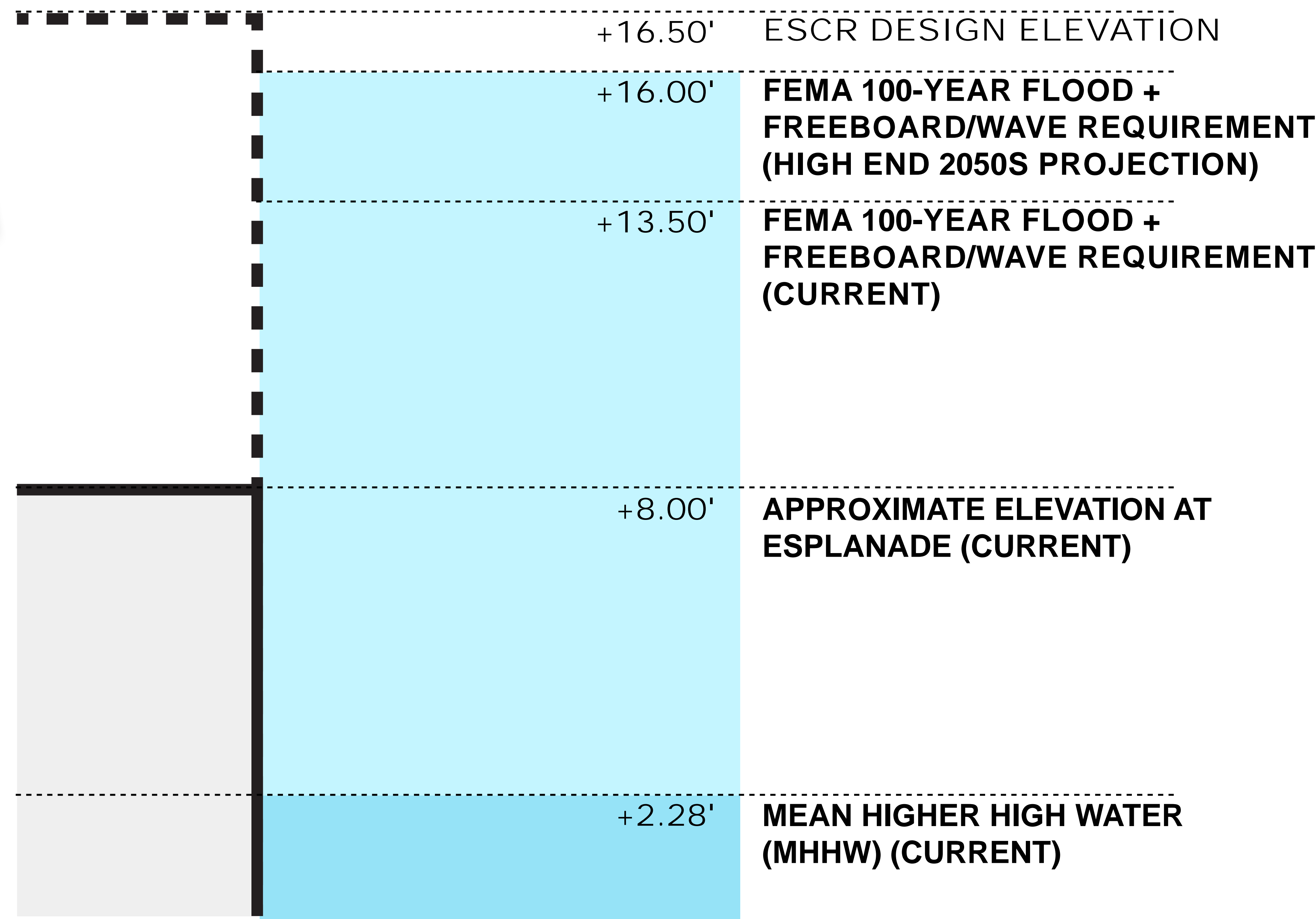


# PROTECTING AGAINST FUTURE FLOODING

## FLOOD DESIGN CRITERIA

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

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

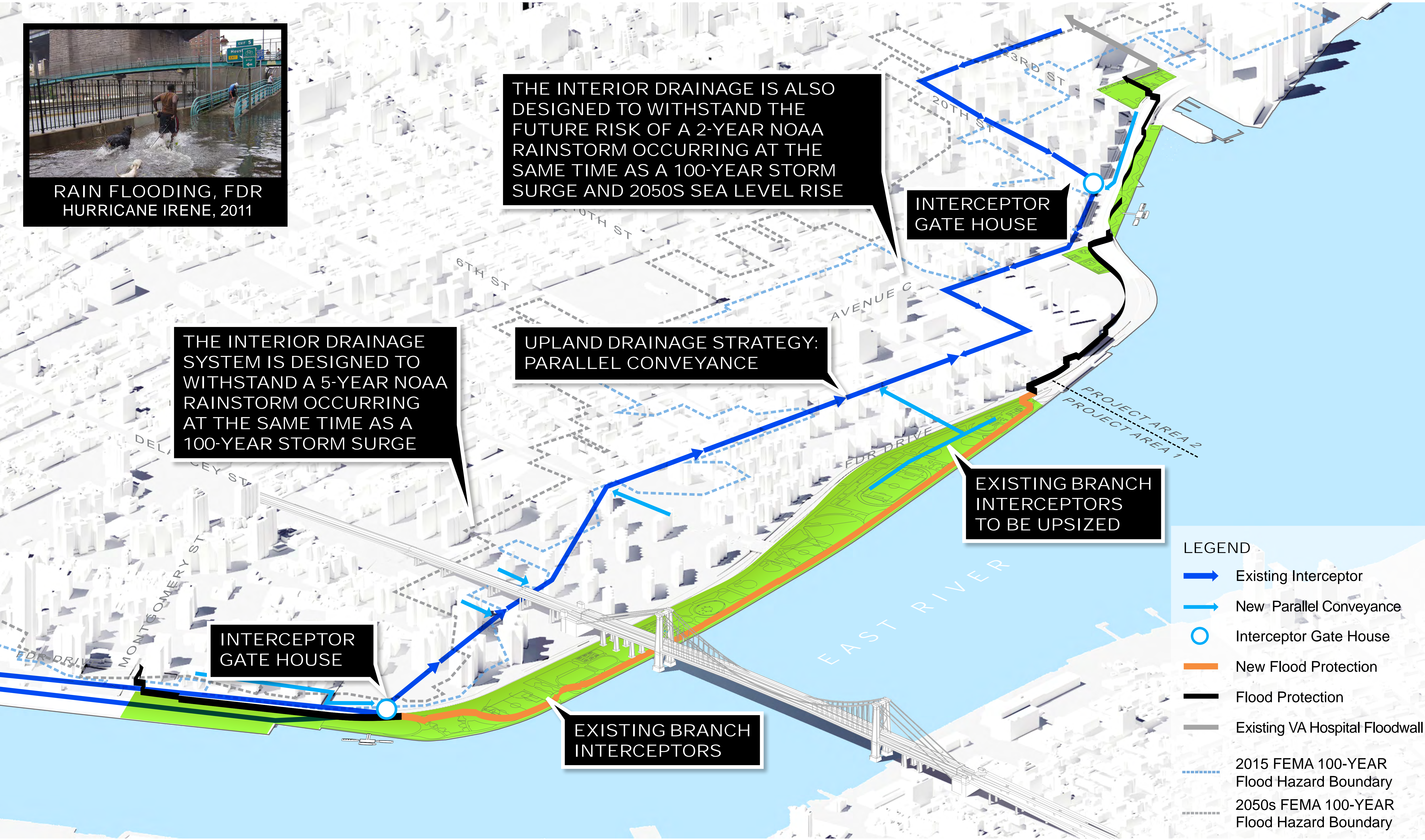


NOTE: ALL ELEVATIONS SHOWN IN NAVD88

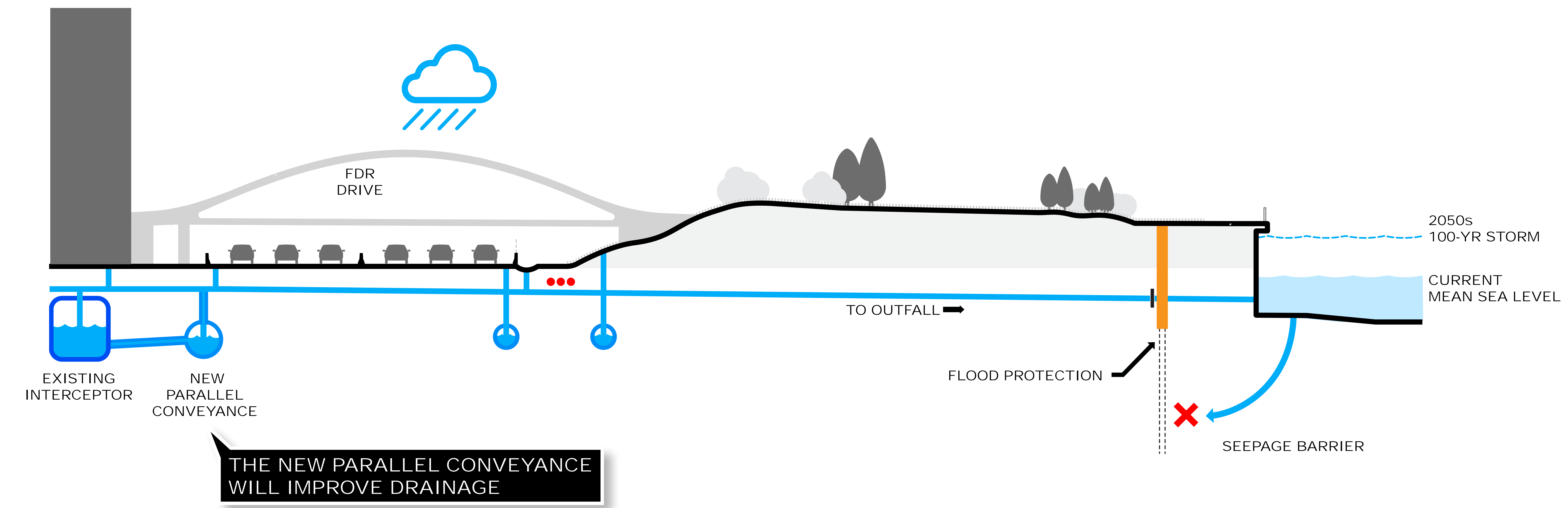


# PROTECTING AGAINST FUTURE FLOODING

## DRAINAGE CRITERIA



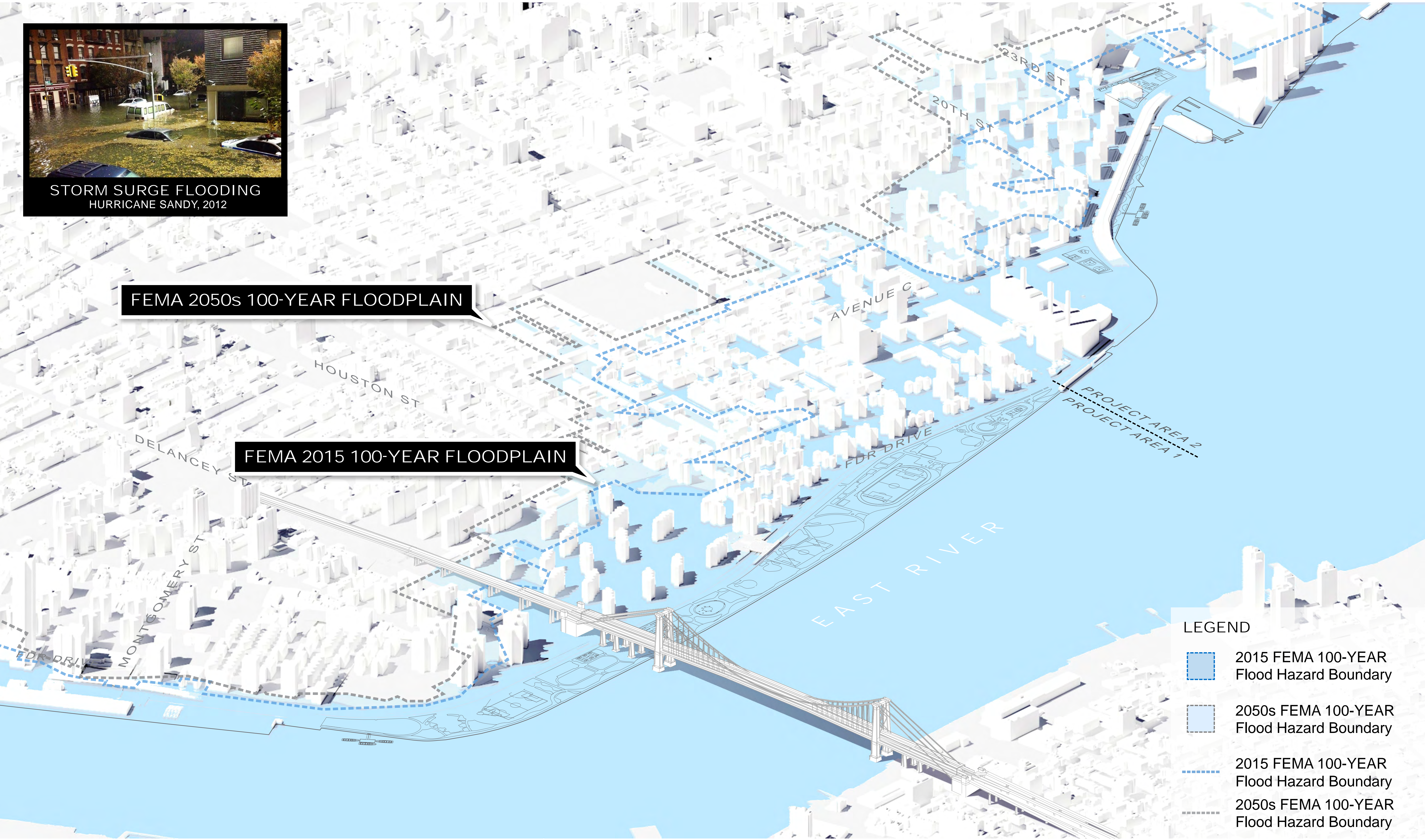
## PARALLEL CONVEYANCE SYSTEM SCHEMATIC



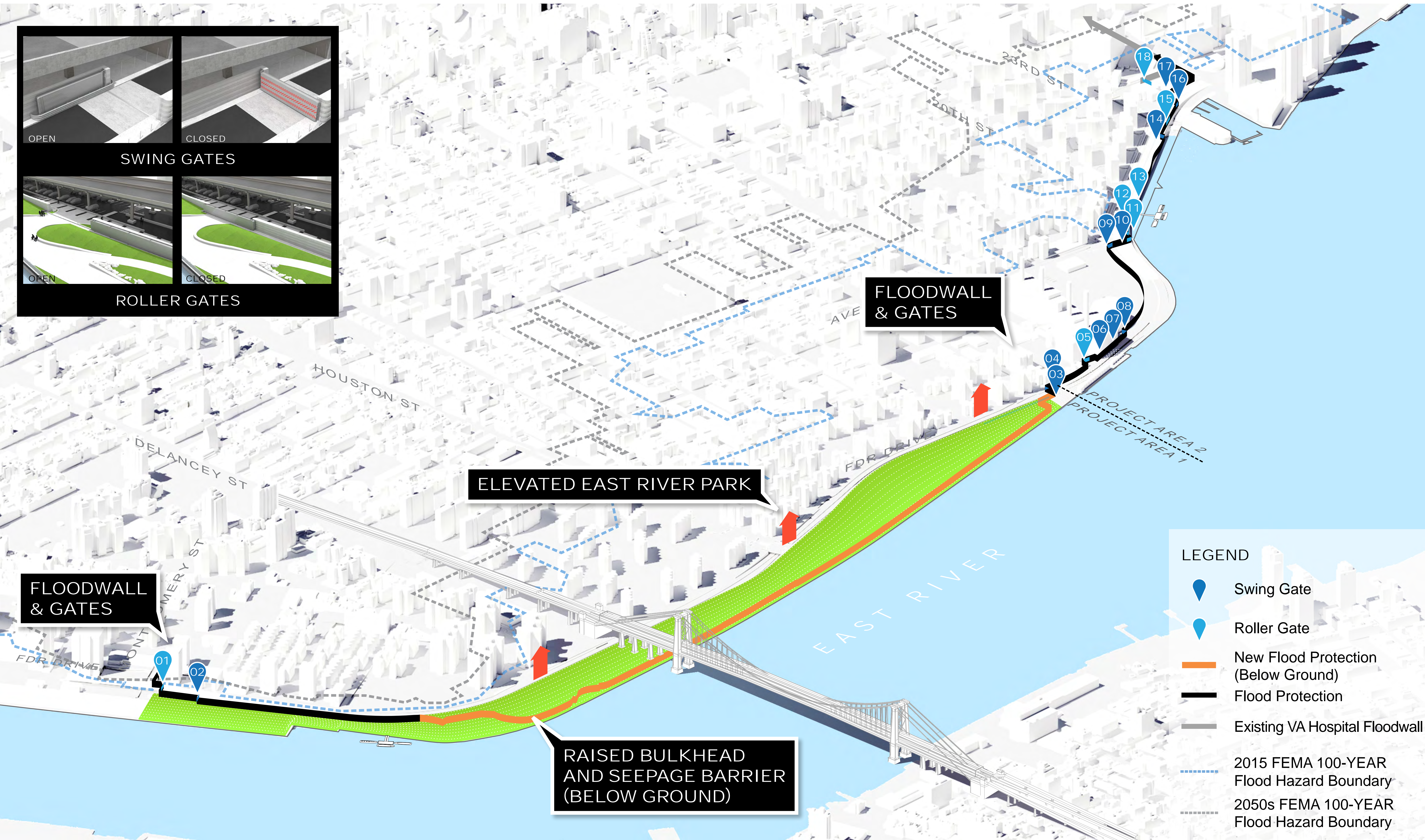


# PROTECTING AGAINST FUTURE FLOODING

## CURRENT FLOODPLAIN



## FLOOD PROTECTION ALIGNMENT

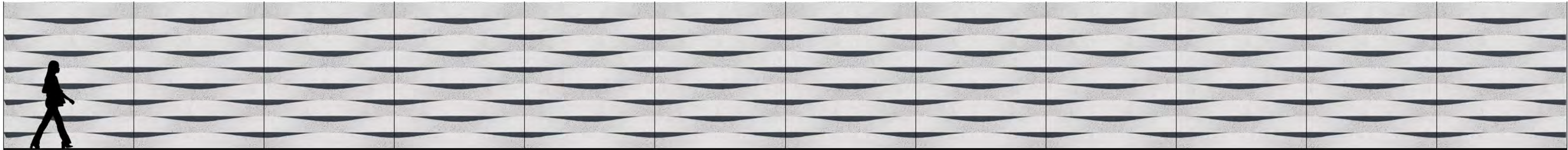




