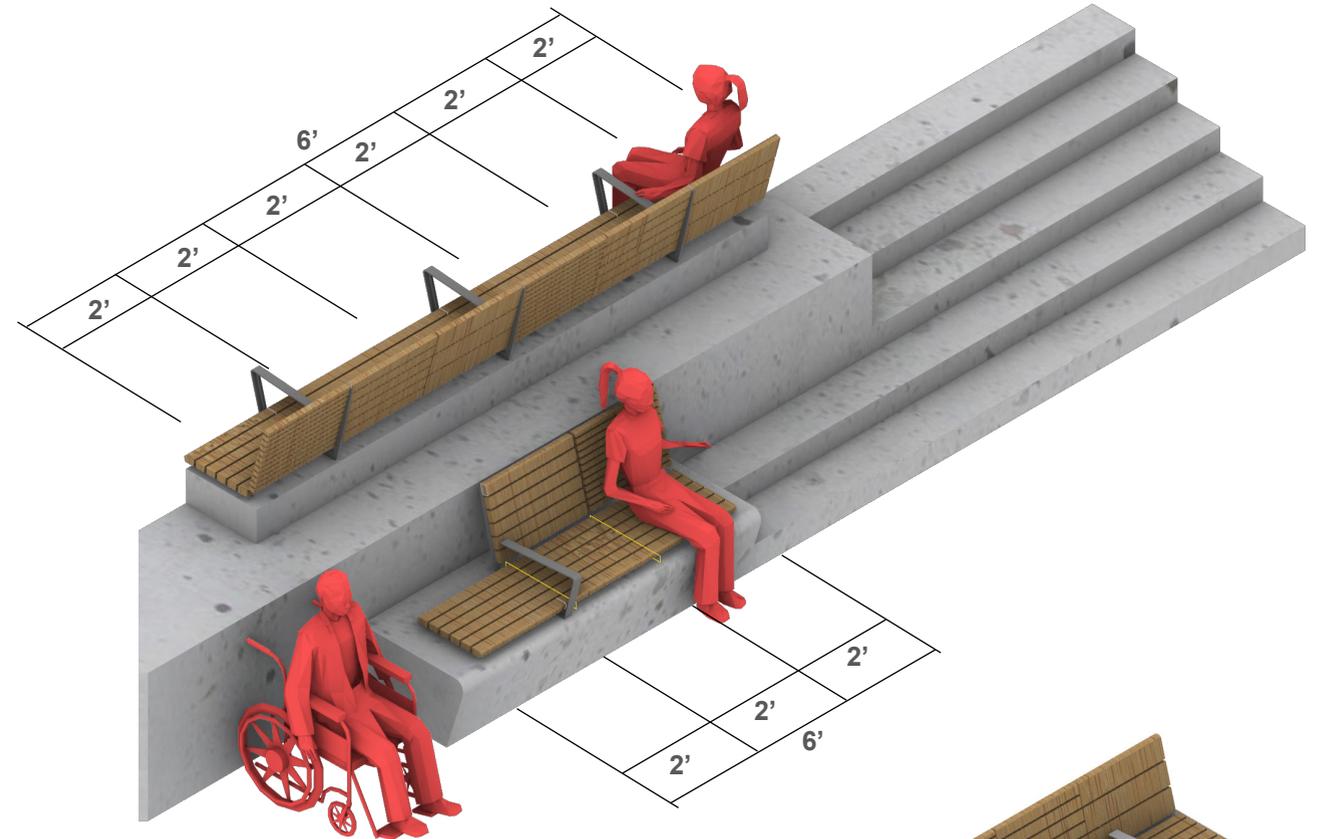
Existing Esplanade Site furniture



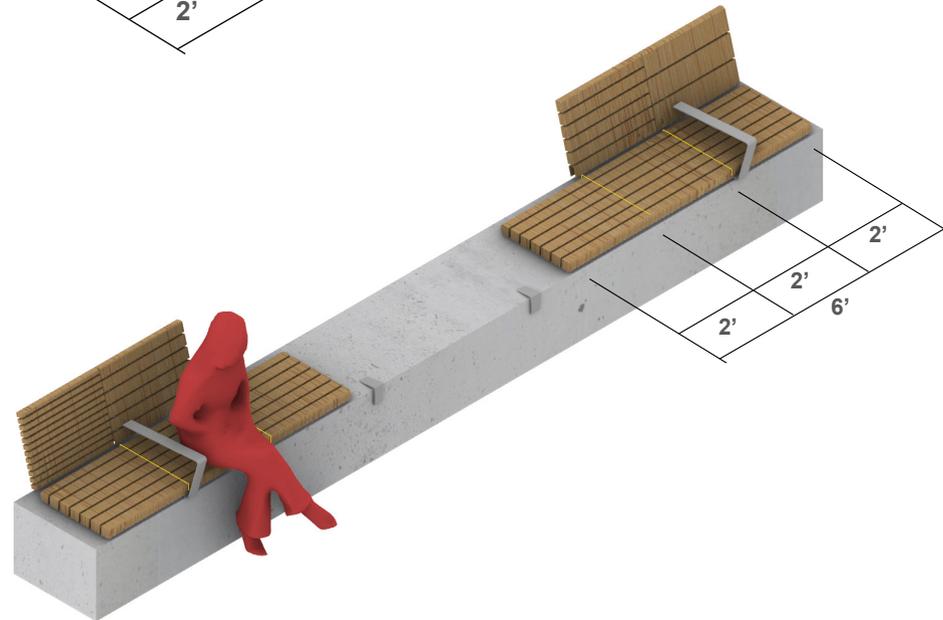
SITE FURNITURE



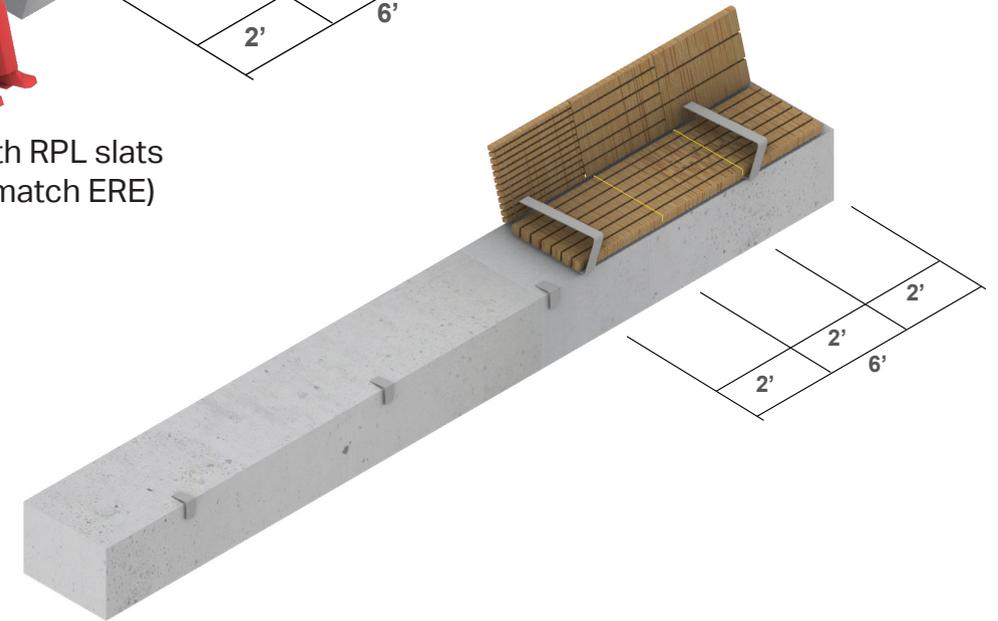
Stepped seating with RPL slats
(Color/Materials to match ERE)



Stepped seating with RPL slats
(Color/Materials to match ERE)



REFERENCE: Existing ERE/BBE Bench



REFERENCE: Existing ERE/BBE Bench

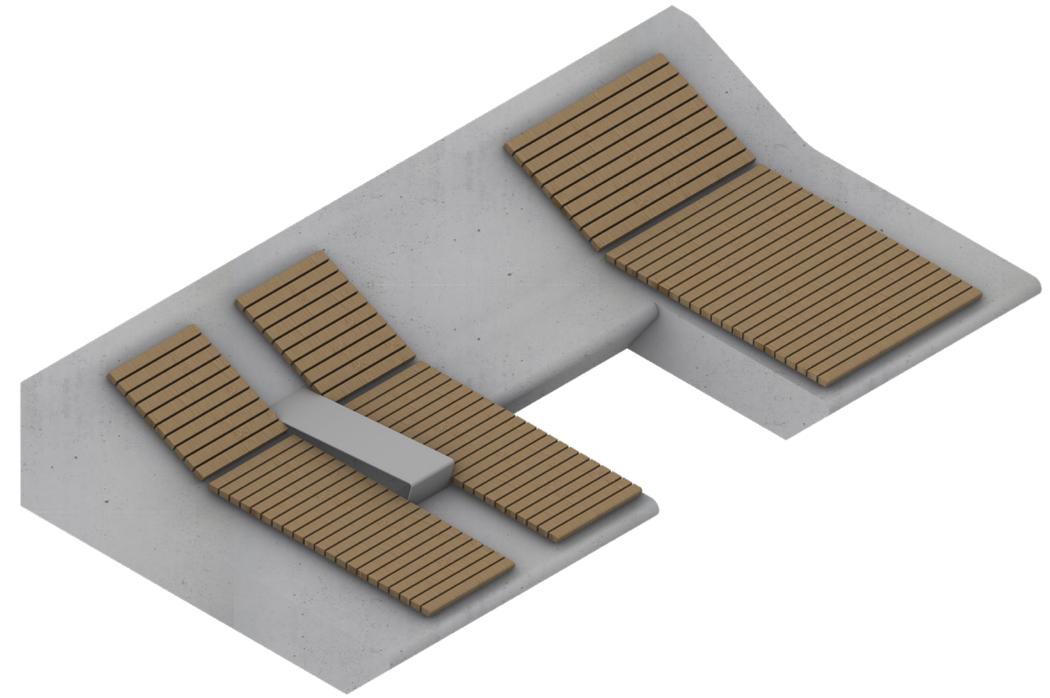
SITE FURNITURE



Tables & Chairs



Free Standing Bench with RPL slats



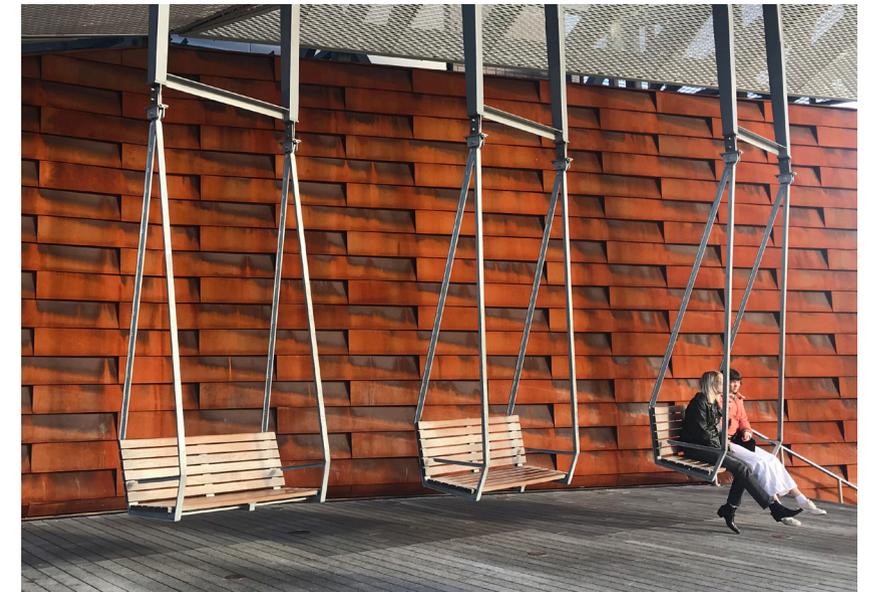
RPL Chaise Seating on Precast Concrete Base
(RPL slat color to match ERE)



Free Standing Bench with RPL slats

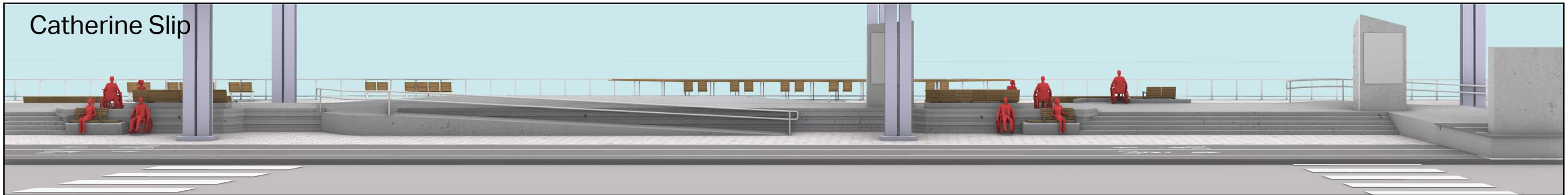
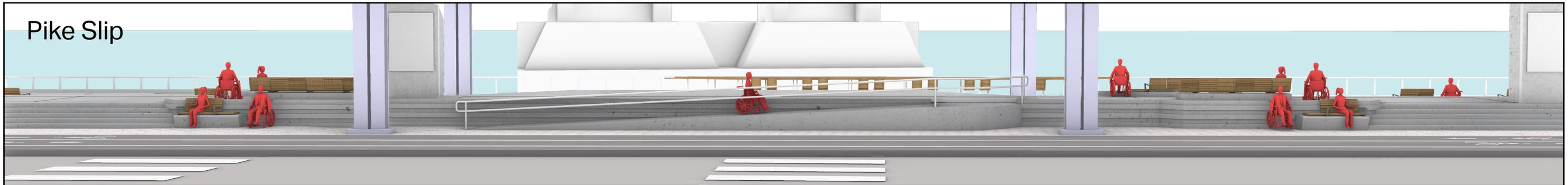
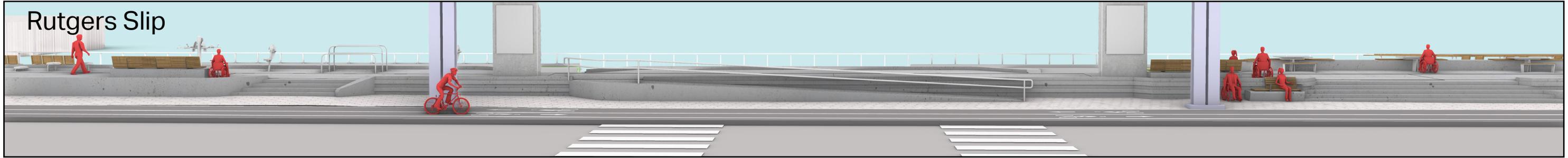


