



Principles for Remaking the Urban Waterfront

Austin, Texas – 6 May 2015



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Architecture & Urban Design

*Humanity
finds delight
and
inspiration at
waterfront
settings*





Lee Myung-bak
Mayor of Seoul and
later President of
Korea



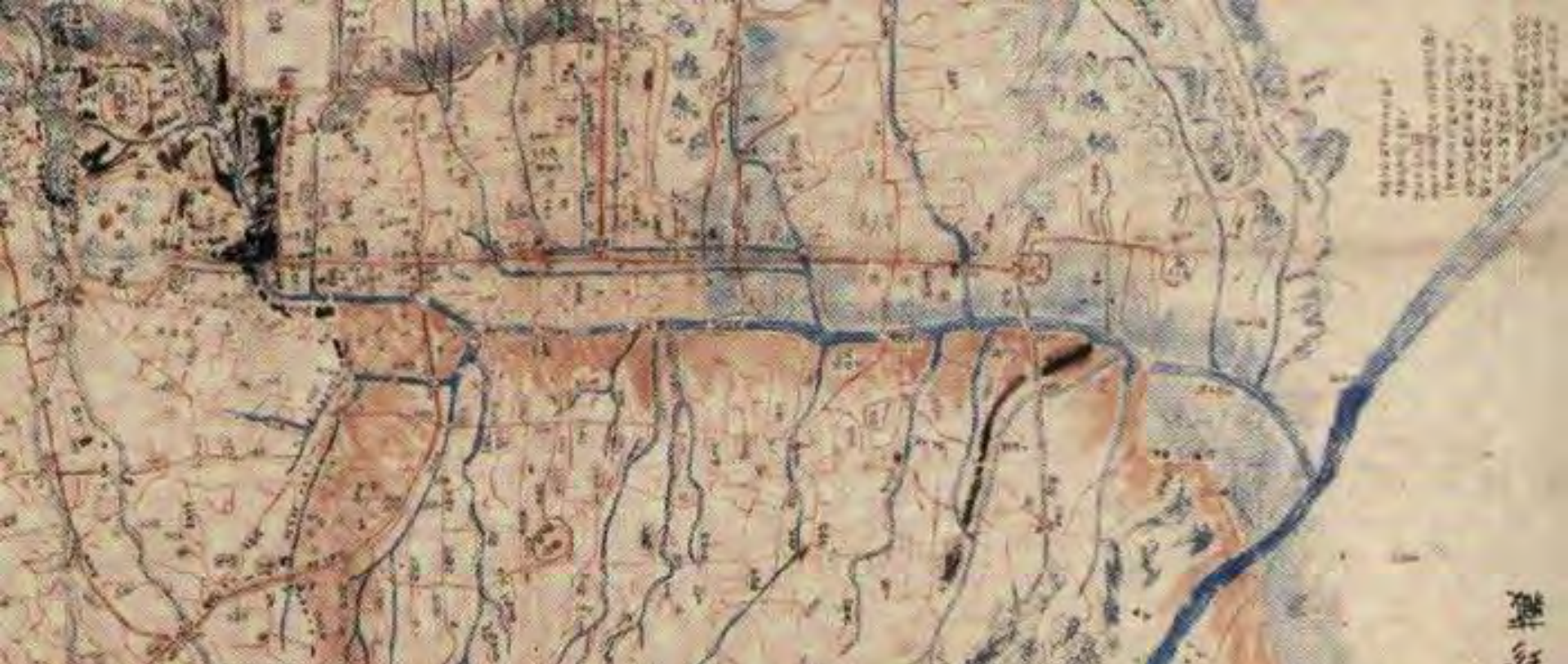
Cheonggyecheon River Restoration, Seoul, Korea 2000-2006



Cheonggyecheon River Restoration, Seoul, Korea

2000-2006















*Distinctive
Settings at
Water's Edge
Provide
Significant
Advantages for a
City's
Competitiveness
in the Global
Economy*





*Distinctive
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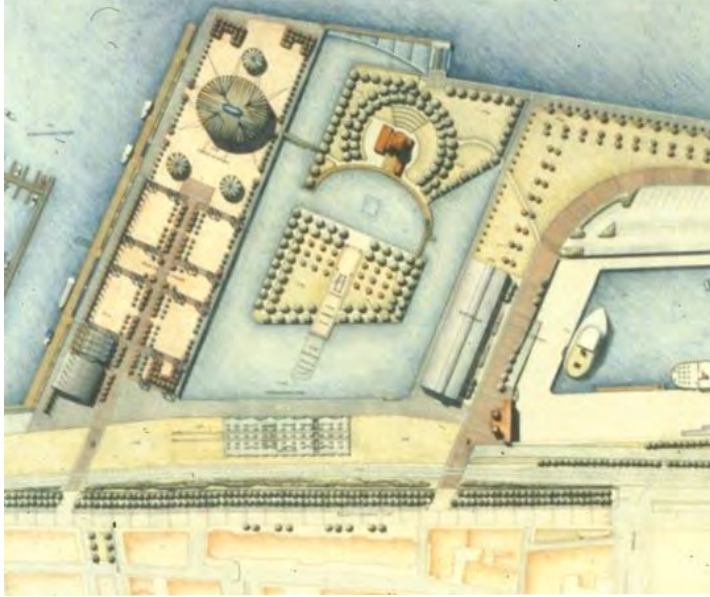
10 Opportunities in Urban Waterfront Planning



1.

*Transformations
along urban
waterfronts are a
recurring condition
in the life of a city
and tends to take
place during times
of economic,
technological and
cultural shifts.*

Montreal Waterfront, Canada



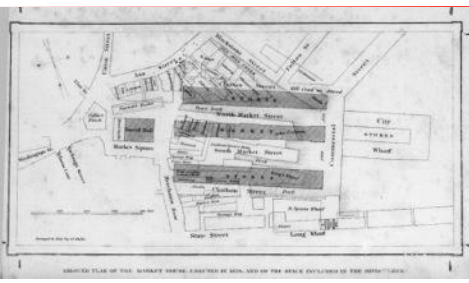
MONTREAL



MONTREAL



2. Along the waterfronts of cities worldwide the human instinct to both preserve and to reinvent are robustly acted out.



EAST VIEW OF FANEUIL HALL MARKET.

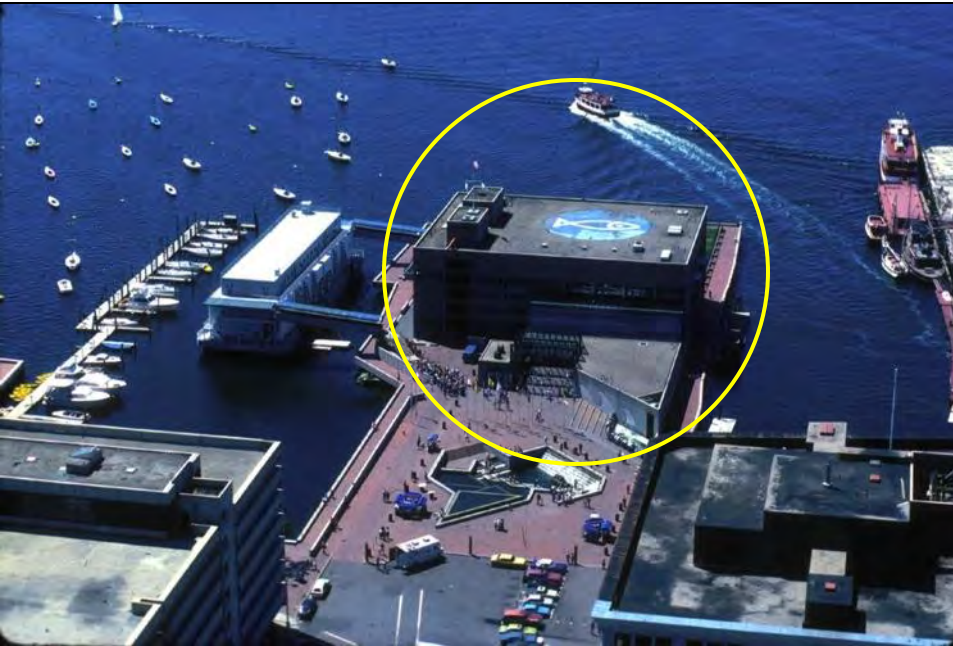
BOSTON, MAR. 1827



Copy Right Secured.



Boston's Old Harbor Reimagined

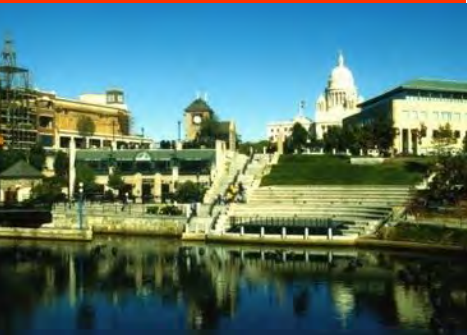
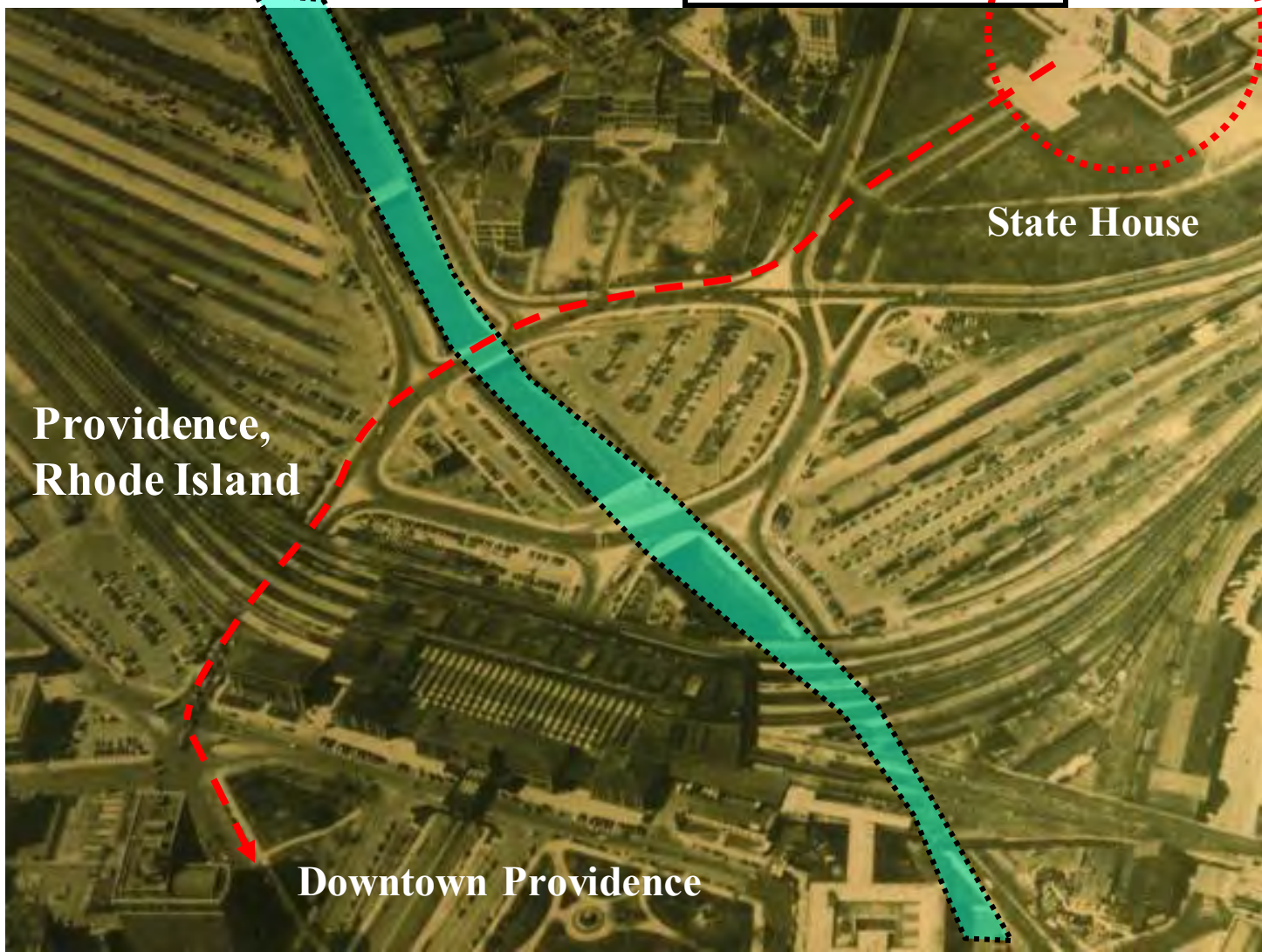


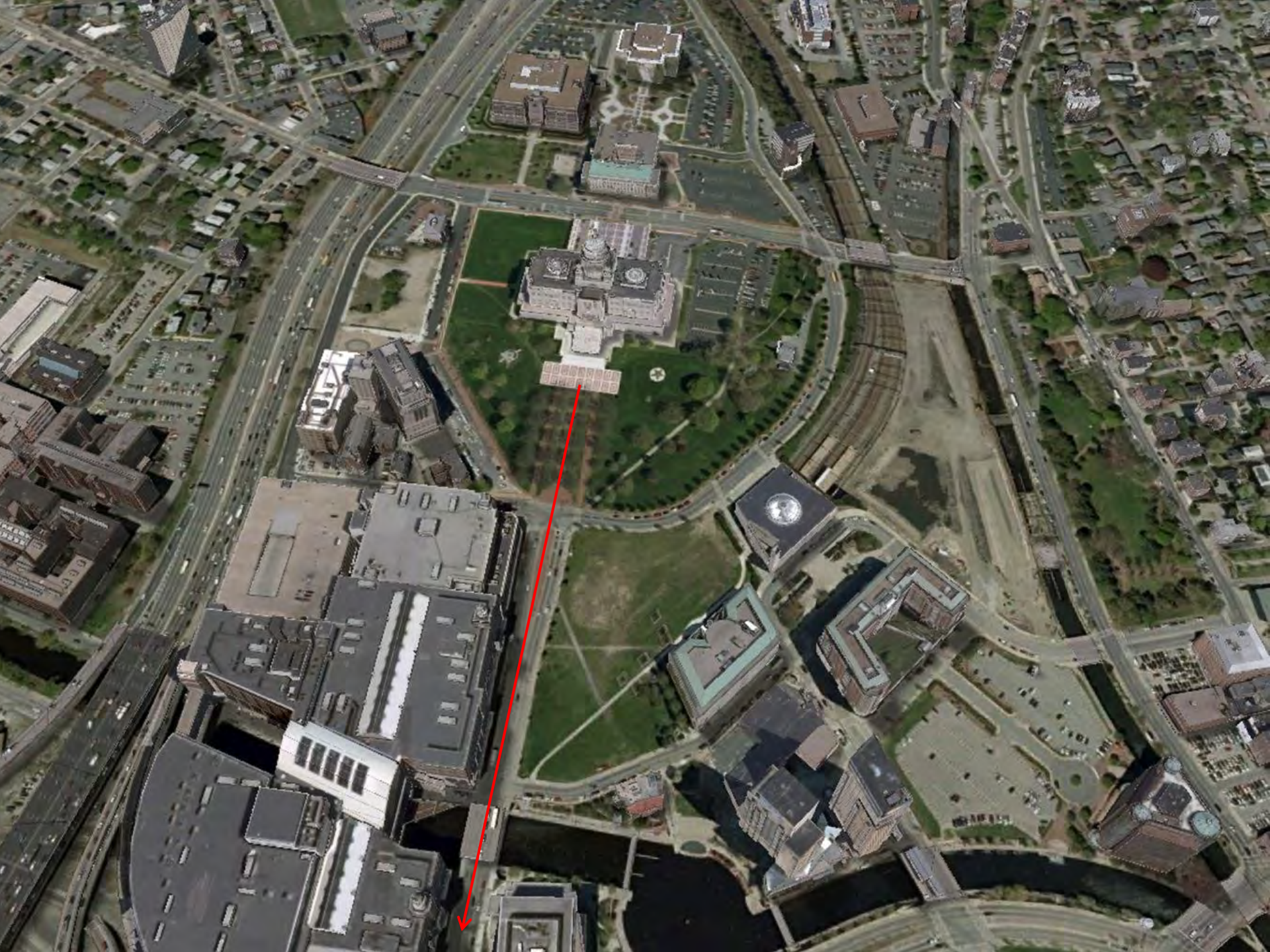


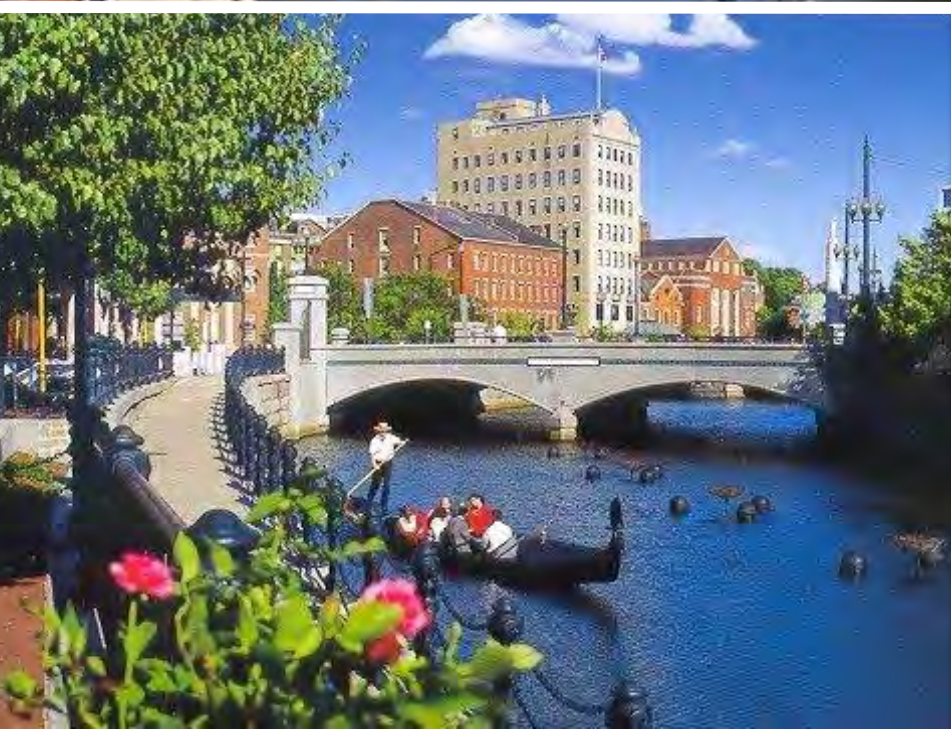
BATTERY WHARF



3. *The public increasingly desires and expects access to the water. This usually requires overcoming historic barriers, physical, proprietary and psychological.*









