

# BK Bridge - Montgomery Coastal Resilience

PDC Preliminary Presentation

September 18, 2020



## AGENDA

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- 1. PROJECT INTRODUCTION**
- 2. FLOOD PROTECTION ALIGNMENT**
- 3. RAISING THE PLATFORM**
- 4. PROJECT DESIGN**
- 5. MATERIALS AND FURNISHINGS**
- 6. INTERCEPTOR GATE BUILDING**



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# **1. PROJECT INTRODUCTION**

2. FLOOD PROTECTION ALIGNMENT

3. RAISING THE PLATFORM

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5. MATERIALS AND FURNISHINGS

6. INTERCEPTOR GATE BUILDING



# LOWER MANHATTAN COASTAL RESILIENCY

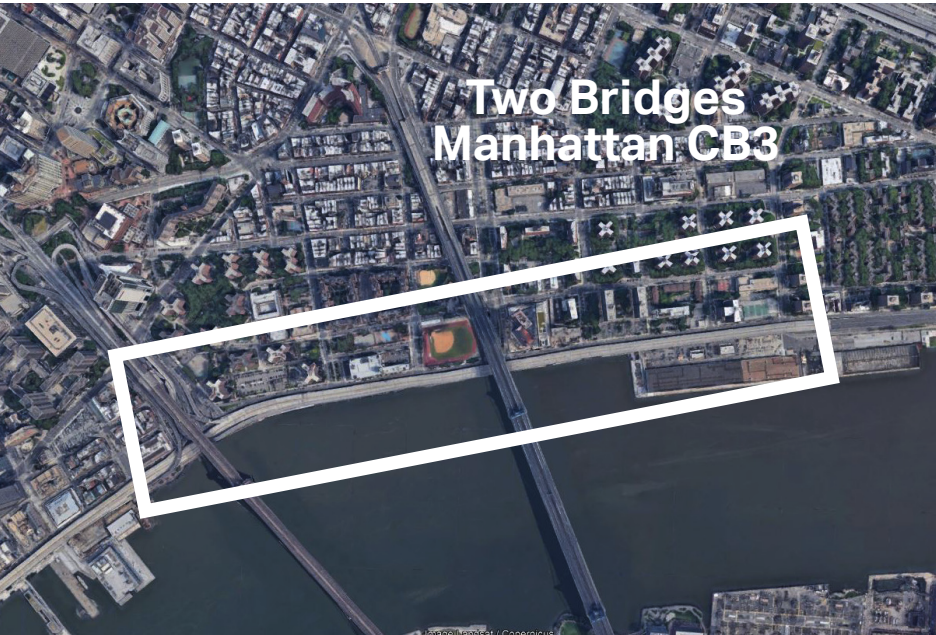




# PROJECT LOCATION



CITY 1 MI



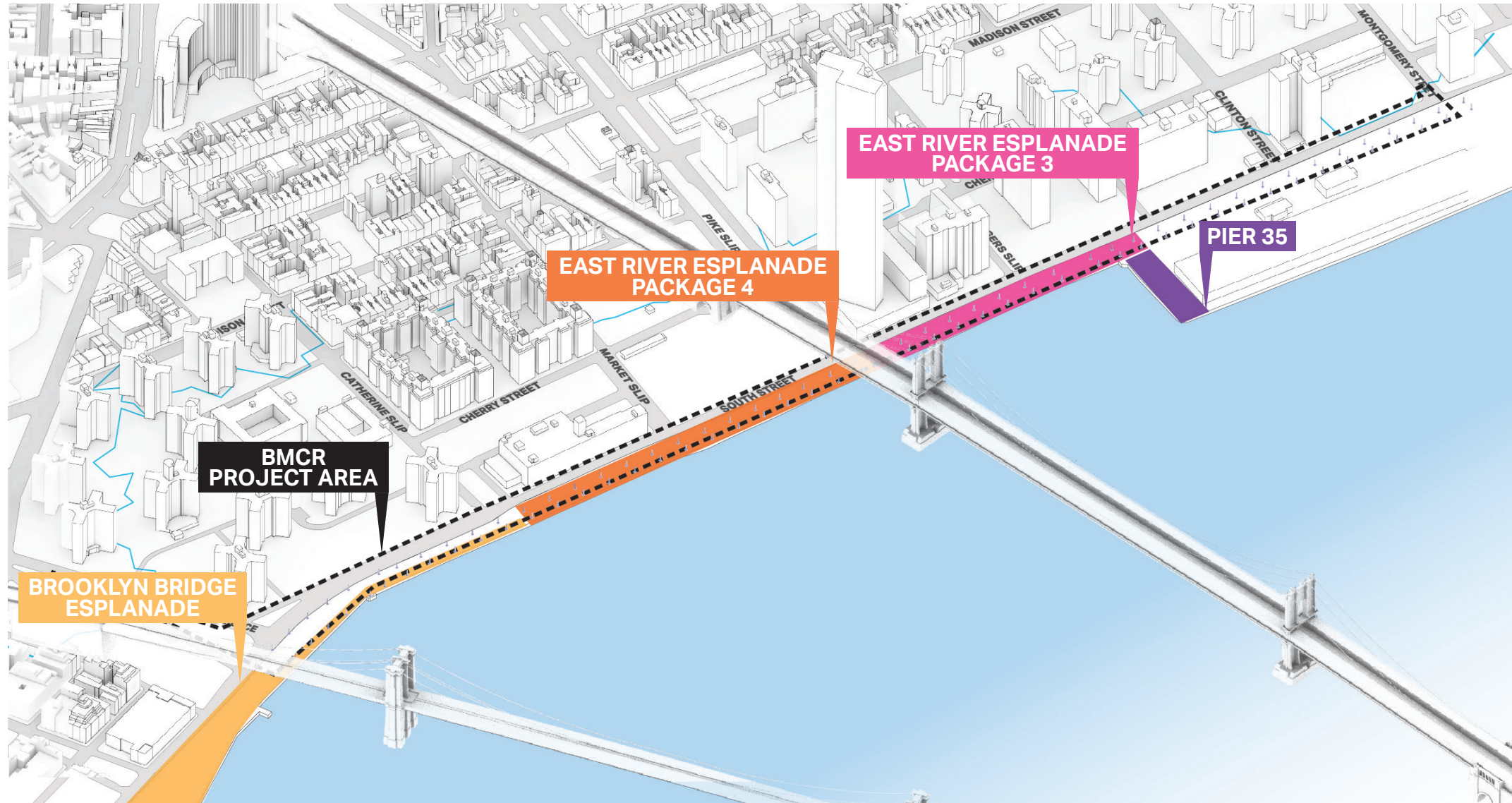
NEIGHBORHOOD 1000 FT



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  
Currently - Paused in Construction Procurement
- BROOKLYN BRIDGE-MONTGOMERY COASTAL RESILIENCE**  
November 2019 - Schematic Design Complete  
May 2021 - 100% Construction Documents  
June 2021 - Bidding  
January 2022 - Construction Starts  
July 2022 - Federal Spending Deadline

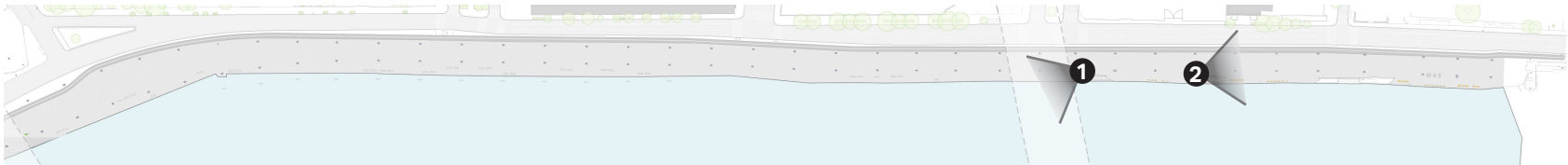


# COVERED VS. UNCOVERED SPACE





# EXISTING ESPLANADE



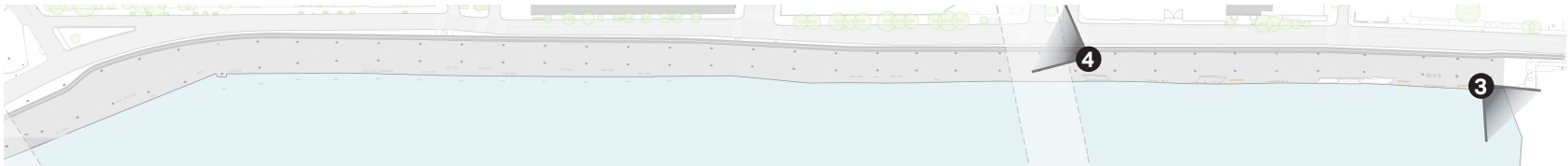
1 - FISHING AREA, LOOKING WEST



2 - SEATING / OBSERVATION AREA, LOOKING EAST



# EXISTING ESPLANADE



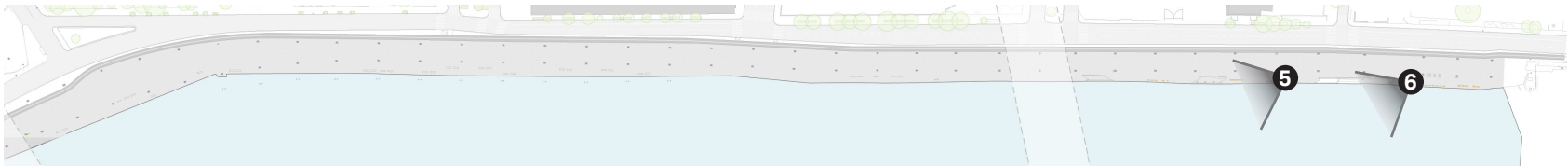
3 - CULTURAL PERFORMANCE IN OPEN SPACE



4 - BIKE PARKING UNDER FDR



# EXISTING ESPLANADE



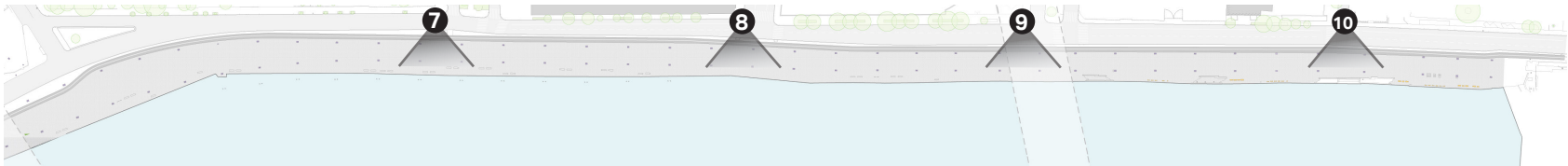
5 - BASKETBALL COURTS



6 - EAST RIVER ESPLANADE FITNESS PARK



# VIEW CORRIDORS



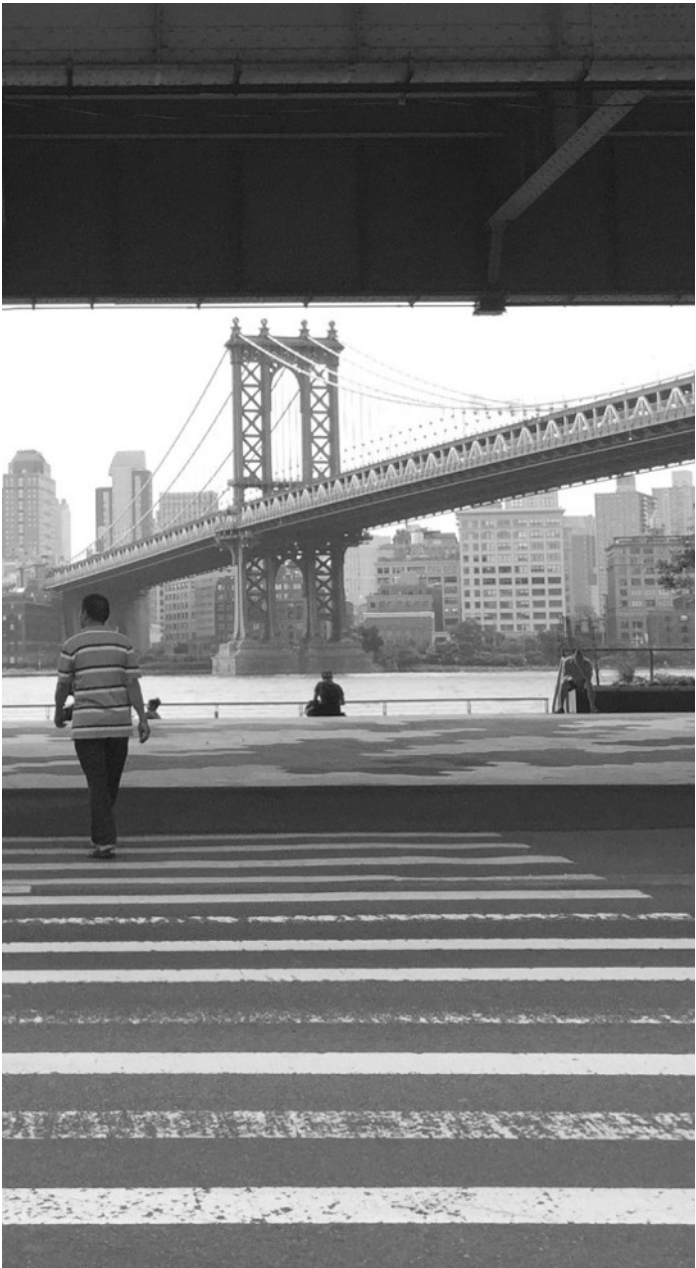
7 - CATHERINE SLIP



8 - MARKET SLIP



9 - PIKE SLIP



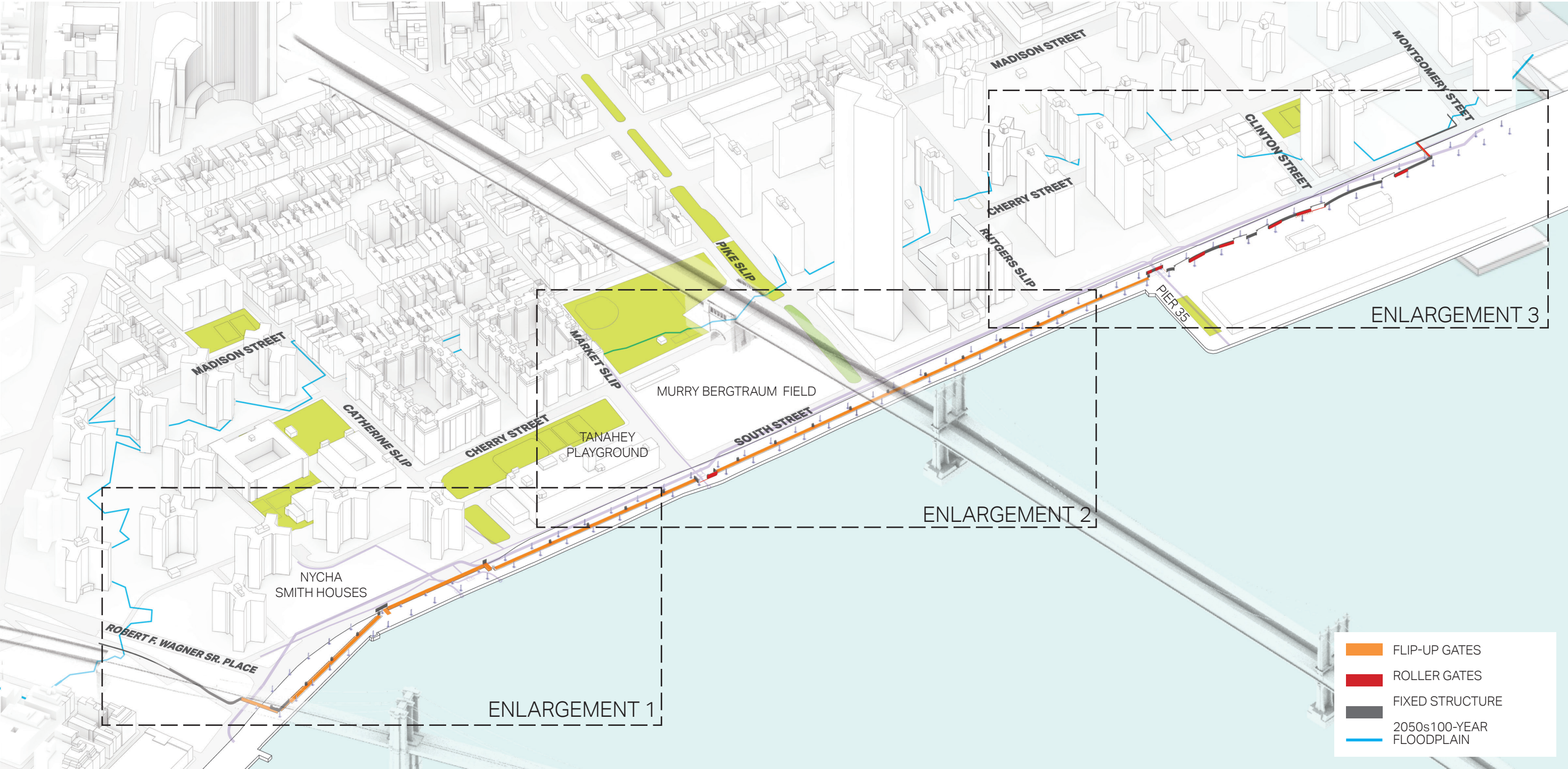
10 - RUTGERS SLIP



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  6. INTERCEPTOR GATE BUILDING

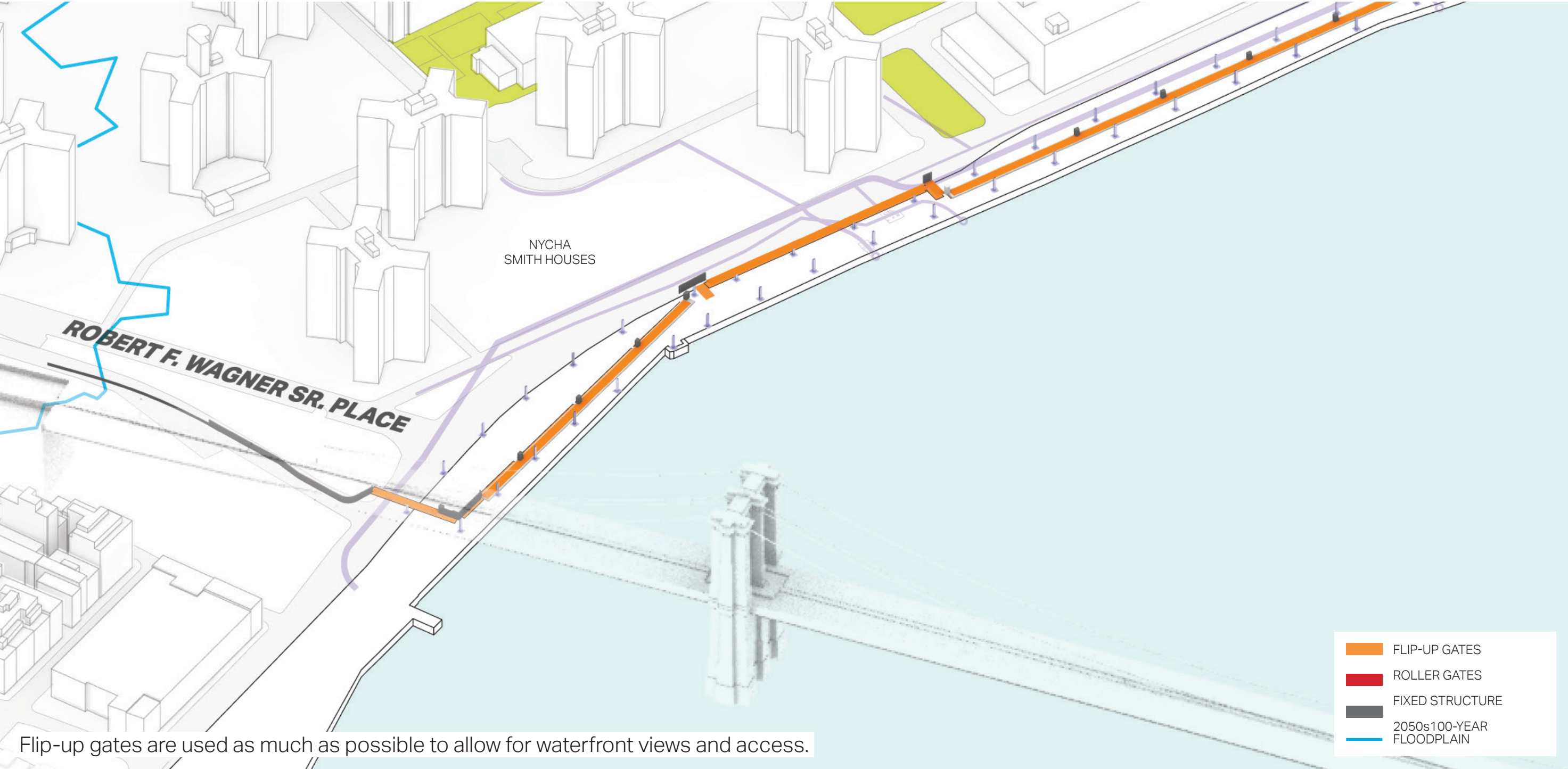


# FLOOD PROTECTION ALIGNMENT | FULL SITE



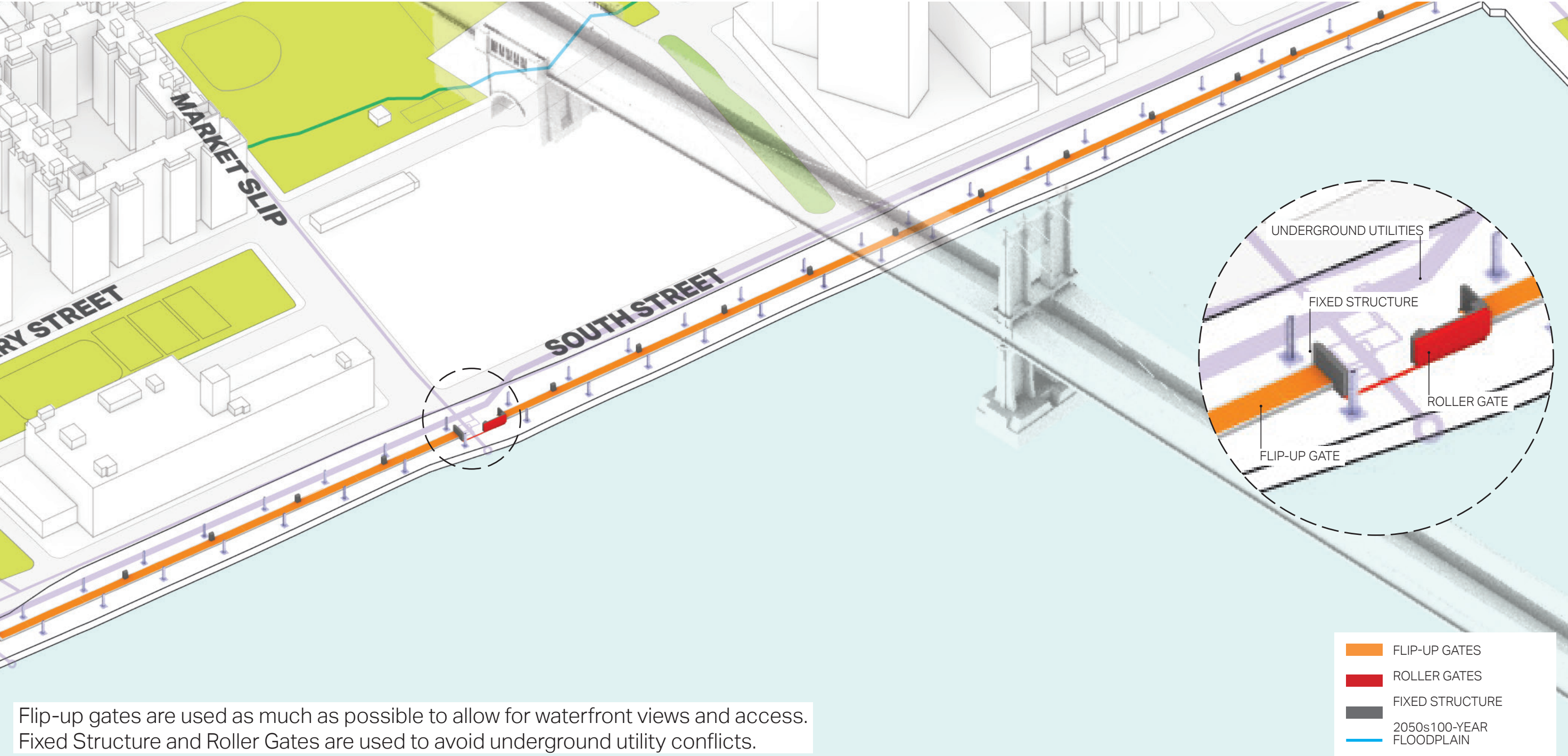


# FLOOD PROTECTION ALIGNMENT | ENLARGEMENT 1





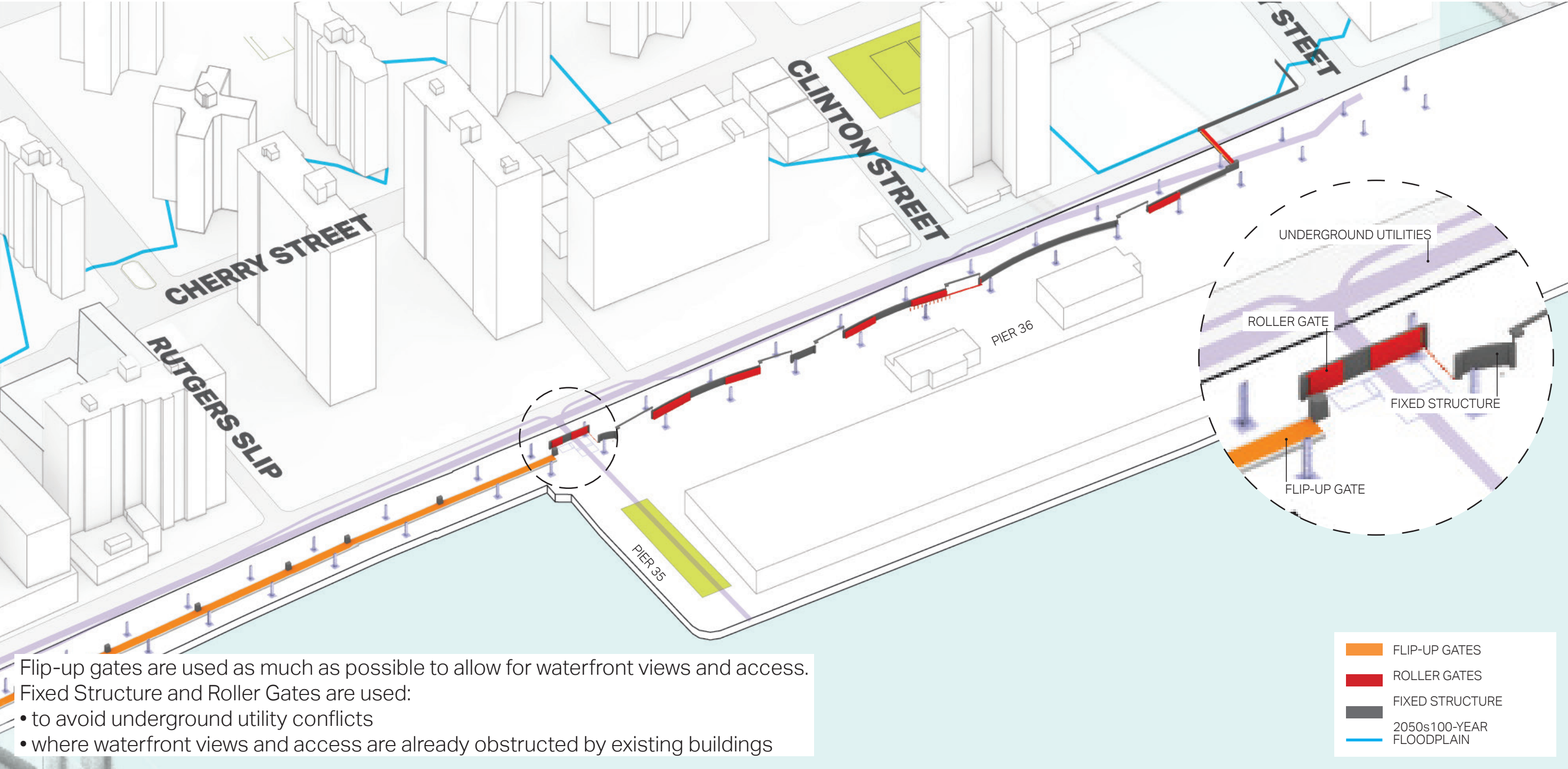
# FLOOD PROTECTION ALIGNMENT | ENLARGEMENT 2



Flip-up gates are used as much as possible to allow for waterfront views and access. Fixed Structure and Roller Gates are used to avoid underground utility conflicts.



# FLOOD PROTECTION ALIGNMENT | ENLARGEMENT 3



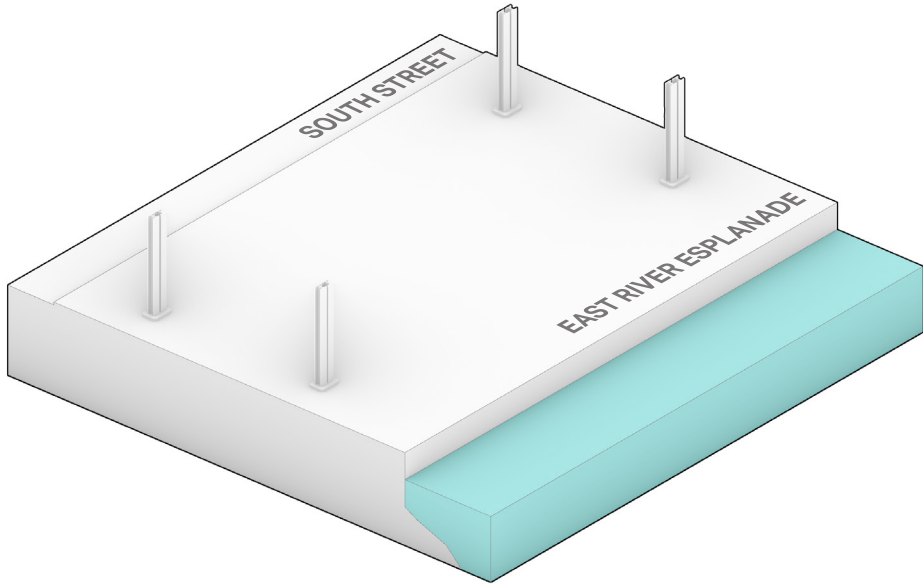


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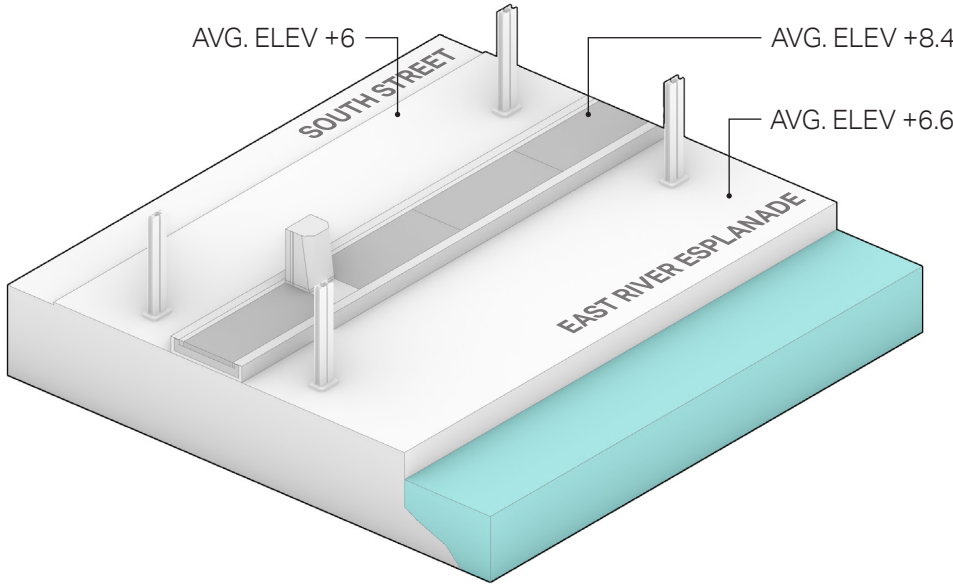


# MITIGATION OF FAIR WEATHER TIDAL FLOODING

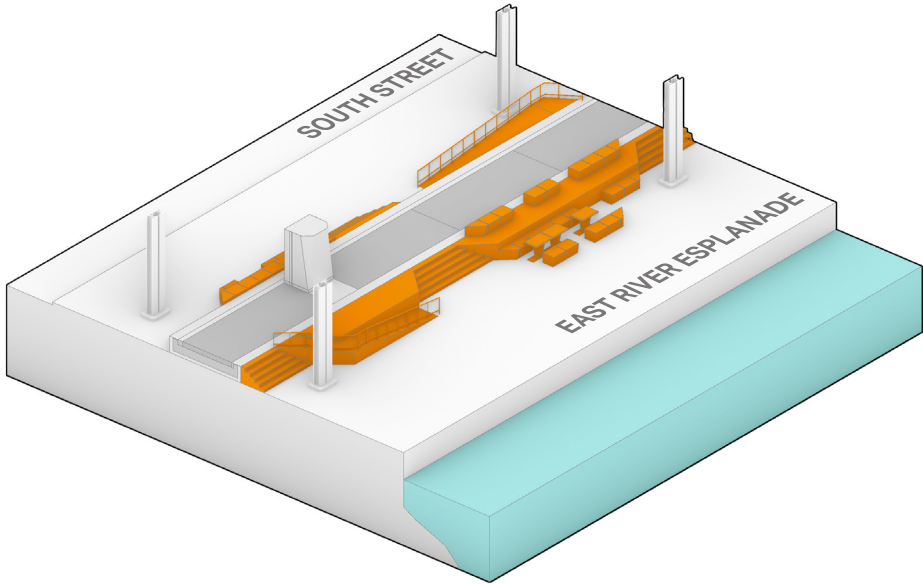
## 1. EXISTING CONDITION



## 2. RAISE THE PLATFORM TO AVERAGE ELEVATION OF +8.4 NAVD88



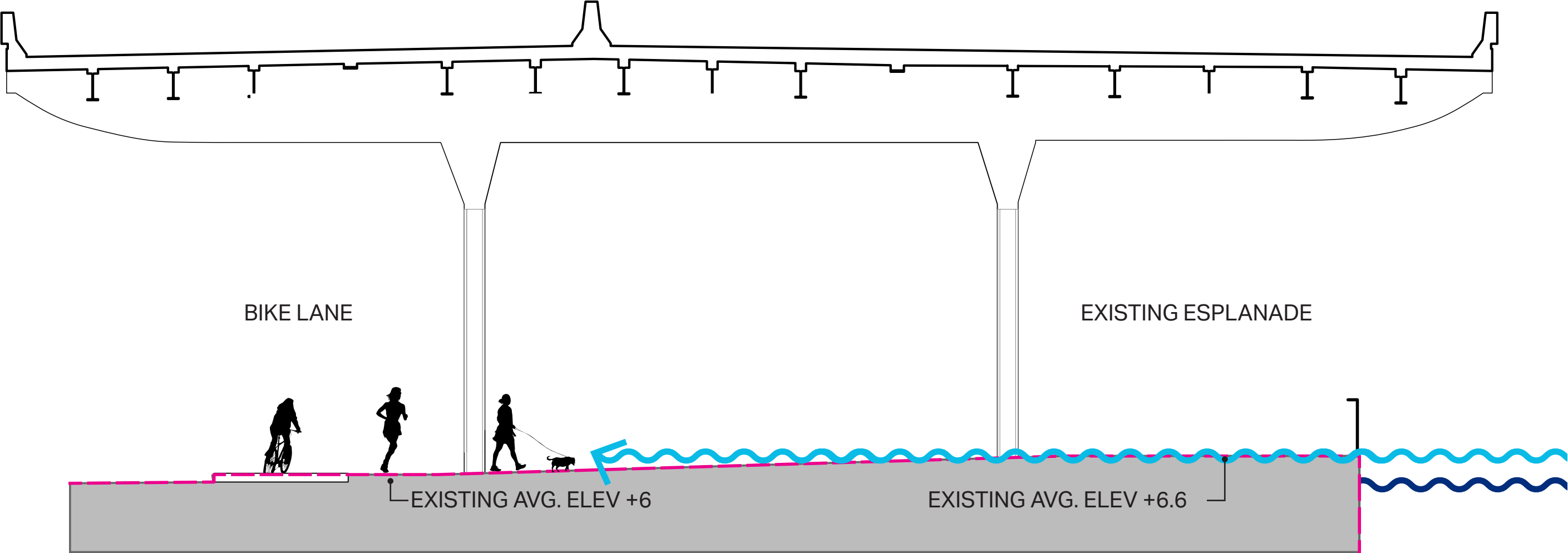
## 3. CONNECT PUBLIC REALM



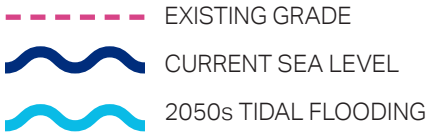
ACTIVATE RAISED PLATFORM AND CREATE  
UNIVERSALLY ACCESSIBLE SPACES



# EXISTING TYPICAL SECTION

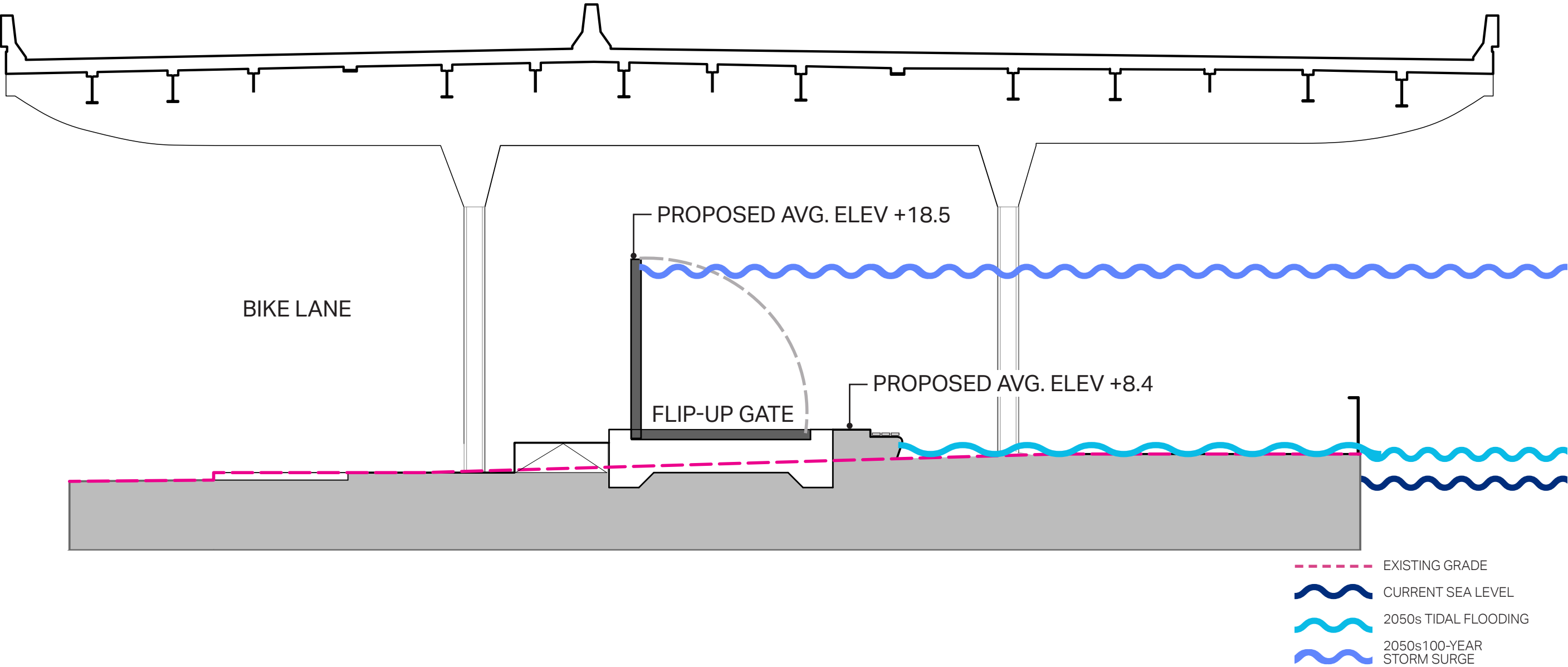


- Raised Platform to Address Fair Weather Tidal Flooding from SLR
- Approximately 10-15 low-level inundation events per year in 2050s