Free Standing Bench with RPL slats



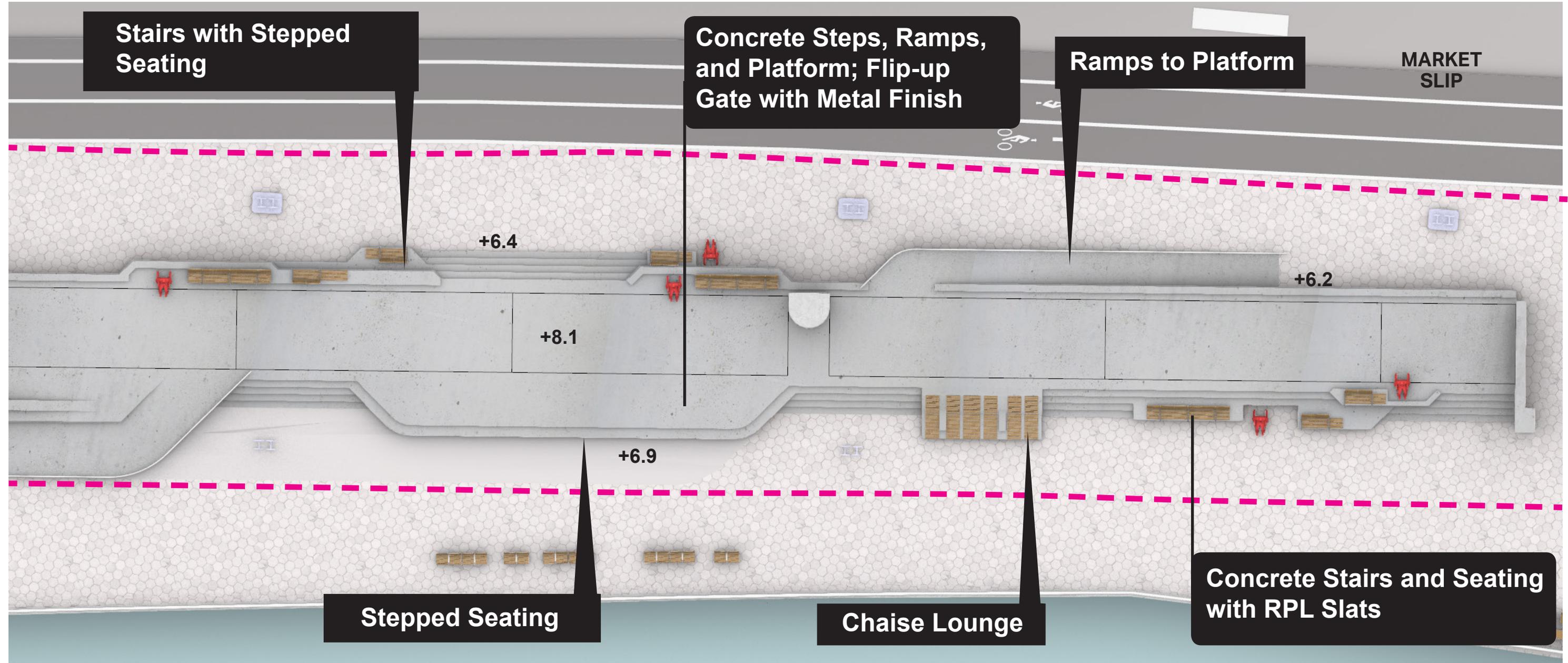
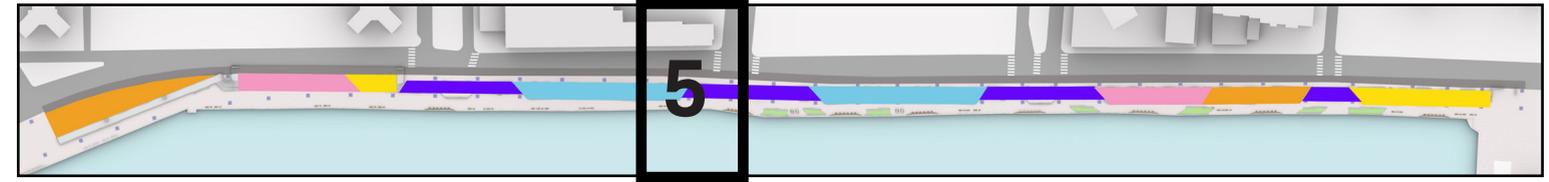
Gliders

ENTRY RAMPS



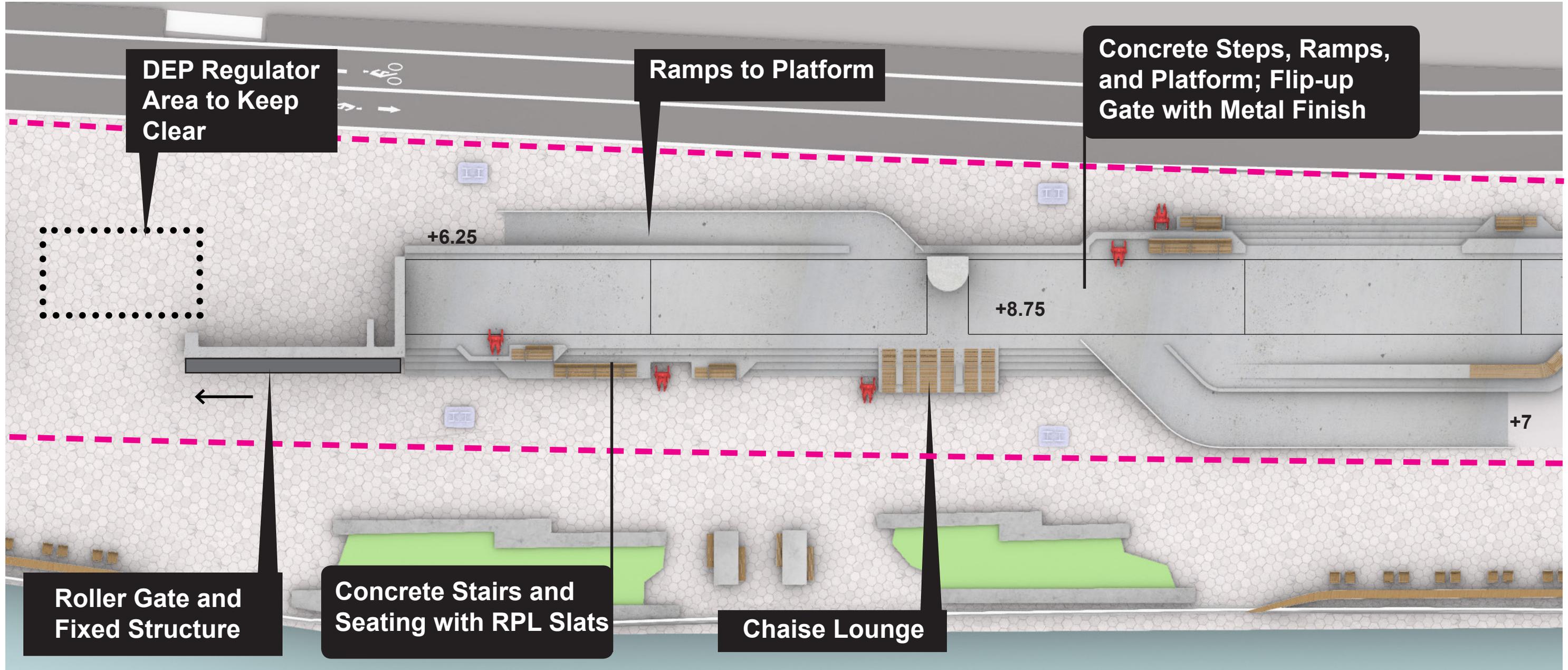
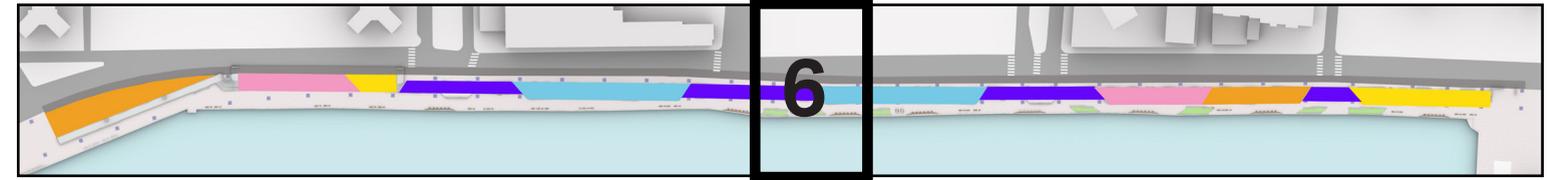
SITE PLAN 5

Entry and Seating at Market Slip, South



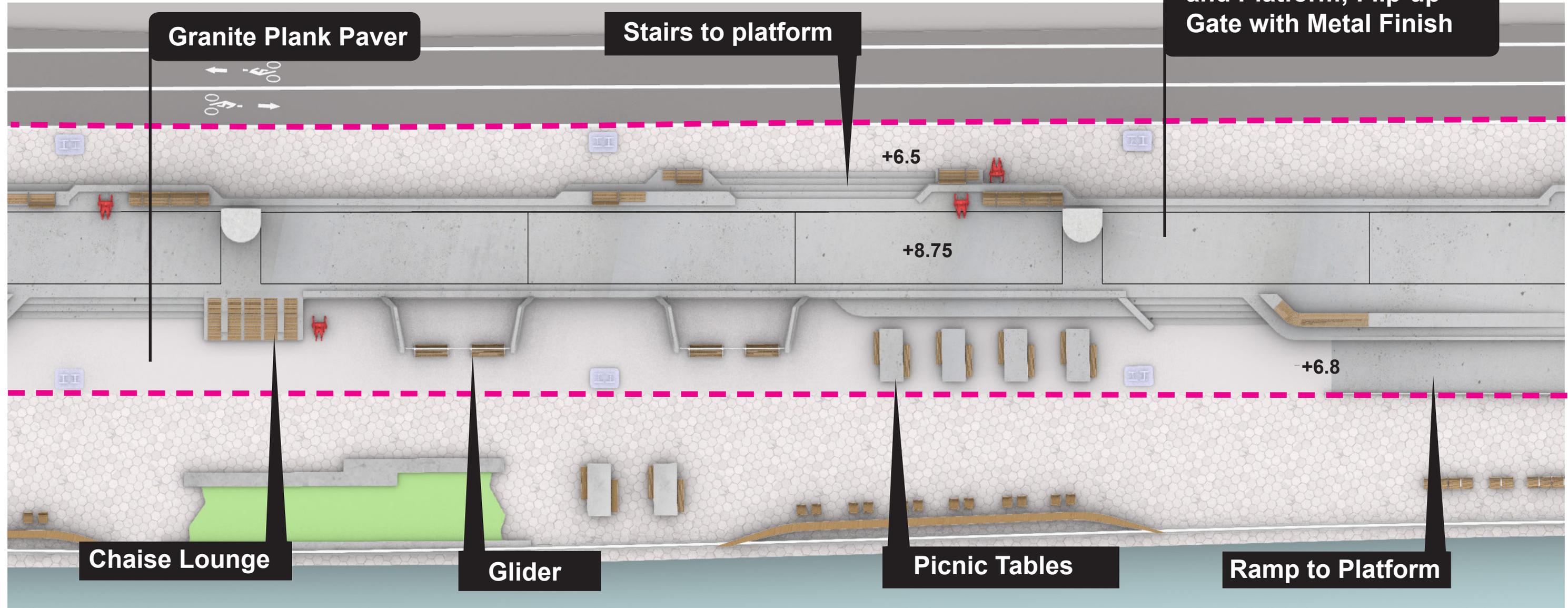
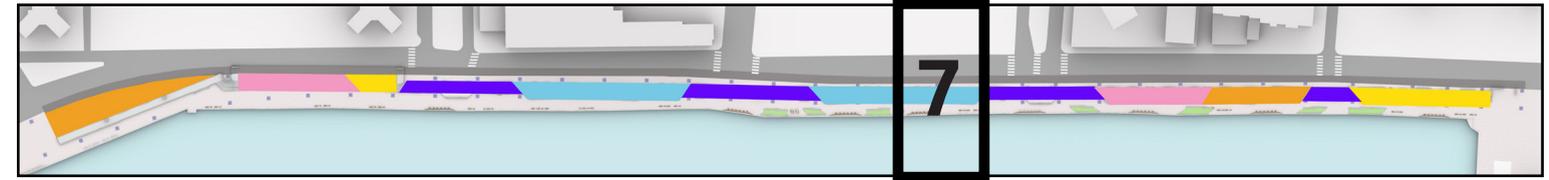
SITE PLAN 6

Entry and Seating at Market Slip, North



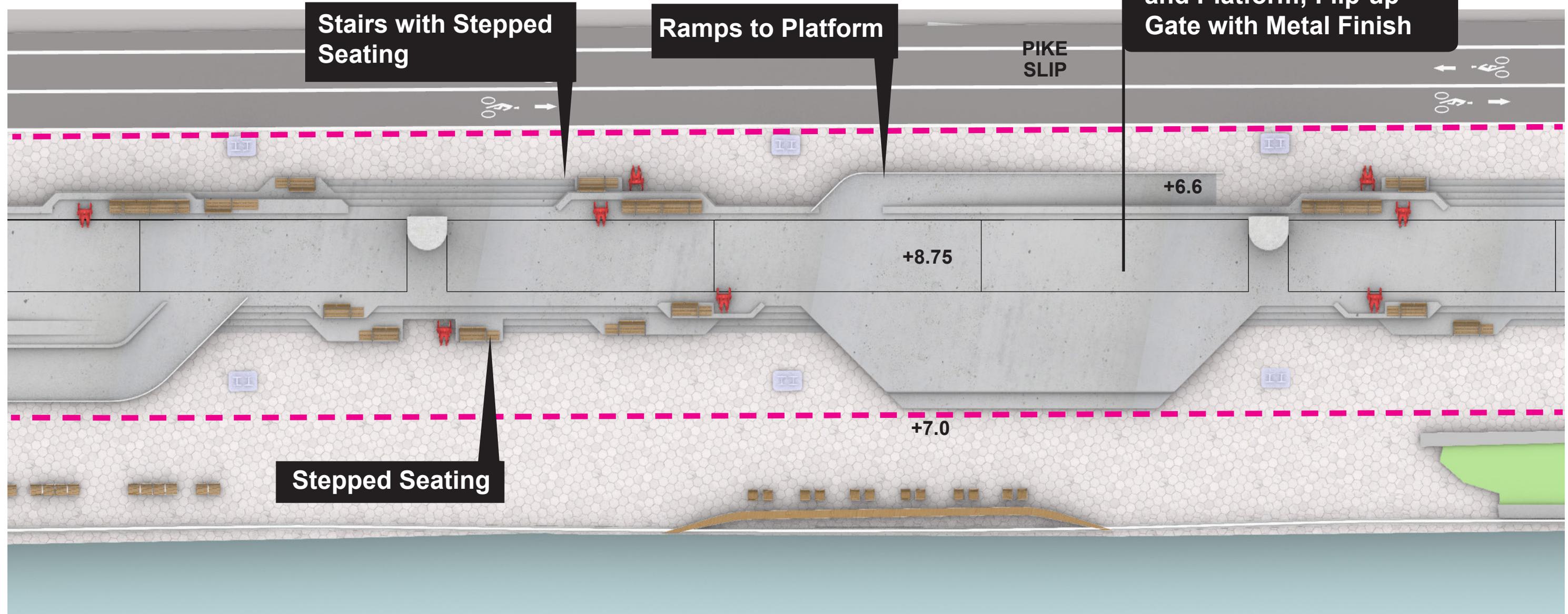
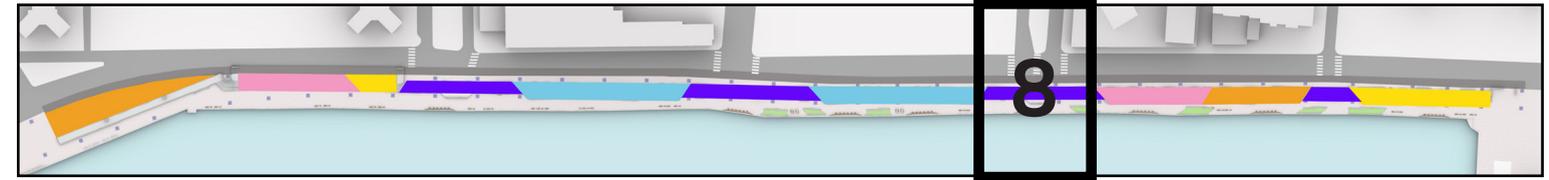
SITE PLAN 7

