

crane cove park schematic design

DRB + WDAC presentation

may 05, 2014

crane cove park

schematic design



agenda

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Introduction | [D. Beaupre, Port of SF](#)

Coastal Analysis | [S. Fenical, CHE](#)

Schematic Design presentation | [P. Fonseca, AECOM](#)

Comments | [BCDC DRB, WDAC](#)

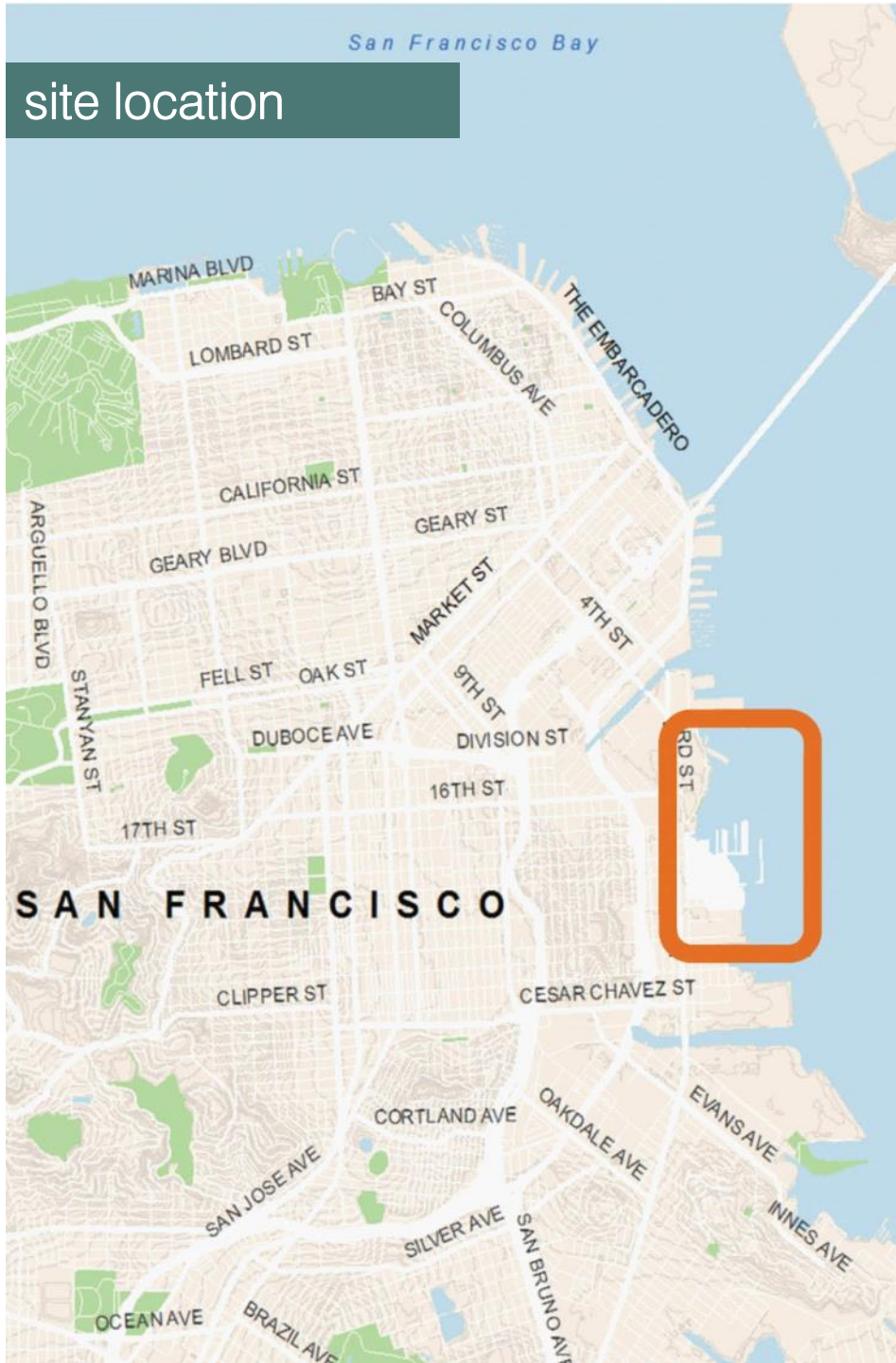
Public Comments (2 min / person) | [Public](#)

Discussion | [DRB, WDAC](#)

Next Steps | [D. Beaupre, Port of SF](#)

San Francisco Bay

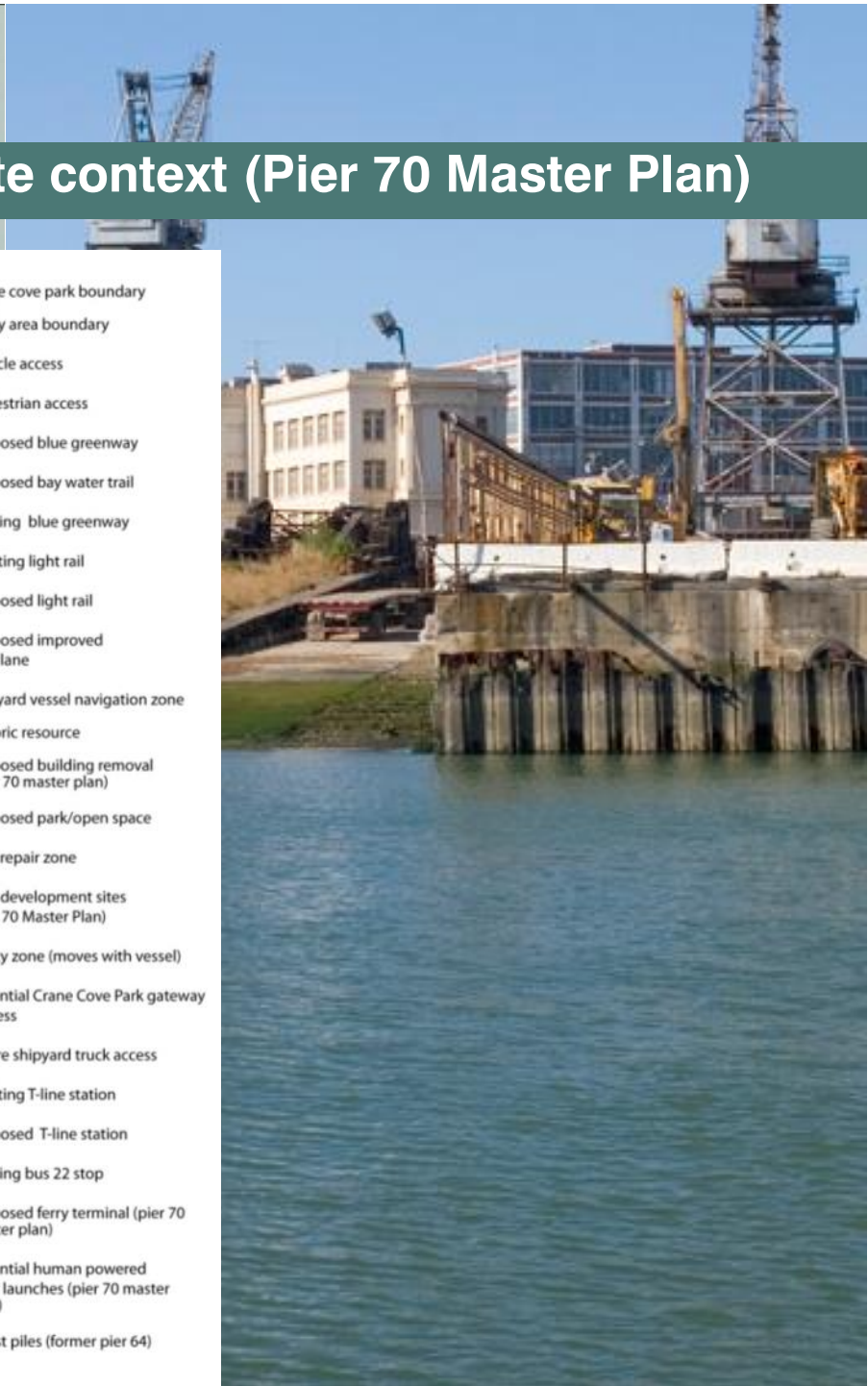
site location



site context (Pier 70 Master Plan)



- crane cove park boundary
- study area boundary
- | vehicle access
- - - pedestrian access
- | proposed blue greenway
- | proposed bay water trail
- | existing blue greenway
- | existing light rail
- | proposed light rail
- - - proposed improved bike lane
- - - shipyard vessel navigation zone
- historic resource
- proposed building removal (pier 70 master plan)
- proposed park/open space
- ship repair zone
- infill development sites (Pier 70 Master Plan)
- safety zone (moves with vessel)
- potential Crane Cove Park gateway /access
- future shipyard truck access
- existing T-line station
- proposed T-line station
- existing bus 22 stop
- proposed ferry terminal (pier 70 master plan)
- potential human powered boat launches (pier 70 master plan)
- ghost piles (former pier 64)