# PROPOSED CONCEPTUAL TYPICAL SECTION



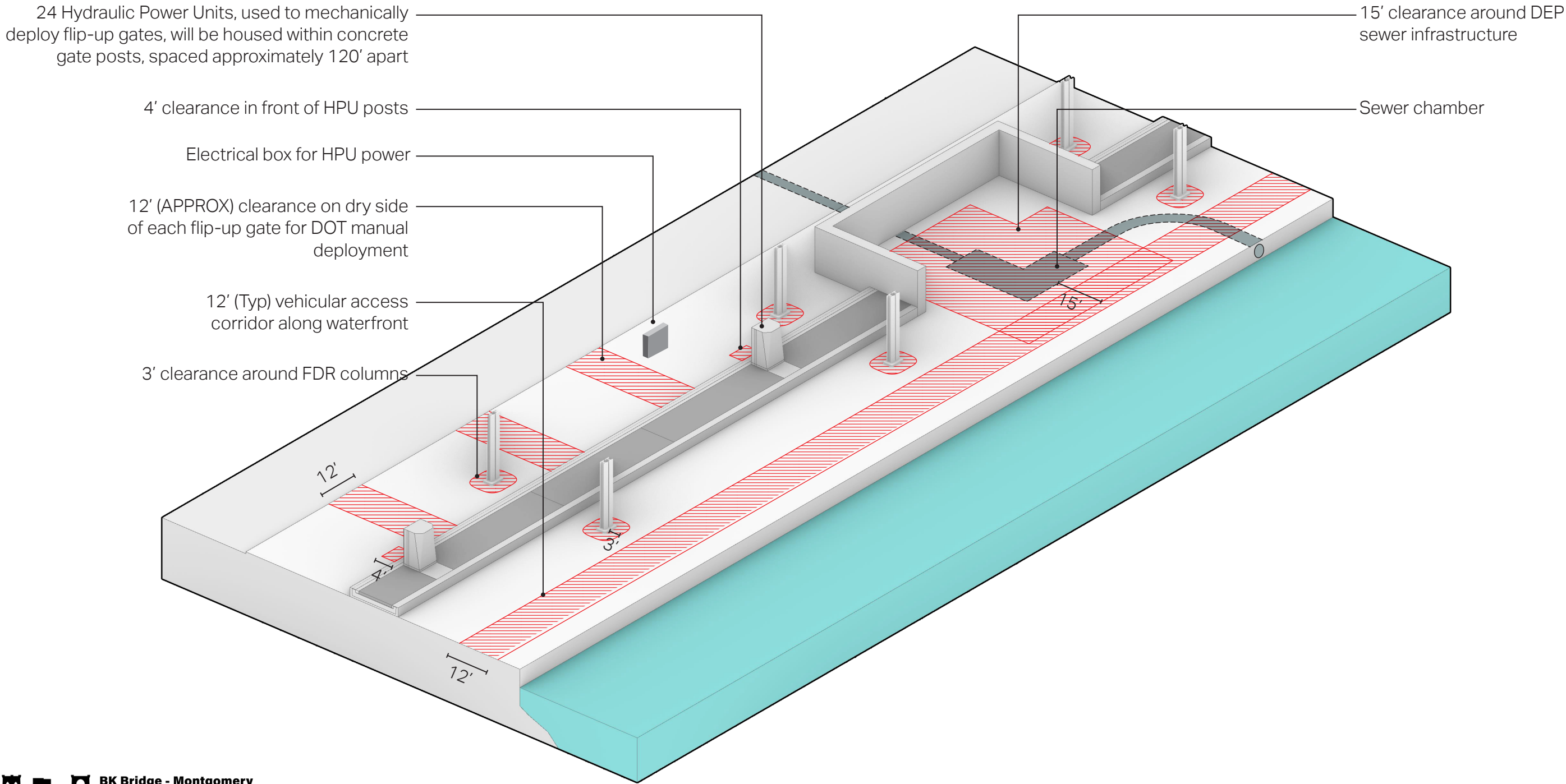
Raised Platform with Deployed Flood Infrastructure



- 
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# TYPICAL SITE CONSTRAINTS





# COMMUNITY ENGAGEMENT

## CONCEPTUAL PHASE:

- 6/27/16: Kick-Off Public Workshop
- 7/20/16: CB3 Task Force Meeting
- 10/5/16: Kick-Off Public Workshop (Repeat)
- 11/29/16: CB3 Task Force Meeting
- 4/12/17: CB3 Task Force Meeting
- 5/31/17: Public Workshop
- 7/10/17: CB3 Task Force Meeting/Walking Tour
- 7/15/17: Tabling at City of Water Day on Pier 42
- 11/2/17: CB3 Task Force Meeting
- 12/19/17: Public Workshop
- 7/13/18: CB3 Task Force Meeting
- 7/18/18: Public Workshop

## DESIGN PHASE:

- April 2019: Individual Briefings about LMCR Announcement, including CB3, Smith Houses, Knickerbocker, and Two Bridges Neighborhood Council
- 5/16/19: Presented to CB3 Waterfront, Parks, and Resiliency Committee
- 7/13/19: Tabling at City of Water Day on Pier 35
- 9/26/19: In-Person Quarterly Lmcr Update to Electeds and Community Boards
- 10/2/19: Public Meeting at P.S. 2 in Two Bridges
- 10/10/19: Presented to CB3 Waterfront, Parks, and Resiliency Committee
- 10/18/19: 'Office Hours' Tabling Session at Pier 35, Plus Four Other Tabling Sessions in Other Locations of Lower Manhattan
- 11/12/19: Presented at Lands End II
- 12/16/19: Presented at Knickerbocker Village
- 12/18/19: Presented at Two Bridges Tower
- 1/9/20: Phone Call Quarterly LMCR Update to Electeds and Community Boards
- 2/13/20: Presentation to CB3 Waterfront, Parks, and Resiliency Committee
- 2/20/20: Presentation at Smith Houses
- 8/13/20: Presentation to CB3 Waterfront, Parks, and Resiliency Committee
- 9/10/20: Presentation to CB3 Waterfront, Parks, and Resiliency Committee



# COMMUNITY FEEDBACK



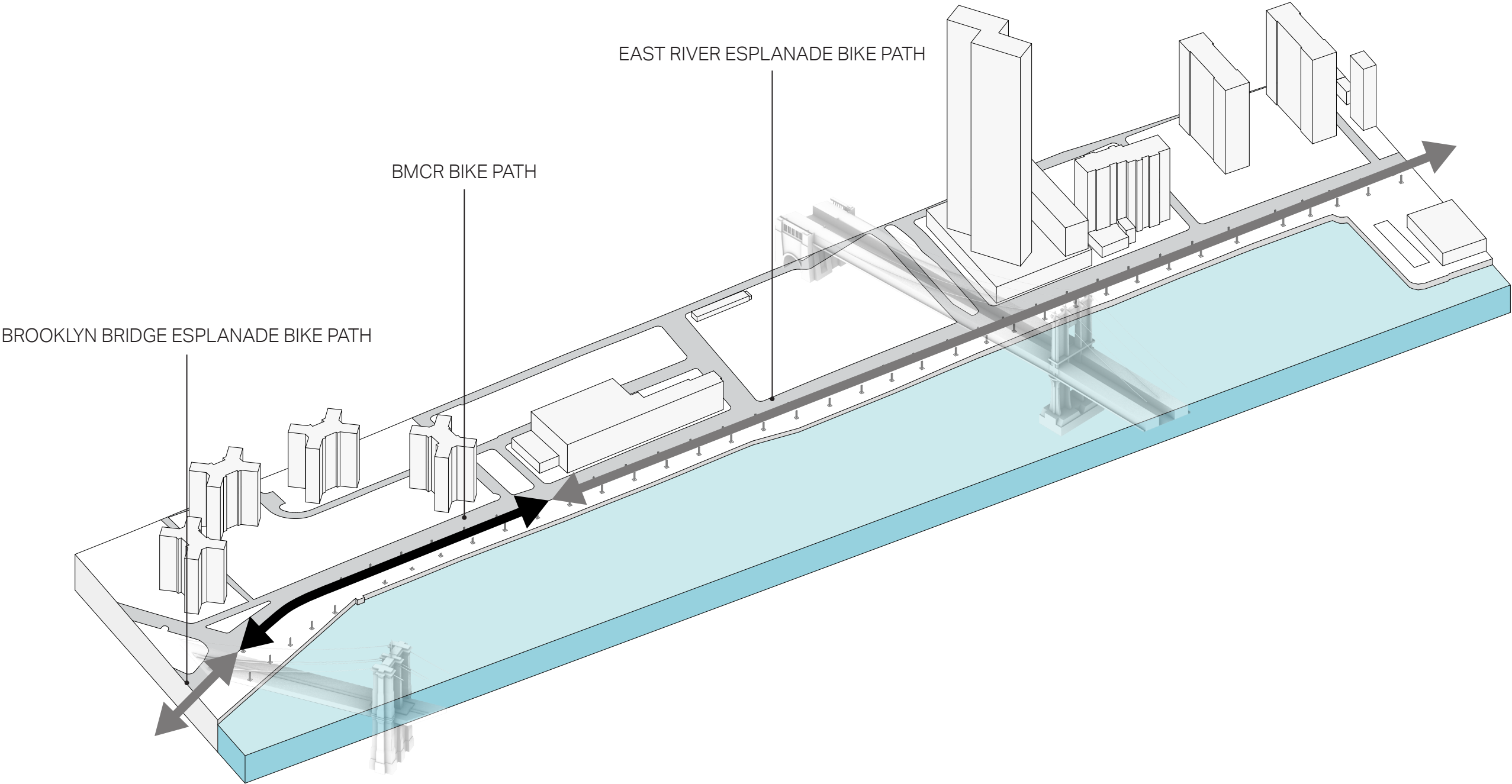
## WHAT WE HEARD

- DESIRE FOR OPEN, FLEXIBLE SPACE
- STRONG CONCERNS ABOUT RELOCATING THE EXISTING BASKETBALL HALF COURTS
- EXISTING FITNESS AREA IS VERY POPULAR AND SHOULD BE REPLACED, WITH MORE UNIVERSAL EQUIPMENT
- EXISITING BOCCE COURT IS UNDER-USED AND SHOULD BE REMOVED
- 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