# PROTECTING AGAINST FUTURE FLOODING

## FLOODWALL DESIGN

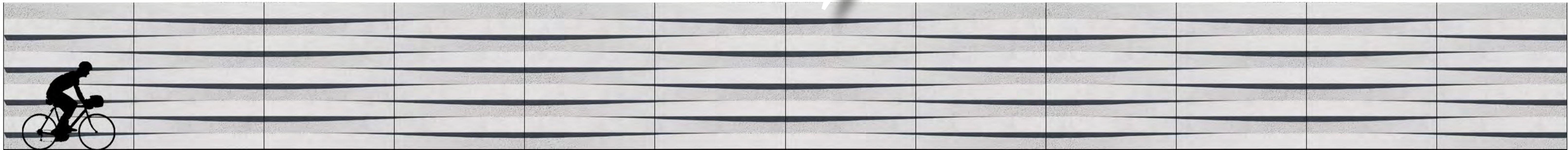
8'-0" MODULE



WALKING PATH 3.1 MPH = 4.5 FT/S

THE WALL PATTERN ADAPTS TO THE WAY THE PEOPLE INTERACT WITH OR EXPERIENCE IT...

32'-0" MODULE



BIKING PATH 9.6 MPH = 14 FT/S

96'-0" MODULE



FDR DRIVE 40 MPH = 58.6 FT/S

## FLOODWALL DESIGN SCHEMATIC





# PROTECTING AGAINST FUTURE FLOODING

## DEPLOYABLE FLOOD GATES



FDR DRIVE GATE - OPEN



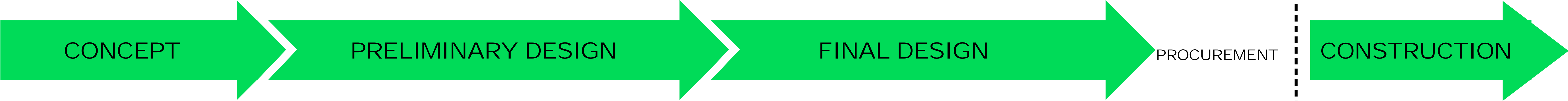
FDR DRIVE GATE - CLOSED  
STORM CONDITIONS