VIEW
mariposa street



the ramp restaurant



ILLINOIS ST

VIEW

south of the ramp restaurant



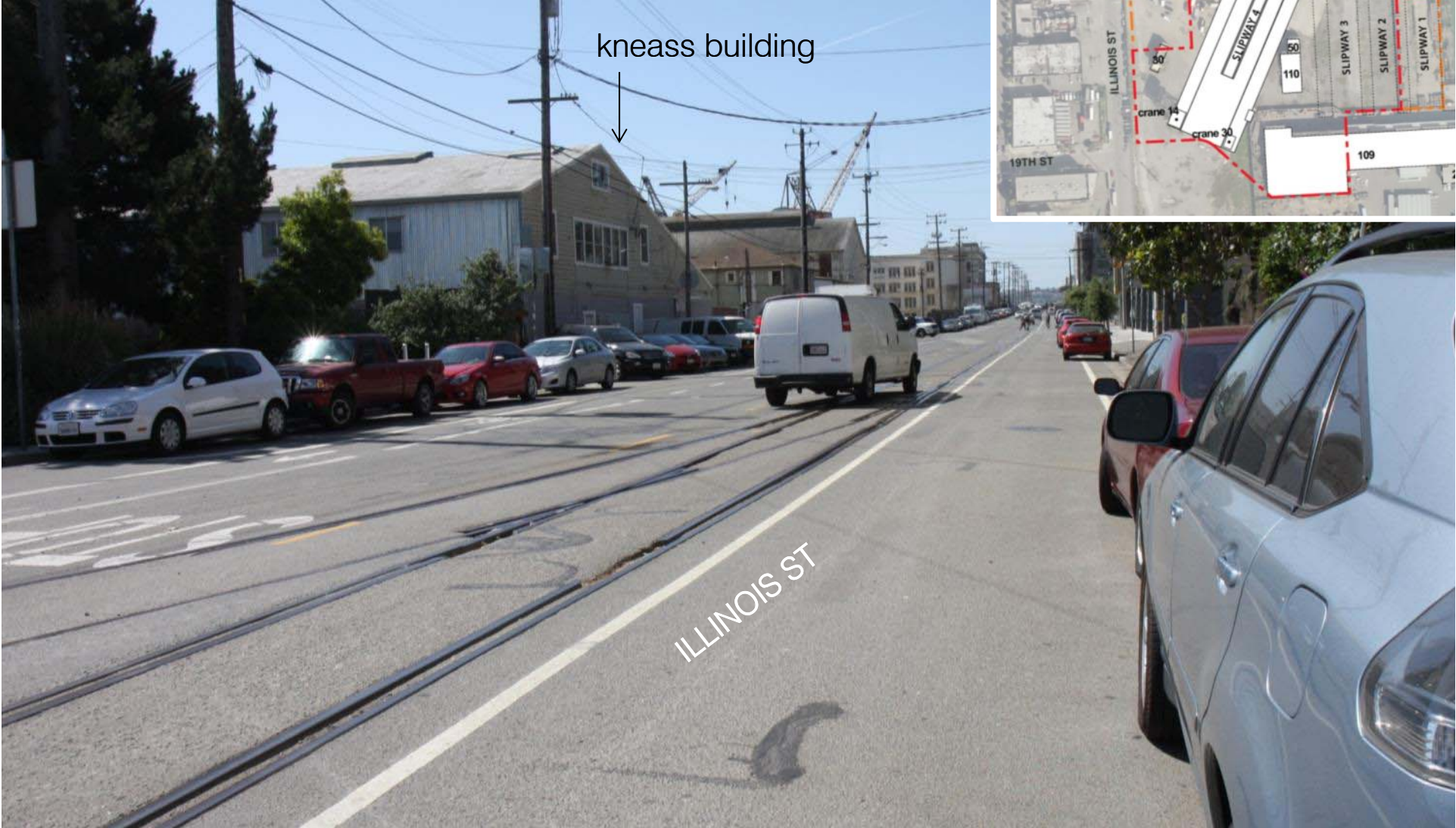


VIEW

from the ramp, towards park



VIEW
illinois street



VIEW
18th street



VIEW

19th street



master plan evolution

september 2013

THE RAMP

KNEASS

NORTHERN SHORELINE

1

2

18TH STREET

BLDG 49

14

SLIPWAY 4

OPEN GREEN

4

3

3RD STREET

19TH STREET

ILLINOIS STREET

30

BLDG 109

109 + 110 YARD

SLIPWAY 4
(crane plaza + keel park)

1 Development parcel removed and park expansion into site. (Development density considered to move south of 20th street within Pier 70).

2 Earlier phasing of Northern Shoreline.

3 New concept for Crane Plaza and 19th Street lawn area.

4 Sidewalk location defined.



0' 20' 75' 150'

master plan evolution

december 2013



WDAC / PUBLIC COMMENTS (ON 12/09/13 PLAN)

A. NORTHERN SHORELINE AREA

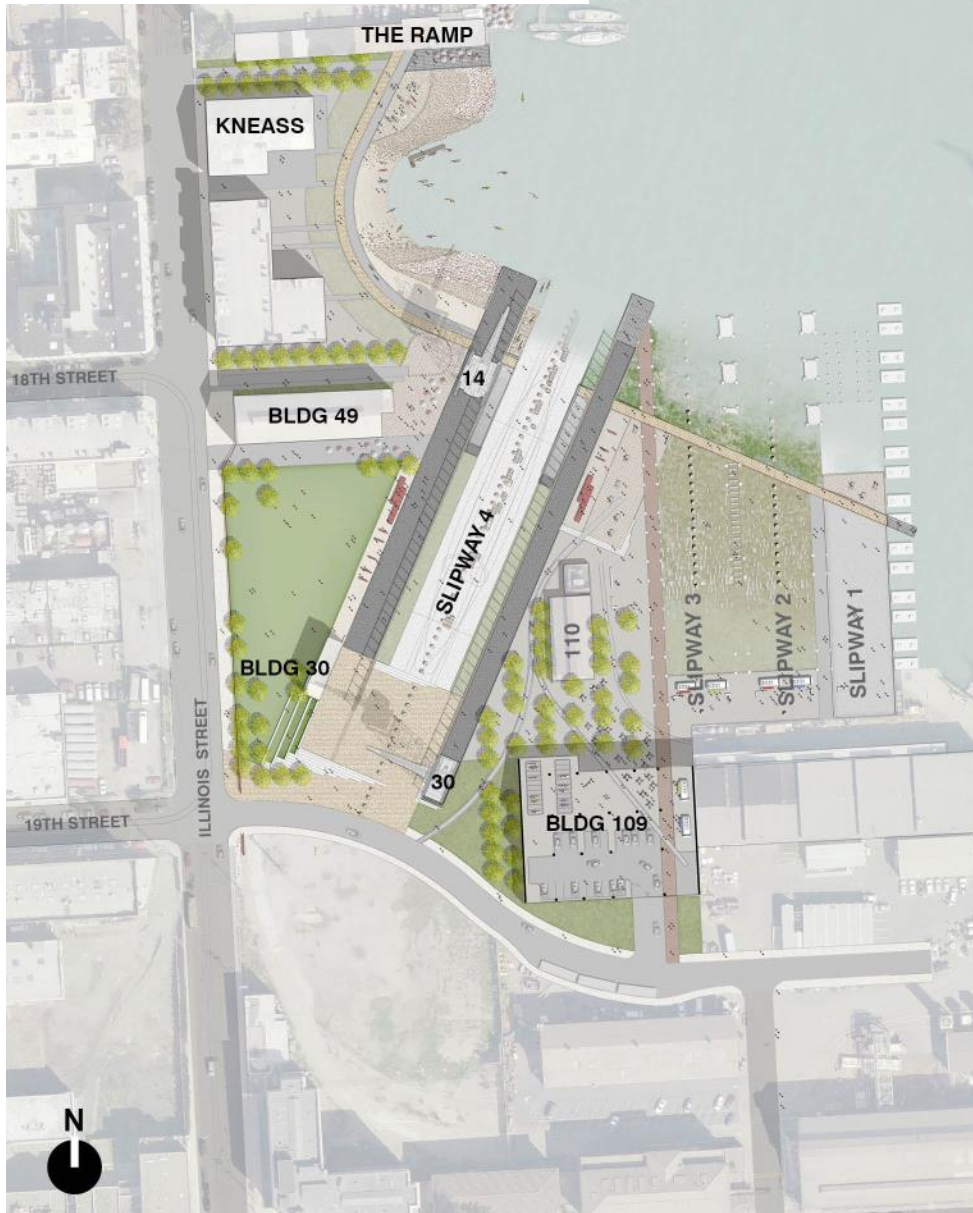
1. Confirm through **coastal engineering analysis** that the sandy shoreline can be maintained and that it does not become a muddy shoreline
2. Can the shoreline design meet **accessibility requirements**
3. Confirm that **exposure to water and sediment is safe** for people
4. Attempt to **orientate beach for easy access from building 49**, which will be used for a human powered boating aquatic center
5. Determine if the **use of rip-rap can be minimized**
6. **Clarify the site circulation** where pedestrian/ boaters and vehicles overlap on the east end of building 49
7. **Study the planting palette** for the area between the sandy shoreline and Illinois Street and if reuse of the building foundation as a landscape wall is appropriate

B. SLIPWAY 4 AND 19TH STREET

1. Concern was raised about the **narrowness of the 19th street sidewalk** and the lack of gathering space
2. Requested further analysis about **how lawn area meets 19th and Illinois Street**
3. Suggested that if **Illinois Street fence** be moved, it should be considered in the **context of how the existing portion** south of 19th street