# SITE BIKE CIRCULATION





# DESIGN ZONES



**SOCIAL  
POCKETS**



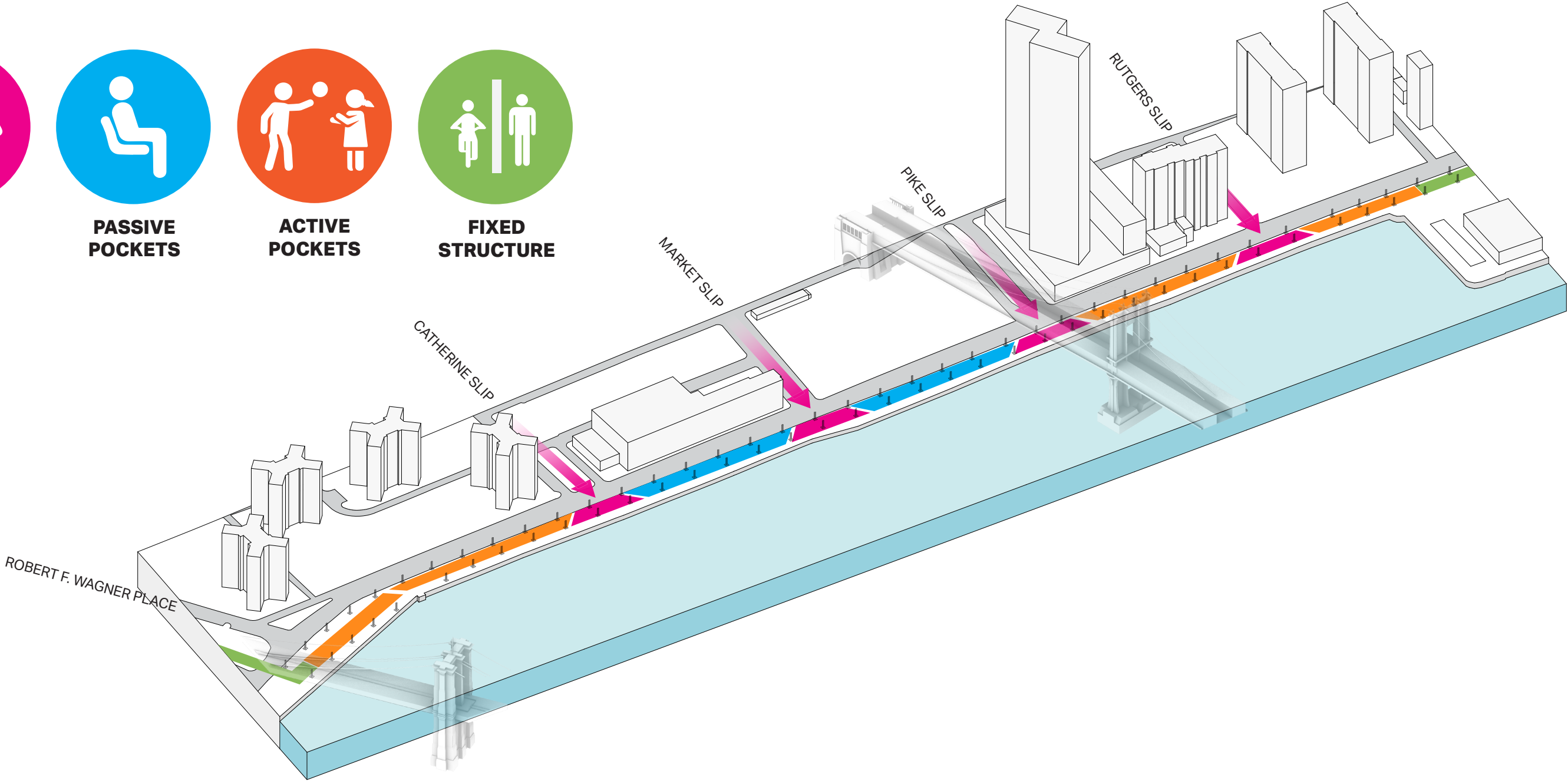
**PASSIVE  
POCKETS**



**ACTIVE  
POCKETS**



**FIXED  
STRUCTURE**





# SOCIAL POCKETS



**SOCIAL  
POCKETS**



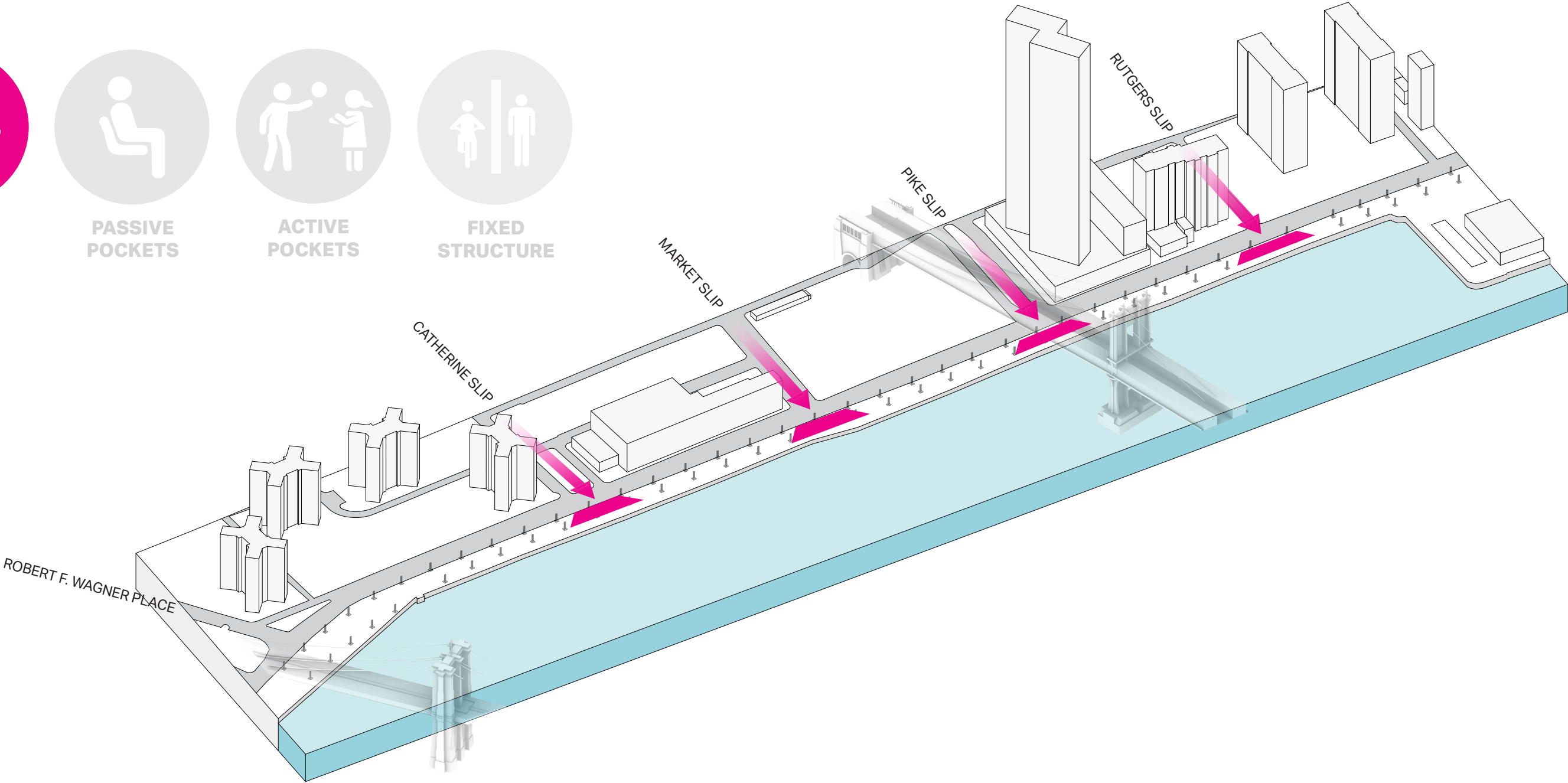
**PASSIVE  
POCKETS**



**ACTIVE  
POCKETS**



**FIXED  
STRUCTURE**

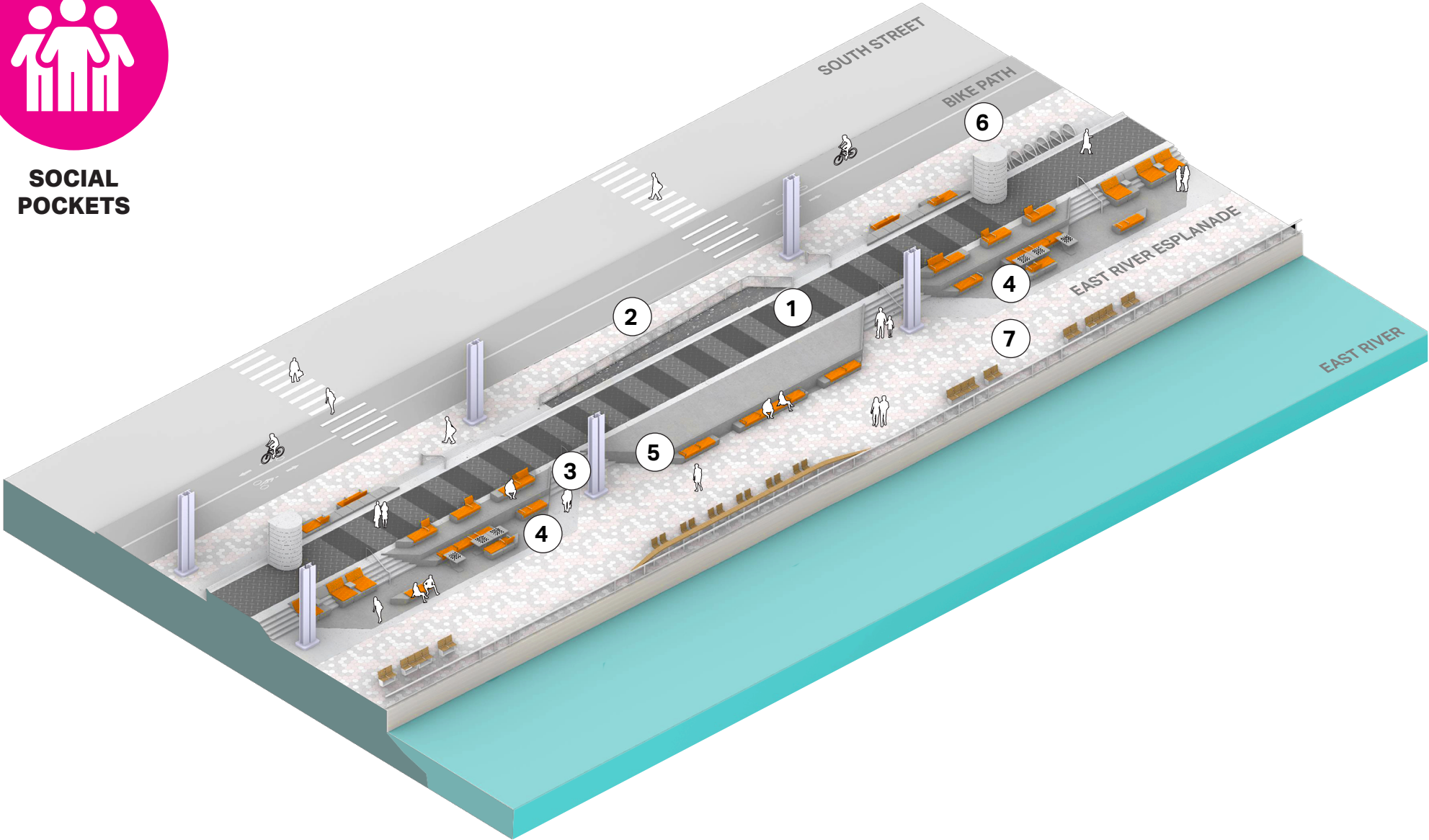




# SOCIAL POCKETS | TYPICAL PROGRAM & MATERIAL





SOCIAL  
POCKETS




1

**FLIP UP GATES**  
BLACK DIAMOND PLATE WITH ANTI-SLIP FINISH



2

**RAMPS**  
DARK CONCRETE WITH SILICA CARBIDE



3

**STEPS & PAVING**  
STANDARD GREY CONCRETE



4

**GATHERING AREAS**  
GREY CONCRETE, ORANGE RECYCLED PLASTIC LUMBER



5

**FLEXIBLE USE PLATFORM**  
GREY CONCRETE



6

**HYDRAULIC POWER UNITS**  
STANDARD GREY CONCRETE



7

**ESPLANADE**  
HEX PAVERS USING EXISTING PATTERN

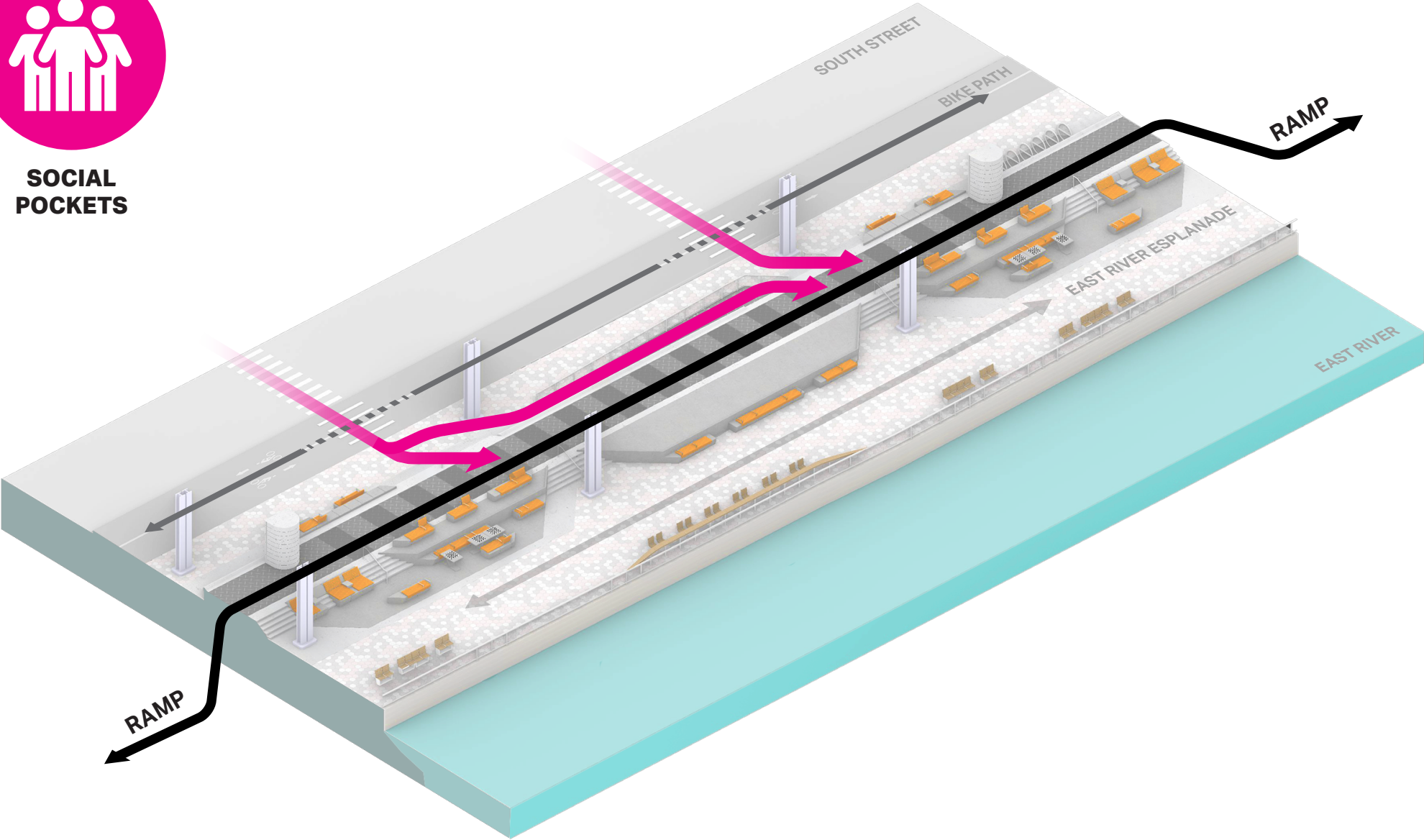




# SOCIAL POCKETS | TYPICAL CIRCULATION



SOCIAL  
POCKETS



ENTRY FROM CROSS STREET



PLATFORM WALK



EAST RIVER ESPLANADE

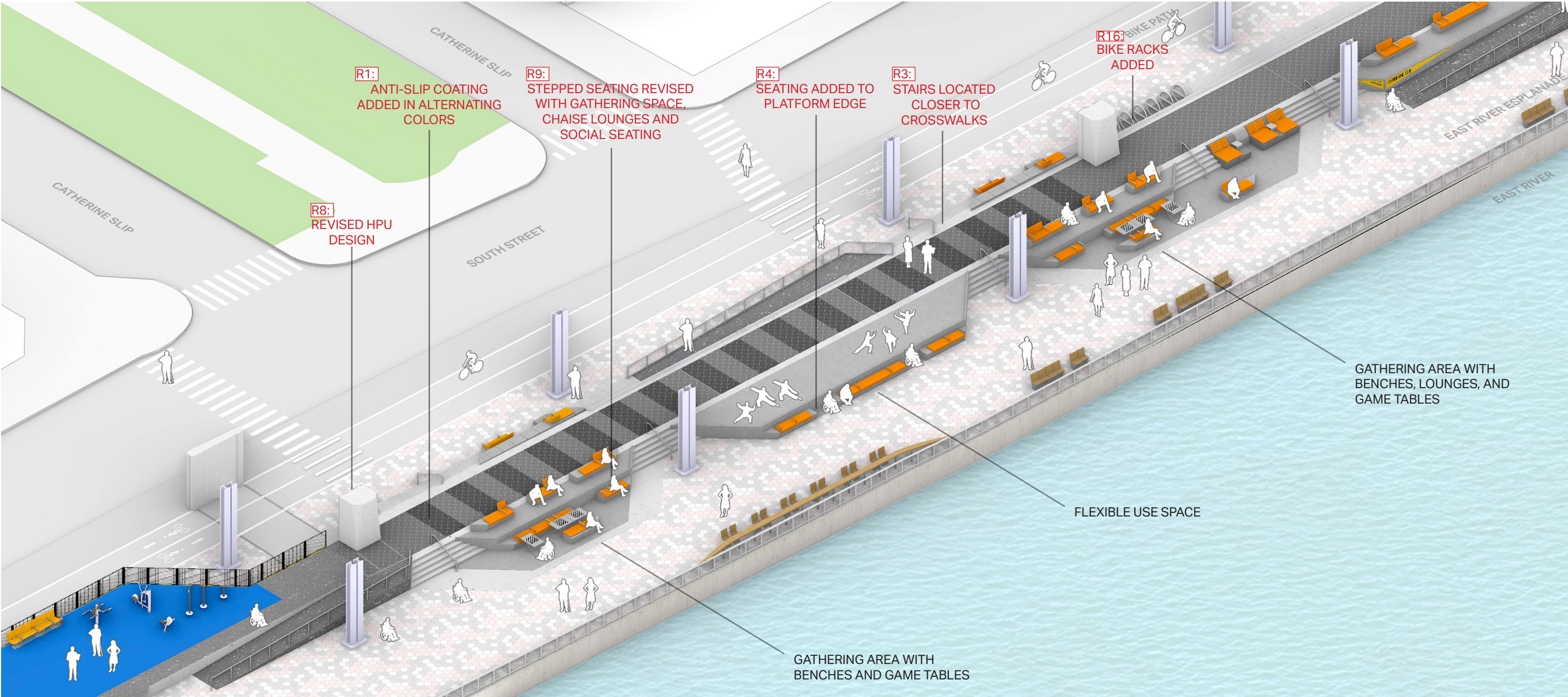


BIKE PATH



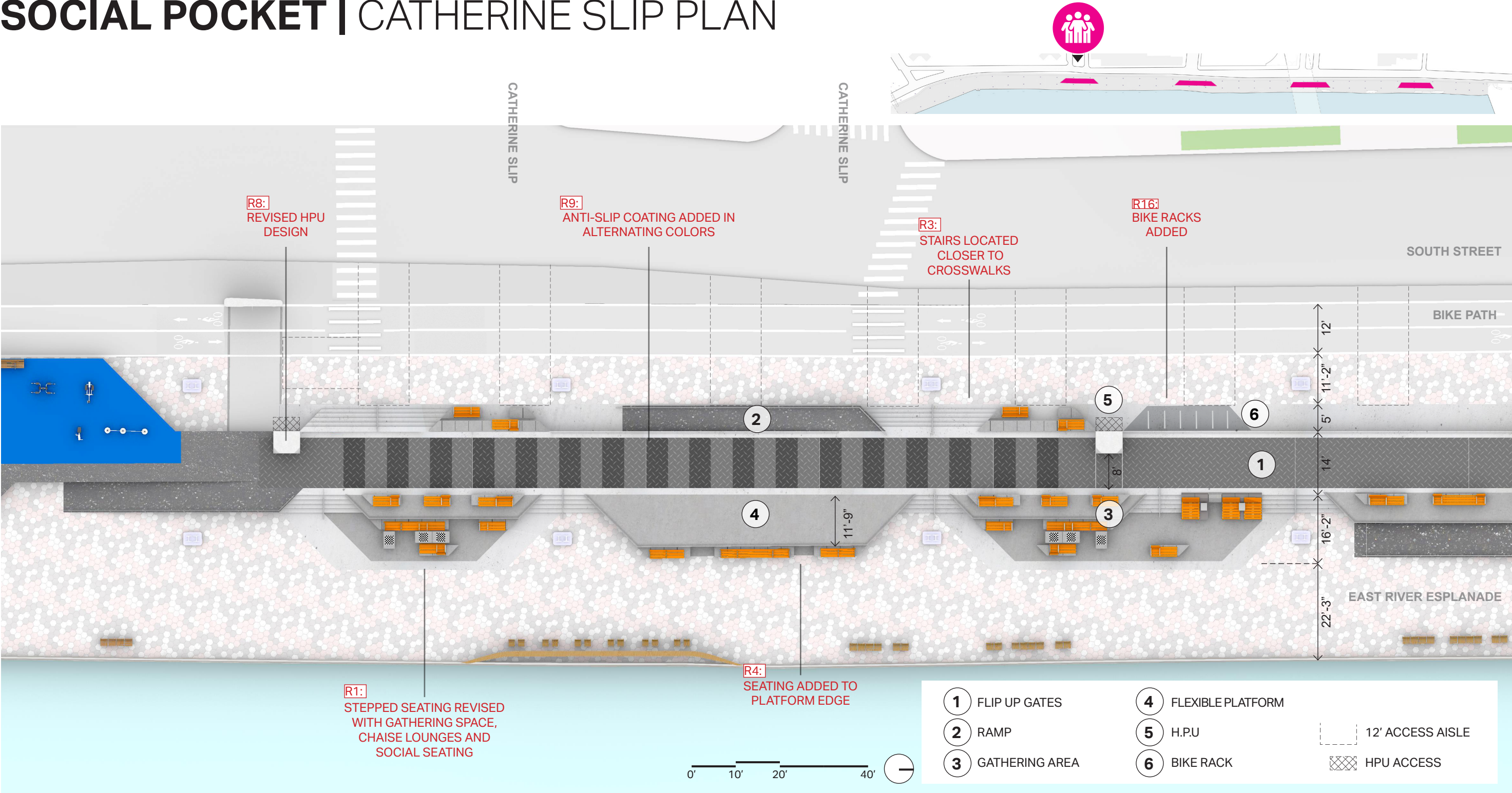


# SOCIAL POCKET | CATHERINE SLIP



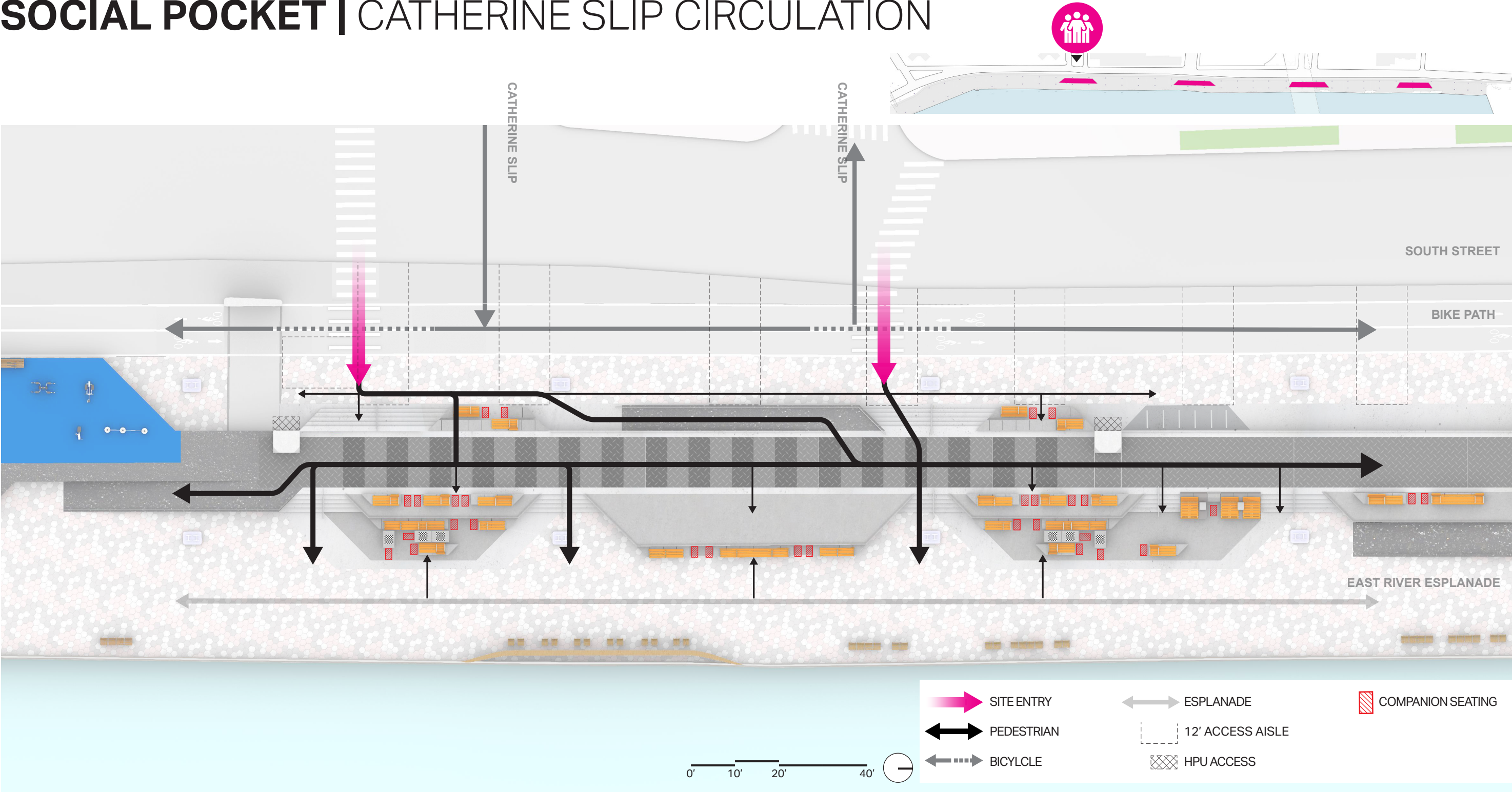


# SOCIAL POCKET | CATHERINE SLIP PLAN



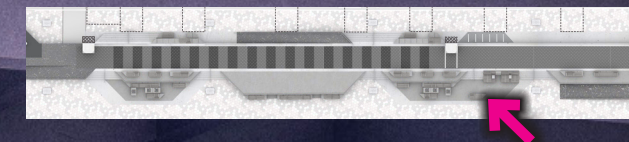


# SOCIAL POCKET | CATHERINE SLIP CIRCULATION



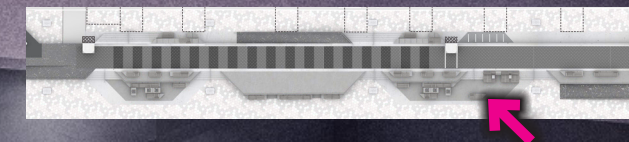


# SOCIAL POCKET | CATHERINE SLIP ESPLANADE



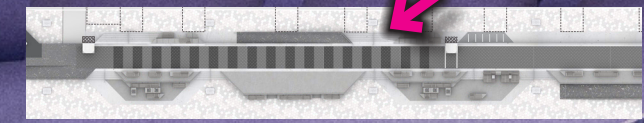


# SOCIAL POCKET | CATHERINE SLIP ESPLANADE



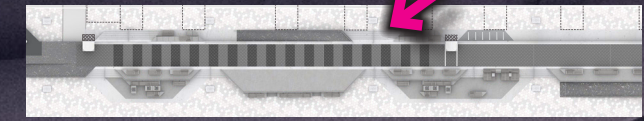


# SOCIAL POCKET | CATHERINE SLIP ENTRANCE



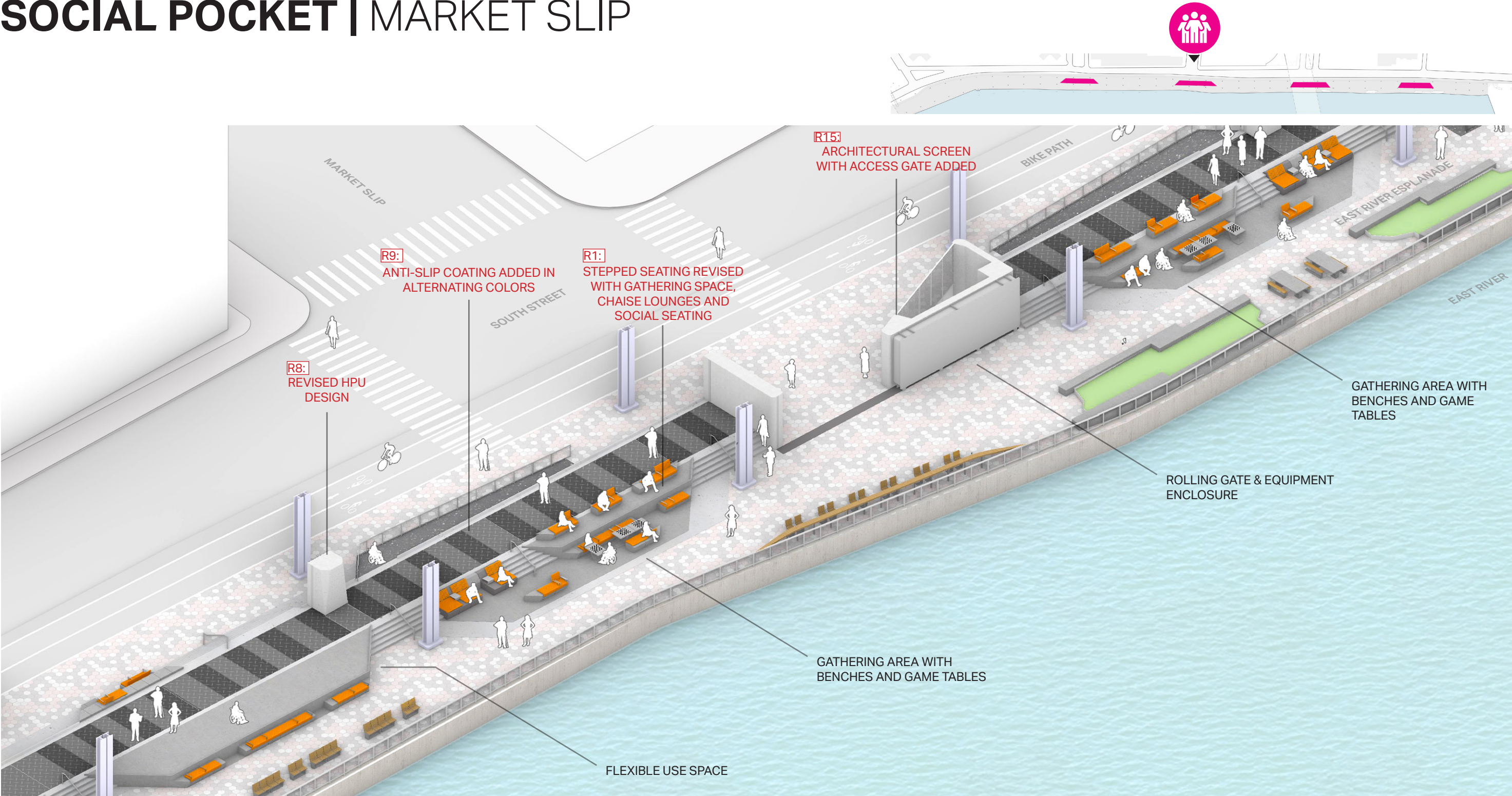


# SOCIAL POCKET | CATHERINE SLIP STORM EVENT



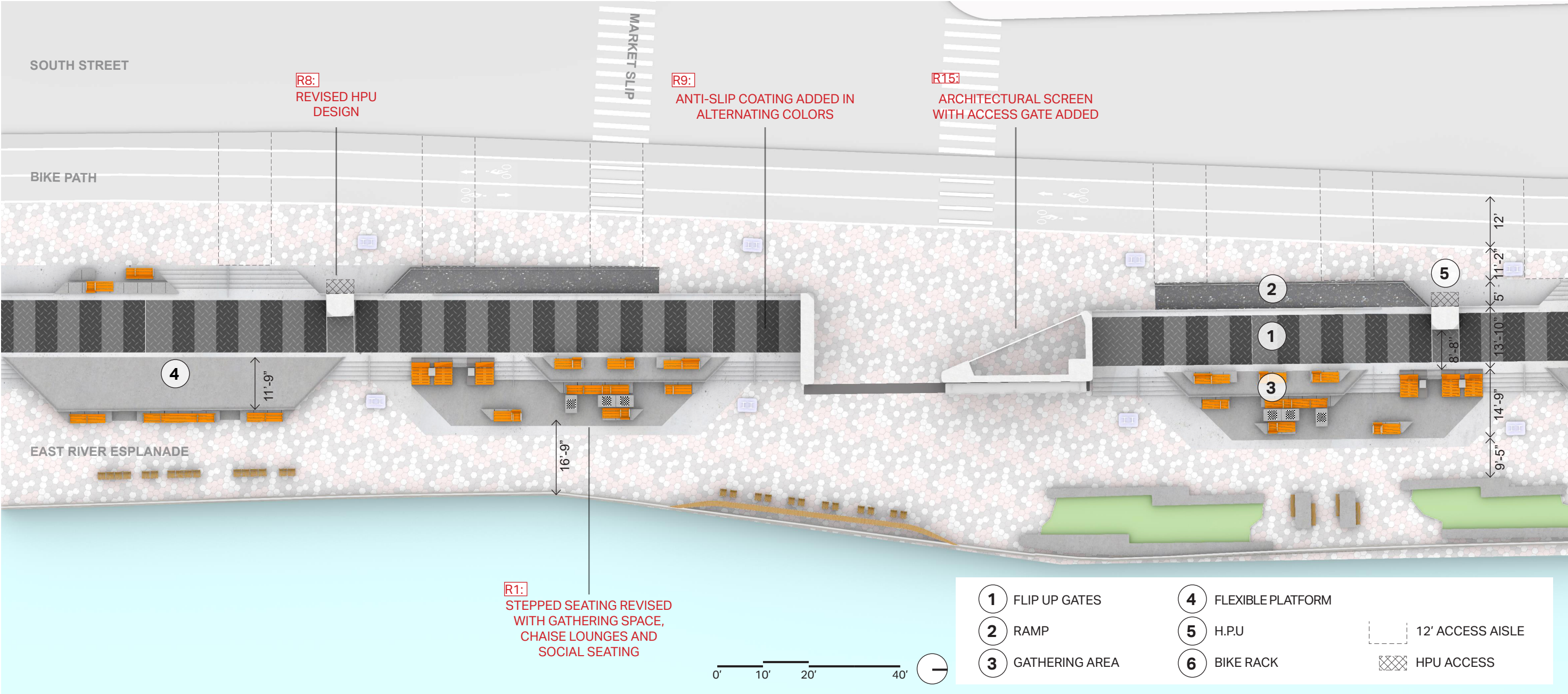


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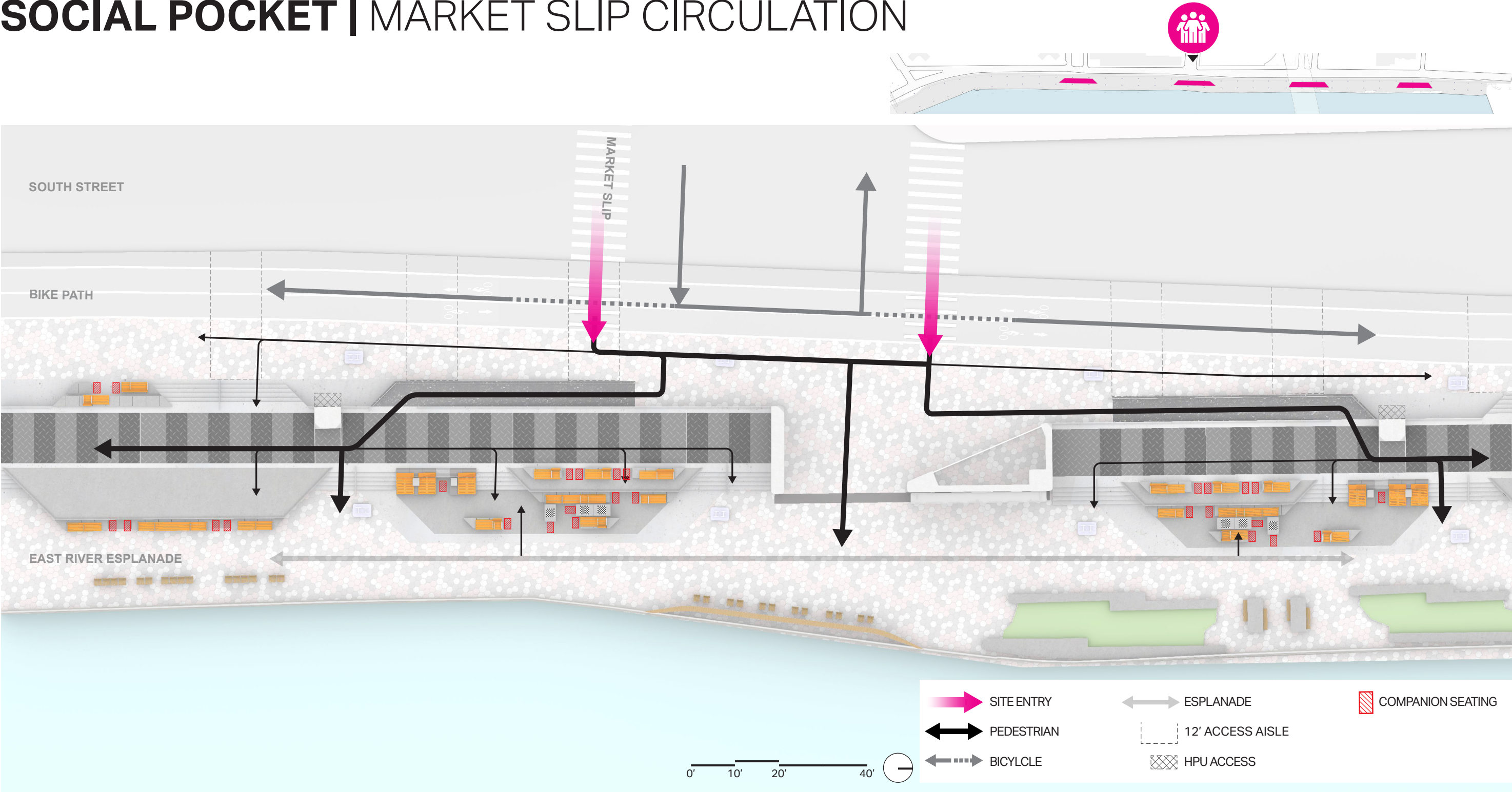


# SOCIAL POCKET | MARKET SLIP PLAN



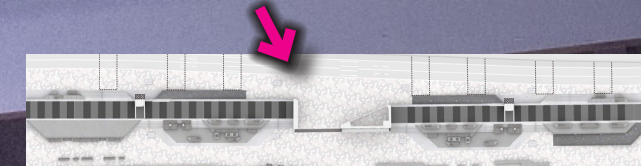


# SOCIAL POCKET | MARKET SLIP CIRCULATION



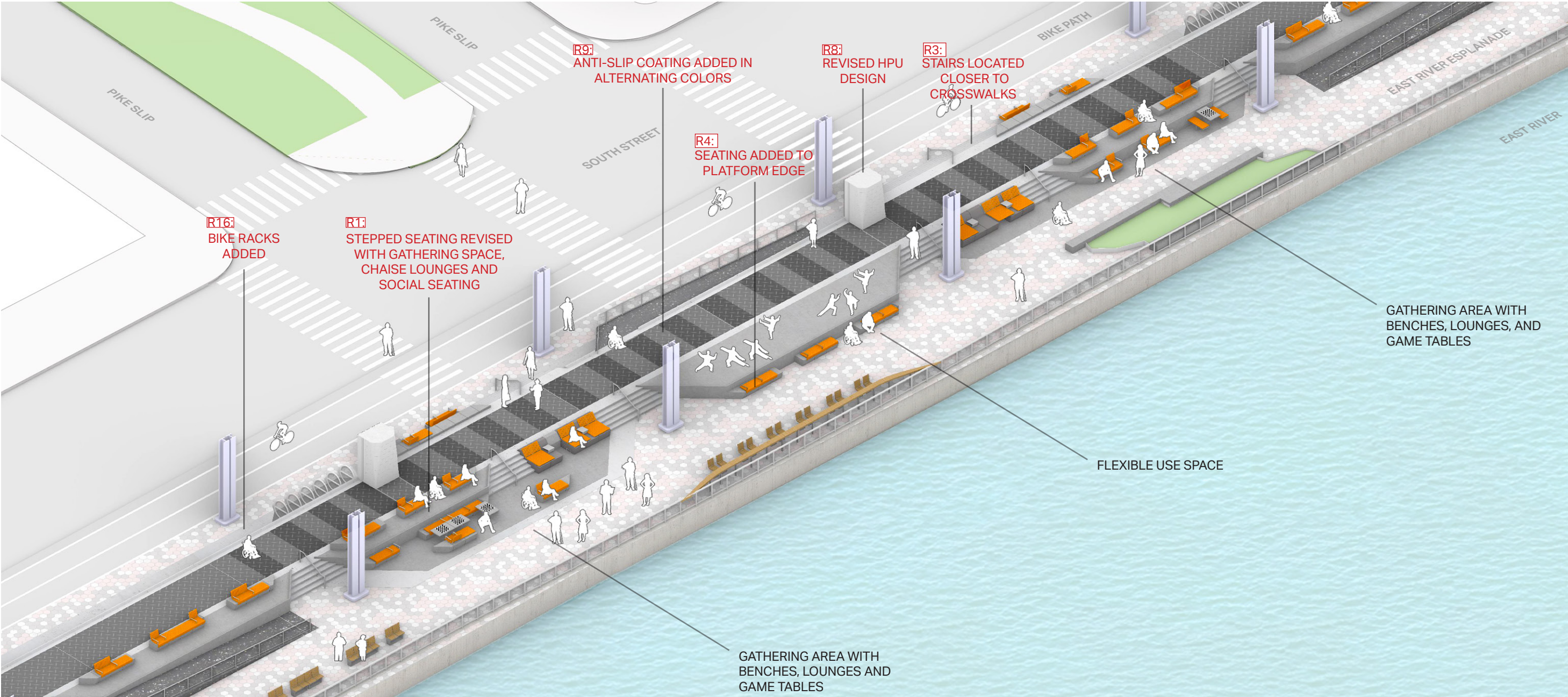


# SOCIAL POCKET | MARKET SLIP



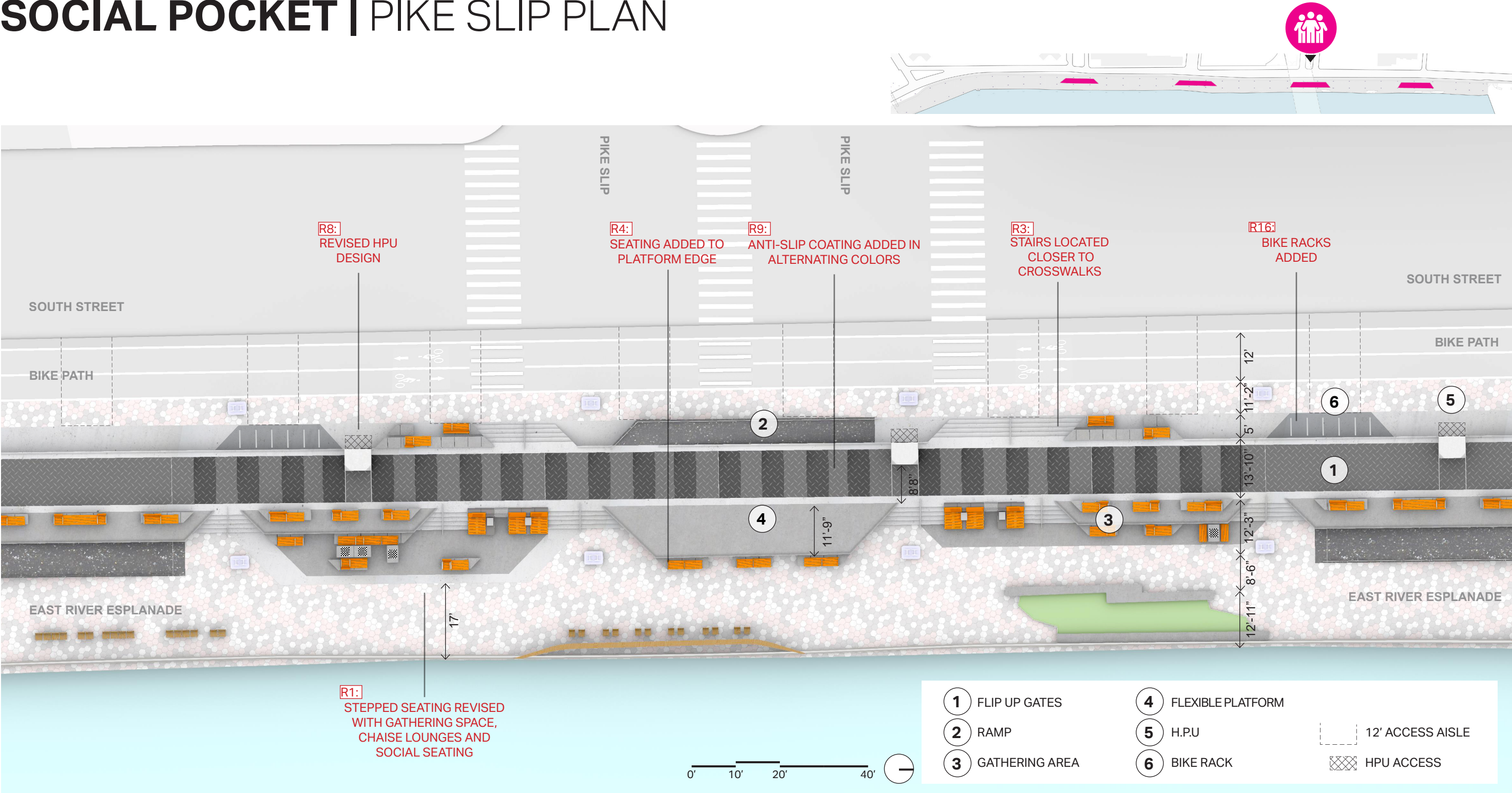


# SOCIAL POCKET | PIKE SLIP



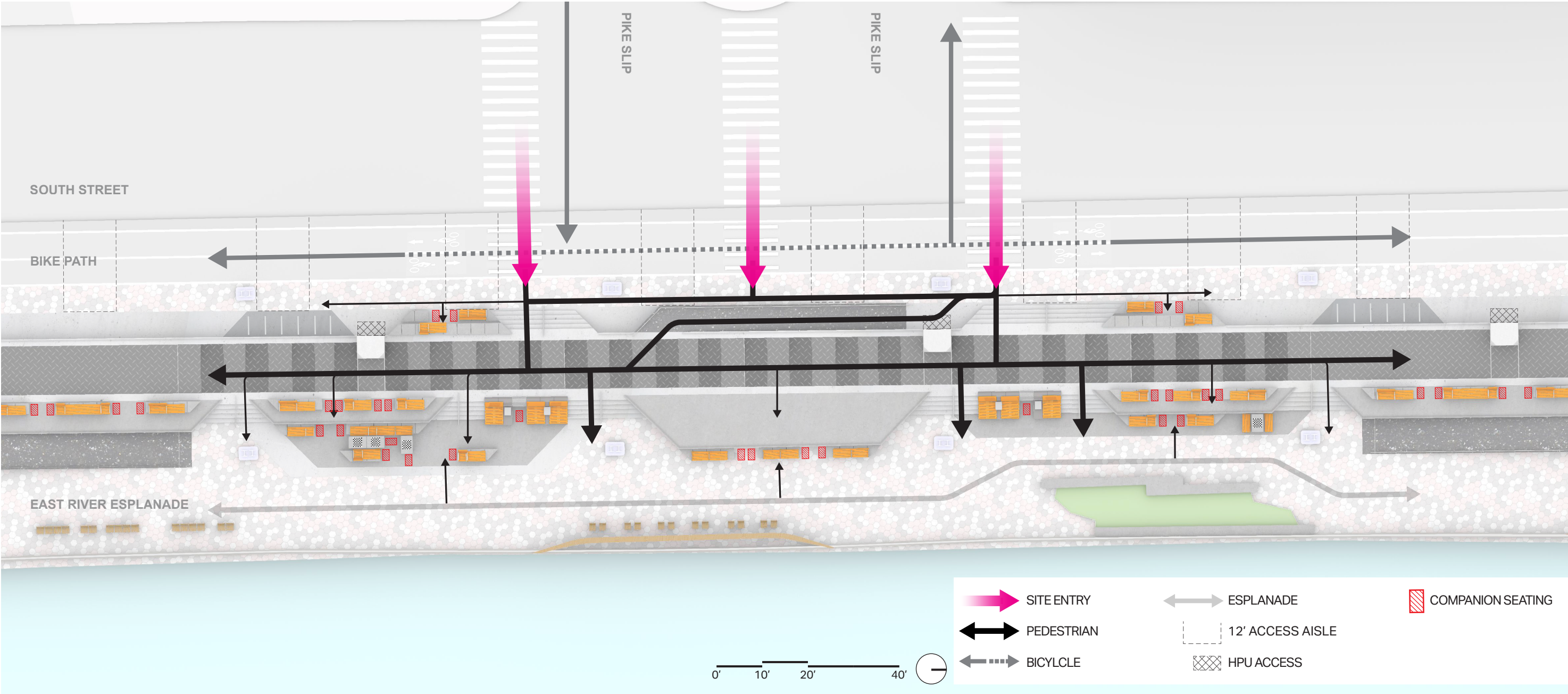


# SOCIAL POCKET | PIKE SLIP PLAN



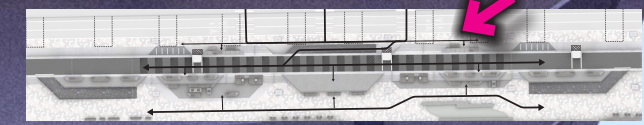


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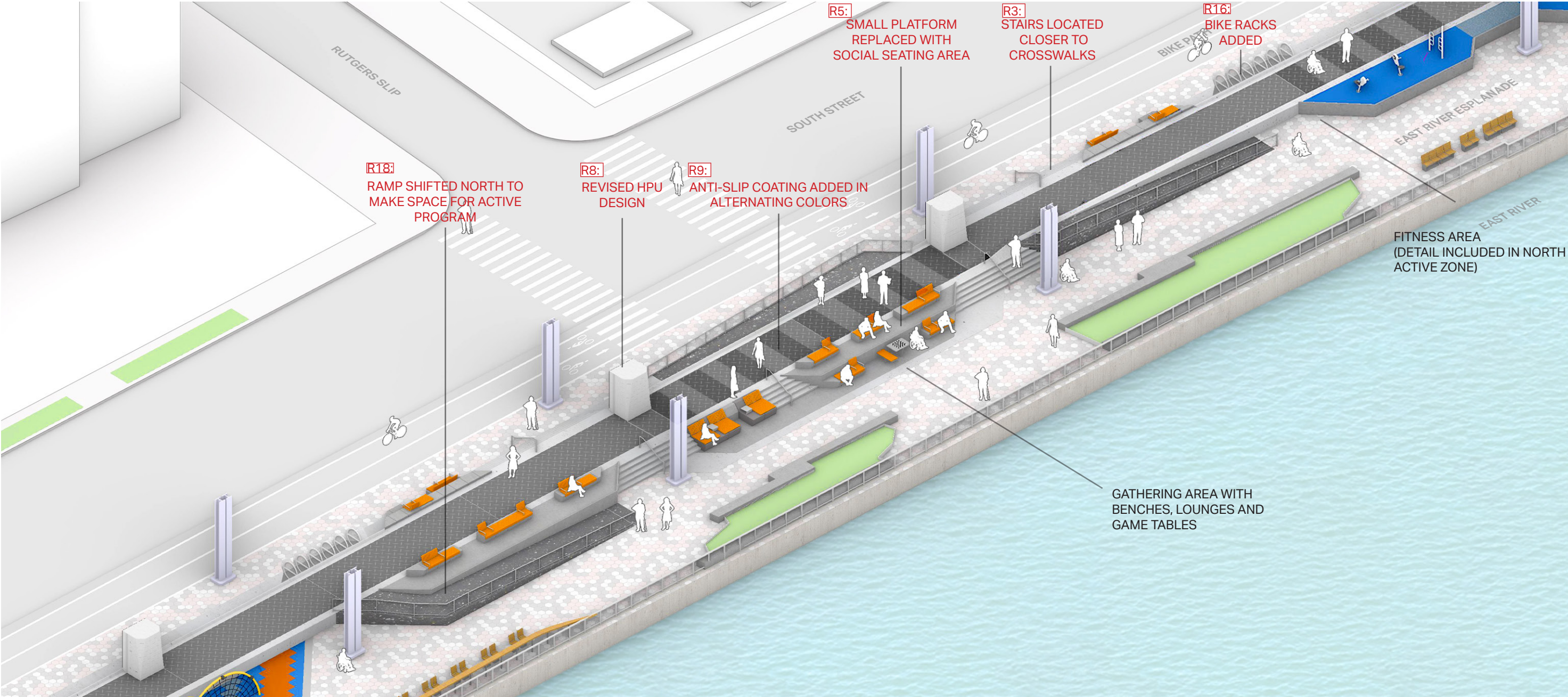


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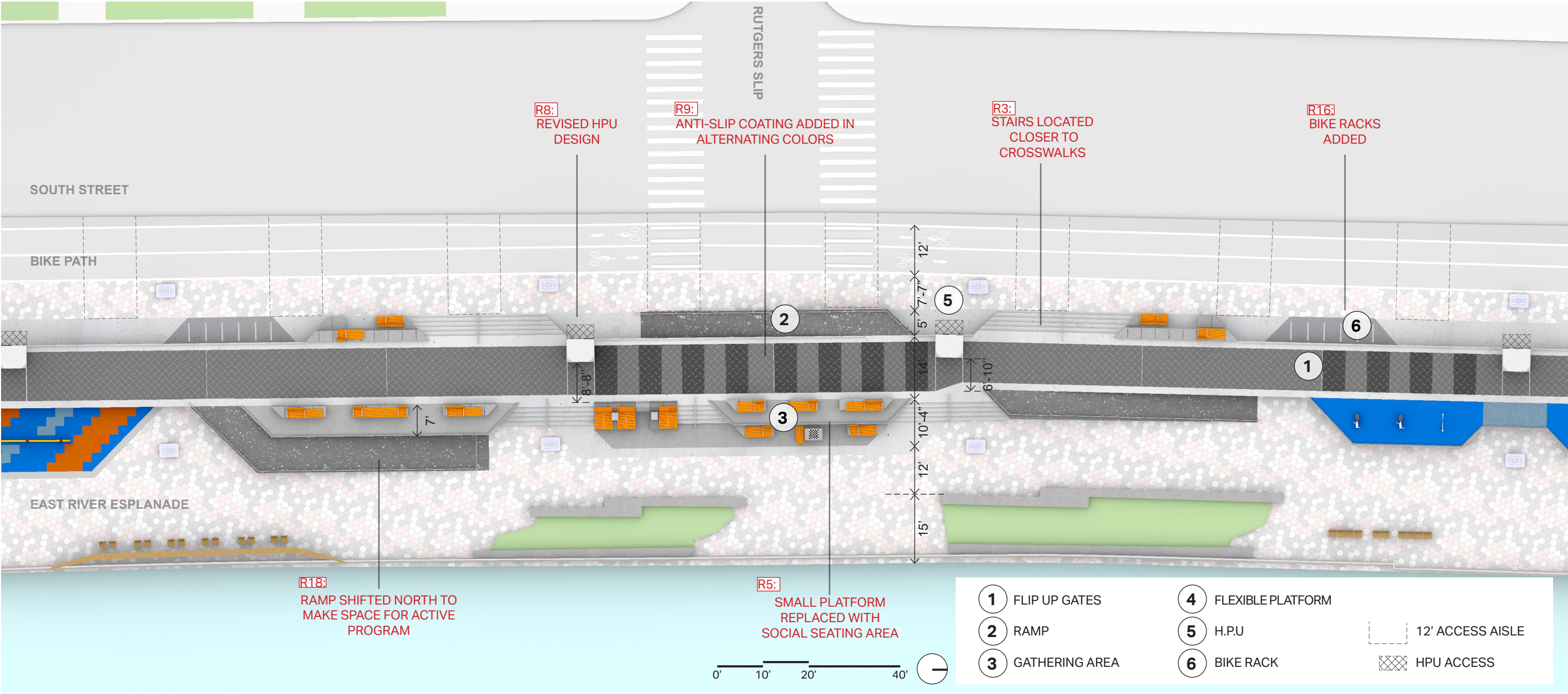