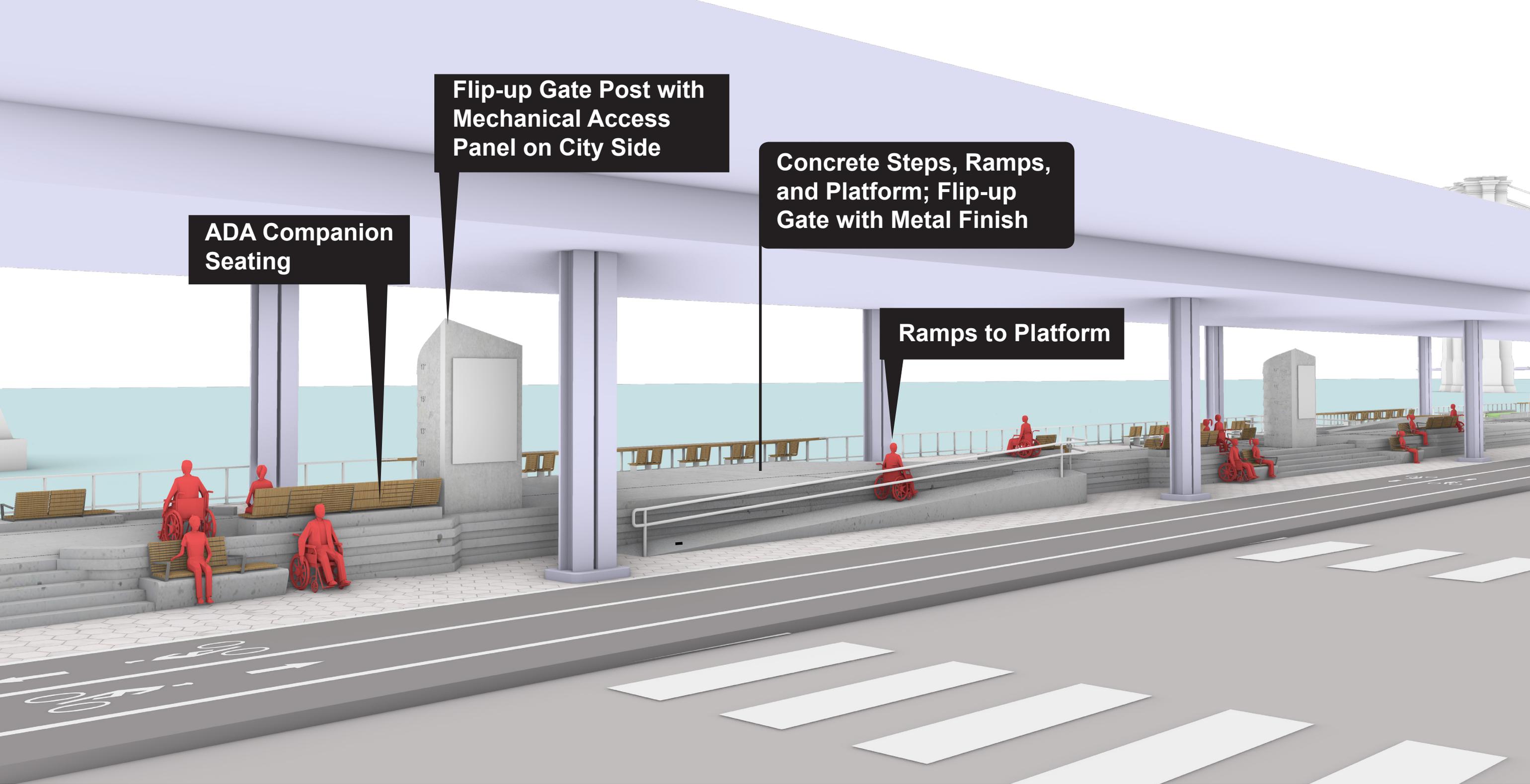
Assorted Seating South of Pike Slip



SITE PLAN 8

Entry, Overlook and Seating at Pike Slip





ADA Companion Seating

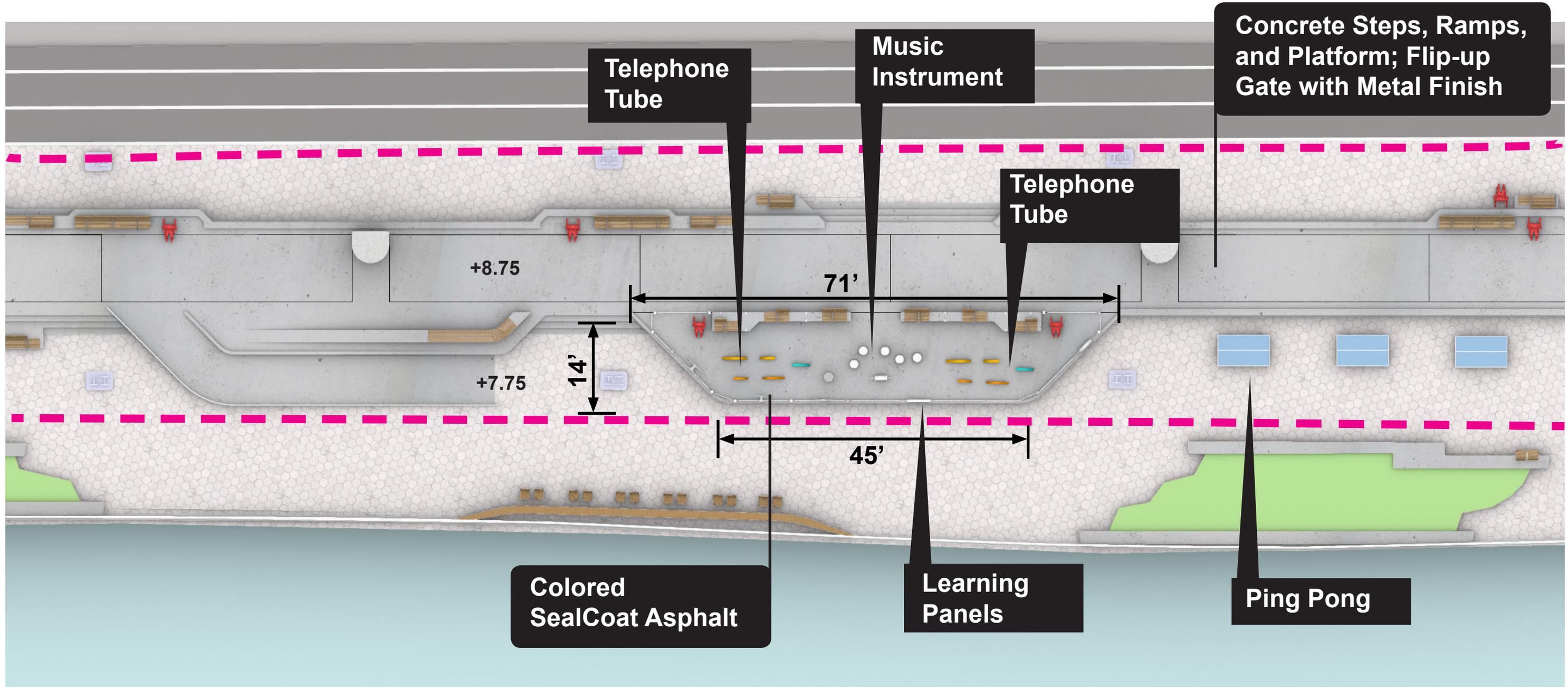
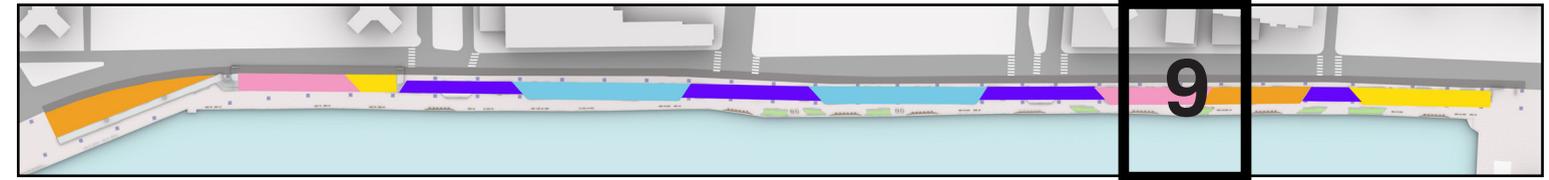
Flip-up Gate Post with Mechanical Access Panel on City Side