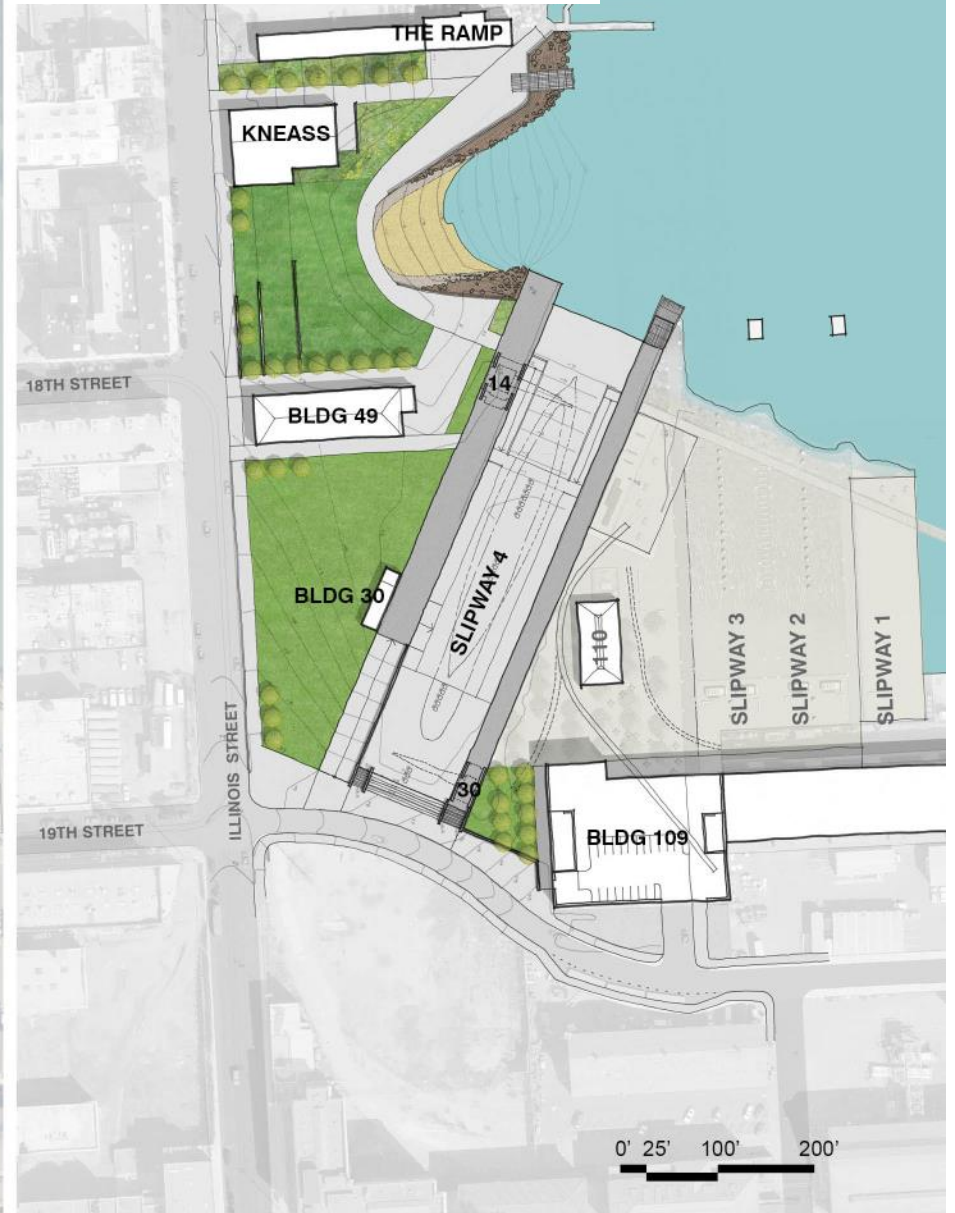
master plan evolution

september 2013



MARIPOSA STREET

december 2013



schematic design



NOTE:
This site plan reflects Crane Plaza Option 1. For Option 2, please see Exhibit #8.

coastal analysis

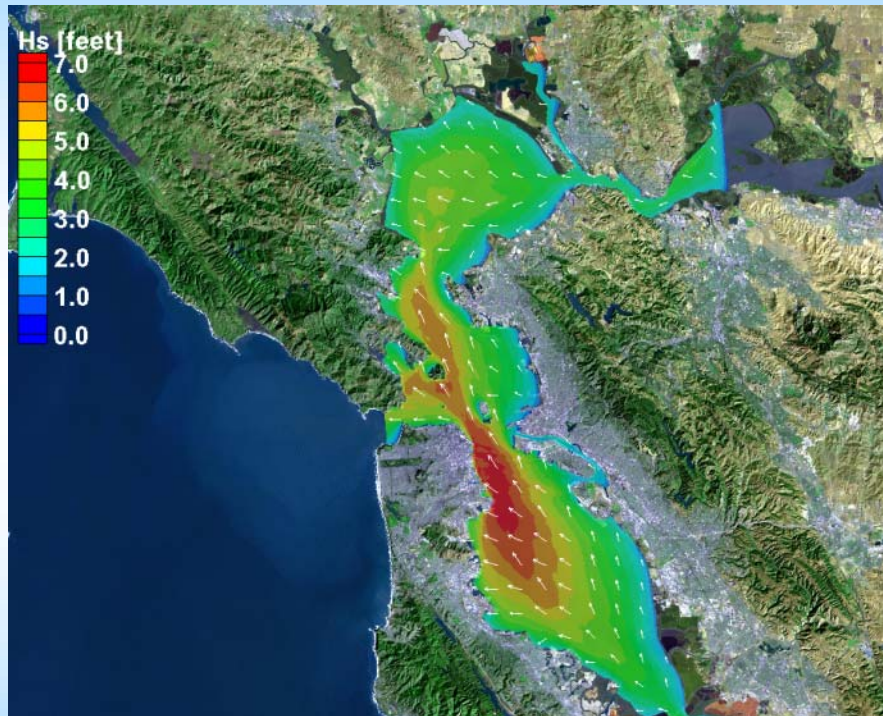
coastal & harbor engineering

Outline

- Sedimentation analysis and modeling
- Determination of extreme winds and wave climate
- Bay-wide extreme wave modeling
- Propeller wash modeling

Storm Wave Analysis

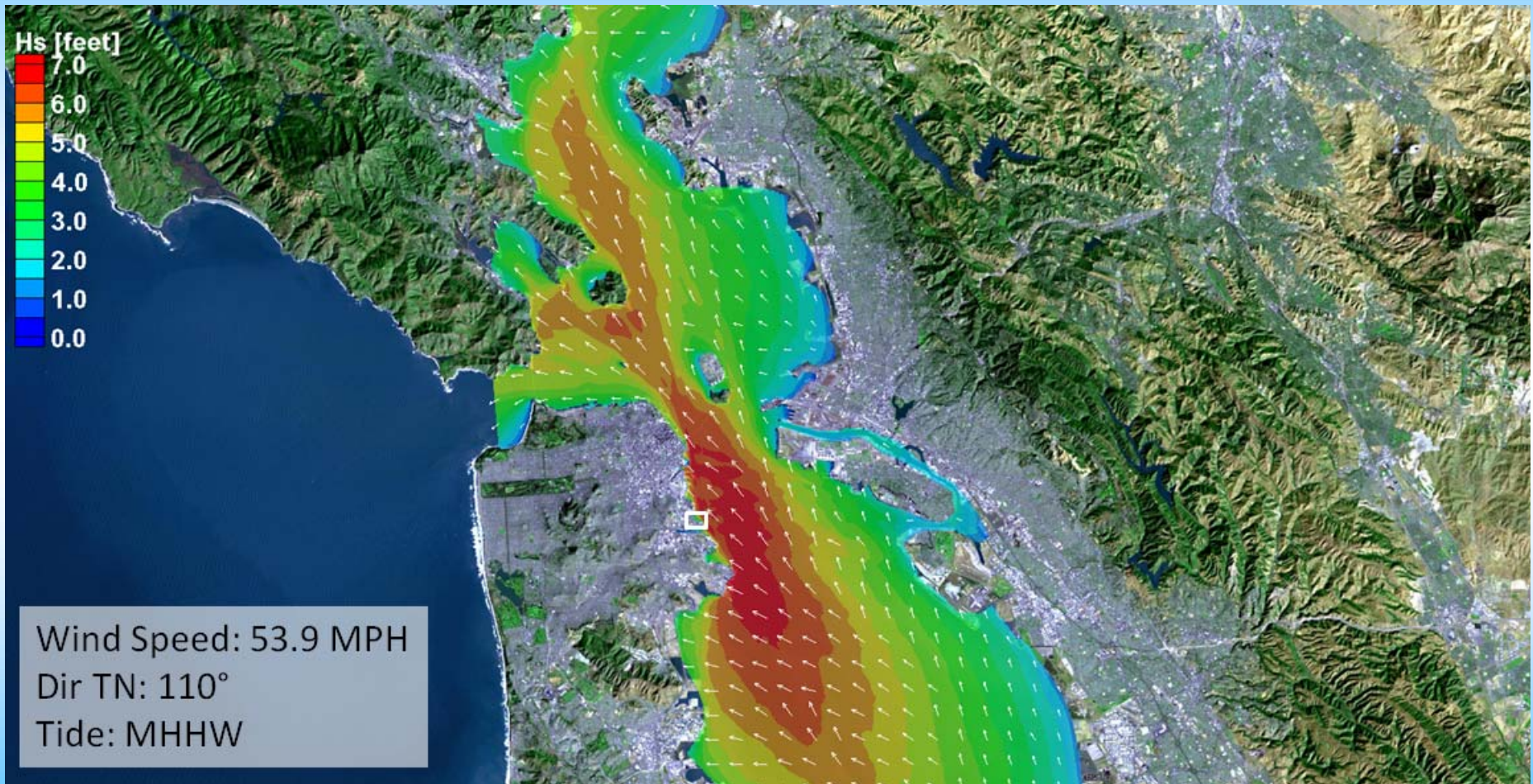
Model Type and Setup



- SWAN-Rectilinear
- Extreme wind conditions were split into directional bins of 10° (36 total)
- Model was forced by 2, 5, 10, 25, 50 & 100 year extreme winds within each directional bin
- All models were run at MHHW
- Significant wave heights were evaluated at the project site to determine critical wave condition with and without the influence of Central Basin structures and vessels