4. *Maintaining Linear Public Connectivity is Important, but Emphasizing Perpendiculars from the City Fabric to the River is even more important*



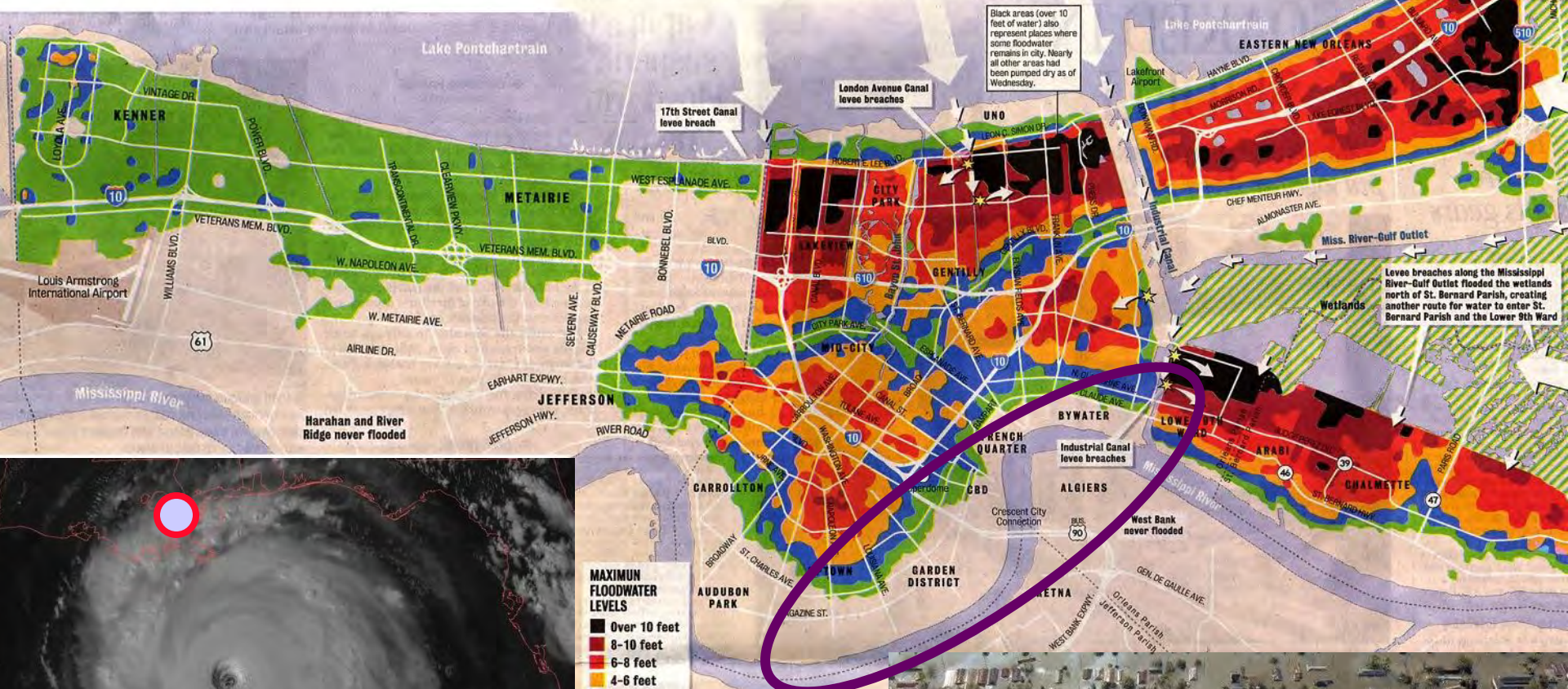
- 1. Celeste Park
Jackson Avenue to Market Street
- 2. Market Street Promenade
Market Street to Race Street
- 3. Riversphere
Race Street to Terpichore
- 4. Nine Muses Square
Orange to Henderson to Techoupitoulas
- 5. Julia Street River Terrace
- 6. Convention Center Boulevard
Henderson to Poydras
- 7. Spanish Plaza
Poydras to Canal Street
- 8. Wolenberg Park
Canal Street to St. Louis
- 9. Moonwalk
St. Louis to St. Philip
- 10. French Market Connection
- 11. Portage Plaza
Esplanade and Elysian Fields
- 12. Mandeville Wharf
Marigny to Spain
- 13. Mandeville Rear Apron Connection
- 14. Press Street Landing
Spain to Clouet
- 15. Piety Park
Clouet to Pauline
- 16. Poland Fields
Pauline to Poland Wharf
- 17. Bywater Point
Poland Wharf to St. Claude
- 18. Port of Embarkation Redevelopment
Chartres to St. Claude
- 19. Holy Cross Levee Promenade
St. Claude to Flood Street



Post Katrina Development Plan for New Orleans
Reinventing the Crescent

HOW MUCH WATER DID YOU GET?

Levee breaches from Hurricane Katrina's monster surge left the city under more than 10 feet of floodwater for many unfortunate residents. This map shows maximum water depths that afflicted neighborhoods at the height of the flood, when Lake Pontchartrain leveled off with New Orleans:



Floodwater entered eastern New Orleans from the Mississippi River-Gulf Outlet

Black areas (over 10 feet of water) also represent places where some floodwater remains in city. Nearly all other areas had been pumped dry as of Wednesday.

Levee breaches along the Mississippi River-Gulf Outlet flooded the wetlands north of St. Bernard Parish, creating another route for water to enter St. Bernard Parish and the Lower 9th Ward

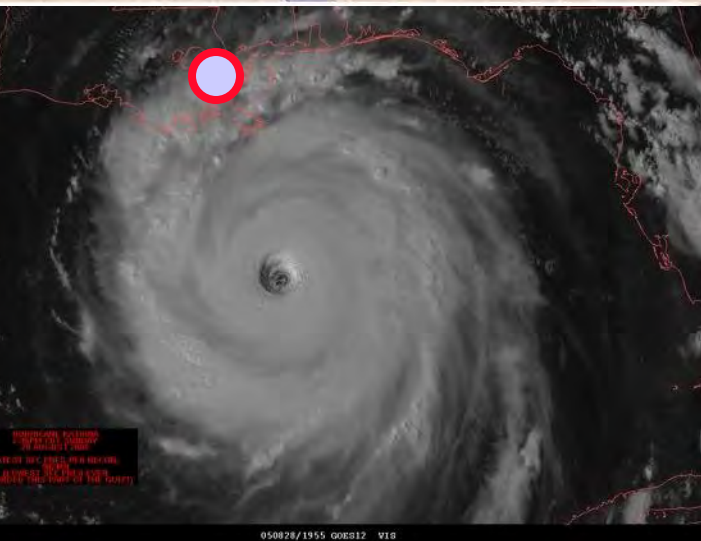
Louis Armstrong International Airport

Harahan and River Ridge never flooded

West Bank never flooded

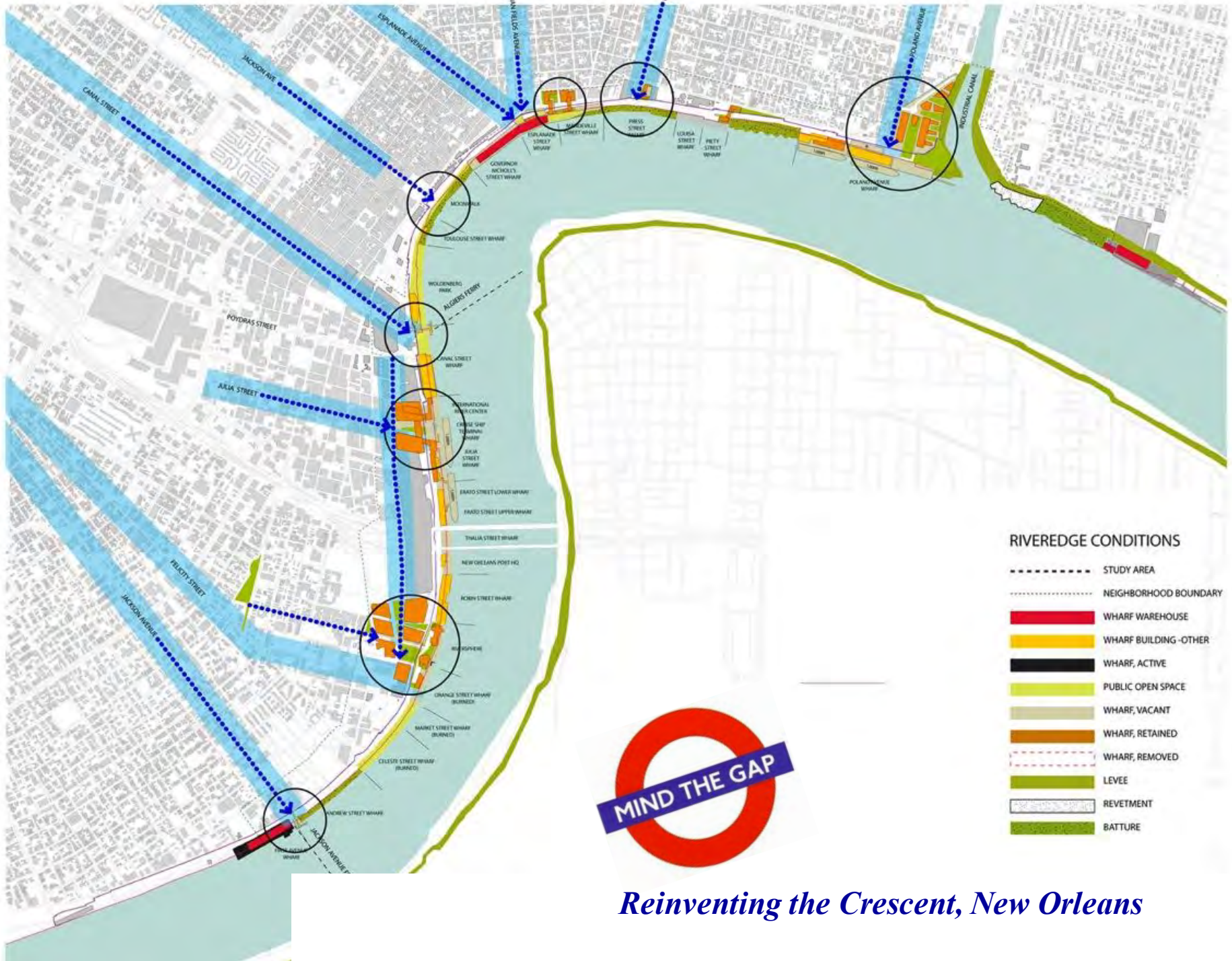
- MAXIMUM FLOODWATER LEVELS**
- Over 10 feet
 - 8-10 feet
 - 6-8 feet
 - 4-6 feet
 - 2-4 feet
 - 0-2 feet
 - Not available

- OTHER KEYS**
- Levee breach
 - Storm surge/ water flow



Note: Maximum water levels at specific points may vary greatly as topography can change drastically, for example from any given street to any given house foundation.
 Source: C&C Technologies Survey Services, www.mapper.cctechnol.com/floodmap.php
 Staff graphic by Dan Swenson





RIVEREDGE CONDITIONS

- STUDY AREA
- NEIGHBORHOOD BOUNDARY
- █ WHARF WAREHOUSE
- █ WHARF BUILDING-OTHER
- █ WHARF, ACTIVE
- █ PUBLIC OPEN SPACE
- █ WHARF, VACANT
- █ WHARF, RETAINED
- █ WHARF, REMOVED
- █ LEVEE
- █ REVETMENT
- █ BATTURE



Reinventing the Crescent, New Orleans

POWER PLANT LANDING RIVERSPHERE 9 MUSES SQUARE

PROGRAM

- Riverview Performances
- Public Meeting Spaces
- Biological Research
- Water Gardening
- Scientific Lectures & Tours
- Sunbathing
- Interactive Fountains
- Lawn Sports
- Green Roof Gardening
- Bike Riding
- Picnicking
- Riverview Shaded Seating
- Riverview Stadium Seating

CIRCULATION

- Market St Pedestrian Bridge
- 2 Destination Piers
- Riversphere Platforms
- Riverfront Pedestrian Path
- Vehicular Ramp
- Railway Tunnel
- Link to Convention Boulevard

LANDSCAPE

- Fountain Gardens
- Research Gardens
- Riverfront Performance Lawn
- Distinctive Courtyards
- Shade Tree Allees
- Batture Pockets
- Accessible Green Roofs
- Flexible Shaded Lawns



RIVER TURBINE

GREEN ROOFS

RESEARCH GARDENS

NINE MUSES PARK

PERFORMANCE LAWN

9 MUSES AMPHITHEATER

BATTURE

ORANGE STREET PIER

POWER PLANT LANDING

RICHARD STREET BRIDGE

RICHARD STREET PIER

POWER PLANT FOUNTAINS

MARKET STREET BRIDGE

MELPOMENE AVENUE

HENDERSON STREET

HERPES STREET

RALES STREET

ORANGE STREET

RICHARD STREET

MARKET STREET

SAINT JAMES STREET

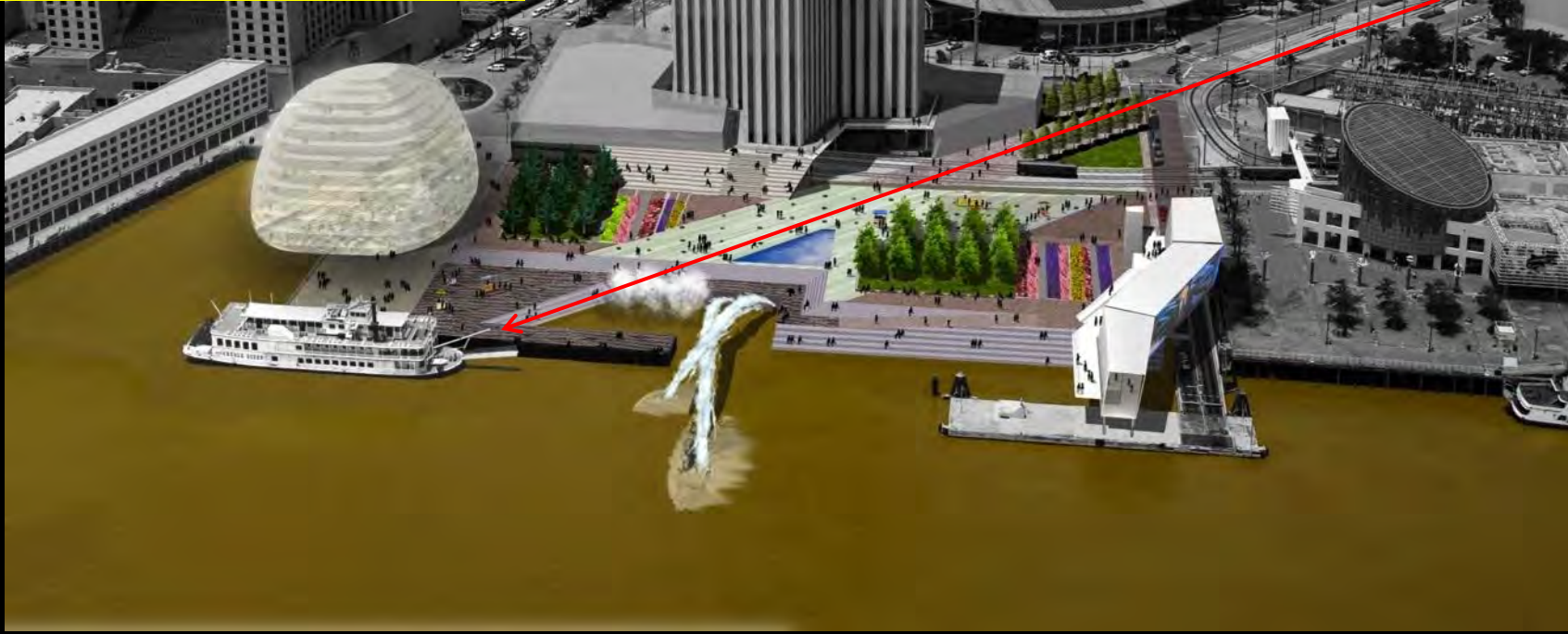
CELESTE STREET

0' 100' 250' 500'