# BUILDING RESILIENCY FASTER

## CONSTRUCTION SCHEDULE & PROCESS

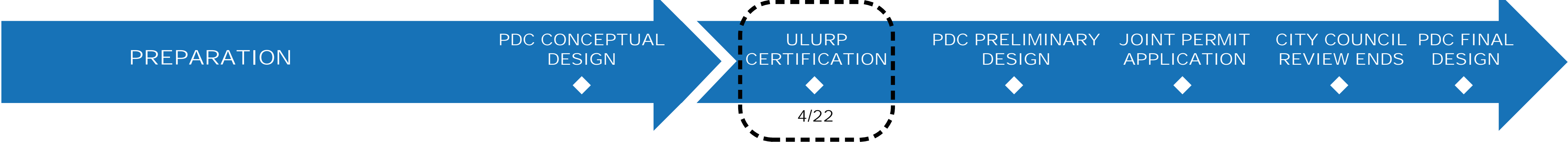
### DESIGN & CONSTRUCTION



### ENVIRONMENTAL REVIEW



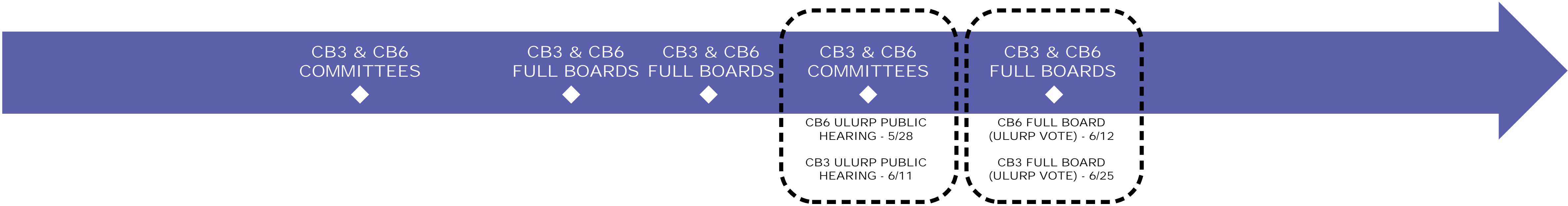
### APPROVALS & PERMITTING



### COMMUNITY ENGAGEMENT



### COMMUNITY BOARD MEETINGS

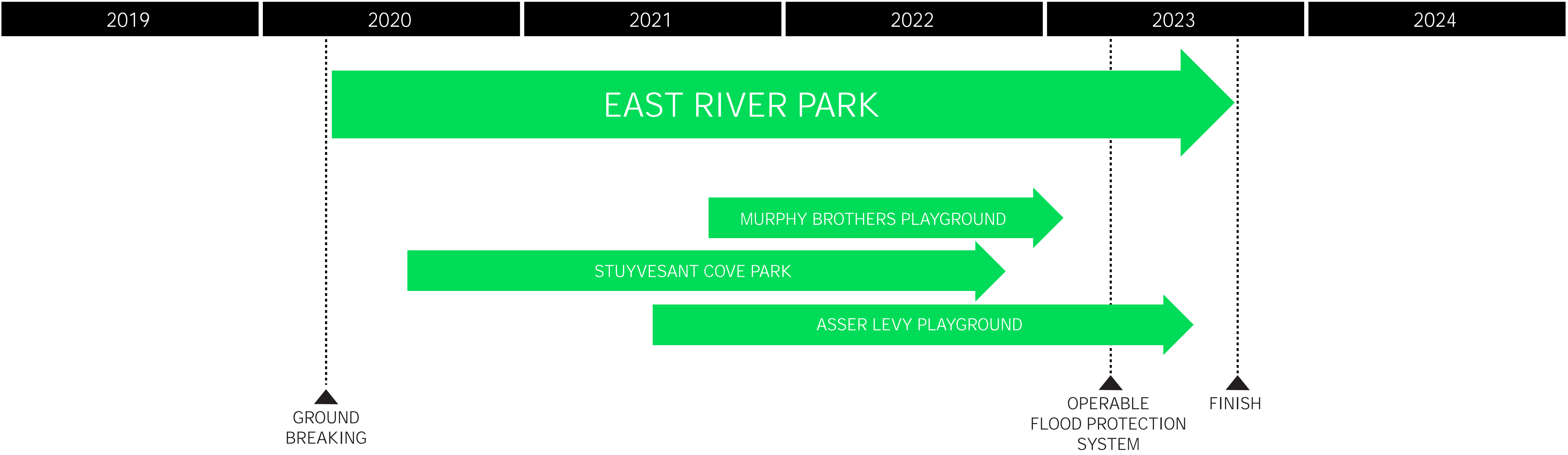




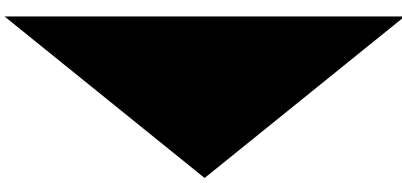
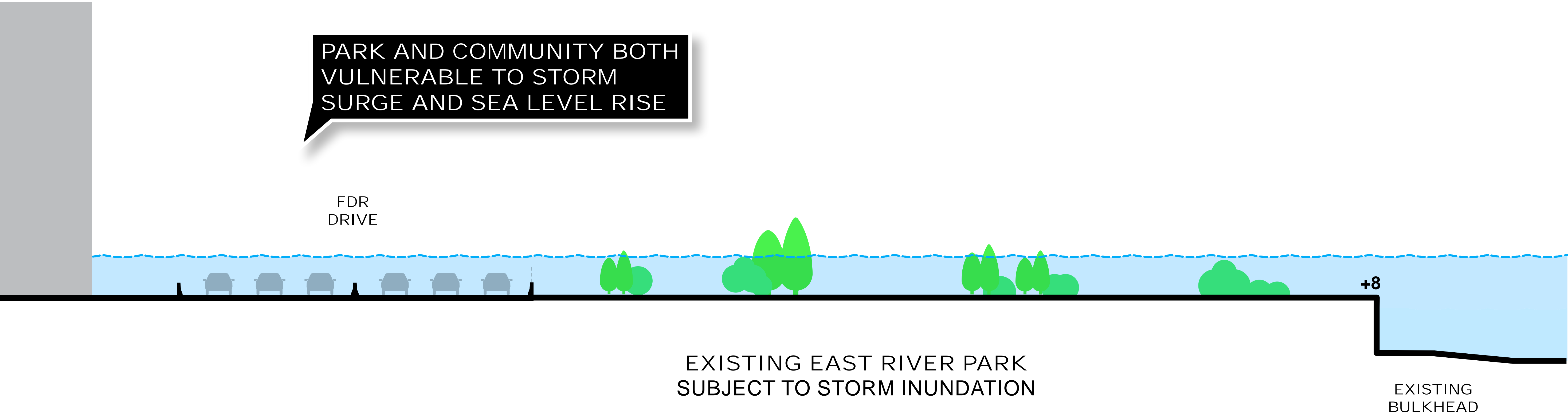
# BUILDING RESILIENCY FASTER

## CONSTRUCTION SCHEDULE & PROCESS

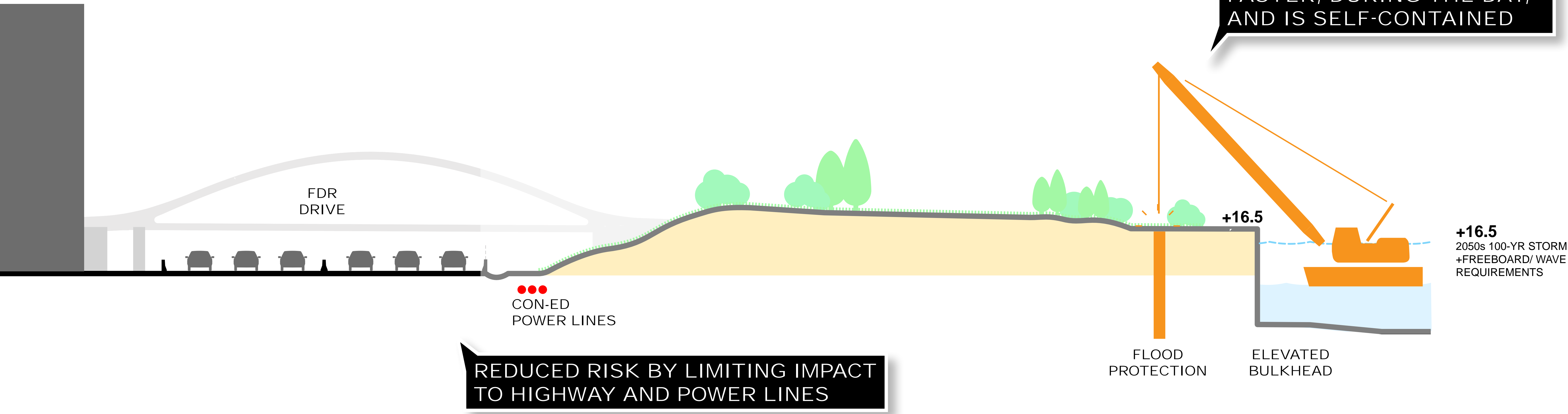
### CONSTRUCTION SCHEDULE:



### EXISTING CONDITIONS:



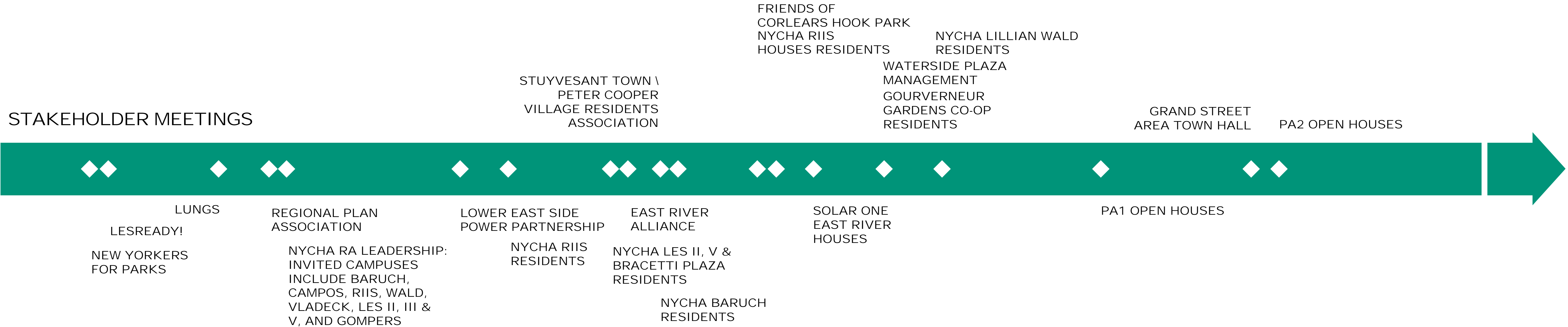
### FUTURE CONDITIONS:



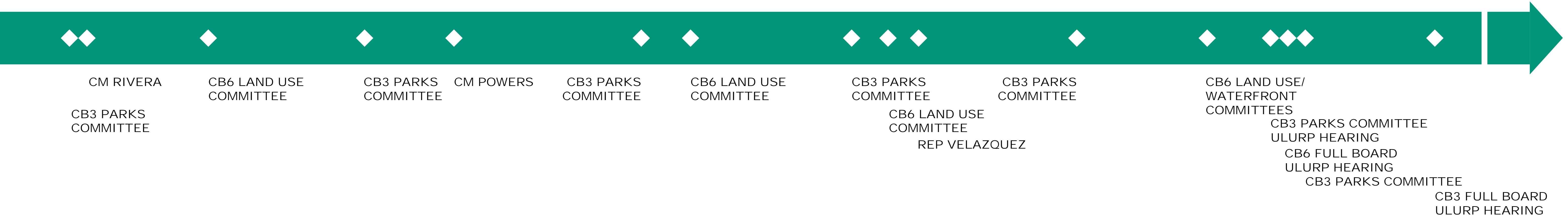


# CONTINUING COMMUNITY ENGAGEMENT

## STAKEHOLDER MEETINGS



## COMMUNITY BOARD & COUNCIL MEMBER MEETINGS





# SUPPORTING DIVERSE & RESILIENT ECOLOGIES

## INCREASING PLANT DIVERSITY



- ACER RUBRUM
- AESCULUS CARNEA
- AMELANCHIER CANADENSIS
- BETULA NIGRA