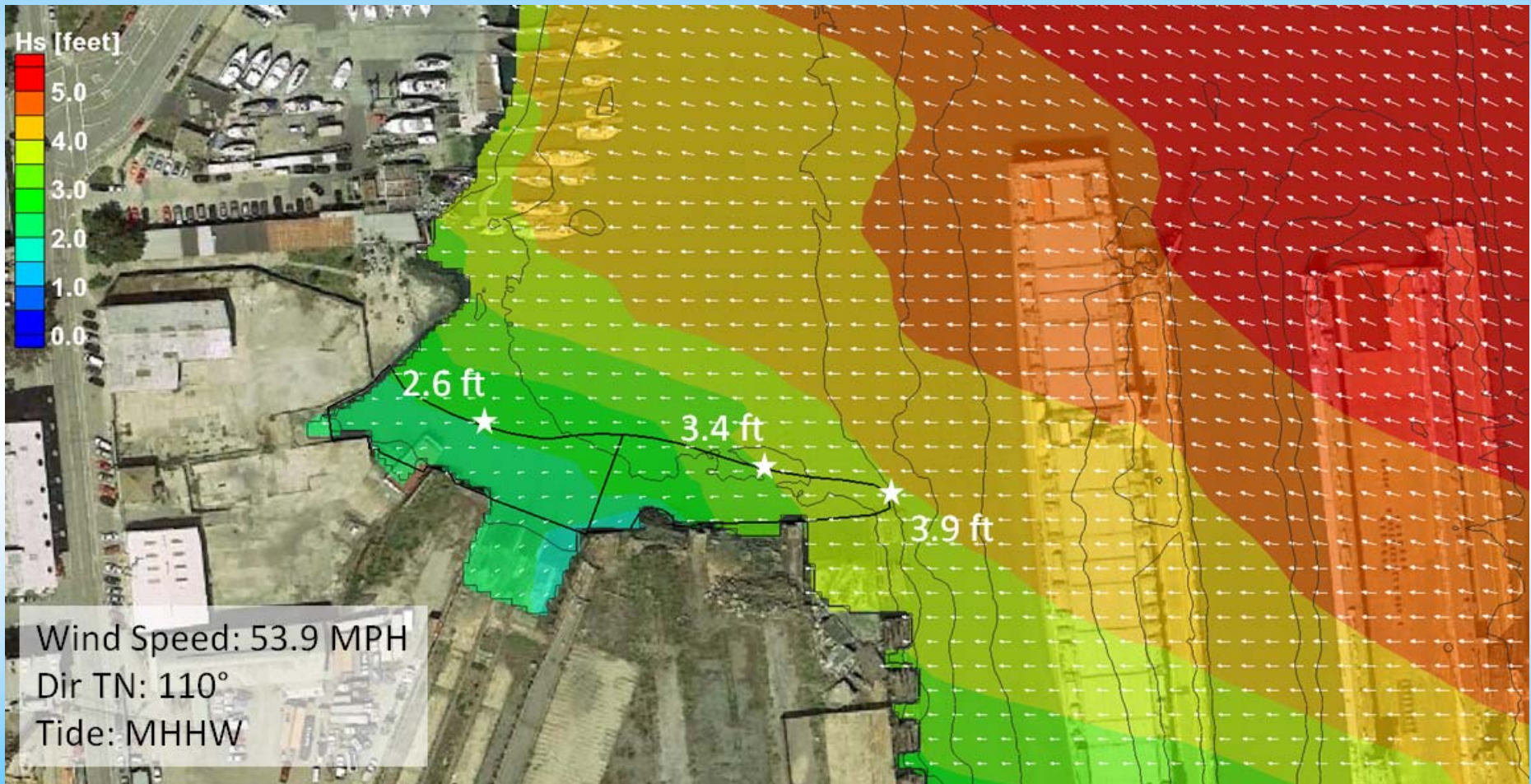
Storm Wave Analysis

Critical Condition – No Wave Protection from Structures/Vessels



Storm Wave Analysis

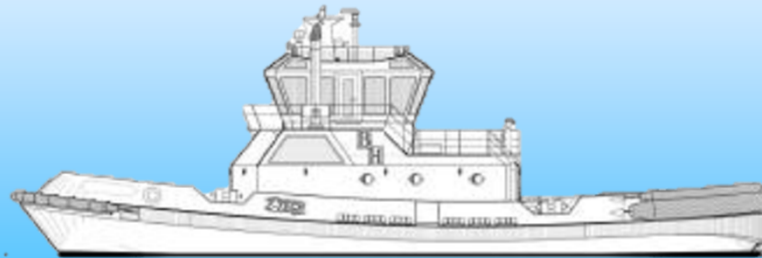
Critical Condition – If NO Wave Protection from Structures/Vessels



Propeller Wash Modeling

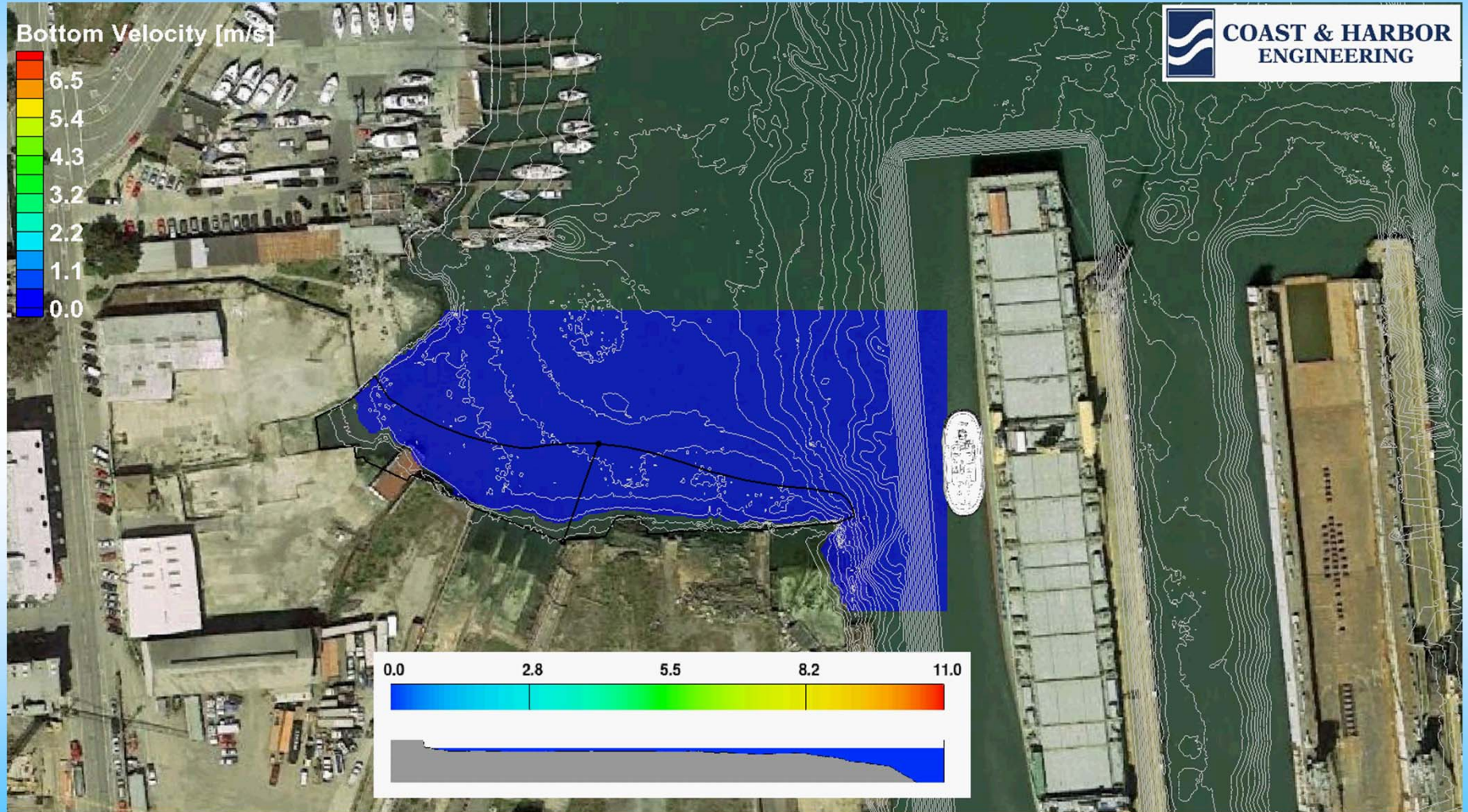
Design Tug Specifications (Delta Billie)

Vessel Particulars	
Tug Length	100 ft.
Tug Beam	40 ft.
Tug Draft	19.0 ft.
Propeller Diameter	9.18 ft.
Bollard Pull	94 Tons
Prop. Dist. Below Water Level	14.4 ft.
Thruster Power	6,800 hp