Concrete Steps, Ramps, and Platform; Flip-up Gate with Metal Finish

Ramps to Platform

SITE PLAN 9

2-5 Play and Ping Pong North of Pike Slip



Concrete Steps, Ramps,
and Platform; Flip-up
Gate with Metal Finish

Fencing

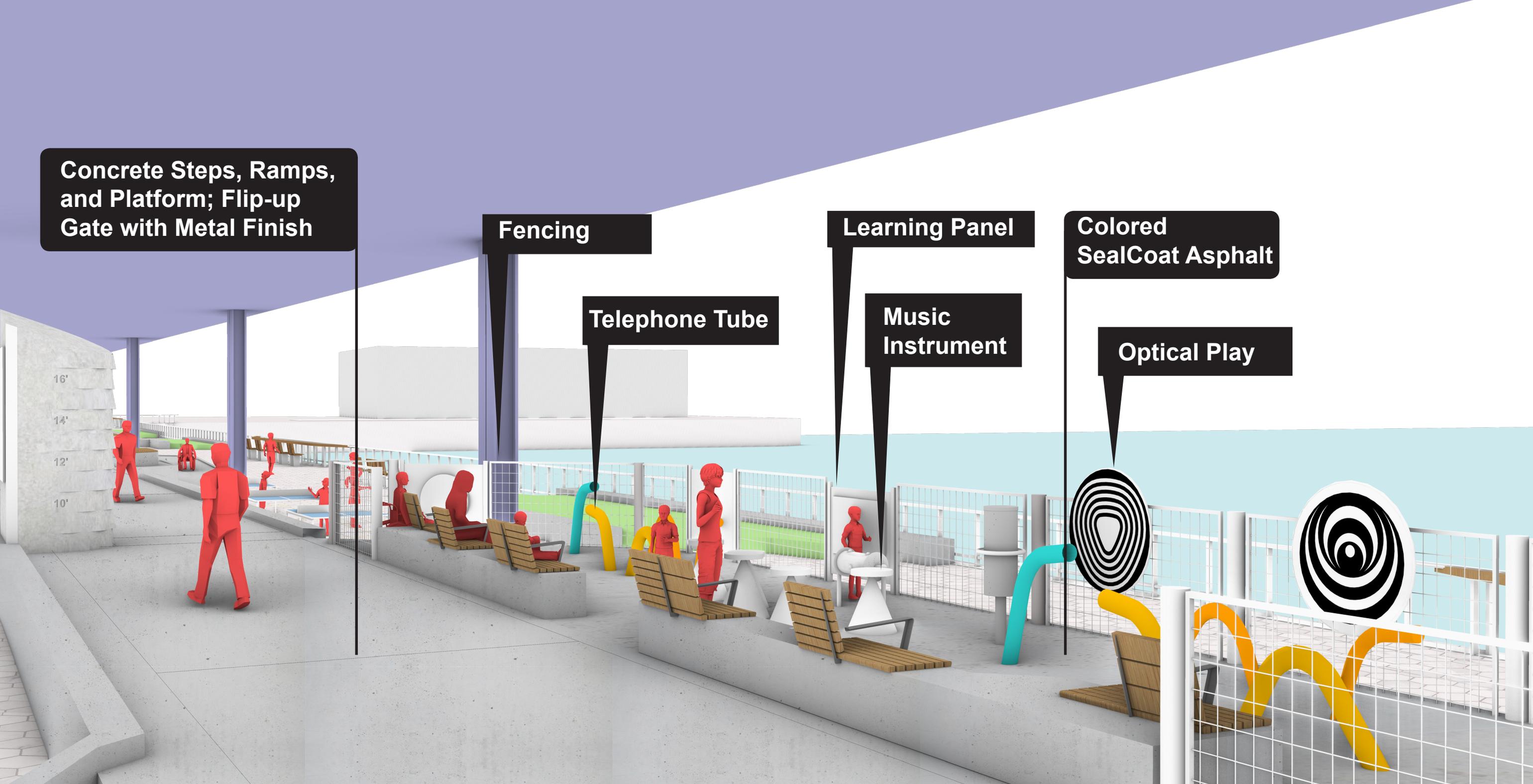
Telephone Tube

Learning Panel

Music
Instrument

Colored
SealCoat Asphalt

Optical Play



PLAY EQUIPMENT



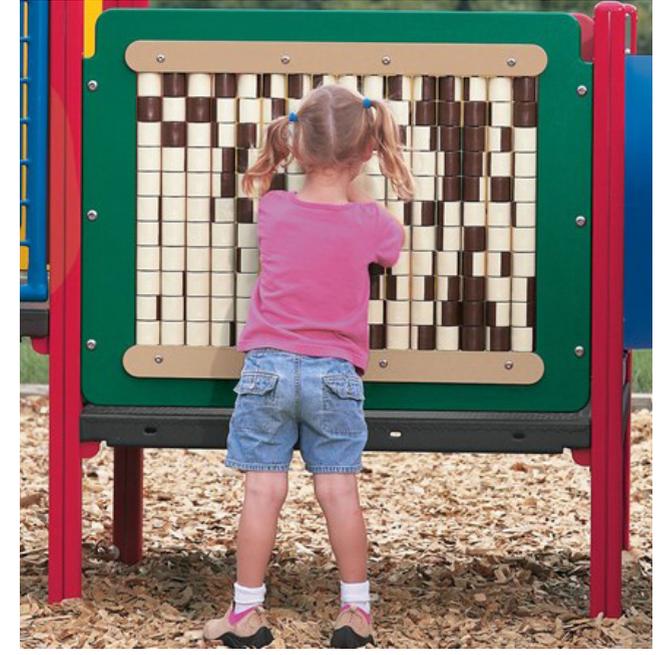
Landscape Structures: Telephone Tube



Sonic Architecture - Telephone Tube



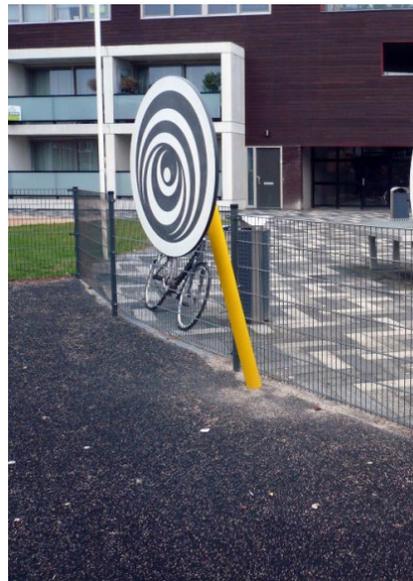
Goric - Rolling Bell & Sound Column



Landscape Structures: Learning Panel



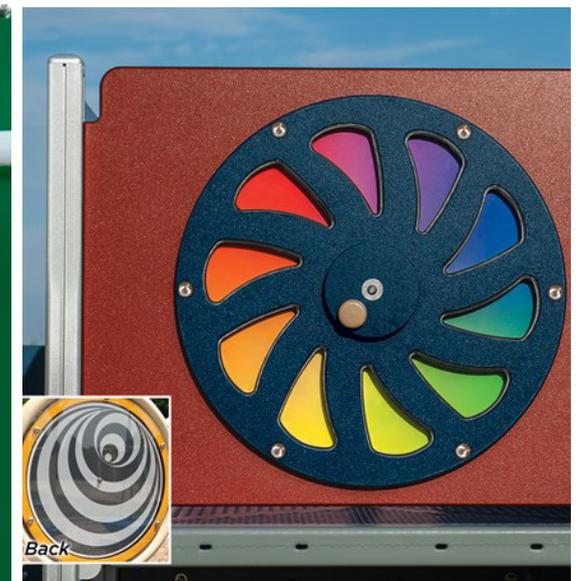
Sonic Architecture - Kids Drums



Goric - Effect Disc B

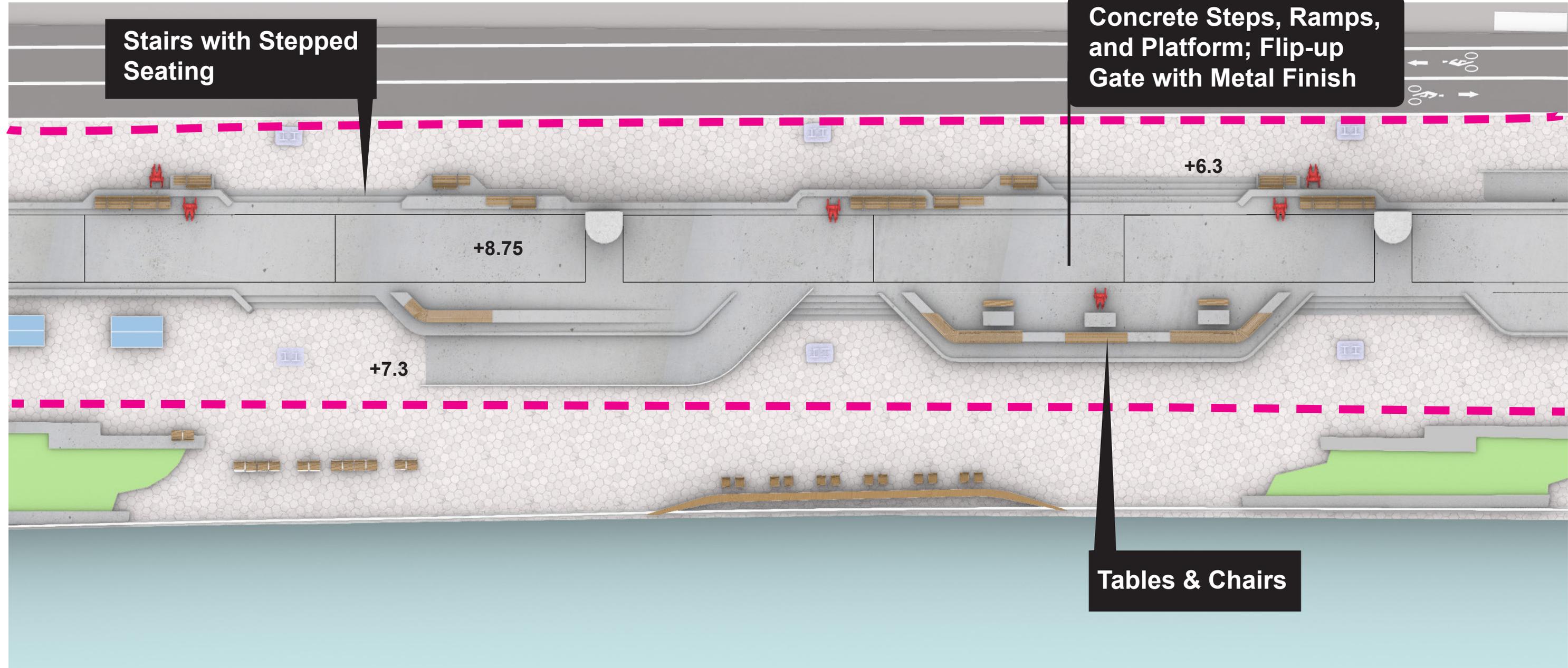
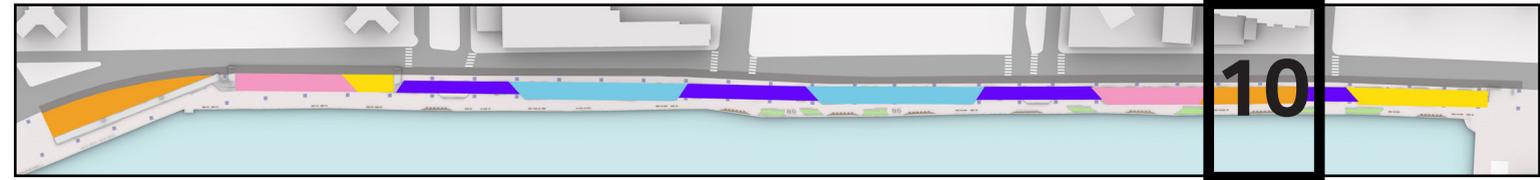


Landscape Structures: Learning Panel



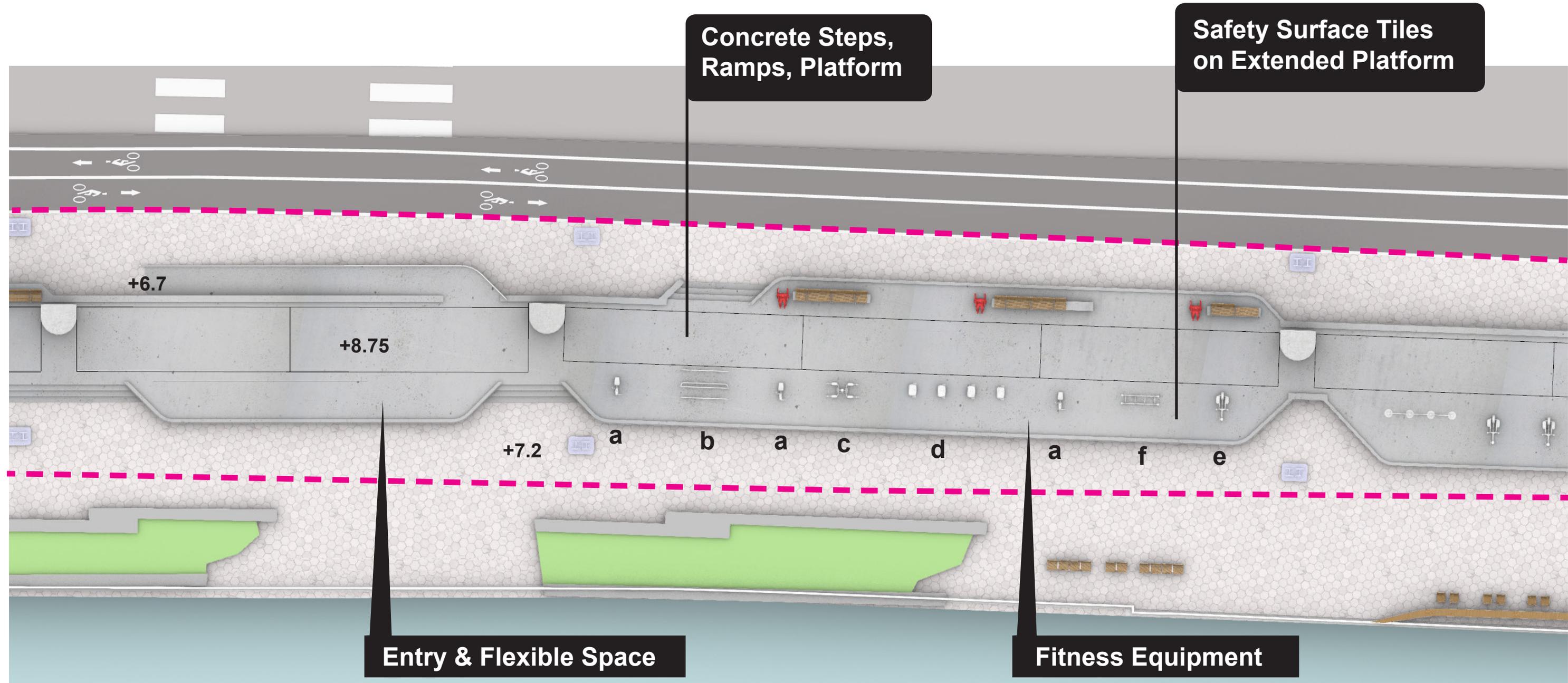
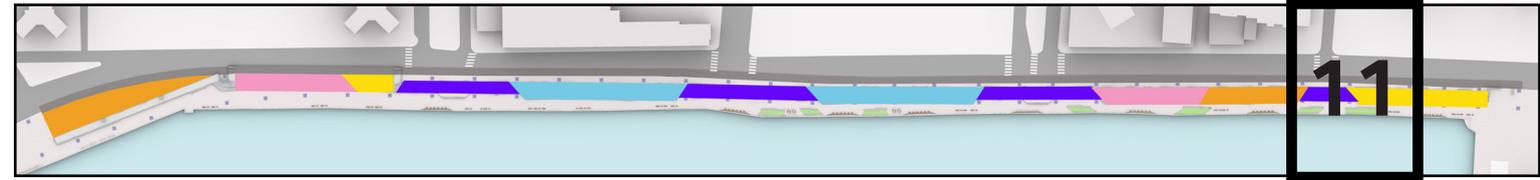
SITE PLAN 10

Assorted Seating South of Rutgers Slip



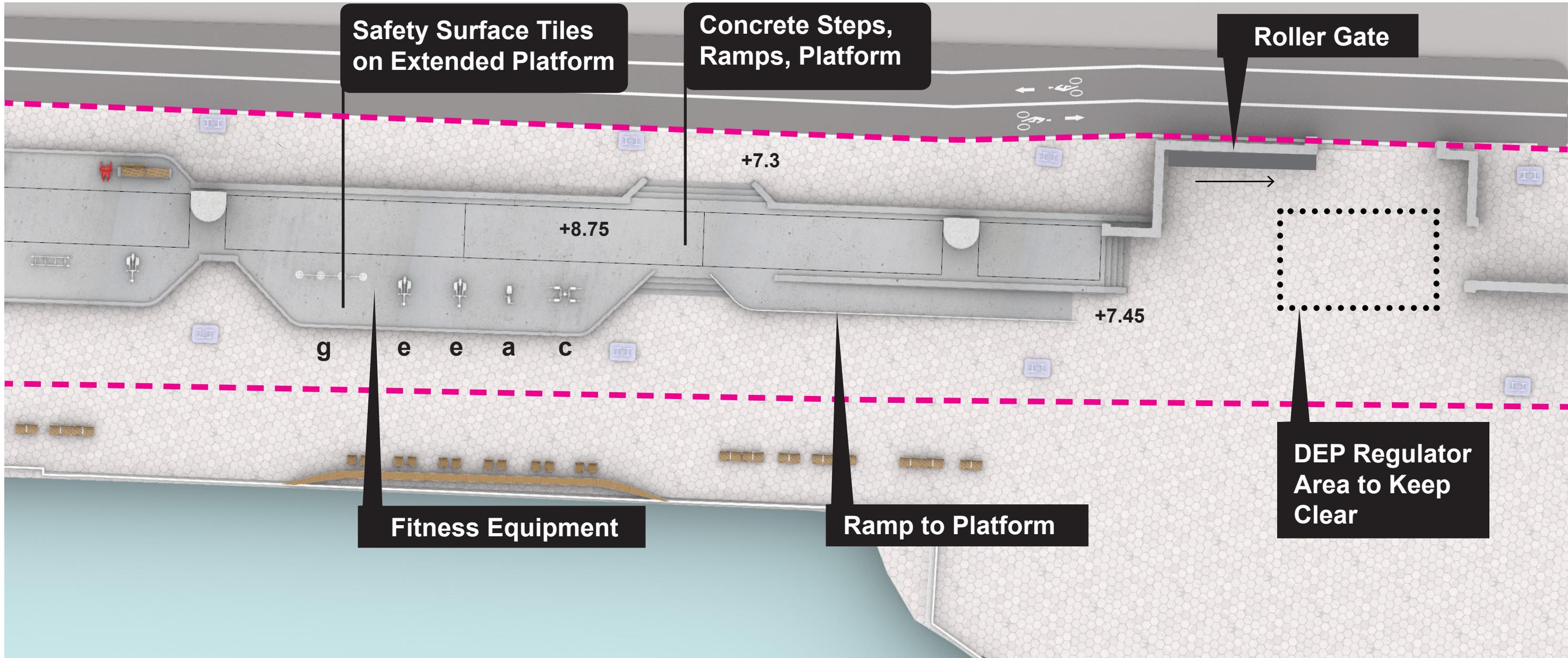
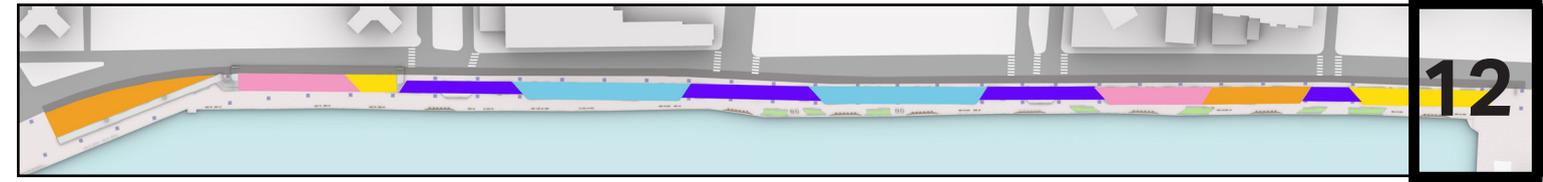
SITE PLAN 11

Fitness at Rutgers Slip



SITE PLAN 12

Fitness at Rutgers Slip

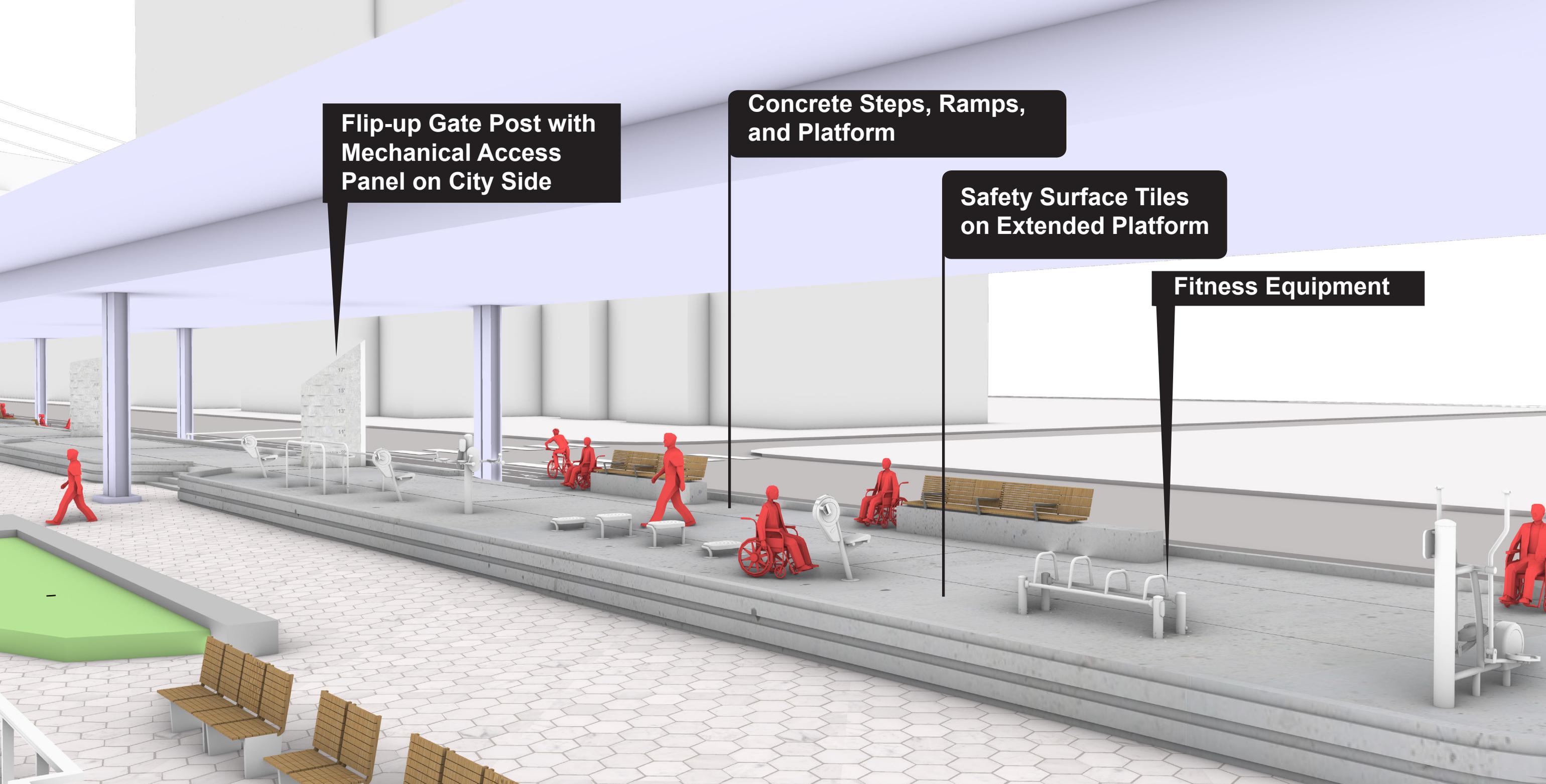


Flip-up Gate Post with Mechanical Access Panel on City Side

Concrete Steps, Ramps, and Platform

Safety Surface Tiles on Extended Platform

Fitness Equipment



FITNESS EQUIPMENT



a. Arm Bike - ADA



b. Triple Bars- ADA



c. Push Up & Leg Lift Station - ADA



d. Combi Step



e. Cross Trainer



f. Dip Bench



g. Pull Up Bars

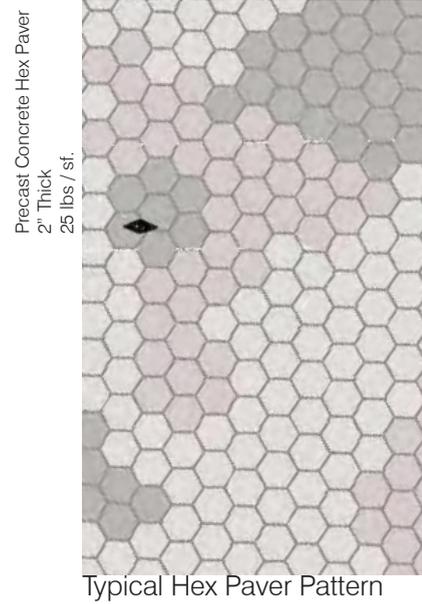
MATERIALS & FURNISHINGS

PAVEMENT

Hanover Hexagonal Paver



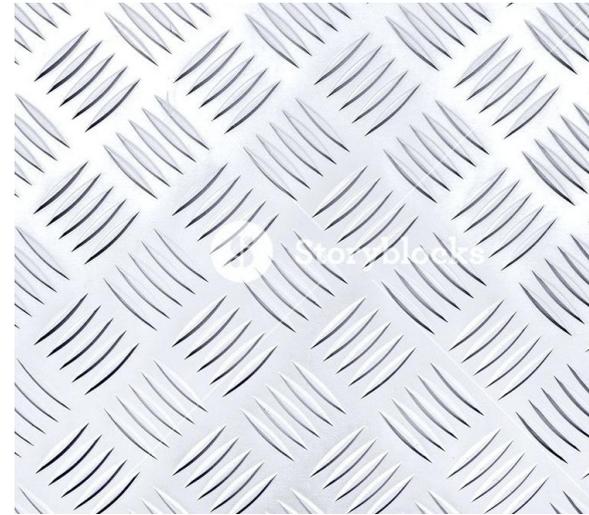
Hanover 16" Pre-cast Concrete Hex Paver



Precast Concrete Hex Paver
2" Thick
25 lbs / sf.