- CARYA GLABRA
- CARYA OVATA
- CATALPA SPECIOSA
- CELTIS OCCIDENTALIS
- CERCIS RENIFORMIS
- CERCIS CANADENSIS
- CHAMAECYPARIS THYOIDES
- CHIONANTHUS RETUSUS
- CRATAEGUS CRUS-GALLI
- CRATAEGUS VIRIDIS
- GINKGO BILOBA
- GLETITSIA TRIACANTHOS
- GYMNOCLADUS DIOICA
- HAMAMELIS VERNALIS
- HAMAMELIS VIRGINIANA
- ILEX OPACA
- JUNIPERUS VIRGINIANA
- LIQUIDAMBAR STYRACIFLUA
- MAGNOLIA GRANDIFLORA
- MAGNOLIA TRIPETULA
- MAGNOLIA VIRGINIANA
- METASEQUOIA GLYPTOSTROBOIDES
- NYSSA SYLVATICA
- PINUS RIGIDA
- PINUS VIRGINIANA
- PRUNUS SARGENTII
- PRUNUS SEROTINA
- PRUNUS SERRULATA
- PRUNUS X YEDOENSIS
- QUERCUS ALBA
- QUERCUS BICOLOR
- QUERCUS COCCINEA
- QUERCUS LYRATA
- QUERCUS MACROCARPA
- QUERCUS PALUSTRIS
- QUERCUS PHELLOS
- QUERCUS PRINOIDES
- QUERCUS RUBRA
- QUERCUS VELUTINA
- QUERCUS NUTTALLI
- RHUS THYPIA
- SASSAFRAS ALBIDUM
- SYRINGA RETICULATA
- SYRINGULA VULGARIS
- TAXODIUM DISTICHUM
- TILIA AMERICANA
- ULMUS X ACCOLADE
- ULMUS AMERICANA