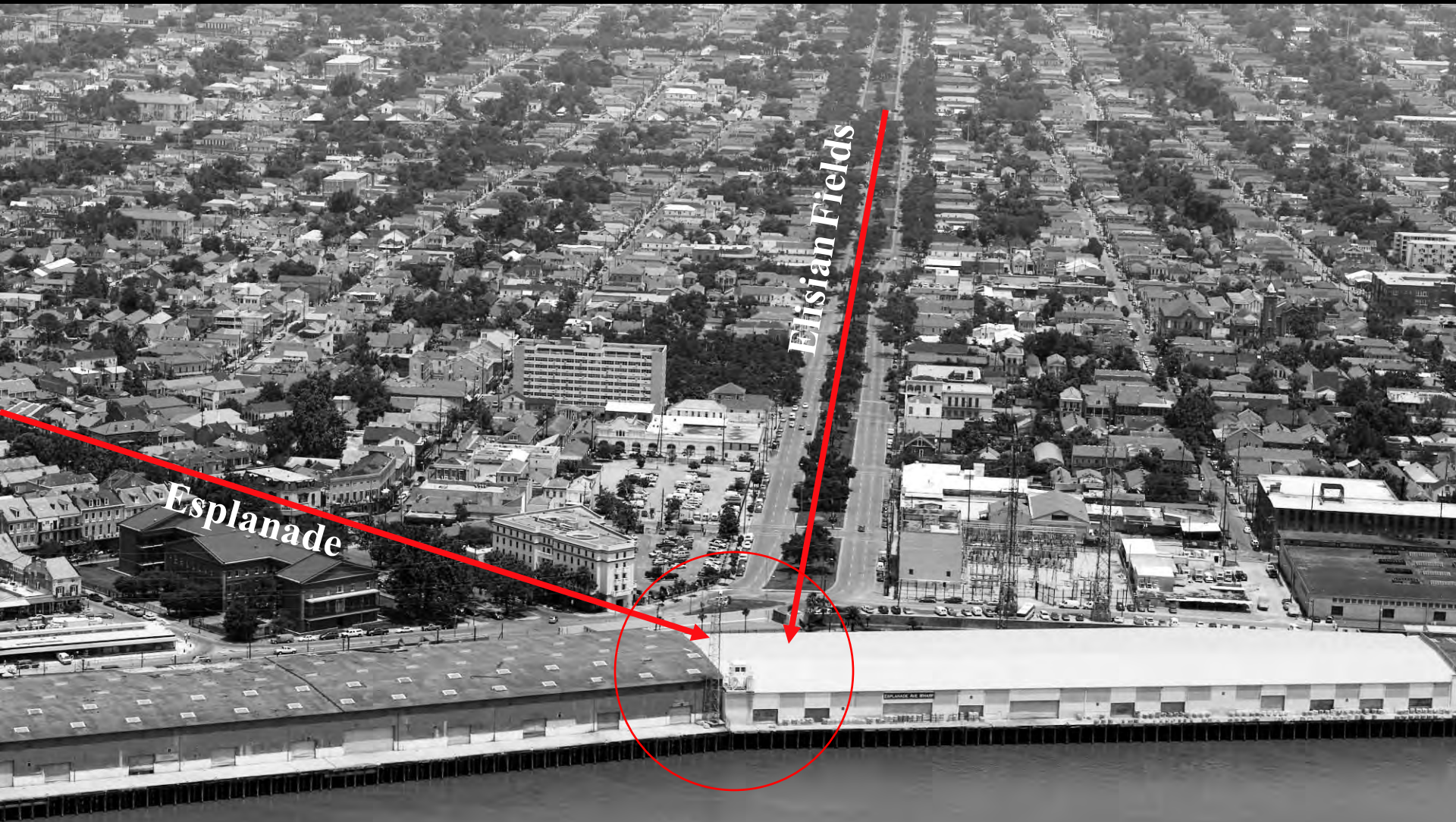






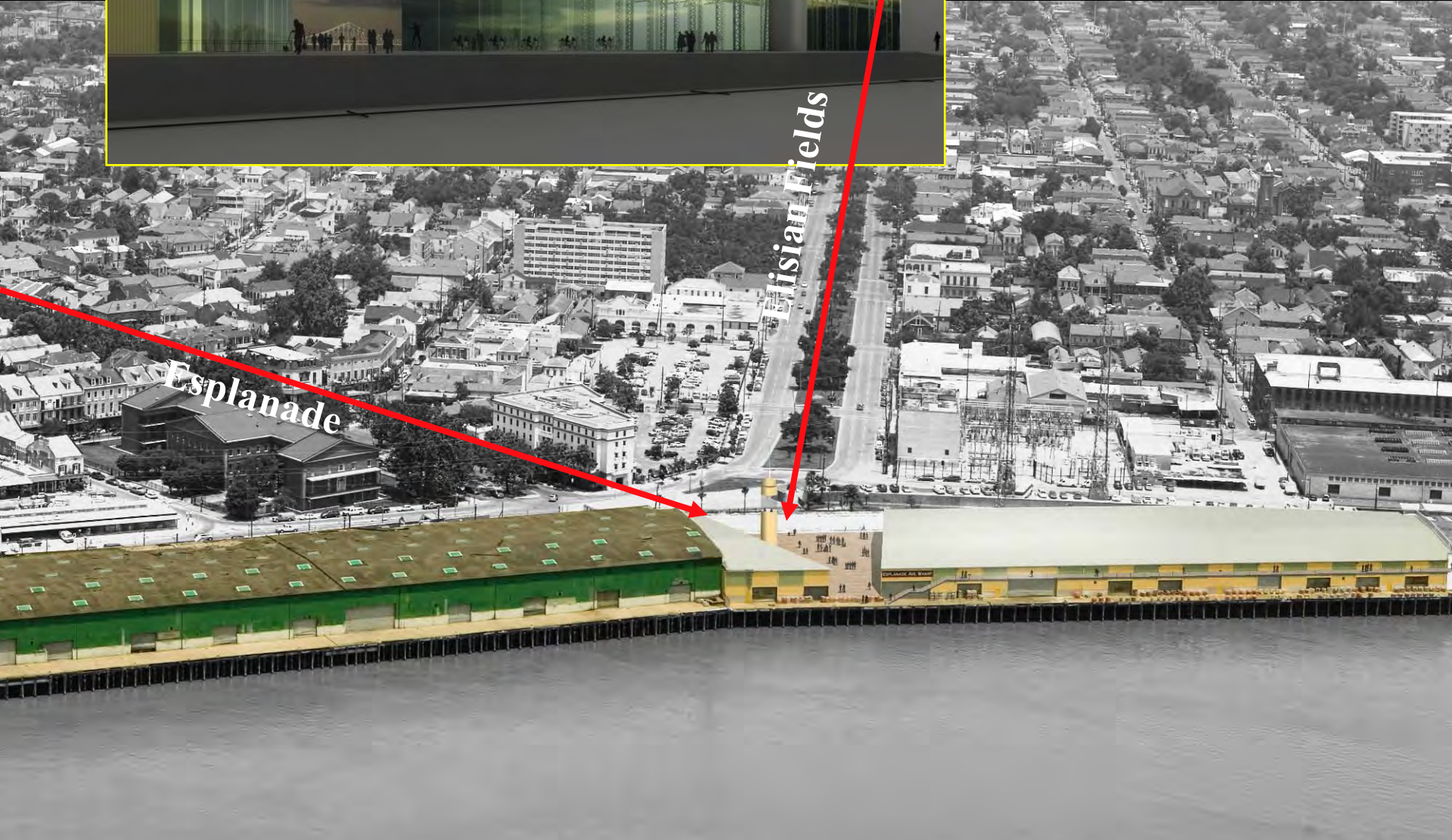






Esplanade

Ehsian Fields



Esplanade

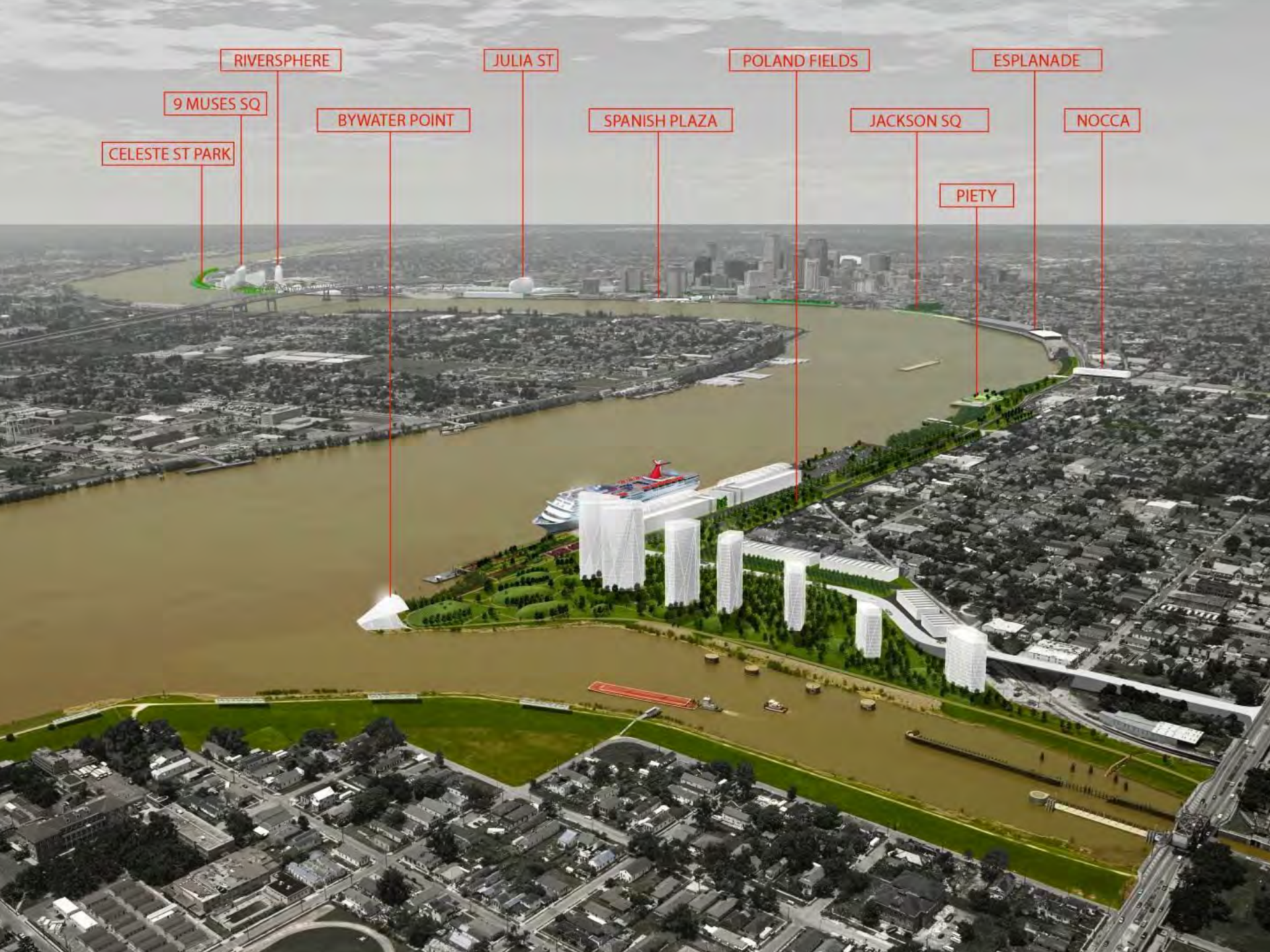
Lisian Fields











RIVERSPHERE

JULIA ST

POLAND FIELDS

ESPLANADE

9 MUSES SQ

BYWATER POINT

SPANISH PLAZA

JACKSON SQ

NOCCA

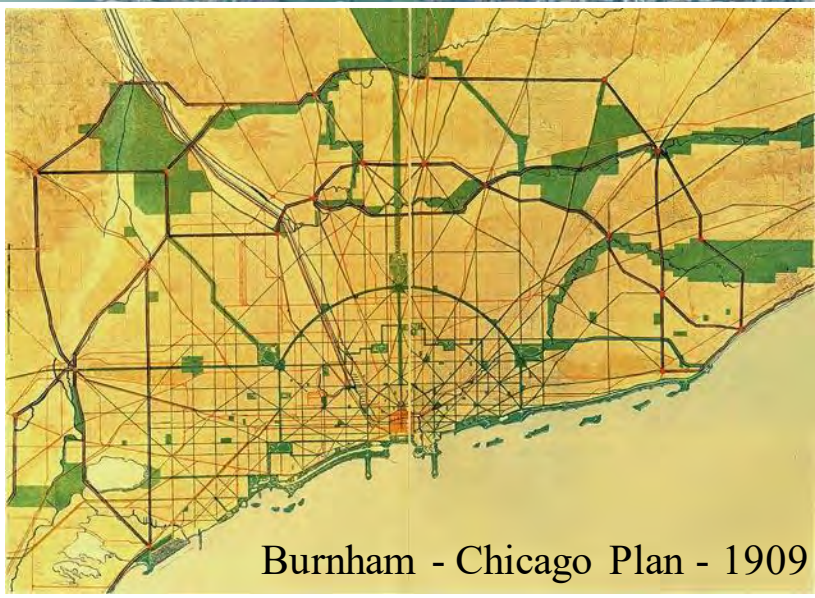
CELESTE ST PARK

PIETY

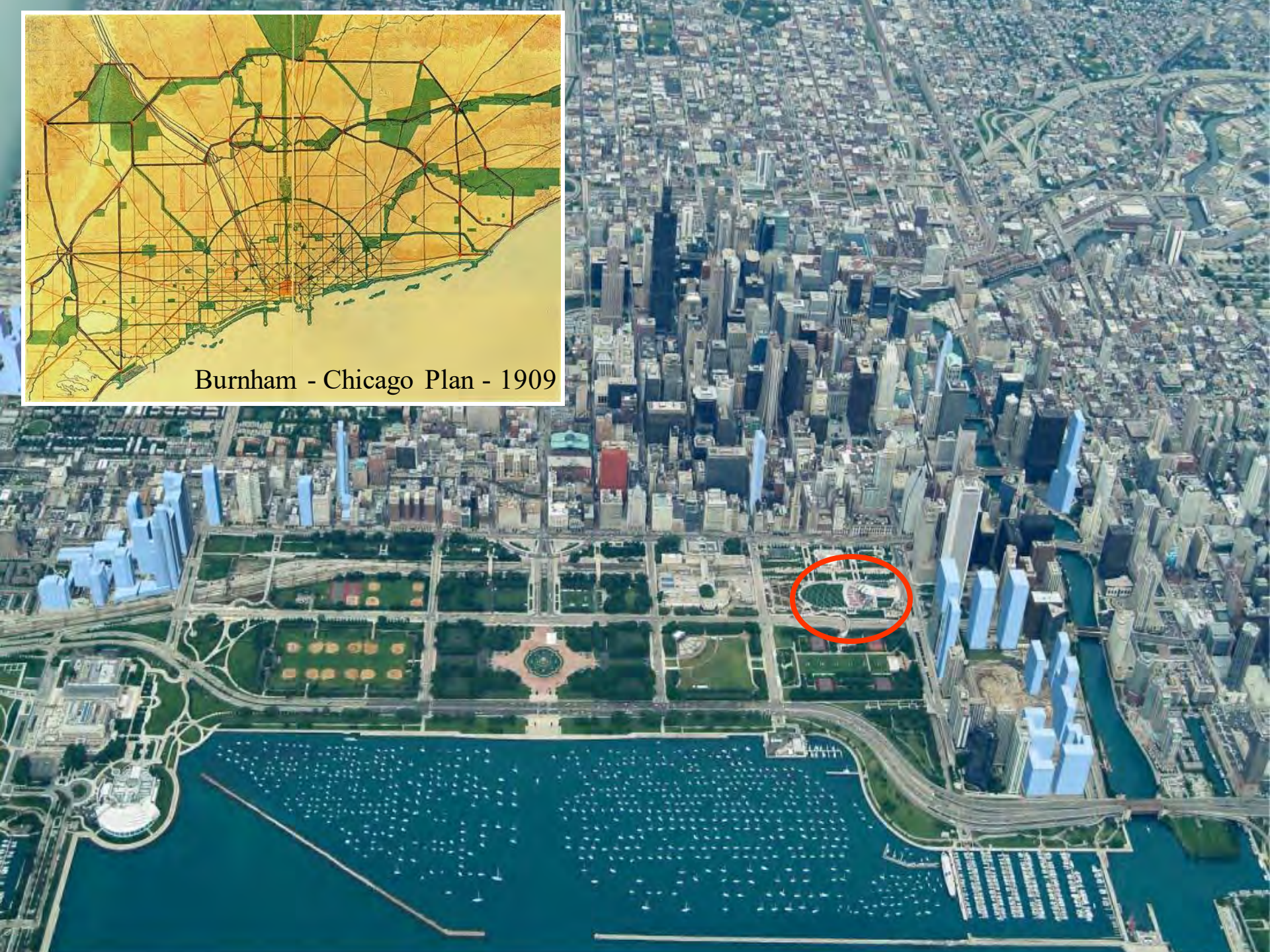
5. Waterfront redevelopments are long-term projects with long-term value to be gained. Endangering this for short-term riches rarely produce the most desirable results.



