



IMPLEMENTATION OF THE WATERFRONT SMALL AREA PLAN

PLANNING COMMISSION HEARING
Waterfront Landscape and Flood Mitigation Design

June 3, 2014

OLIN



PROJECT SCHEDULE

- WATERFRONT COMMISSION MEETING
- COMMUNITY MEETING
- WORKSESSION
- PUBLIC HEARING

↑
**ODBC
DECISION**





BEACHCOMBER



ODBC
PARKING LOT



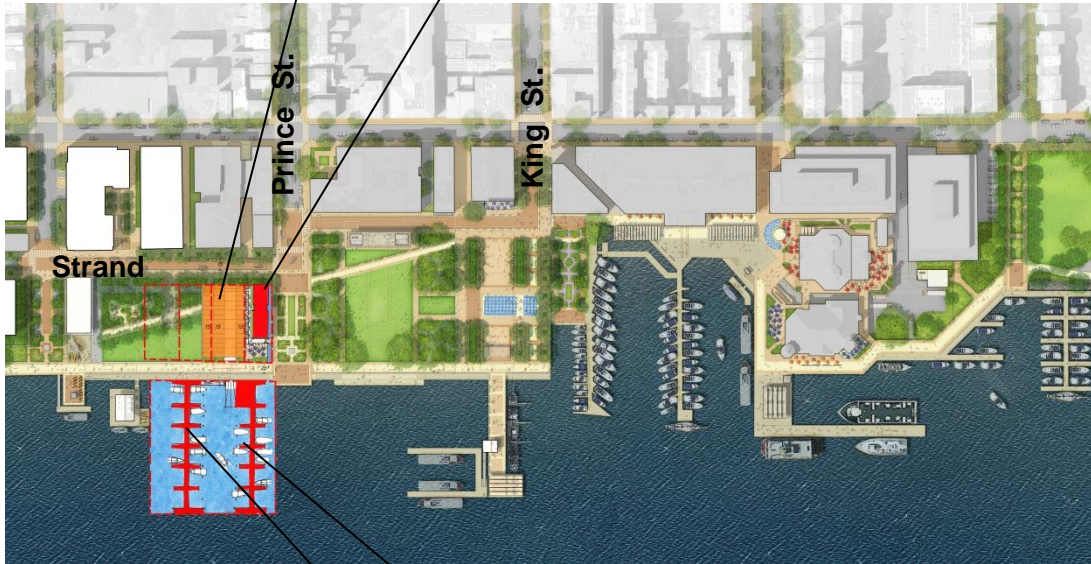
ODBC



OUTCOME OF THE CITY & ODBC NEGOTIATIONS – MOVE OFFER OLIN

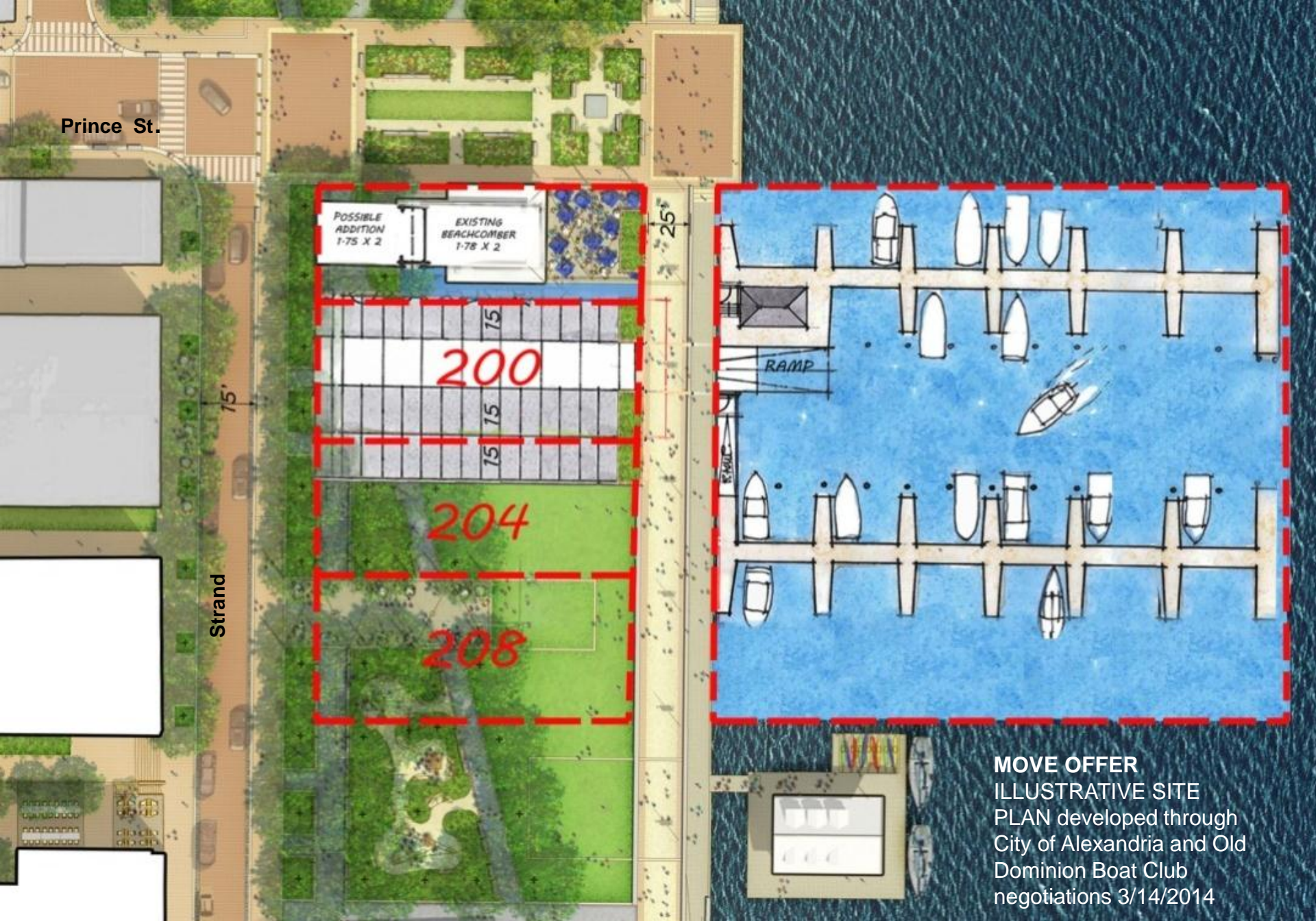
NEW ODBC PARKING LOT 45 SPACES

NEW ODBC CLUBHOUSE

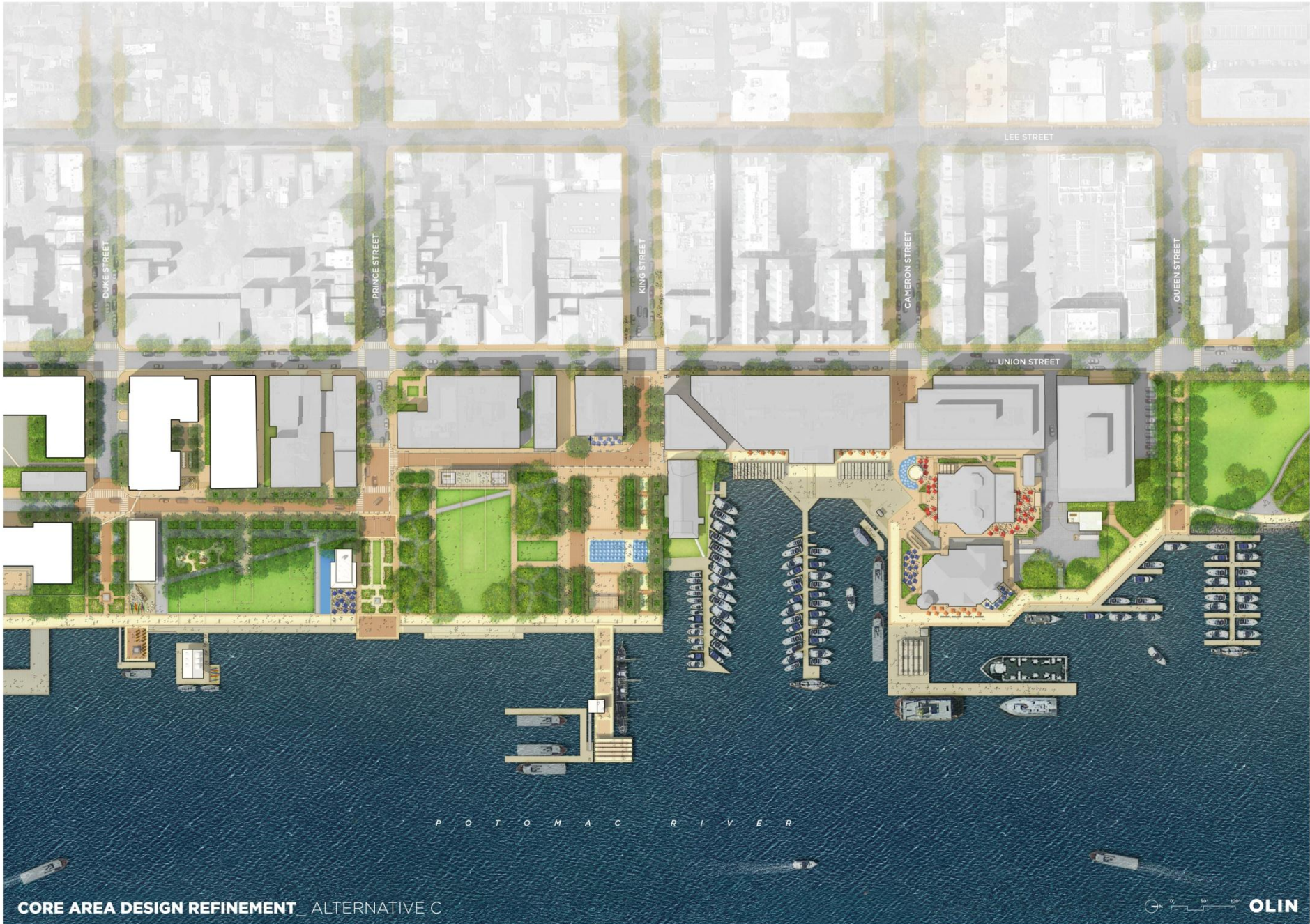


NEW ODBC PIERS

MOVE OFFER
ILLUSTRATIVE SITE PLAN
developed through City of
Alexandria and Old
Dominion Boat Club
negotiations 3/14/2014



MOVE OFFER
ILLUSTRATIVE SITE
PLAN developed through
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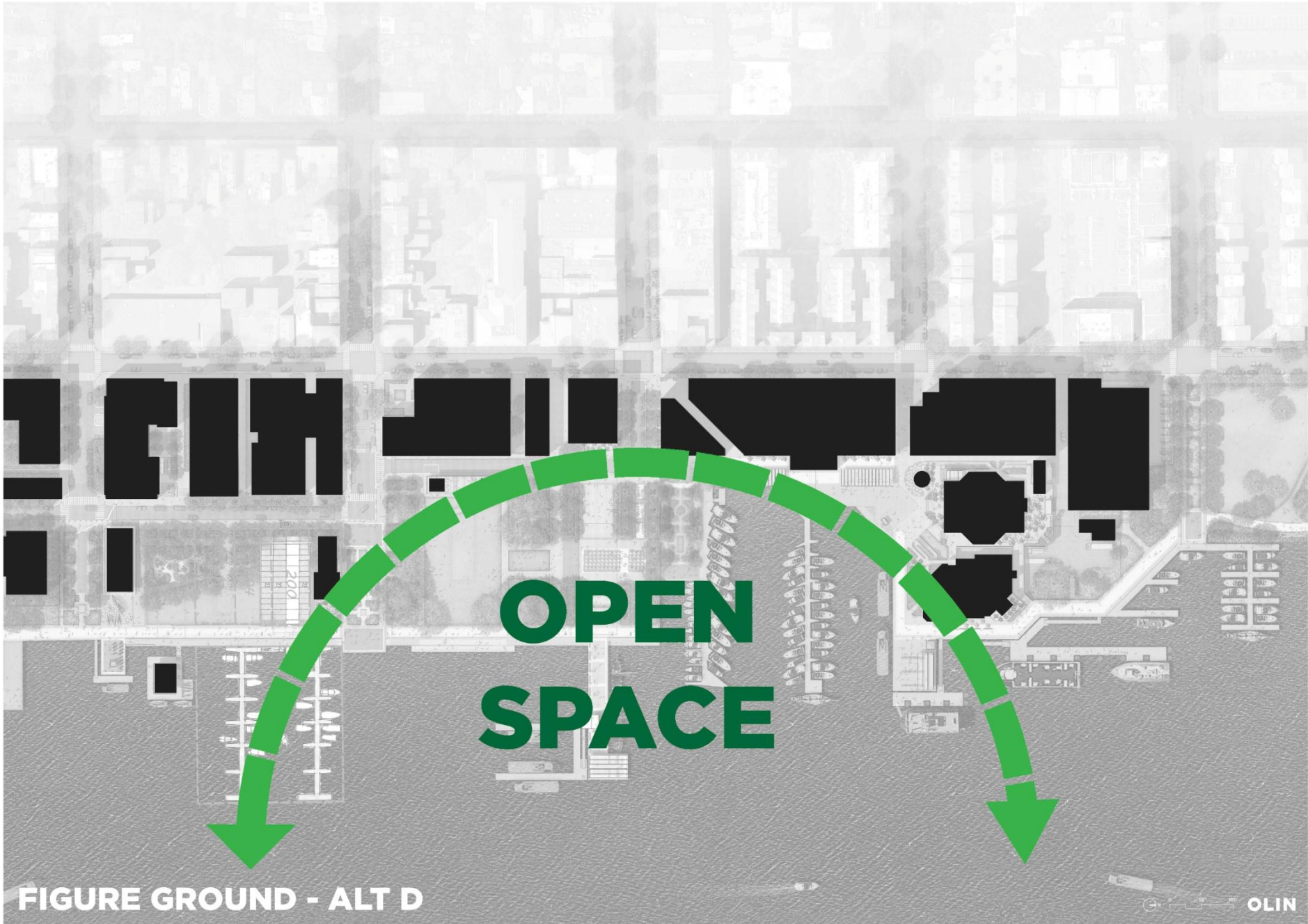
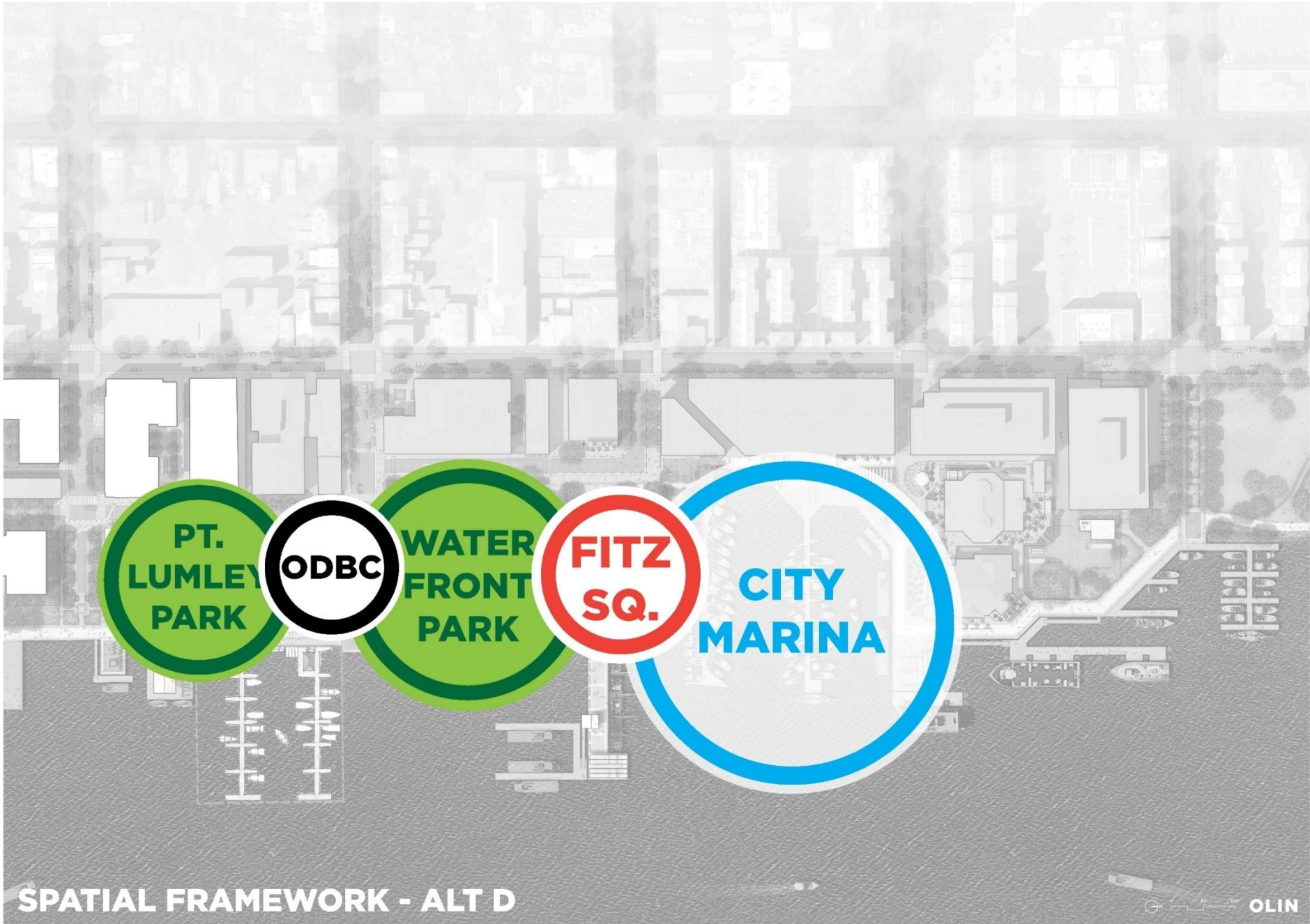
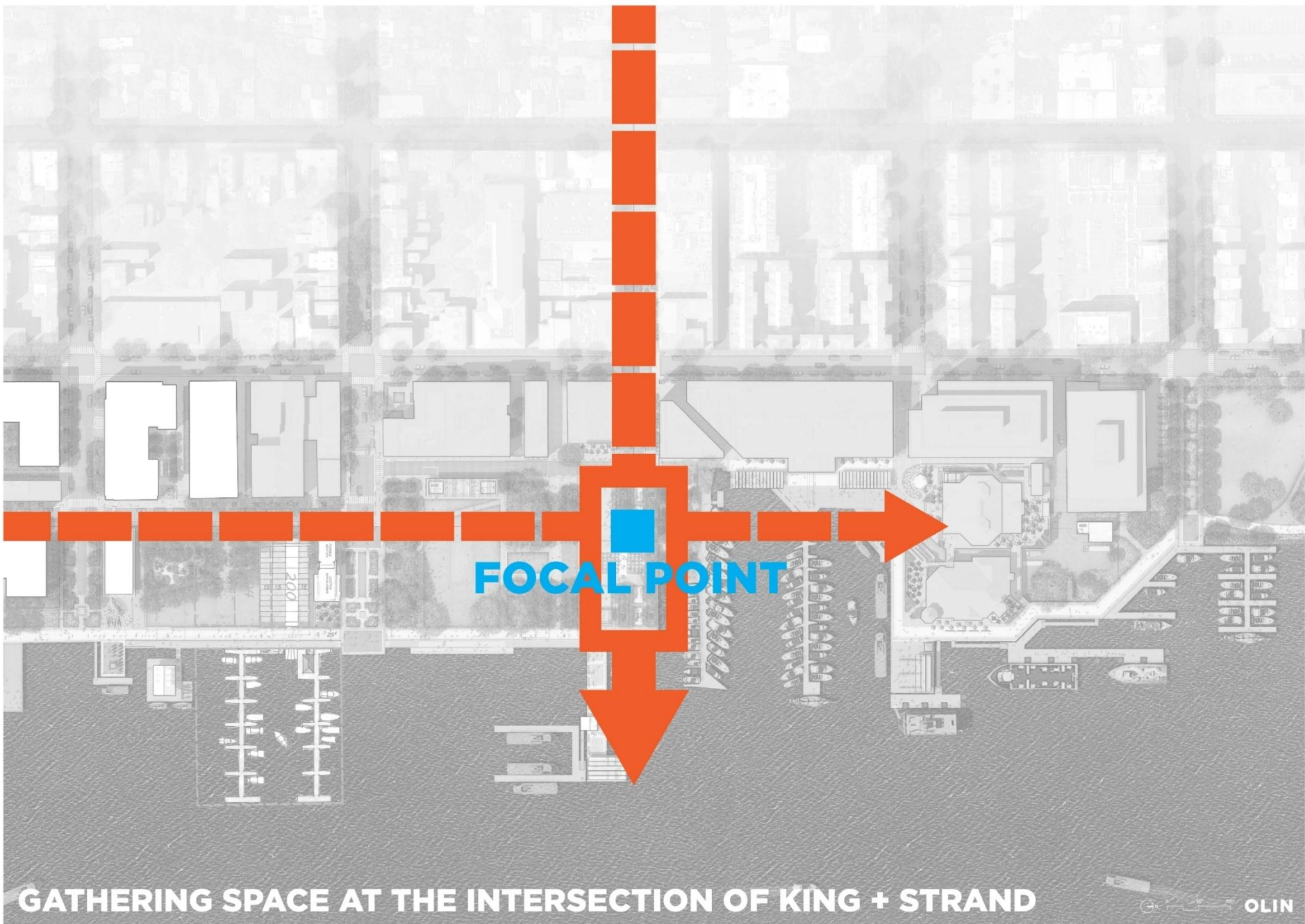