Propeller Wash Modeling

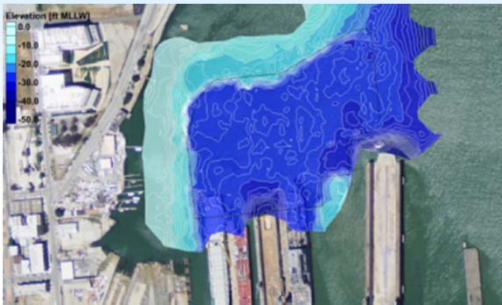
Bottom Velocity



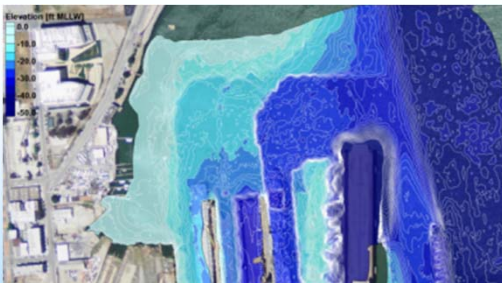
Sedimentation Analysis

Sedimentation rate: 1999-2013

1999

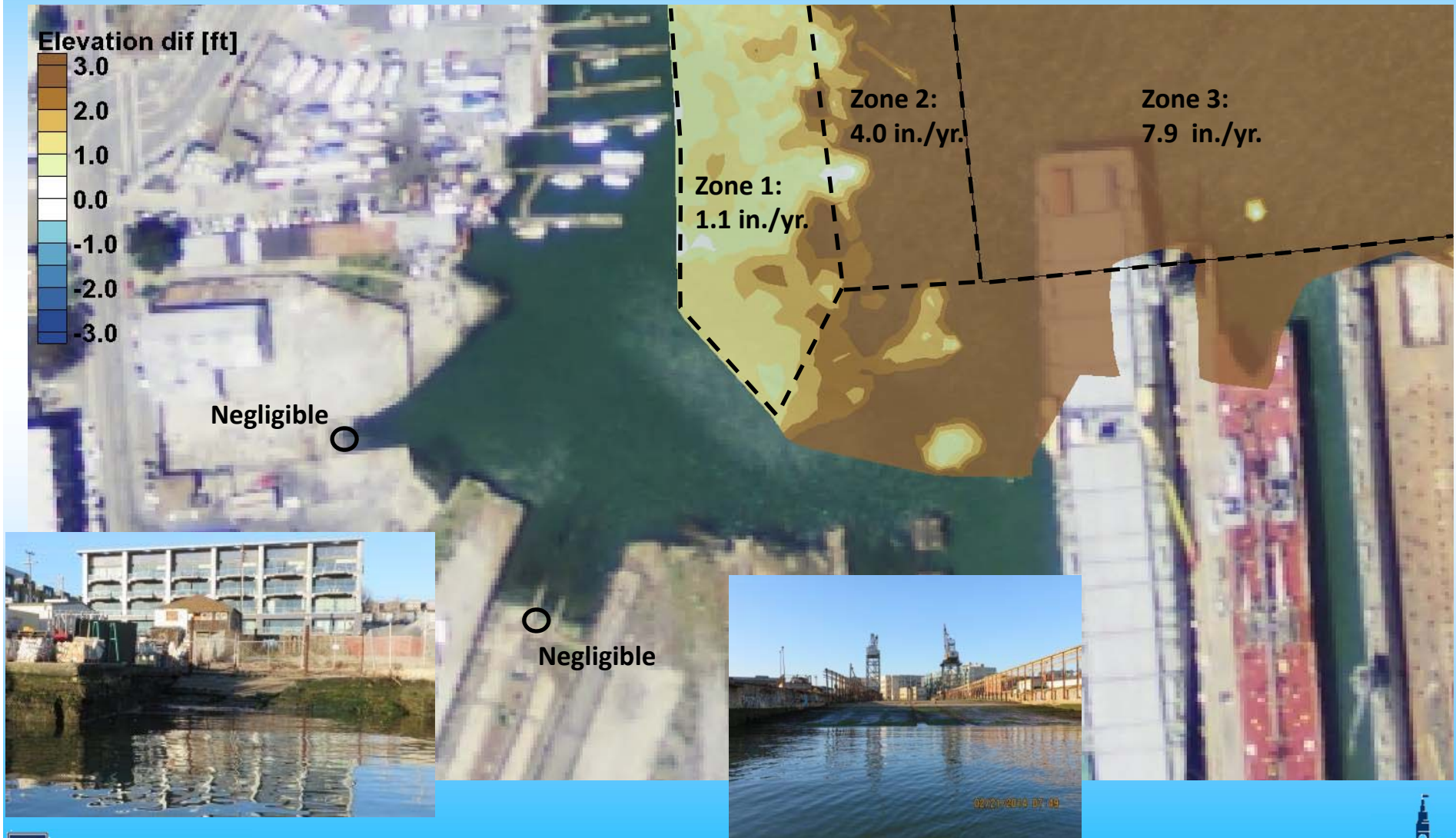


2013



Sedimentation Analysis

Sedimentation rate: 1999-2013



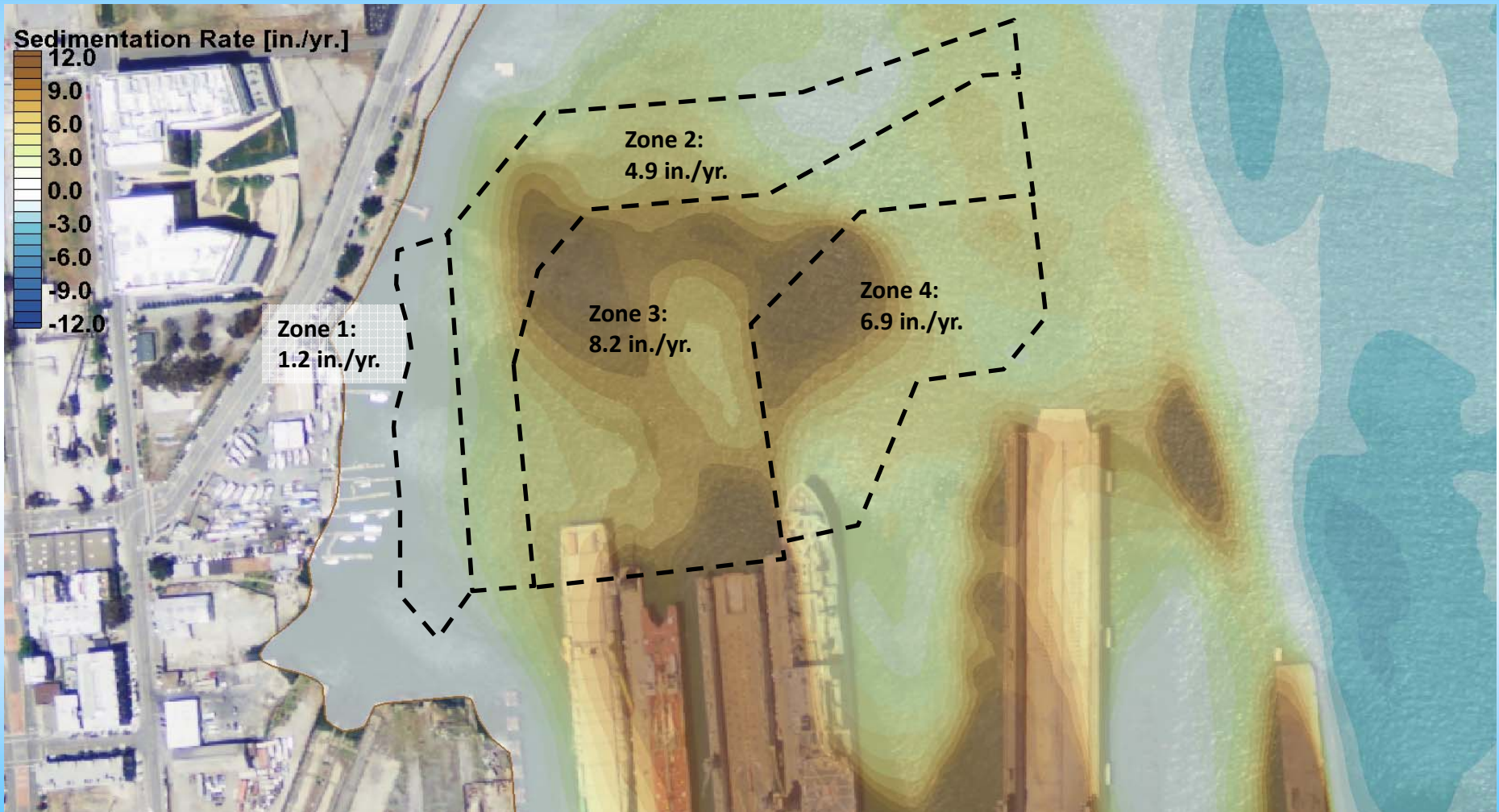
Sedimentation Analysis

Sediment Transport Modeling



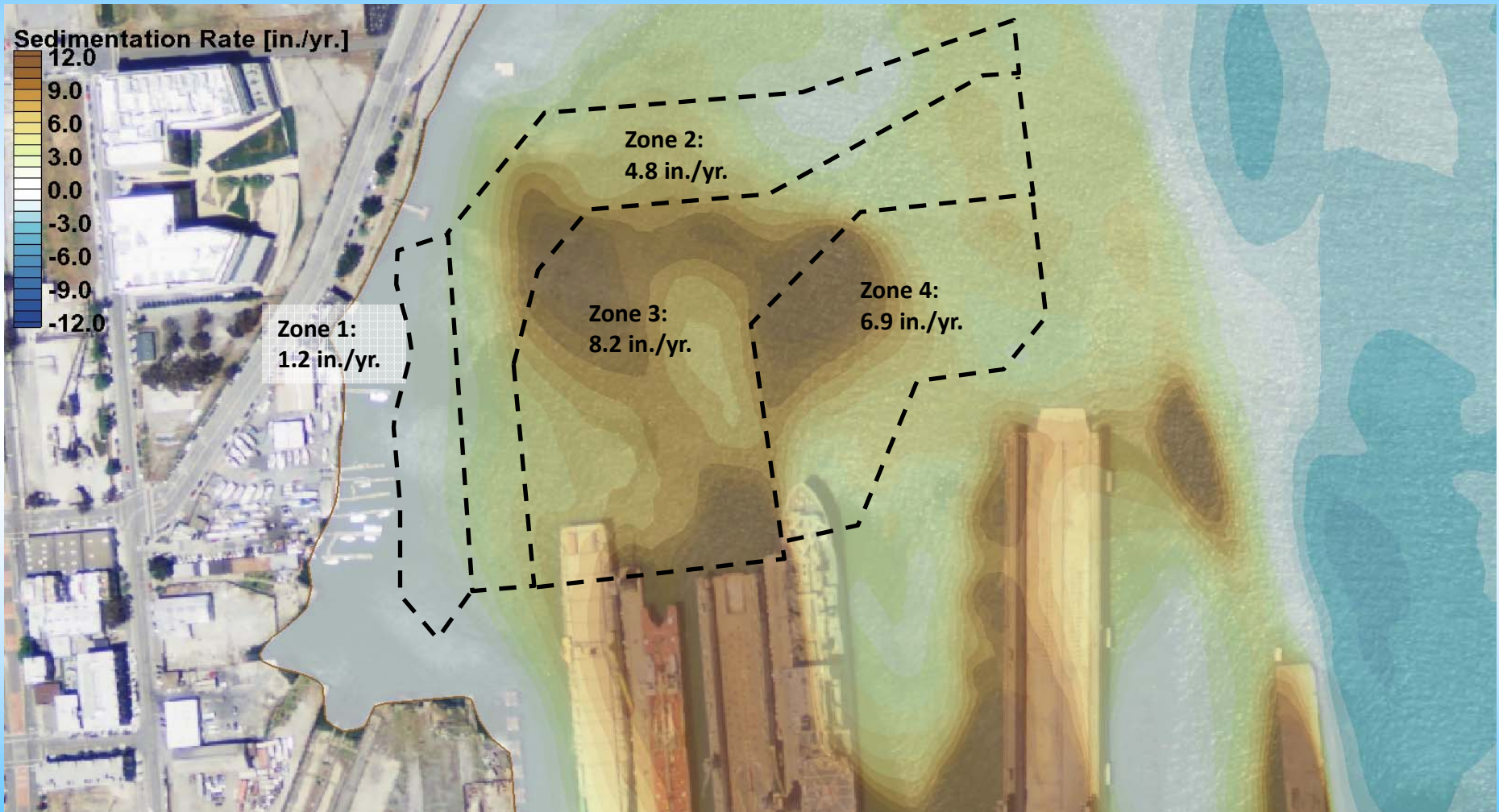
Sediment Transport Model Validation

Modeled sedimentation rate (existing conditions)



Sediment Transport Model Validation

Modeled sedimentation rate (addition of Crane Cove Park beach)