Chicago's Lakefront



Burnham - Chicago Plan - 1909





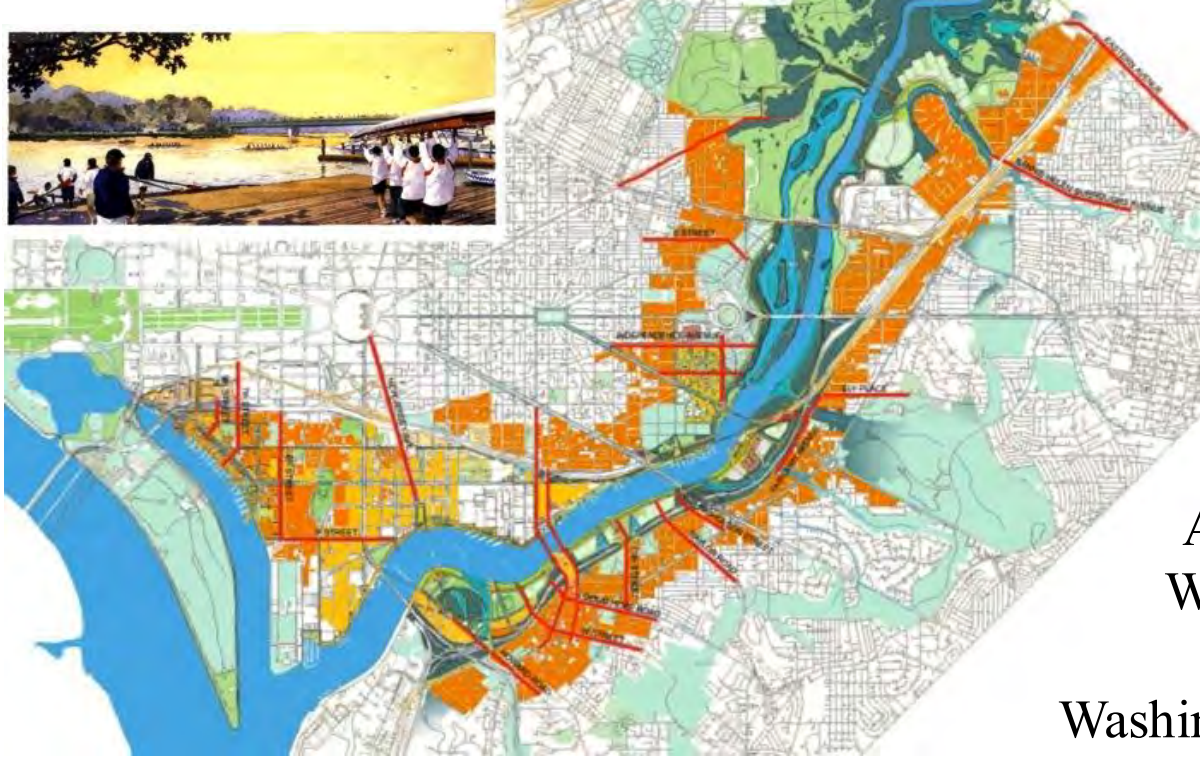
c.1920 Chicago c.2000





6. Wise waterfront planning seeks to unravel unnecessarily polarized visions, and proceeds at two scales: that of the corridor-wide watershed, and that of the strategic [catalytic] project.

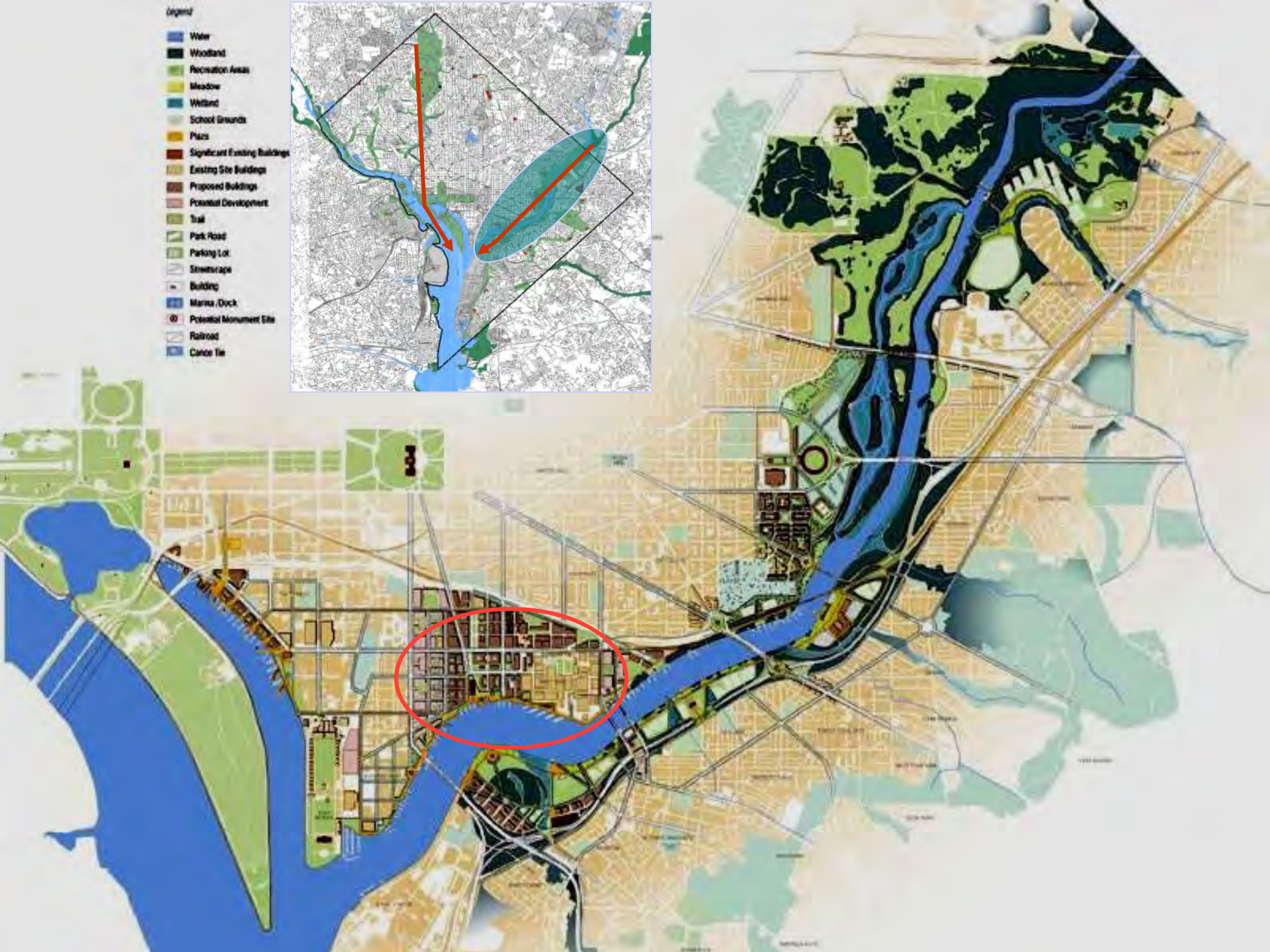
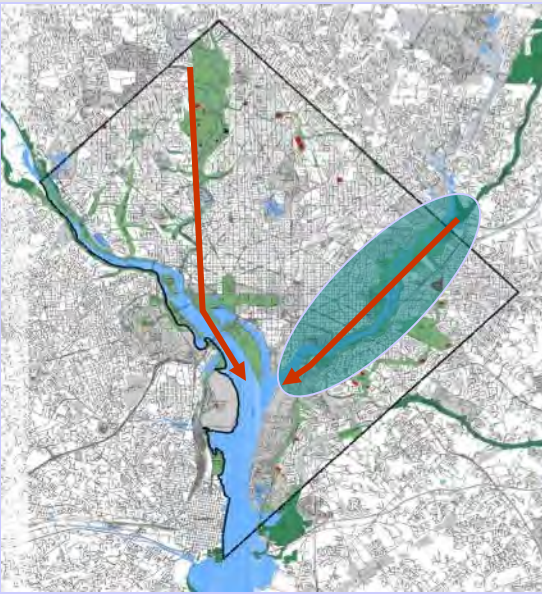
Washington DC



Anacostia
Waterfront
Initiative
Washington DC



- Legend**
- Water
 - Woodland
 - Recreation Areas
 - Meadow
 - Wetland
 - School Grounds
 - Plaza
 - Significant Existing Buildings
 - Existing Site Buildings
 - Proposed Buildings
 - Potential Development
 - Trail
 - Park Road
 - Parking Lot
 - Streetscape
 - Building
 - Marina / Dock
 - Potential Monument Site
 - Railroad
 - Canal Tie







South Capital Street Corridor Urban Design Plan

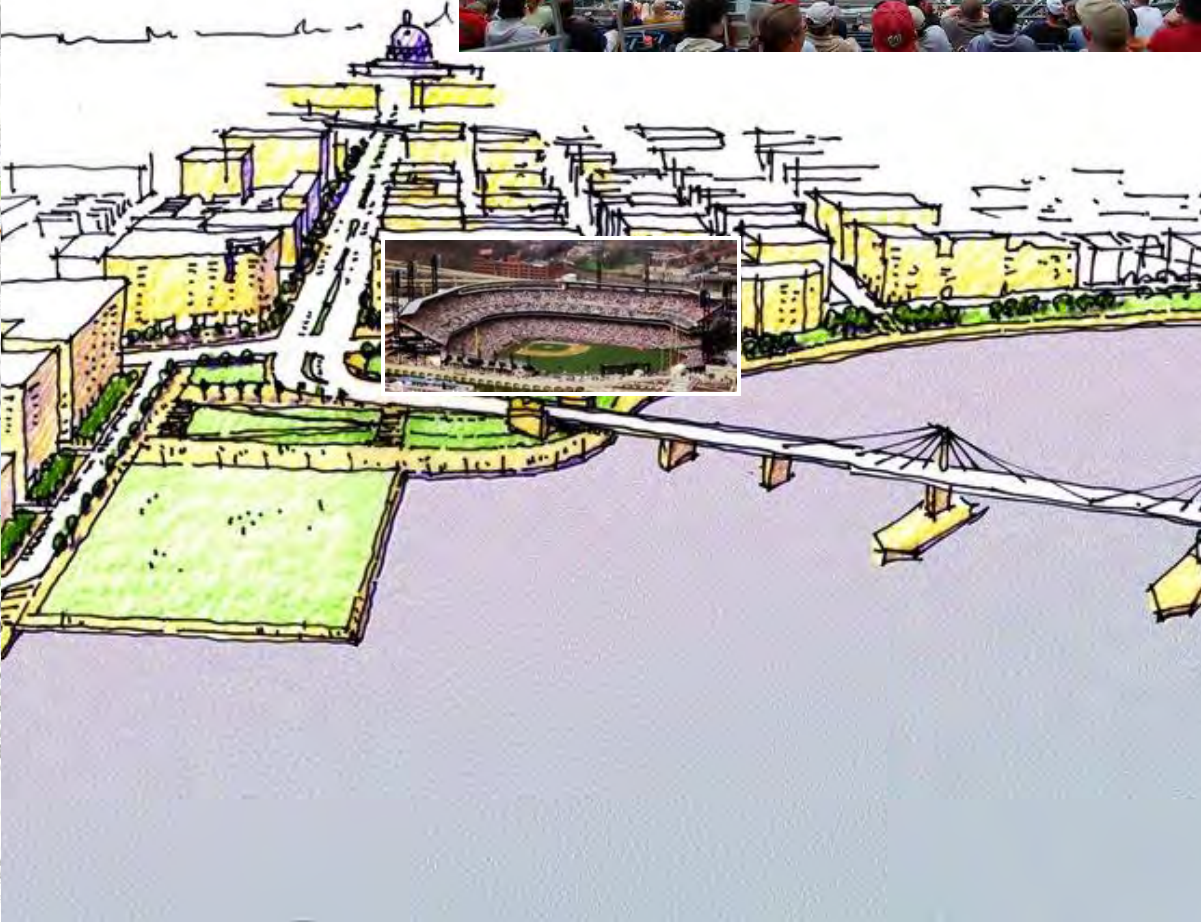
A green street.....

- tree canopy (double row)
- porous paving in parking lane
- porous paving continuous tree lane
- planting at center median
- private gardens in setback



H Street Foggy Bottom





South Capital Street Corridor Plan & Washington Nationals Ballpark



WASHINGTON NATIONALS

Miller Lite

PNC BANK

GEICO

now leasing
hellomst.com

CLARK

WASHINGTON HALL OF STARS

NATIONALS

RED LOFT

WTOP 103.5 FM

ExxonMobil

BRIGHT LIGHT

WELCOME HOME!

... the Themes of the Anacostia Waterfront Initiative

1

A Clean and Vibrant River



2

Breaking Down Barriers and Gaining Access



3

A Great Park System



4

Places of Distinct Character



5

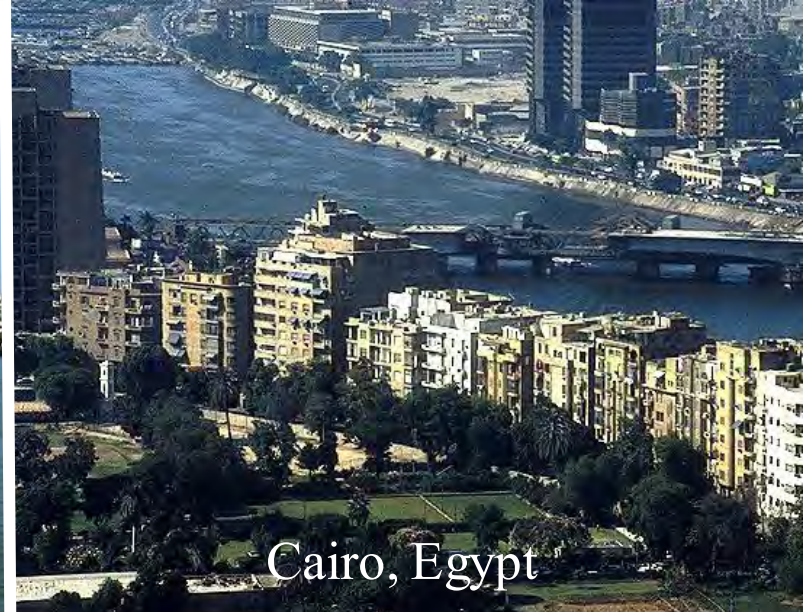
Building and Sustaining Strong Neighborhoods