FIGURE GROUND - ALT D

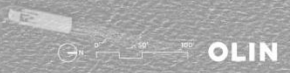


SPATIAL FRAMEWORK - ALT D

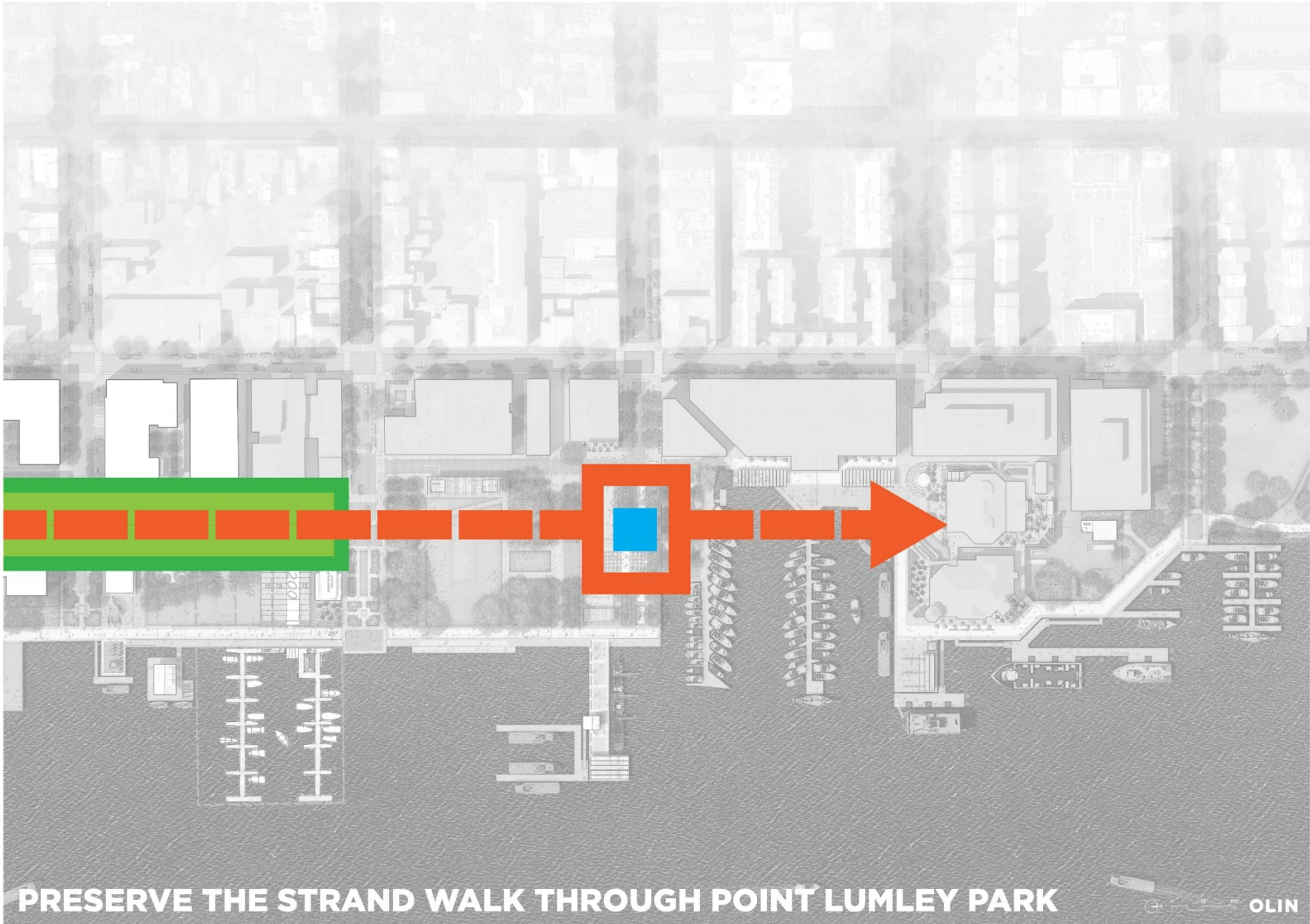


FOCAL POINT

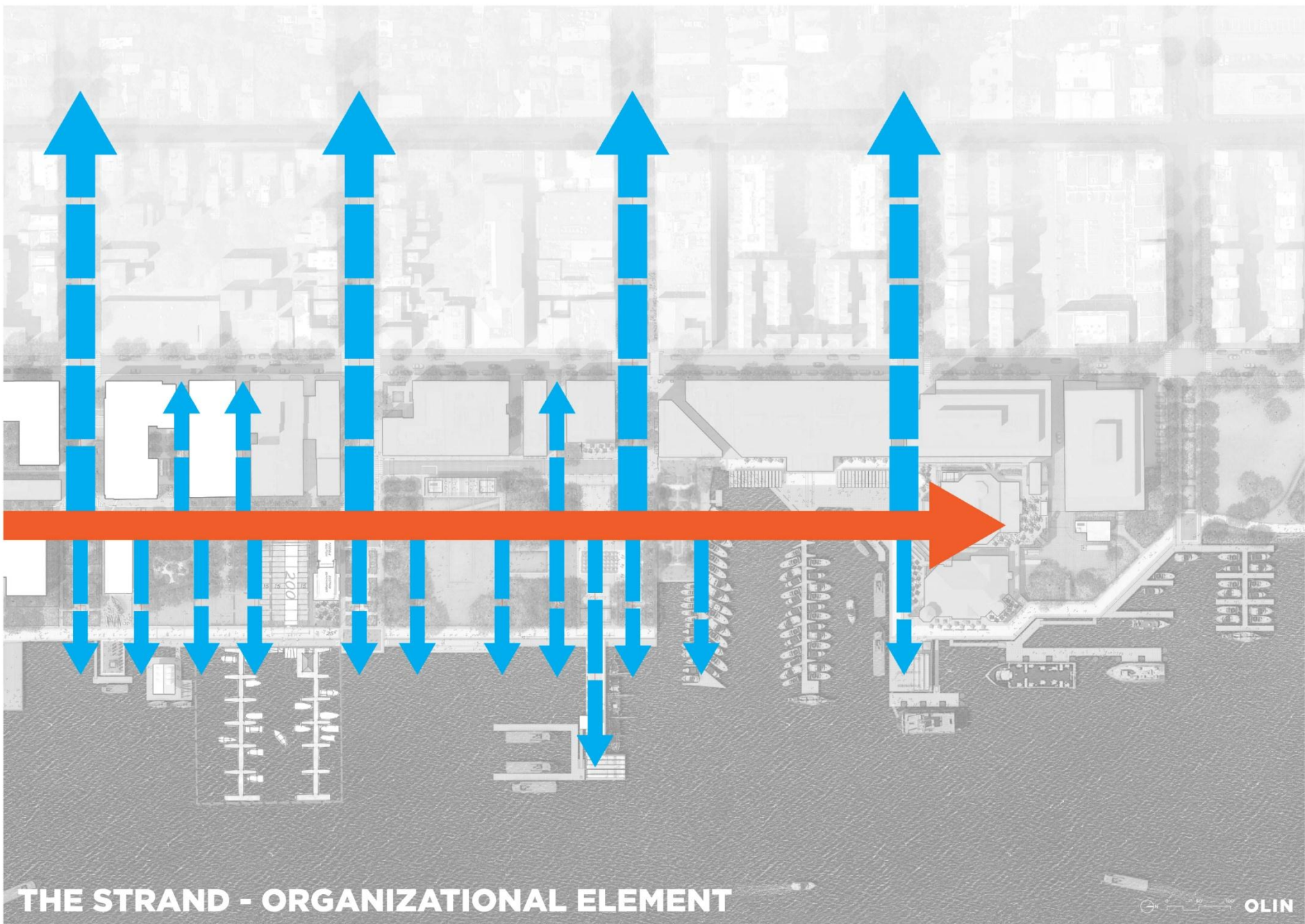
GATHERING SPACE AT THE INTERSECTION OF KING + STRAND



OLIN



PRESERVE THE STRAND WALK THROUGH POINT LUMLEY PARK



THE STRAND - ORGANIZATIONAL ELEMENT



1 Hunting Creek Bridge to Mount Vernon 2 Fort Lyons
 3 Fort Ellsworth 4 Fairfax Seminary 5 Ft. Regency
 6 Government Buildings 7 Orange & Alexandria R.R. Depot
 8 Provost Marshal's Office

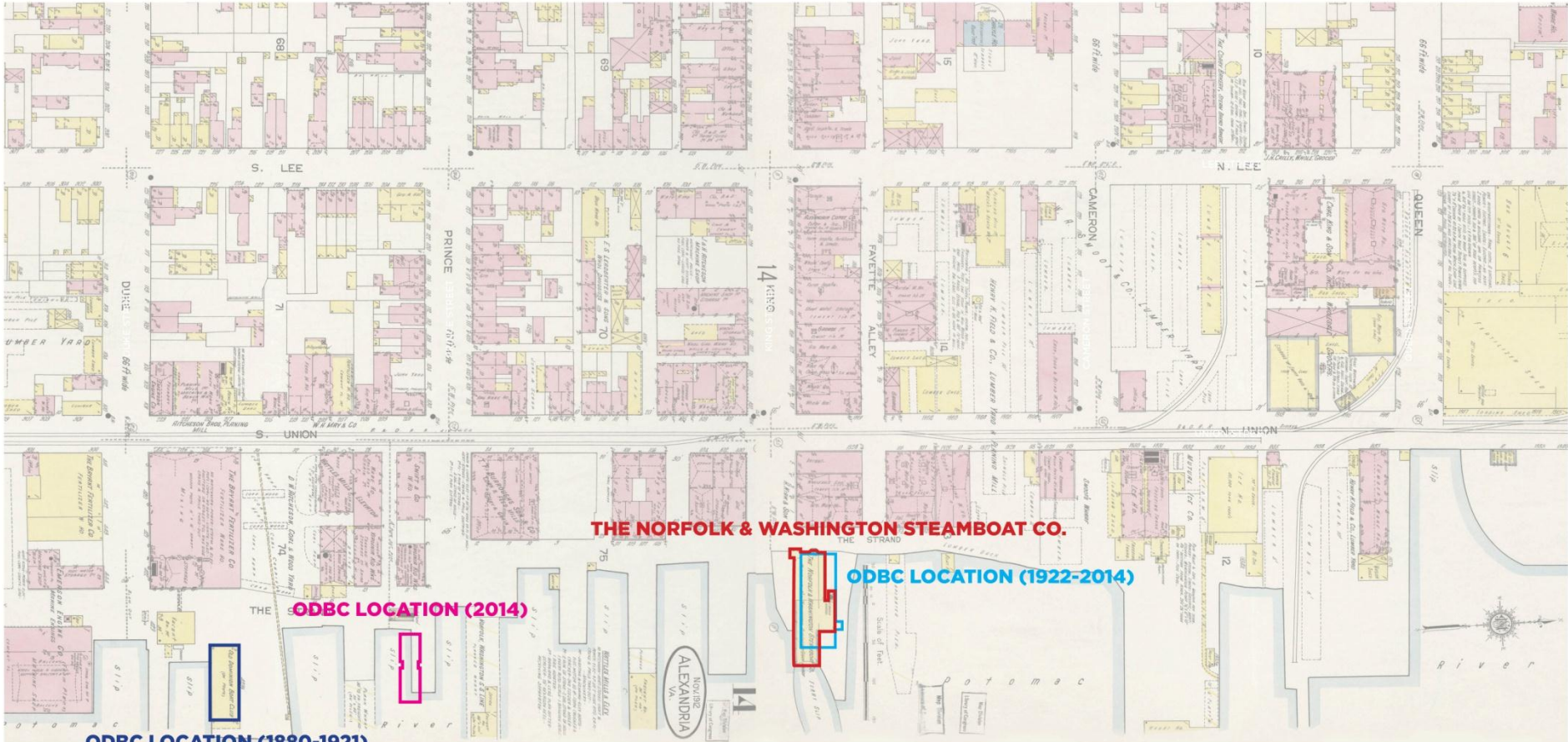
BIRDS EYE VIEW OF ALEXANDRIA, VA

Map Division
 JUN 2 1903
 Library of Congress

9 Quartermaster Department 10 Custom House Post Office
 and Military Government Headquarters
 11 Masonic House Hospital
 12 Christ Church (Geo. Washingtons Place of Worship)

Published by A.S. Mitchell & Co., 111 Broadway, New York, N.Y.

Copy 10



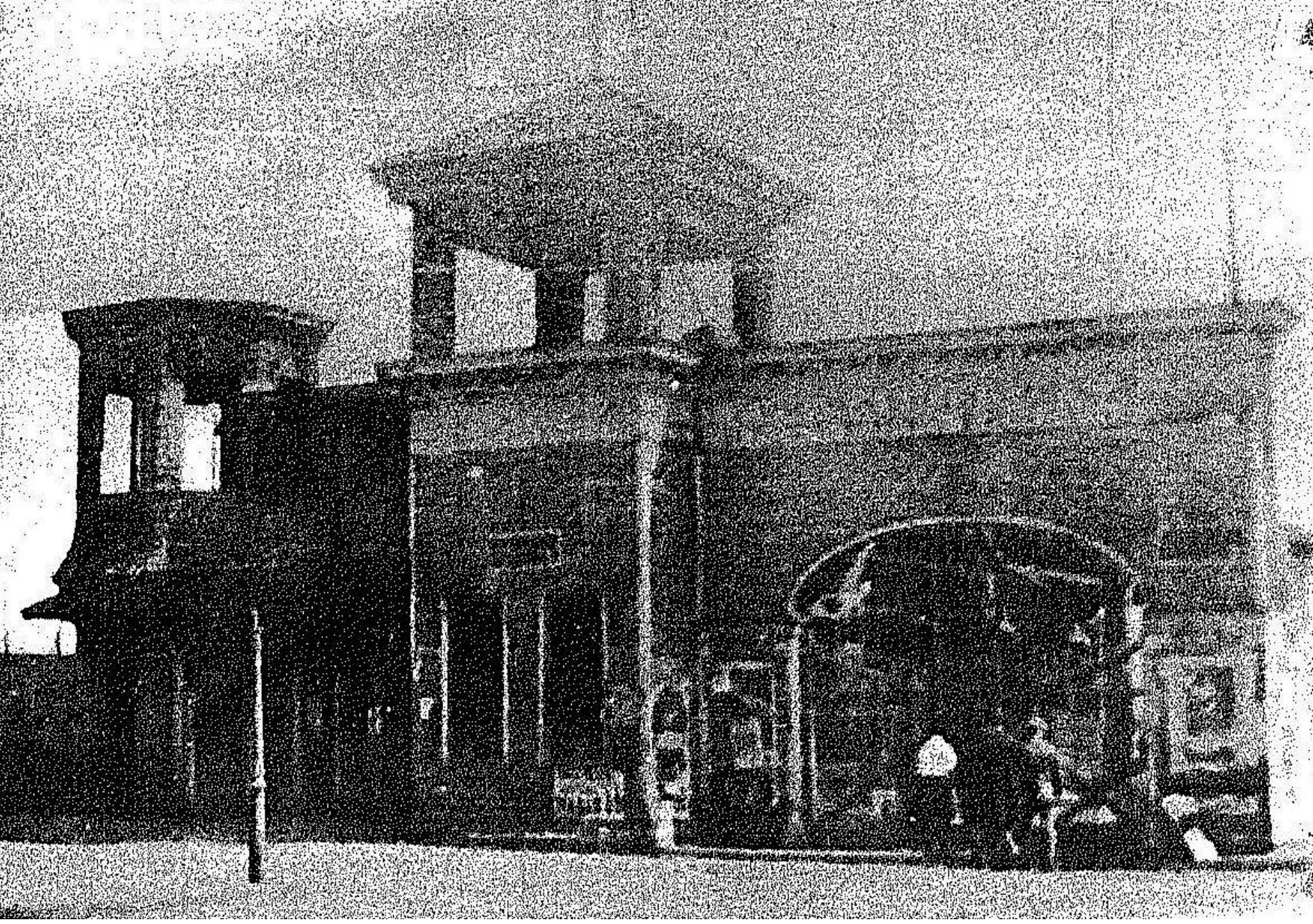
THE NORFOLK & WASHINGTON STEAMBOAT CO.