# SOCIAL POCKET | RUTGERS SLIP



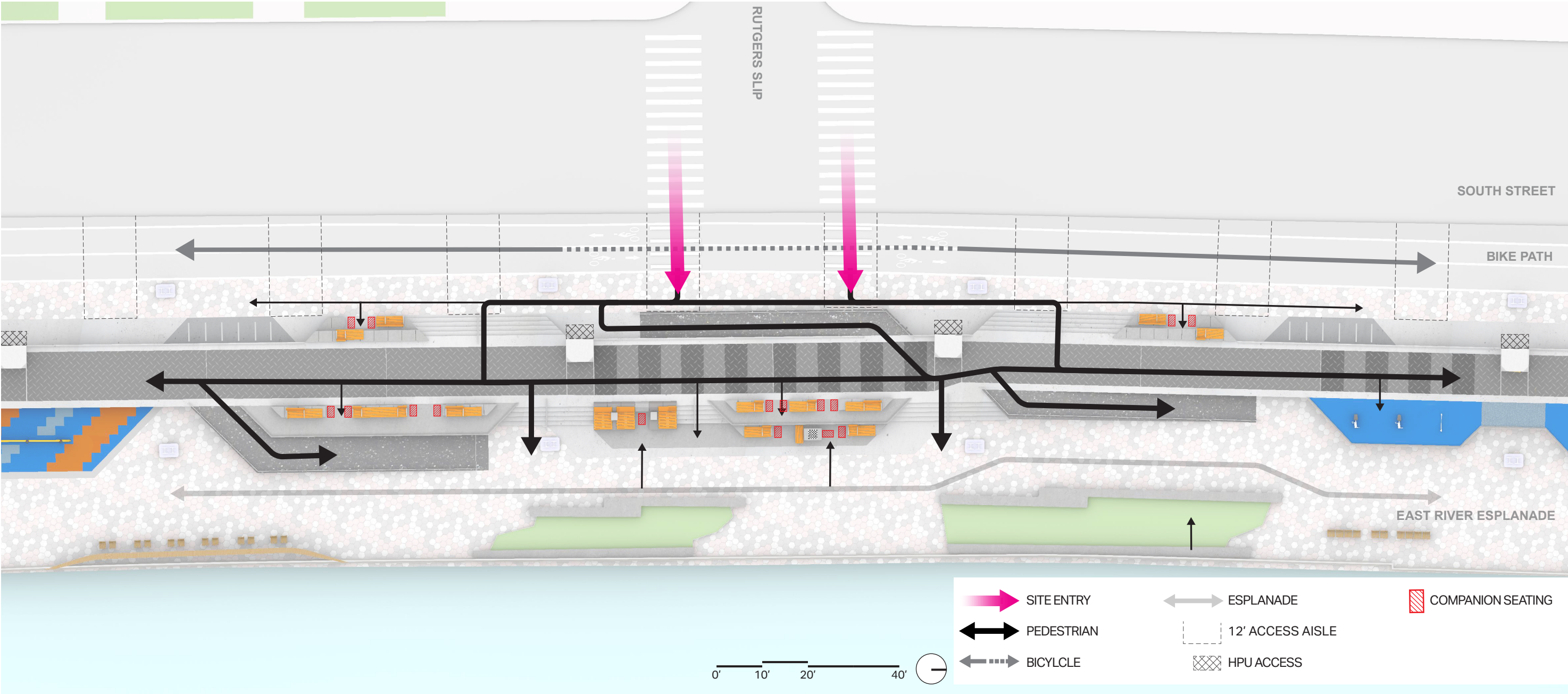


# SOCIAL POCKET | RUTGERS SLIP PLAN





# SOCIAL POCKET | RUTGERS SLIP CIRCULATION





# SOCIAL POCKET | RUTGERS SLIP





# PASSIVE POCKETS



SOCIAL  
POCKETS



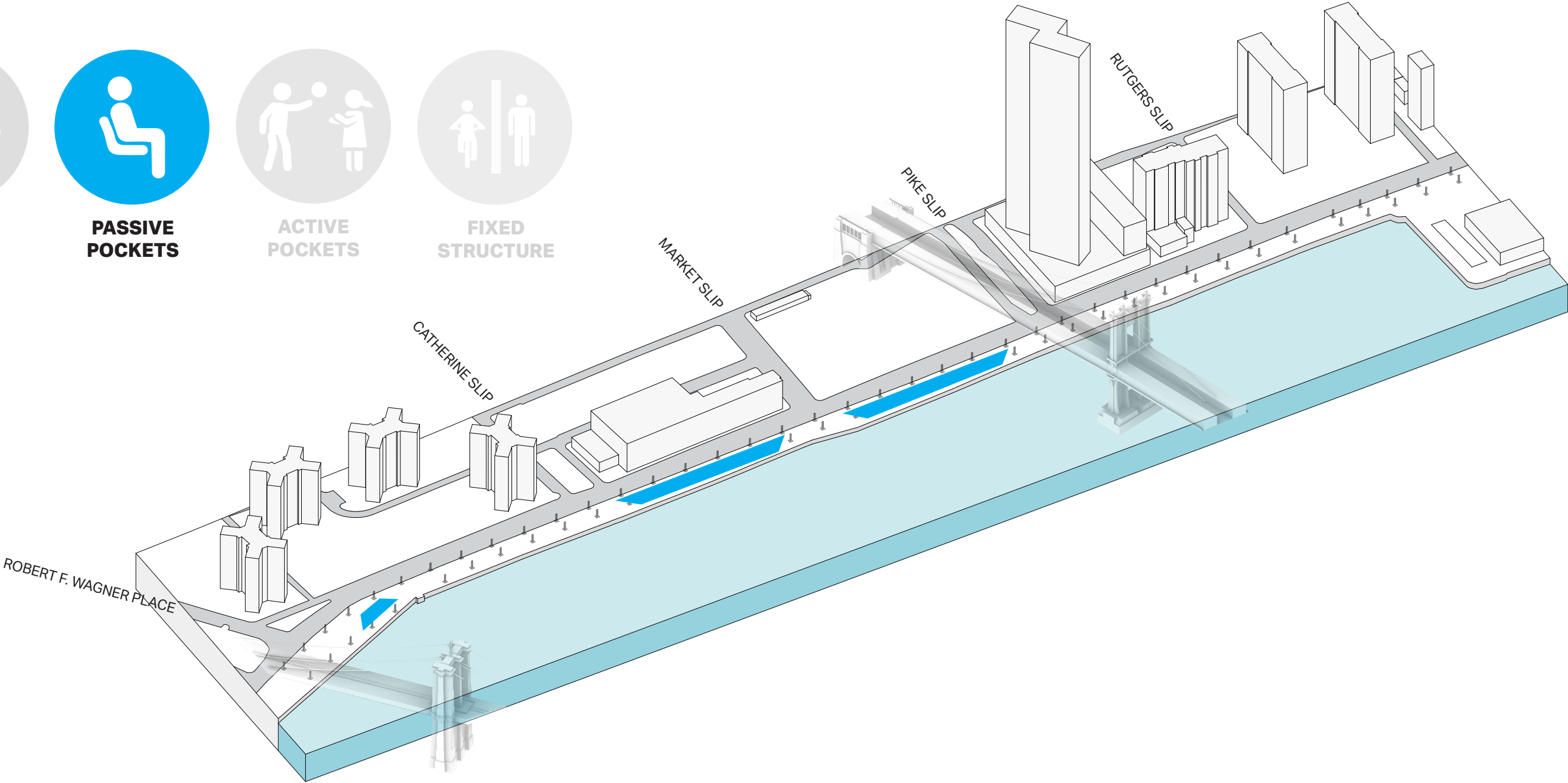
PASSIVE  
POCKETS



ACTIVE  
POCKETS



FIXED  
STRUCTURE

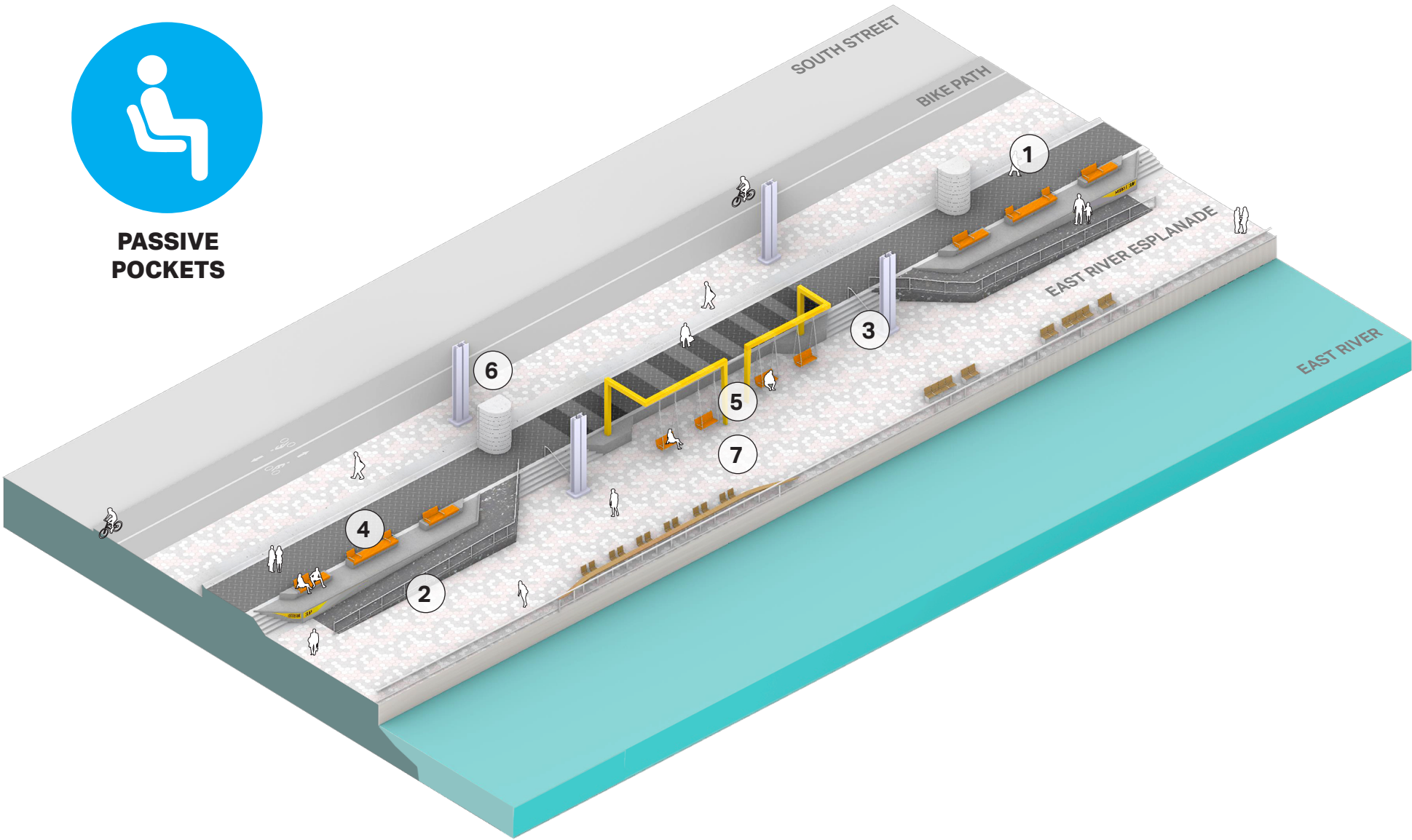




# PASSIVE POCKET | TYPICAL PROGRAM & MATERIAL



PASSIVE  
POCKETS



1 **FLIP UP GATES**

BLACK DIAMOND PLATE WITH ANTI-SLIP FINISH



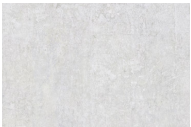
2 **RAMPS**

DARK CONCRETE WITH SILICA CARBIDE



3 **STEPS & PAVING**

STANDARD GREY CONCRETE



4 **SEATING OVERLOOKS**

GREY CONCRETE, ORANGE RECYCLED PLASTIC LUMBER



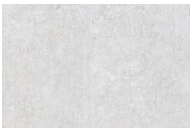
5 **GLIDERS**

POWDERCOATED METAL



6 **HYDRAULIC POWER UNITS**

STANDARD GREY CONCRETE



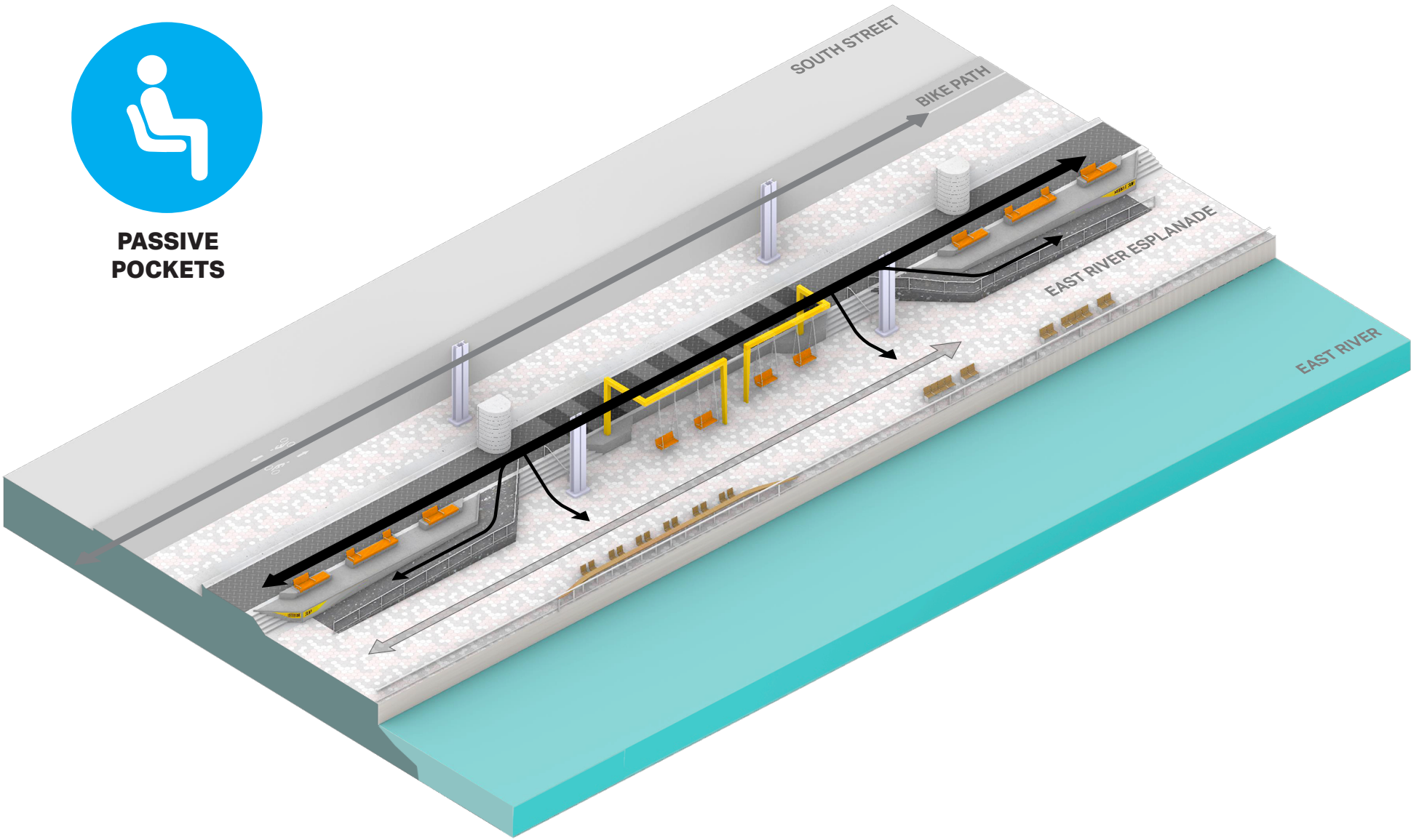
7 **ESPLANADE**

HEX PAVERS USING EXISTING PATTERN





# PASSIVE POCKET | TYPICAL CIRCULATION



**PASSIVE  
POCKETS**

**PLATFORM WALK**



**EAST RIVER ESPLANADE**

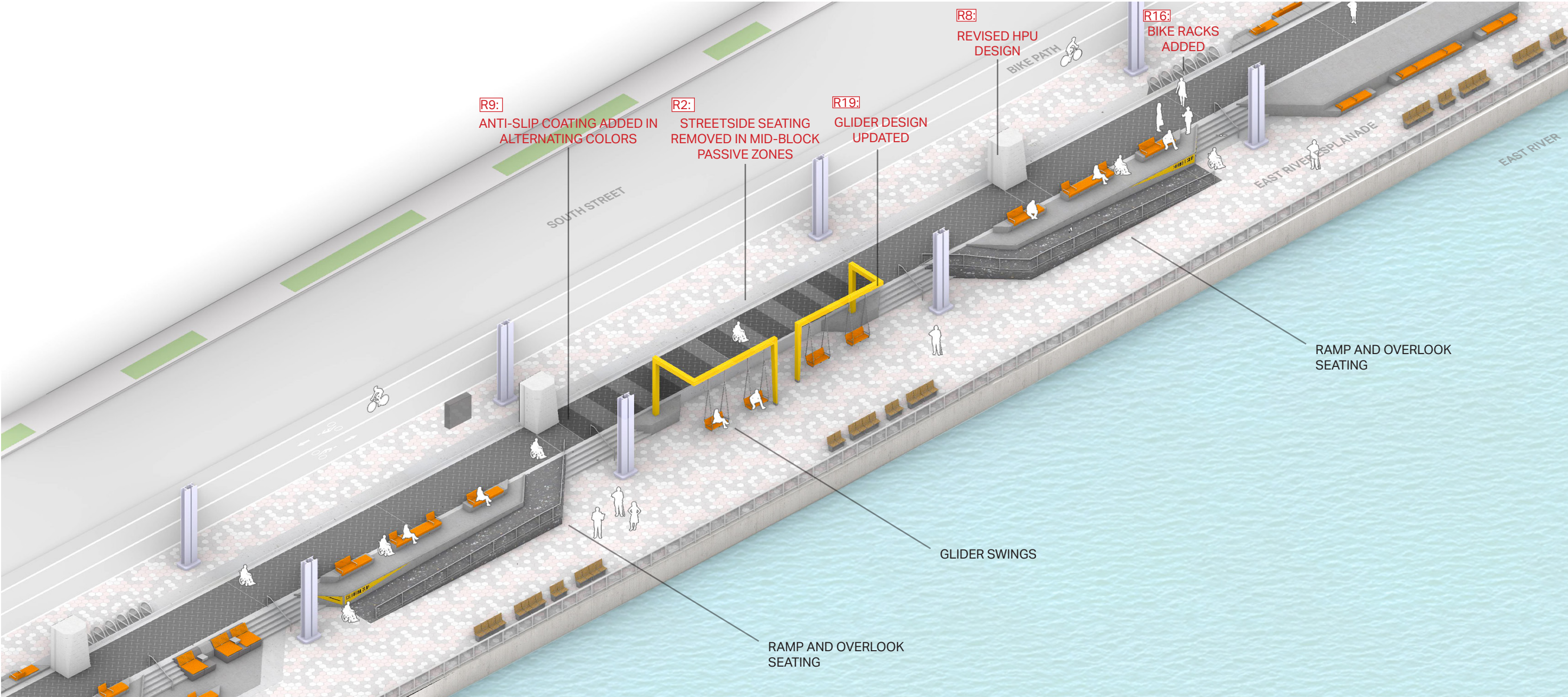


**BIKE PATH**



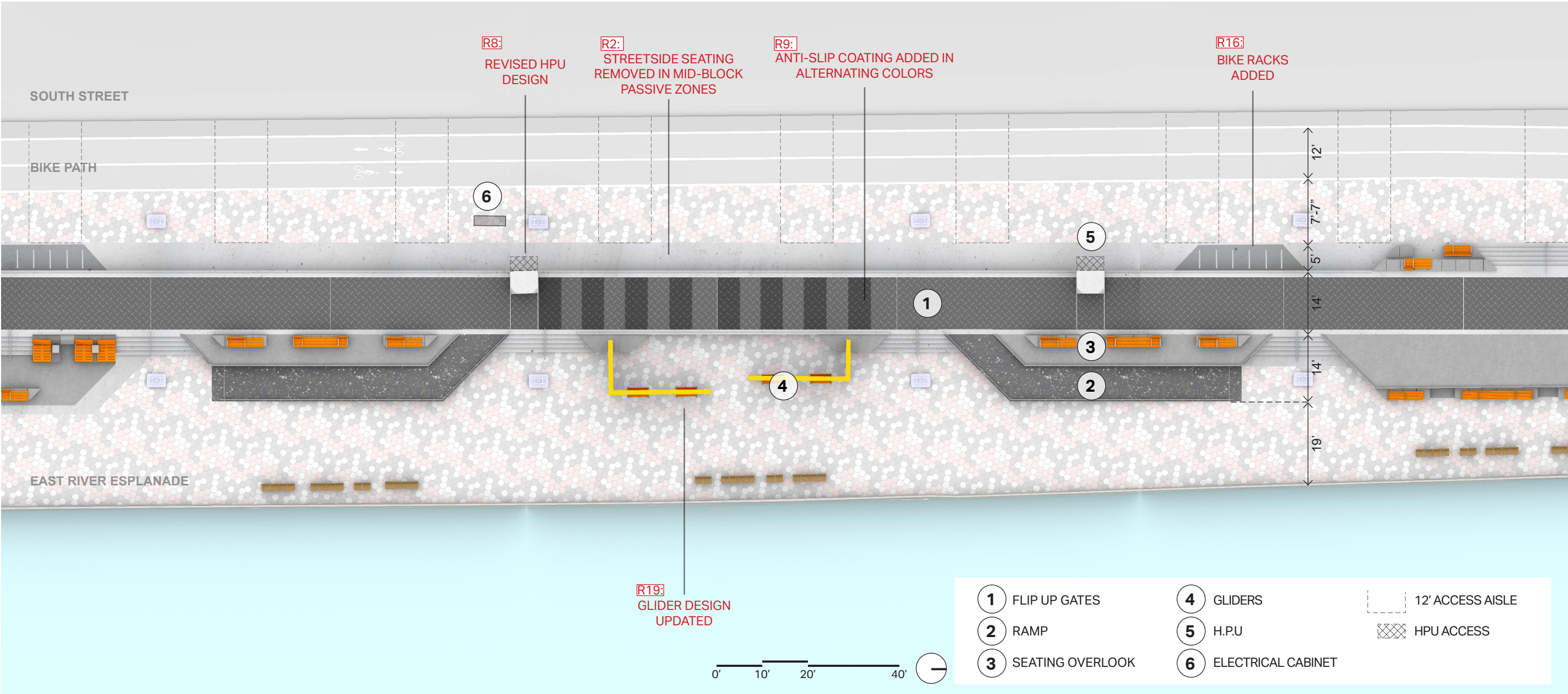


# PASSIVE POCKET | CATHERINE / MARKET



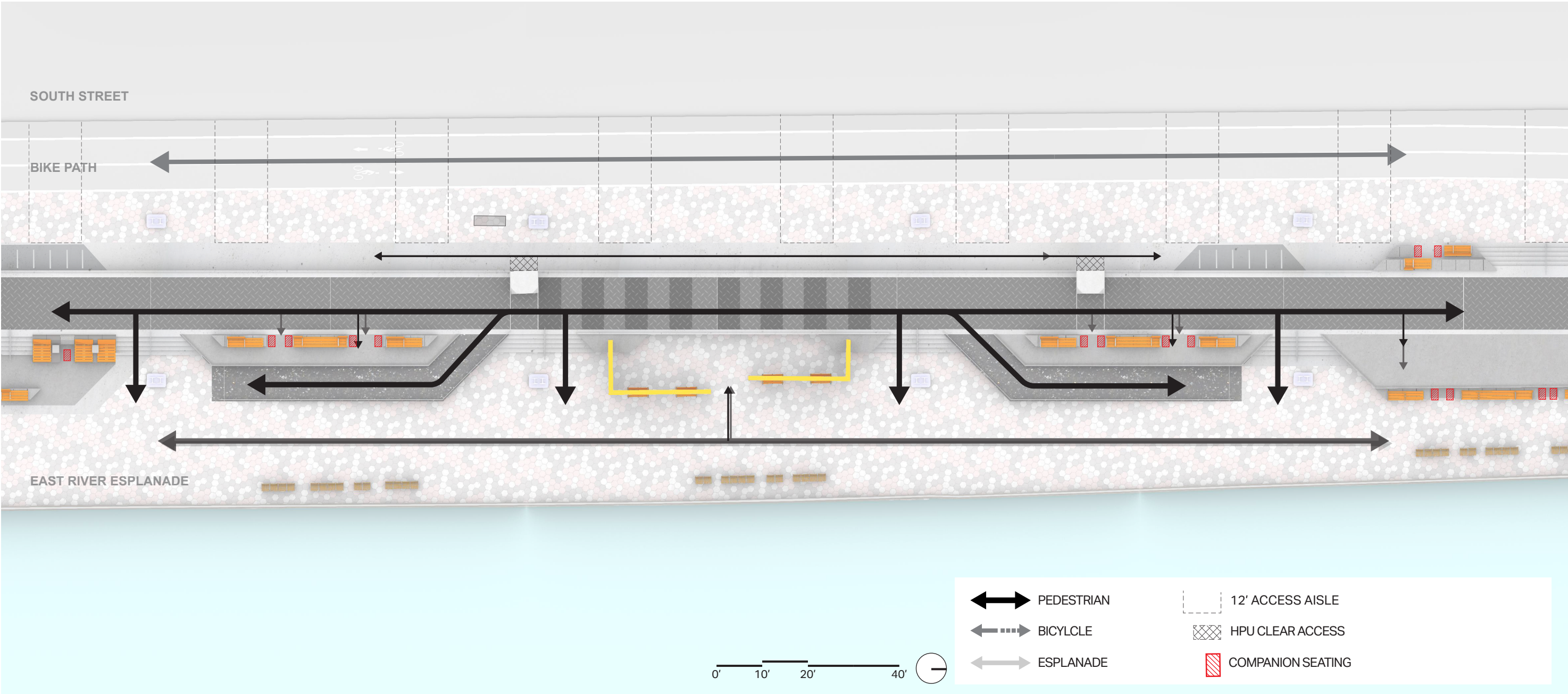


# PASSIVE POCKET | CATHERINE / MARKET PLAN



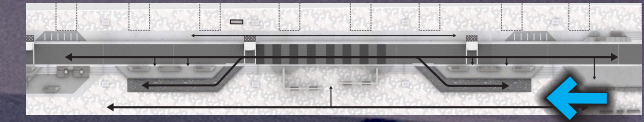


# PASSIVE POCKET | CATHERINE / MARKET CIRCULATION



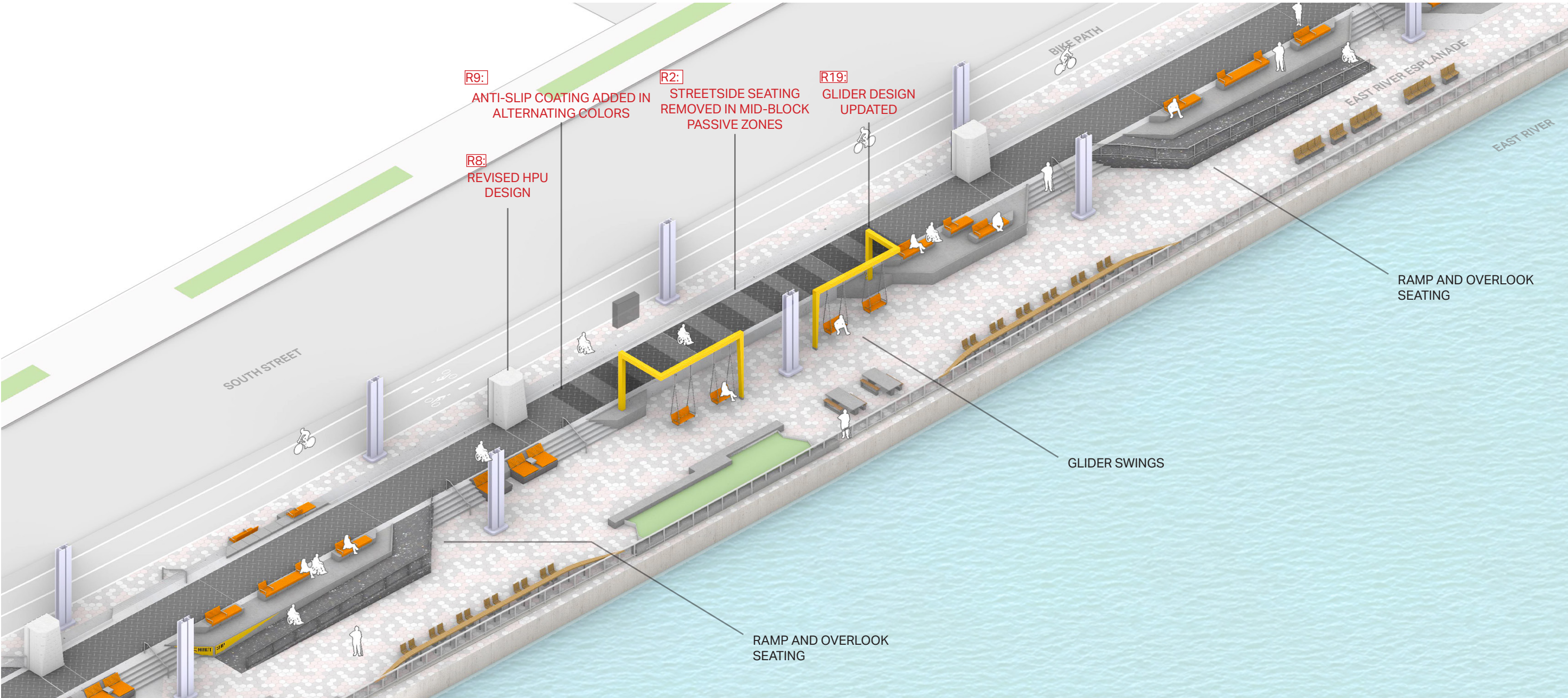


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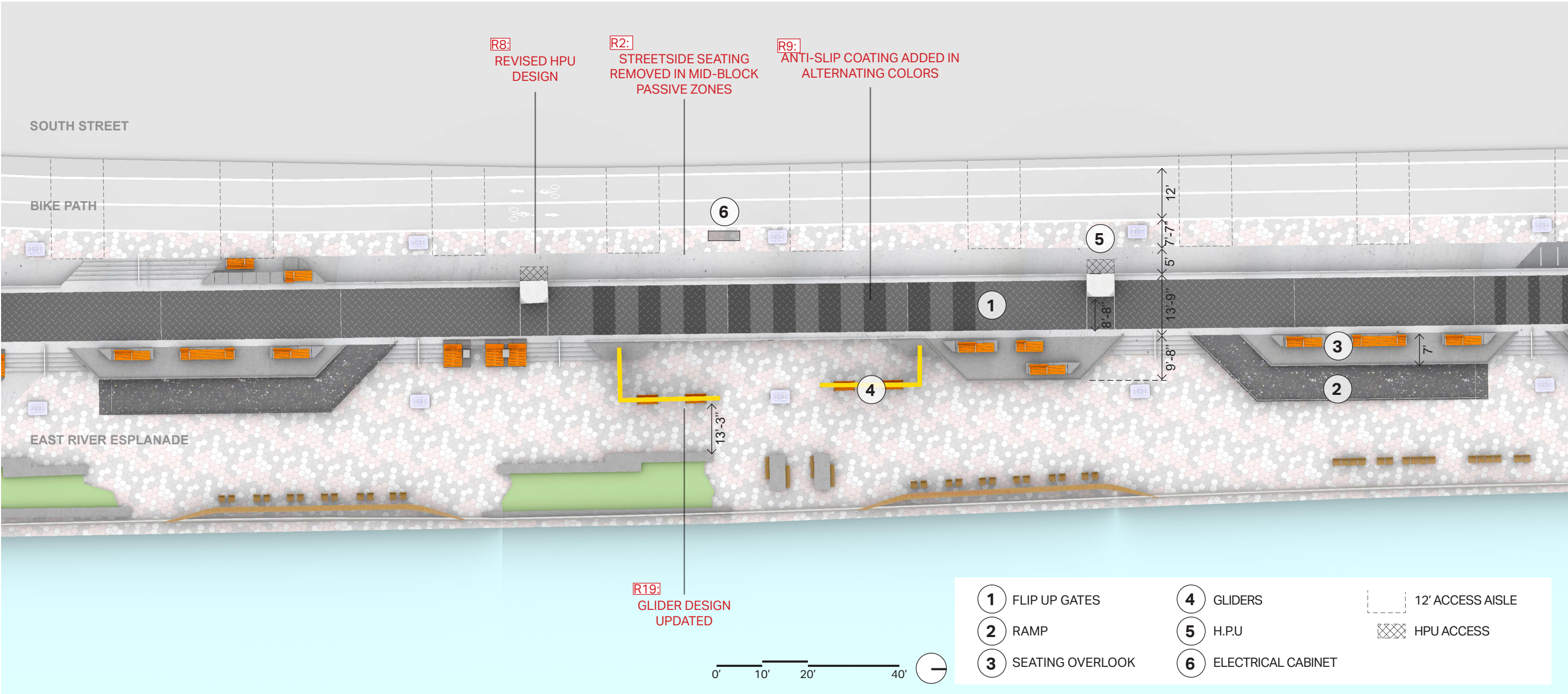


# PASSIVE POCKET | MARKET / PIKE



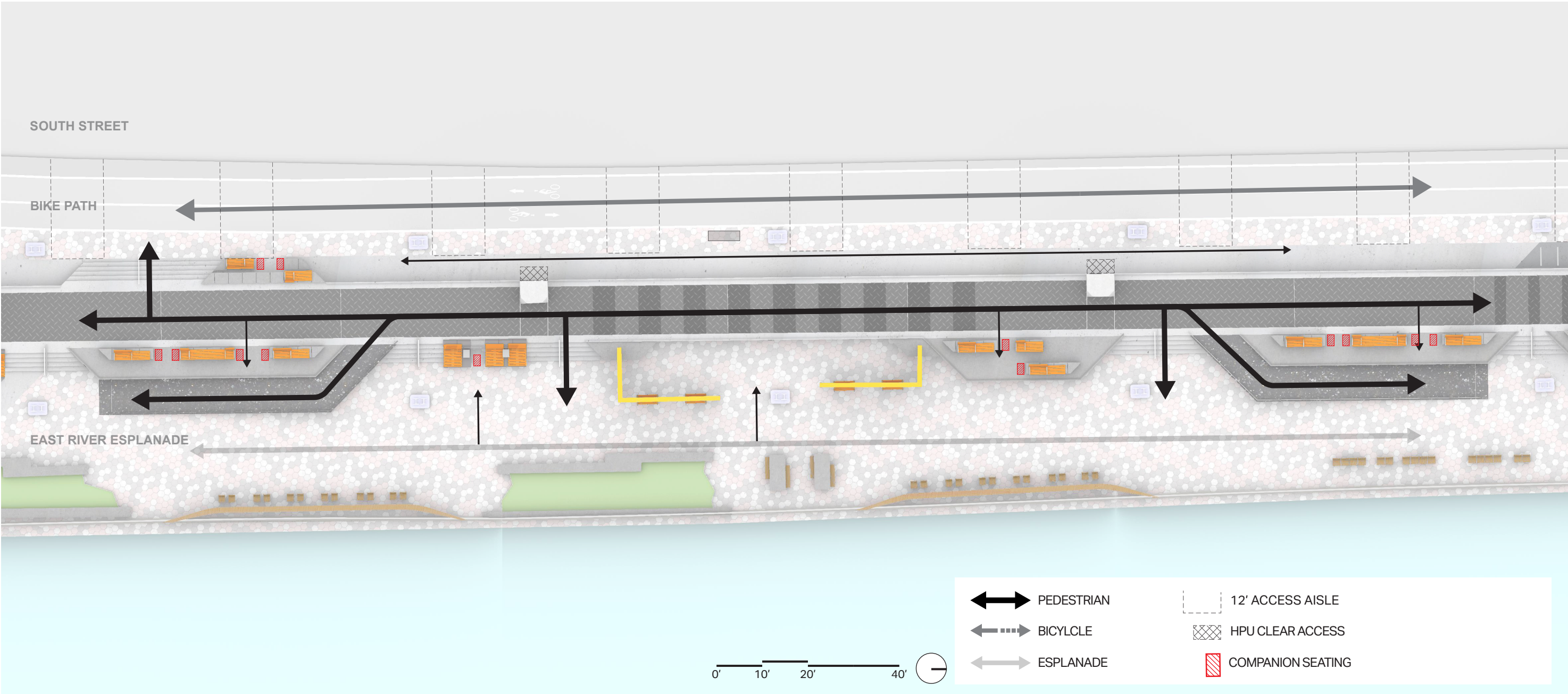


# PASSIVE POCKET | MARKET / PIKE PLAN





# PASSIVE POCKET | MARKET / PIKE CIRCULATION





# PASSIVE POCKET | CATHERINE / MARKET





# ACTIVE POCKETS



SOCIAL  
POCKETS



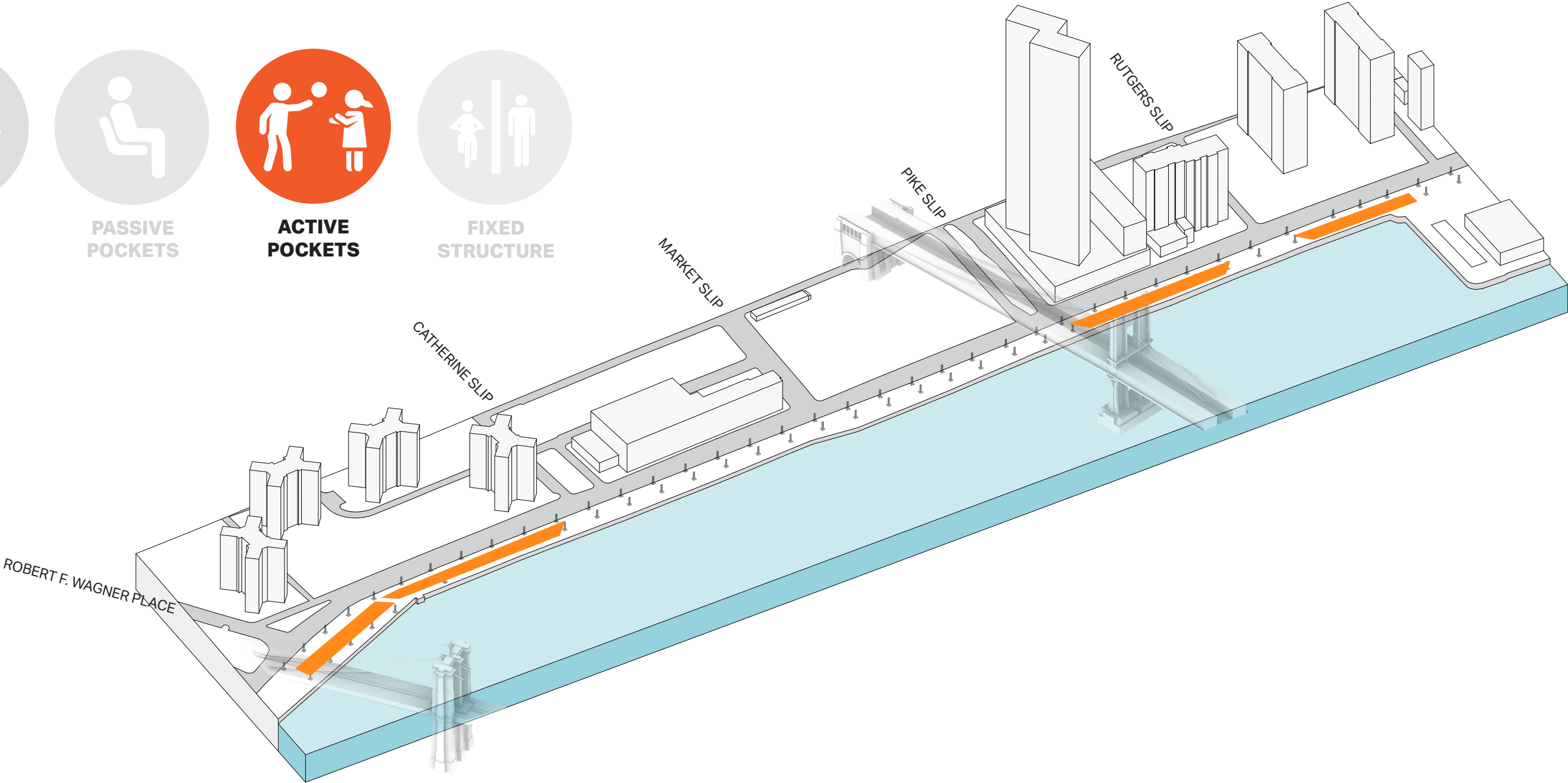
PASSIVE  
POCKETS



ACTIVE  
POCKETS

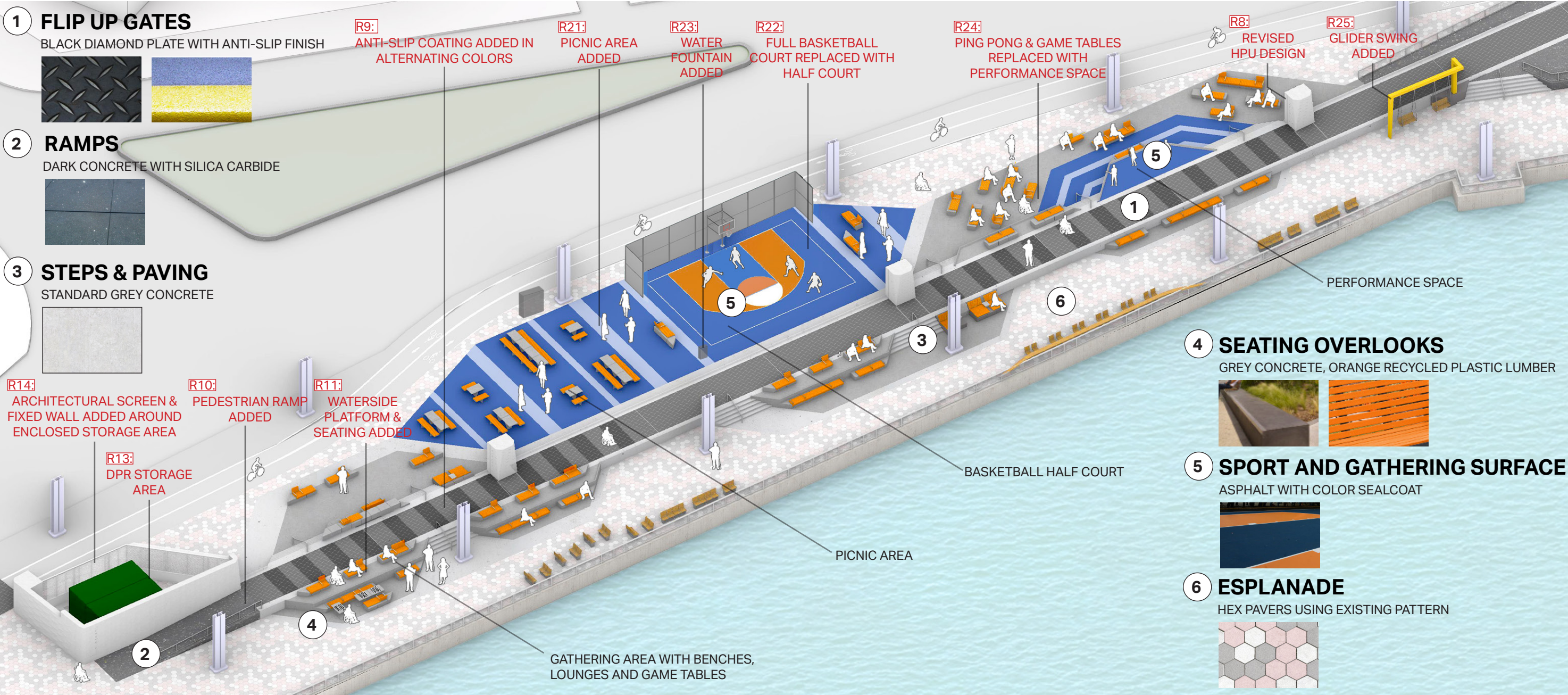
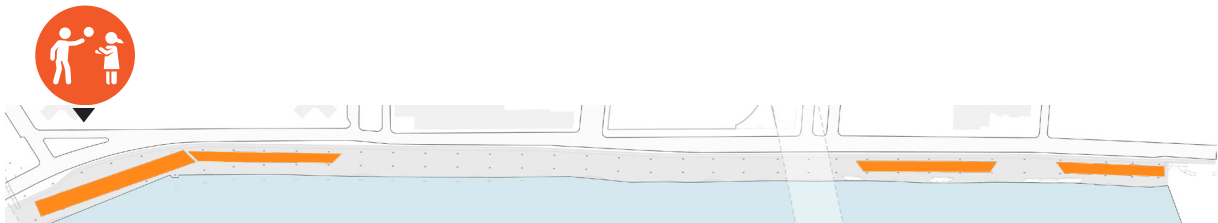


FIXED  
STRUCTURE



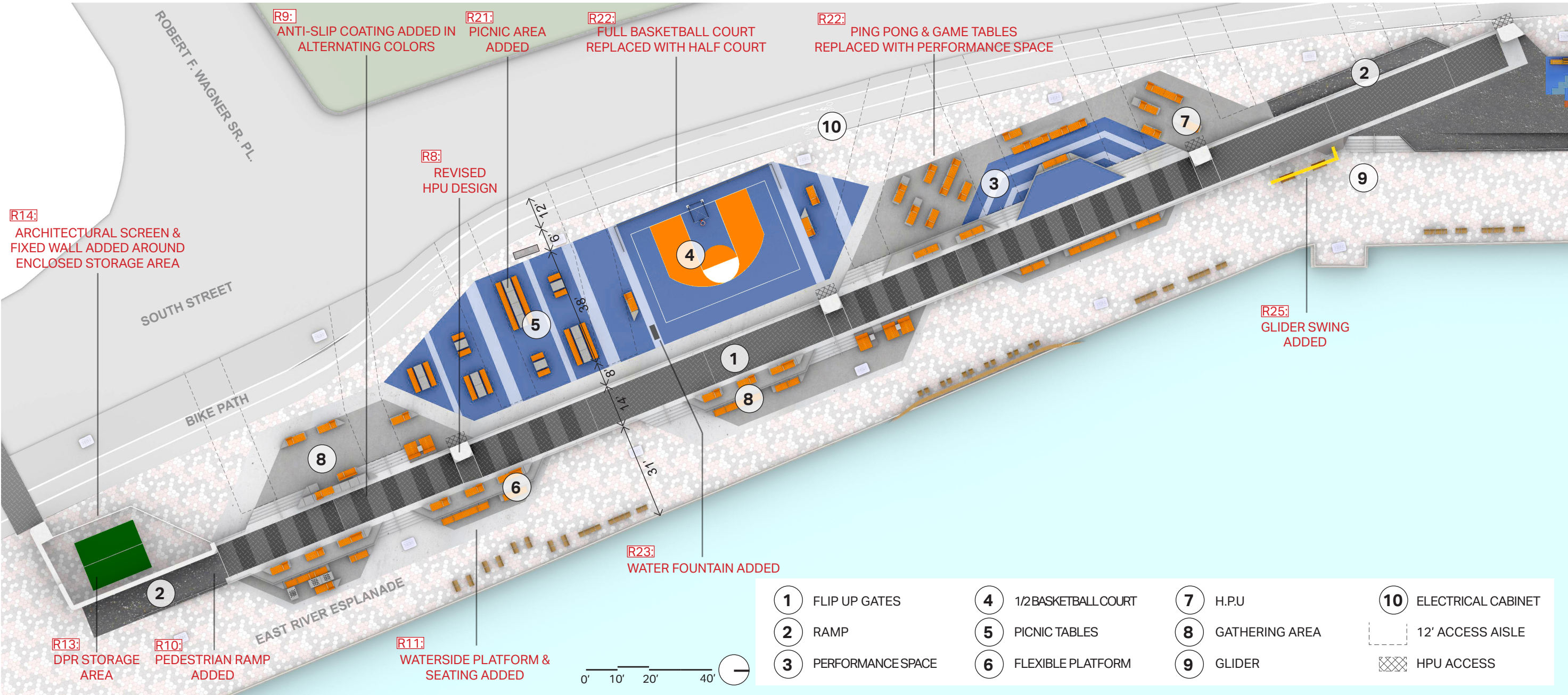
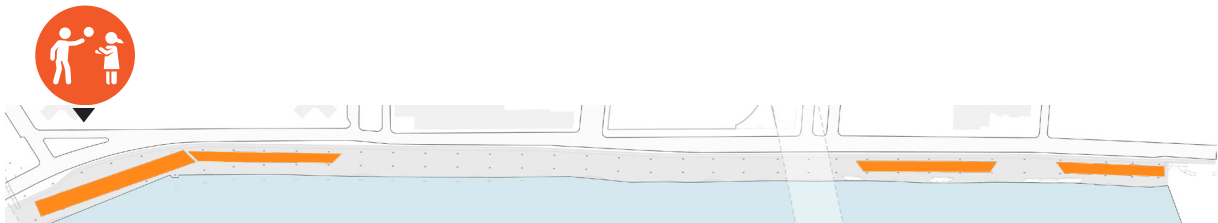


# SOUTH ACTIVE | SPORT / PERFORMANCE



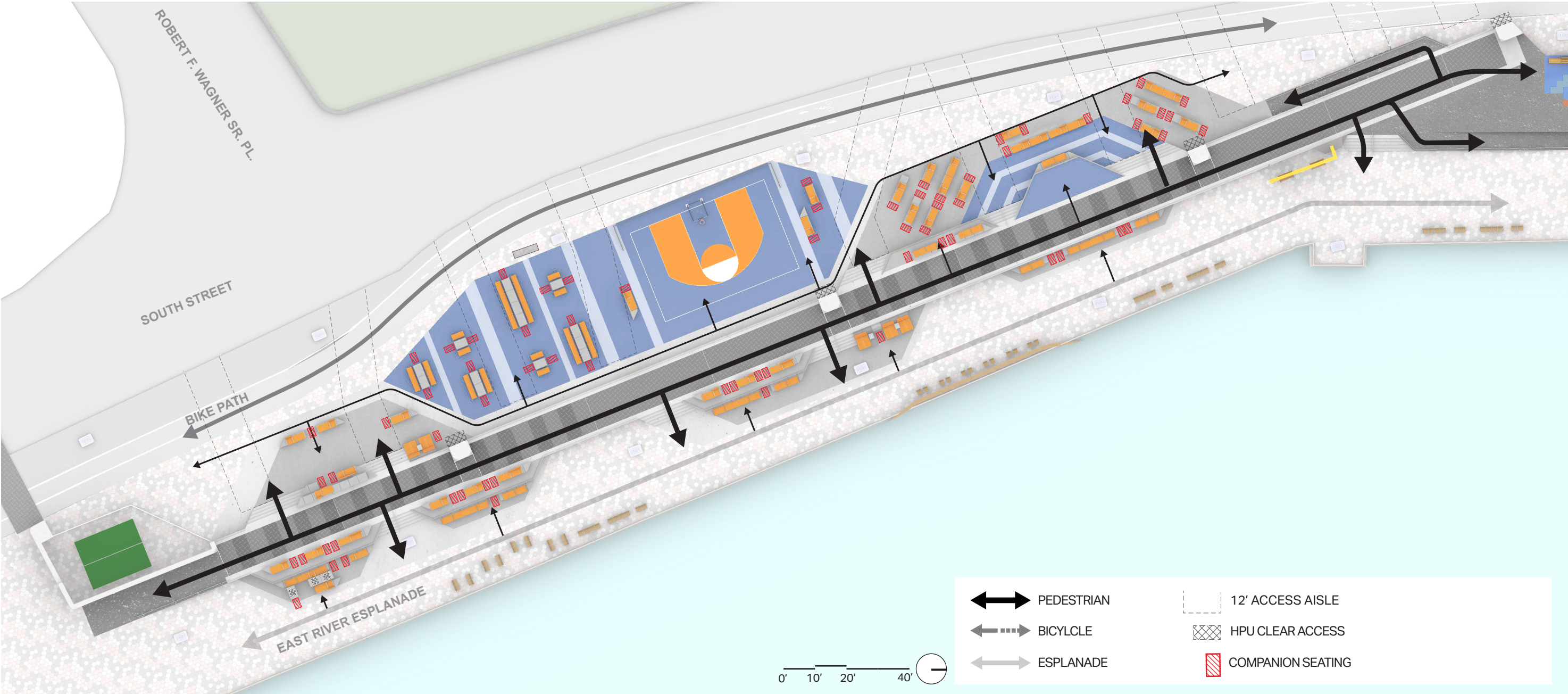
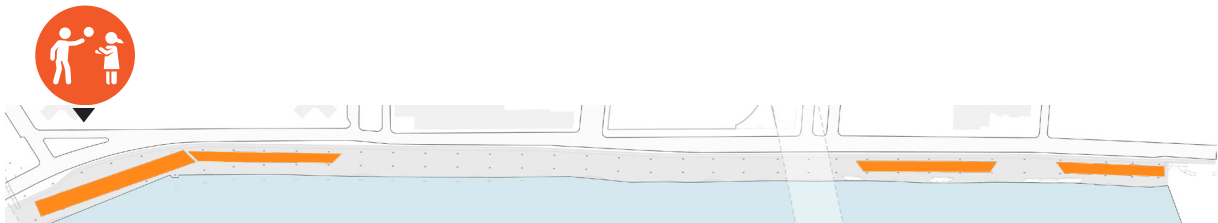


# SOUTH ACTIVE | SPORT / PERFORMANCE



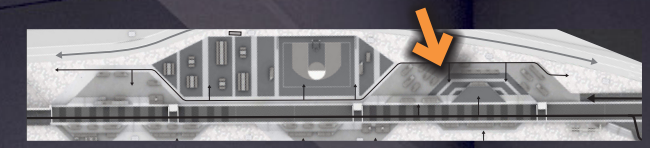


# SOUTH ACTIVE | SPORT / PERFORMANCE



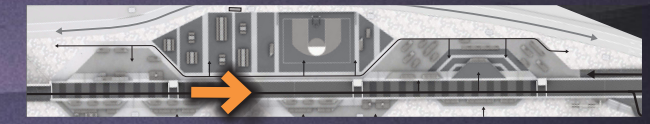


# SOUTH ACTIVE | PERFORMANCE





# SOUTH ACTIVE | SPORT





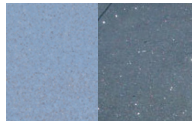
# SOUTH ACTIVE | PLAY & FITNESS

## 1 PLAYGROUND SURFACING

MITCHELL FALL SAFETY  
SURFACE TILES



COLORLED CONCRETE



## 2 STEPS & PAVING

STANDARD GREY CONCRETE



## 3 SEATING

NYC PARKS STANDARD SEATING



## 4 ESPLANADE

HEX PAVERS USING EXISTING PATTERN



R8: REVISED HPU  
DESIGN

R6:  
PLAY EQUIPMENT UPDATED/  
DEVELOPED, PLAY MOUNDS  
REMOVED.