### PROPOSED SPECIES

DISTRIBUTION FOR ECOLOGICAL RESILIENCE





# SUPPORTING DIVERSE & RESILIENT ECOLOGIES

## INCREASING PLANT DIVERSITY



## HURRICANE SANDY IMPACT ON TREE CANOPY IN EAST RIVER PARK

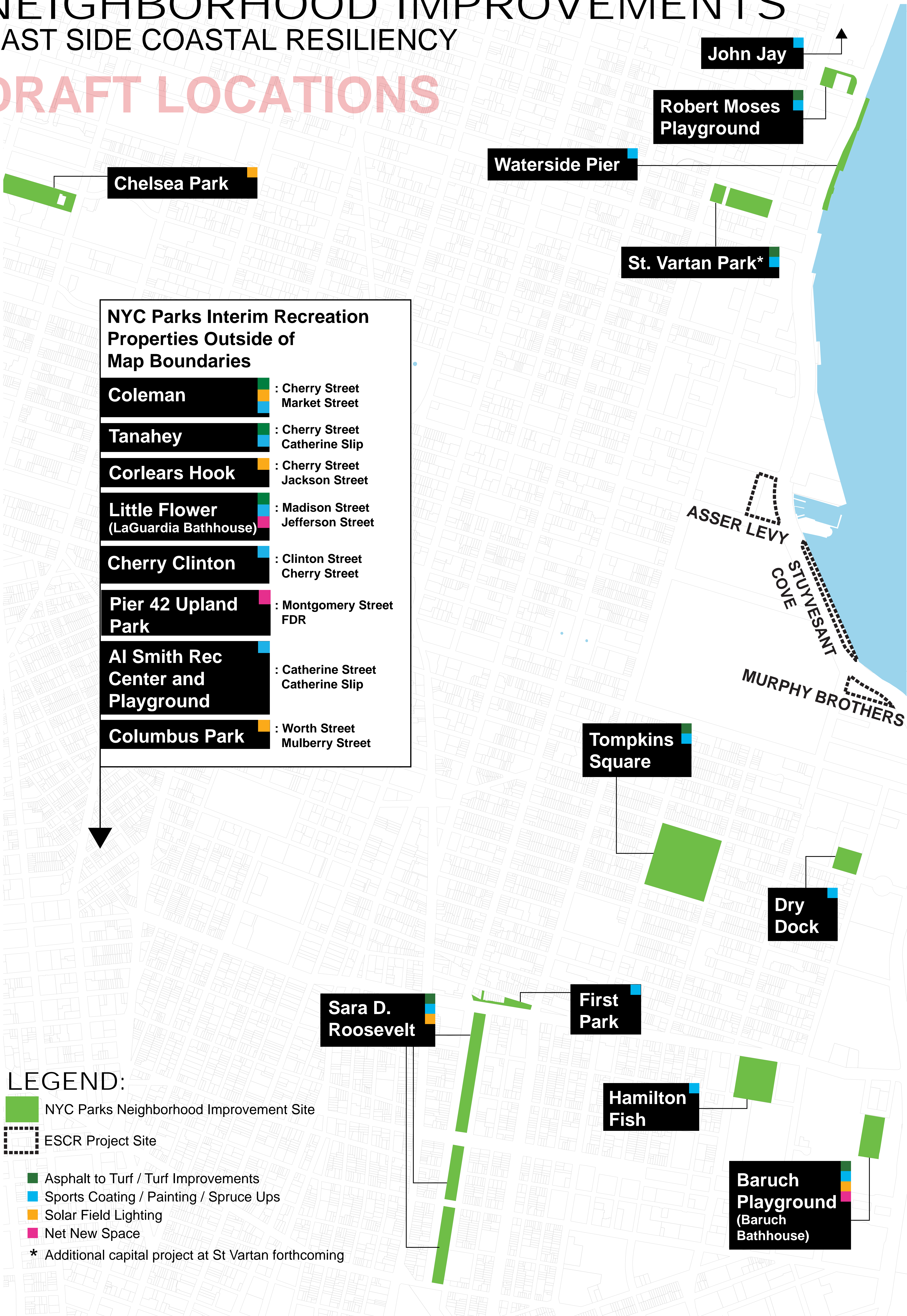




# NYC PARKS ANTICIPATED NEIGHBORHOOD IMPROVEMENTS

EAST SIDE COASTAL RESILIENCY

DRAFT LOCATIONS





# NYC PARKS ANTICIPATED NEIGHBORHOOD IMPROVEMENTS

## INTERIM RECREATION

### PARK UPGRADES



SPORTS COATING



RAIN GARDENS

### MORE PROGRAMMING, NEW PARK SPACES



ACCOMMODATING FIELD USERS



LAGUARDIA BATH HOUSE



PAINTING



TREE PLANTING



MORE RECREATIONAL PROGRAMMING



PIER 42 PHASE 1: UPLAND PARK



ASPHALT TO TURF



SOLAR FIELD LIGHTS



MORE NEIGHBORHOOD PARK STAFF