Typical Hex Paver Pattern

Aluminum Tread Plate Flip-Up Gate Finish



Five Bar

SportMaster Sport Surfaces Color SealCoat Asphalt



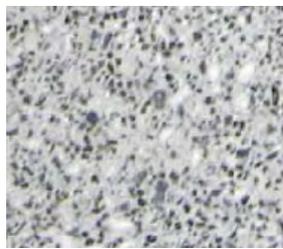
Granite Plank Pavers



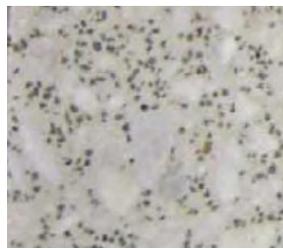
Architectural Craft Stone Source
Granite Plank Pavers



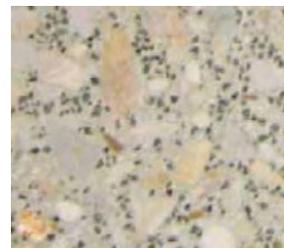
Color: Blossom
Size: 4" x 24" x 4"
Finish: Straight
Edge, Thermal Face



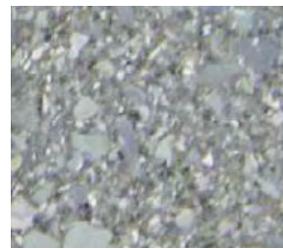
A: M2977, Ground Finish



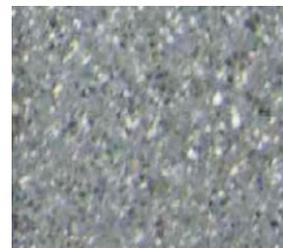
B: M2978, Tudor Finish



C: M2979, Ground Finish

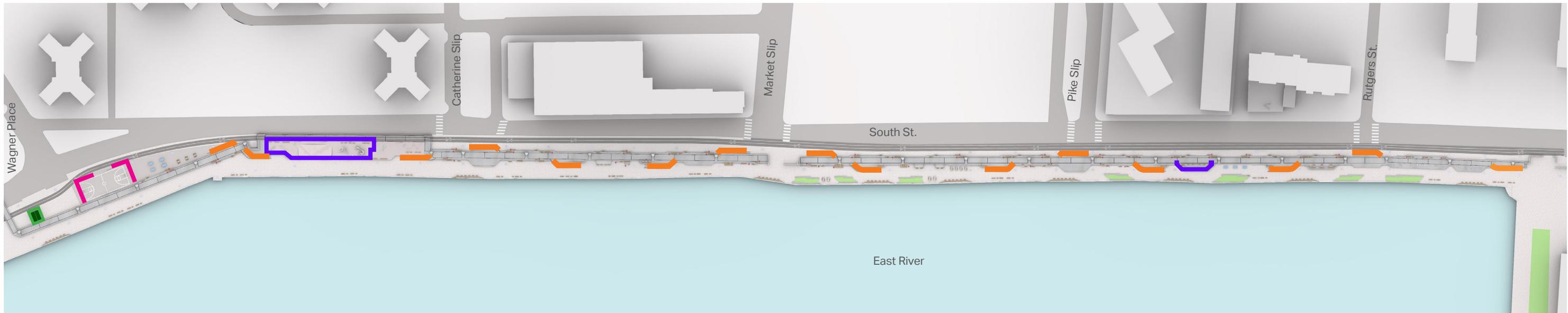


D: M2980, Ground Finish



E: M2981, Tudor Finish

FENCE AND ADA HANDRAIL DIAGRAM



- 4' -0" Ht. Orsogrill Fence, Galvanized Finish
- 8' -0" Ht. Orsogrill Fence, Galvanized Finish
- McNichols 12' Ht. Welded Wire Basketball Fence, Powder Coated Silver, 6' x 8' Panels TYP.
- NYC Parks Standard ADA Handrail

MATERIALS AND FENCING

McNichols 12' Ht. Welded Wire Basketball Fence, Powder Coated Silver, 6' x 8' Panels TYP.



4' -0" Ht. Orsogrill Fence, Galvanized Finish



FURNISHINGS



Parks Standard Ping Pong Table



NYCDOT City Bike Rack



Trash Receptacle
Maglin Model:
CMLWR9074032HST
color gray w/ black lid



BigBelly
Recycling Receptacle



Basketball Back-stop and Hoop

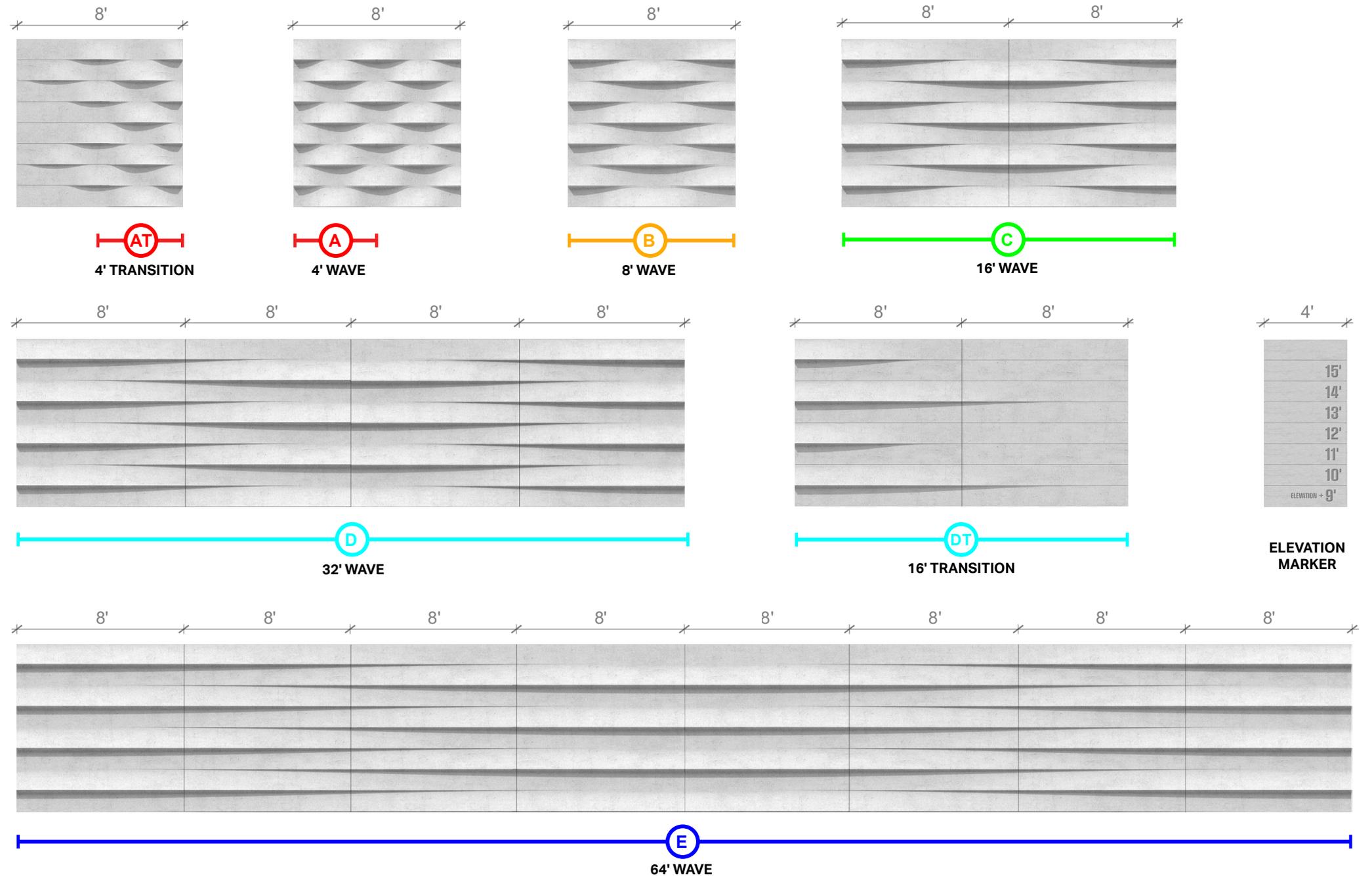


Standard Bottle Filler W. Hi-LO Drinking Fountains
Elkay Model LK4430BF 1 UNYC
Color Gray/ Silver

FLOOD PROTECTION

Wall Relief Module Toolkit

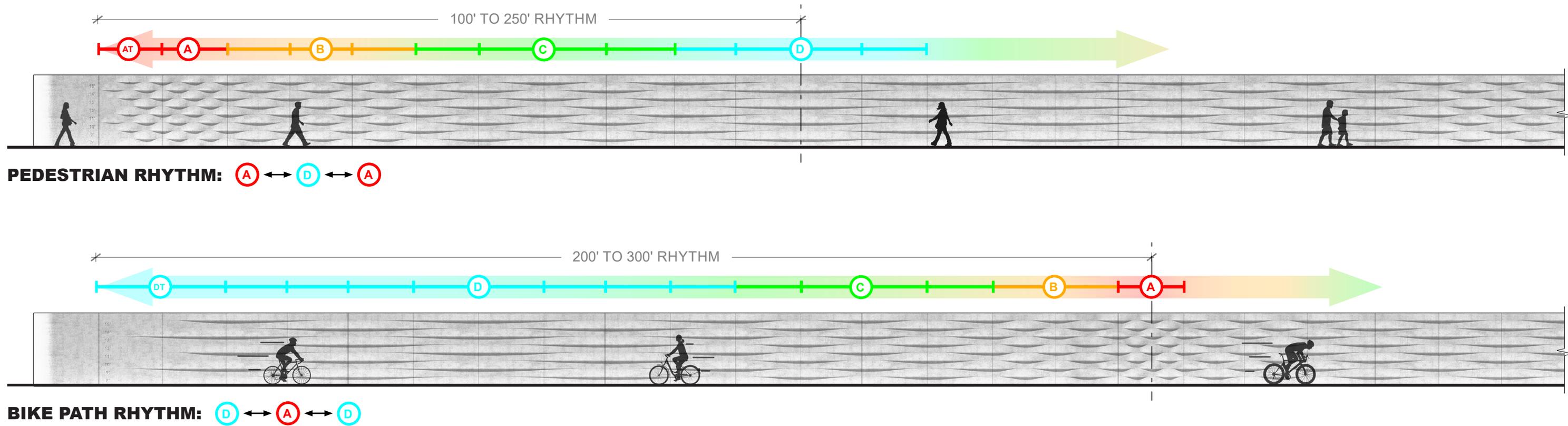
Exposed portions of BMCR's Flood Protection will continue the same finish design strategy as established for ESCR, providing a continuity across compartments.



FLOOD PROTECTION

Wall Rhythm Toolkit

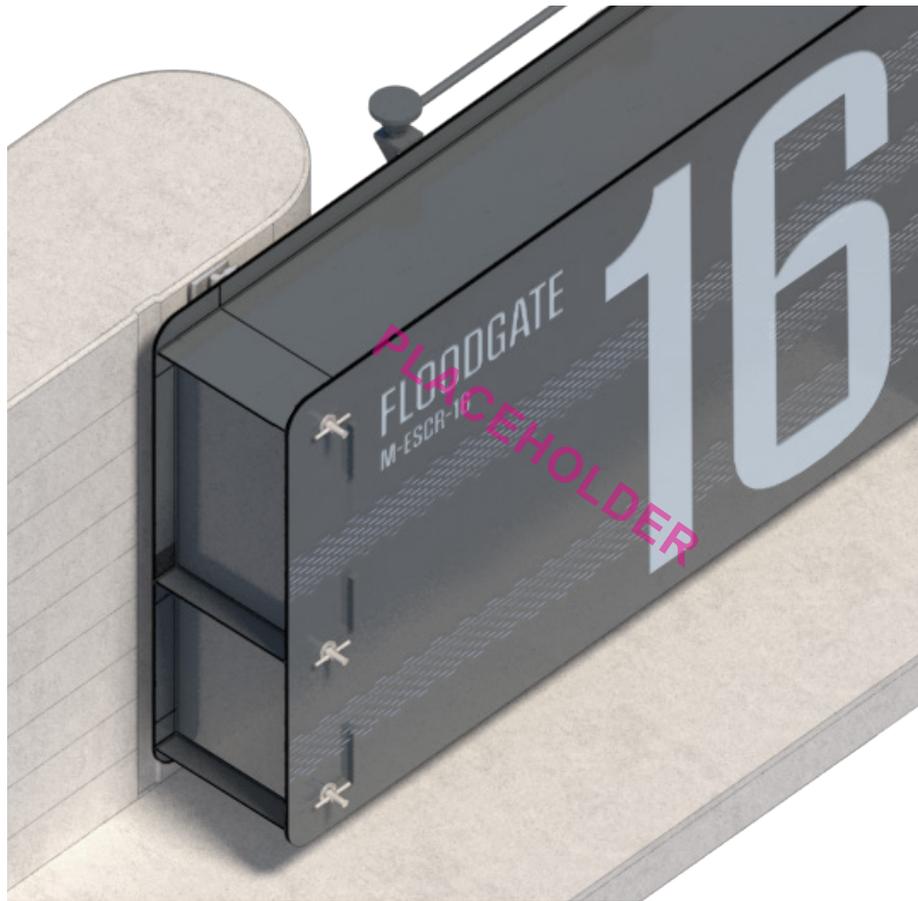
The individual panels from the Wall Relief Toolkit are arrayed in a dynamic fashion that accelerates and decelerates the pattern along exposed portions of wall. The specific layouts of panels reinforce user experience by reacting to the speed of viewers and wall geometry.