R7:  
SEATING ADDED

R23:  
WATER FOUNTAIN ADDED

EQUIPMENT  
COLOR IN  
PROGRESS

R7:  
SEATING ADDED

R23:  
WATER FOUNTAIN ADDED

PARENT / GUARDIAN SEATING

2-5 YEARS OLD SENSORY  
PLAYGROUND

5-12 YEARS OLD ACTIVE  
CLIMBING PLAYGROUND

5-12 YEARS OLD ACTIVE  
RAMPED PLAYGROUND

FITNESS AREA

EAST RIVER ESPLANADE

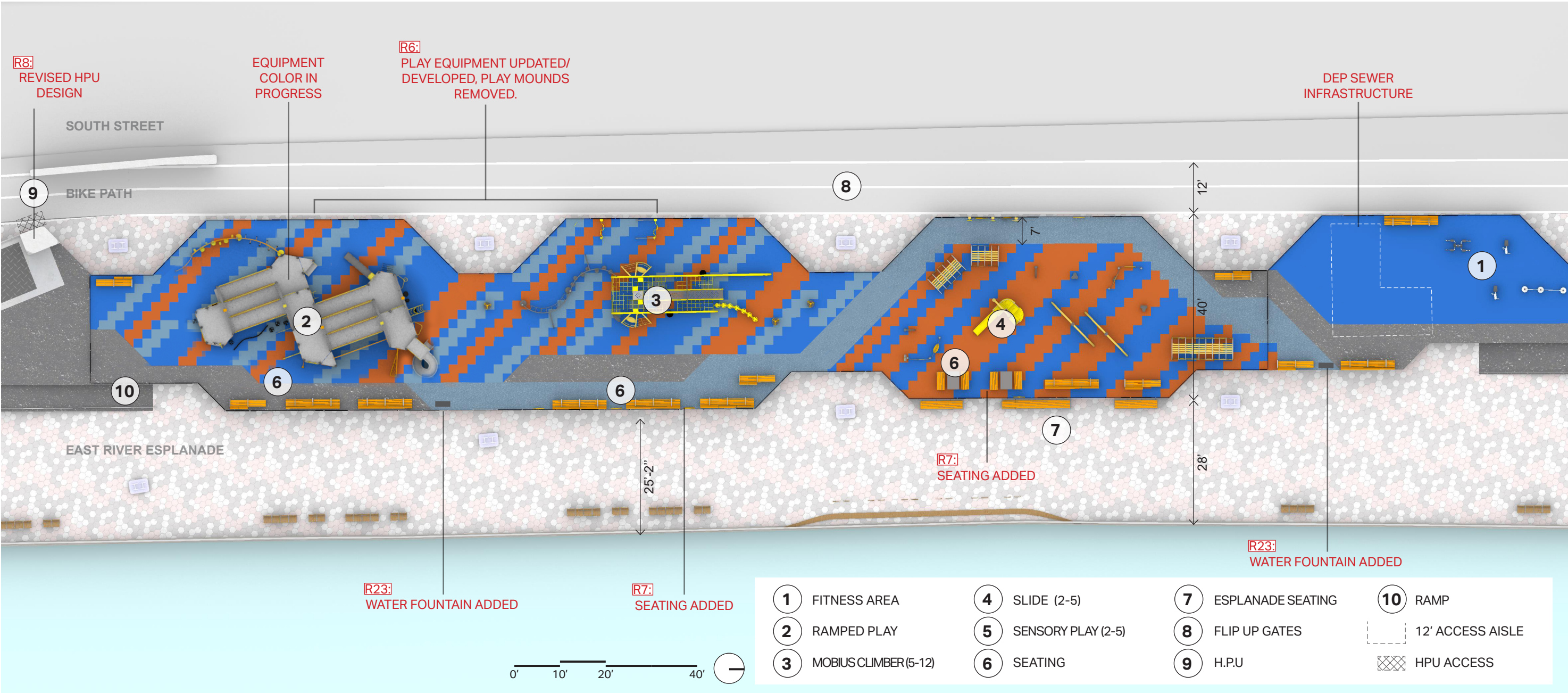
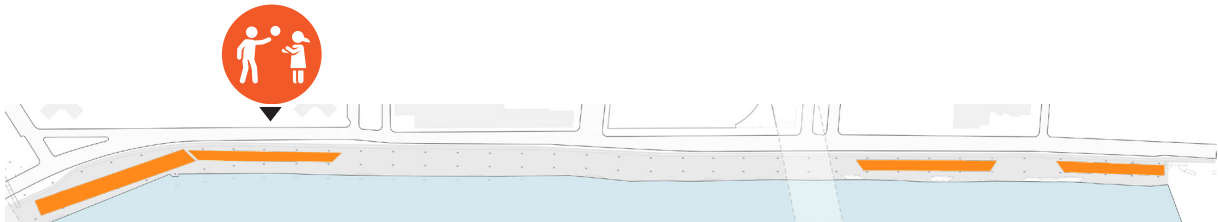
EAST RIVER