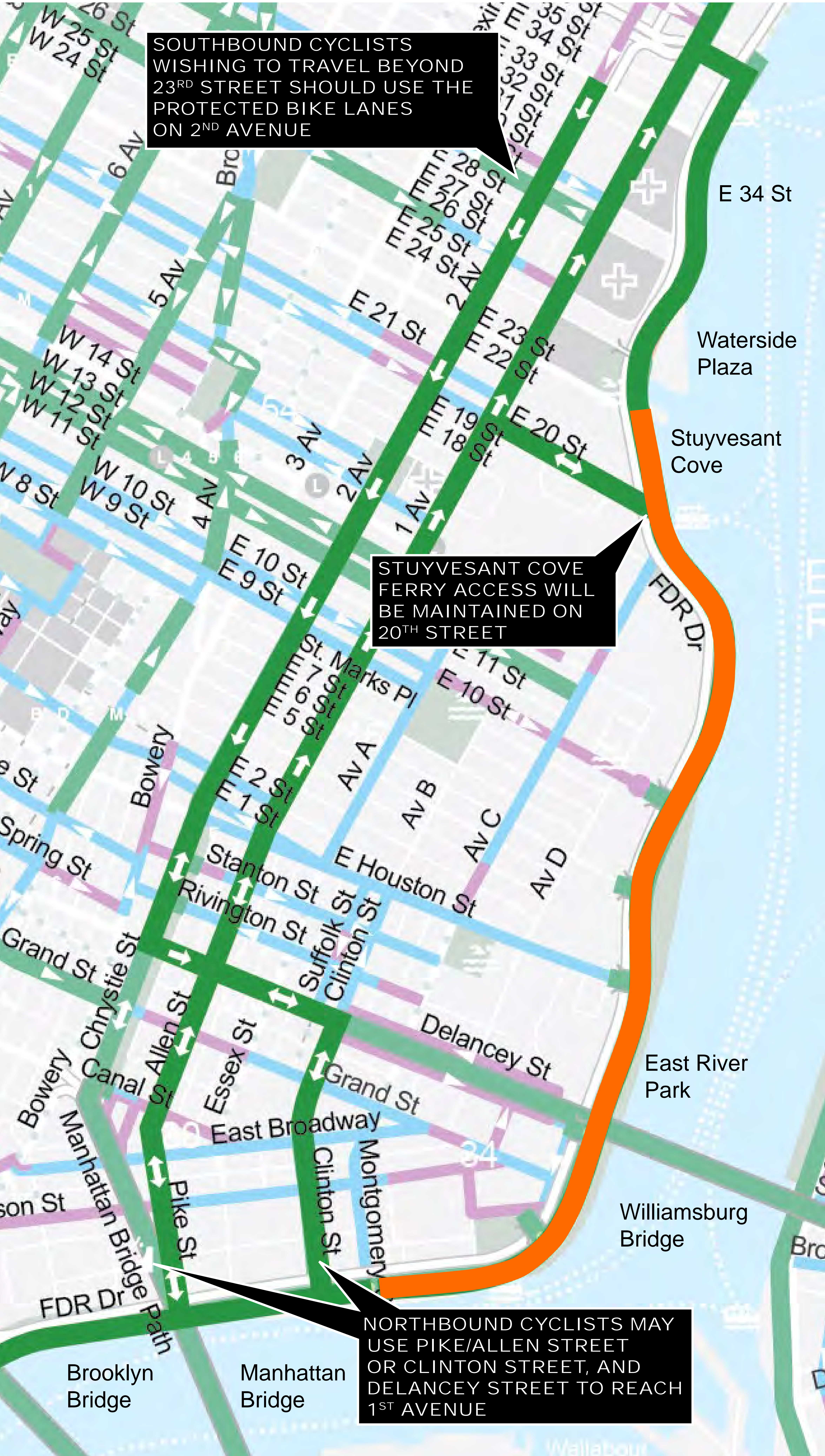
PIER 35



# REROUTING THE EAST RIVER GREENWAY

## DETOUR ROUTES DURING CONSTRUCTION

# DETOUR DURING EAST RIVER PARK CONSTRUCTION



SIGNS WILL BE INSTALLED AT  
THE KEY DECISION POINTS IN  
THE BIKE NETWORK TO INFORM  
CYCLISTS OF THE CLOSURE

SIGNS WILL BE INSTALLED ONE  
BLOCK WEST OF THE GREENWAY  
TO INFORM PEDESTRIANS OF THE  
CLOSURE

## DETOUR DURING FLYOVER CONSTRUCTION



SIGNS ON AND OFF THE  
GREENWAY WILL DIRECT  
CYCLISTS AND PEDESTRIANS  
TO USE 10<sup>TH</sup> STREET AVENUE C

- CONSTRUCTION CLOSURES
- PROTECTED BIKE LANE
- CONVENTIONAL BIKE LANE
- SHARED LANE



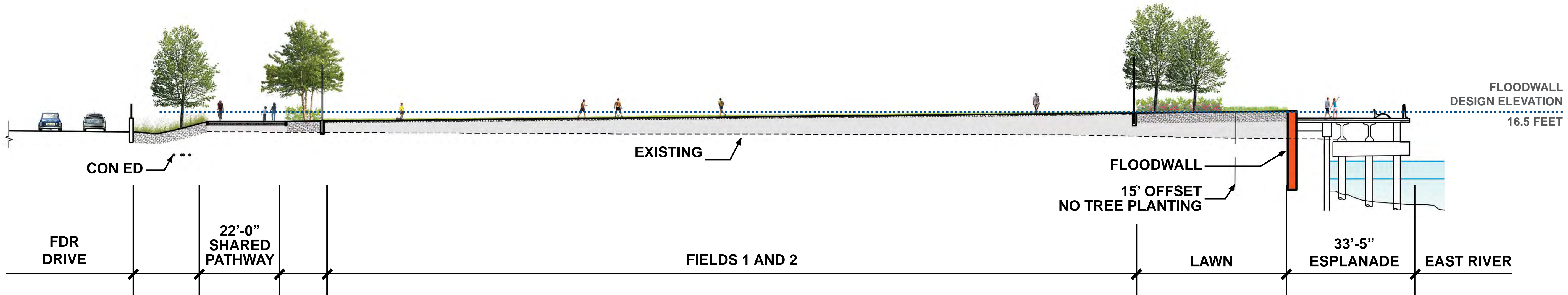
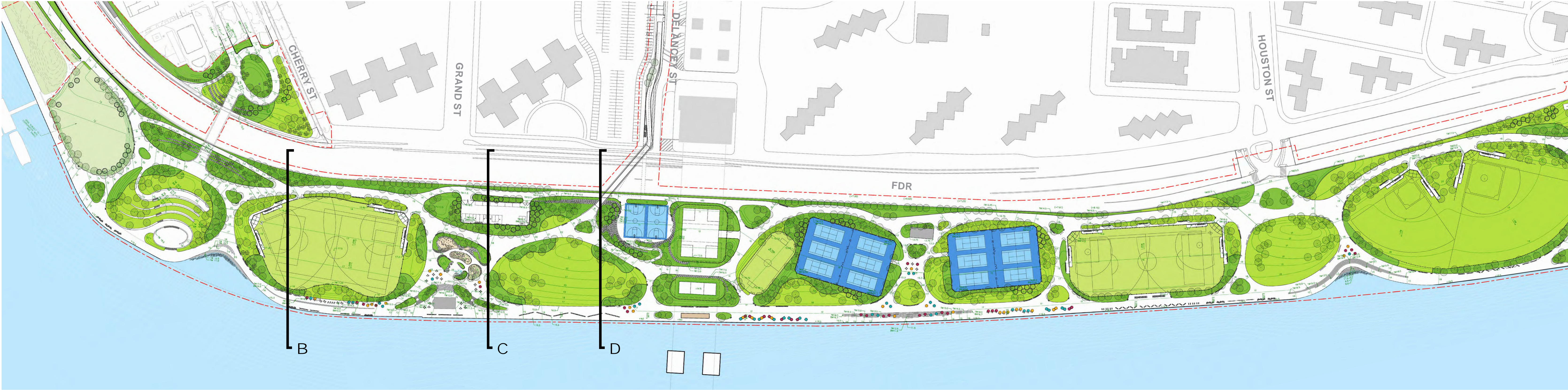
# CREATING A MORE RESILIENT WATERFRONT