ODBC LOCATION (1922-2014)

ODBC LOCATION (2014)

ODBC LOCATION (1880-1921)

P O T O M A C R I V E R



NORFOLK & WASHINGTON STEAMBOAT CO.

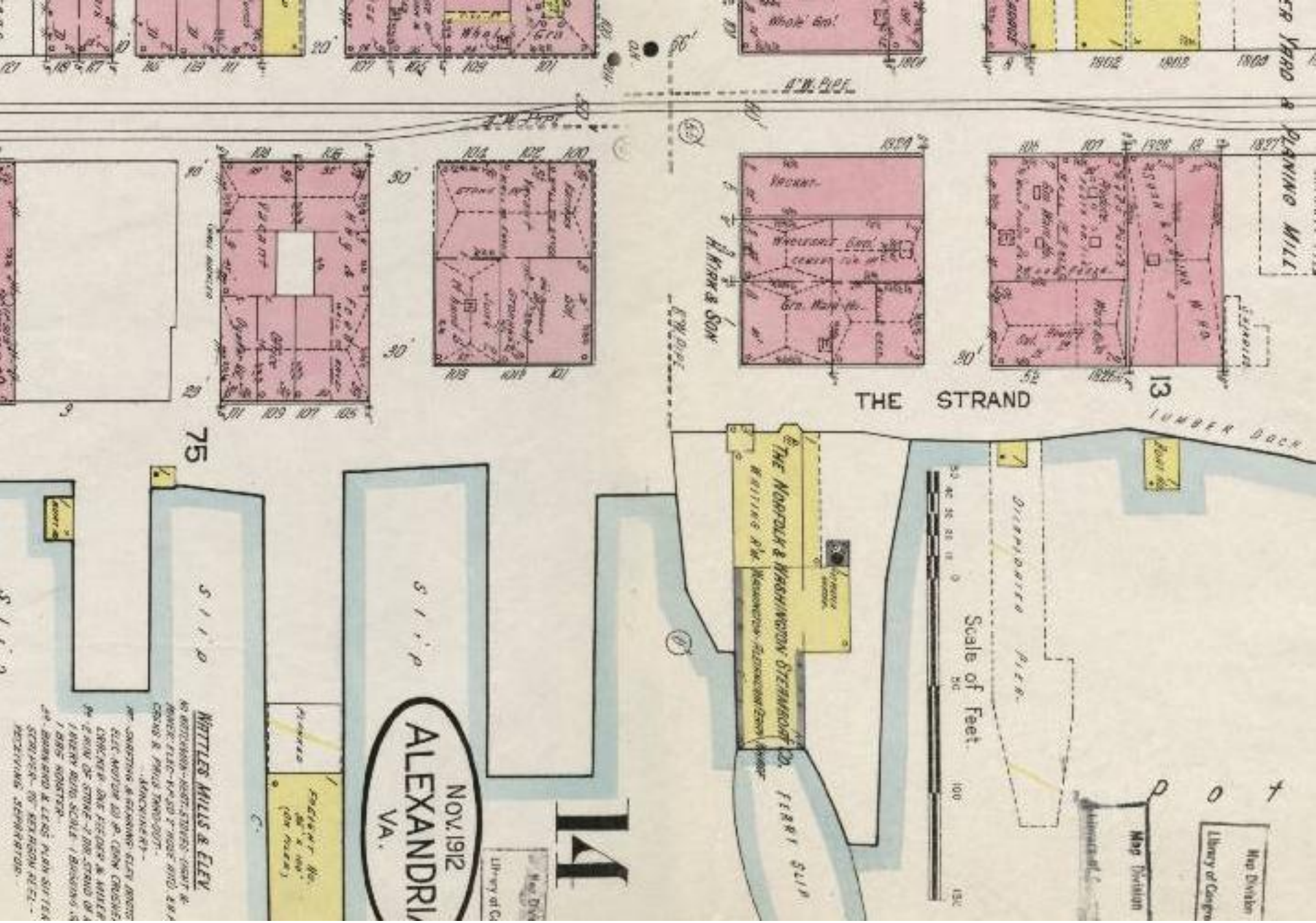
CIRCA 1900



JAMESON,
ALEXANDRIA

FOOT OF KING STREET

CIRCA 1900



FOOT OF KING STREET

1912 SANBORN MAPS



CORE AREA - DESIGN ALTERNATIVE D

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P O T O M A C R I V E R



P O T O M A C R I V E R



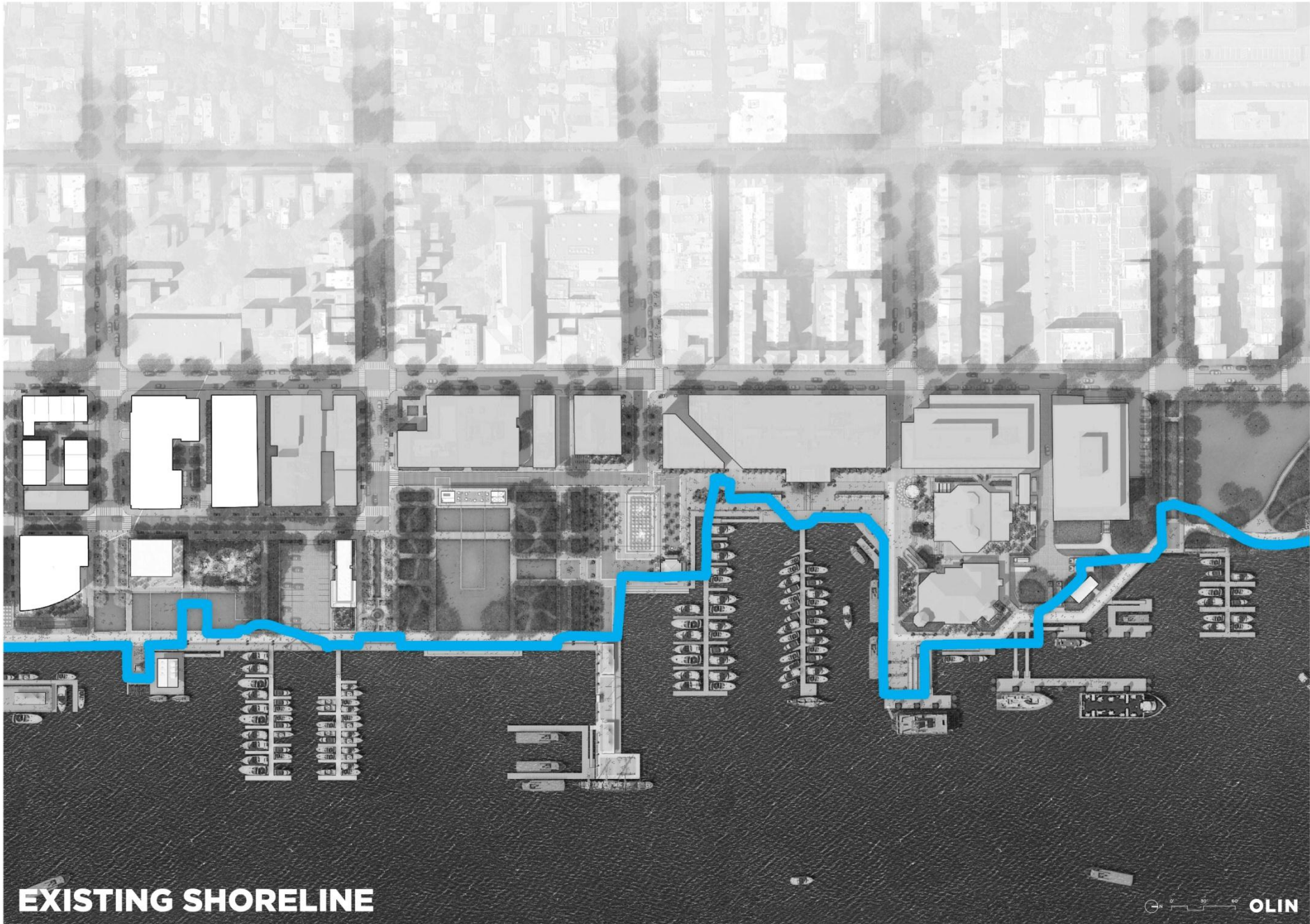
P O T O M A C R I V E R



P O T O M A C R I V E R





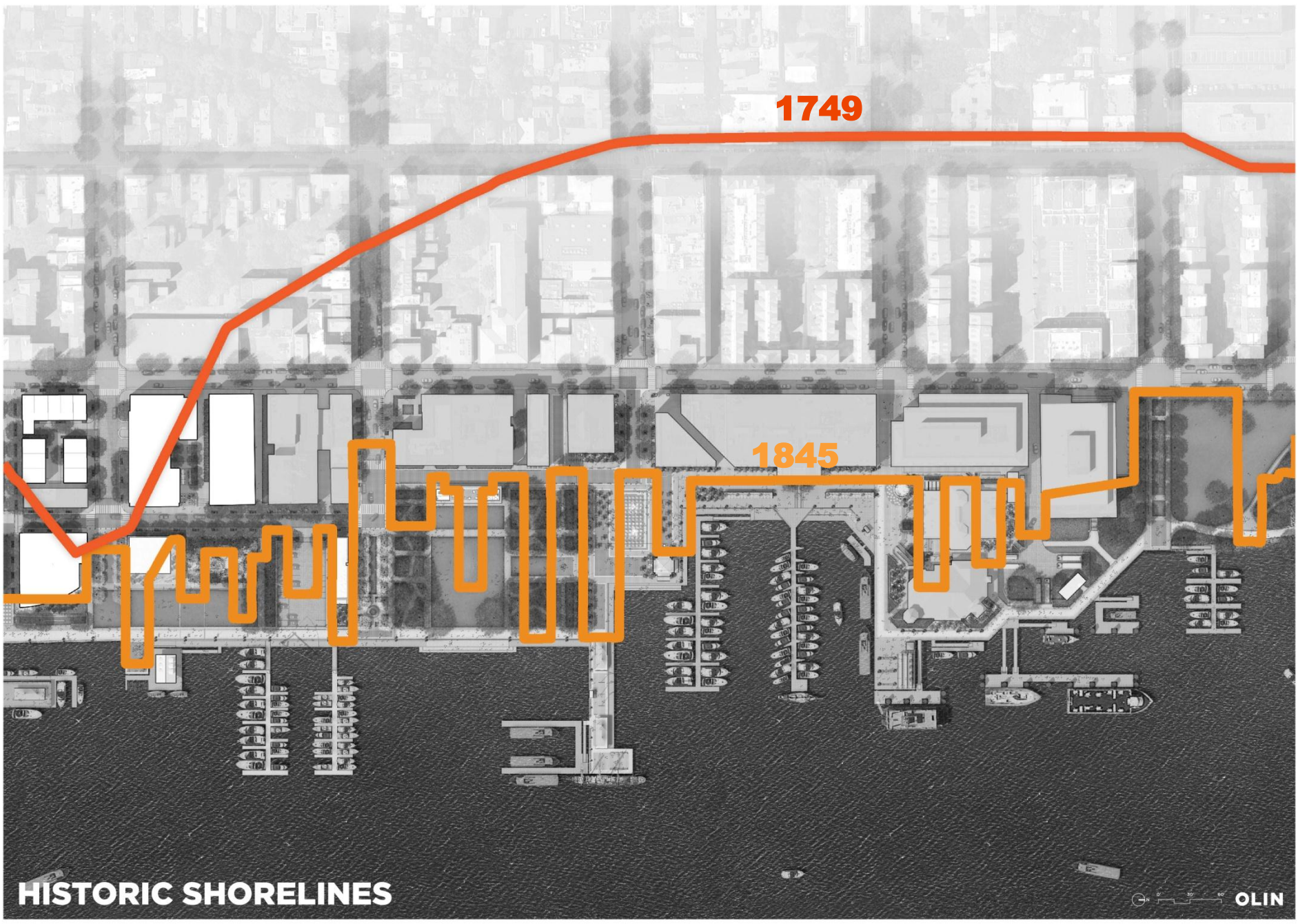


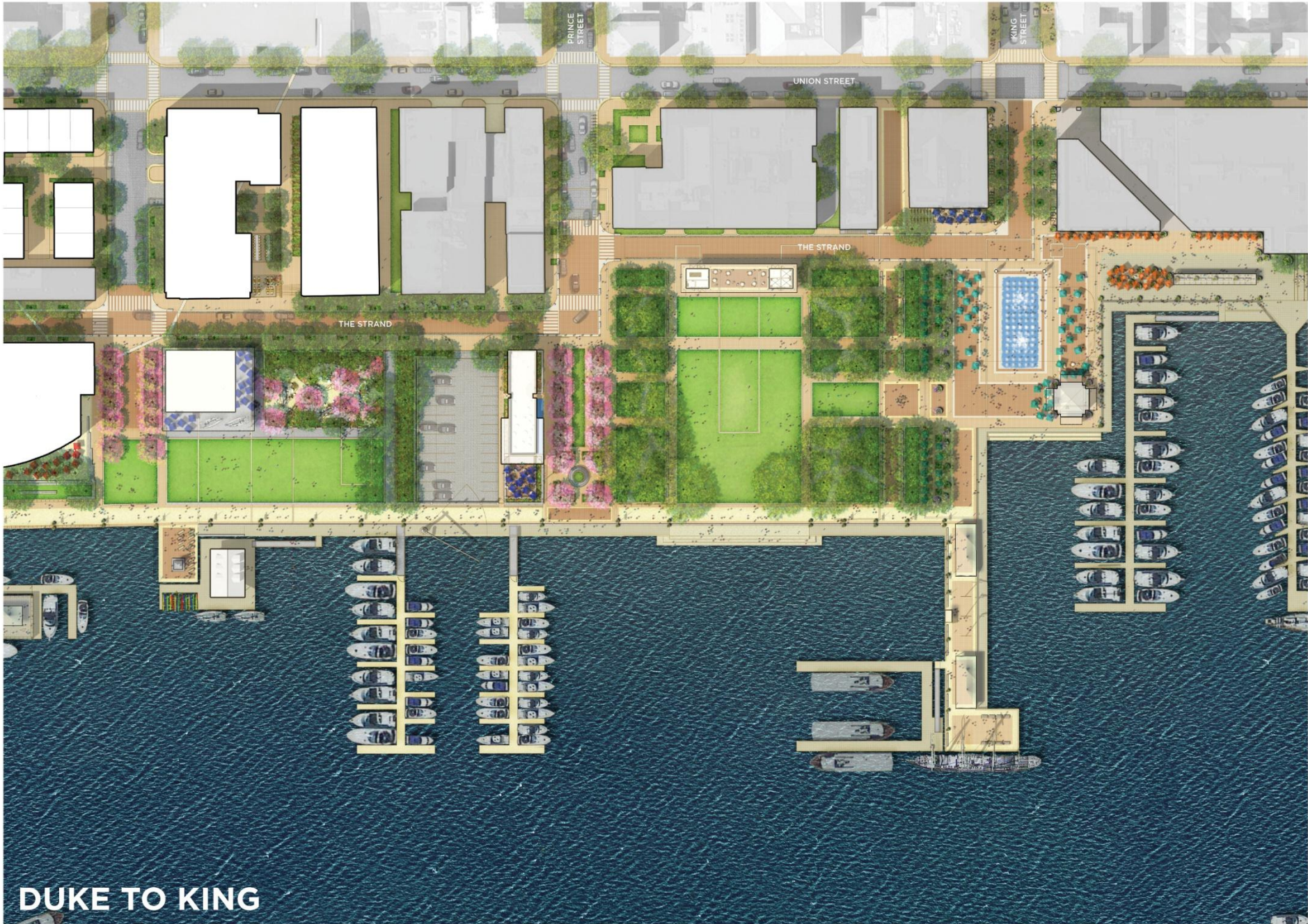
EXISTING SHORELINE

1749

1845

HISTORIC SHORELINES





DUKE TO KING



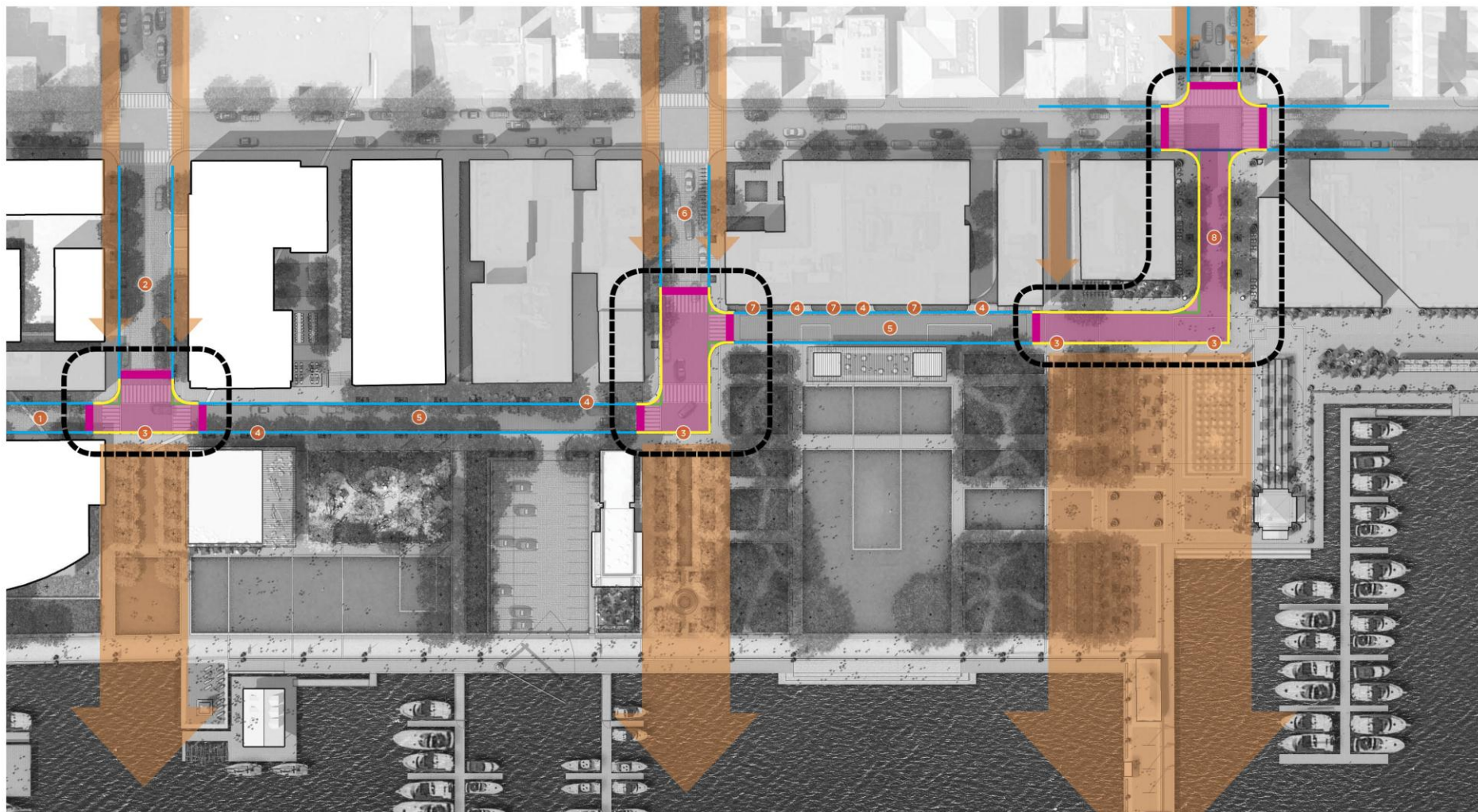
- 1 ROBINSON TERMINAL REDEVELOPMENT
- 2 WATERFRONT PROMENADE AND IMPROVED BULKHEAD
- 3 DUKE STREET GARDENS
- 4 POINT LUMLEY PIER WITH MOVEABLE SEATING
- 5 SEAPORT FOUNDATION FLOATING MUSEUM
- 6 CIVIC BUILDING
- 7 EXHIBITION AREA & FLEXIBLE EVENT SPACE
- 8 CARR HOTEL REDEVELOPMENT
- 9 REALIGNED STRAND WITH IMPROVED PEDESTRIAN EXPERIENCE
- 10 CUMMINGS TURNER REDEVELOPMENT
- 11 CHILDREN'S PLAY GARDEN

- 12 LAWN
- 13 LOWER PROMENADE
- 14 ALLEY WALK
- 15 PROPOSED ODBC PARKING LOT
- 16 PROPOSED ODBC BUILDING
- 17 PROPOSED ODBC DOCKS
- 18 CHADWICKS RESTAURANT
- 19 PRINCE STREET GARDENS
- 20 CAPITOL BIKE SHARE
- 21 PRESERVATION OF EXISTING TREES WITH UNDERSTORY
- 22 FACILITY FOR PUMPHOUSE, RESTROOMS & STORAGE

- 23 SHADE STRUCTURE
- 24 WATERFRONT PARK LAWN
- 25 STEPS TO THE WATER
- 26 WALES ALLEY
- 27 KING STREET PIER WITH SEATING AND SHADE STRUCTURE
- 28 WATER TAXI DOCK
- 29 HISTORIC SHIP
- 30 PEDESTRIANIZED STRAND WITH LIMITED VEHICLE ACCESS
- 31 BIKE PARKING HUB