7. To make waterfronts come alive they must become desirable places for dwelling not just to visit and recreate.

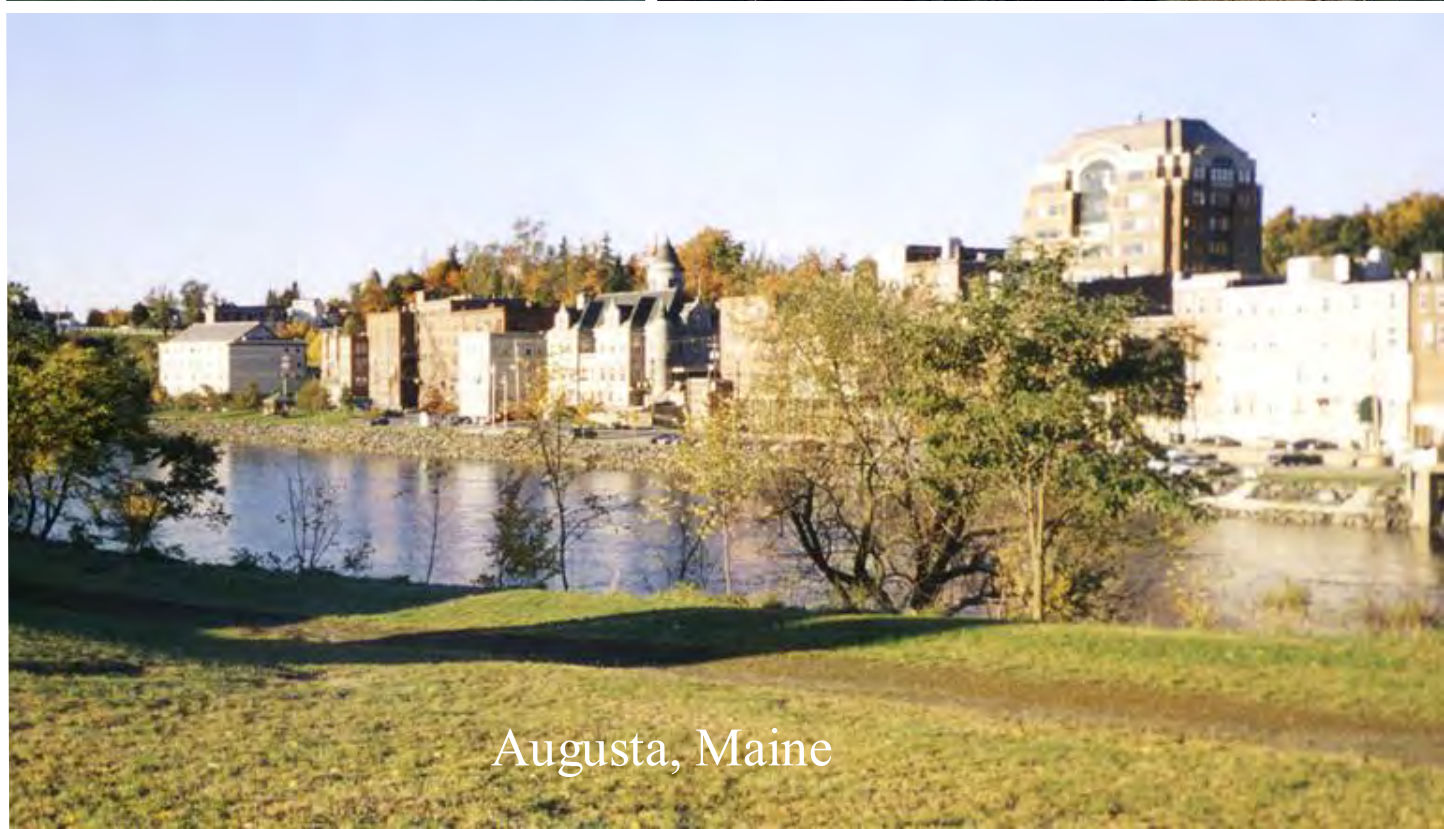


Vienna



Cairo, Egypt

Boston



Augusta, Maine



Boston's Rows Wharf







The Vancouver, Canada

Motto:

“LIVING FIRST”



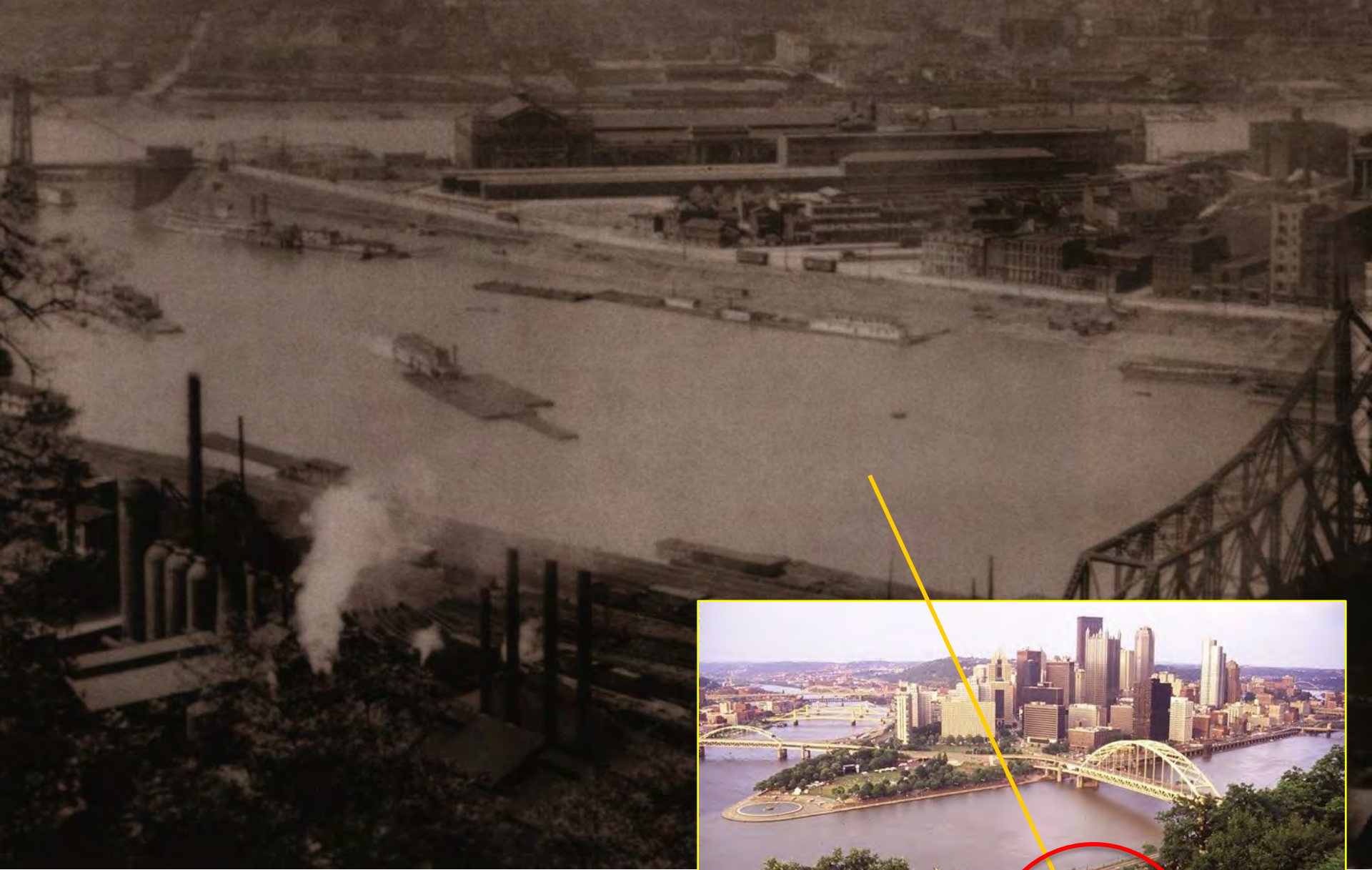
8. *The success and appeal of landside development is intrinsically tied to the success and appeal of adjacent water uses.*





Pittsburgh Riverlife: Three Rivers Master Plan









West End

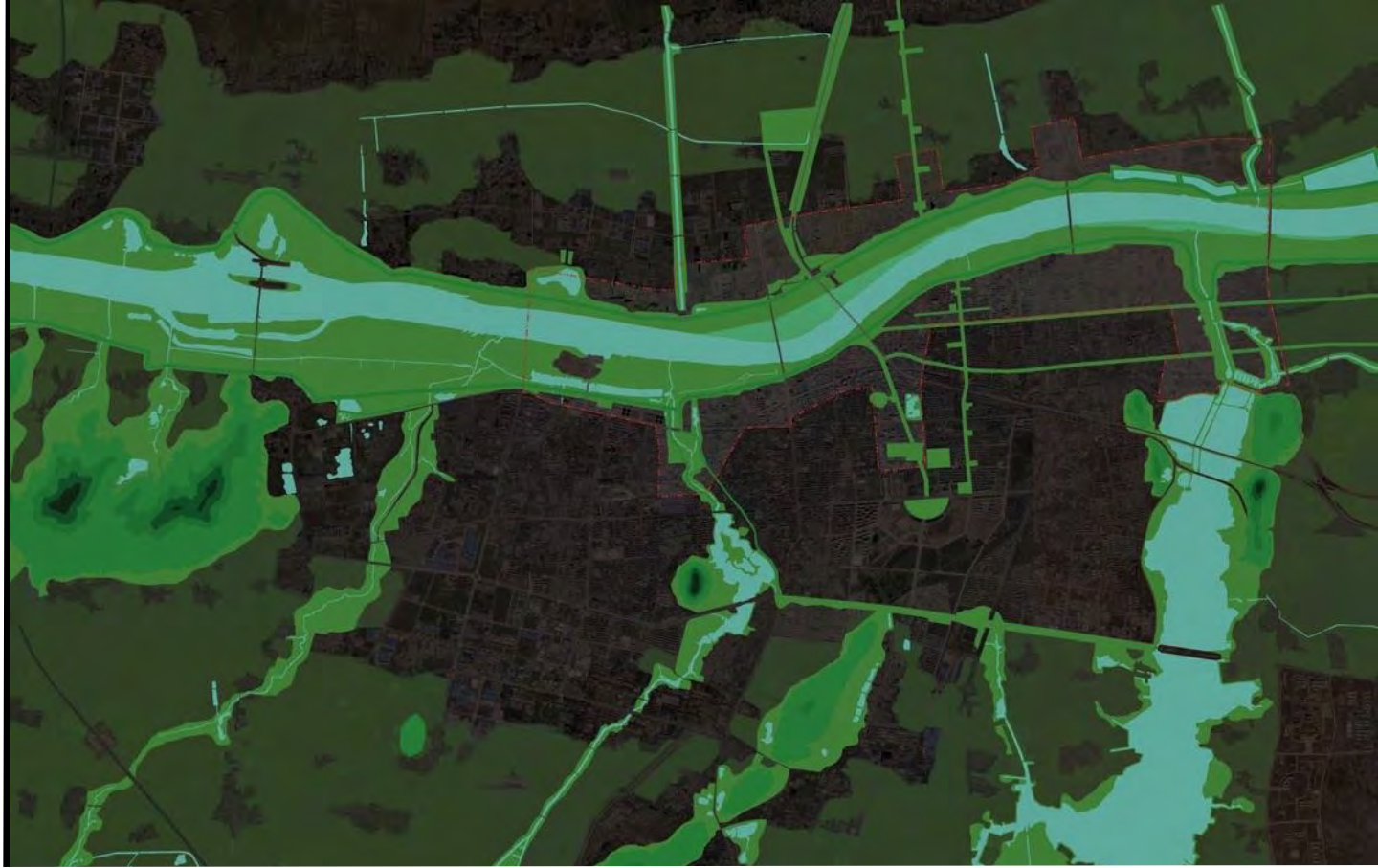
S. 10th St. Bridge
Chan Krieger & Associates



Tailgating in Pittsburgh



9. *A city's waterfront is its umbilical cord to nature, to the salutary affects of natural beauty, and thus demands intelligent environmental stewardship.*