## EAST SIDE COASTAL RESILIENCY

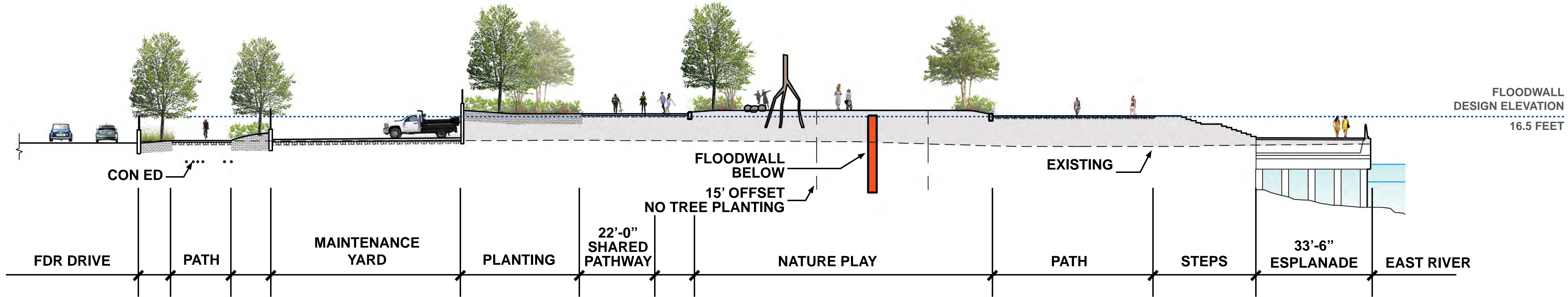




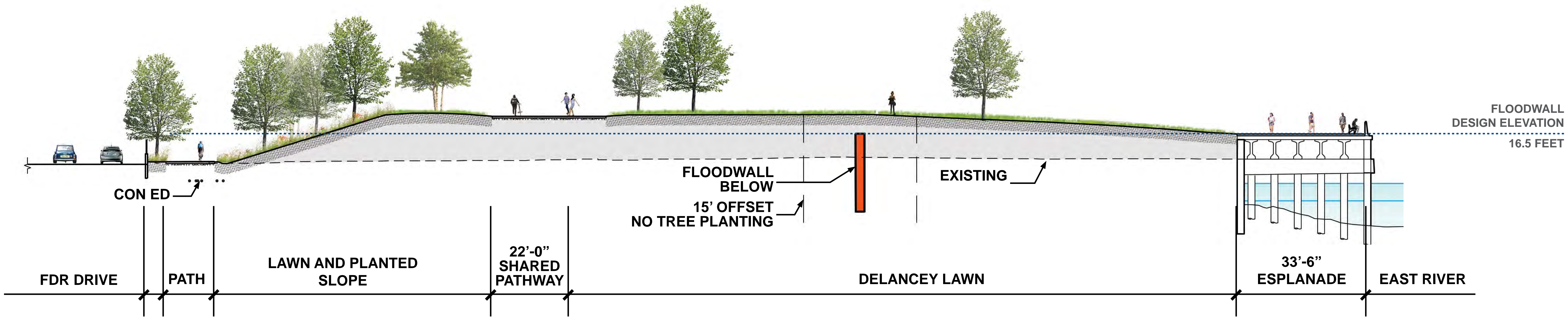
# CREATING A MORE RESILIENT WATERFRONT FROM CORLEARS HOOK TO DELANCEY



SECTION B FIELDS 1 AND 2



SECTION C NATURE PLAY & AMPHITHEATER

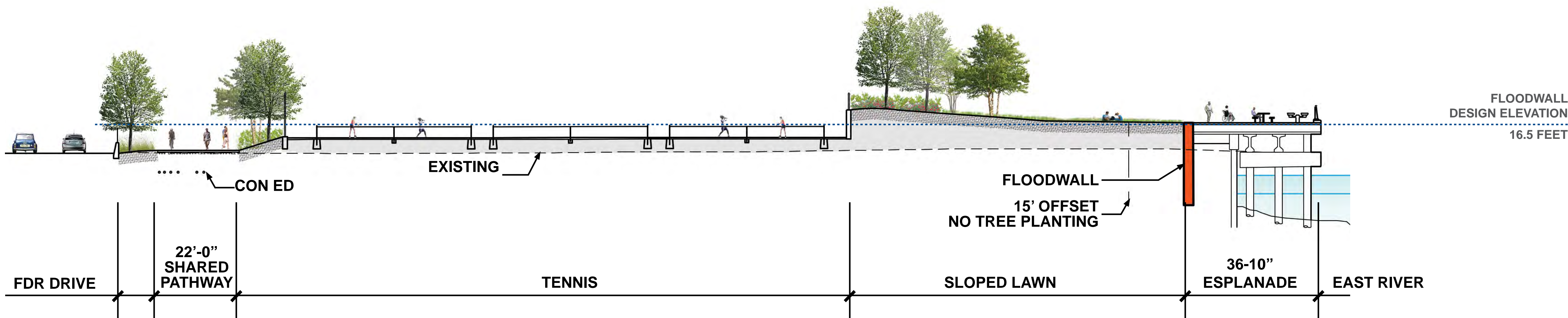


SECTION D DELANCEY ST LAWN

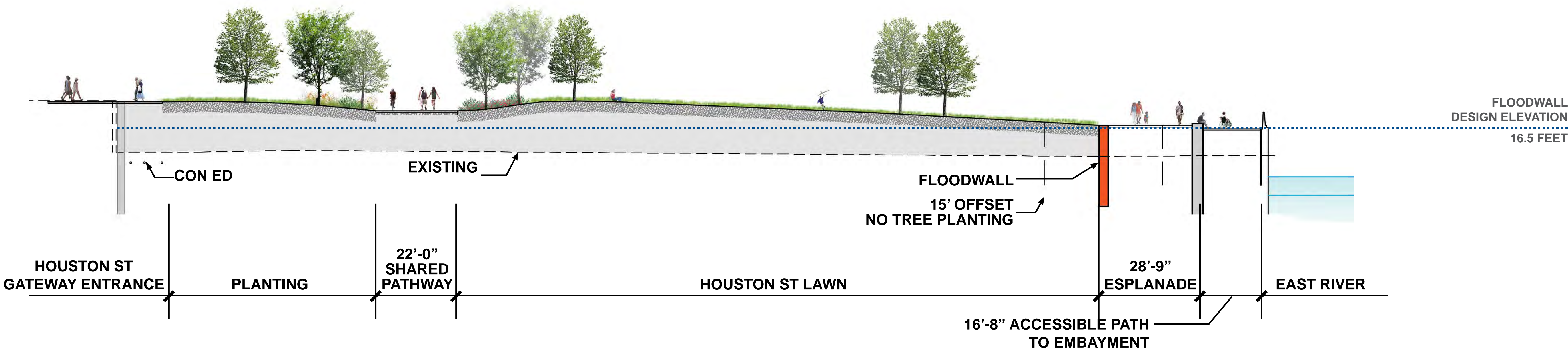


# CREATING A MORE RESILIENT WATERFRONT

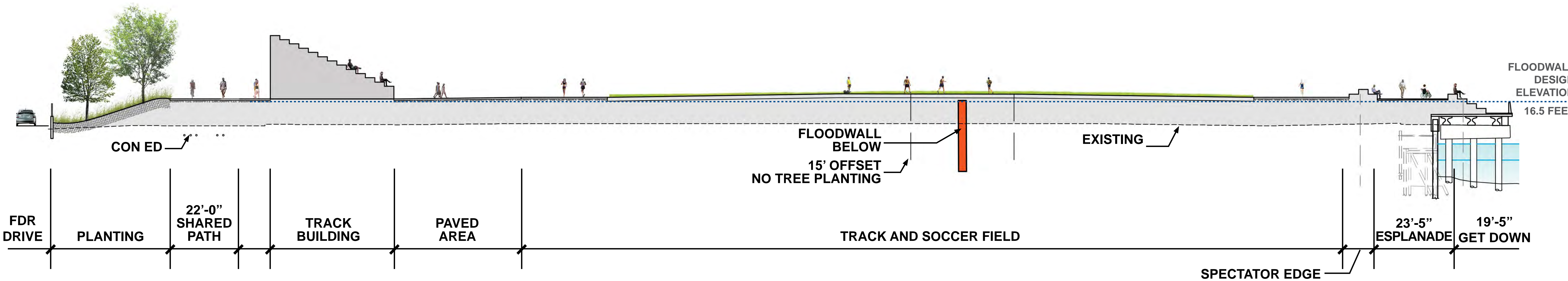
## FROM WILLIAMSBURG BRIDGE TO EAST 10<sup>TH</sup> STREET



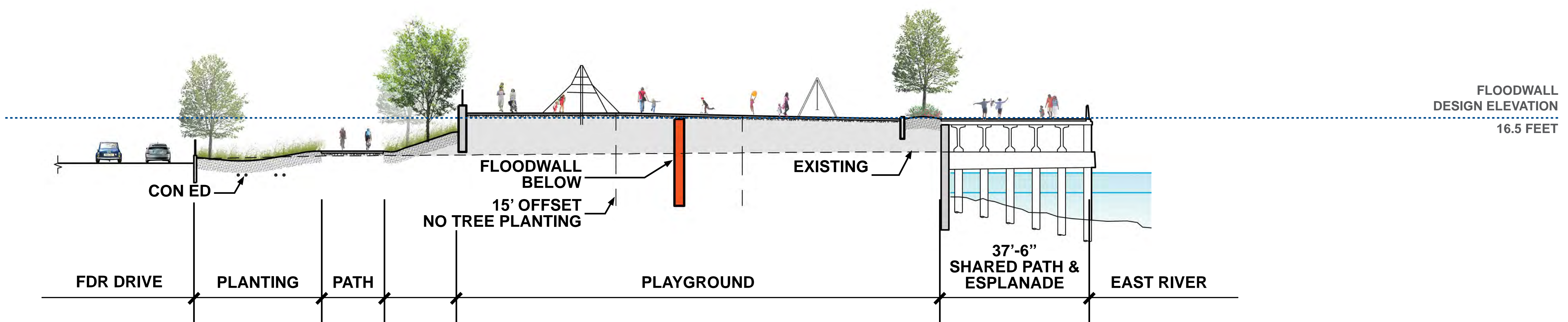
SECTION E TENNIS AND LAWN



SECTION F HOUSTON ST GATEWAY



SECTION G TRACK AND FIELD



SECTION H 10TH ST. PLAYGROUND



# CREATING A MORE RESILIENT WATERFRONT

## TYING BACK TO HIGHER GROUND



MONTGOMERY ST. TIE-BACK (OPEN)



MONTGOMERY ST. TIE-BACK (CLOSED)