- 32 MAI THAI RESTAURANT

- 33 WATERFRONT MARKET
- 34 FITZGERALD SQUARE WITH WATER FEATURE AND ICE SKATING
- 35 SEASONAL SHADE STRUCTURE
- 36 CONCESSIONS WITH OVERLOOK
- 37 STEPS TO THE WATER
- 38 PIERS
- 39 PATH REALIGNMENT
- 40 TORPEDO FACTORY

DUKE TO KING



LEGEND

- 6" RAISED CURB
- FLUSH BAND WITH BOLLARDS/MOUNTING BLOCKS AND 2' WIDE BAND DETECTABLE WARNING STRIP
- 2' WIDE STONE FLUSH BAND W/DETECTABLE WARNING STRIP
- 2' WIDE STONE FLUSH BAND
- RAISED STREET TRANSITION
- RAISED STREET
- 1 22' WIDE STRAND - EXTENSION INTO RTS
- 2 40' WIDE DUKE STREET (EXISTING)
- 3 EMERGENCY/MAINTENANCE VEHICLE ACCESS
- 4 ROLL CURB ACCESS
- 5 22' WIDE STRAND WITH VEHICULAR PAVERS
- 6 40' WIDE PRINCE STREET (EXISTING)
- 7 PLANTING AREAS ALONG WEST SIDE OF STRAND
- 8 22' WIDE UNIT BLOCK OF KING - CURBLESS STREET WITH VEHICULAR PAVERS

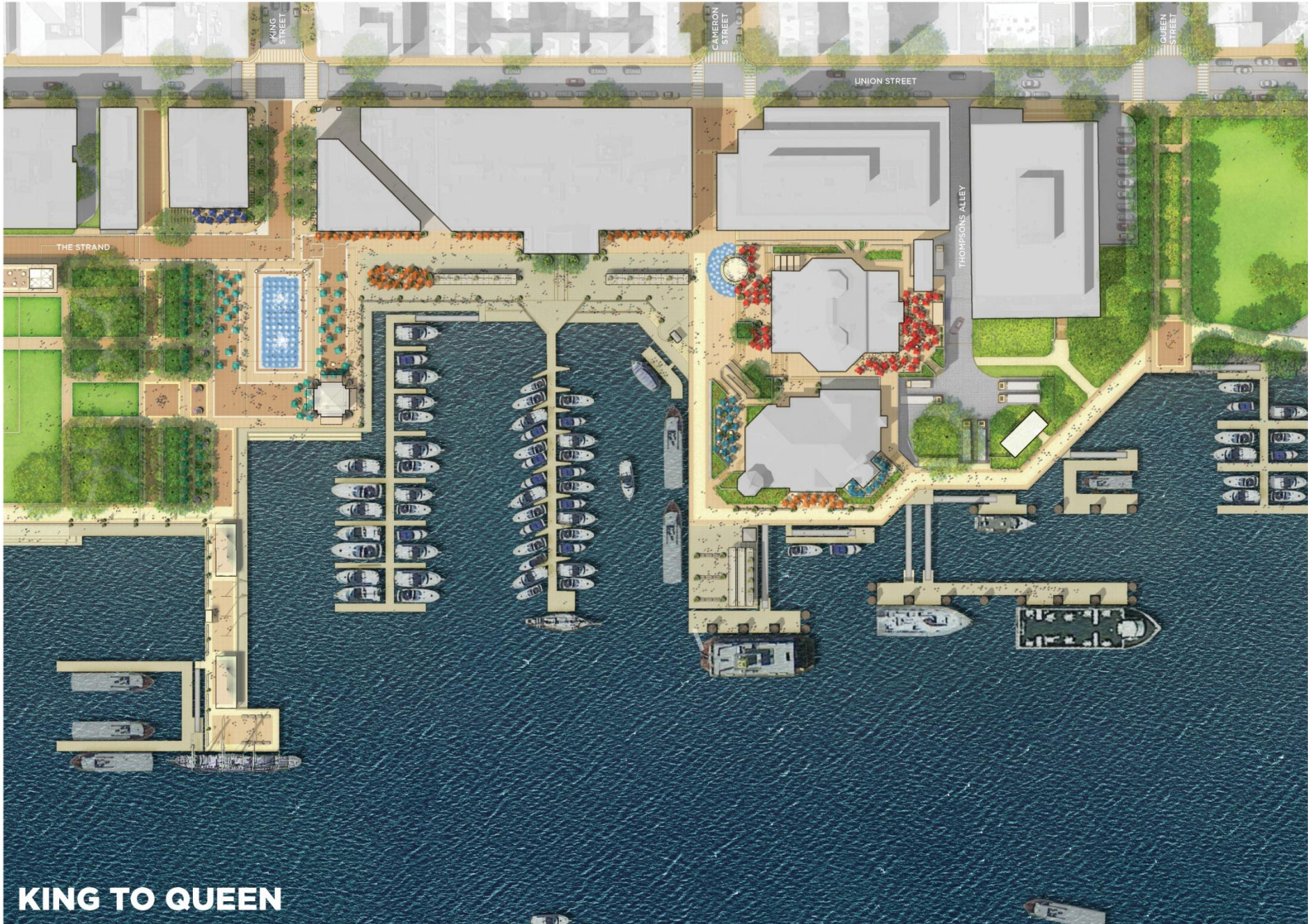
ALEXANDRIA WATERFRONT

The Strand

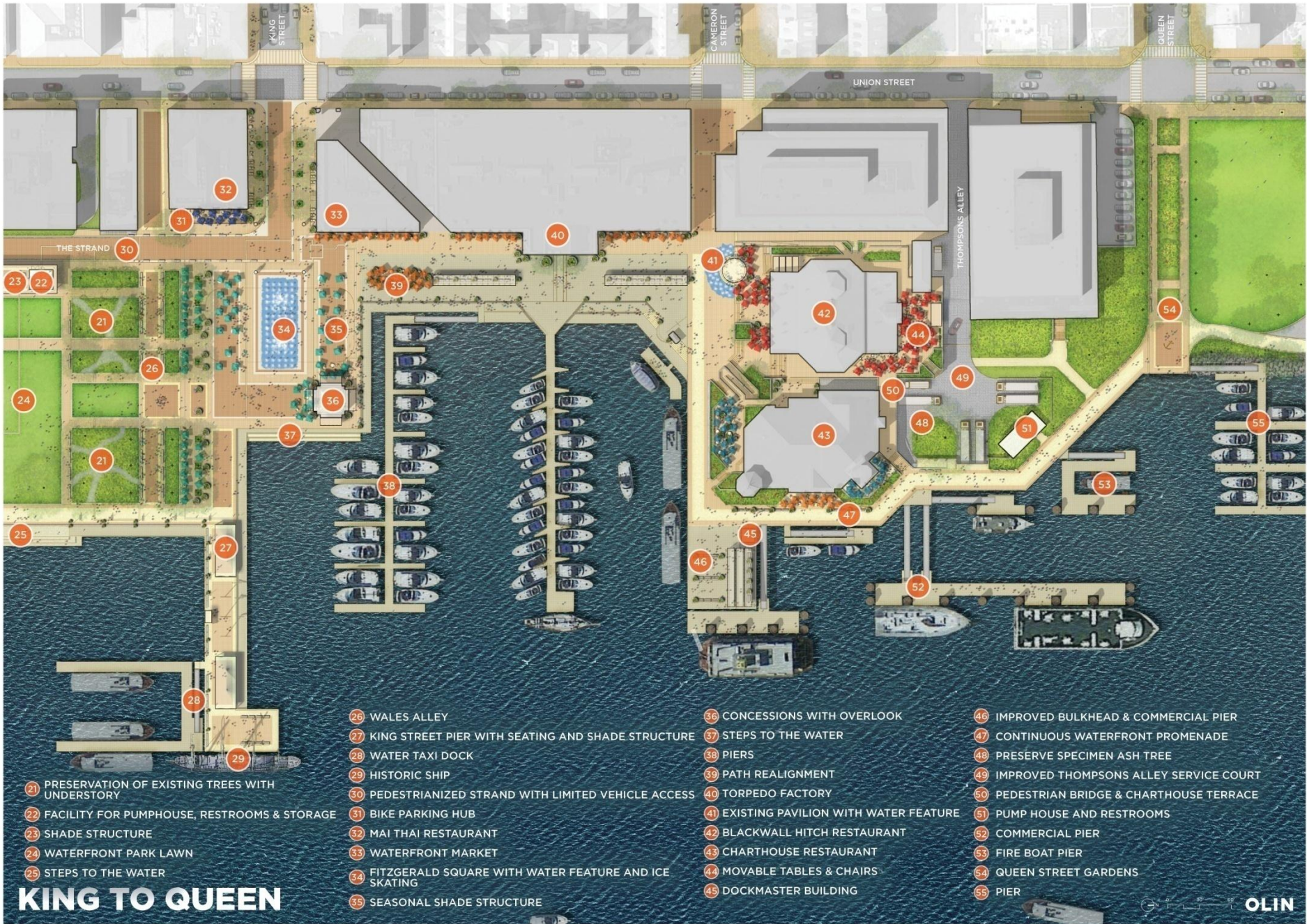


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KING TO QUEEN



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KING TO QUEEN

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- 36 CONCESSIONS WITH OVERLOOK
- 37 STEPS TO THE WATER
- 38 PIERS
- 39 PATH REALIGNMENT
- 40 TORPEDO FACTORY
- 41 EXISTING PAVILION WITH WATER FEATURE
- 42 BLACKWALL HITCH RESTAURANT
- 43 CHARHOUSE RESTAURANT
- 44 MOVABLE TABLES & CHAIRS
- 45 DOCKMASTER BUILDING

- 46 IMPROVED BULKHEAD & COMMERCIAL PIER
- 47 CONTINUOUS WATERFRONT PROMENADE
- 48 PRESERVE SPECIMEN ASH TREE
- 49 IMPROVED THOMPSONS ALLEY SERVICE COURT
- 50 PEDESTRIAN BRIDGE & CHARHOUSE TERRACE
- 51 PUMP HOUSE AND RESTROOMS
- 52 COMMERCIAL PIER
- 53 FIRE BOAT PIER
- 54 QUEEN STREET GARDENS
- 55 PIER