BK Bridge - Montgomery  
Coastal Resilience

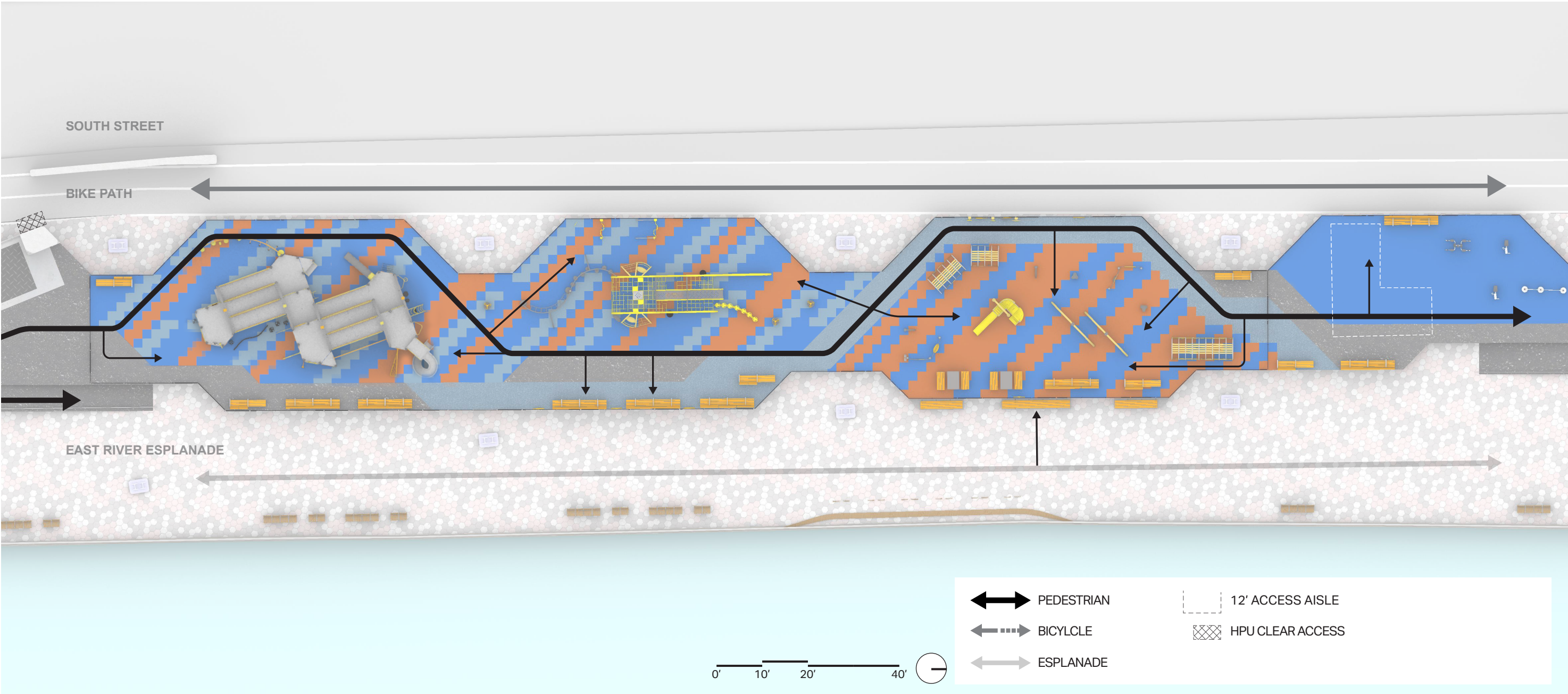


# SOUTH ACTIVE | PLAY & FITNESS PLAN





# SOUTH ACTIVE | PLAY & FITNESS CIRCULATION





# SOUTH ACTIVE | PLAY



EQUIPMENT COLOR IN PROGRESS





# SOUTH ACTIVE | 2-5 PLAY EQUIPMENT

## EQUIPMENT COLOR IN PROGRESS



ARCHED WALKWAYS  
WITH SENSORY BELLS

LASER CUT PLAY PANELS  
WITH SHADOW MOVEMENT

SADDLE SPINNER

STEEL TUBE ARCHES  
INTERACTIVE PANELS

WHIRLY GIG  
SOCIAL SPINNING PANELS

CHIT CHAT NOODLES

STAINLESS STEEL SLIDE  
RPL TRANSITION PLATFORM



# SOUTH ACTIVE | 5-12 PLAY EQUIPMENT

## EQUIPMENT COLOR IN PROGRESS



WHIRLY GIG

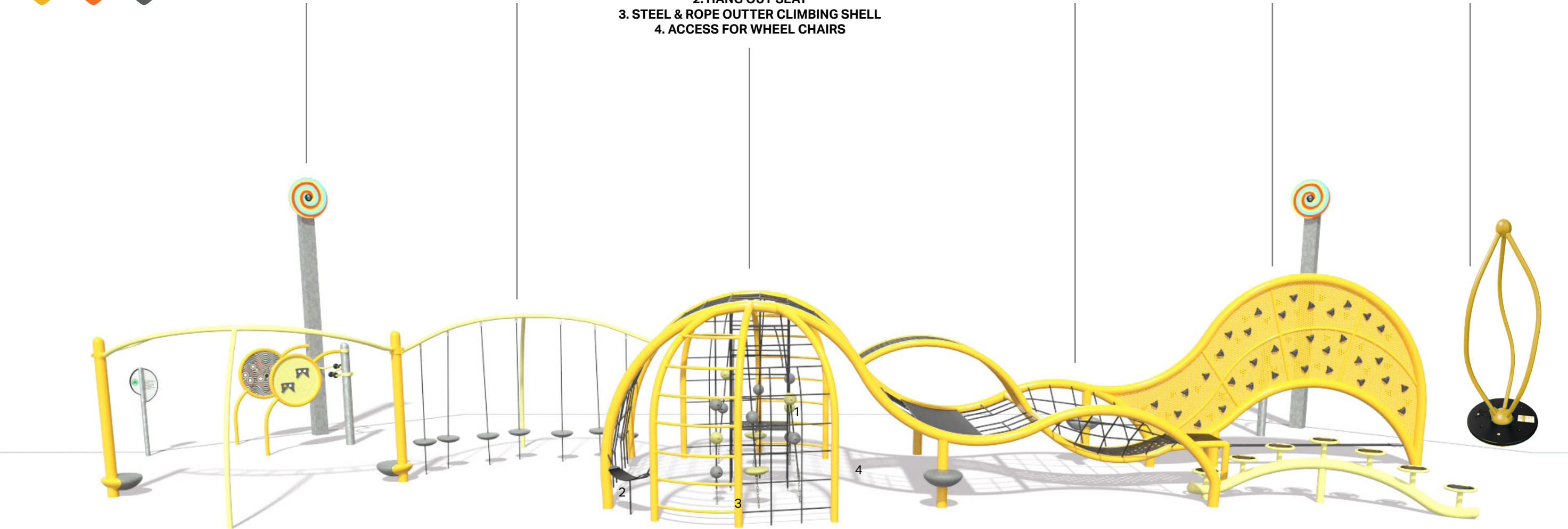
SWIGGLE STIX BRIDGE

- 1. INNER CLIMBING CABLES
- 2. HANG OUT SEAT
- 3. STEEL & ROPE OUTER CLIMBING SHELL
- 4. ACCESS FOR WHEEL CHAIRS

WAVY NET/BELT CLIMBER

MOBIUS CLIMBERS

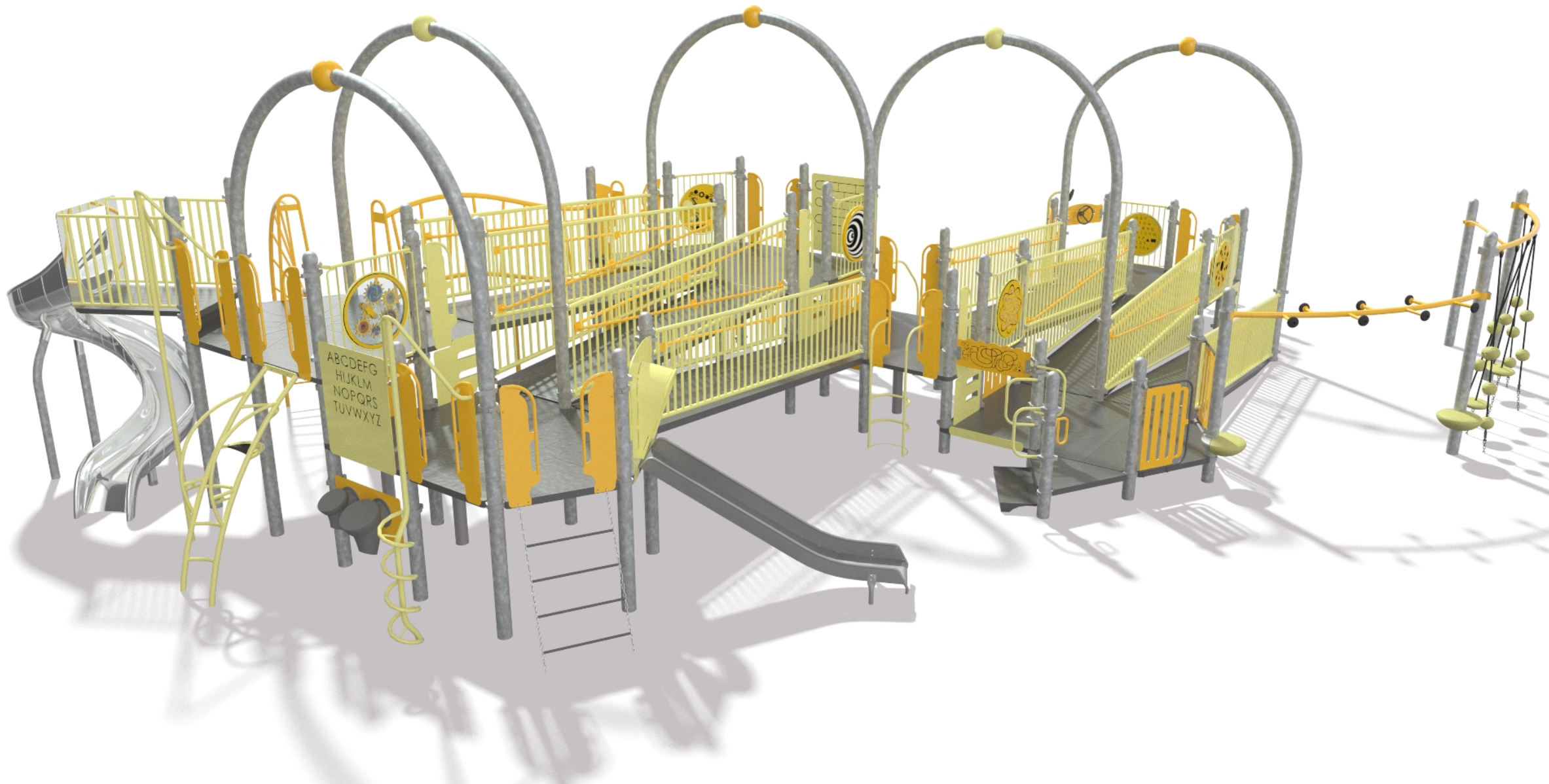
CURVA SPINNER





# SOUTH ACTIVE | 5-12 RAMPED PLAY EQUIPMENT

EQUIPMENT COLOR IN PROGRESS





# SOUTH ACTIVE | FITNESS EQUIPMENT

PULL UP BARS - 5'6" & 7'6" - ADA



ARM BIKE  
ADA



PUSH-UP AND LEG LIFT STATION  
ADA





# NORTH ACTIVE | PLAY & CLIMB



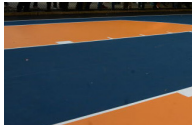
## 1 CLIMBING STRUCTURE SURFACING

MITCHELL FALL SAFETY SURFACE TILES



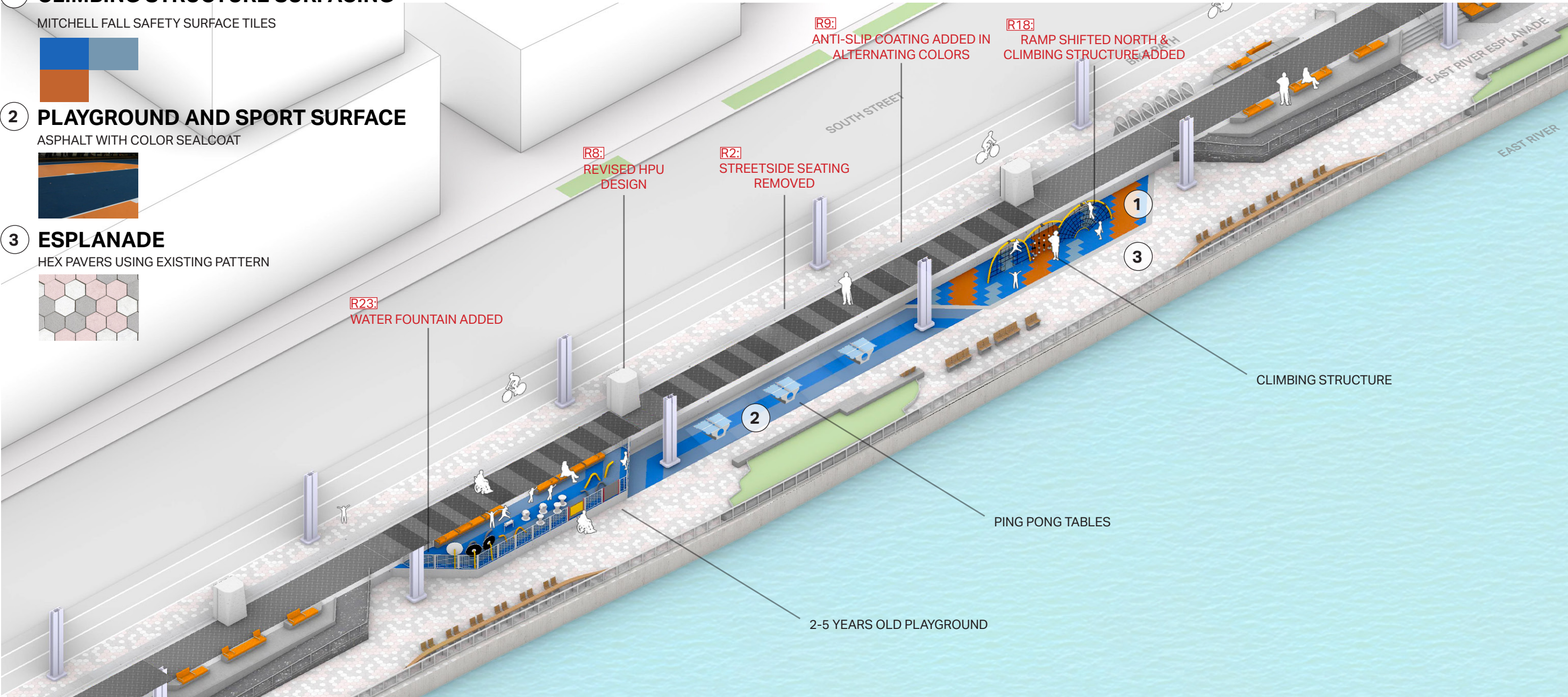
## 2 PLAYGROUND AND SPORT SURFACE

ASPHALT WITH COLOR SEALCOAT



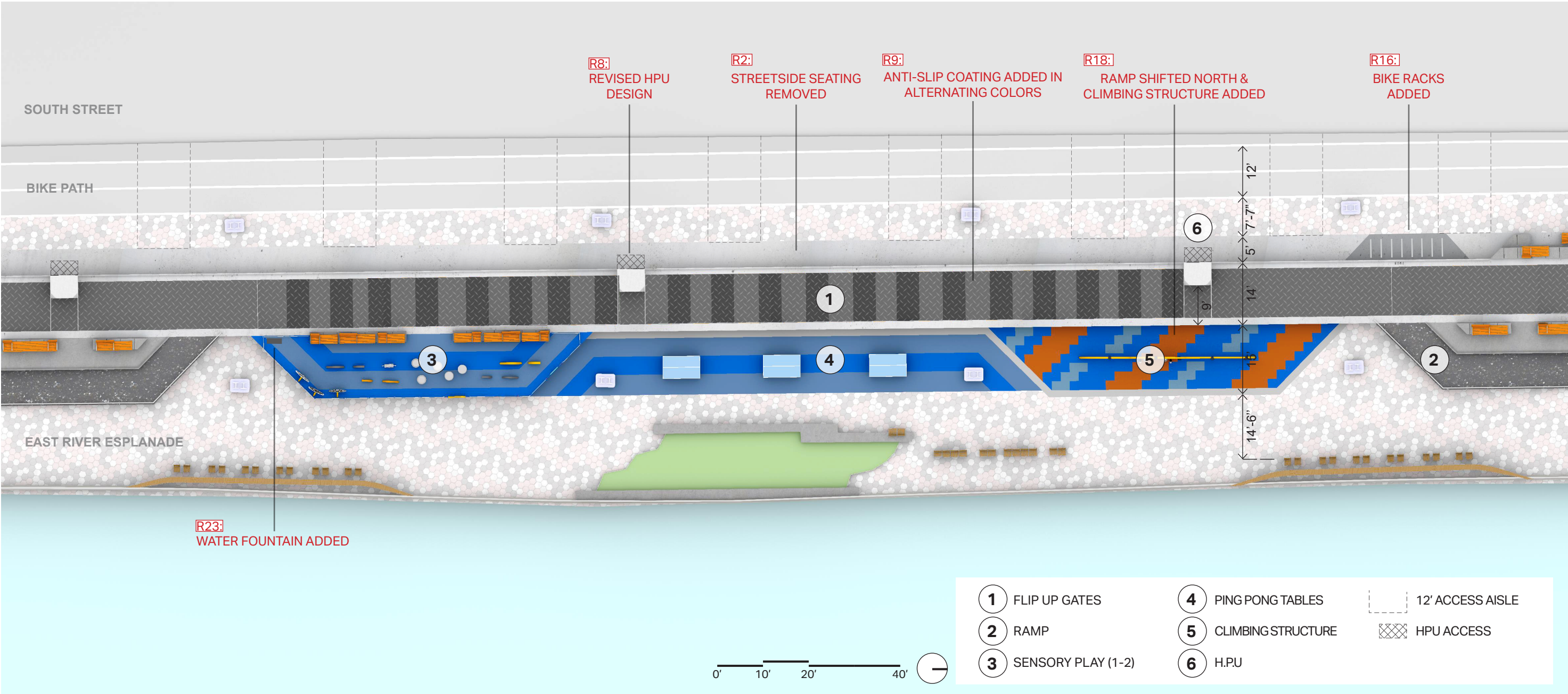
## 3 ESPLANADE

HEX PAVERS USING EXISTING PATTERN



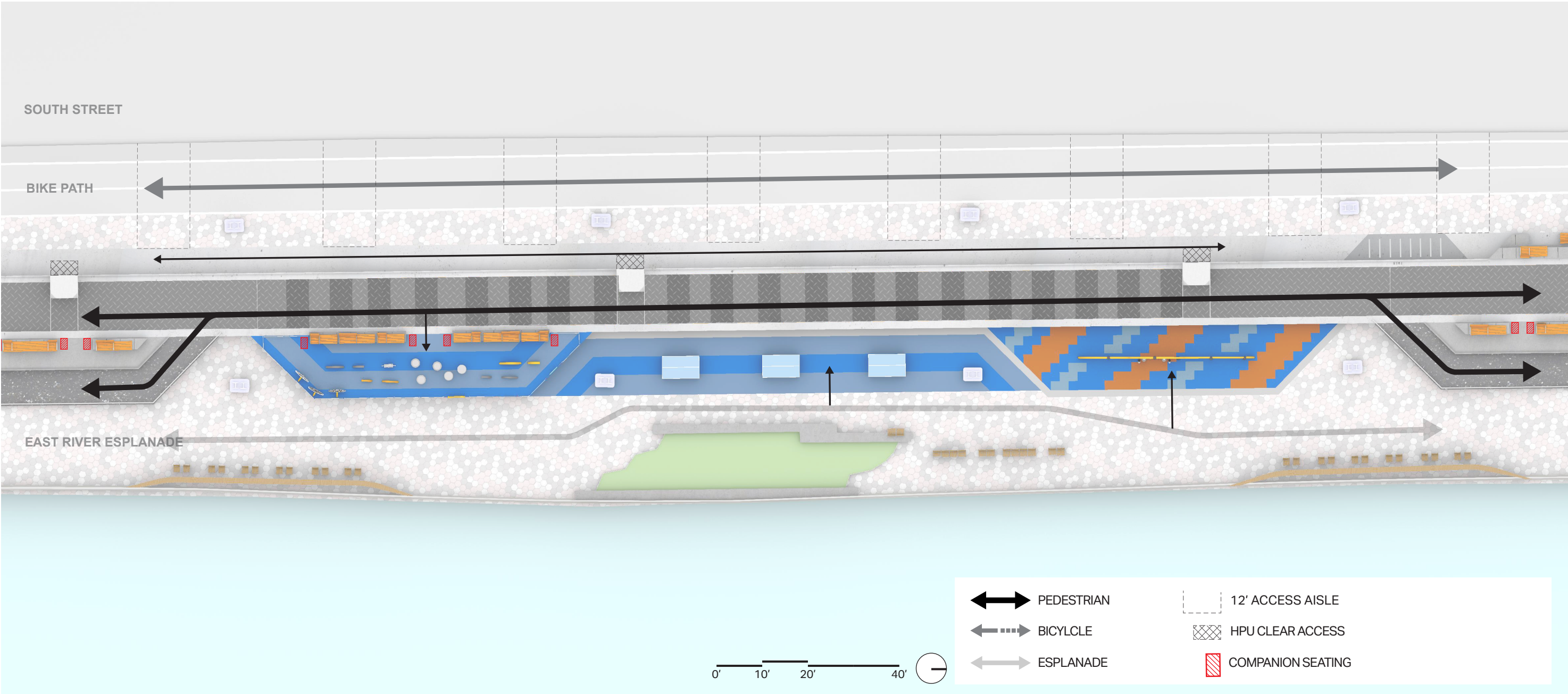


# NORTH ACTIVE | PLAY & CLIMB PLAN



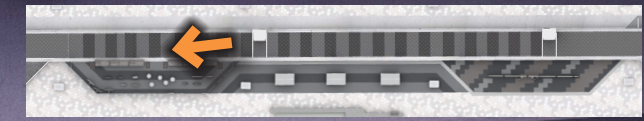


# NORTH ACTIVE | PLAY & CLIMB CIRCULATION



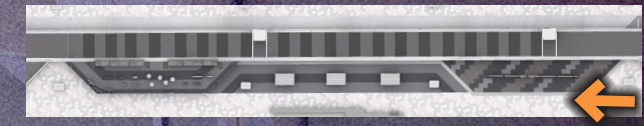


# NORTH ACTIVE | PLAY





# NORTH ACTIVE | CLIMBING AND SPORTS



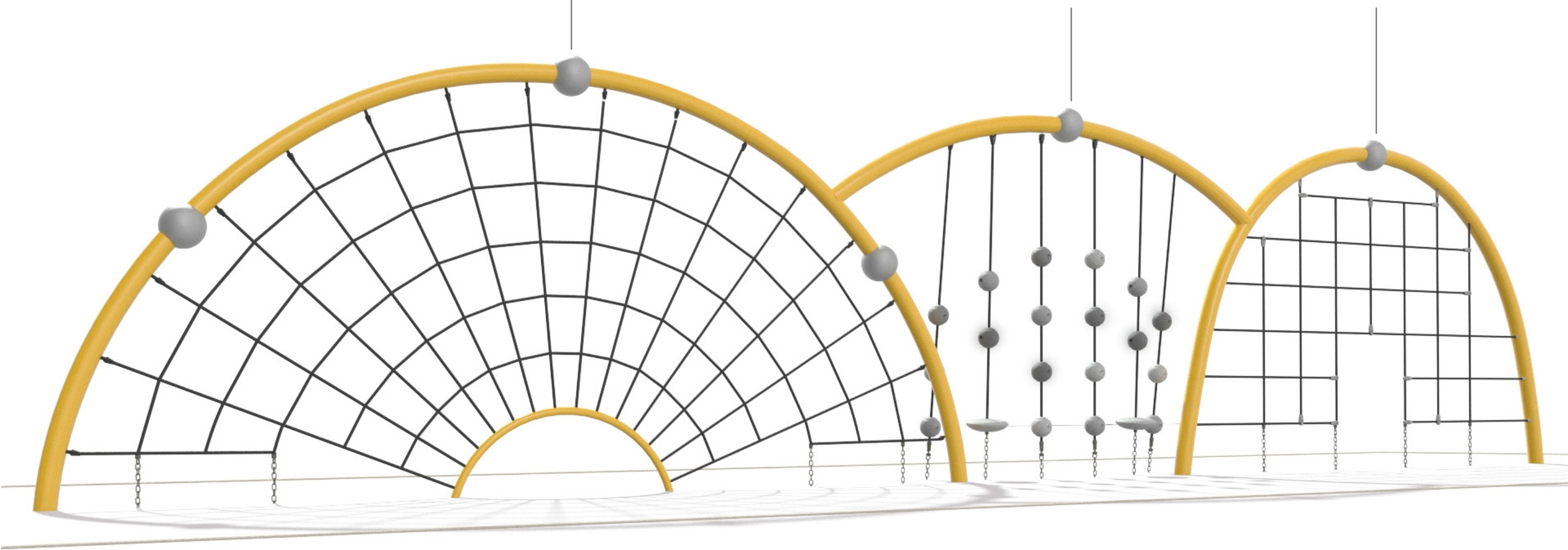


# NORTH ACTIVE | CLIMBING STRUCTURE

**ARCH 1**  
RADIAL CLIMBING CABLES  
ADVANCED  
8.8' Ht.

**ARCH 2**  
VERTICAL CLIMBING CABLES  
INTERMEDIATE  
8.8' Ht.

**ARCH 3**  
ORTHOGONAL CABLE GRID  
BEGINNER  
8.8' Ht.





# NORTH ACTIVE | 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





# NORTH ACTIVE | FITNESS



## 1 FITNESS AREA SURFACING

MITCHELL FALL  
SAFETY SURFACE TILES



COLORLED  
CONCRETE



## 2 ESPLANADE

HEX PAVERS USING EXISTING PATTERN



R8:  
REVISED HPU  
DESIGN

R16:  
BIKE RACKS  
ADDED

R23:  
WATER FOUNTAIN  
ADDED

R29:  
FITNESS PLATFORMS AND  
RAMP LAYOUT ADJUSTED TO  
ACCOMMODATE SAFETY ZONE

R28:  
PLATFORM SEATING  
REMOVED

R9:  
ANTI-SLIP  
COATING ADDED IN  
ALTERNATING COLORS

R27:  
FITNESS EQUIPMENT  
UPDATED

SOUTH STREET

EAST RIVER ESPLANADE

EAST RIVER

FITNESS AREA

FITNESS AREA

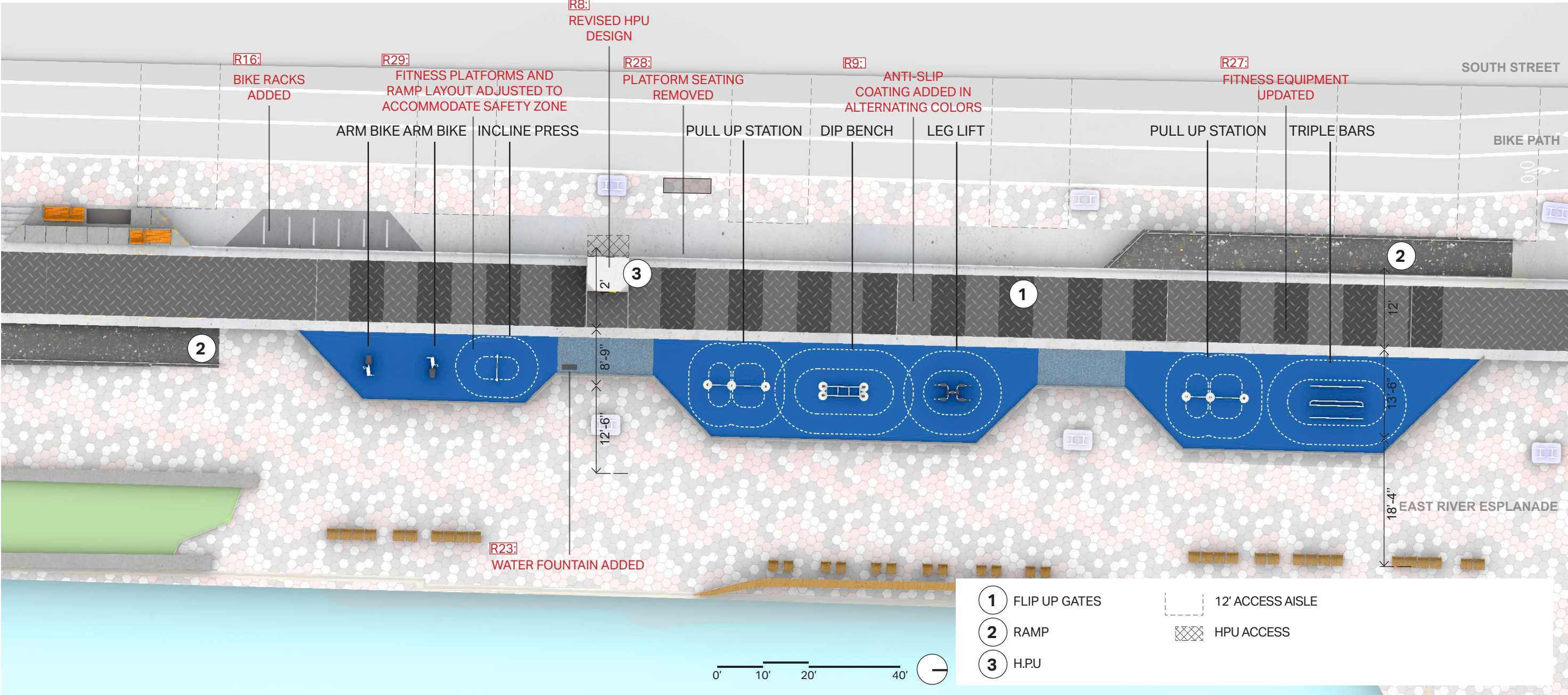
FITNESS AREA



BK Bridge - Montgomery  
Coastal Resilience

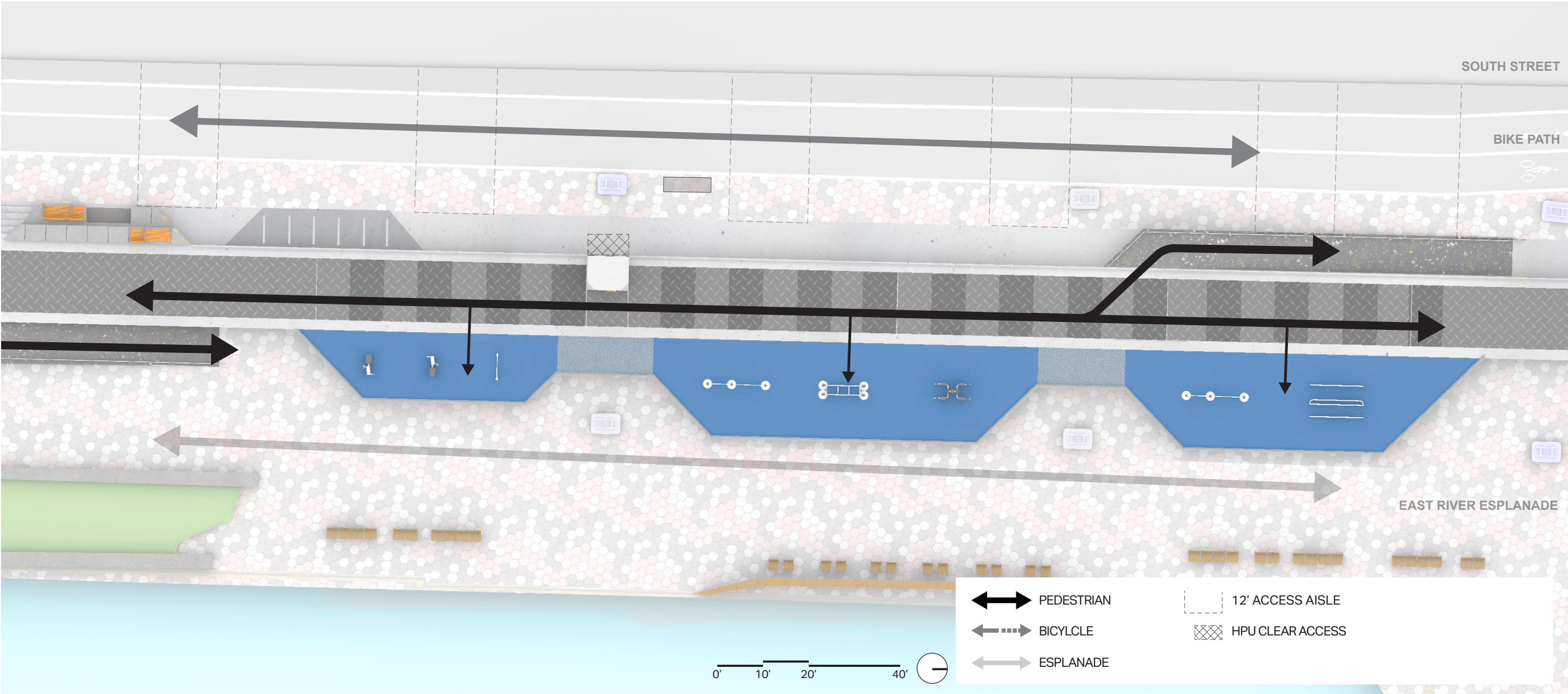


# NORTH ACTIVE | FITNESS PLAN





# NORTH ACTIVE | FITNESS CIRCULATION





# NORTH FITNESS





# NORTH ACTIVE | FITNESS EQUIPMENT



a. Arm Bike - ADA



b. Triple Bars- ADA



c. Push Up & Leg Lift Station - ADA



d. Incline Press - ADA



f. Dip Bench



g. Pull Up Bars, 8' & 6'6" - ADA



h. Pull Up Bars - 5'6" & 7'6" - ADA



# MATERIALS AND FURNISHINGS



# EDC EAST RIVER ESPLANADE SITE FURNITURE PALETTE



## Existing Esplanade Site furniture





# SITE FURNITURE | TYPES



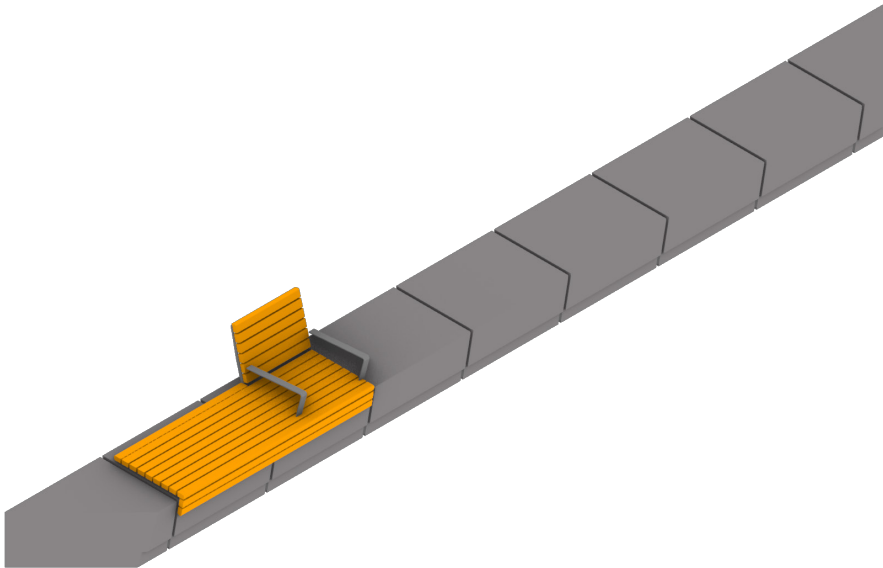
TABLES & CHAIRS



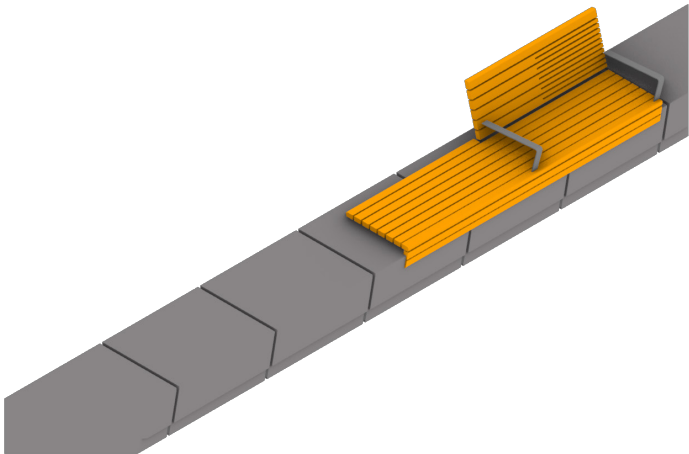
GLIDERS



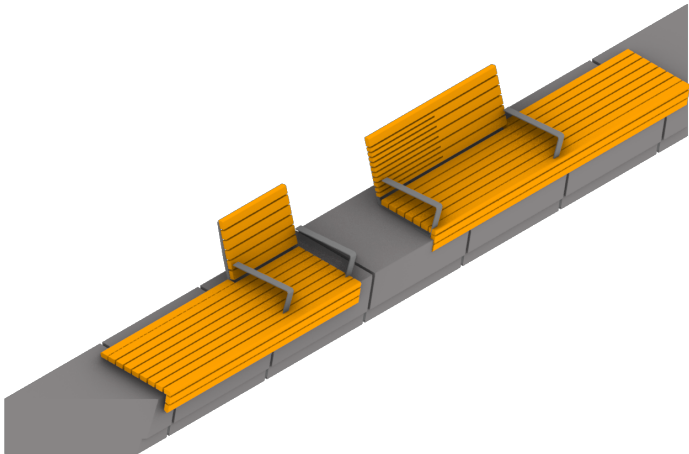
# SITE FURNITURE | PLATFORM BENCH TYPES



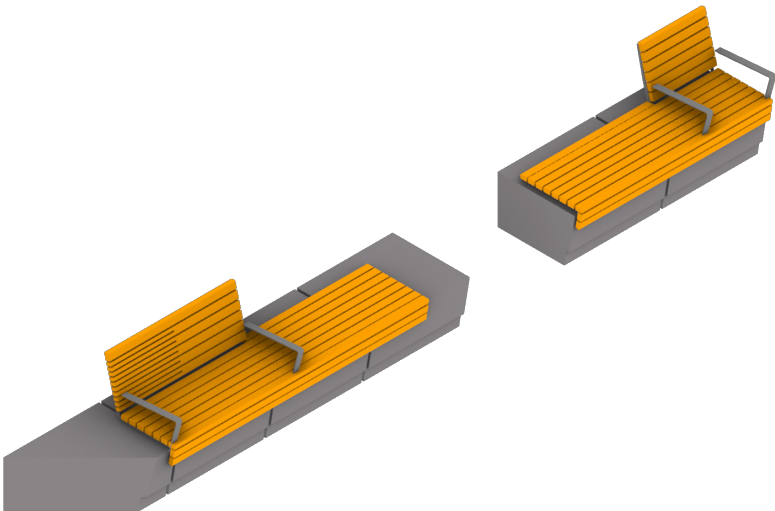
BENCH MODULE 1



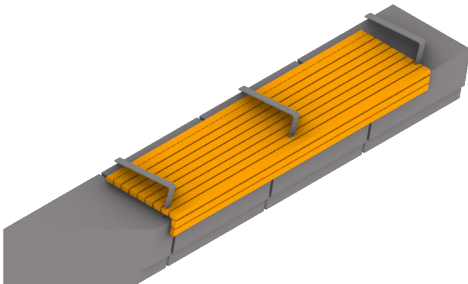
BENCH MODULE 2



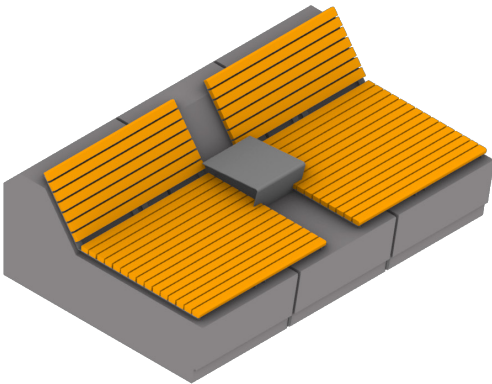
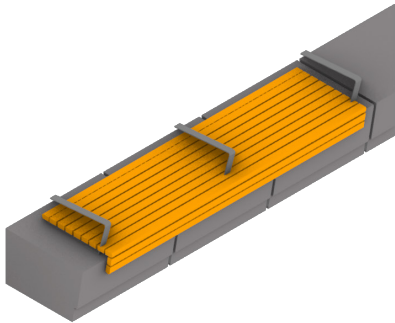
BENCH MODULE 3



BENCH MODULE 4



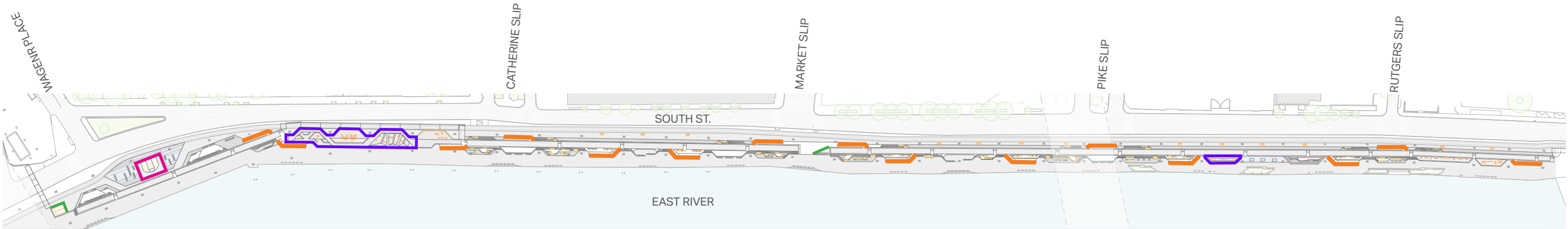
BENCH MODULE 5



CHAISE MODULE



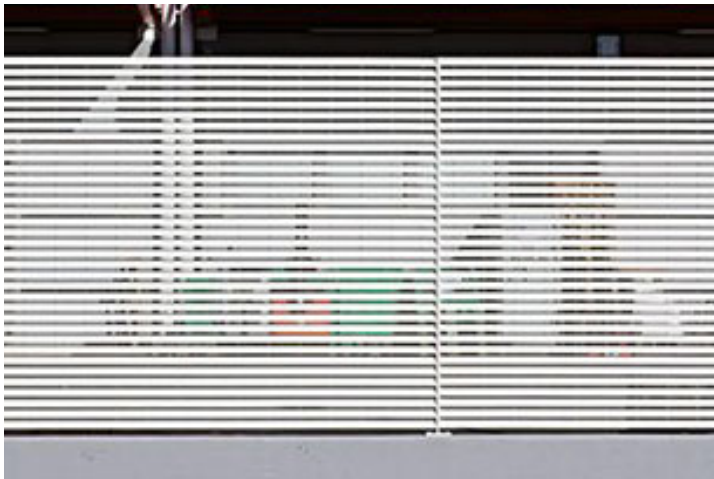
# FENCE & ADA HANDRAIL



- 4' -0" Ht. Orsogril Fence
- 12' -5" Ht. Louvered Screen - Orsogril Talia Ventus
- 12'-0" Ht. Welded Wire Basketball Fence
- ADA Handrail



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



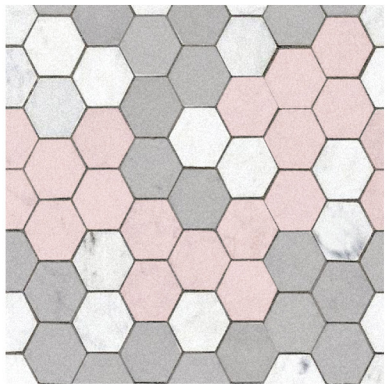
12' -5" Ht. Louvered Screen -  
Orsogril Talia Ventus



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



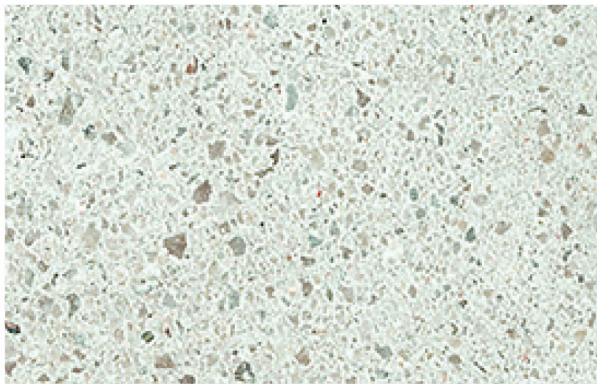
# PAVEMENT



Hanover Hexagonal Paver



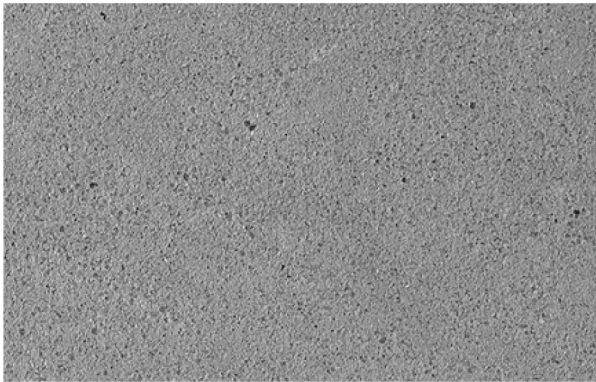
C.I.P Concrete  
Pockets ground & Circulation area



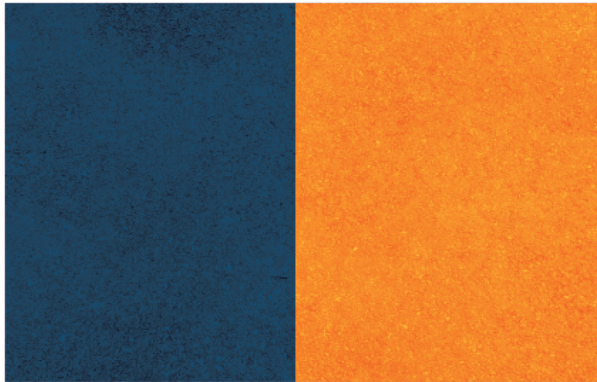
Precast Steps



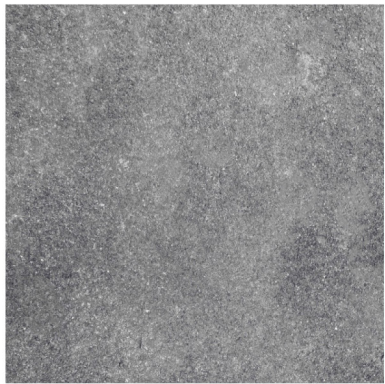
C.I.P Concrete  
Pockets ground & Circulation area



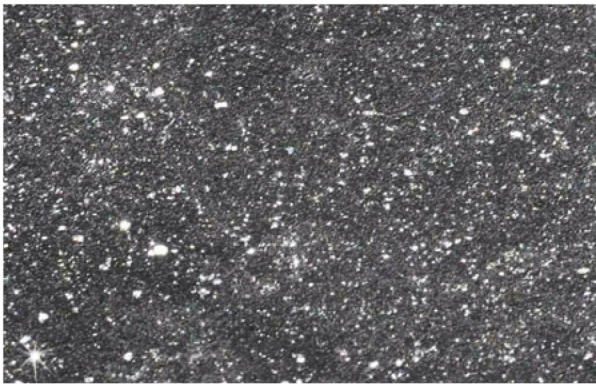
C.I.P Concrete  
Pockets ground & Circulation area



SportMaster Sport Surfaces  
Color SealCoat Asphalt



C.I.P Concrete  
Pockets ground & Circulation area



Silicon Carbide  
Ramp finish



Safety Tiles



Aluminum Tread Plate  
Flip-Up Gate 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



NYC Parks Standard Bench



# FIXED STRUCTURE



SOCIAL  
POCKETS



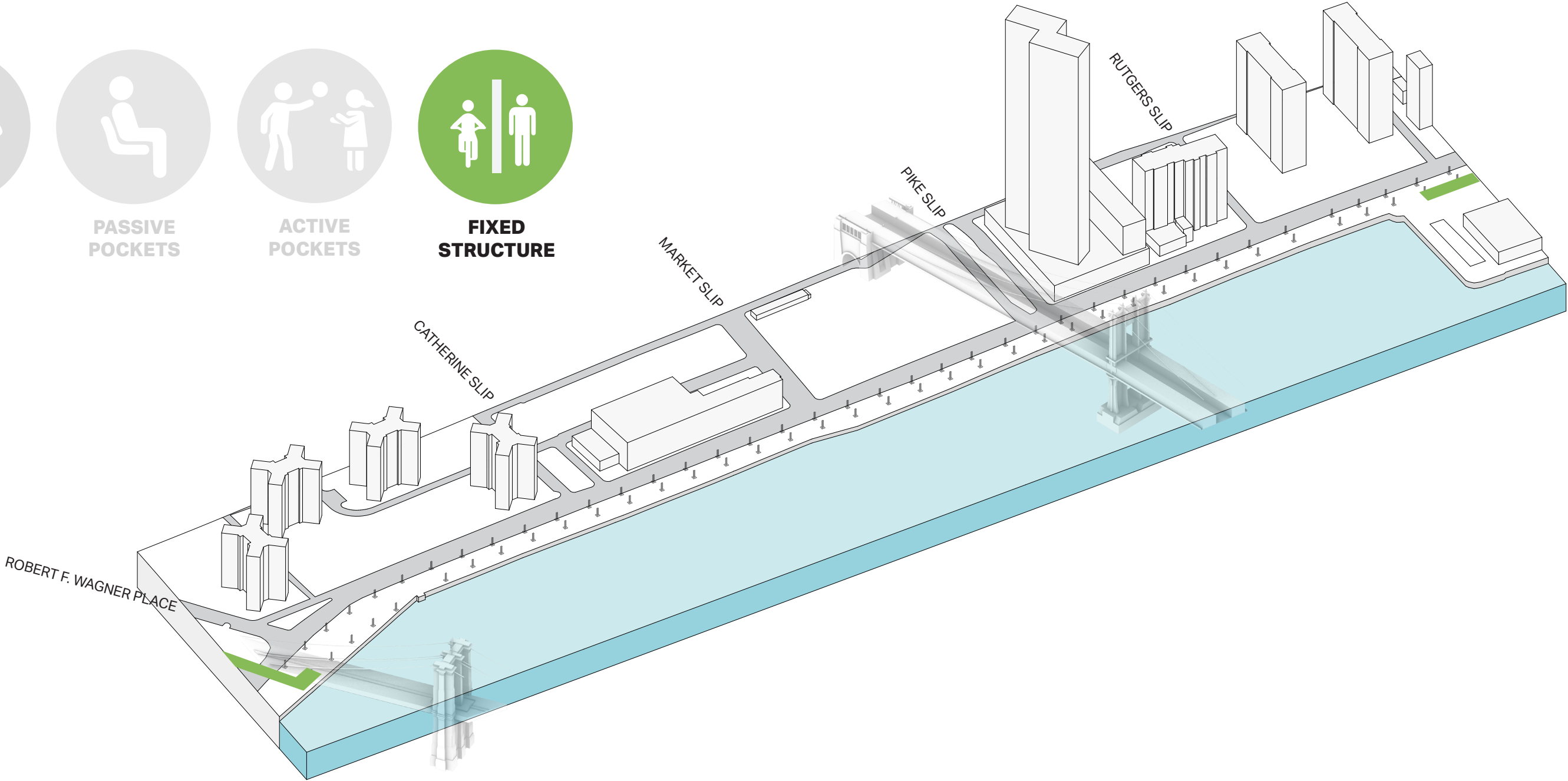
PASSIVE  
POCKETS



ACTIVE  
POCKETS

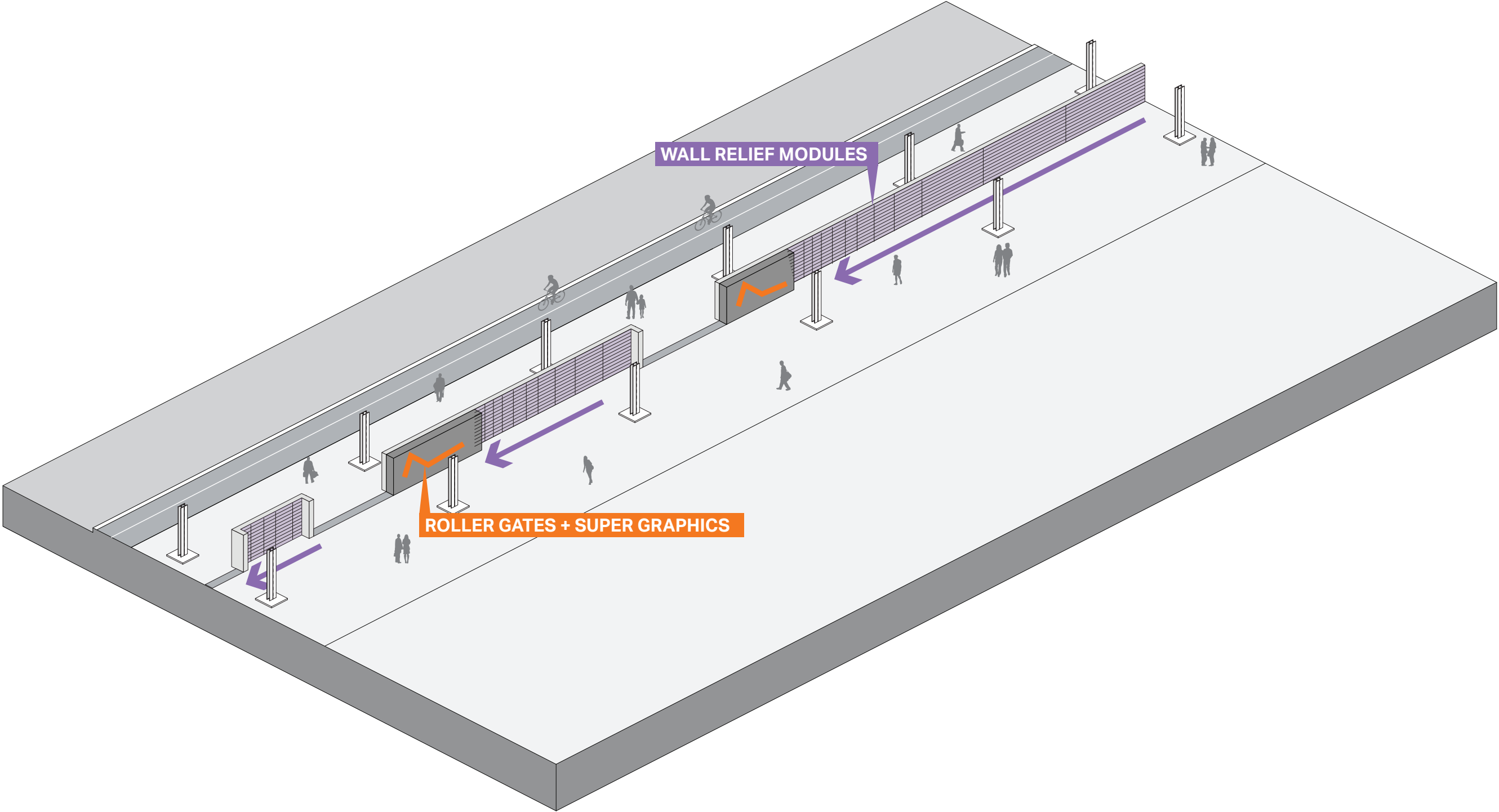


FIXED  
STRUCTURE





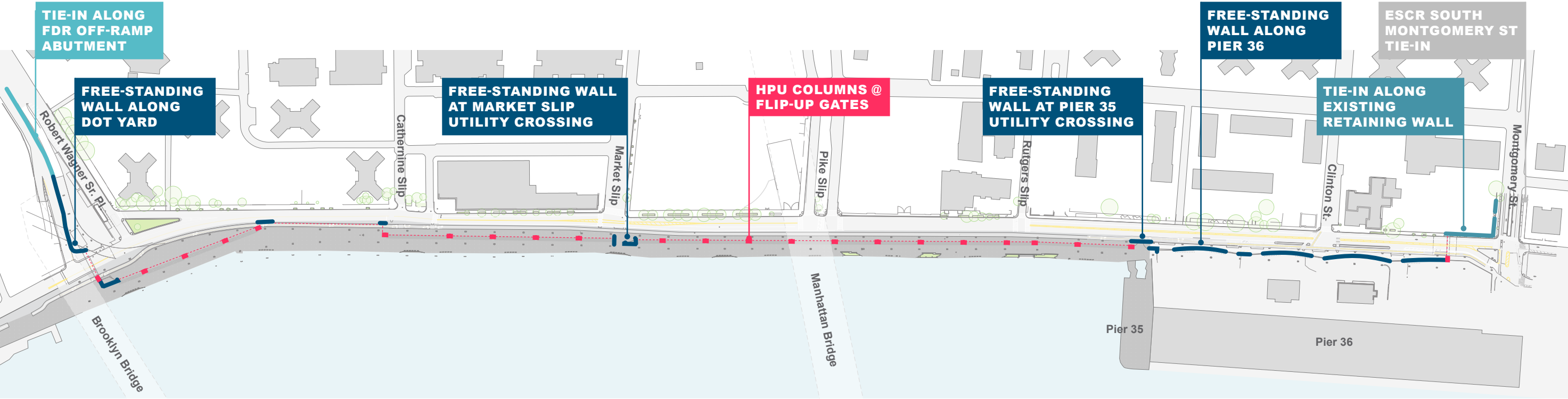
# FIXED STRUCTURE | DESIGN CONCEPT



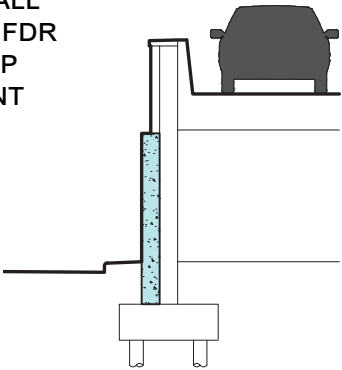


# FLOOD PROTECTION

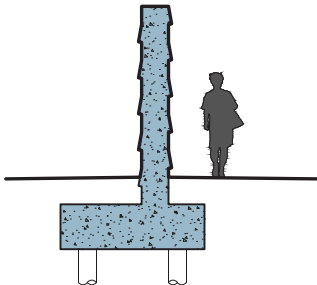
## Exposed Floodwall Overview



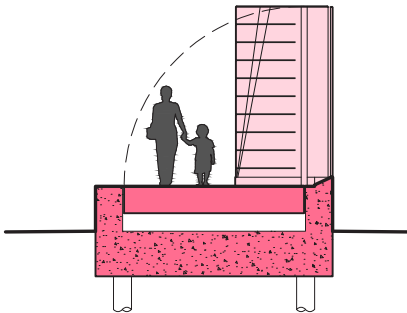
FLOODWALL AGAINST FDR OFF-RAMP ABUTMENT



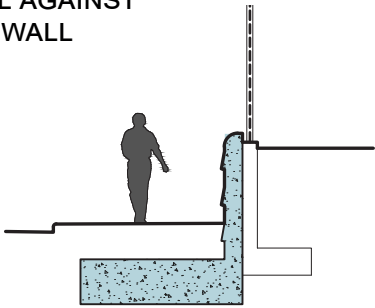
FREE-STANDING FLOODWALL



HPU COLUMNS FLIP-UP GATES



FLOODWALL AGAINST RETAINING WALL



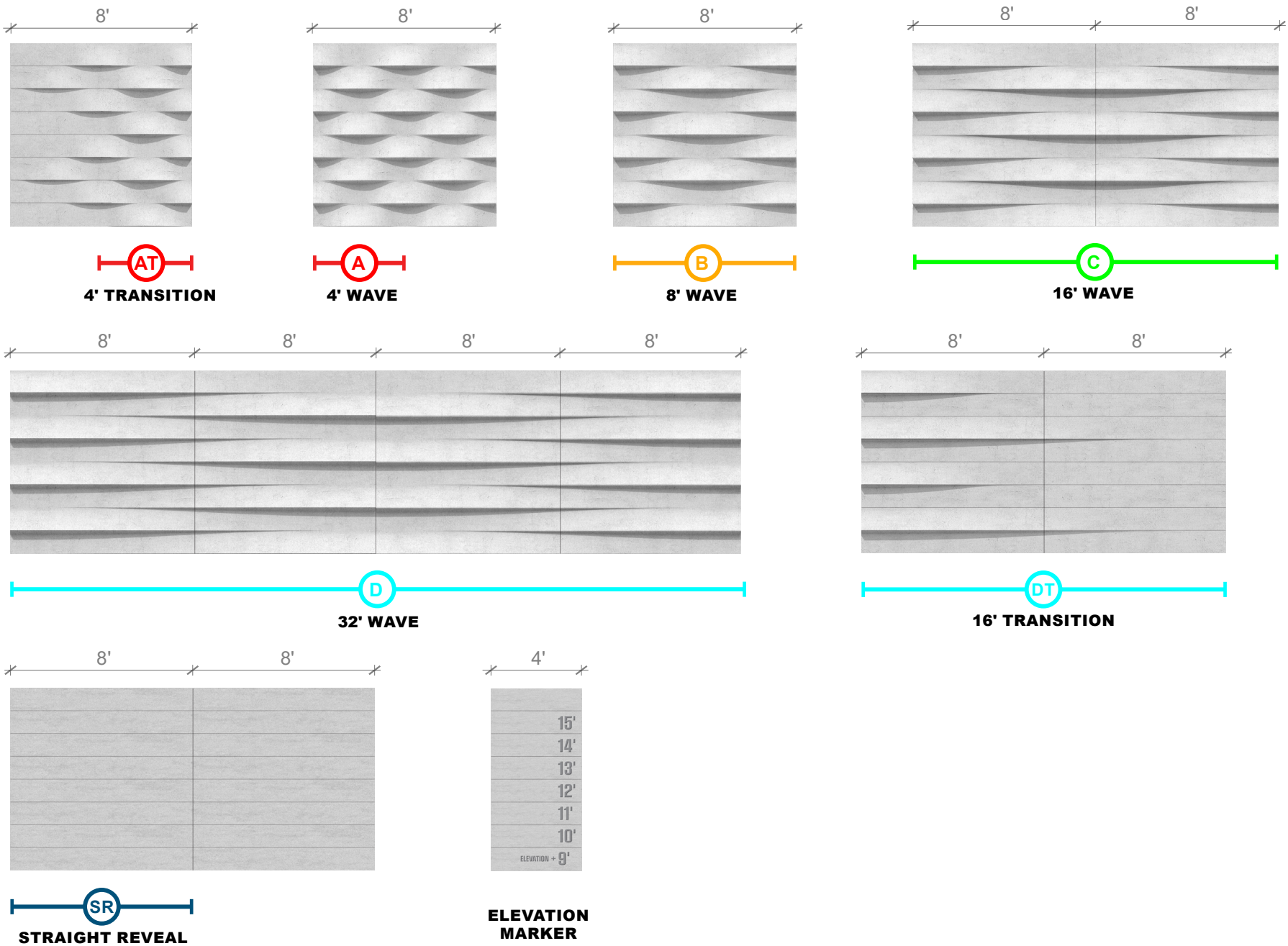


# FLOOD PROTECTION

## Wall Relief Module Toolkit

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

Along the Esplanade, a simple 'Straight Reveal' relief will be used to complement the landscape design while also working with the small lengths of above grade wall and HPU Columns .

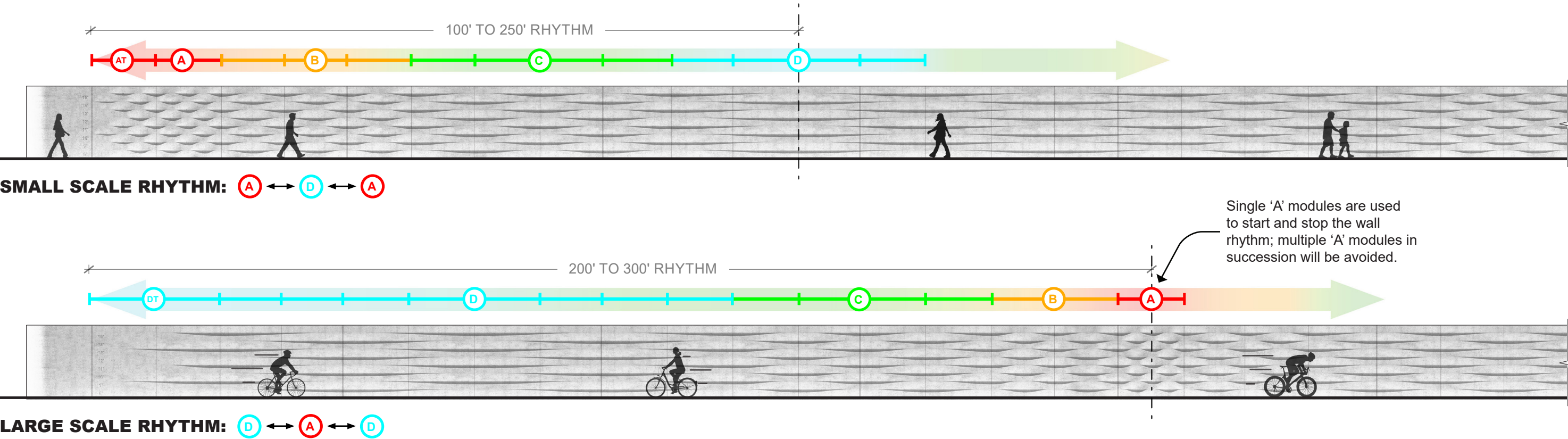




# FLOOD PROTECTION

## Wall Rhythm Toolkit

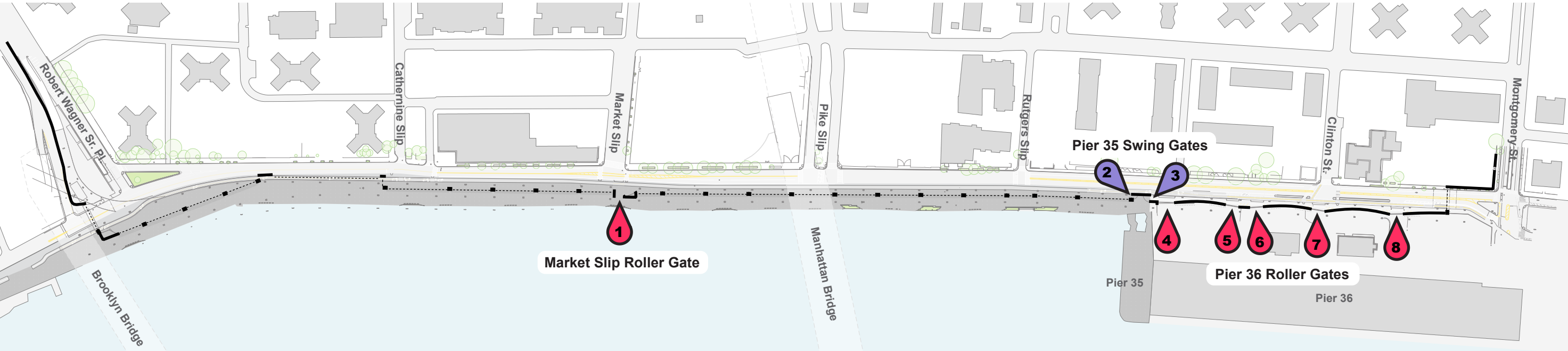
The individual panels from the Wall Relief Toolkit are arrayed in a dynamic fashion that accelerates and decelerates the pattern along exposed portions of wall. The specific layouts of panels reinforce user experience by reacting to the speed of viewers and wall geometry.