mission



history



water



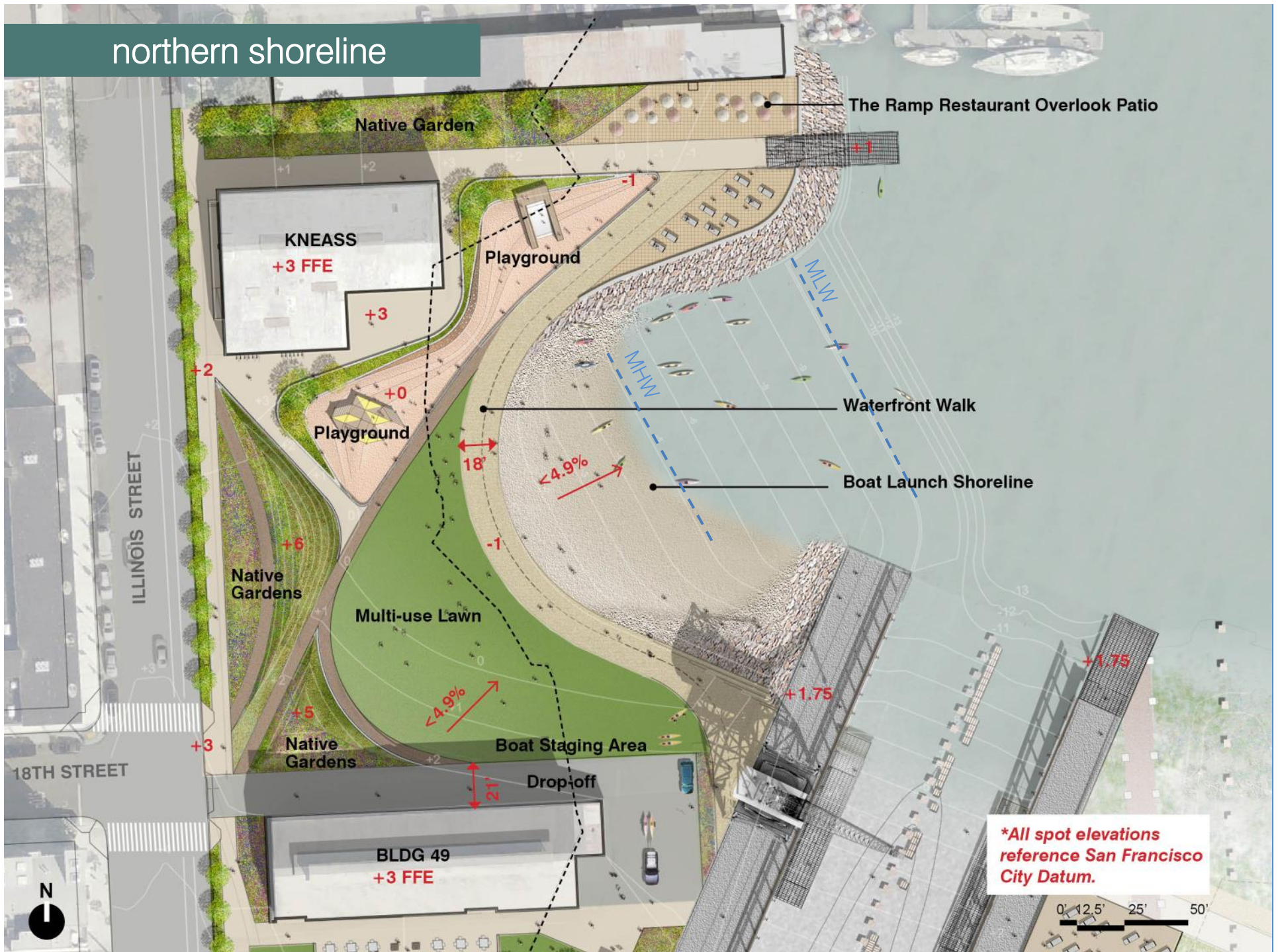
program

schematic design

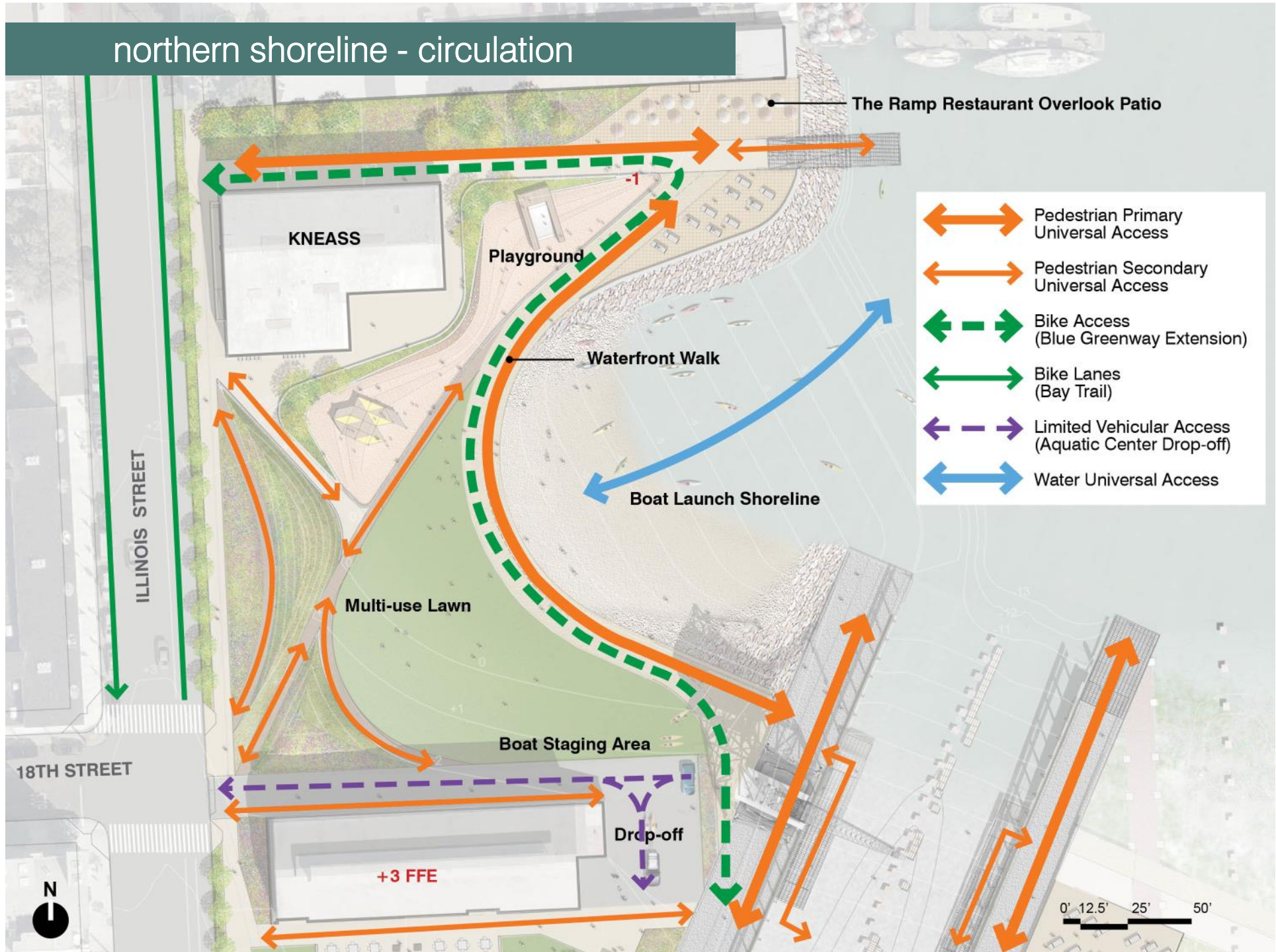


NOTE:
This site plan reflects
Crane Plaza Option 1.
For Option 2, please see
Exhibit #8.