WATER FEATURE - INTERACTIVE

TORONTO, ONTARIO



WATER FEATURE - REFLECTIVE



GATEWAY ELEMENTS

CHARLOTTE, NC



SEASONAL PROGRAMMING

WATERFRONT WINTERFEST – PHILADELPHIA, PA



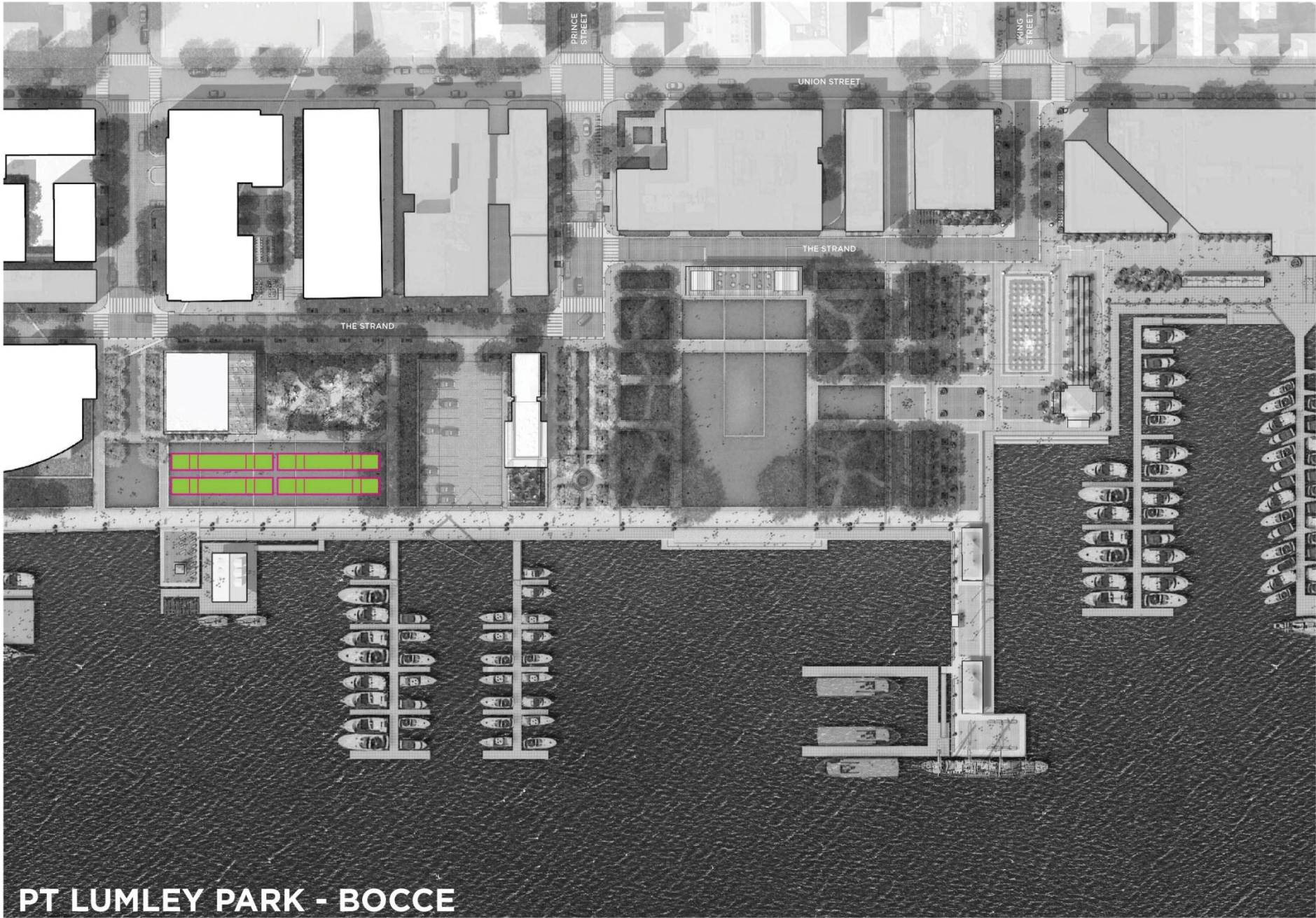
SEASONAL PROGRAMMING

WATERFRONT WINTERFEST – PHILADELPHIA, PA

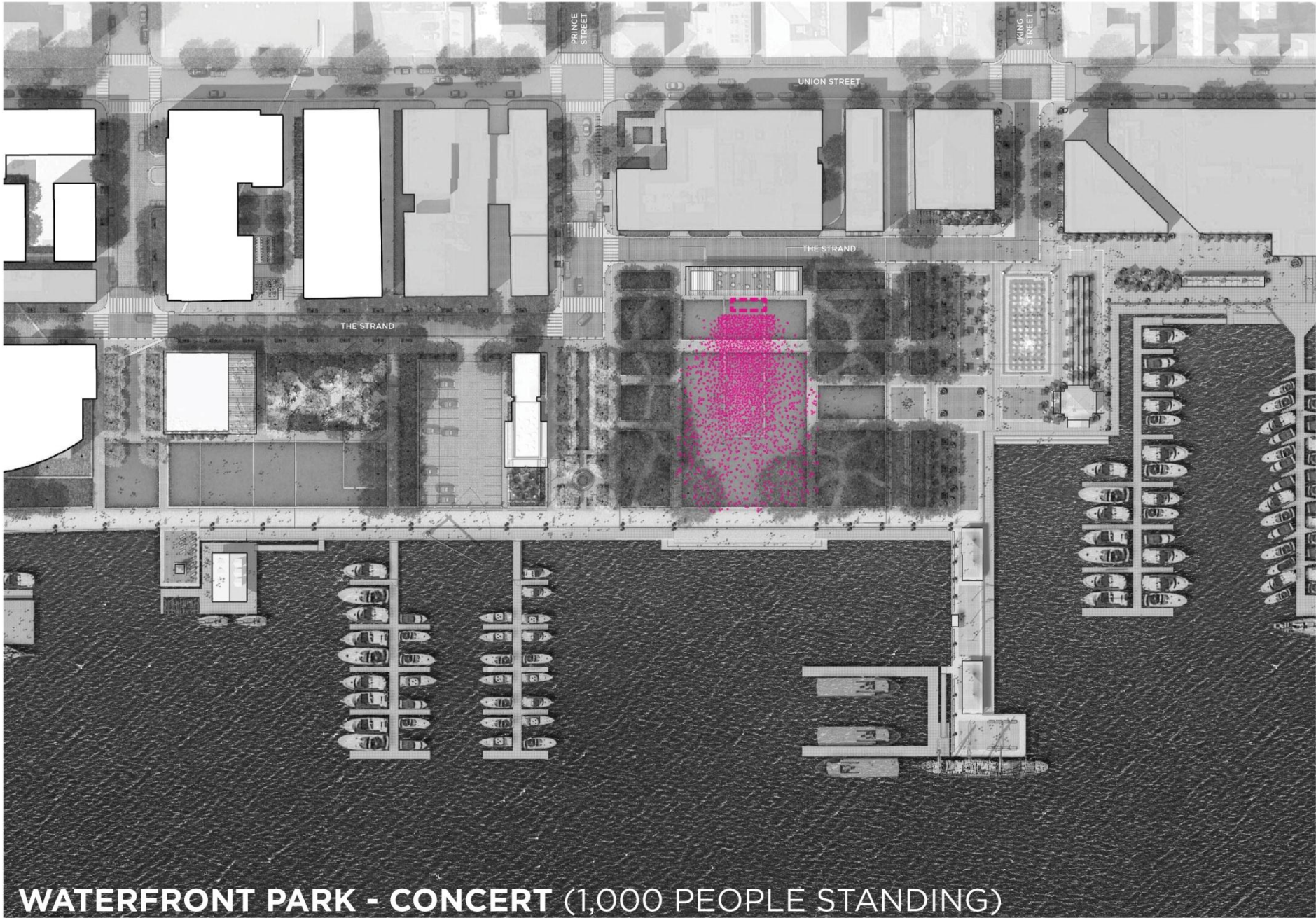


SEASONAL PROGRAMMING

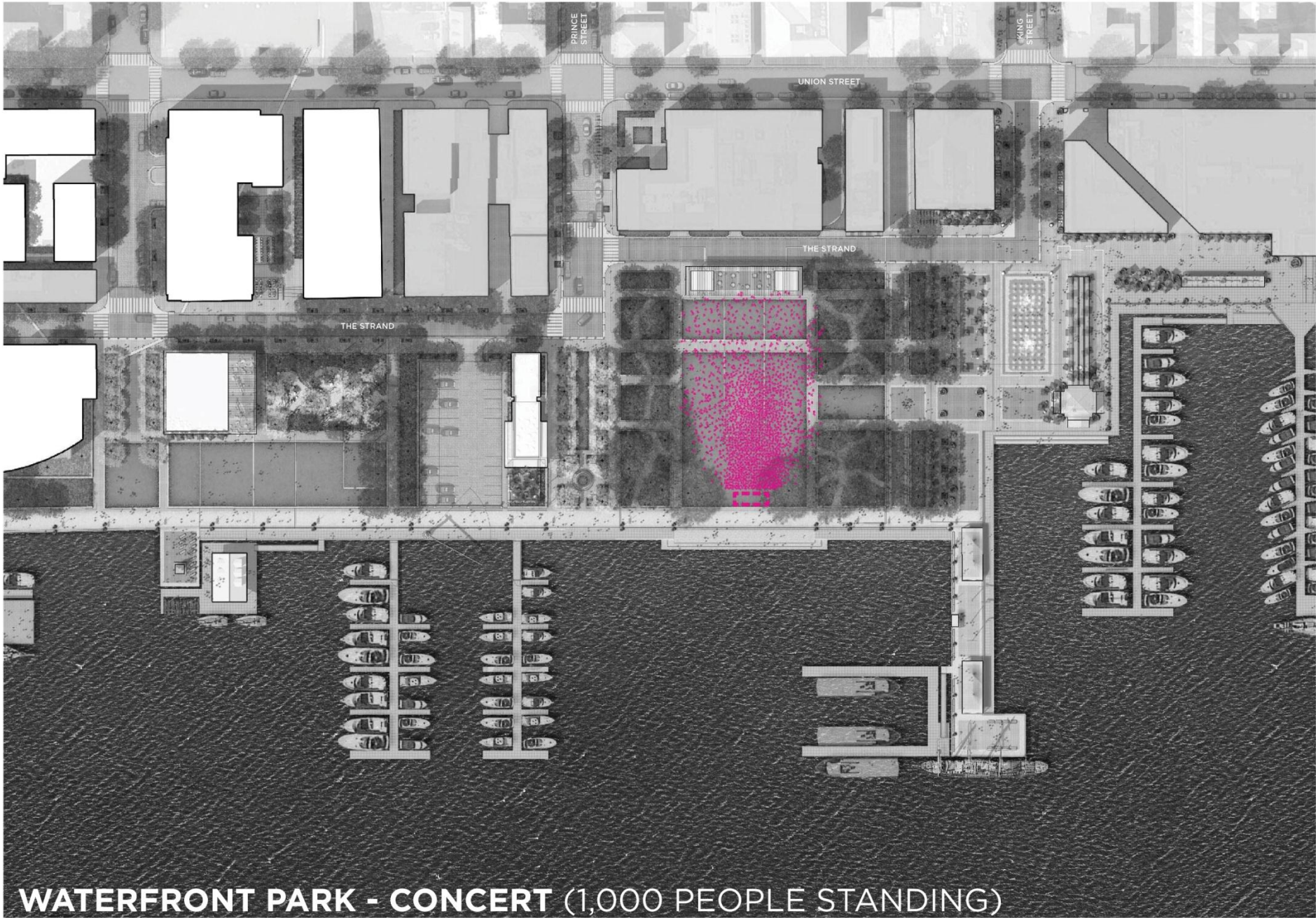
WATERFRONT WINTERFEST – PHILADELPHIA, PA



PT LUMLEY PARK - BOCCE



WATERFRONT PARK - CONCERT (1,000 PEOPLE STANDING)



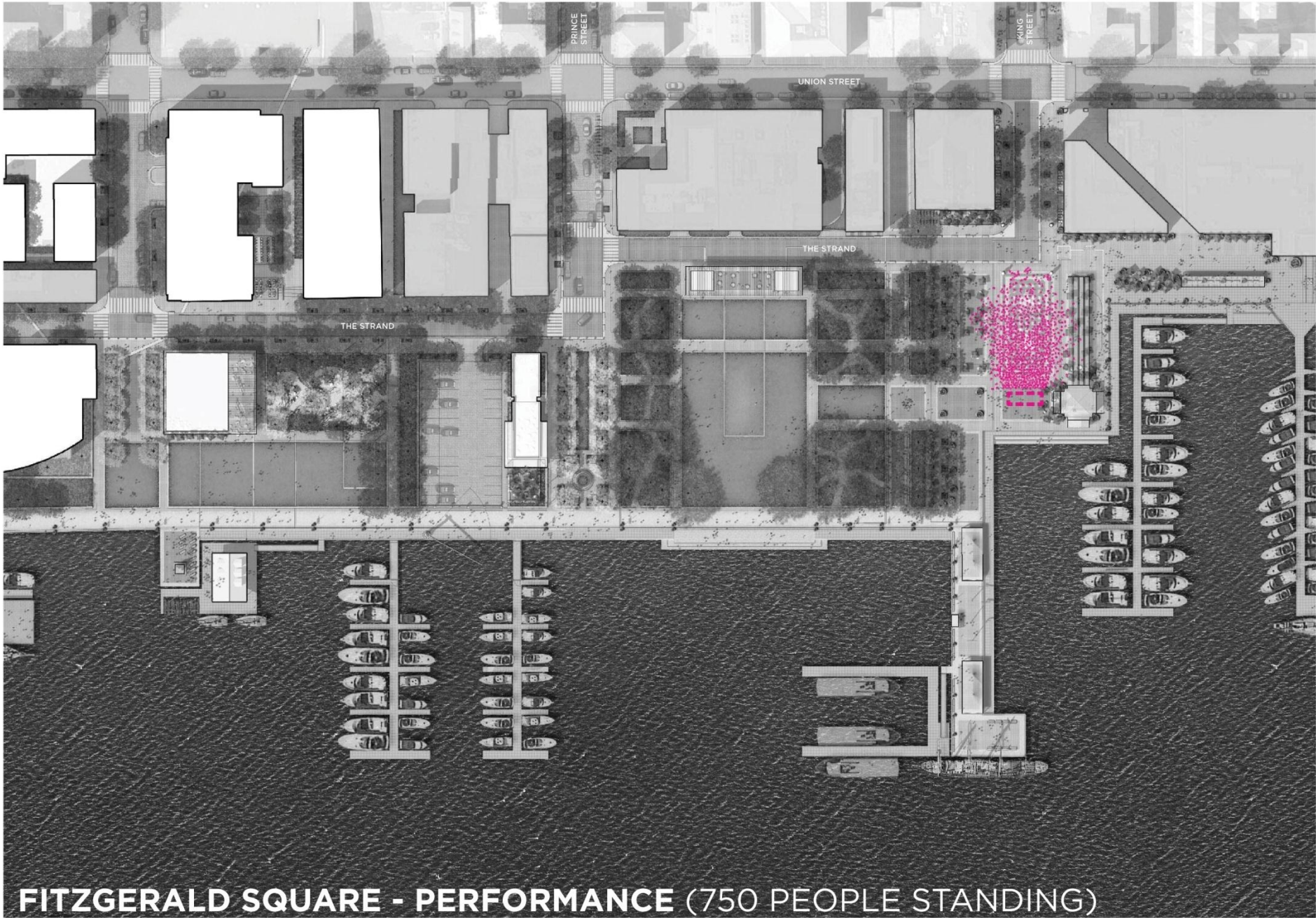
WATERFRONT PARK - CONCERT (1,000 PEOPLE STANDING)



WATERFRONT PARK - OUTDOOR MOVIE (500 PEOPLE SEATED)



WATERFRONT PARK - FESTIVAL



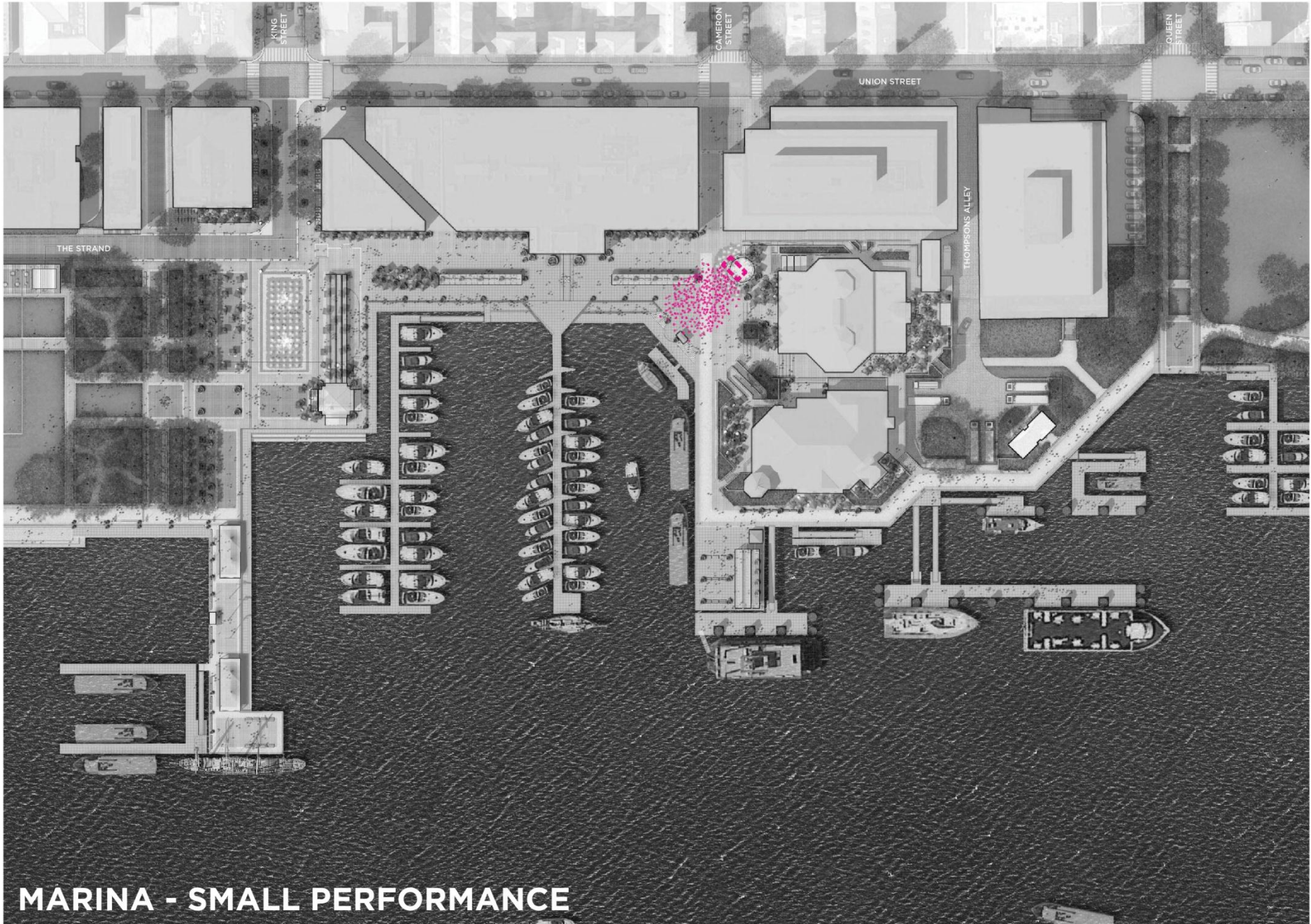
FITZGERALD SQUARE - PERFORMANCE (750 PEOPLE STANDING)



FITZGERALD SQUARE - ICE RINK



FITZGERALD SQUARE - FESTIVAL



MARINA - SMALL PERFORMANCE



POINT LUMLEY PARK - EXISTING

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PRINCE STREET END - EXISTING

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VIEW FROM WALES ALLEY TO RIVER



FOOT OF KING STREET LOOKING NORTH - EXISTING

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FOOT OF KING STREET LOOKING NORTH



FOOT OF KING STREET LOOKING NORTH



FOOT OF KING STREET LOOKING NORTH



FITZGERALD SQUARE - EXISTING



FITZGERALD SQUARE – INTERACTIVE WATER FEATURE

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FITZGERALD SQUARE – INTERACTIVE WATER FEATURE

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FITZGERALD SQUARE WATER FEATURE - TERMINUS

OLIN



FITZGERALD SQUARE WATER FEATURE - REFLECTIVE

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FITZGERALD SQUARE – DURING EVENTS



FITZGERALD SQUARE – DURING EVENTS

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FITZGERALD SQUARE – WINTER

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VIEW SOUTH FROM OVERLOOK

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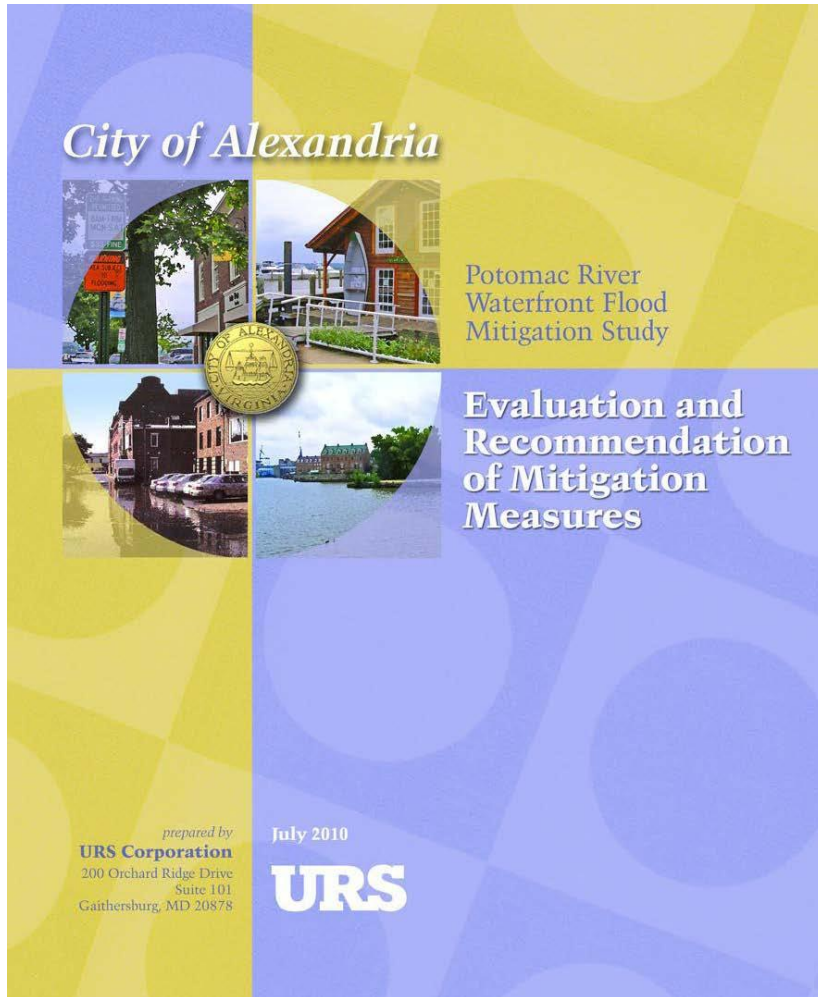
FLOOD MITIGATION