# FLOOD PROTECTION

## Above Grade Gates



- SWING GATE (2)
- ROLLER GATE (6)

— EXPOSED FLOODWALL & HPU COLUMNS  
- - - - - LINE OF FLIP-UP GATES

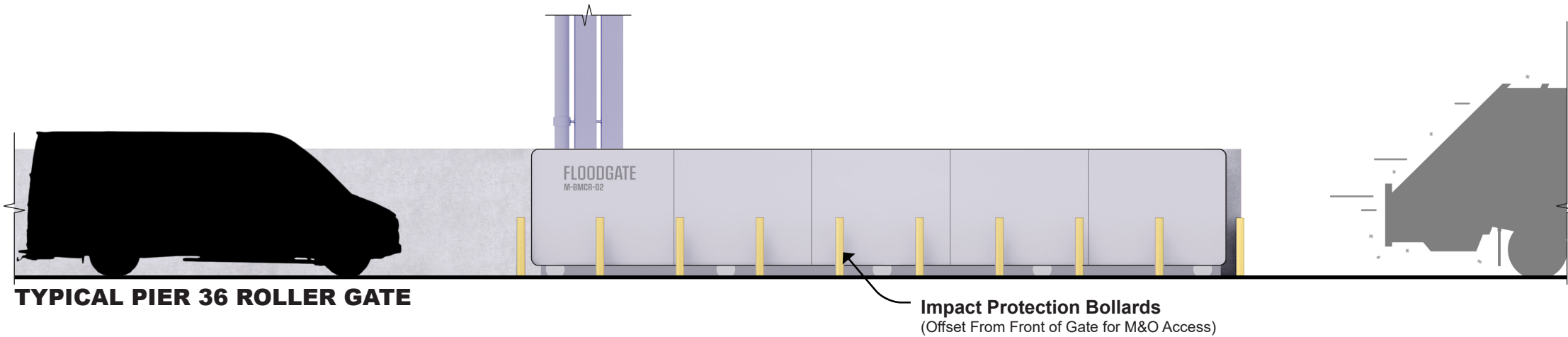
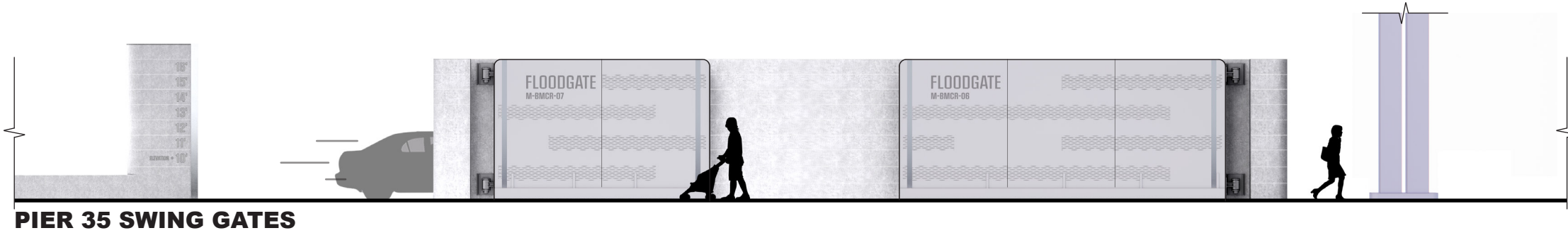
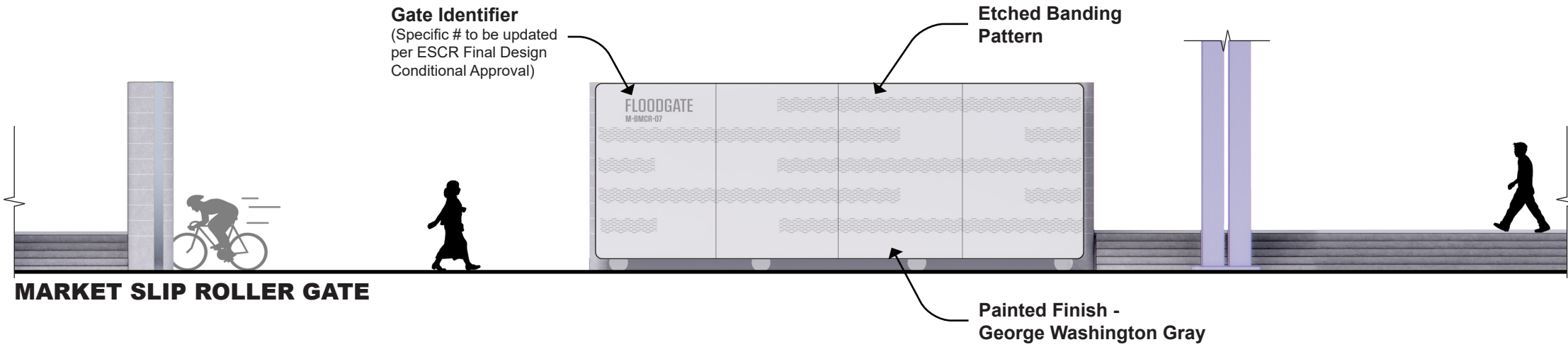




# FLOOD PROTECTION

## Above Grade Gates

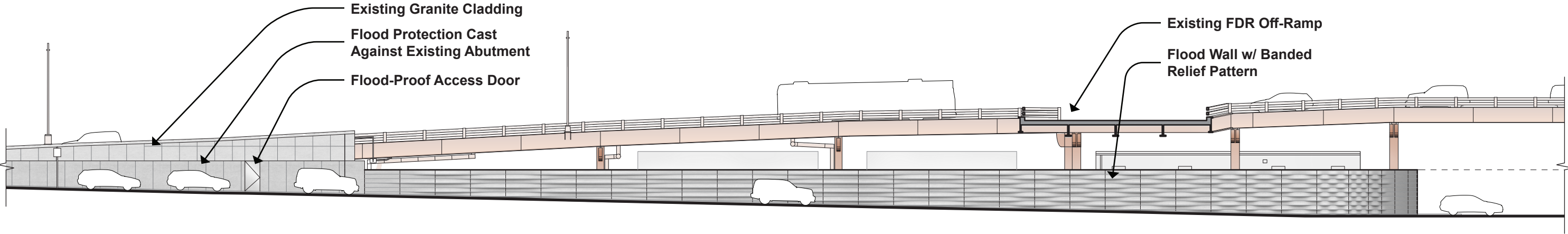
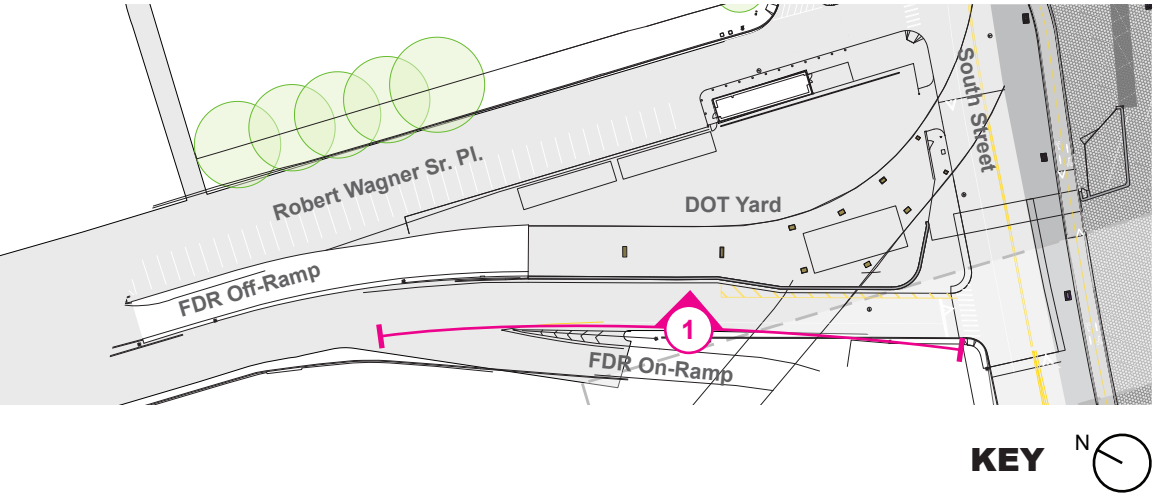
BMCR's eight roller gates continue the same design strategy as established for ESCR, including: Softened geometry, clean end plates, an etched relief pattern complementing the floodwall finish, simple monochromatic color based on DOT standards, and integral signage/identifier. However, given the more intermittent locations of these gates, super-graphic numbering will not be used.





# FLOOD PROTECTION WALKTHROUGH

Brooklyn Bridge Tie-In

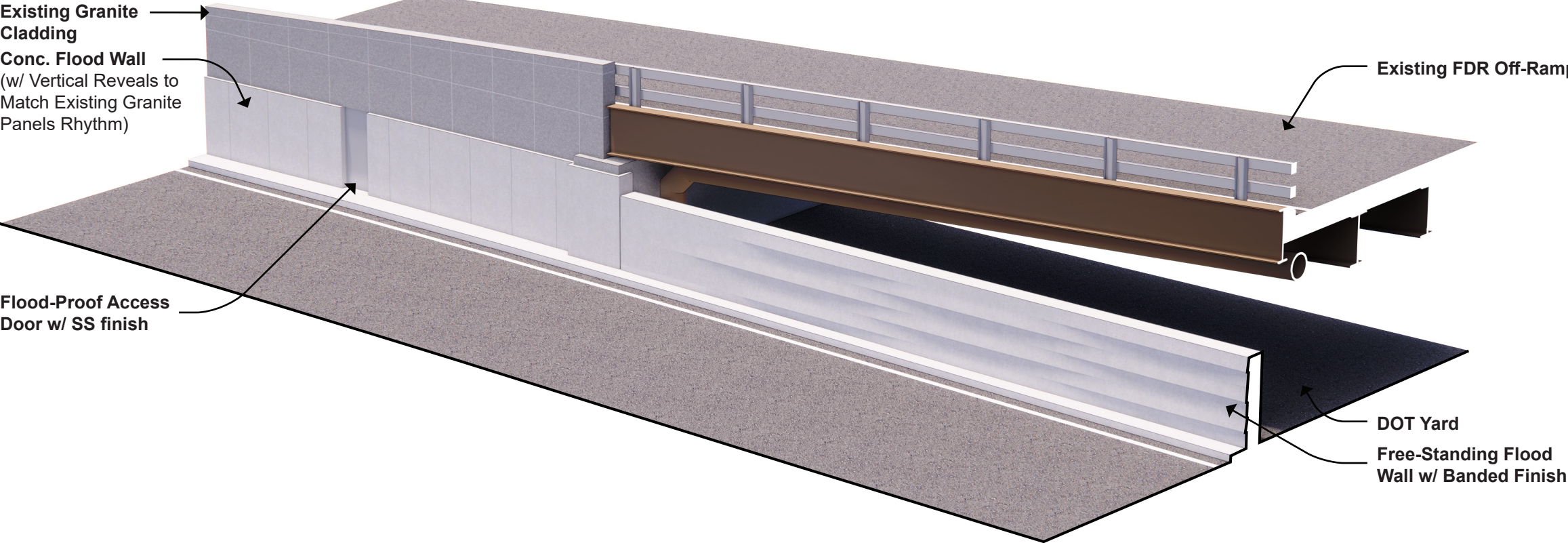
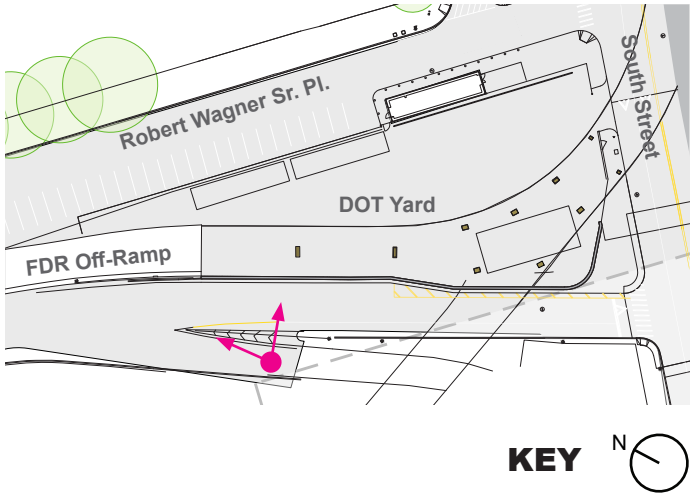


1. EXPOSED WALL ELEVATION - FLOOD SIDE ALONG ROBERT WAGNER SR. PL



# FLOOD PROTECTION WALKTHROUGH

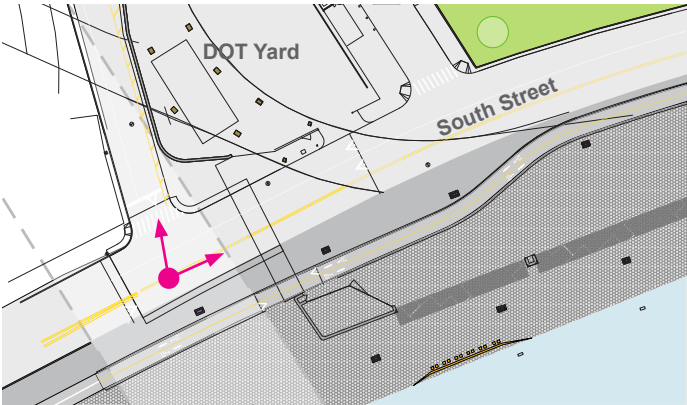
## Wall Transition at Abutment



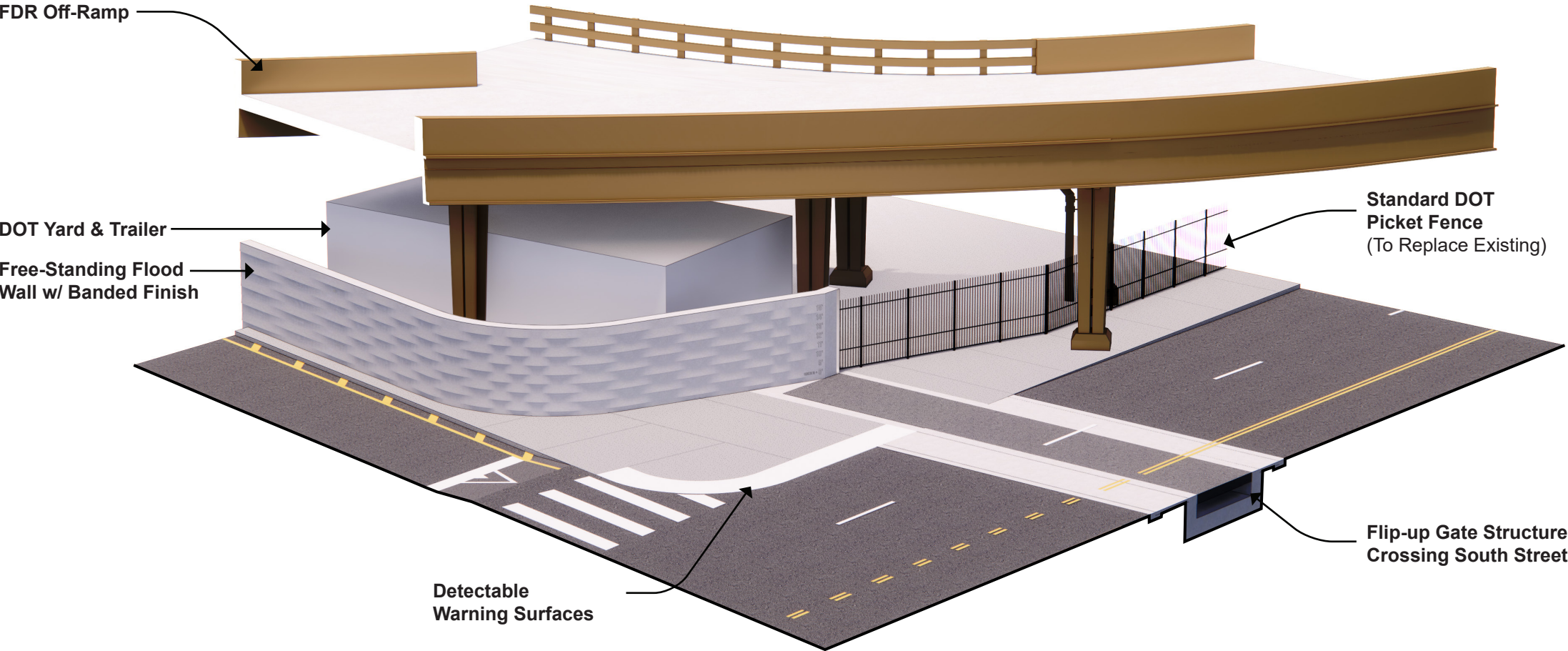


# FLOOD PROTECTION WALKTHROUGH

South Street Crossing - Upland Side



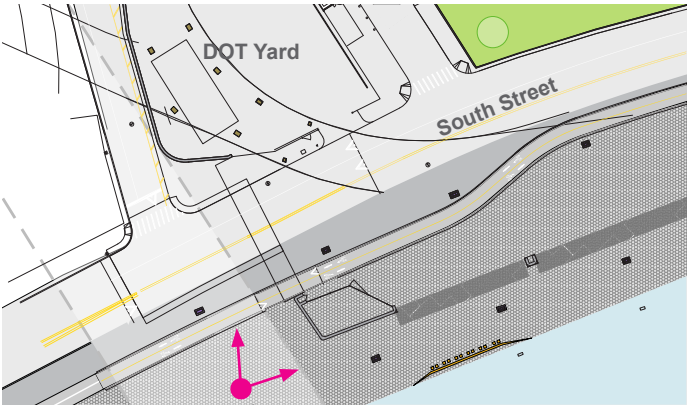
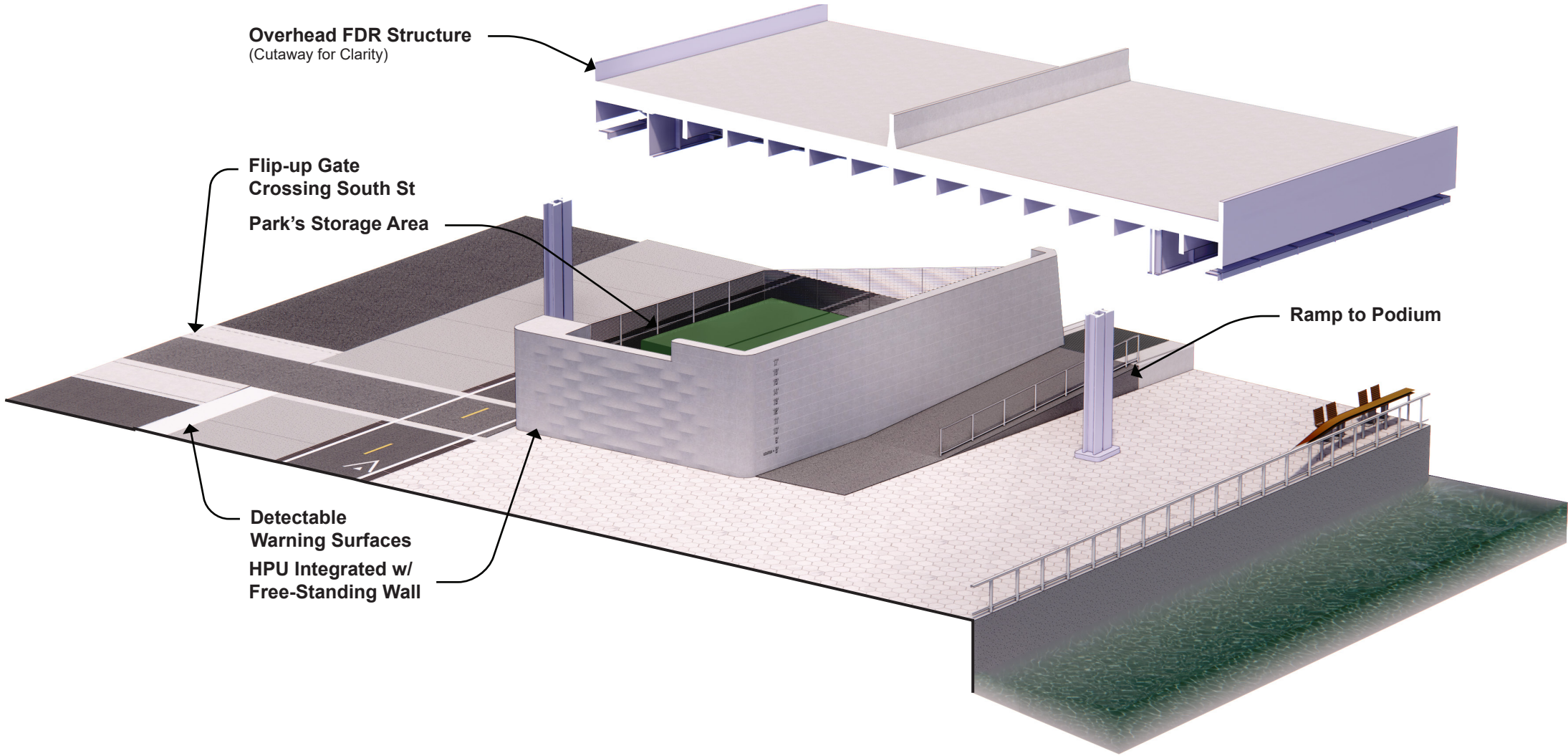
KEY





# FLOOD PROTECTION WALKTHROUGH

## South Street Crossing - Esplanade Side

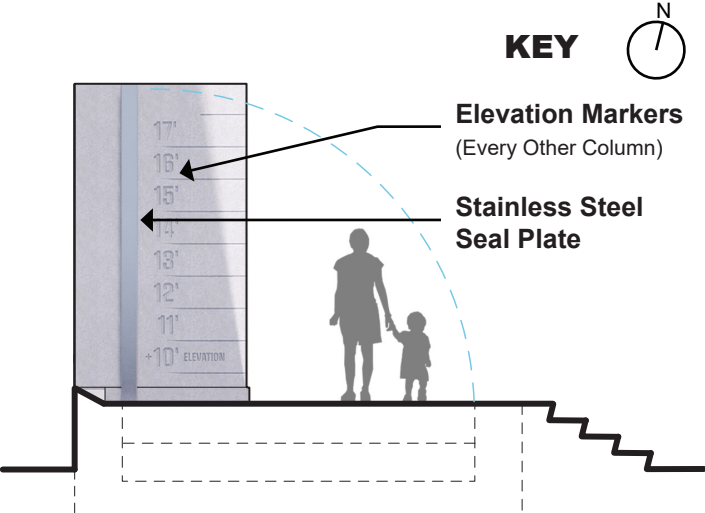
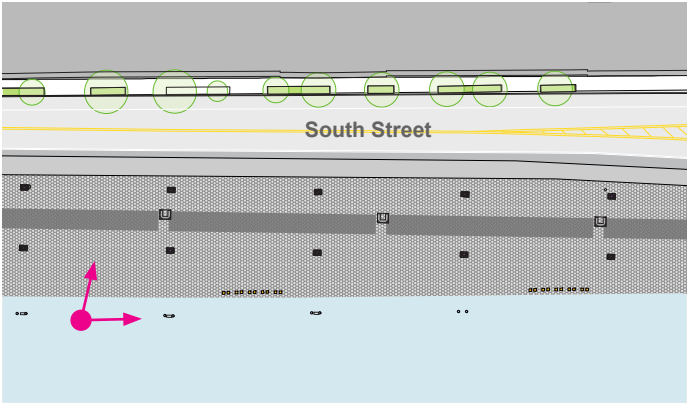
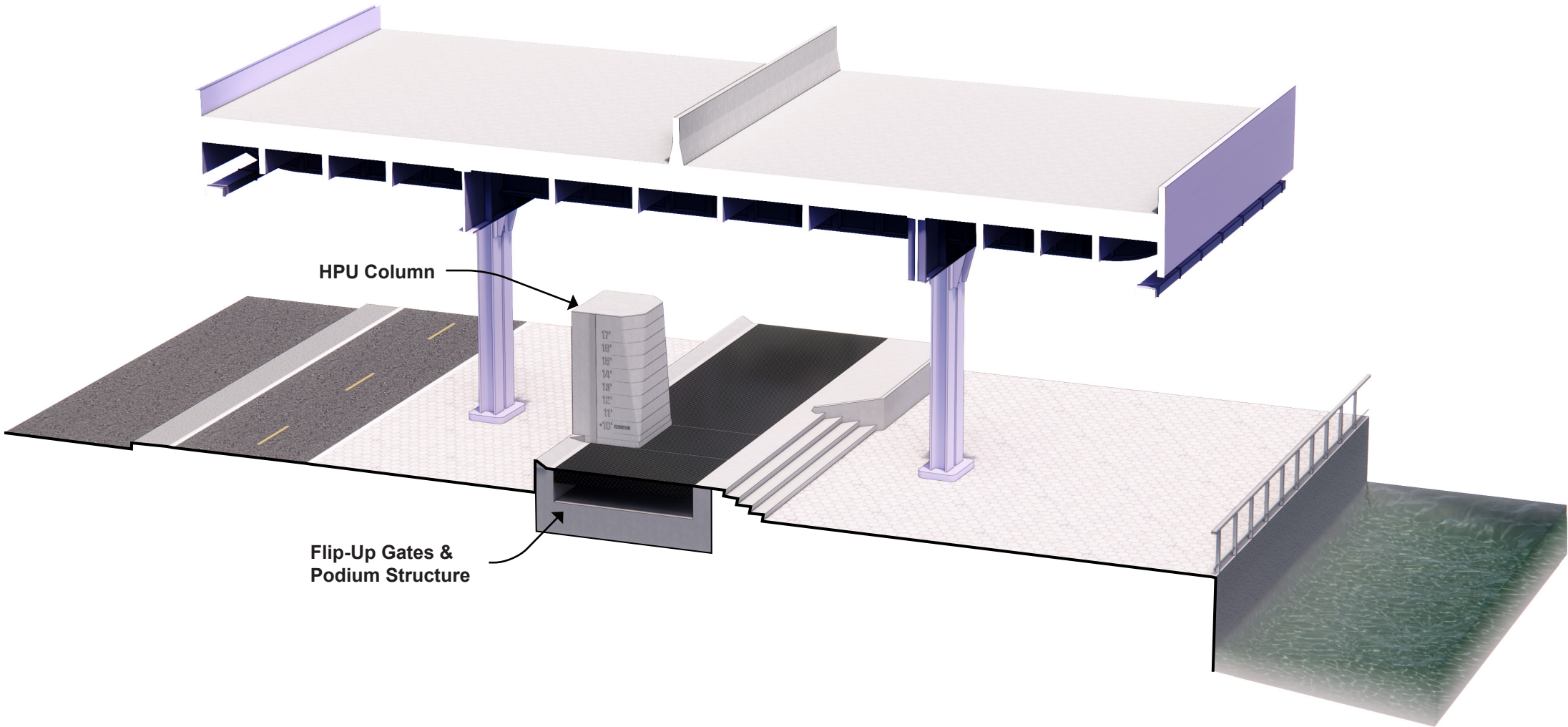




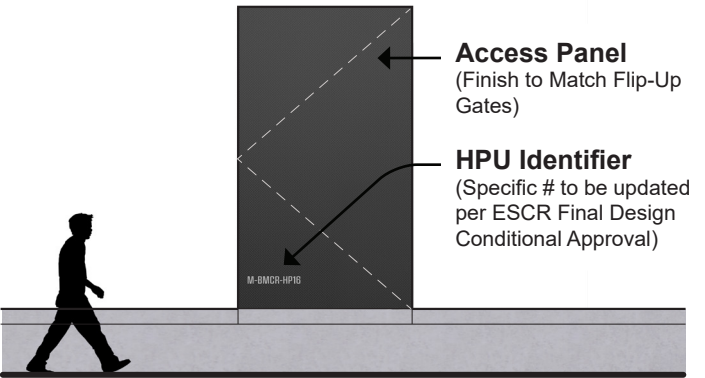
# FLOOD PROTECTION WALKTHROUGH

## Typical HPU Column

BMCR's Flip-Up Gates are operated by a Hydraulic Power Unit (HPU), which are housed in a series of concrete columns, spaced at roughly 120' intervals along the length of the esplanade. The columns themselves also act as a passive Floodwall and provide a seal between adjacent Flip-Up Gates.



TYPICAL HPU - SIDE ELEV.

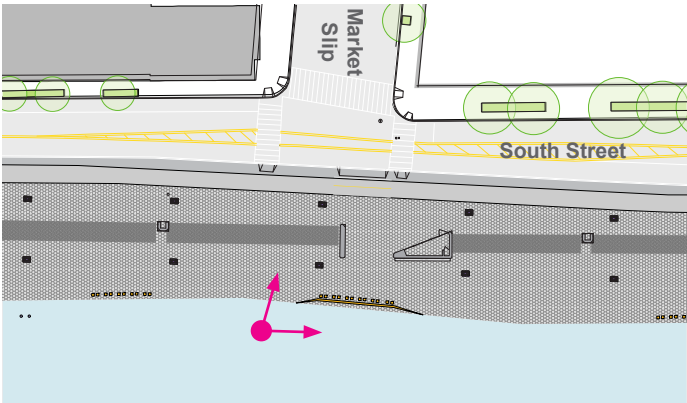
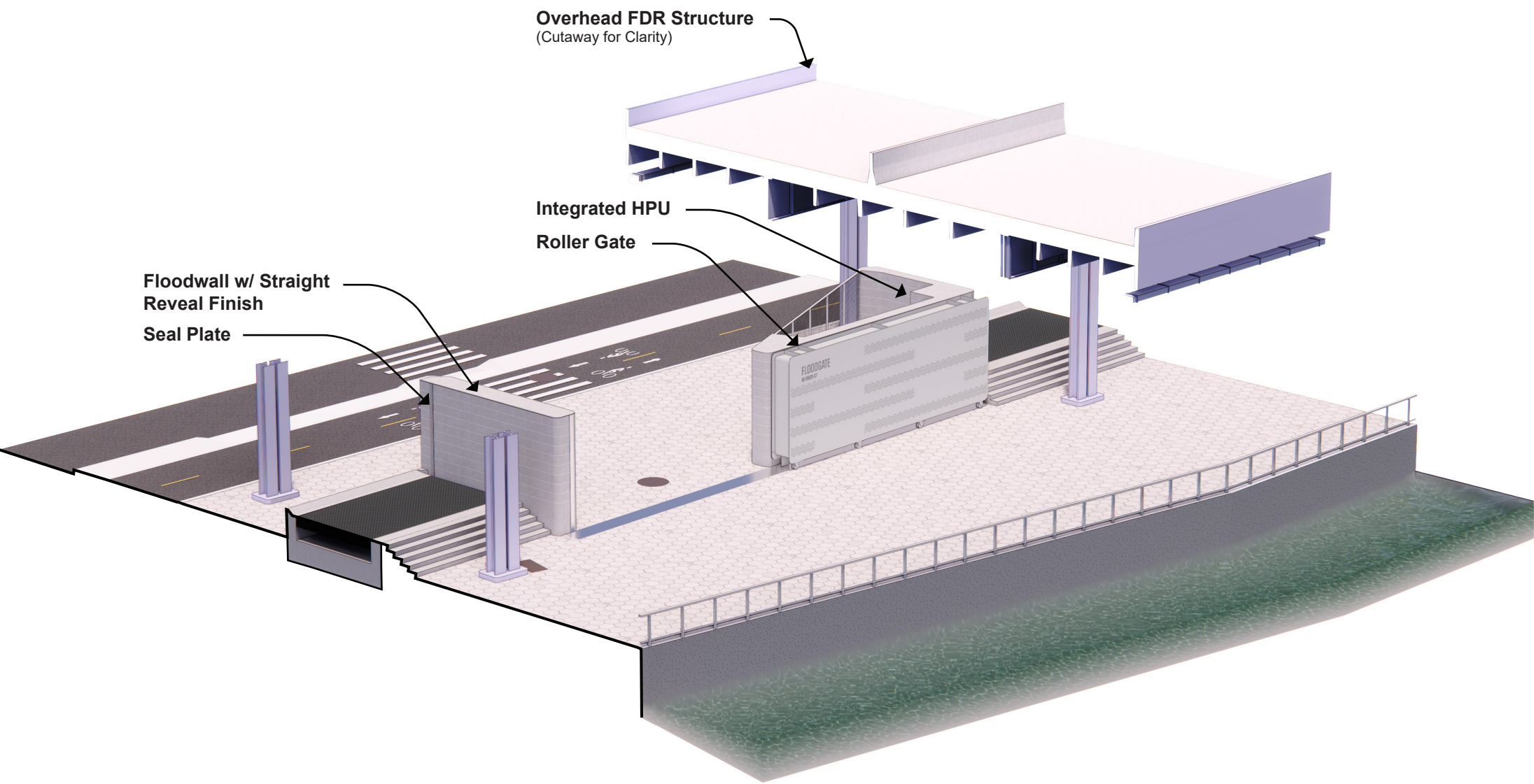


TYPICAL HPU - DRY SIDE ELEV.



# FLOOD PROTECTION WALKTHROUGH

## Market Slip Utility Crossing - Flood Side

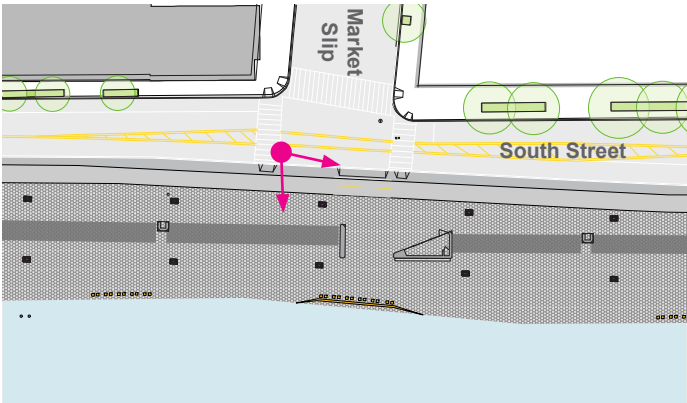
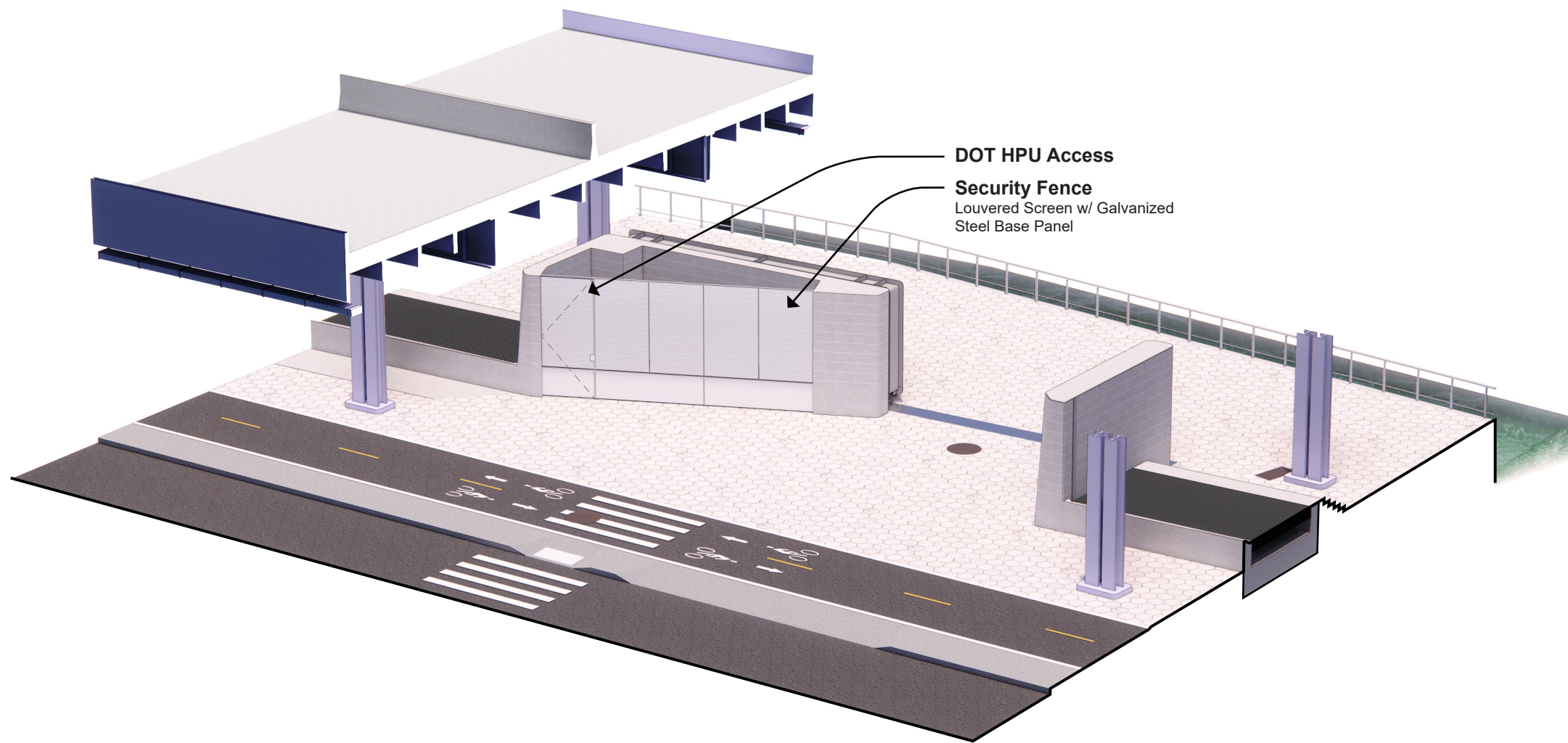


KEY



# FLOOD PROTECTION WALKTHROUGH

## Market Slip Utility Crossing - Protected Side



KEY

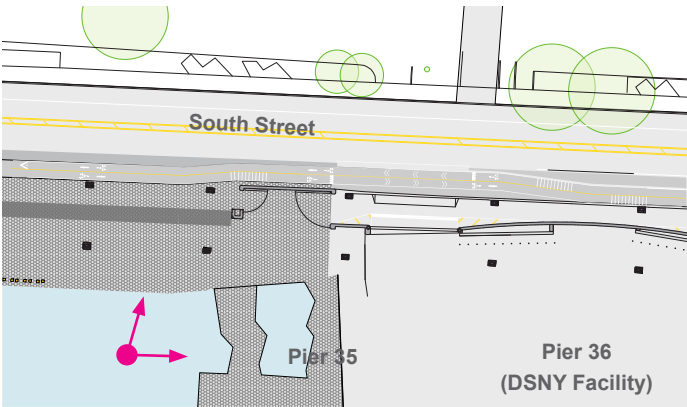
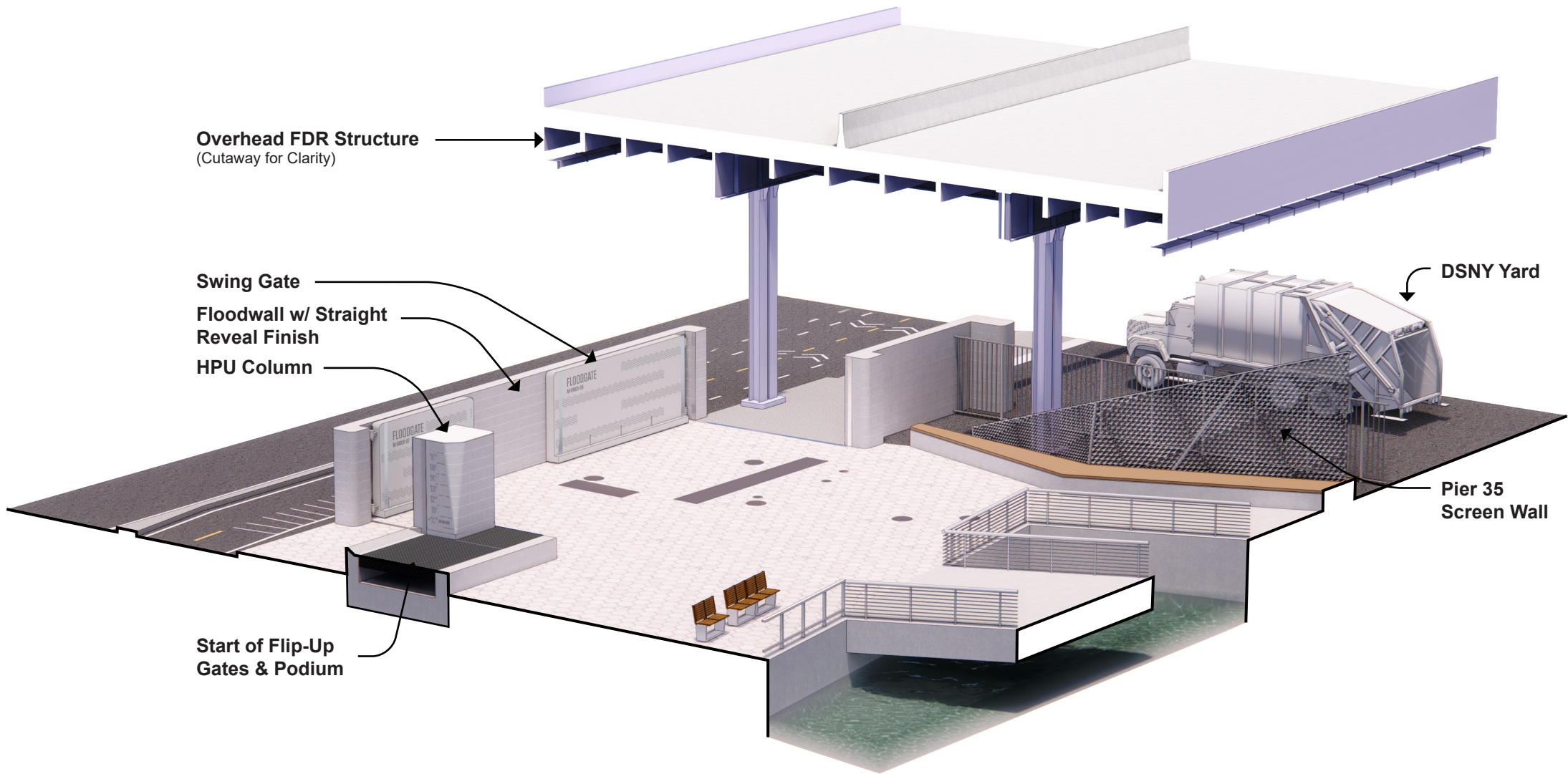