# CREATING A MORE RESILIENT WATERFRONT FROM PIER 42 TO DELANCEY



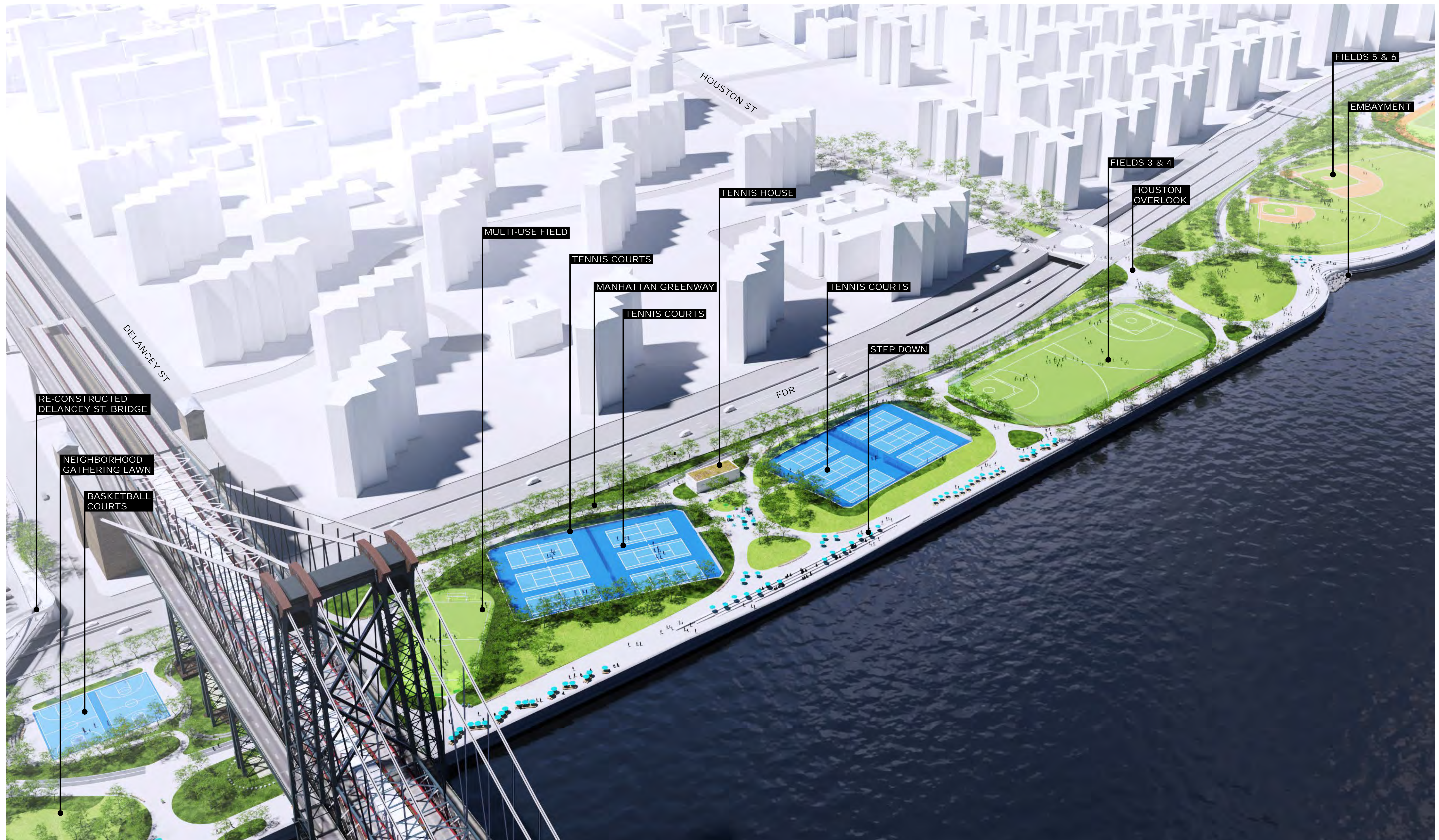
PIER 42 AREA



DELANCEY STREET AREA



# CREATING A MORE RESILIENT WATERFRONT FROM WILLIAMSBURG BRIDGE TO EAST 10<sup>TH</sup> STREET



NORTH OF WILLIAMSBURG BRIDGE



EAST 10<sup>TH</sup> STREET AREA



# CREATING A MORE RESILIENT WATERFRONT

## DELANCEY STREET AREA OVERVIEW



FUTURE CONDITIONS



FUTURE CONDITIONS - STORM



# CREATING A MORE RESILIENT WATERFRONT

## HOUSTON STREET AREA OVERVIEW



HOUSTON STREET LANDING LOOKING WEST



HOUSTON STREET LANDING LOOKING AT EAST RIVER PARK



# CREATING A MORE RESILIENT WATERFRONT

## EAST 6<sup>TH</sup> STREET AREA



TRACK & FIELD AREA



TRACK & FIELD AREA - STORM CONDITIONS



# CREATING A MORE RESILIENT WATERFRONT

## PROJECT AREA 2



PROJECT AREA 2 OVERVIEW



MURPHY BROTHERS PLAYGROUND



# CREATING A MORE RESILIENT WATERFRONT

## STUYVESANT COVE PARK TO 23<sup>RD</sup> STREET



STUYVESANT COVE PARK



STUYVESANT COVE PARK FROM SOLAR ONE

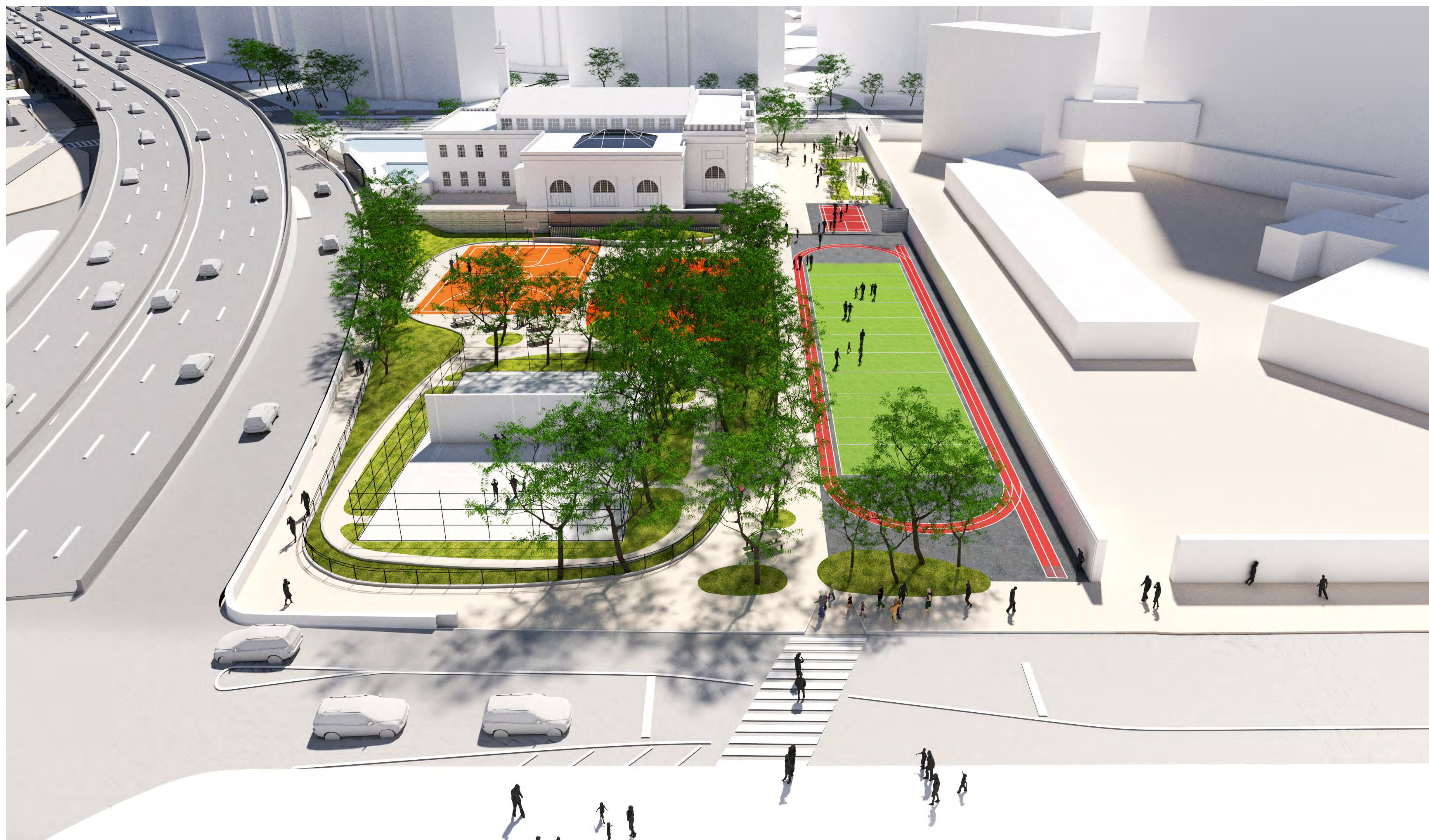


# CREATING A MORE RESILIENT WATERFRONT

## ASSER LEVY PLAYGROUND



PLAYGROUND OVERVIEW LOOKING WEST



PLAYGROUND OVERVIEW LOOKING SOUTH