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Flood Mitigation

15% Design – Core Area

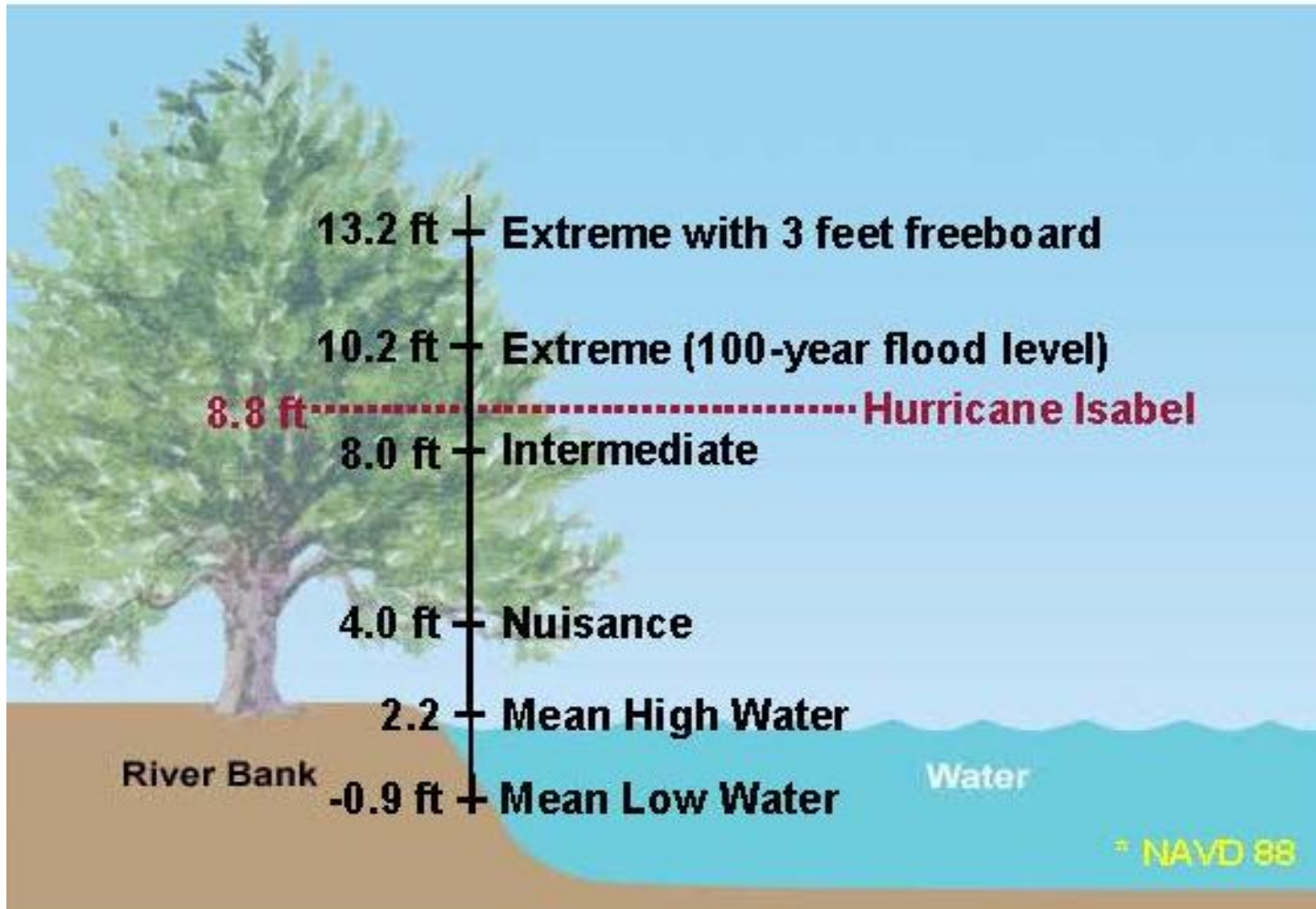
Flood Mitigation Study



- July 2010
- Comprehensive evaluation of flood levels and mitigation
- Protect to Elevation 6.0'
- Elevated walkway concept
- Balances flood mitigation, cost and maintaining views

Flood Levels

Figure 2-2: Flood Levels Studied



EXISTING CONDITIONS-NUISANCE FLOODING AT RIVER ELEVATION = 2.0 FT



EXISTING CONDITIONS-NUISANCE FLOODING AT RIVER ELEVATION = 3.0 FT



EXISTING CONDITIONS-NUISANCE FLOODING AT RIVER ELEVATION = 4.0 FT



EXISTING CONDITIONS-NUISANCE FLOODING AT RIVER ELEVATION = 5.0 FT



EXISTING CONDITIONS-NUISANCE FLOODING AT RIVER ELEVATION - 6.0 FT



Recent Flooding

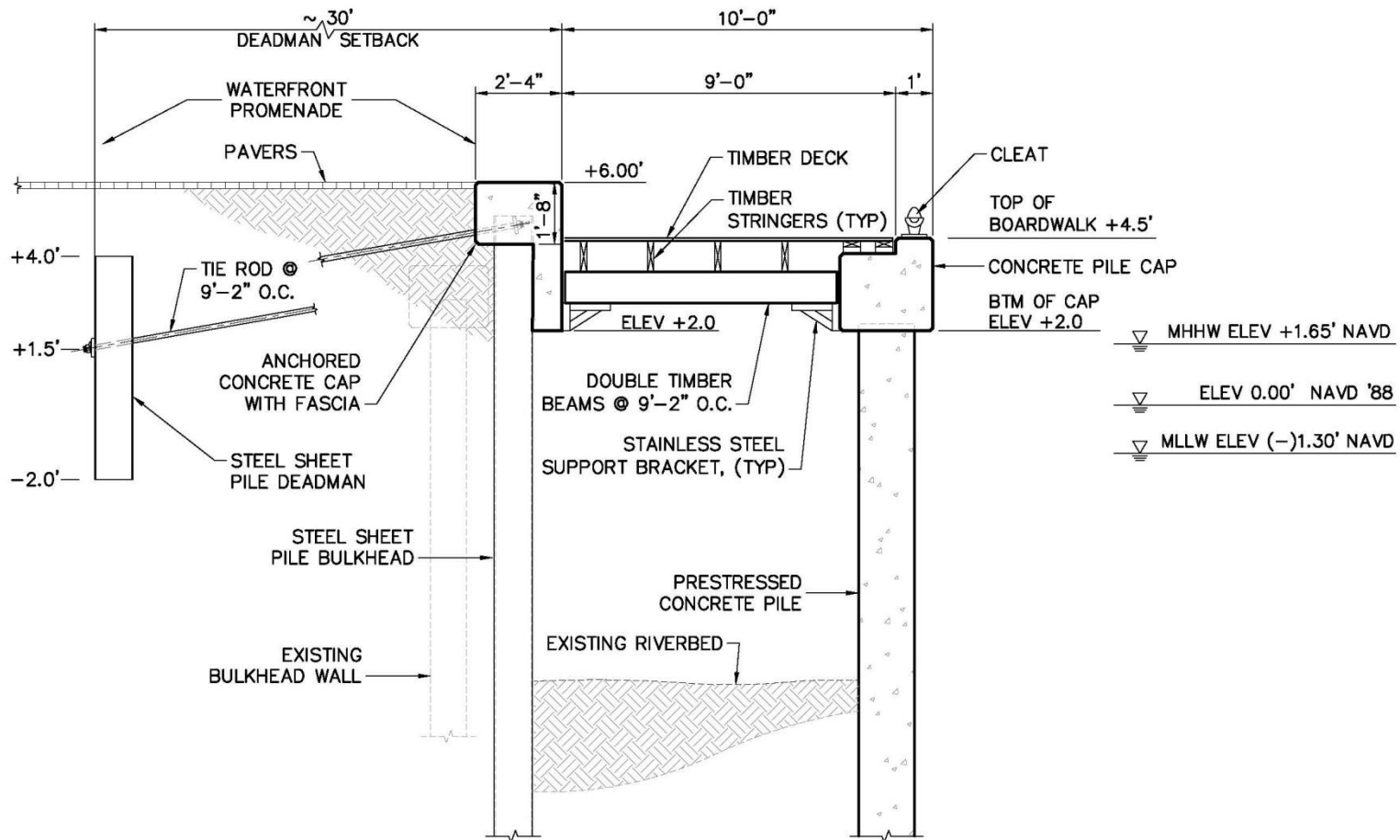


River elevation 4.4'

Flood Mitigation

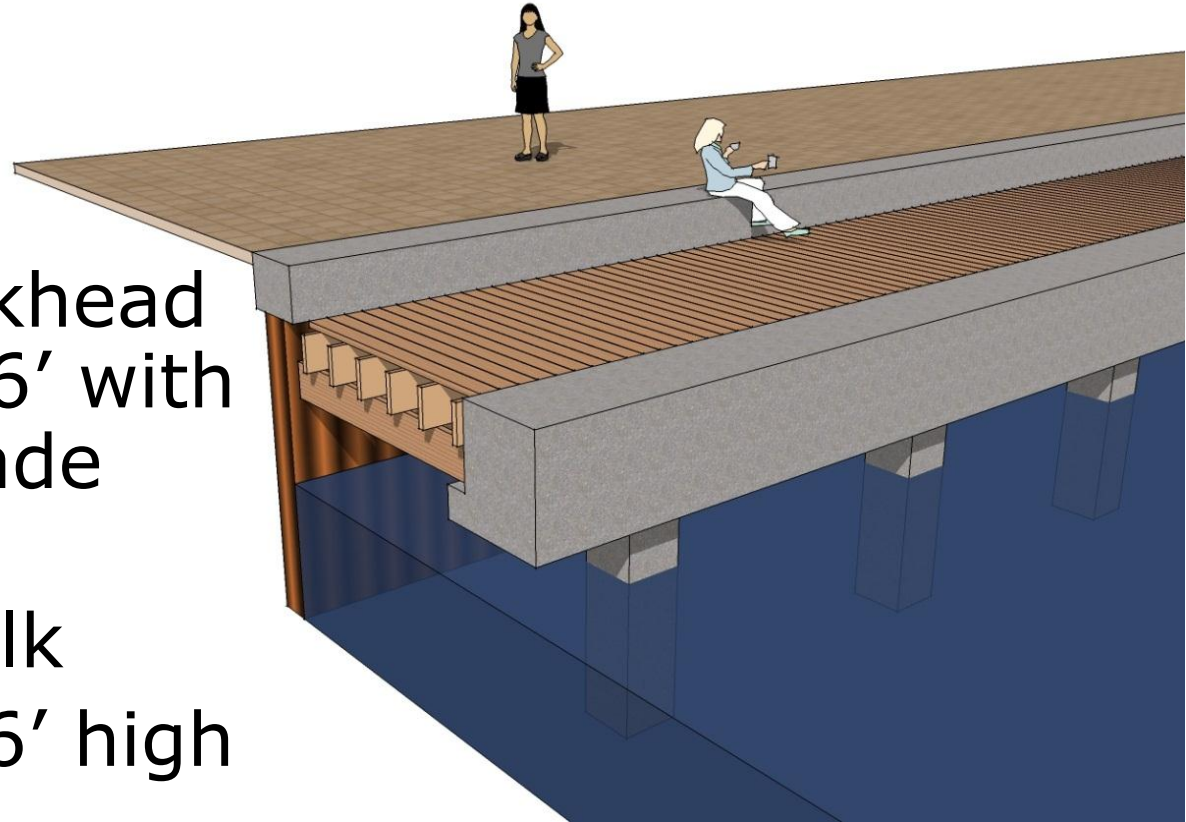
- URS Corporation
- Build upon 2010 study
- Incorporate into Olin Landscape Design
- 15% Design for the core area
- Drainage and infrastructure analyses
- 3 main components
 - Raised bulkhead
 - Pump stations (2)
 - Separated storm sewer system

Bulkhead Detail

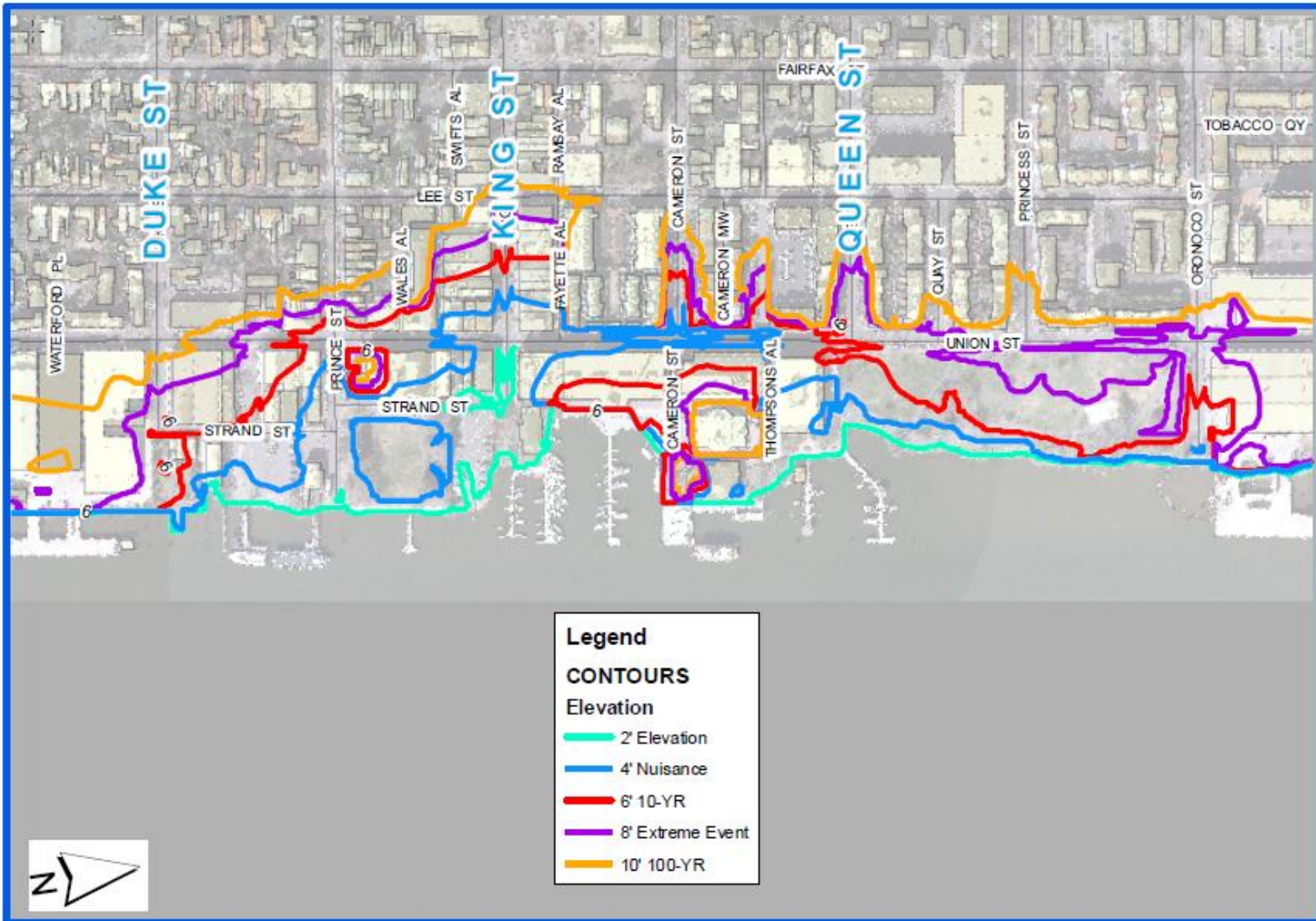


Bulkhead/Promenade

- New bulkhead to Elev. 6' with promenade
- Lower boardwalk
- Is Elev. 6' high enough?