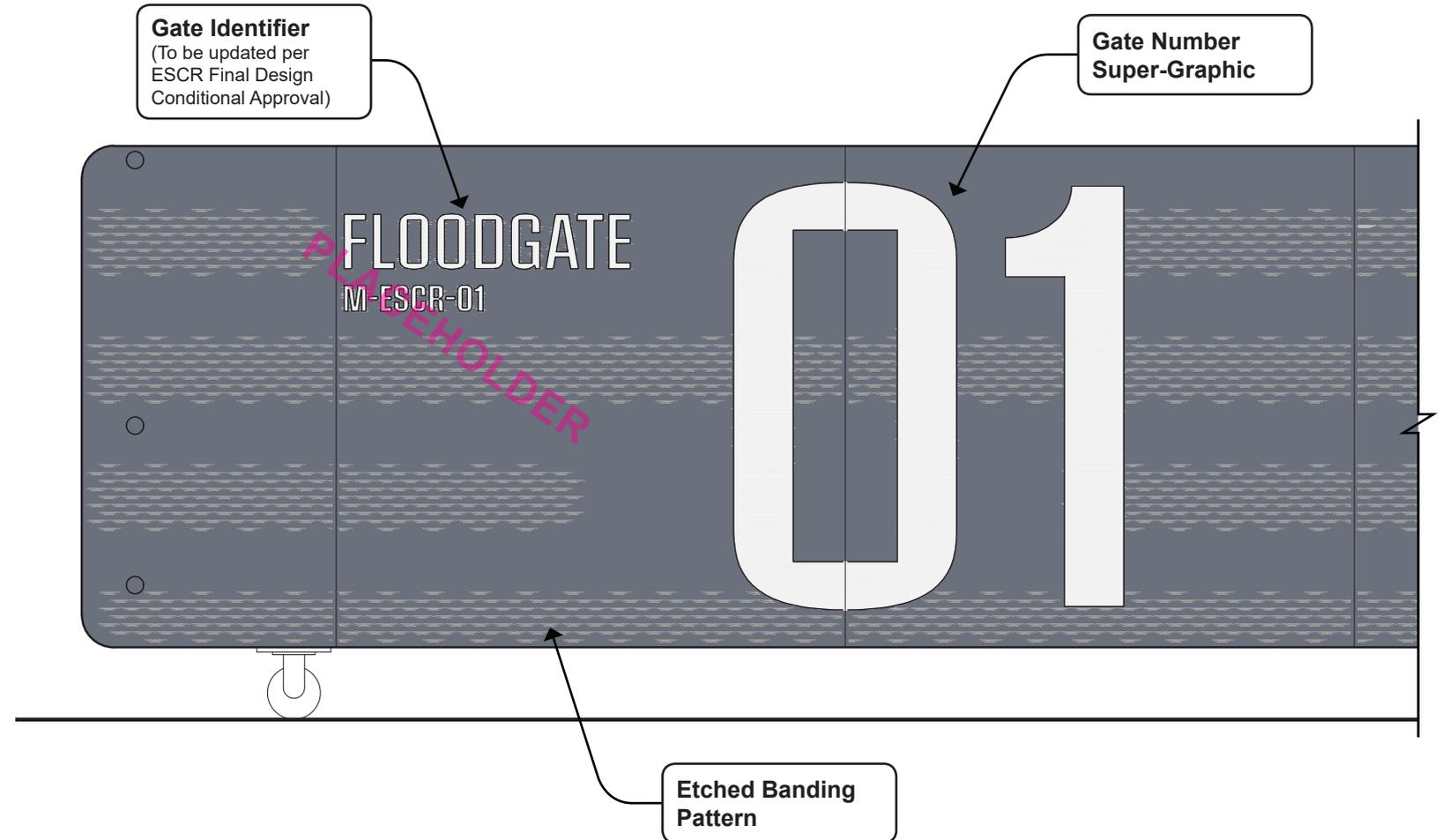
FLOOD PROTECTION

Roller Gates

BMCR's eight roller gates continue the same design strategy as established for ESCR, including: Softened geometry, clean end plates, an etched relief pattern complementing the floodwall finish, simple monochromatic colors based on DOT standards, and integral signage.



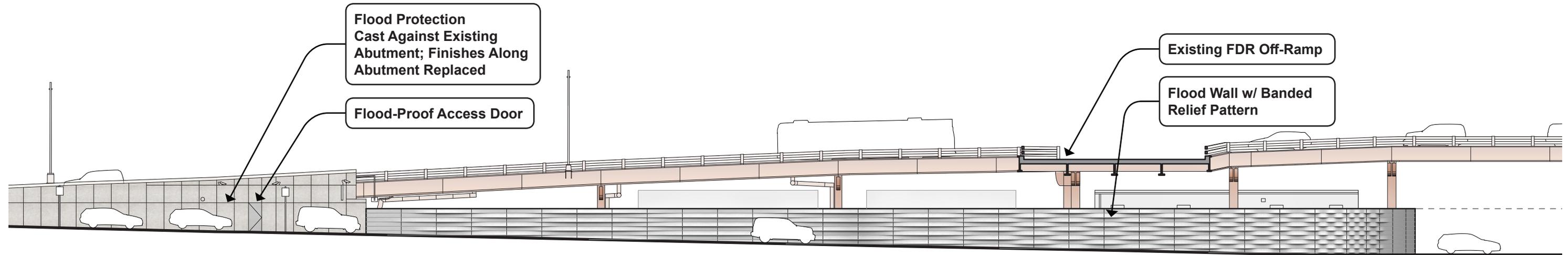
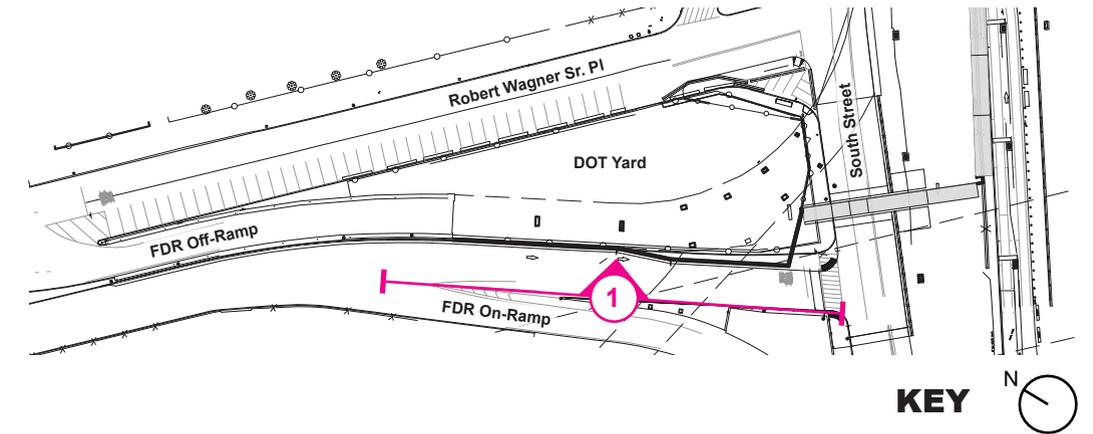
DETAIL AXONOMETRIC



PARTIAL ELEVATION

FLOOD PROTECTION

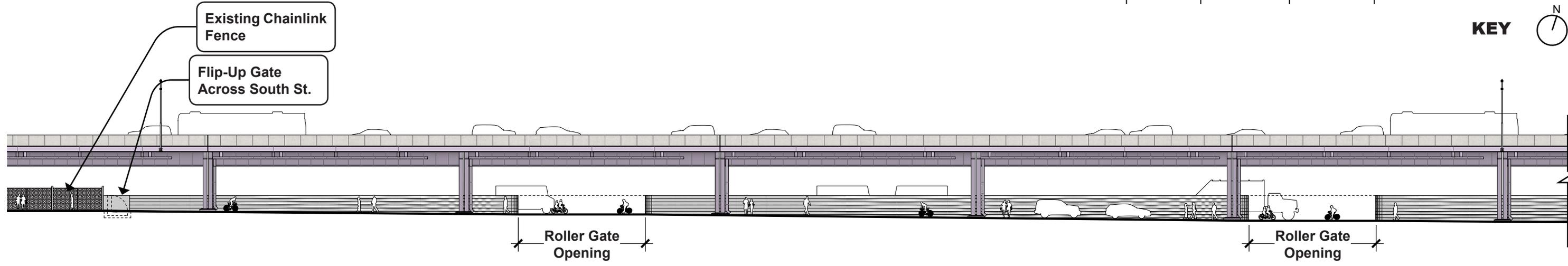
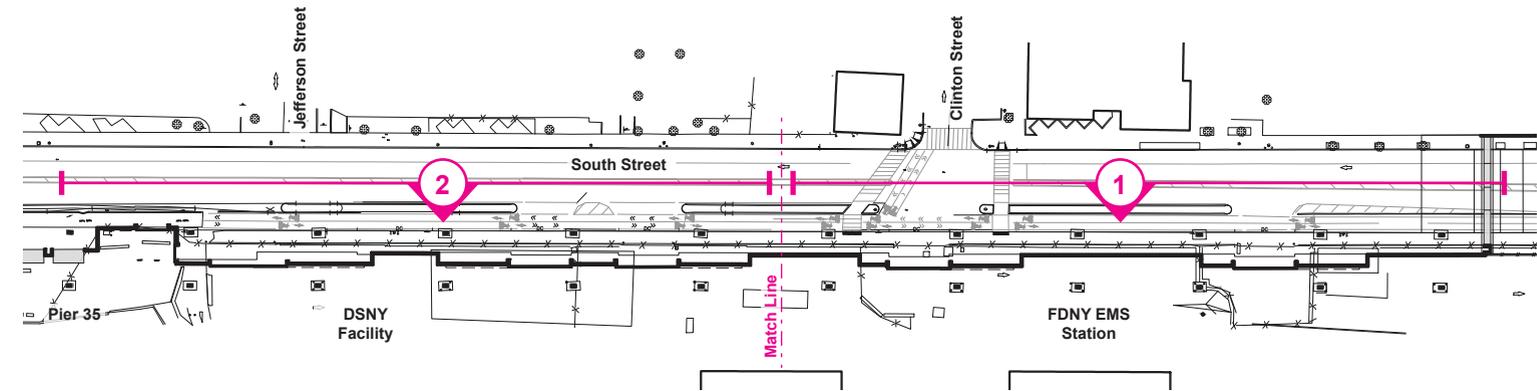
Brooklyn Bridge Tie-In



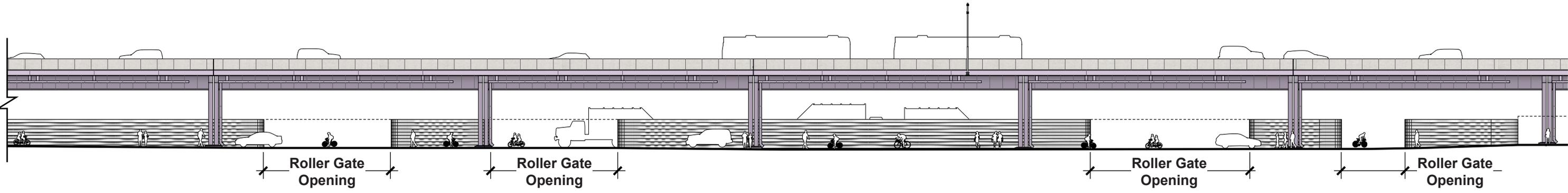
1. EXPOSED WALL ELEVATION - FLOOD SIDE ALONG ROBERT WAGNER SR. PL

FLOOD PROTECTION

South Street Exposed Wall



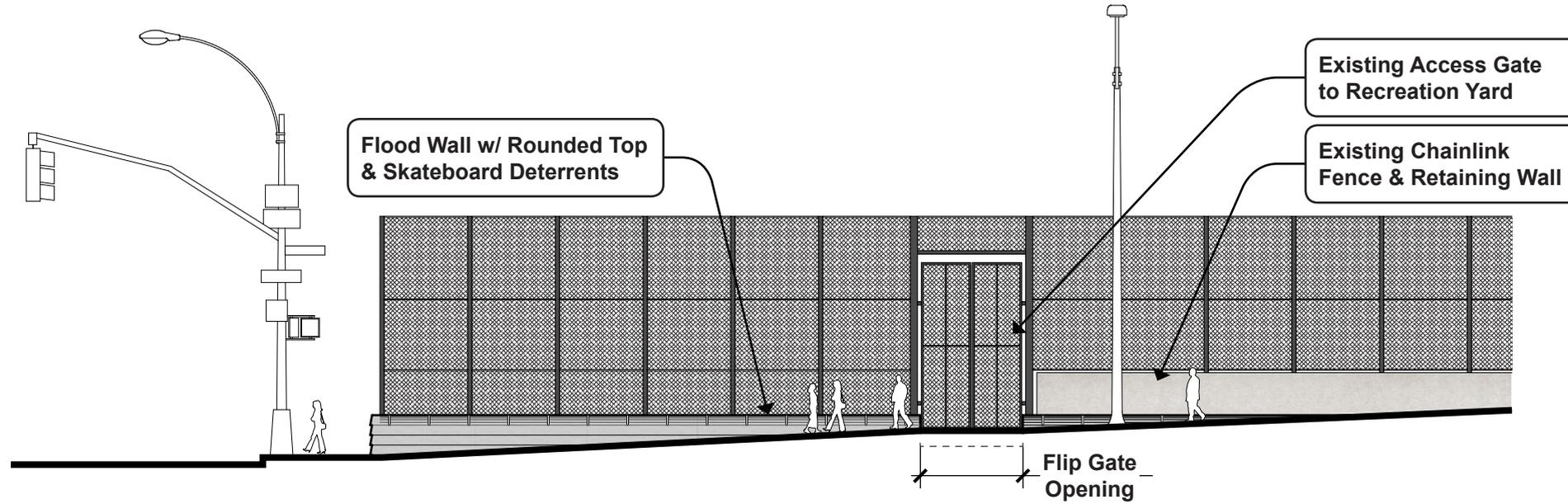
1. EXPOSED WALL ELEVATION - PROTECTED SIDE ALONG SOUTH STREET (EAST SECTION)



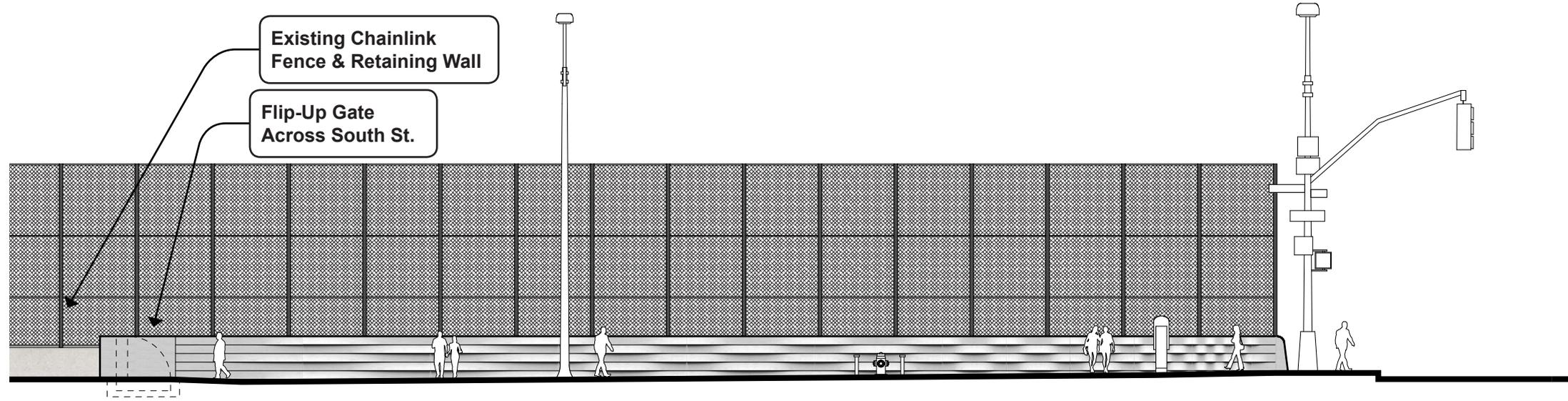
2. EXPOSED WALL ELEVATION - PROTECTED SIDE ALONG SOUTH STREET (WEST SECTION)