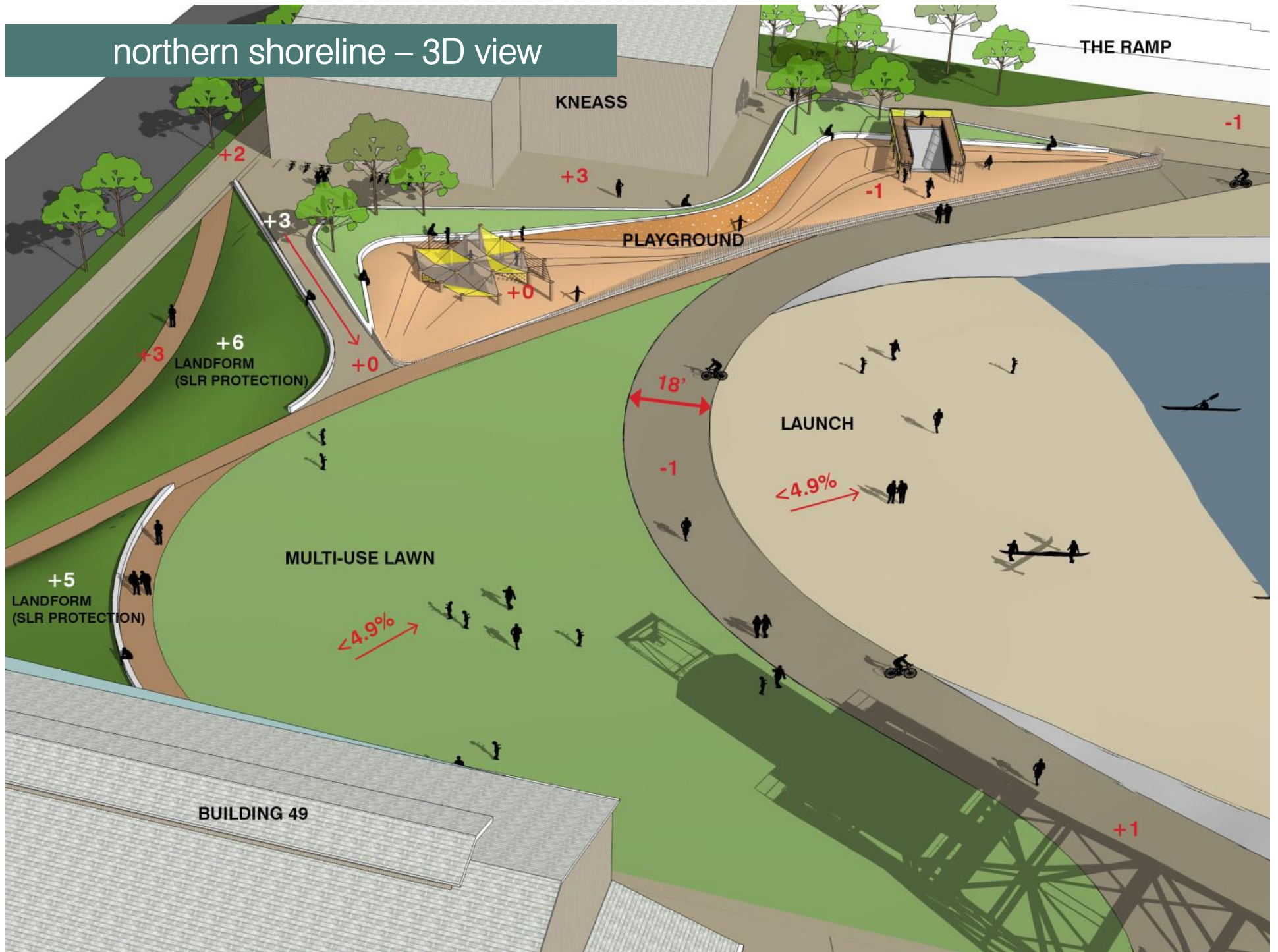
northern shoreline



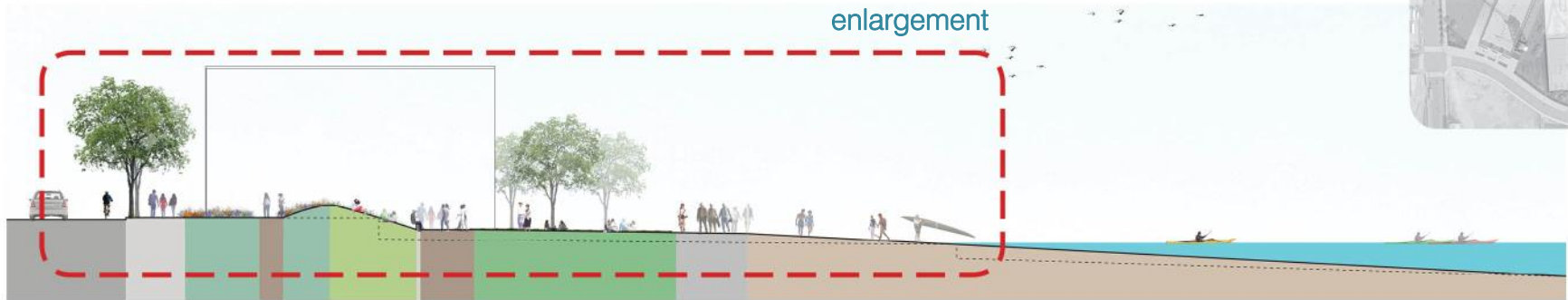
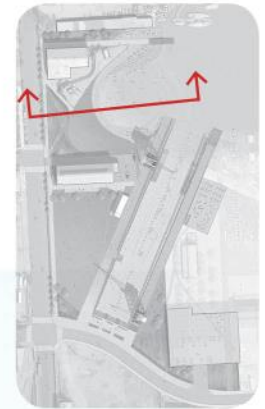
northern shoreline - circulation



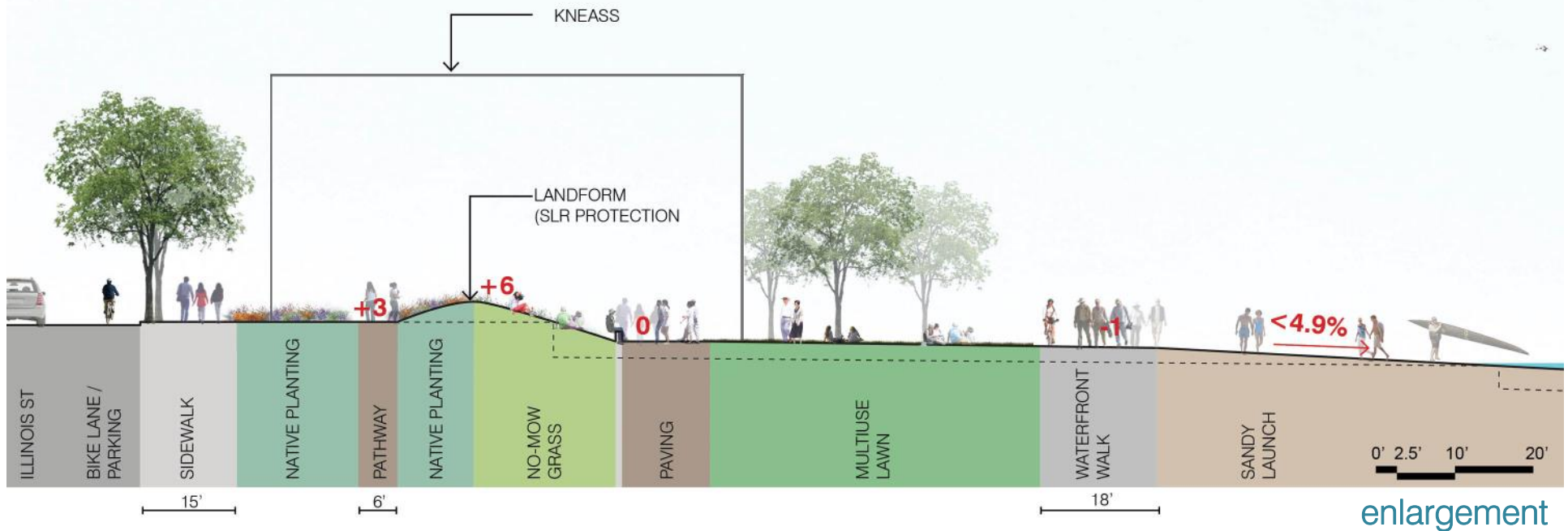
northern shoreline – 3D view



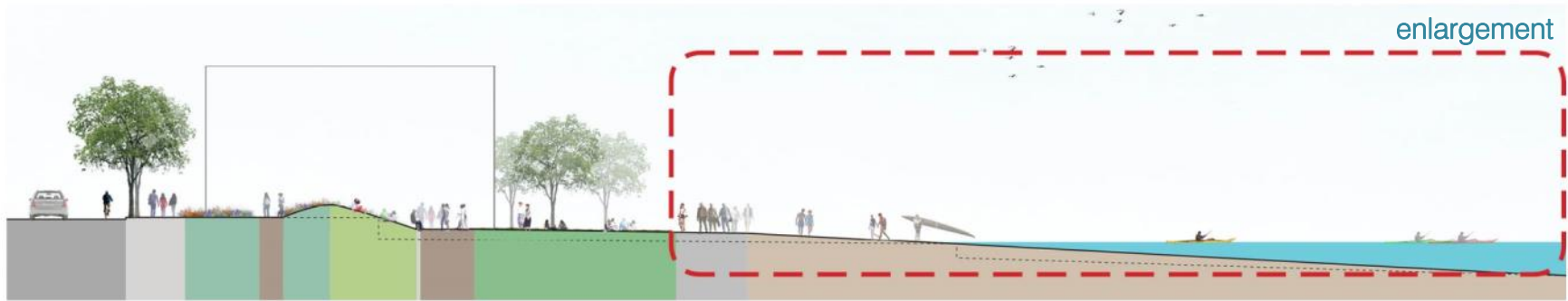
northern shoreline –site section



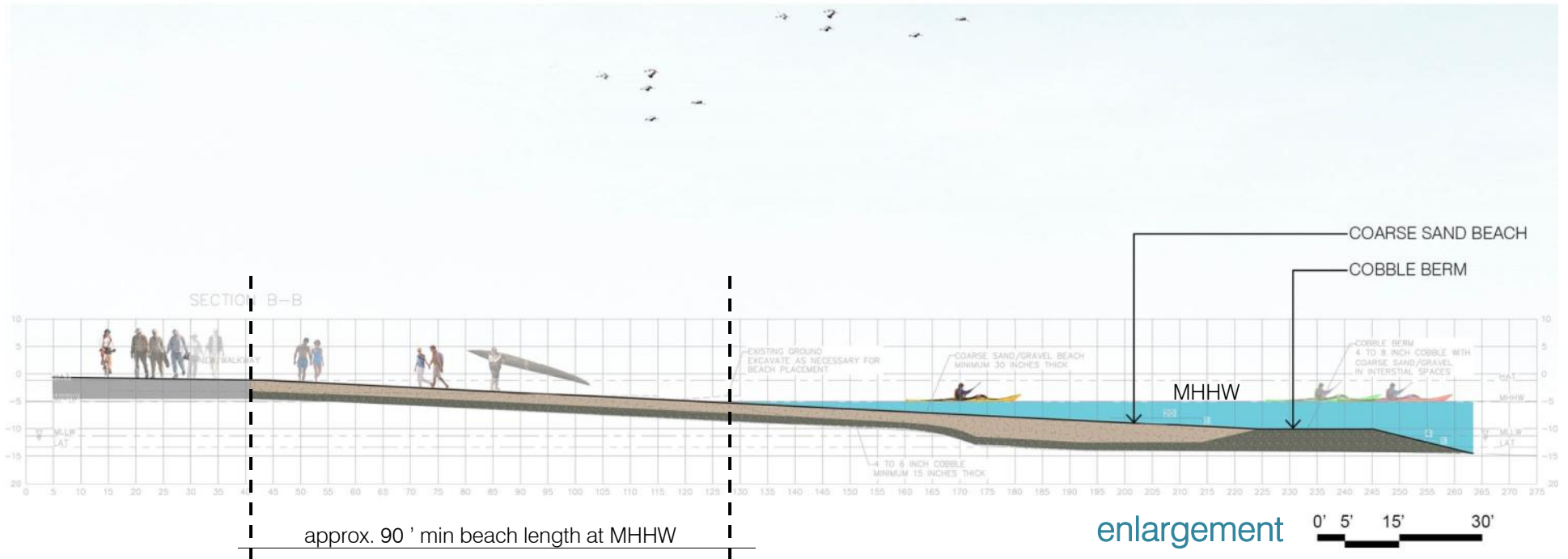
section at center of northern shoreline



northern shoreline – site section



section at center of northern shoreline



northern shoreline



view looking north from The Ramp restaurant patio

northern shoreline



view looking north from The Ramp restaurant patio

northern shoreline



view looking east from Illinois sidewalk (south of The Ramp)

northern shoreline



view looking east from Illinois sidewalk (south of The Ramp)

northern shoreline



view of un-engineered fill looking south

northern shoreline



view along shoreline walk looking north

northern shoreline



view looking east at Illinois sidewalk (south of kneass building)

northern shoreline



view looking east at Illinois sidewalk (south of kneass building)

northern shoreline



view looking east at Illinois sidewalk (north of building 49)

northern shoreline



view looking east at Illinois sidewalk (north of building 49)