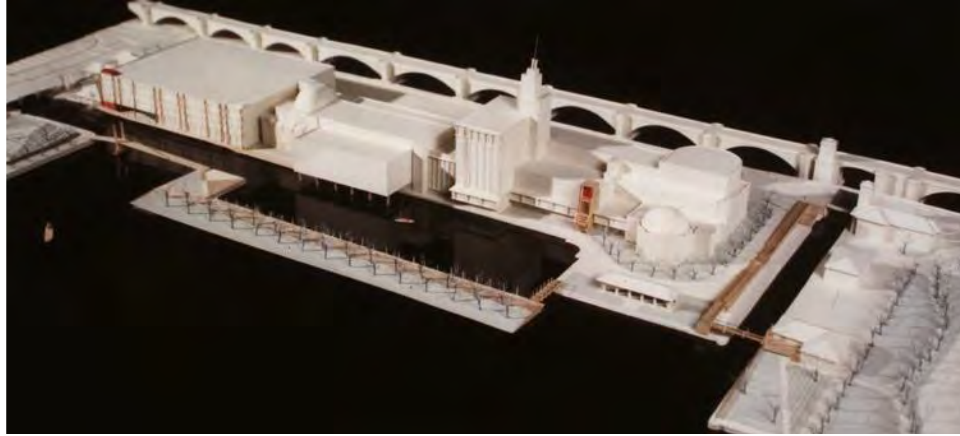




The Charles River Esplanade,
Boston & Cambridge, MA

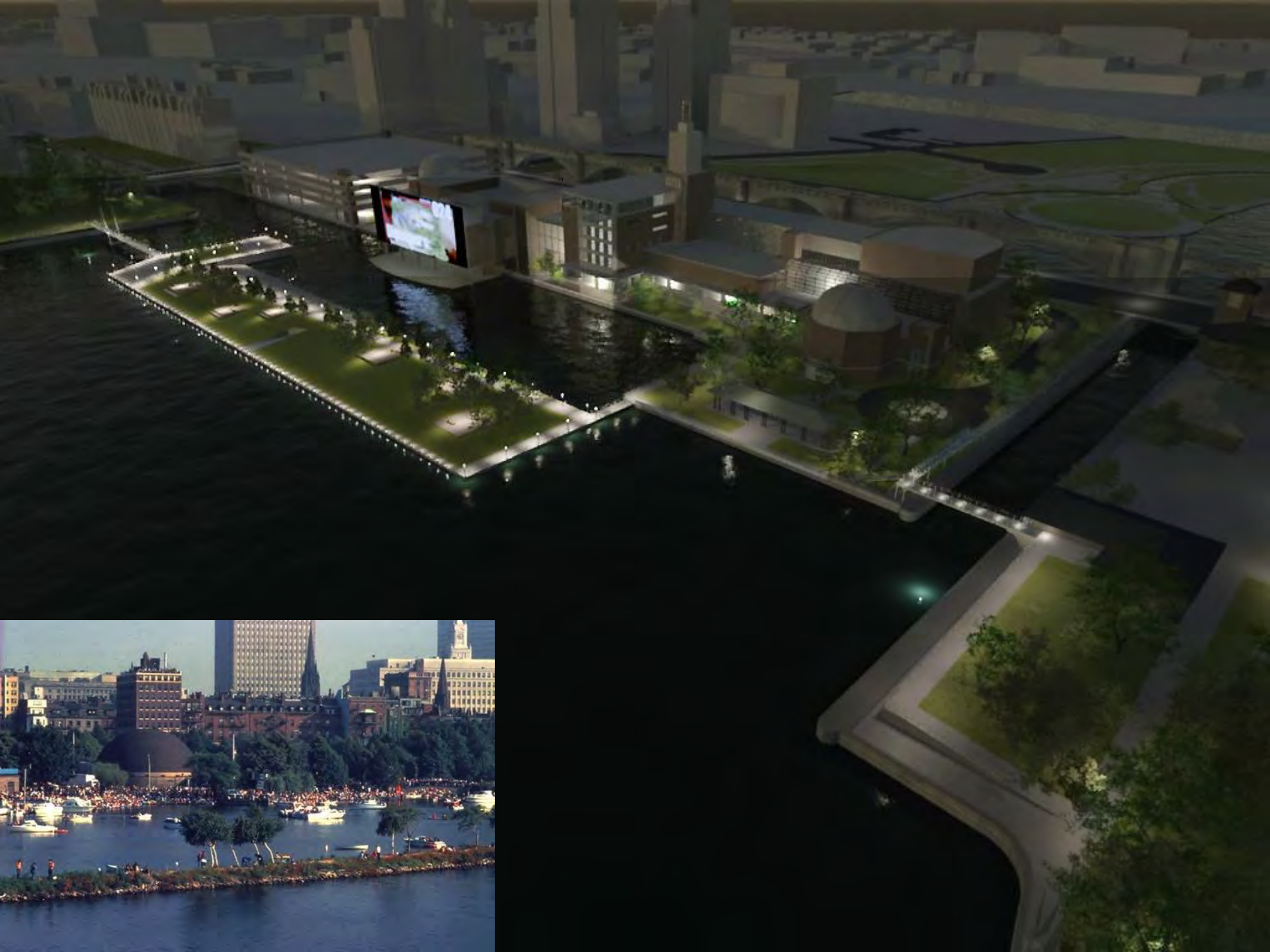










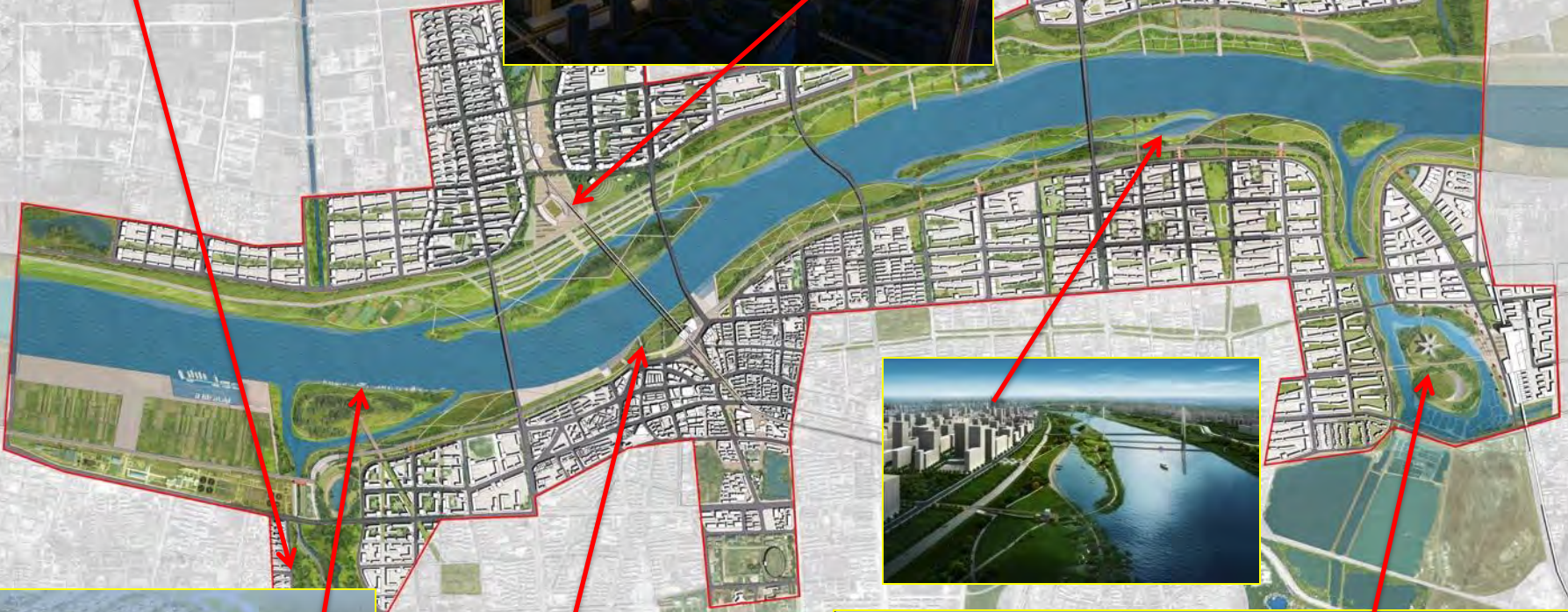


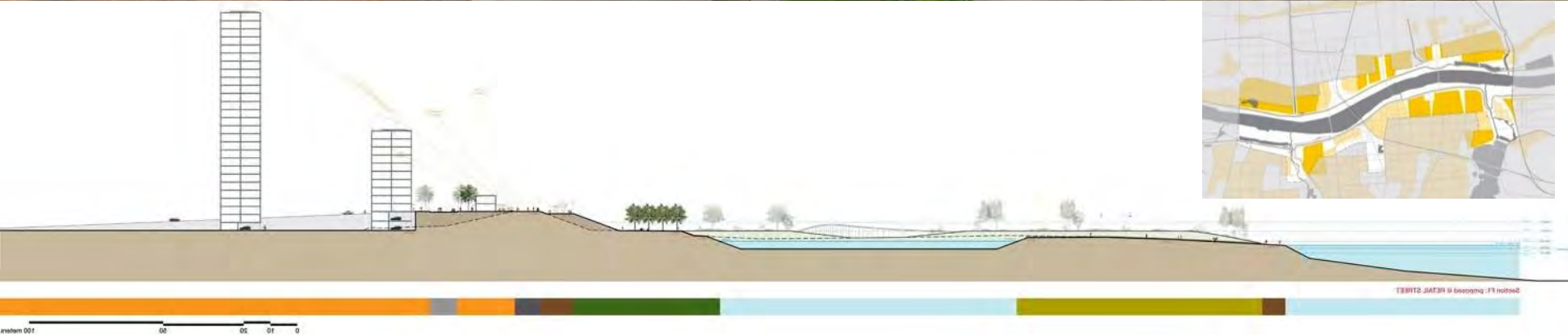
A Pearl Necklace for Bengbu, China



Zhang Gong
Mtn. Park

Dragon Lake
Waterfront Park





ТЭБИТӨ ДАТЭН И БЕЗОПАСНОСТЬ ИЛИ НЕКОТОРЫЕ

0 05 01 0









10. A city's waterfront is the setting that provides the best antidote to homogenization or generic urban development



Reconstruction of the Bund, Shanghai, China
2007-2010

上海市外滩滨水区城市设计



(海上) 上海の豫園から見た外灘の景色
View of bund seen from war memorial (Shanghai)



2



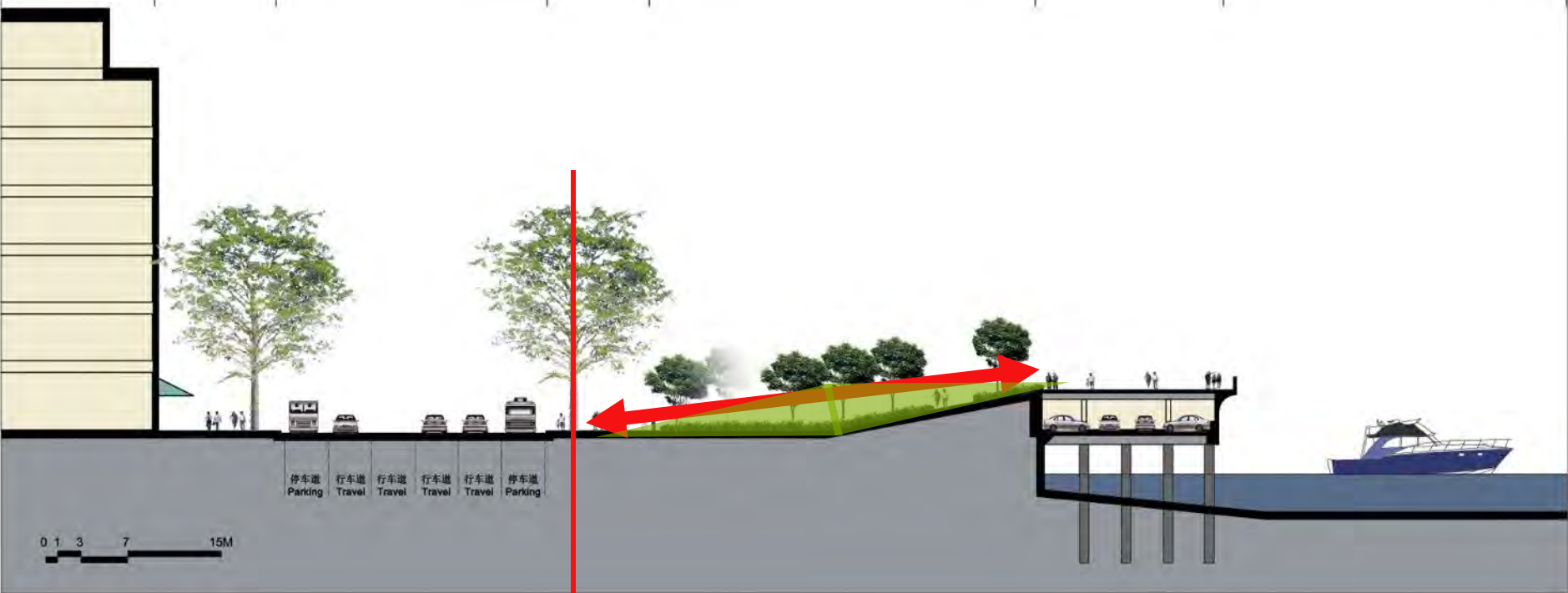


CASE STUDY: Shanghai Bund Streetscape

案例研究：上海外滩街景



外滩老建筑 Old Building 人行道 Side Walk 街道 Street 人行道 Side Walk 三维绿化景观 3-D Green Landscape 空箱作为公共停车场 Box as Public Garage 黄浦江 Huangpu River





3. The Boulevard Promenade

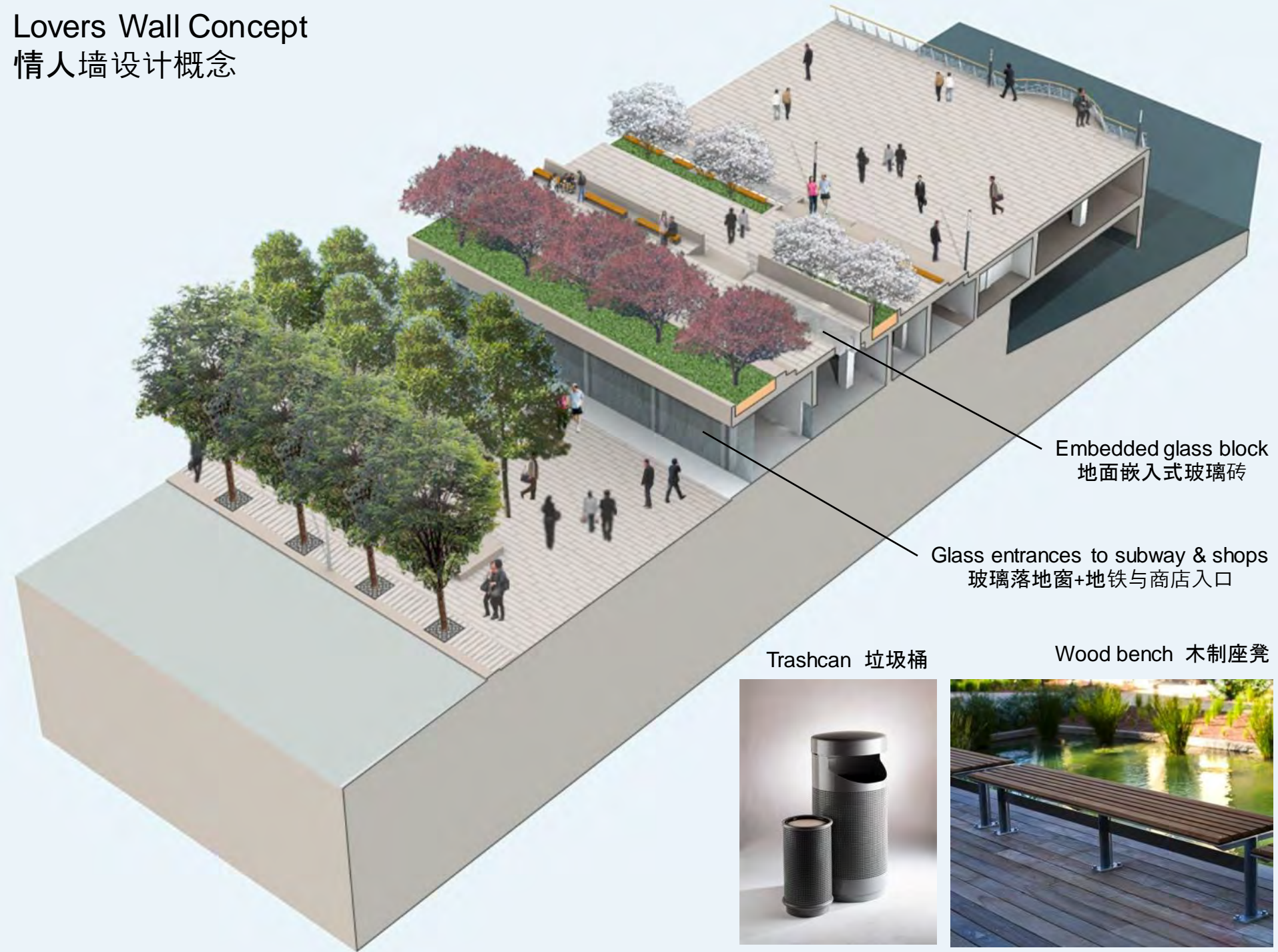




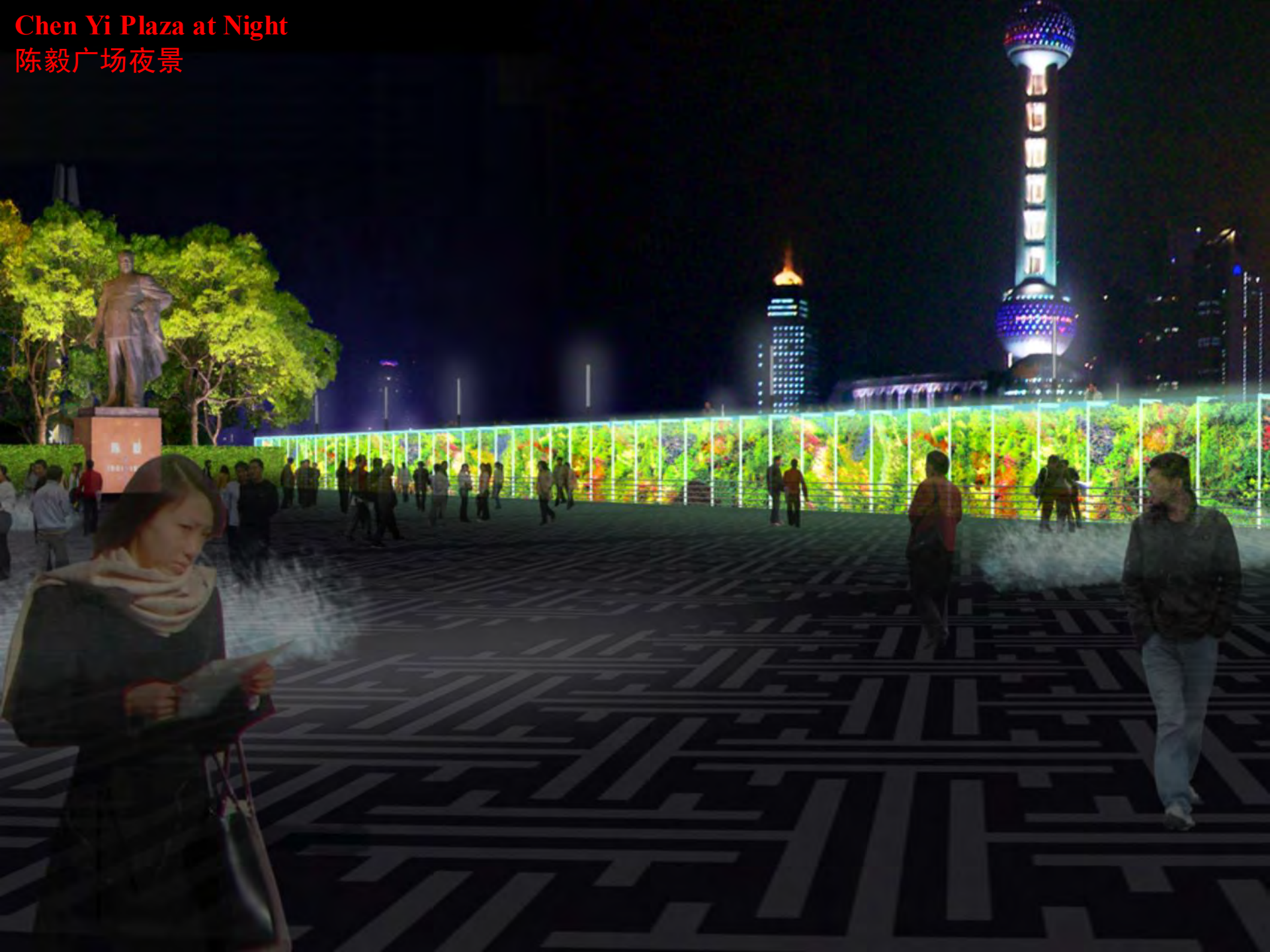


Photo © Tim Griffith

Lovers Wall Concept 情人墙设计概念




Chen Yi Plaza at Night
陈毅广场夜景







 **城市,让生活更美好**
Better City, Better Life



A CASE STUDY

Final



Client Name
Massachusetts Port
Authority

Contact Person
James Doolin, AICP
Deputy Director Planning
& UD
One Harborside Drive
Suite 200S
East Boston, MA 02128
Tel: (617) 946-4490
Email: jdoolin@
massport.com