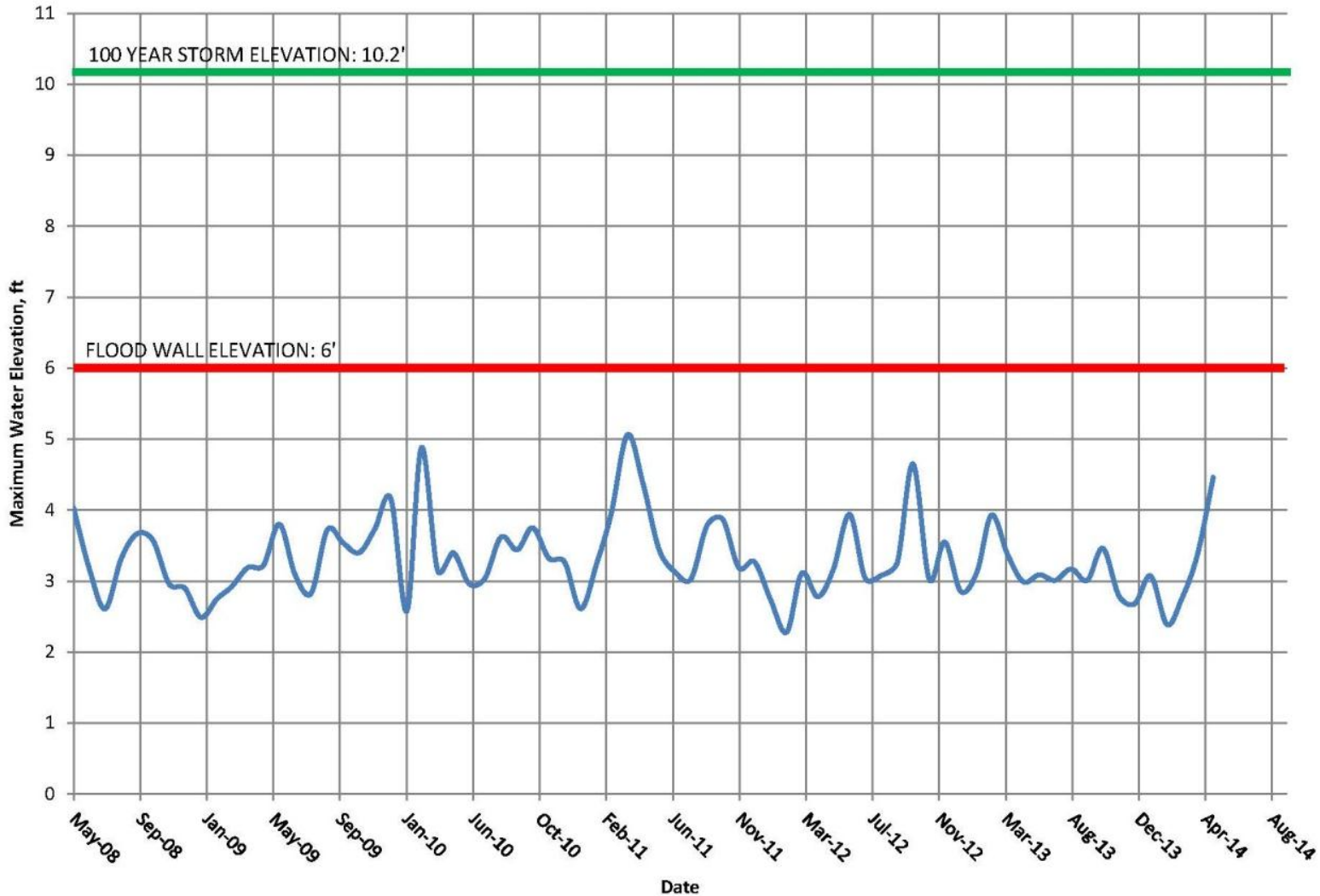


Flood Extents

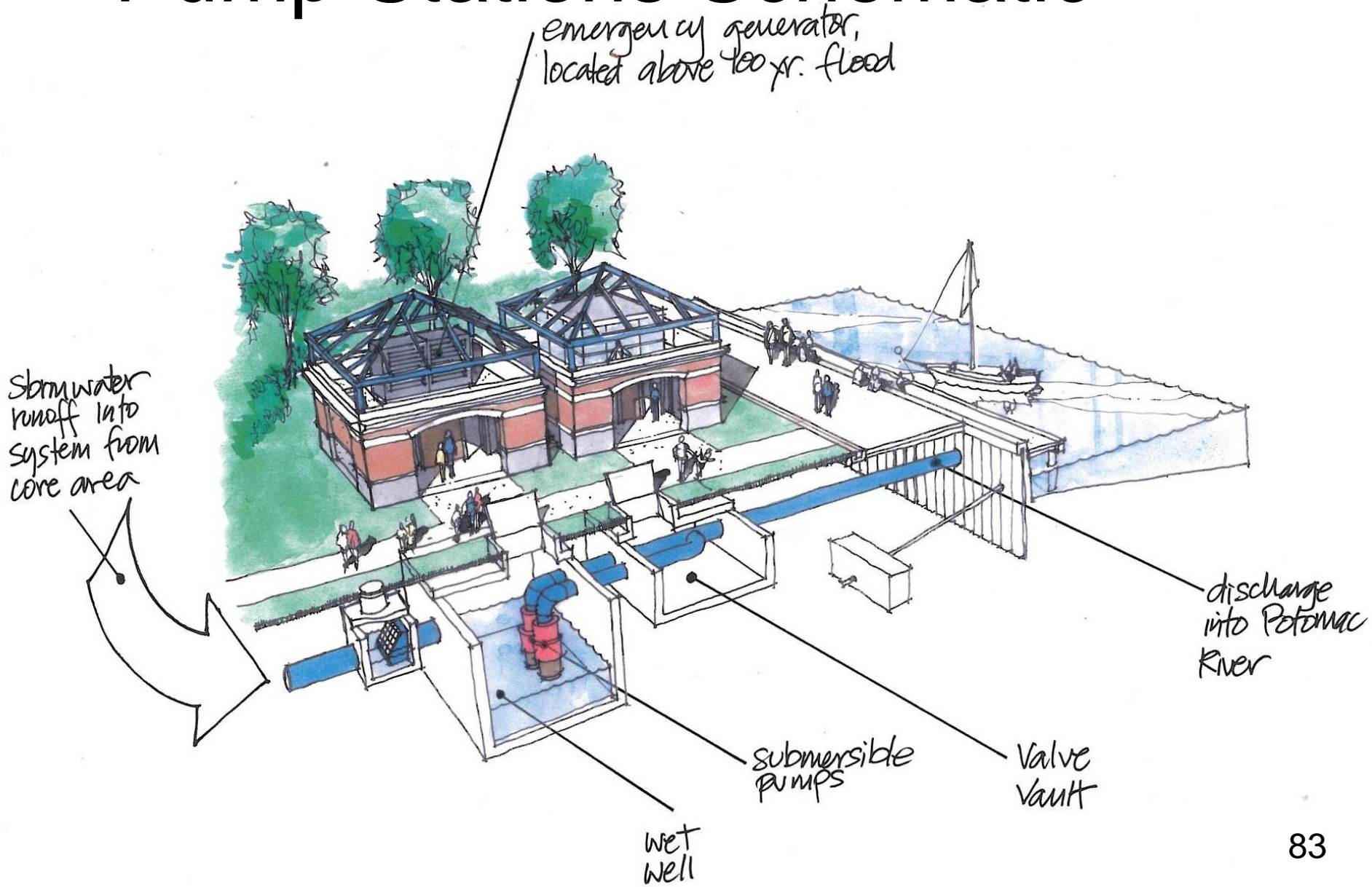


USGS Tide Gage

Maximum Monthly Water Surface Elevations



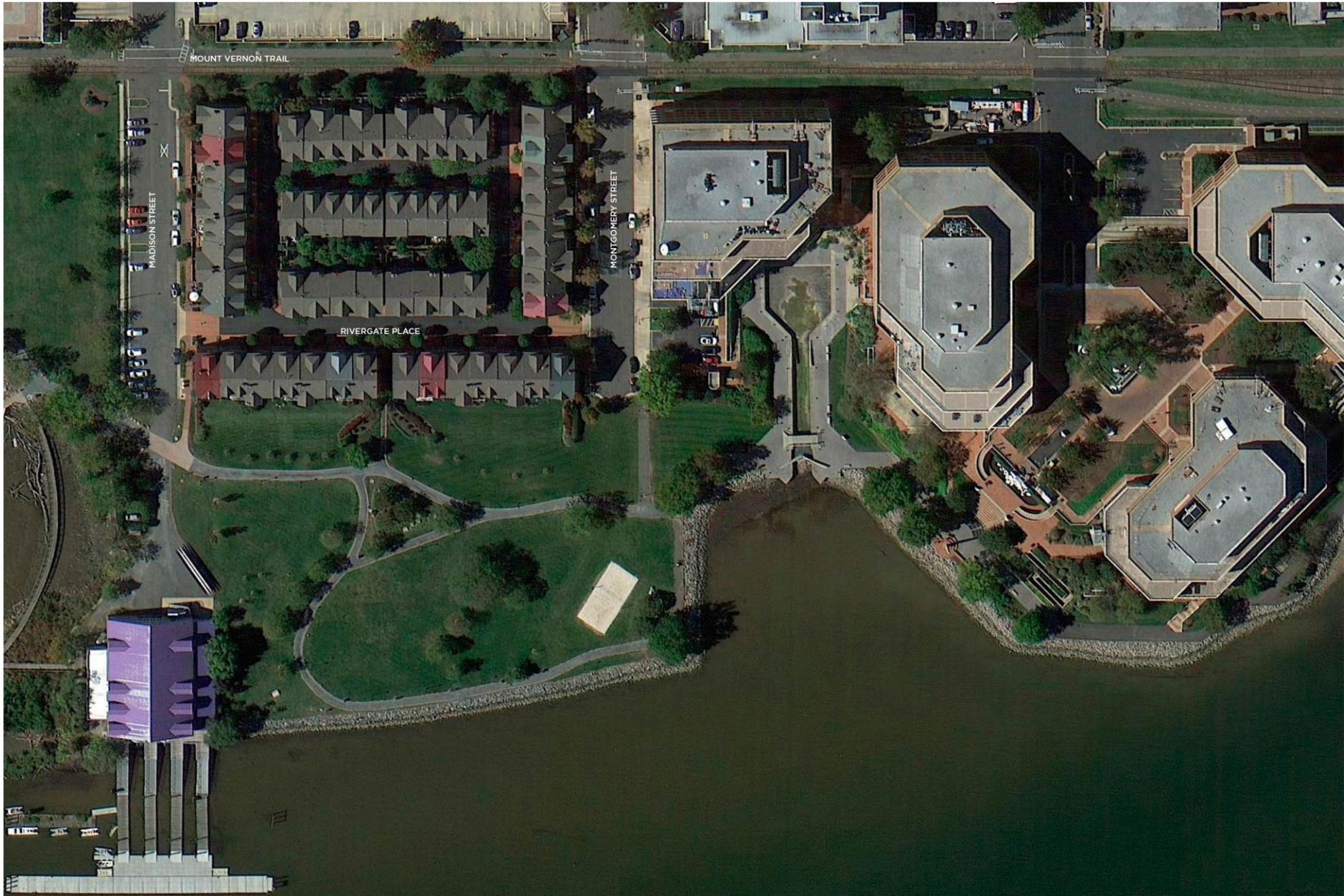
Pump Stations Schematic



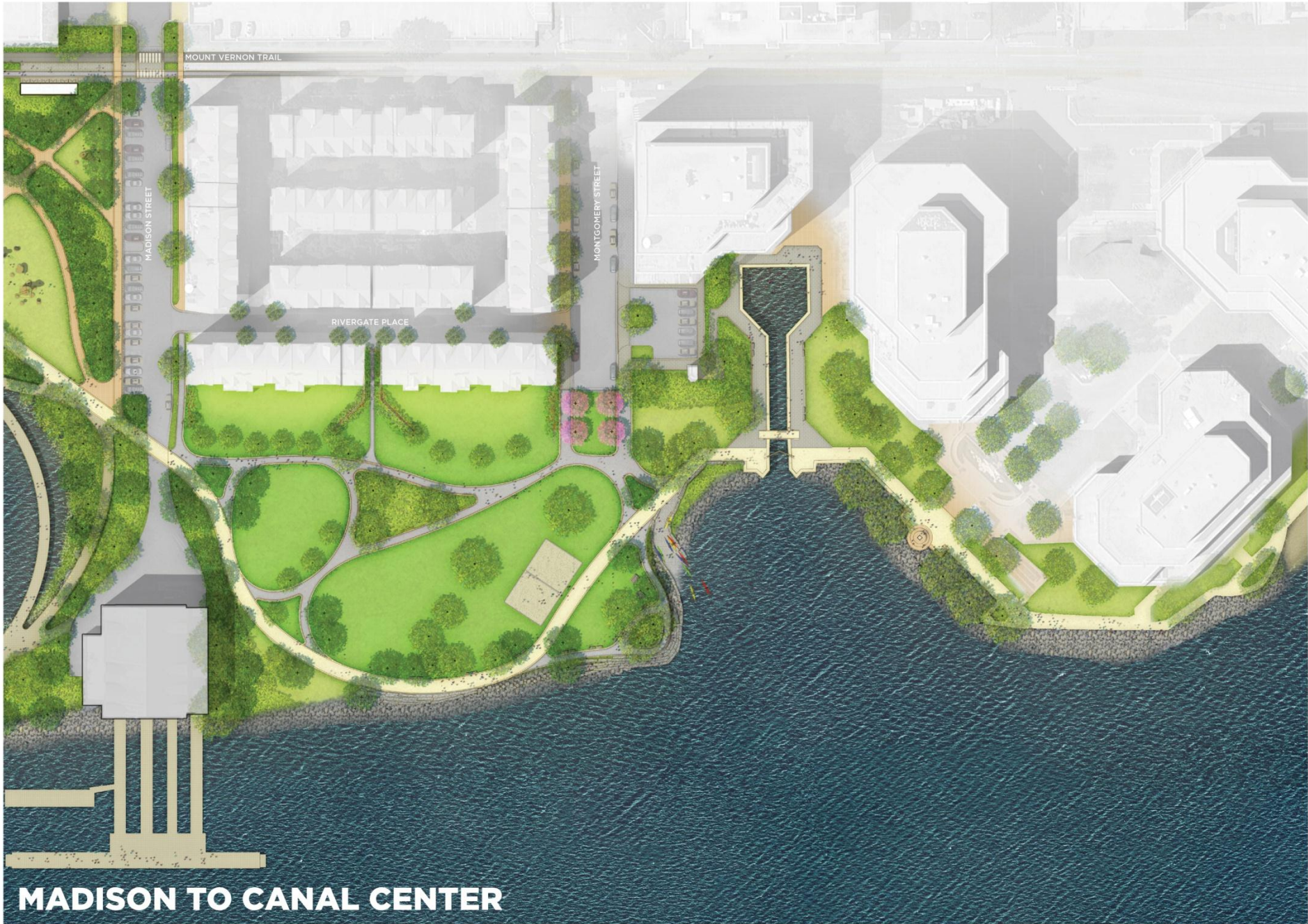


CONCEPT DESIGNS OUTSIDE CORE AREA

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MADISON TO CANAL CENTER



MADISON TO CANAL CENTER





RIVERGATE PARK - EXISTING



RIVERGATE PARK - PROPOSED



ORONOCO TO MADISON

0 50 100
N
OLIN



ORONOCO TO MADISON





ORONOCO BAY PARK - EXISTING



STATION 1
ORONOCO BAY
CARMICHAEL '14

ORONOCO BAY PARK - PROPOSED



ORONOCO BAY PARK - EXISTING



ORONOCO BAY PARK - PROPOSED



RALPH'S GUT - EXISTING



RALPH'S GUT - PROPOSED



QUEEN TO ORONOCO



QUEEN TO ORONOCO





FOUNDERS PARK - EXISTING



FOUNDERS PARK - PROPOSED



SUSTAINABILITY

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SUSTAINABILITY AND ECOLOGICAL SYSTEMS

	SOCIAL •Quality of the space •Opportunities for interaction •Financial	MATERIALS •Durability / Maintenance •Local •Responsible production	HABITAT ENHANCEMENT THROUGH PLANTING •Native / Adaptive •Biodiversity •Low maintenance	ENERGY •Renewable Solar •Urban heat island mitigation •Efficient Lighting	WATER •Quality •Stormwater Management •Potential for Reuse
WILKES - DUKE	Mid Potential	Mid Potential	High Potential	Low Potential	Low Potential
DUKE - KING	High Potential	High Potential	High Potential	High Potential	High Potential
KING - QUEEN	High Potential	High Potential	Low Potential	High Potential	High Potential
QUEEN - ORONOCO	Mid Potential	Low Potential	High Potential	Mid Potential	Mid Potential
PENDLETON - MADISON	Mid Potential	Mid Potential	High Potential	Mid Potential	High Potential
MADISON - MONTGOMERY	Mid Potential	Mid Potential	Mid Potential	Low Potential	Low Potential





WATER RECEIVING
TREE PITS

WASHINGTON CANAL PARK: WASHINGTON, DC



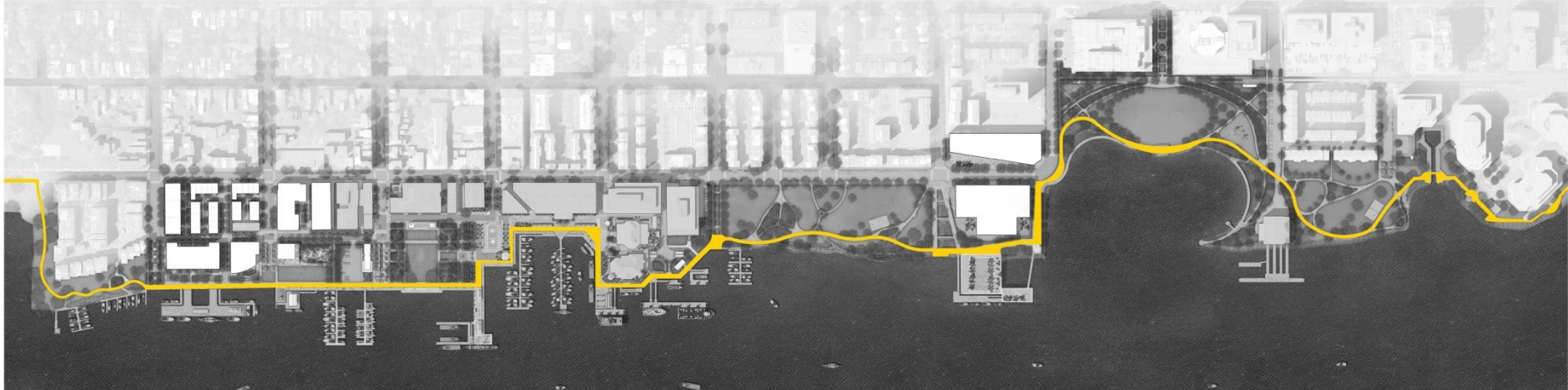
Storm Water Treatment Landscape
w/Underground Storage