**LOUVERED SCREEN B.O.D. -  
ORSOGRIL TALIA VENTUS**



# FLOOD PROTECTION WALKTHROUGH

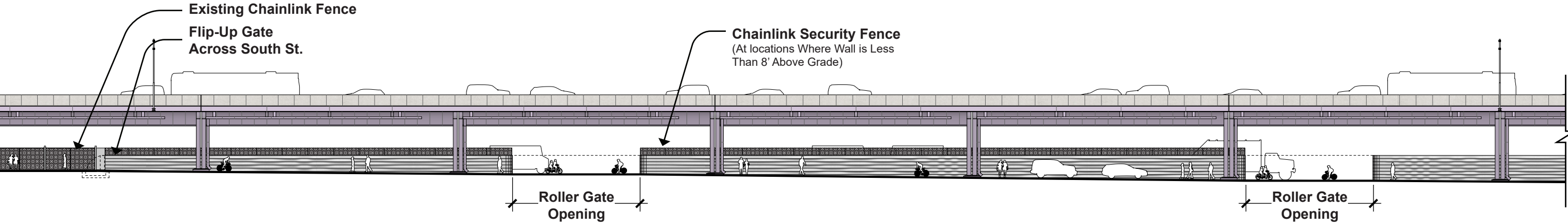
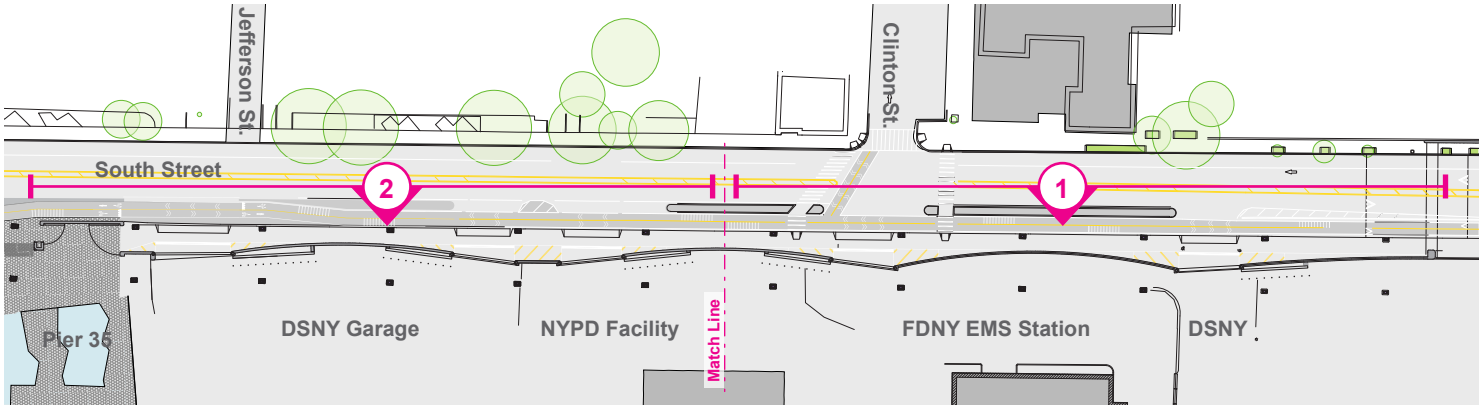
## Pier 35 Utility Crossing



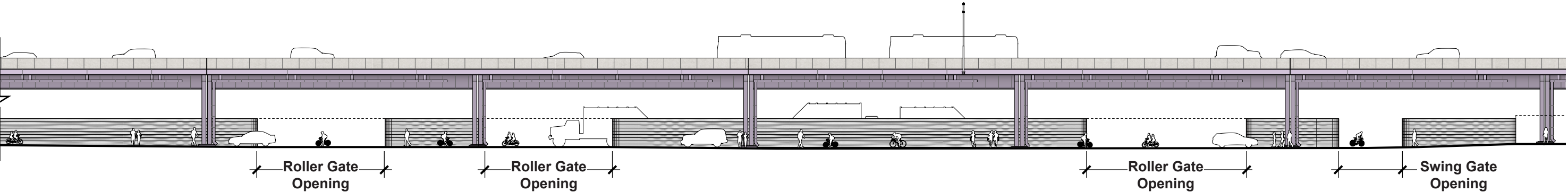


# FLOOD PROTECTION WALKTHROUGH

## Pier 36 Exposed Wall



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

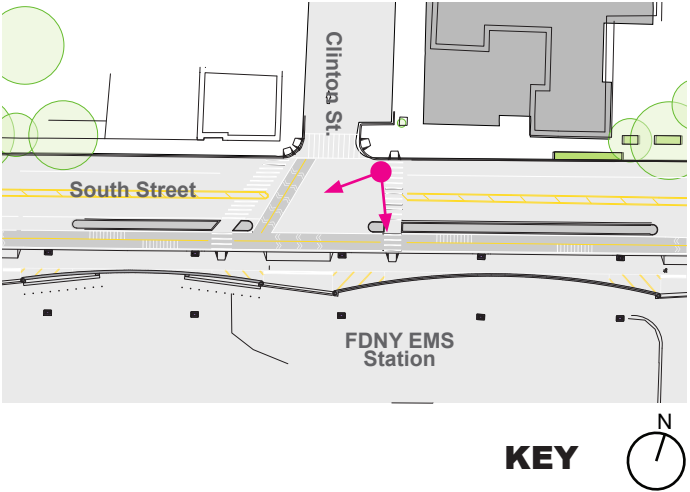
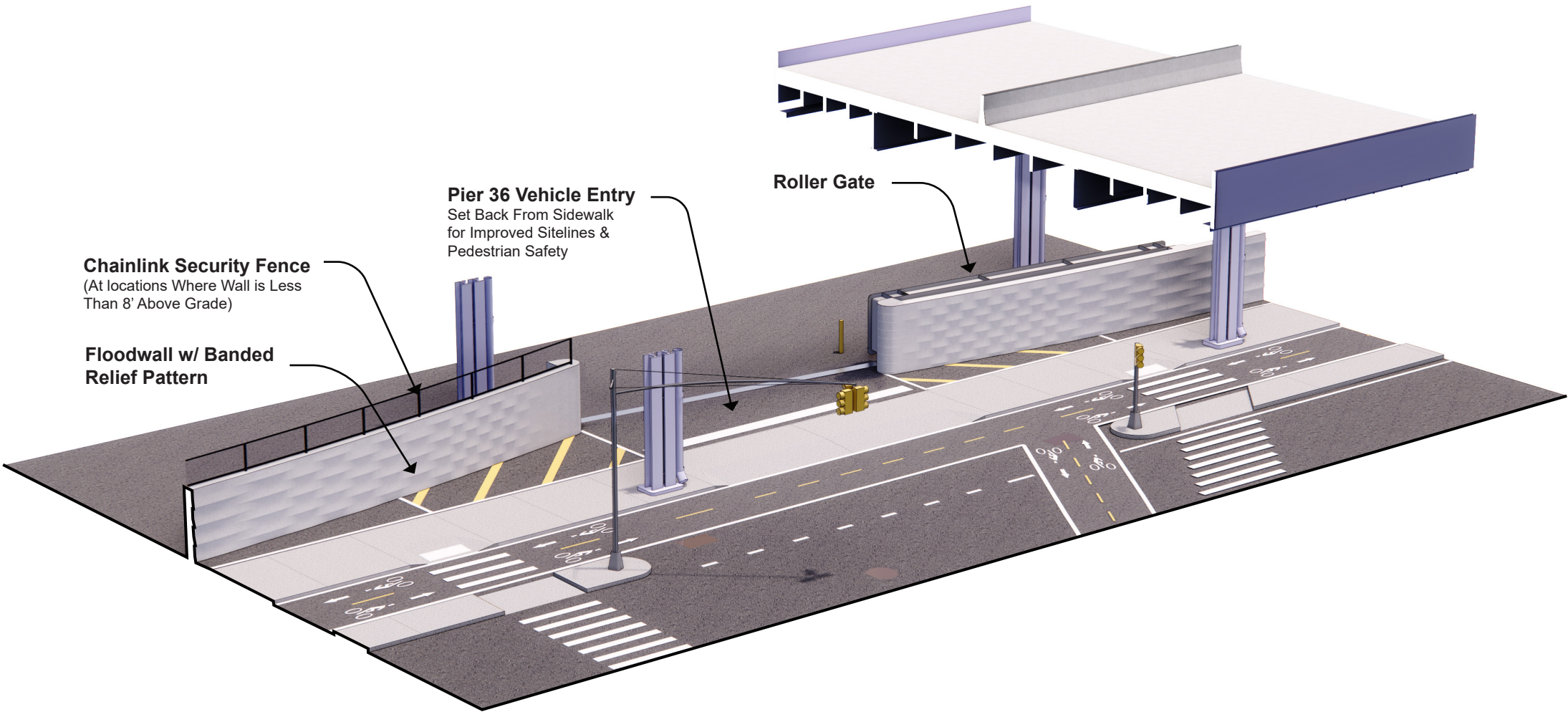


2. EXPOSED WALL ELEVATION - PROTECTED SIDE ALONG SOUTH STREET (WEST SECTION)



# FLOOD PROTECTION WALKTHROUGH

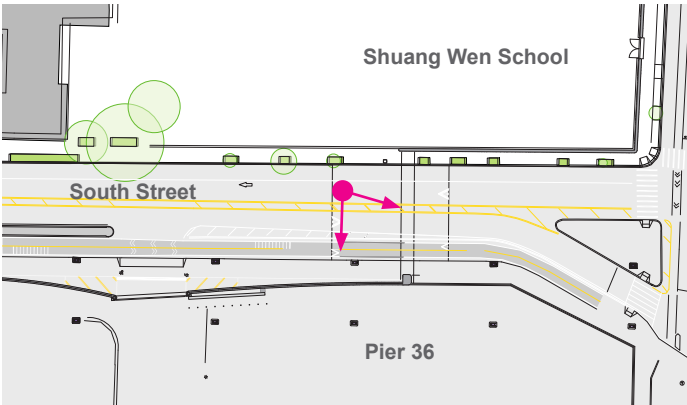
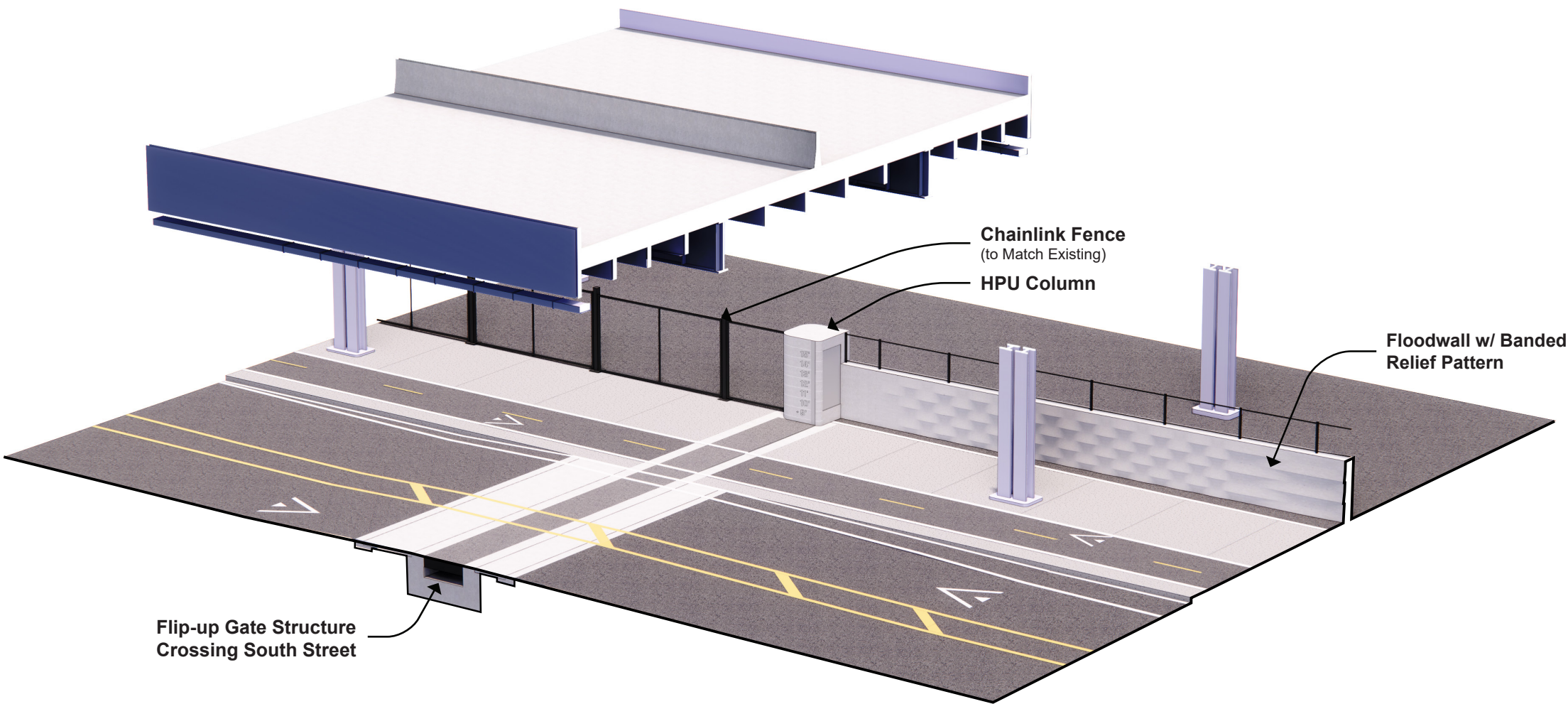
## Pier 36 Driveway at Catherine Street





# FLOOD PROTECTION WALKTHROUGH

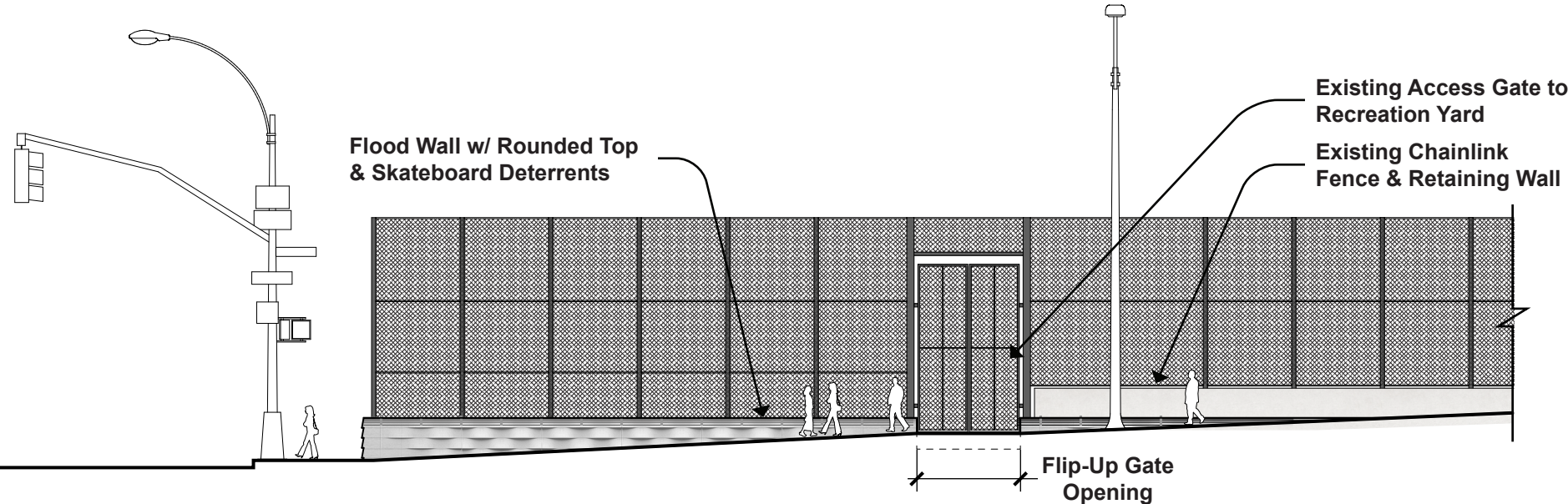
South Street Crossing - Pier 36 Side



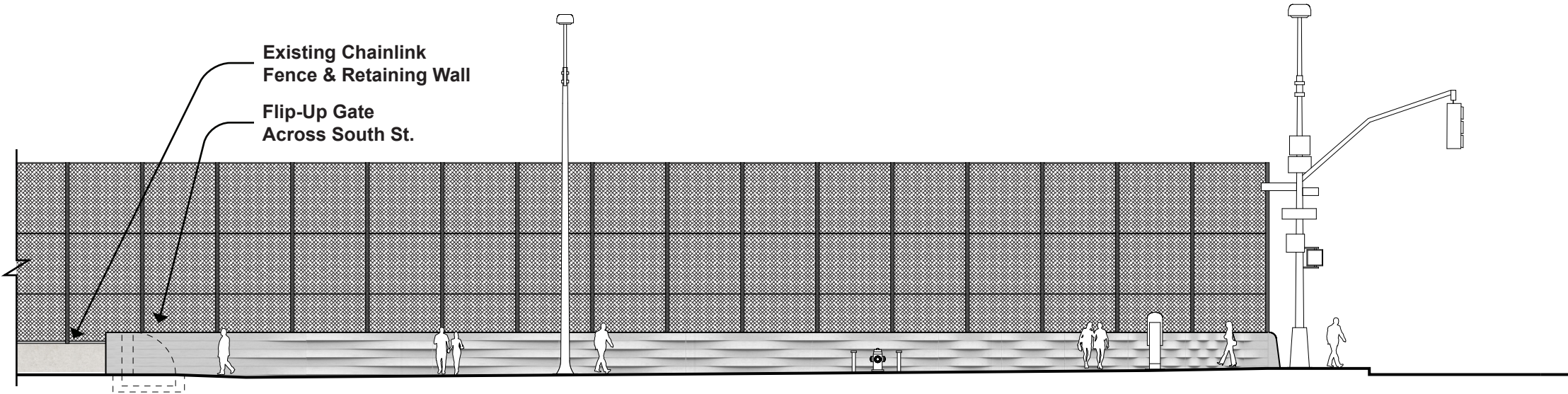


# FLOOD PROTECTION WALKTHROUGH

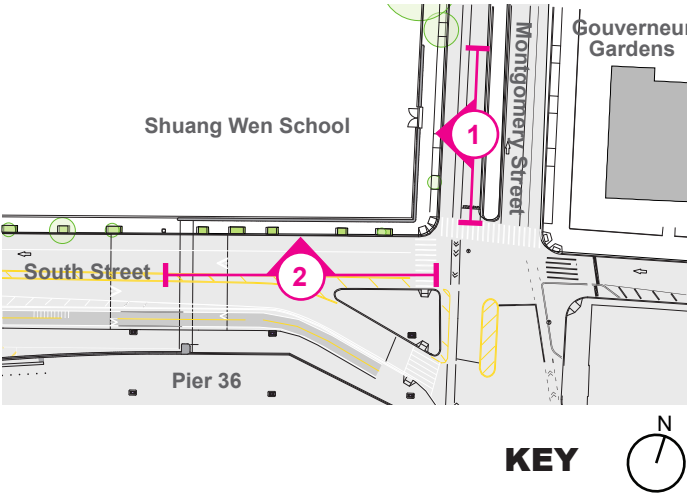
## Montgomery Street Tie-In



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



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



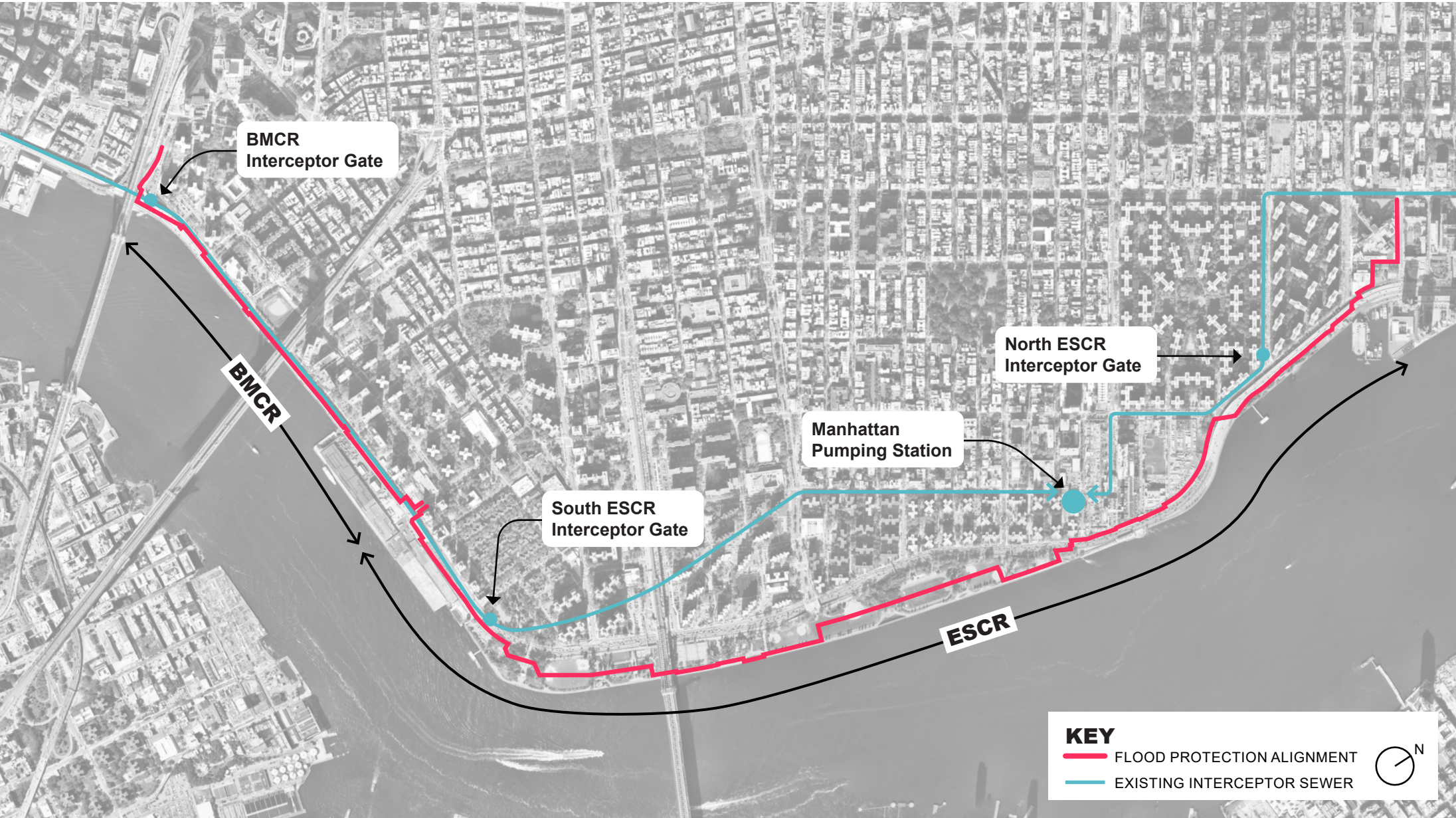


# INTERCEPTOR GATE BUILDING

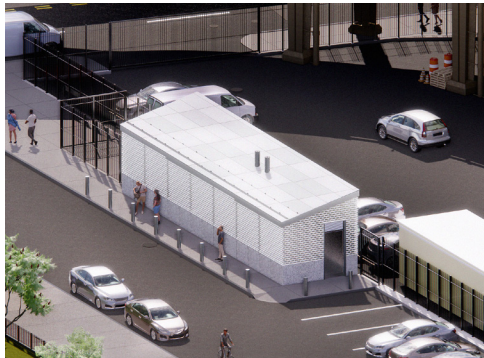


# INTERCEPTOR GATE BUILDING

Combined BMCR / ESCR Approach



BMCR / ESCR COMBINED INTERCEPTOR STRATEGY



BMCR IGB



SOUTH ESCR IGB



NORTH ESCR IGB



# INTERCEPTOR GATE BUILDING

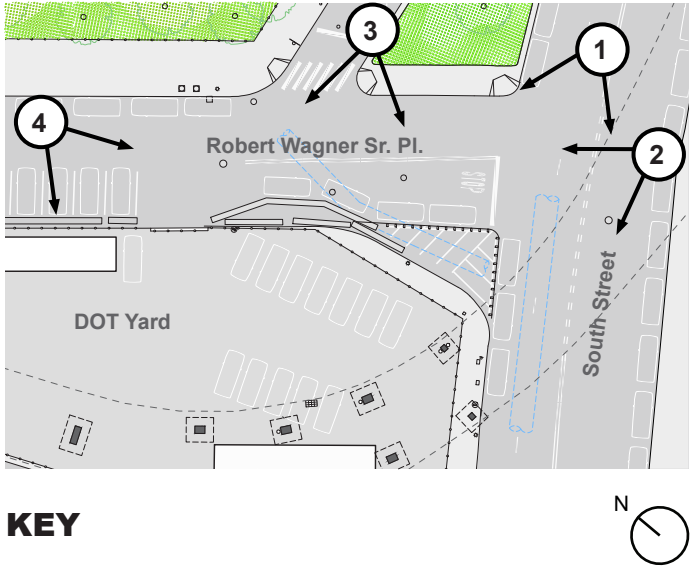
## Existing Conditions



1. AERIAL VIEW FROM SOUTHEAST



2. VIEW LOOKING NORTH FROM SOUTH STREET



3. VIEW LOOKING WEST FROM SLIP STREET

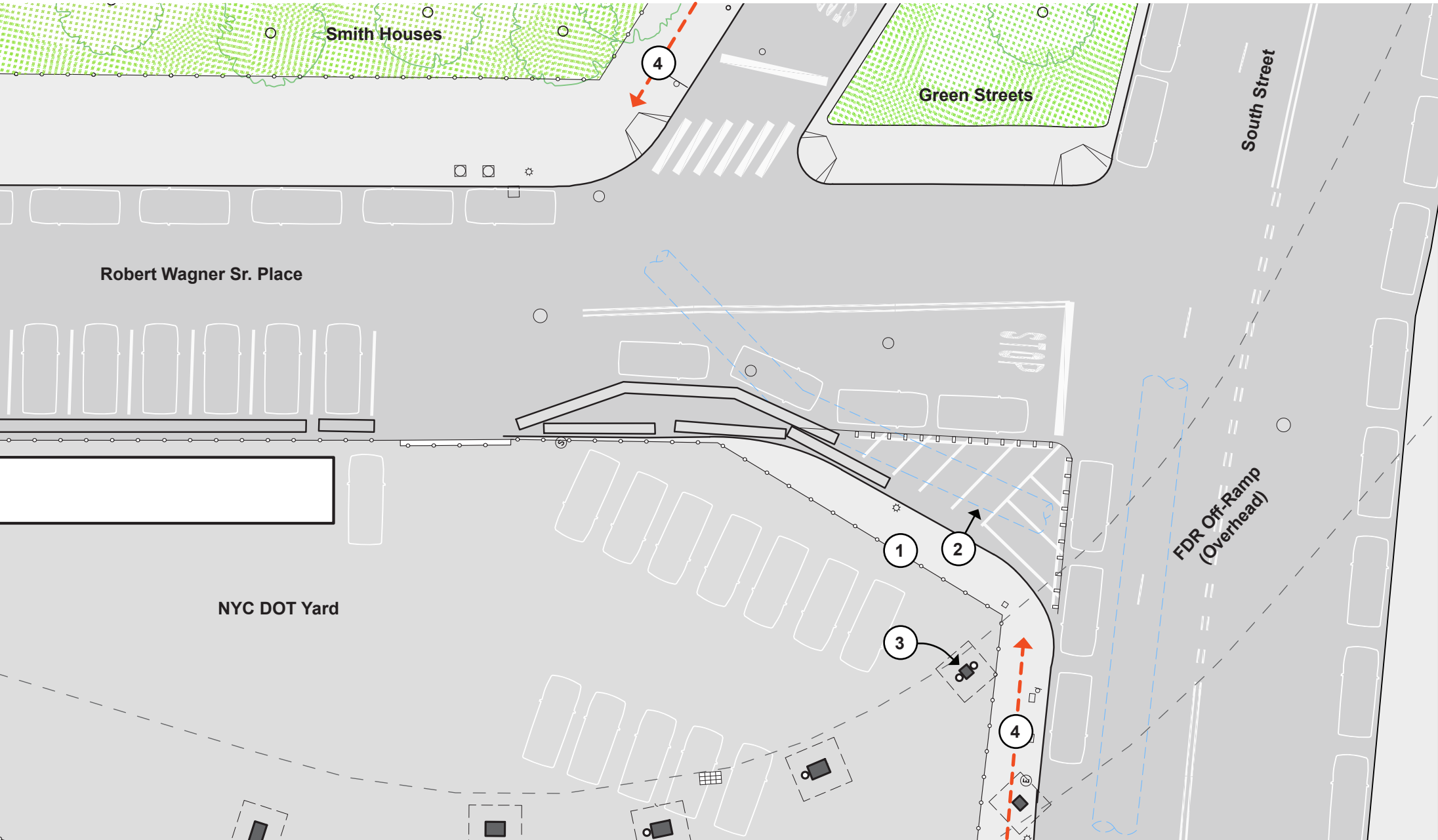


4. VIEW LOOKING SOUTH FROM WAGNER PL.



# INTERCEPTOR GATE BUILDING

## Existing Conditions



### SITE CONSTRAINTS & OPPORTUNITIES

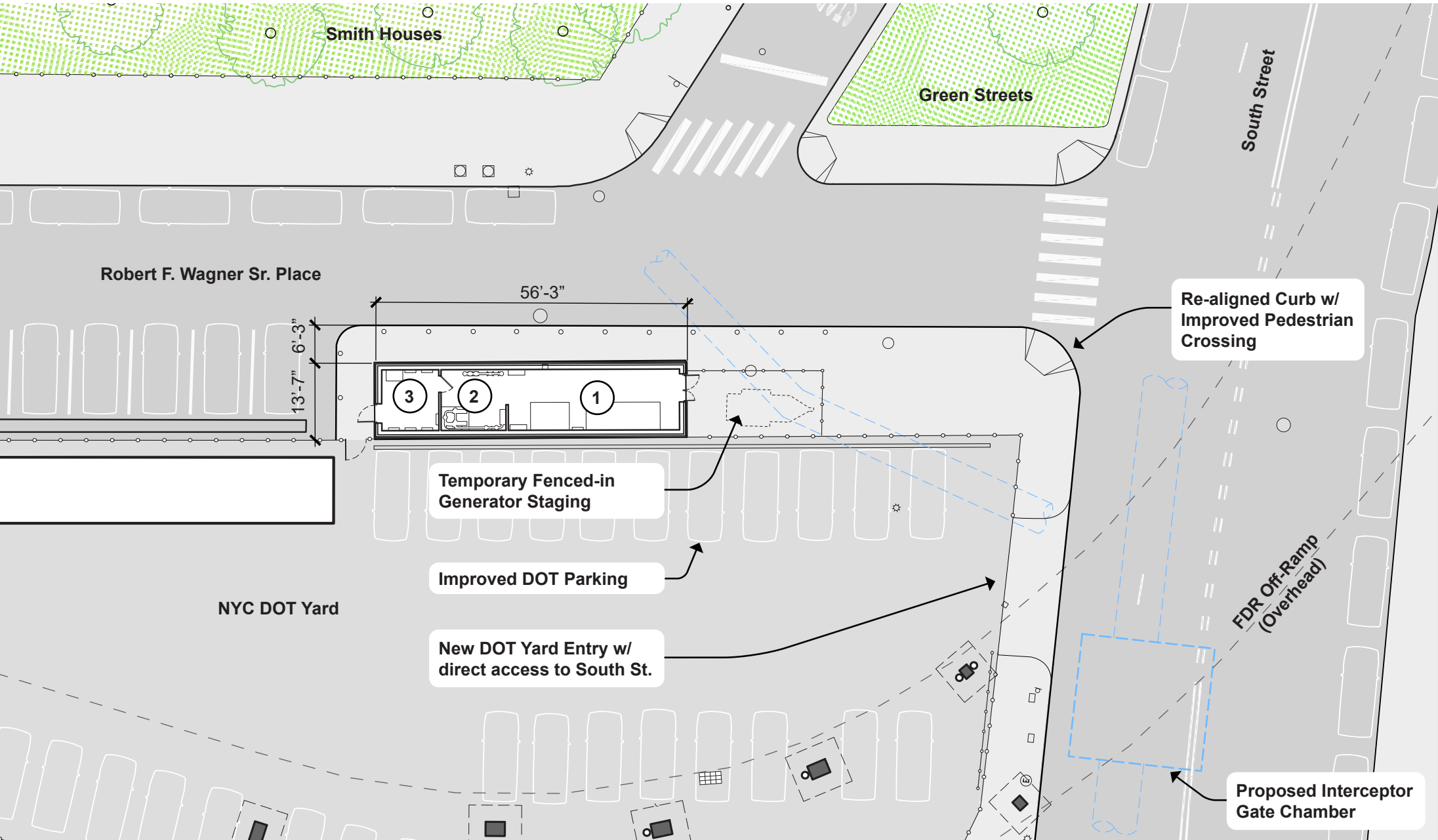
1. MINIMIZE IMPACT ON EXISTING DOT YARD
2. PROVIDE REQ'D OFFSET FROM EXISTING BELOW GRADE COMBINED SEWER
3. PROVIDE ADEQUATE CLEARANCE FROM EXISTING FDR COLUMNS AND FOOTINGS
4. IMPROVE PEDESTRIAN CONNECTION ALONG SOUTH STREET'S NORTH SIDEWALK; EXISTING STREET PATTERN CREATES RIFT WITH NO CLEAR PEDESTRIAN CONNECTION, ENCOURAGING JAYWALKING





# INTERCEPTOR GATE BUILDING

## Proposed Site Plan



### KEY:

- 1. Hydraulic Area
- 2. Pump Area
- 3. Electrical Room

Note: Final confirmation of site plan pending full traffic analysis of conversion of southern portion of Robert F. Wagner Sr. Pl from two-way to one-way traffic.





# INTERCEPTOR GATE BUILDING

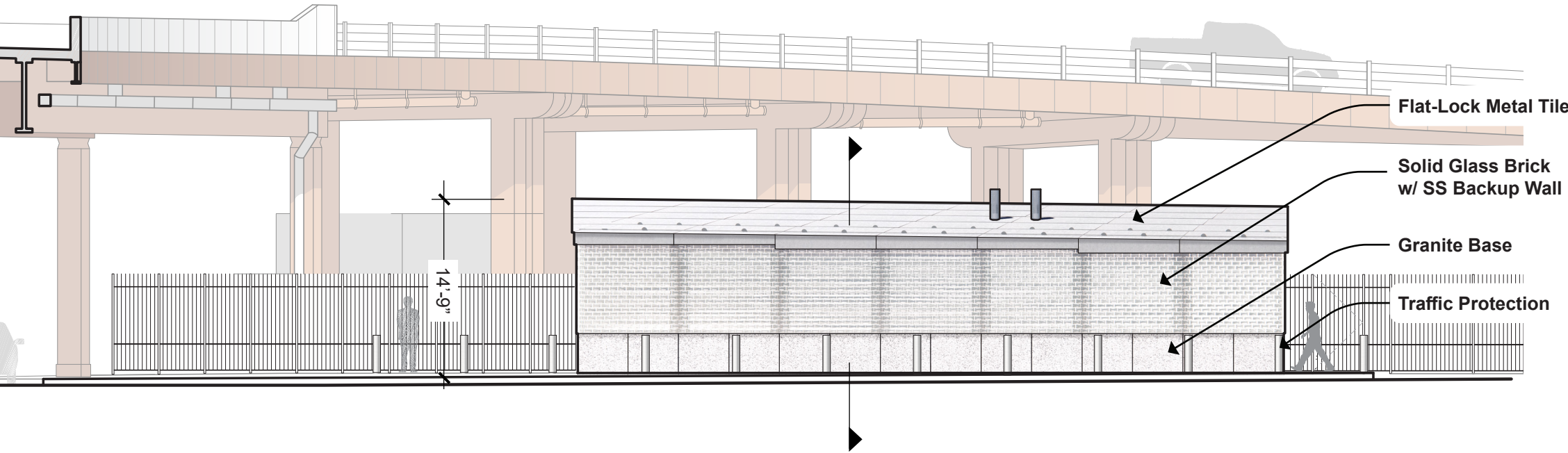
Aerial View from East



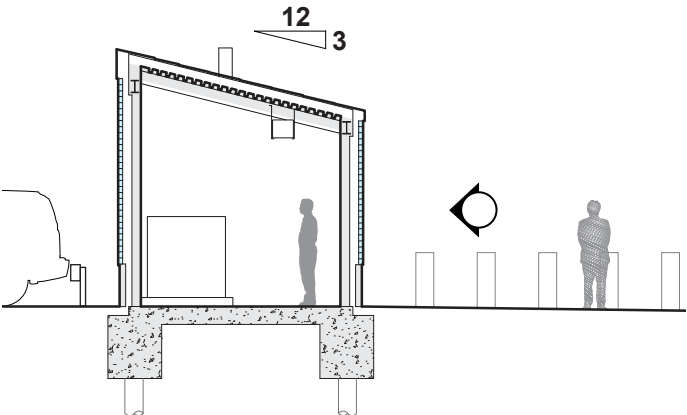


# INTERCEPTOR GATE BUILDING

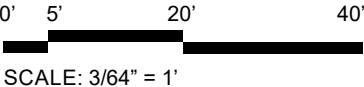
Elevation & Section



1. EAST ELEVATION



2. CROSS SECTION





# INTERCEPTOR GATE BUILDING

View from South Sreet





# INTERCEPTOR GATE BUILDING

## Proposed Material Palette



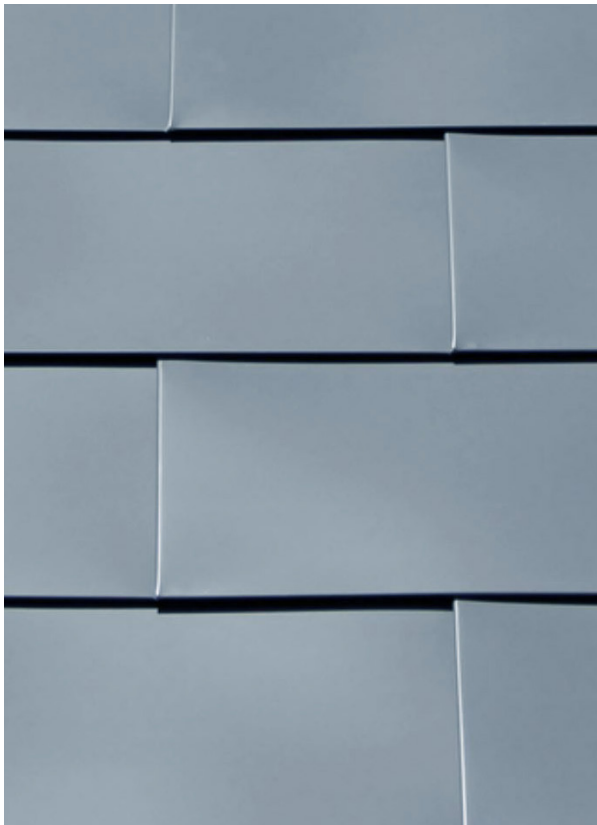
**STAINLESS STEEL**  
Back Up Wall,  
Doors, & Trim Elements



**SOLID GLASS BRICK**  
Facade  
(Pictured: Office Mockup)



**BARRE GREY GRANITE**  
Stone Base



**FLAT-LOCK METAL TILE**  
Sloped Roof Assembly