Project Team
Alex Krieger, FAIA
Alan Mountjoy, AIA
Patrick Tedesco, AIA,
LEED

Completion Date
1998 - 2003

Size
300 acres

Construction Cost
\$500 Million Estimated

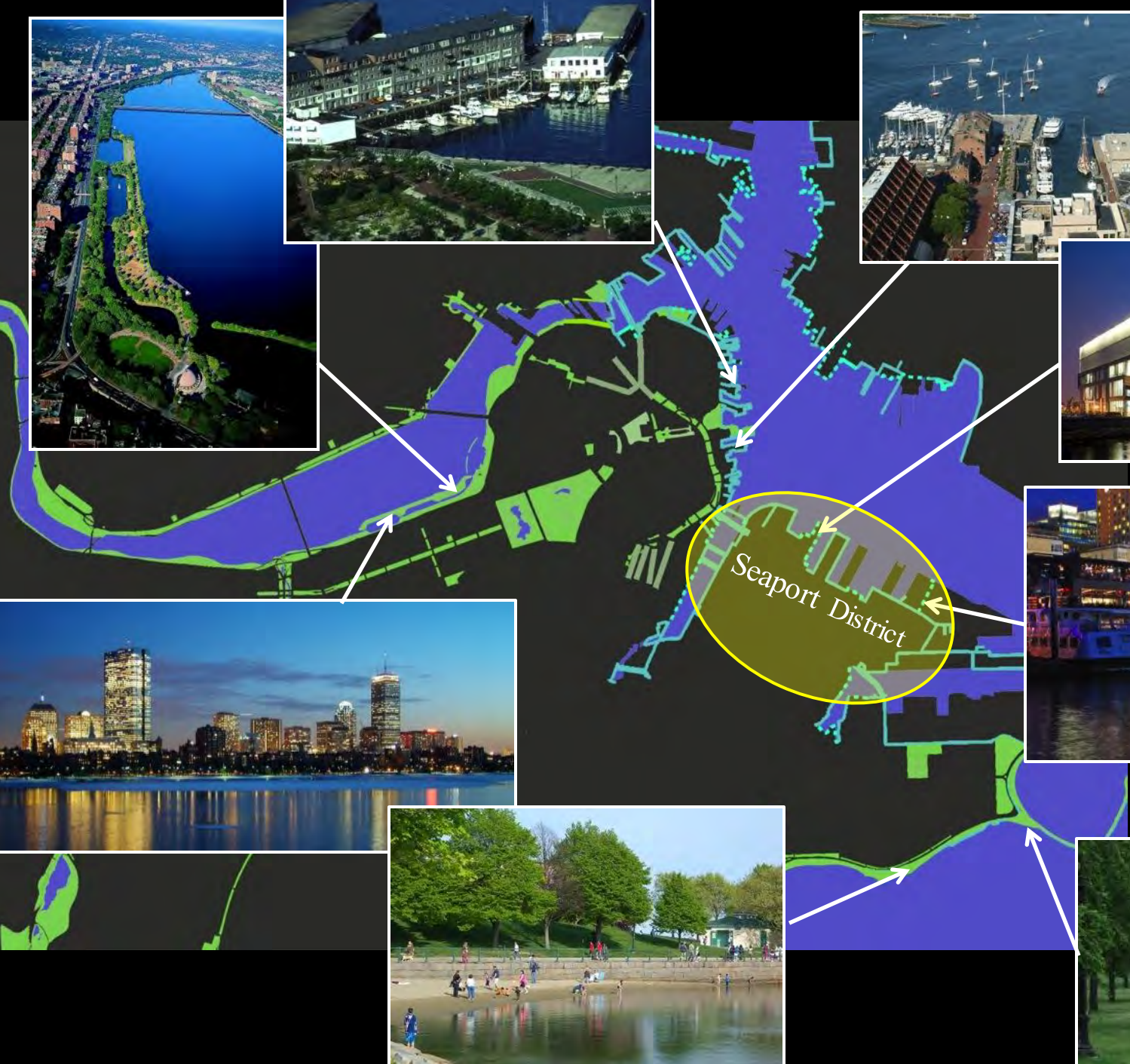
Seaport District Master Plan

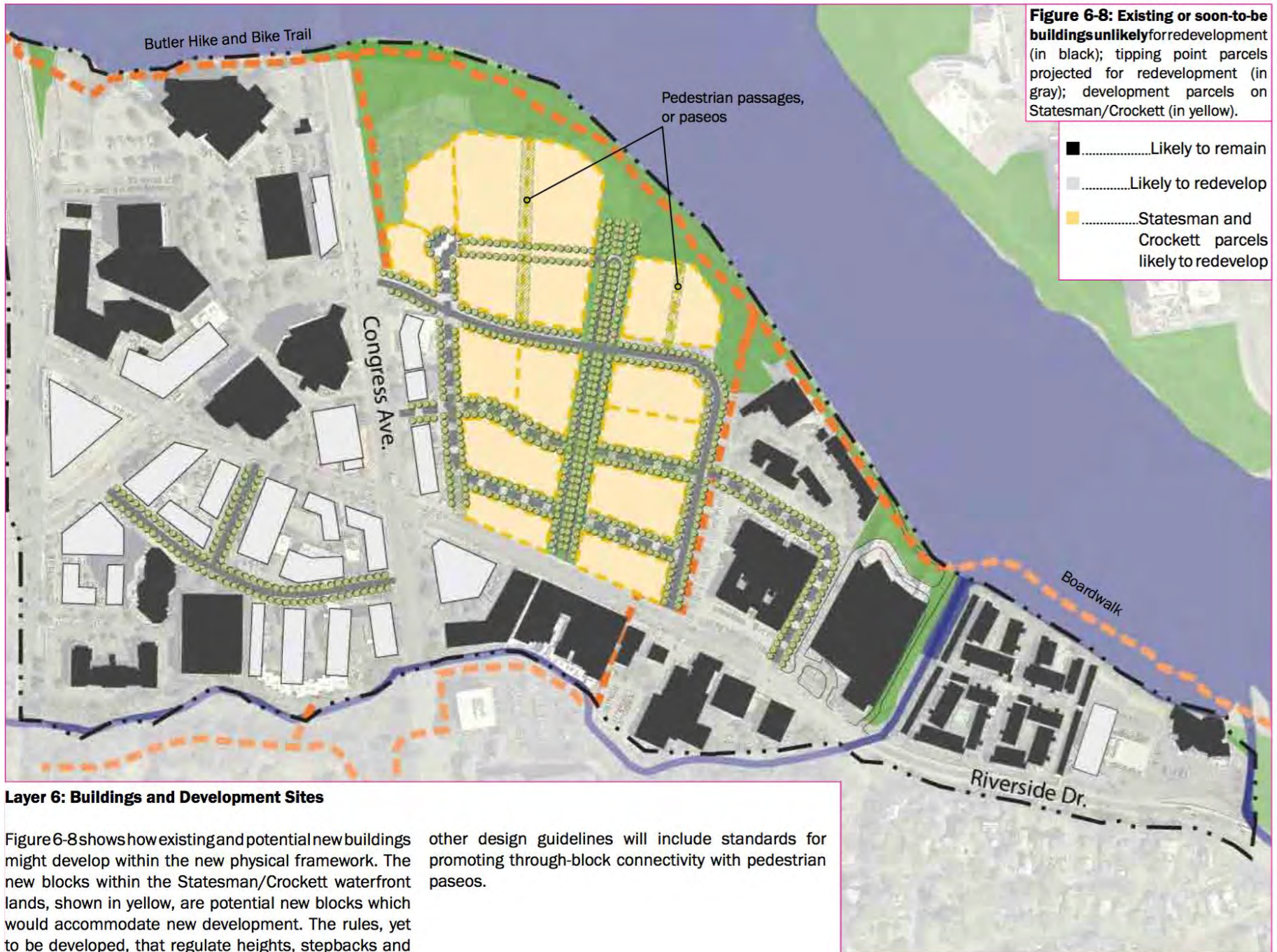
BOSTON, MASSACHUSETTS

Strategic plan and urban design for Massport's landholdings comprised of 300 acres in South Boston's Commonwealth Flats. The study investigated real estate development options for maritime, industrial, and mixed-use potential over the next 20 years.

Design concepts included conceptual parcel design and feasibility analysis; architectural guidelines for development parcels; streetscape design; and open space planning. Detailed investigation included: schematic design for a 2.5 acre park; design of new light fixtures and signage standards; and enhancements to federally-funded highway bridges and streets.

From 1998 to 2003, Chan Krieger NBBJ was the primary review consultant for ongoing development proposals and Massport-sponsored capital improvements in the district. While maintaining 65% of its land holdings for maritime and industrial uses, Massport has succeeded in attracting more than two million square feet of office, housing and hotel development, and proceeded with the design of a 2.5 acre district park, and a promenade connecting the Boston Exhibition and Convention Center to the World Trade Center and new waterfront development.





Layer 6: Buildings and Development Sites

Figure 6-8 shows how existing and potential new buildings might develop within the new physical framework. The new blocks within the Statesman/Crockett waterfront lands, shown in yellow, are potential new blocks which would accommodate new development. The rules, yet to be developed, that regulate heights, stepbacks and

other design guidelines will include standards for promoting through-block connectivity with pedestrian paseos.



**Creating Boston's Seaport District
-- Today's "Innovation District"**



A Growing Mix of Innovation Businesses

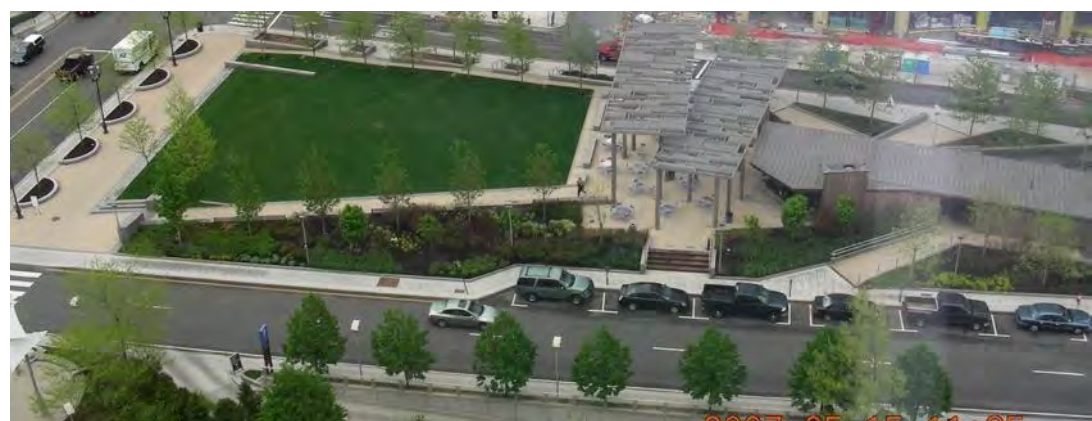
1 wiggio	5 simpletuition	7 dentovations	10 DataXu	13 nyx	15 OSCOMP	15	18 mendix	24 Fidelity	3 ML	mosaic loft	2 THOMSON REUTERS	42 omgeo
1 mc mass CHALLENGE	5 CLOVR	7 Satcon	10 FUTURES WITHOUT VIOLENCE	13 agilecommerce	15 ALTAEROS	16 Buzzient.	18 ALDEBARAN	25 turningArt	28 next step living	16 BULLHORN	43 WORLD EDUCATION	45
1 FISH & RICHARDSON	6 BABSON	8 TritonDigital	10 FIALKOFF	13 fundraise.com	15 prometheus	16 ifactory	19 HEARTLAND ROBOTICS	28 WORK BAR	29 BioDefense	16 SKYHOOK	44 TRO JB	44
2 gazelle	7 Novophage	9 BOSTON TECHNOLOGIES	10 mm	14 AisleBuyer	15 SolSolutions	16 FirstGiving	20 monster	7 DANA-FARBER	30 HARPOON	33 verndale	33 OwnerIQ	33
2 npr digital services	7	9 blue state digital	10 Seeding Labs	14 apperian	15 DYNAMO	17 BOOSTA	1 BostInnovation	7 IMMUNETICS	20 Acetylon	34	45 goby	45
3 FASTCAP SYSTEMS	7 AMBRIAN	9 Tributes	11 getfused	14 zmaas	15 arista	17 bocoup	22 session (M)	7 CYTOMEGEST	31 Fraunhofer	35 NEOSCAPE	46 openview	46
27 OASYS	7 OnChipPower	9 ARGUS	12 pubget	15 Greentown Labs	15 FUSION	17 Height Hands	22 ADD Inc	7 ginkgobioworks	32 CENGAGE Learning	36 Nutter	47 intronis	47
4 fama PR	7 AD Biotech SOLUTIONS	10 SPACE WITH A SCALE	13 mad-pow.	15 coincident	15 Green Track Associaor	17 MODKIT	23 gemyvara	3 g8	32 Ruellele	37 John Hancock	20 Verizon	20
						16 PGR MEDIA	48 ConvergeX Group	33 KERNEL	18 kyruus	33 metro	20 JPMorganChase	20
							10 connectedbits	10 iJukebox	36 crimson hexagon	2 G2	36 FOLEY HOAG	38 communispace
											10 Catchafire	10



Coming soon

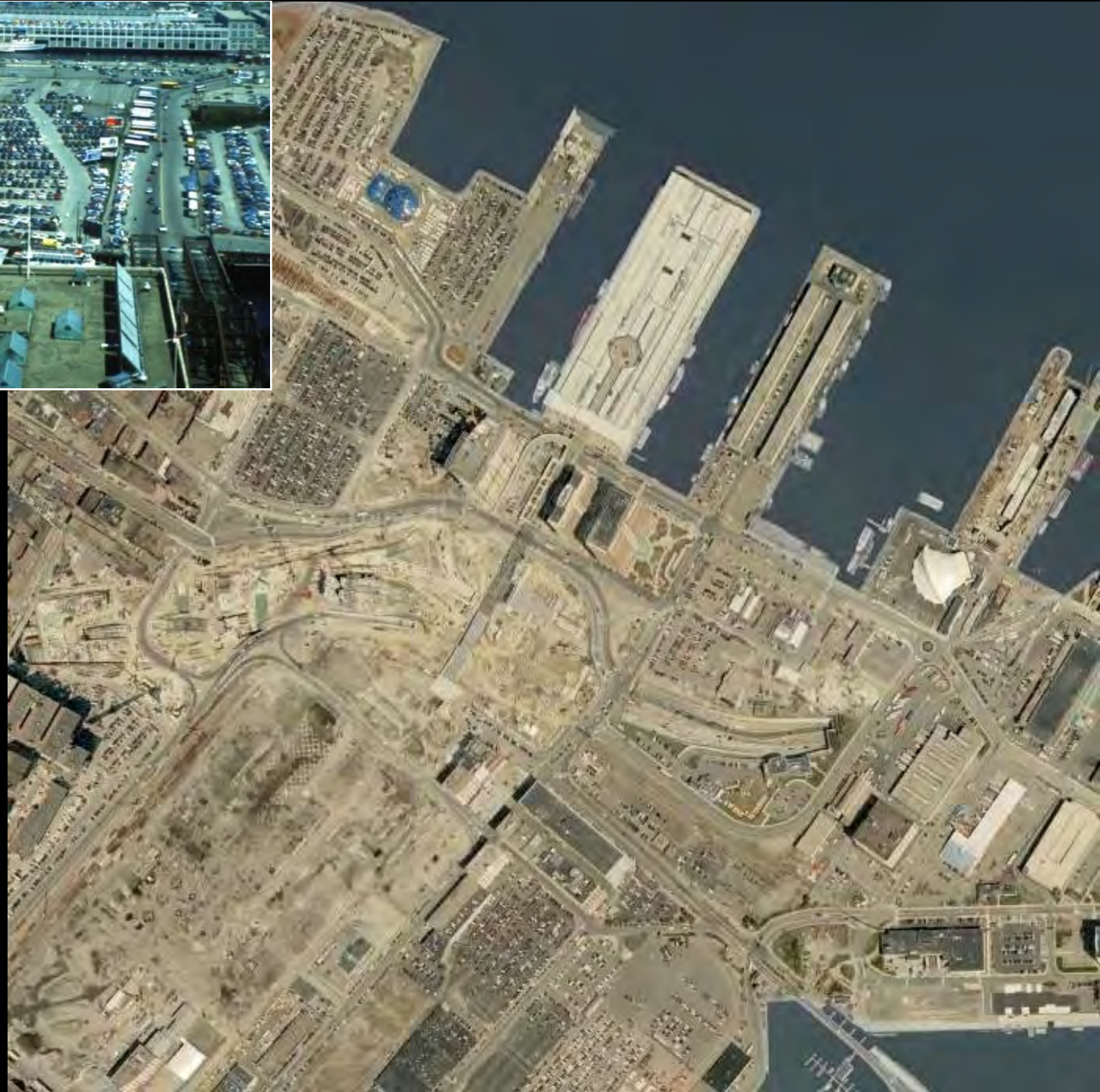
38 brightcove	40 VERTEX
39 a6g	41 trillium
36 khj	20 BOSTON Herald
	9 bamboom

- Greentech
- Social Media/Communications/Publishing
- IT/Software Development
- E-Commerce
- Incubator/Accelerator
- Non-Profit/Social Entrepreneurship
- Life Sciences/Biotech
- Architecture/Design
- Education/Academia
- Manufacturing/Engineering
- Finance/Professional Services