FLOOD PROTECTION

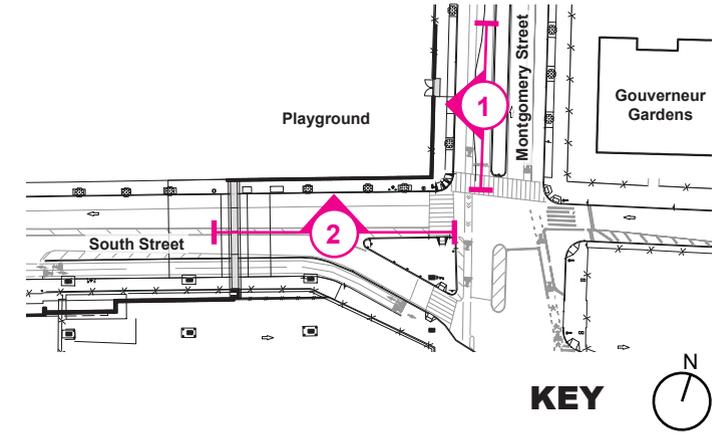
Montgomery Street Tie-In



1. TIE-IN ELEVATION - FLOOD SIDE ALONG MONTGOMERY STREET

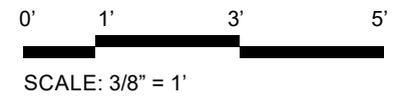
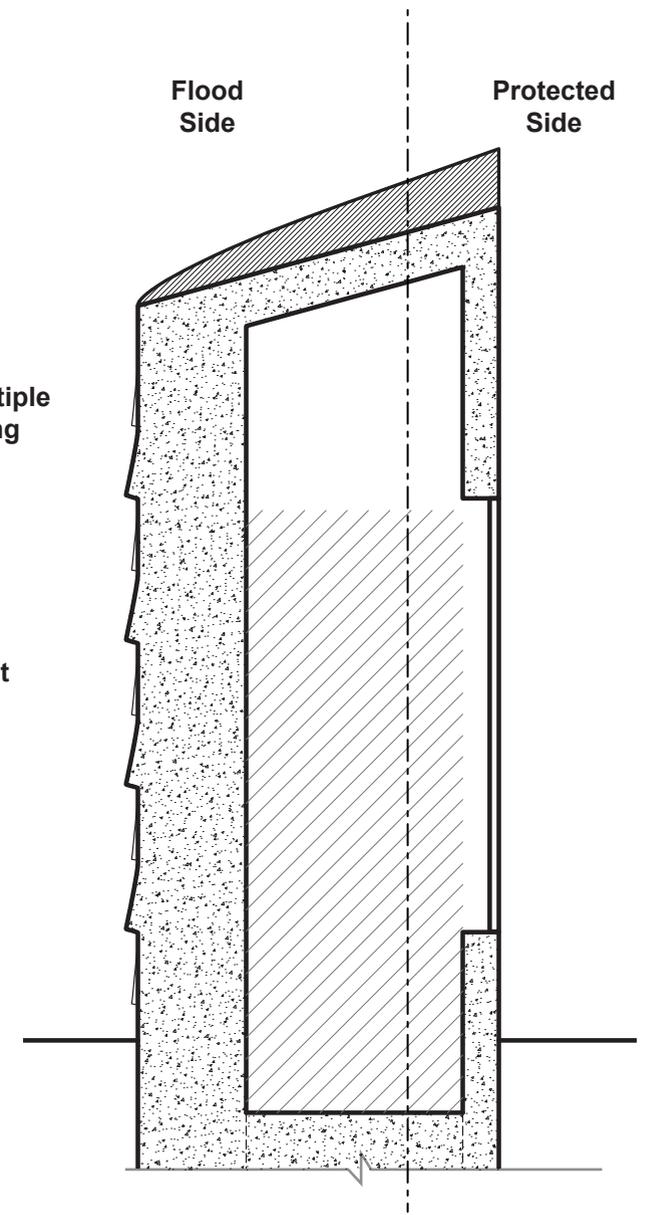
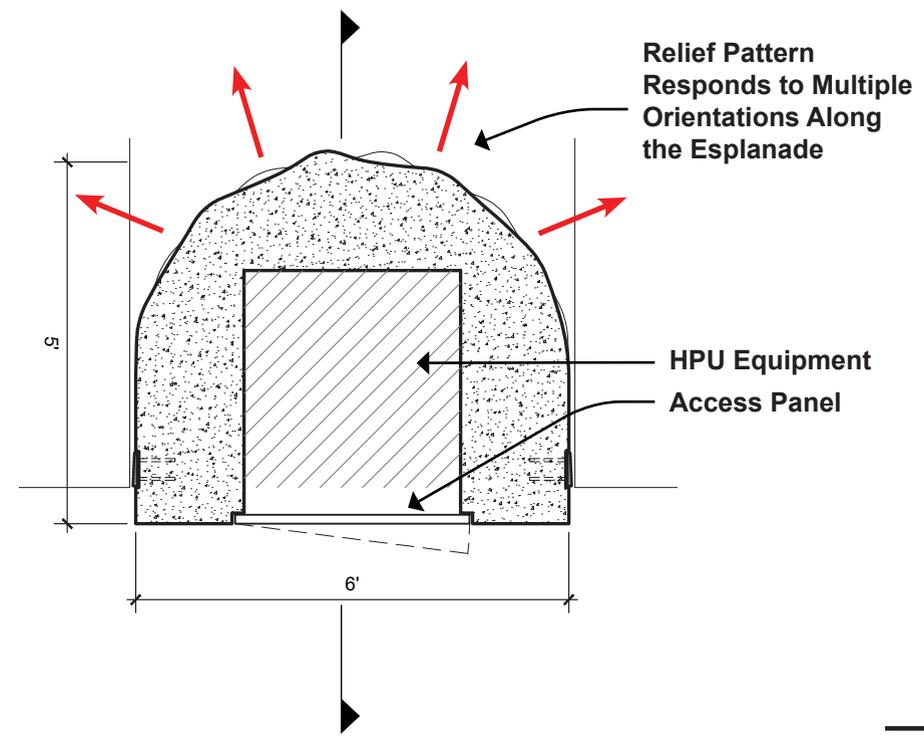
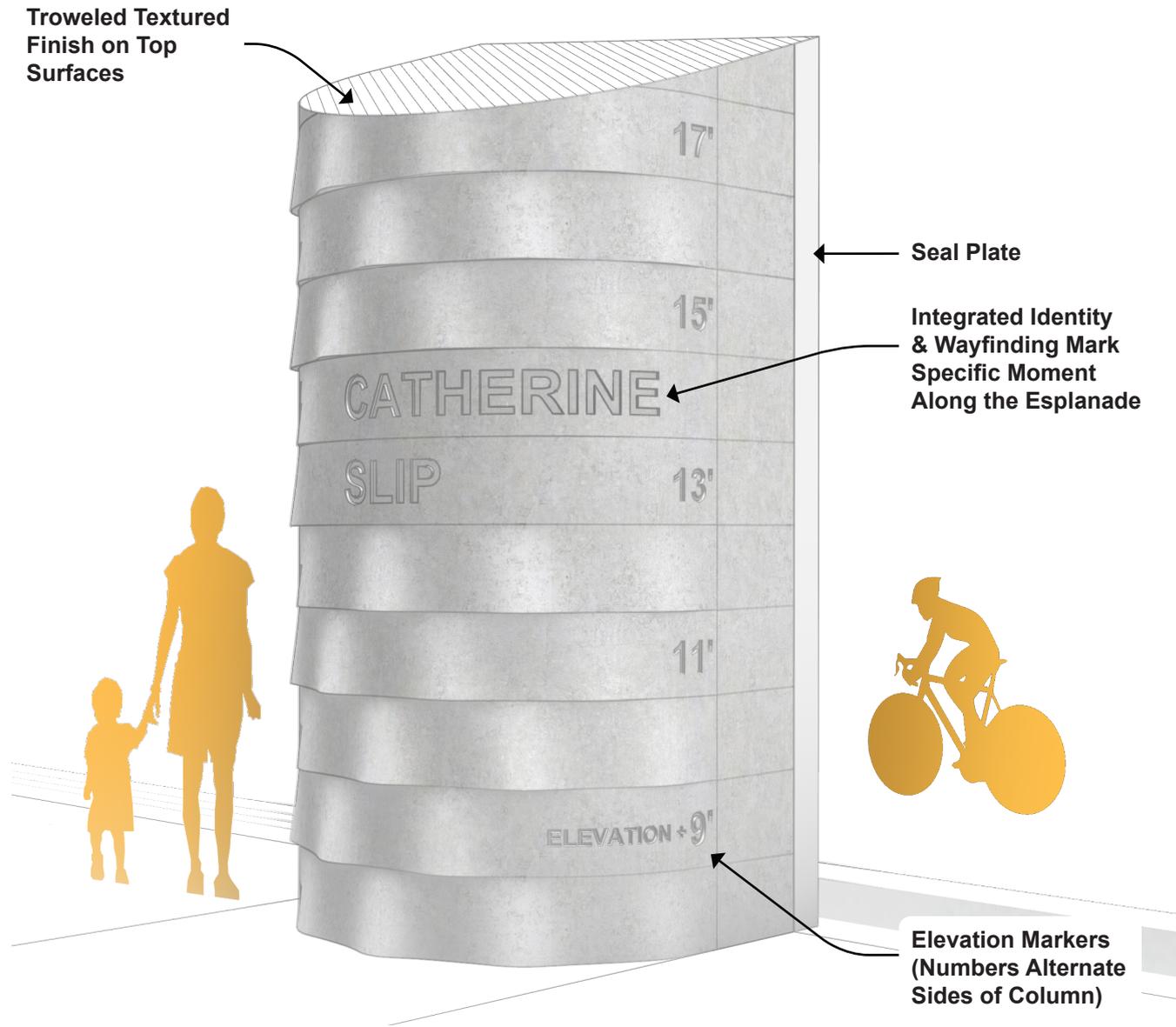


2. TIE-IN ELEVATION - FLOOD SIDE ALONG SOUTH STREET



FLOOD PROTECTION

HPU Columns



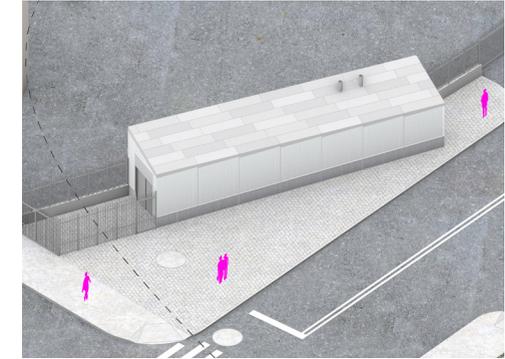
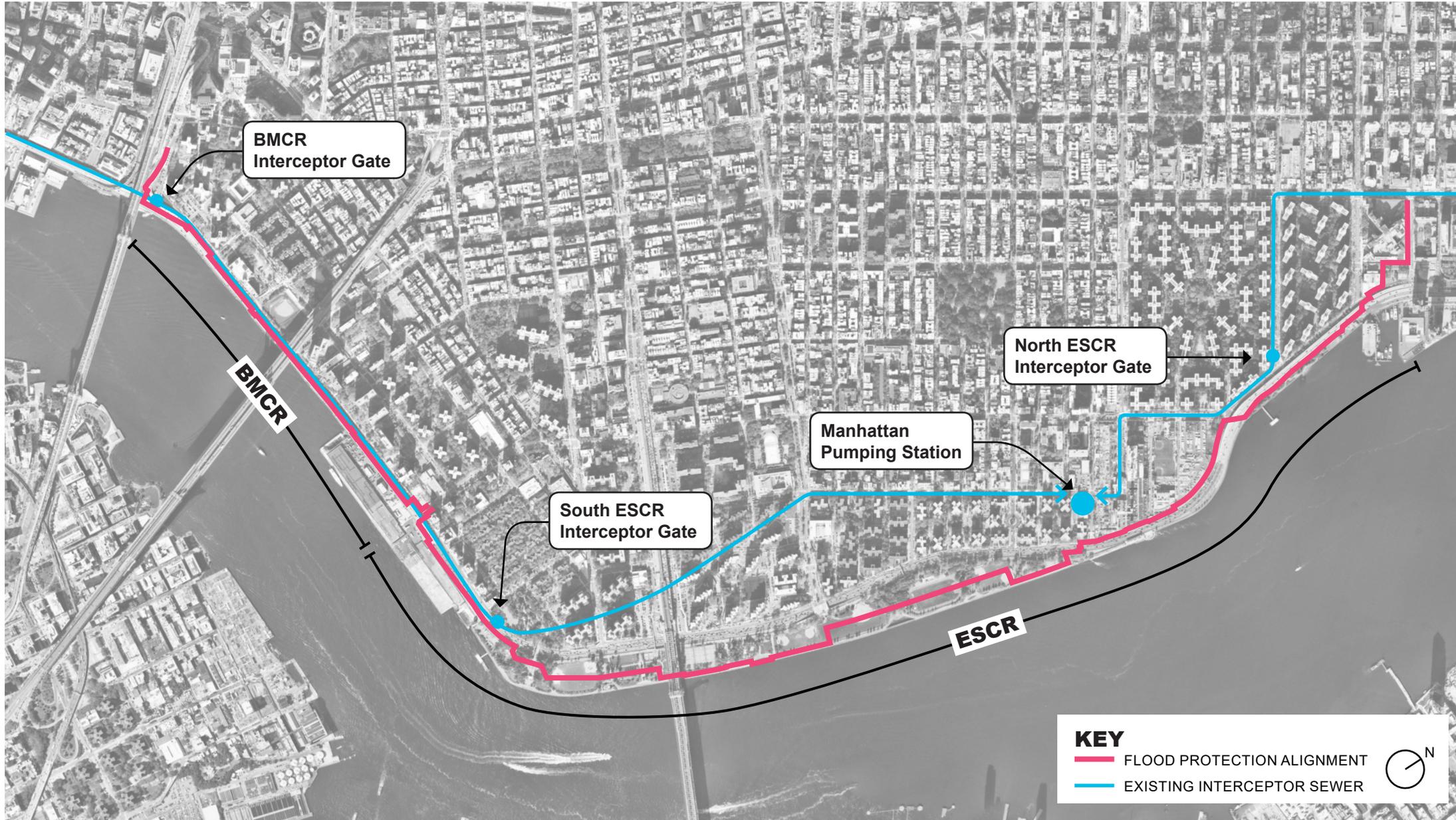
DETAIL VIEW