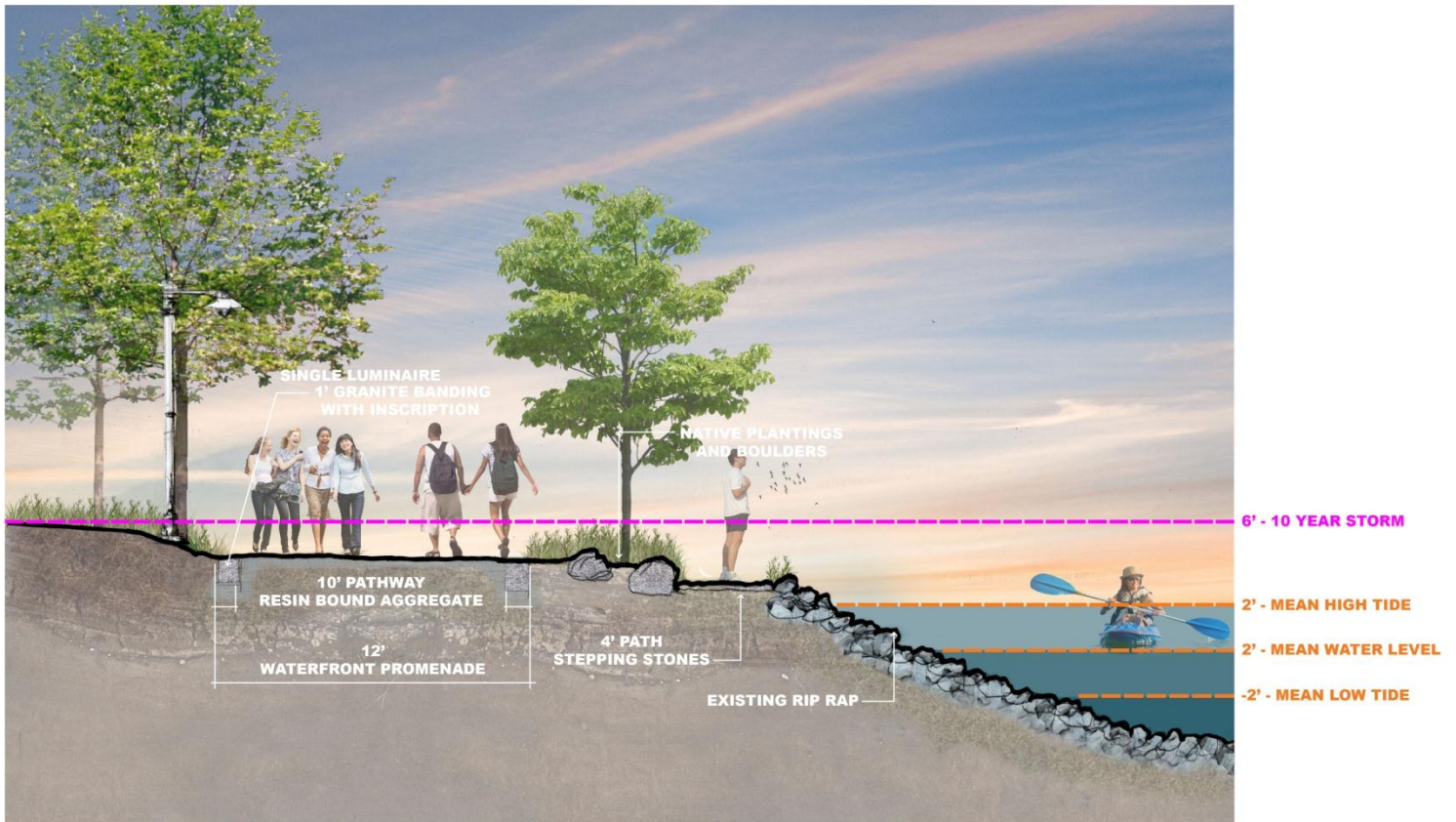
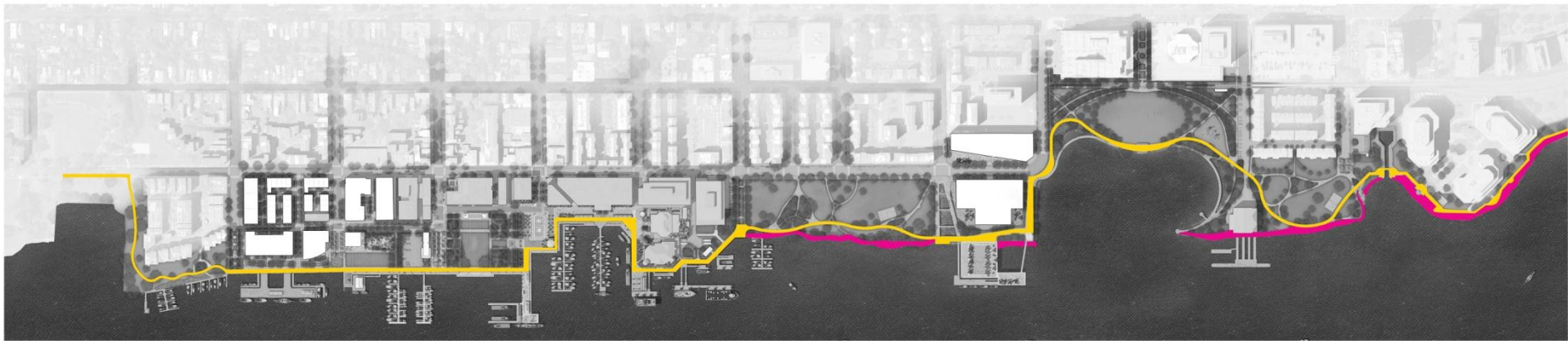


COMMON ELEMENTS

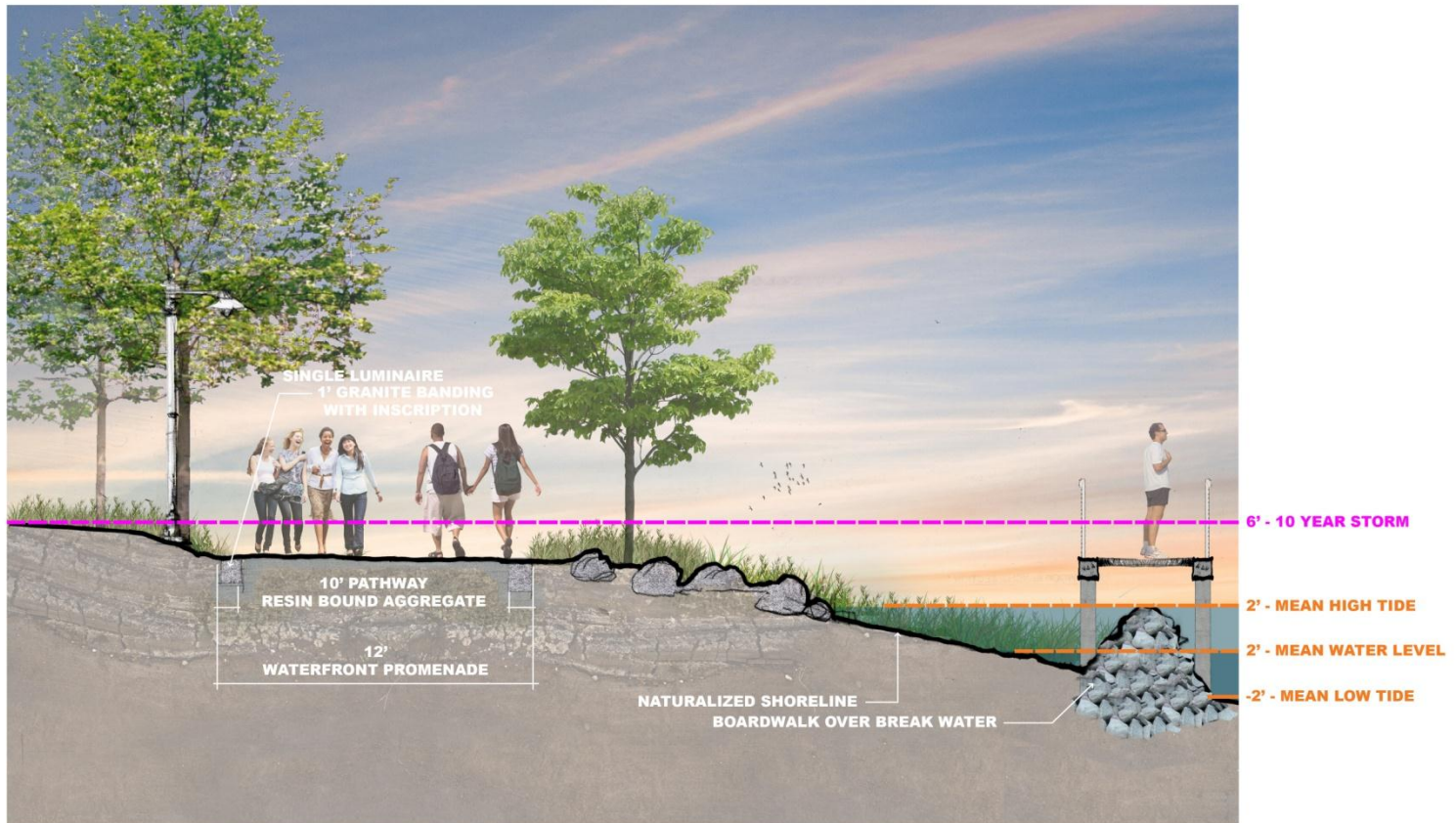
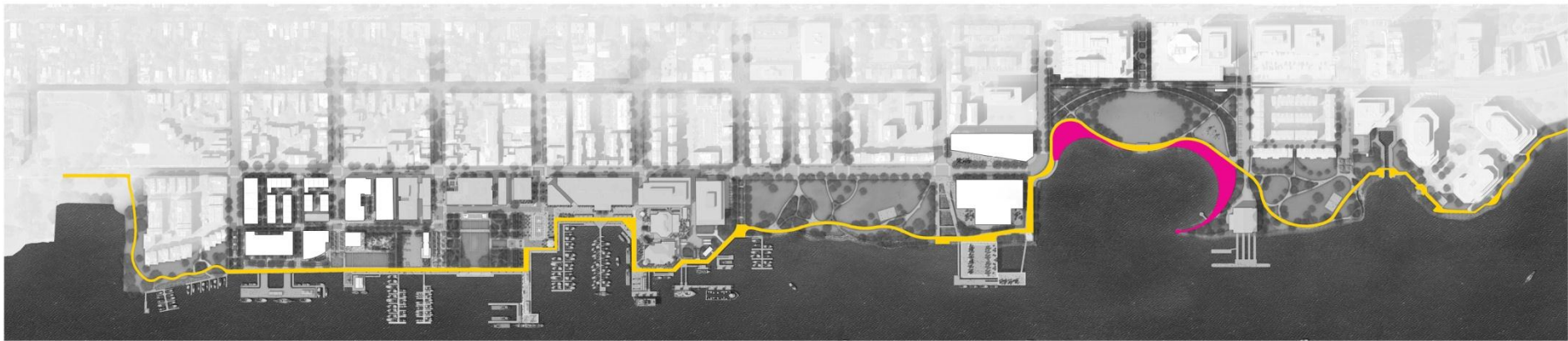
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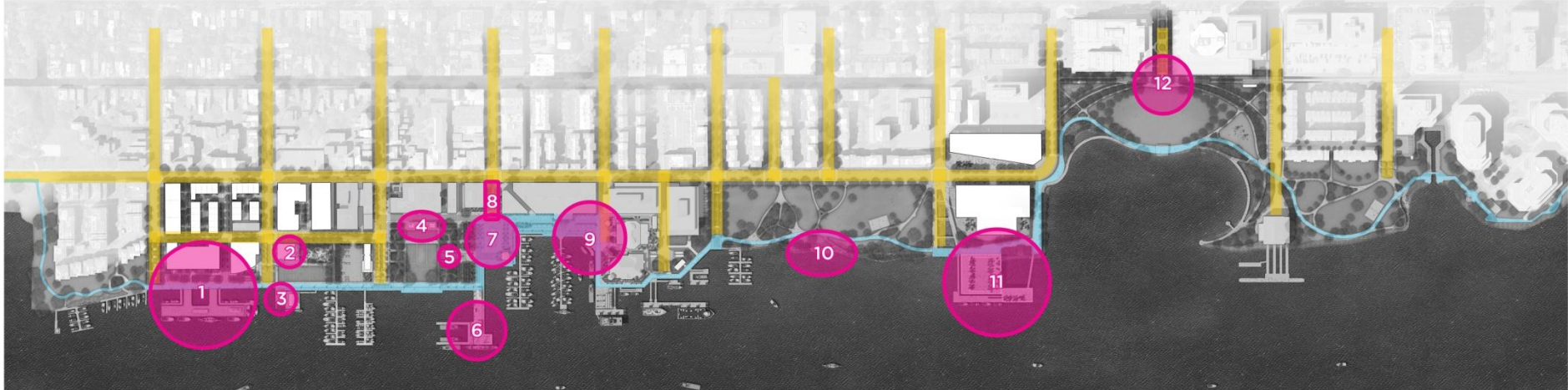
CONTINUOUS WATERFRONT PATH



CONTINUOUS PATH WITH STEPPING STONE PATH ABOVE RIPRAP



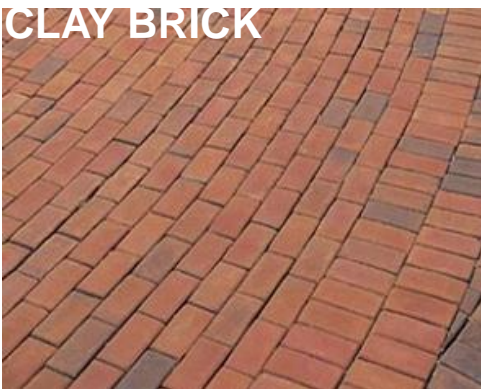
CONTINUOUS PATH WITH BOARDWALK OVER BREAKWATER



- 1 RTS PIER
- 2 CIVIC BUILDING PLAZA
- 3 POINT LUMLEY PIER
- 4 WATERFRONT PARK PLAZA
- 5 TRANSITIONAL PLAZA
- 6 KING STREET PIER
- 7 FITZGERALD SQUARE
- 8 KING STREET UNIT BLOCK
- 9 CITY MARINA / TORPEDO PLAZA
- 10 BOULDER STEPPING STONES
- 11 RTN PIER
- 12 WYTHE STREET PLAZA

MATERIALS – WATERFRONT ROOMS

CLAY BRICK



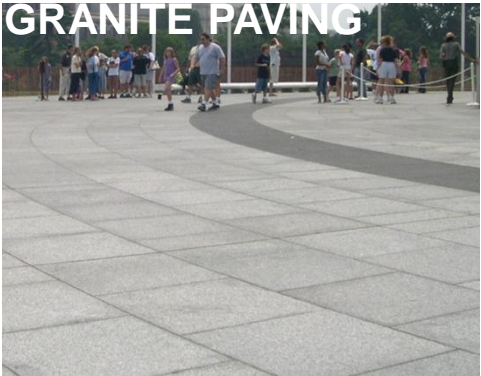
STONE DUST



STONE COBBLES



GRANITE PAVING



EXPOSED AGGREGATE CONCRETE



STEPPING STONES IN STONE FINES CONCRETE



BOARDWALK

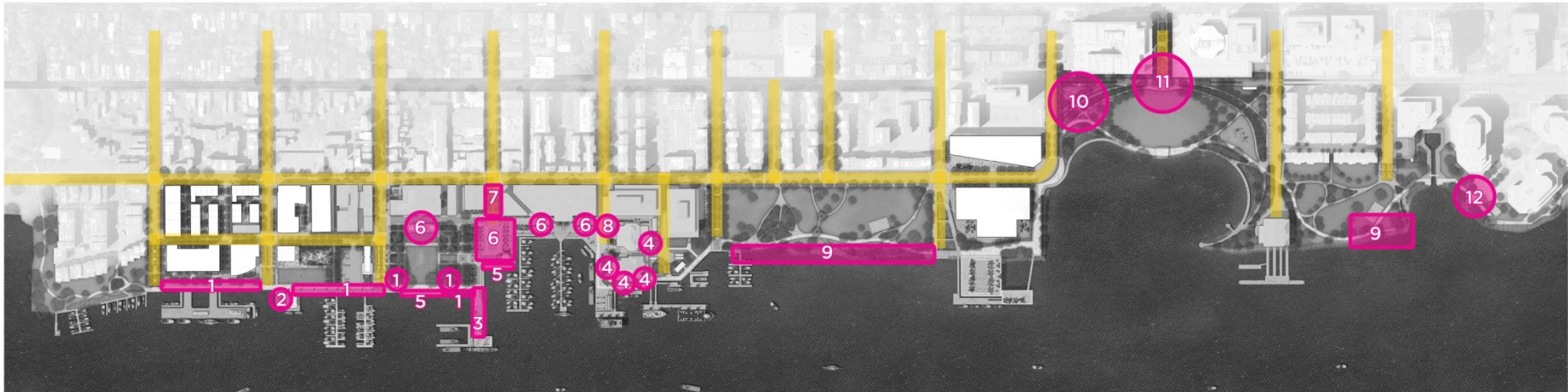


RESIN BONDED AGREGATE



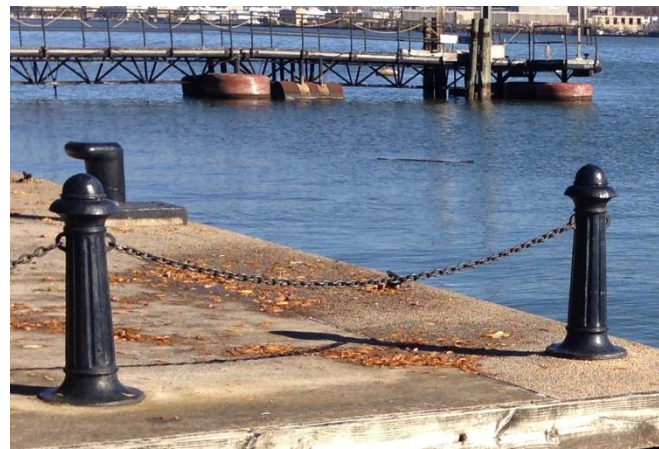
GRANITE CURB





- 1 GRANITE SEAT WALL
- 2 LOUNGE CHAIRS
- 3 GLIDER SEATING
- 4 ROOFTOP OUTDOOR DINING
- 5 WATERFRONT STEPS
- 6 FLEXIBLE SEATING
- 7 MOUNTING BLOCKS
- 8 STEPPED SEATING AT FOUNTAIN
- 9 BOULDER STEPS
- 10 PICNIC TABLES
- 11 ADIRONDACK LOUNGE CHAIRS
- 12 PROMENADE CLASSIQUE

COMMON ELEMENTS - FURNISHINGS



FURNISHINGS

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- 1 WOLFE STREET END CATENARY LIGHTING
- 2 DUKE STREET END CATENARY LIGHTING
- 3 CIVIC BUILDING LIGHTING
- 4 PLAY AREA WHIMSICAL BOLLARD LIGHTS
- 5 TRELLIS UPLIGHTING
- 6 PRINCE STREET END CATENARY LIGHTING
- 7 WATERFRONT PARK MOONLIGHTING
- 8 SHADE STRUCTURE LIGHTING

- 9 FOUNTAIN LIGHTING
- 10 TREE LIGHTING
- 11 SHADE STRUCTURE LIGHTING
- 12 TORPEDO FACTORY LIGHTING
- 13 SHADE STRUCTURE LIGHTING
- 14 GAZEBO FOUNTAIN LIGHTING
- 15 SHADE STRUCTURE LIGHTING
- 16 ORONOCO STREET END CATENARY LIGHTING

- 17 BOX CAR THEATER
- 18 WYTHE STREET PLAZA LIGHTING





LIGHTING

OLIN