2001

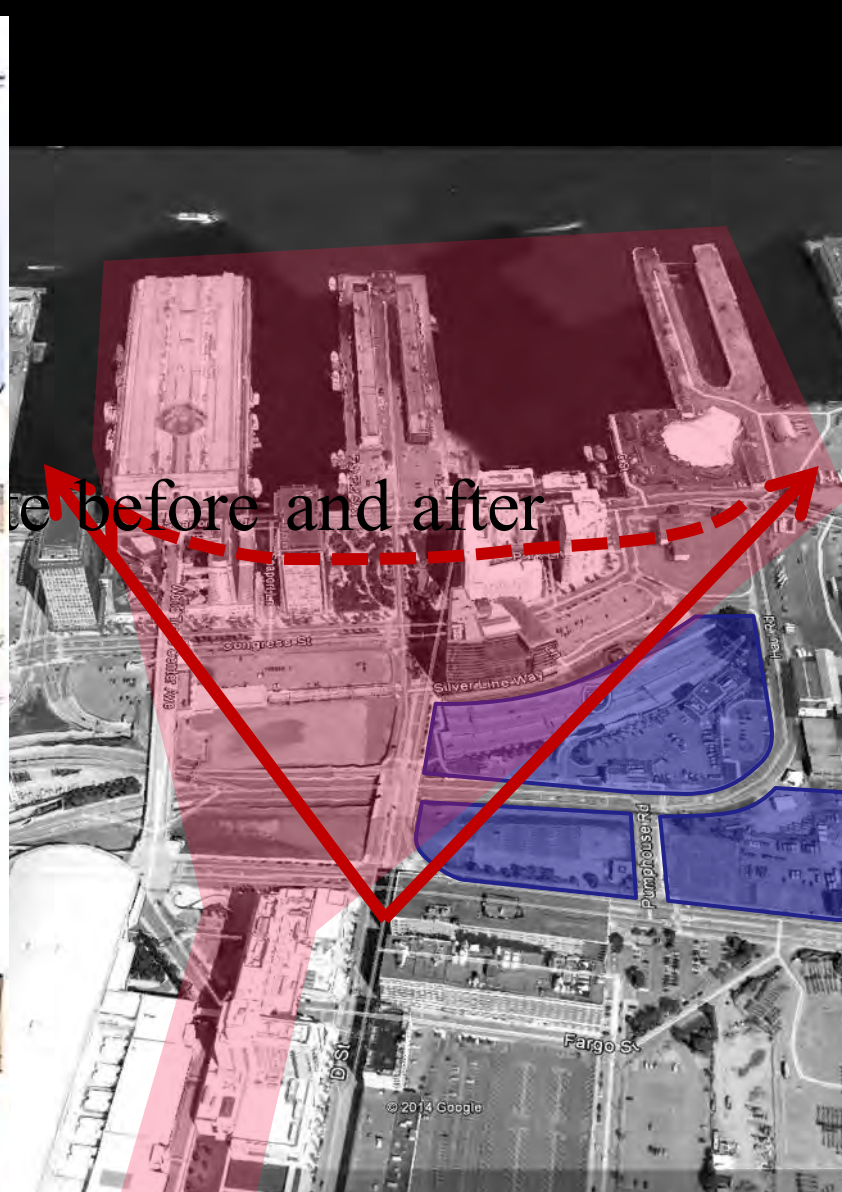


BOSTON'S "BIG DIG"



BEFORE

AFTER



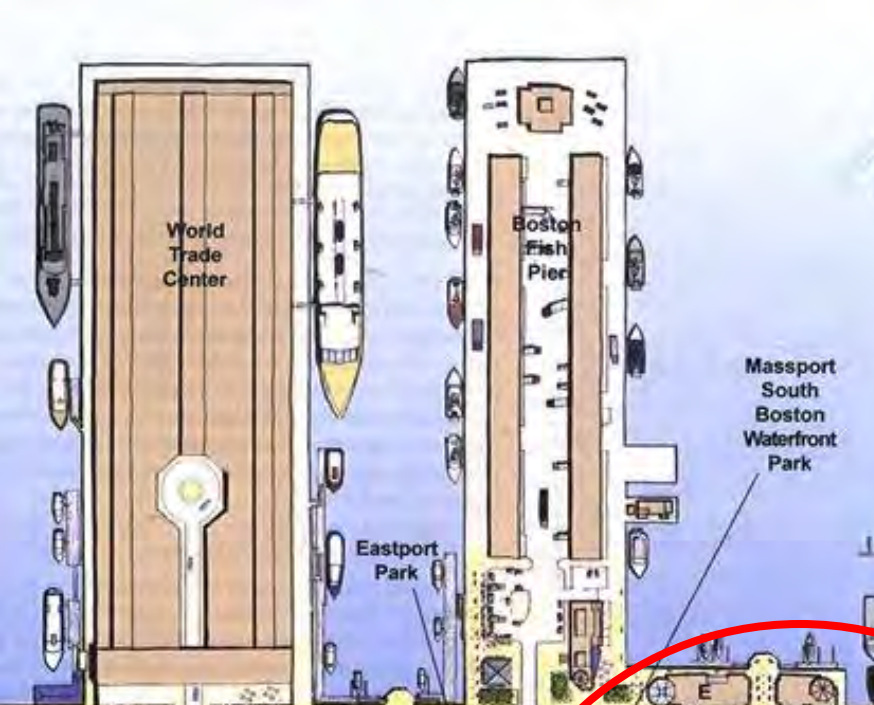






Boston's New Convention Center 2000-2004

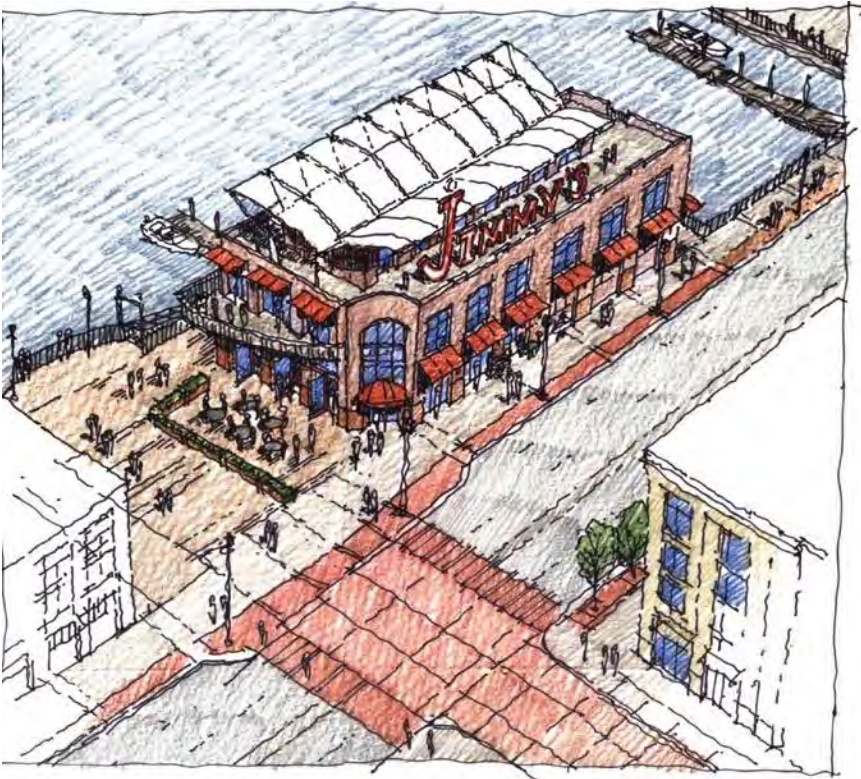


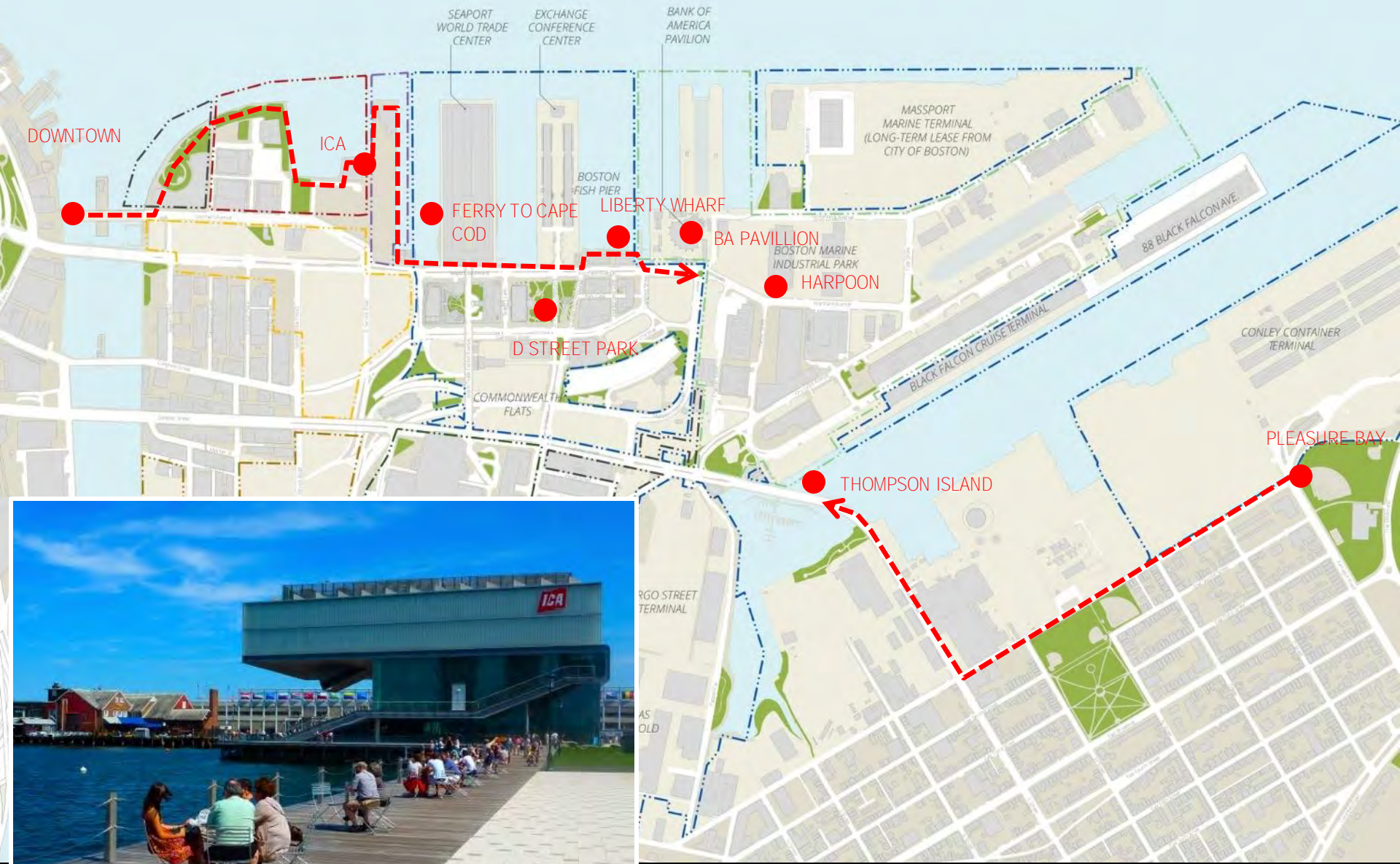




Bank of America Concert Pavilion







2050 Resilience Challenge

Anticipated flooding at high tide with a storm surge comparable to Hurricane Sandy in addition to estimated sea level rise in the year 2050:

+7.5' from current mean water level



IMPORTANT NOTE: THIS MAP IS FOR DISCUSSION AND RESEARCH PURPOSES ONLY. IT IS NOT APPROPRIATE TO USE THIS MAP FOR DETAILED ANALYSIS (I.E. AT THE COMMUNITY OR PARCEL LEVEL). PLEASE CONTACT TBHA FOR ADDITIONAL INFORMATION ON METHODOLOGY AND LIMITATIONS.

RESILIENT LINKAGES

3P DEVELOPMENT FOR AN ADAPTIVE WATERFRONT DISTRICT

How do you balance immediate pressure for development with the understanding that in the long-term, a site will be subject to regular flooding? The key lies in linking a vision for the built-out 100 Acre District with the ability to build in the District today.

CONTRAST TO THE DISTRICT'S EXISTING INFRASTRUCTURE: The existing district of the waterfront is a patchwork of small, disconnected parcels. The district's infrastructure is fragmented, with no clear path for transit, utilities, or public space. The district's development is piecemeal, with no clear vision for the future.

THE OLD DISTRICT (2015): A fragmented, disconnected district with no clear vision for the future.

LINKAGE DEVELOPMENT: A network of linkages connecting the district to the city and the waterfront.

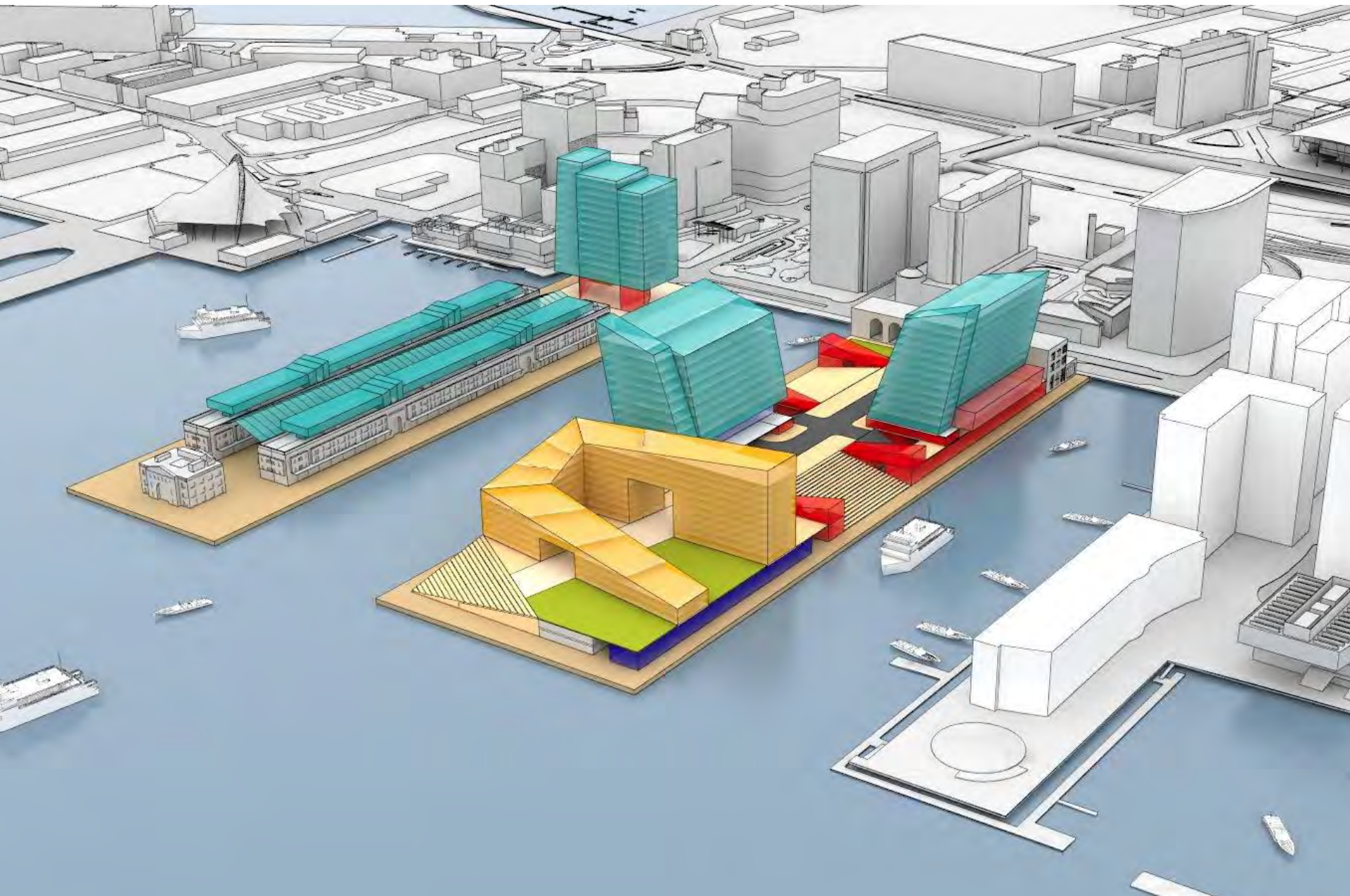
THE NEW GRID: A new grid of streets and transit lines connecting the district to the city and the waterfront.

NET AND OPEN SPACE: A network of green spaces and open areas connecting the district to the city and the waterfront.

PHASE TRANSITION: A transition from a fragmented district to a connected, resilient district.

2015 building from the ground up **2050 begin to elevate uses** **2100 yielding the ground plane to water**

02 – FOUR COURTS – Northern Aerial



The Plan

WHITES LIVE IN CITIES.

THE CROWNING GLORY
OF CIVILIZATION.



MINORITIES MOVE
INTO CITIES.

HELLO

GOODBYE



WHITES FLEE CITIES
TO SUBURBS.

AH, THIS
IS BETTER.



WHITES MOVE INTO
SECOND-RING SUBURBS.

CITIES ARE
DEAD. THIS
IS BETTER
STILL.



MINORITIES MOVE INTO
FIRST-RING SUBURBS.

THIS IS
BETTER.
I GUESS.



WHITES MOVE BACK
INTO CITIES.

IT
WORKED.



THE VAST
WHITE RING
CONSPIRACY



SEAPORT

THE NEIGHBORHOOD





*Distinctive
Settings at
Water's Edge
Provide
Significant
Advantages for a
City's
Competitiveness
in the Global
Economy*

Best of Luck With the South Central Waterfront Initiative



End