TYPICAL PLAN & SECTION

INTERCEPTOR GATE BUILDING

INTERCEPTOR GATE BUILDING

Combined BMCR / ESCR Approach



BMCR IGB



SOUTH ESCR IGB



NORTH ESCR IGB

BMCR / ESCR COMBINED INTERCEPTOR STRATEGY

INTERCEPTOR GATE BUILDING

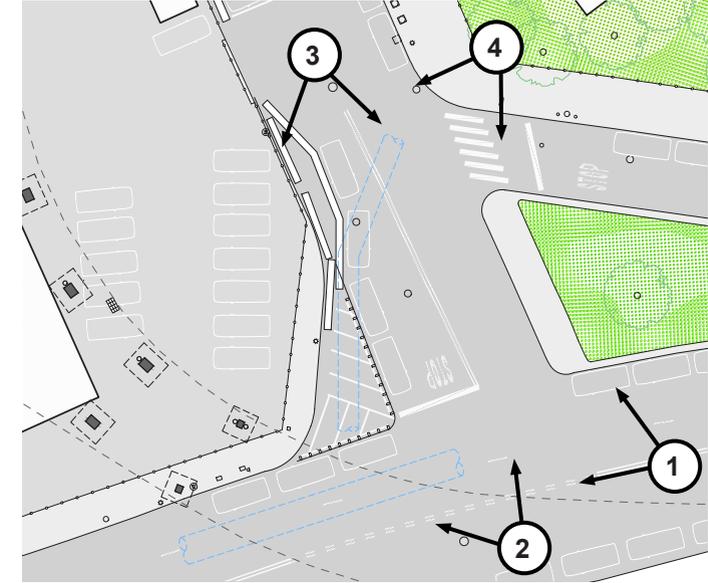
Existing Conditions



1. AERIAL VIEW FROM SOUTHEAST



2. VIEW LOOKING NORTH FROM SOUTH STREET



KEY



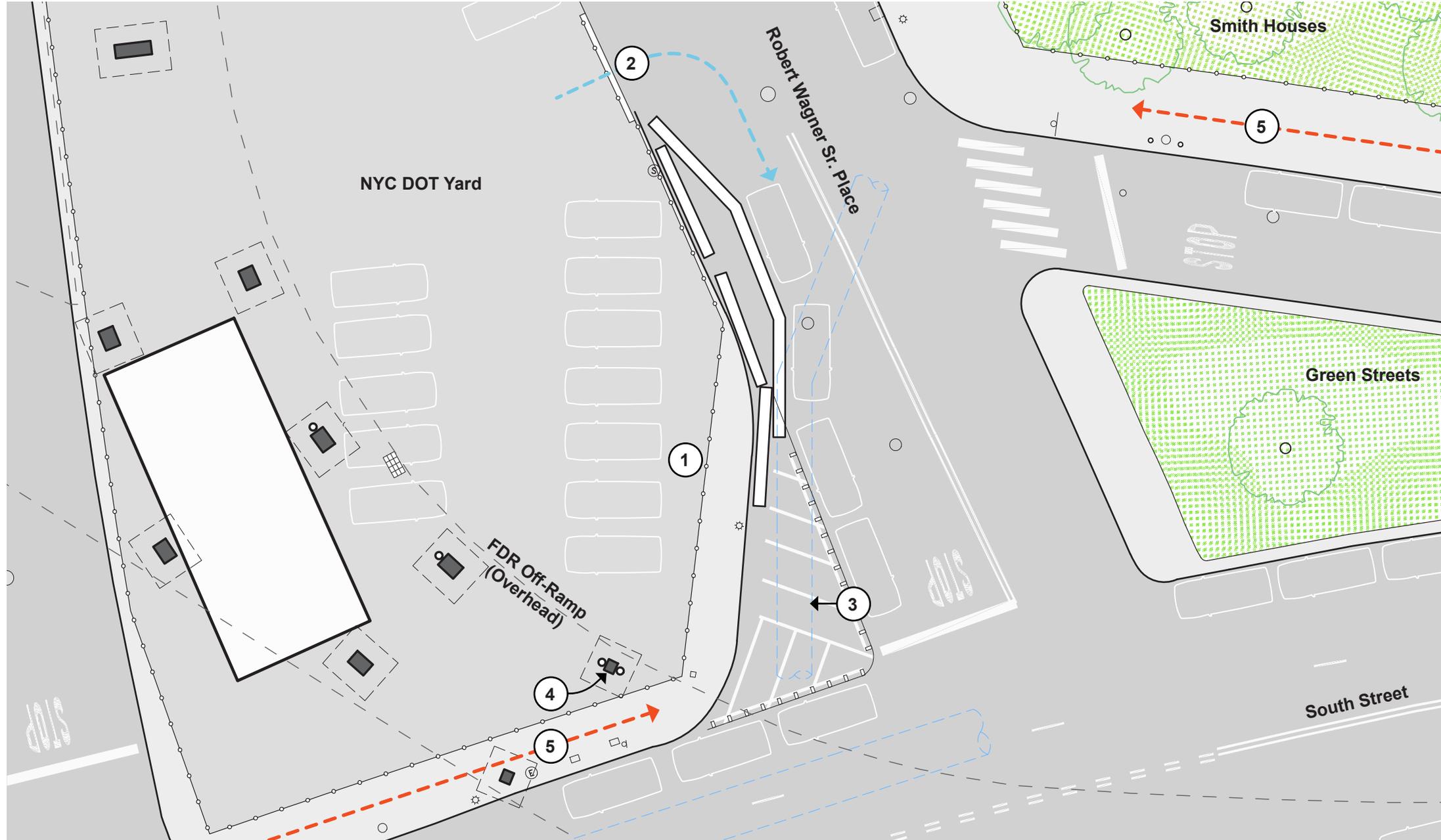
3. VIEW LOOKING SOUTH FROM WAGNER PL.



4. VIEW LOOKING SOUTHWEST FROM WAGNER PL.

INTERCEPTOR GATE BUILDING

Existing Conditions

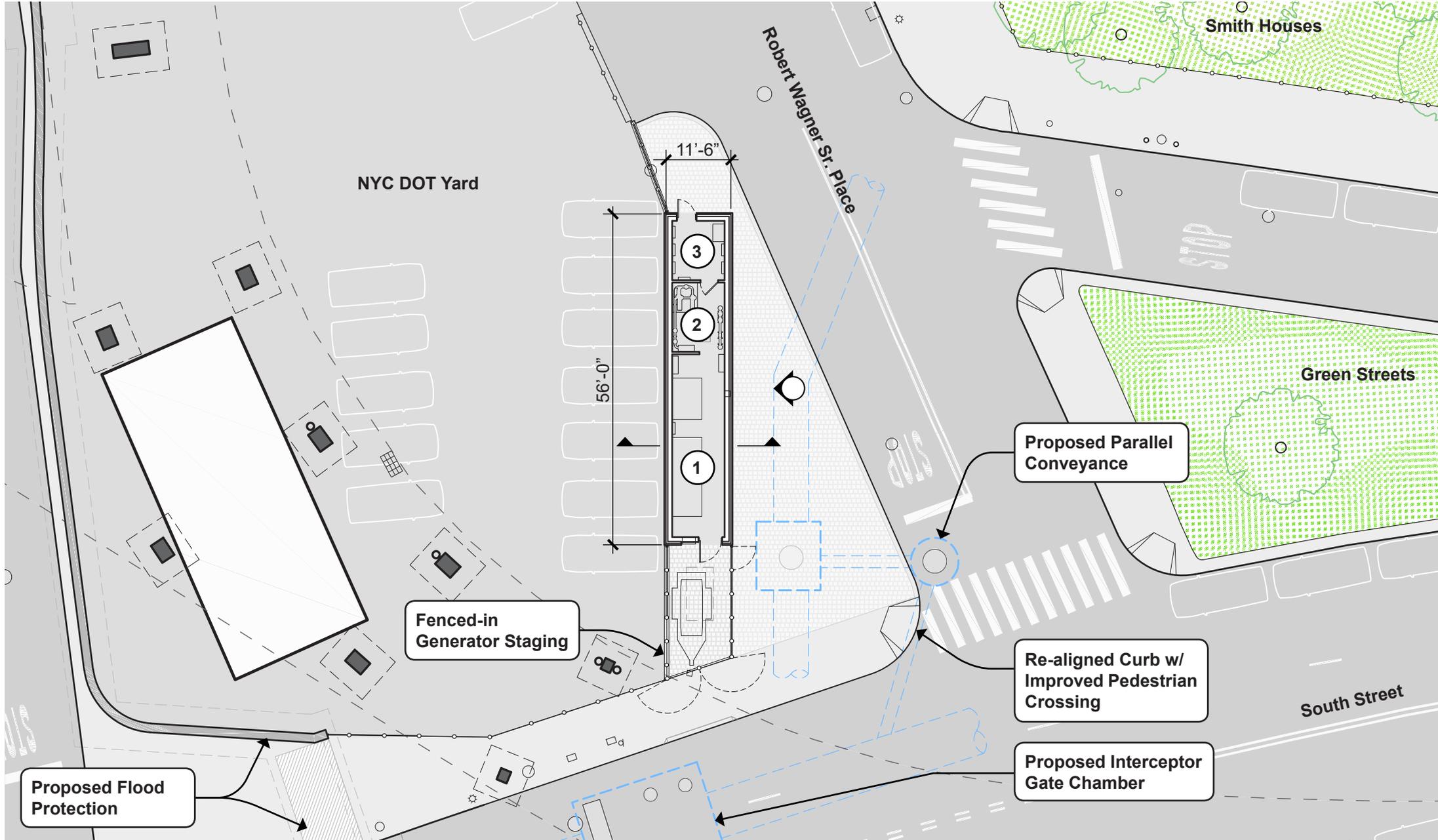


SITE CONSTRAINTS & OPPORTUNITIES

1. MINIMIZE IMPACT ON EXISTING DOT YARD
2. MAINTAIN THE DOT YARD'S EXISTING GATE OPENING AND IMPROVE DOT'S ACCESS TO SOUTH STREET (ROBERT WAGNER SR. PL CONVERTS TO ONE WAY NORTH OF THE YARD)
3. PROVIDE REQ'D OFFSET FROM EXISTING BELOW GRADE COMBINED SEWER
4. PROVIDE ADEQUATE CLEARANCE FROM EXISTING FDR COLUMNS AND FOOTINGS
5. IMPROVE PEDESTRIAN CONNECTION ALONG SOUTH STREET'S NORTH SIDEWALK; EXISTING STREET PATTERN CREATES RIFT WITH NO CLEAR PEDESTRIAN CONNECTION, ENCOURAGING JAYWALKING

INTERCEPTOR GATE BUILDING

Proposed Site Plan

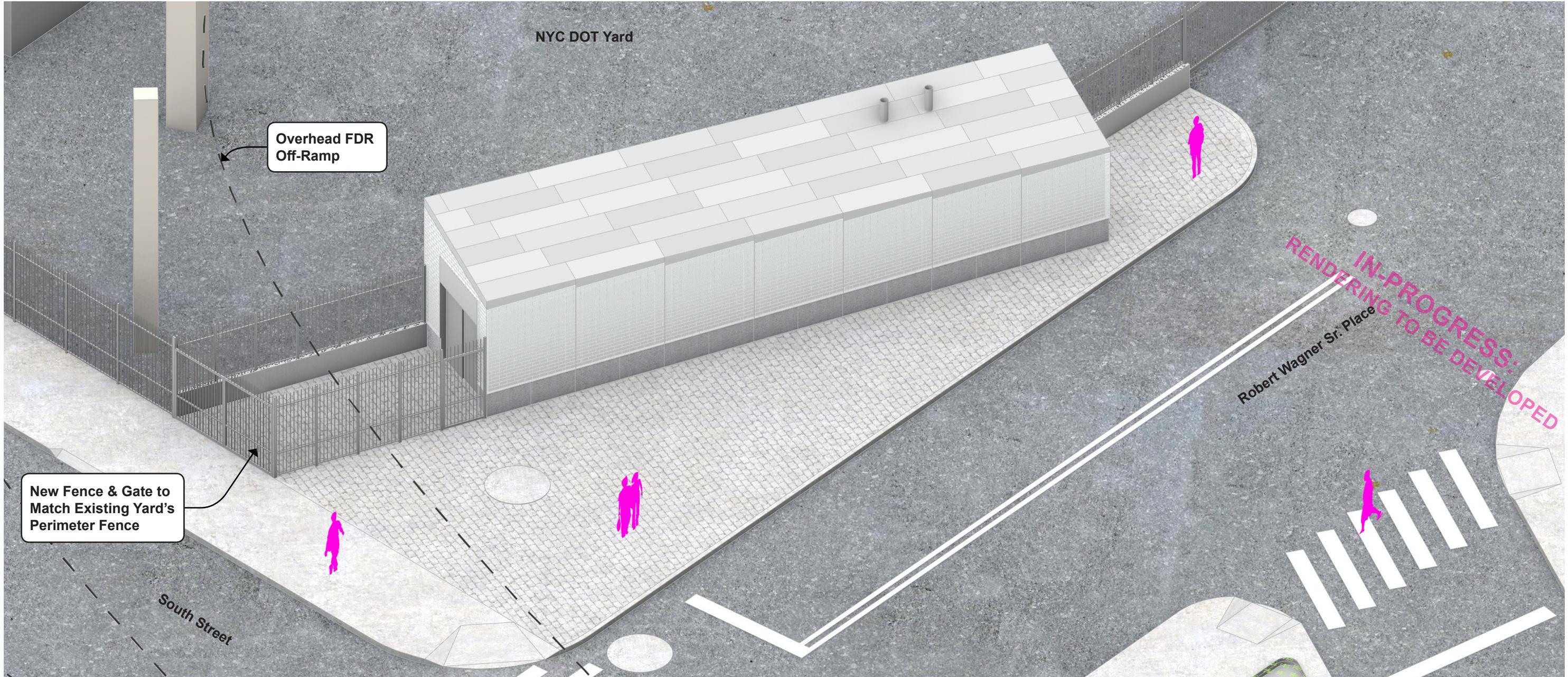


- KEY:**
- 1. Hydraulic Area
 - 2. Pump Area
 - 3. Electrical Room



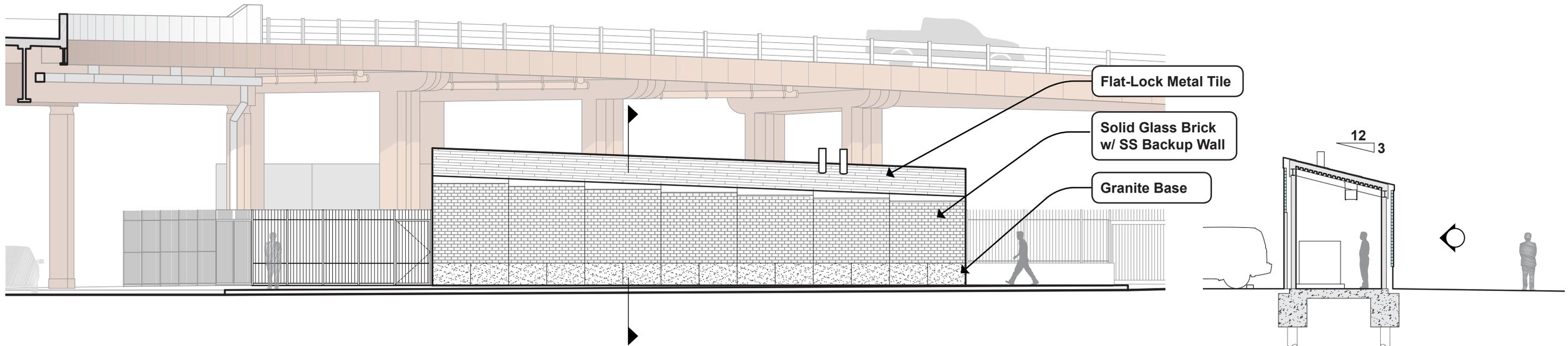
INTERCEPTOR GATE BUILDING

Aerial View from Southeast



INTERCEPTOR GATE BUILDING

Elevation & Section



1. EAST ELEVATION

2. CROSS SECTION

0' 5' 20' 40'
 SCALE: 3/64" = 1'

INTERCEPTOR GATE BUILDING

View from Southeast



INTERCEPTOR GATE BUILDING

Proposed Material Palette



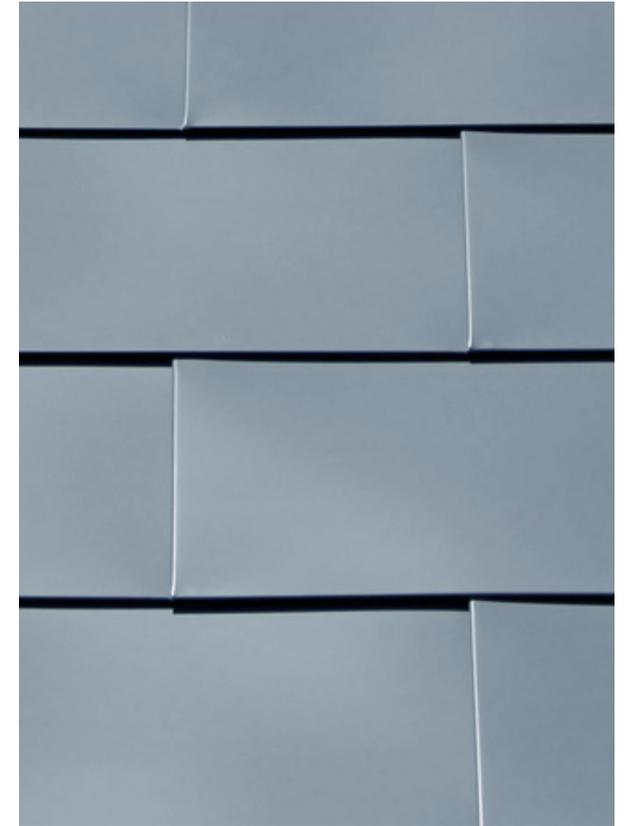
STAINLESS STEEL
Back Up Wall,
Doors, & Trim Elements



SOLID GLASS BRICK
Facade
(Pictured: Office Mockup)



BARRE GREY GRANITE
Stone Base



FLAT-LOCK METAL TILE
Sloped Roof Assembly