northern shoreline



western runway looking south

northern shoreline



western runway looking south

northern shoreline



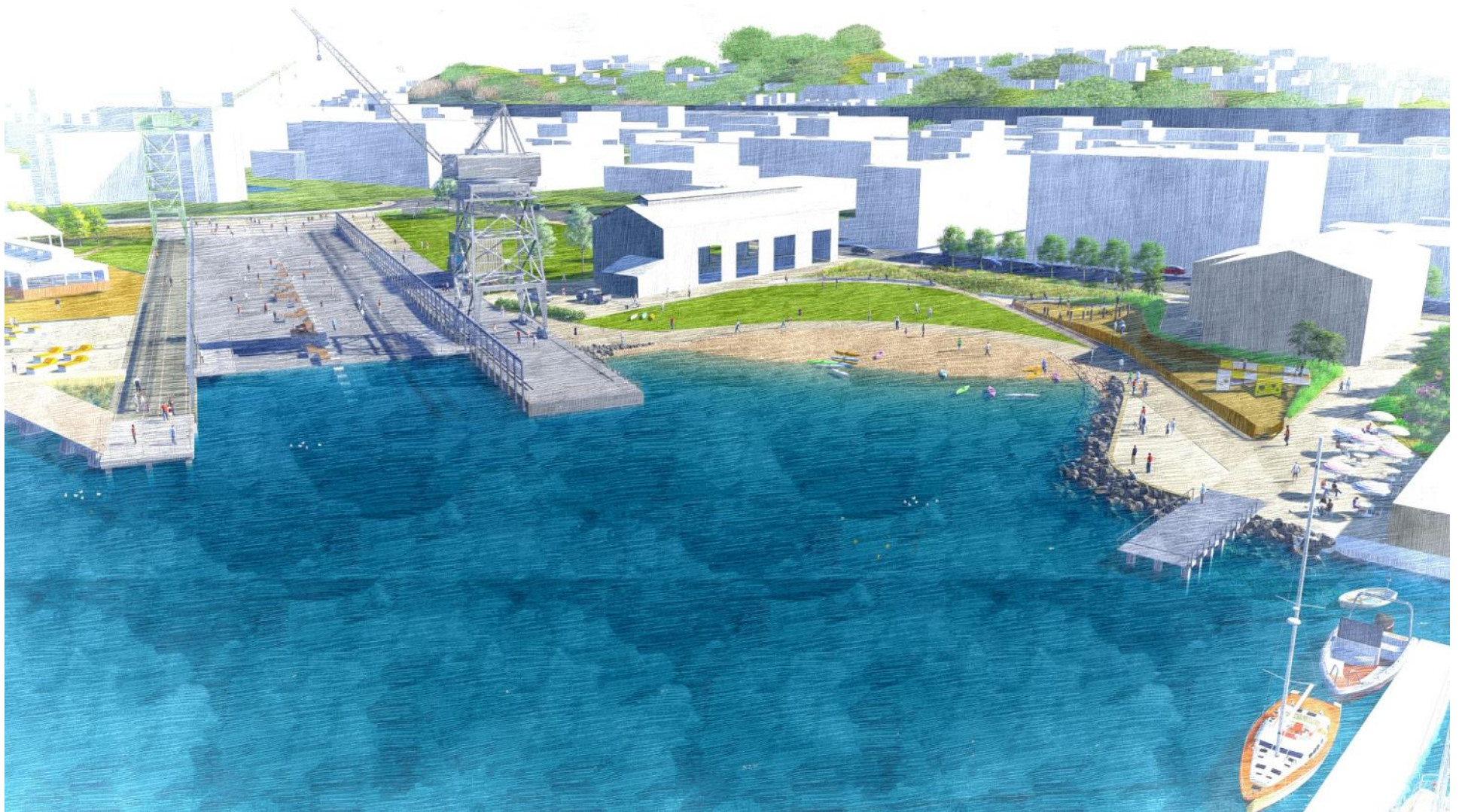
playground view looking north

northern shoreline



playground view looking south

northern shoreline



historic interpretation



CRANES 14 & 30



KEEL BLOCKS



SHIP OUTLINES IN PAVING



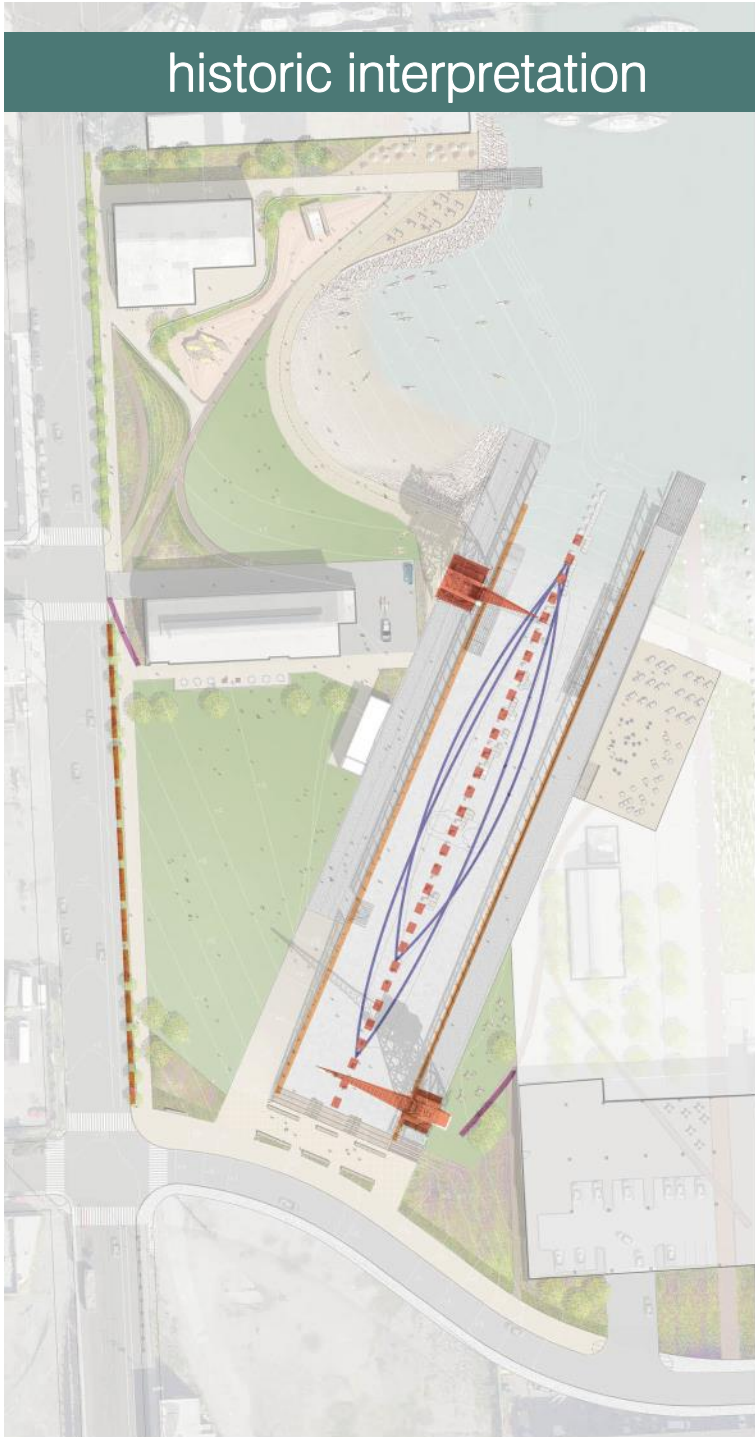
UTILITY RACKS



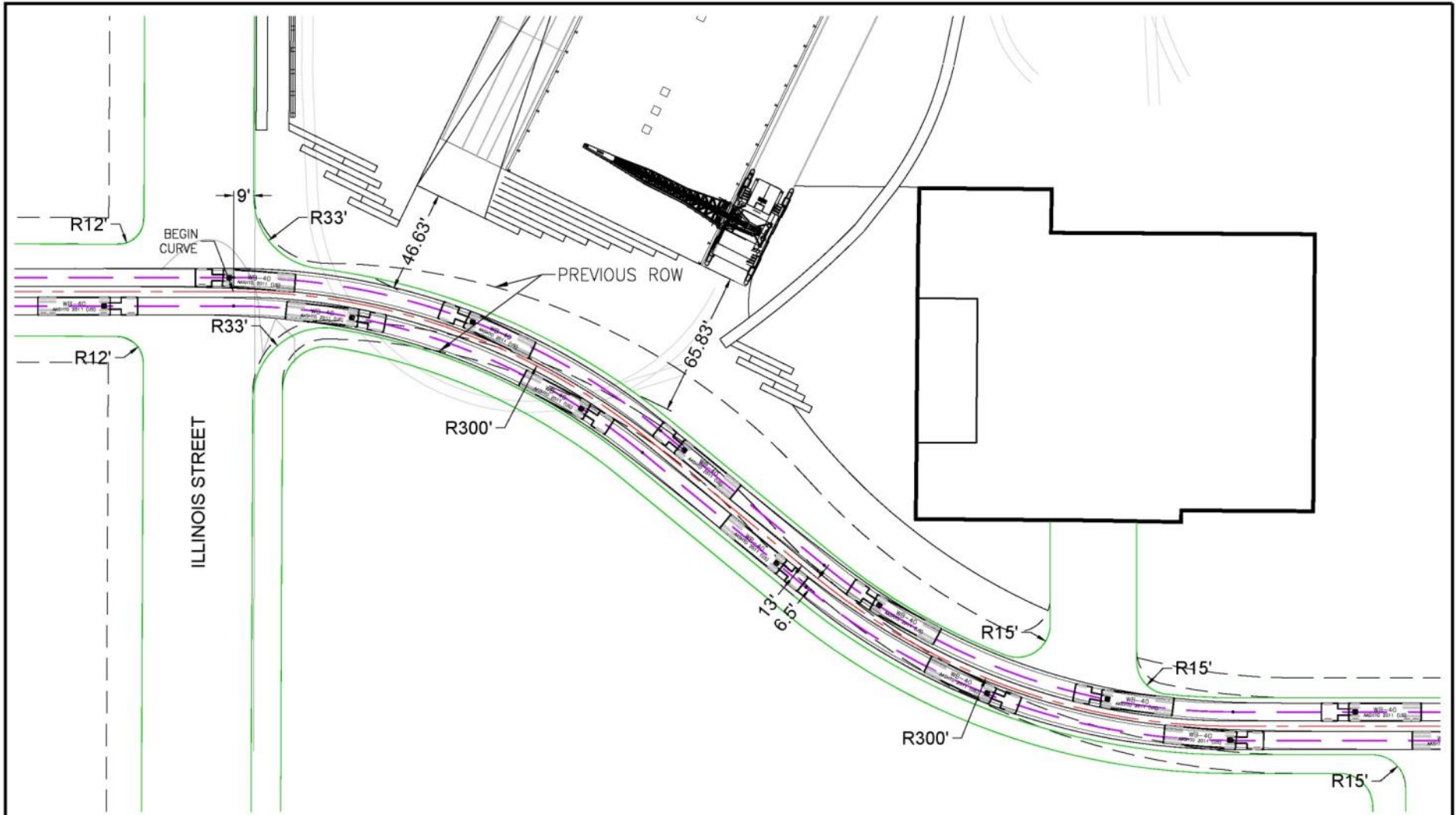
HISTORIC FENCE



TRACKS



19TH street alignment – option 1



**19TH ST EXTENSION ALIGNMENT EXHIBIT
ALTERNATE 1 - BEGIN CURVE AT ILLIONIS STREET**

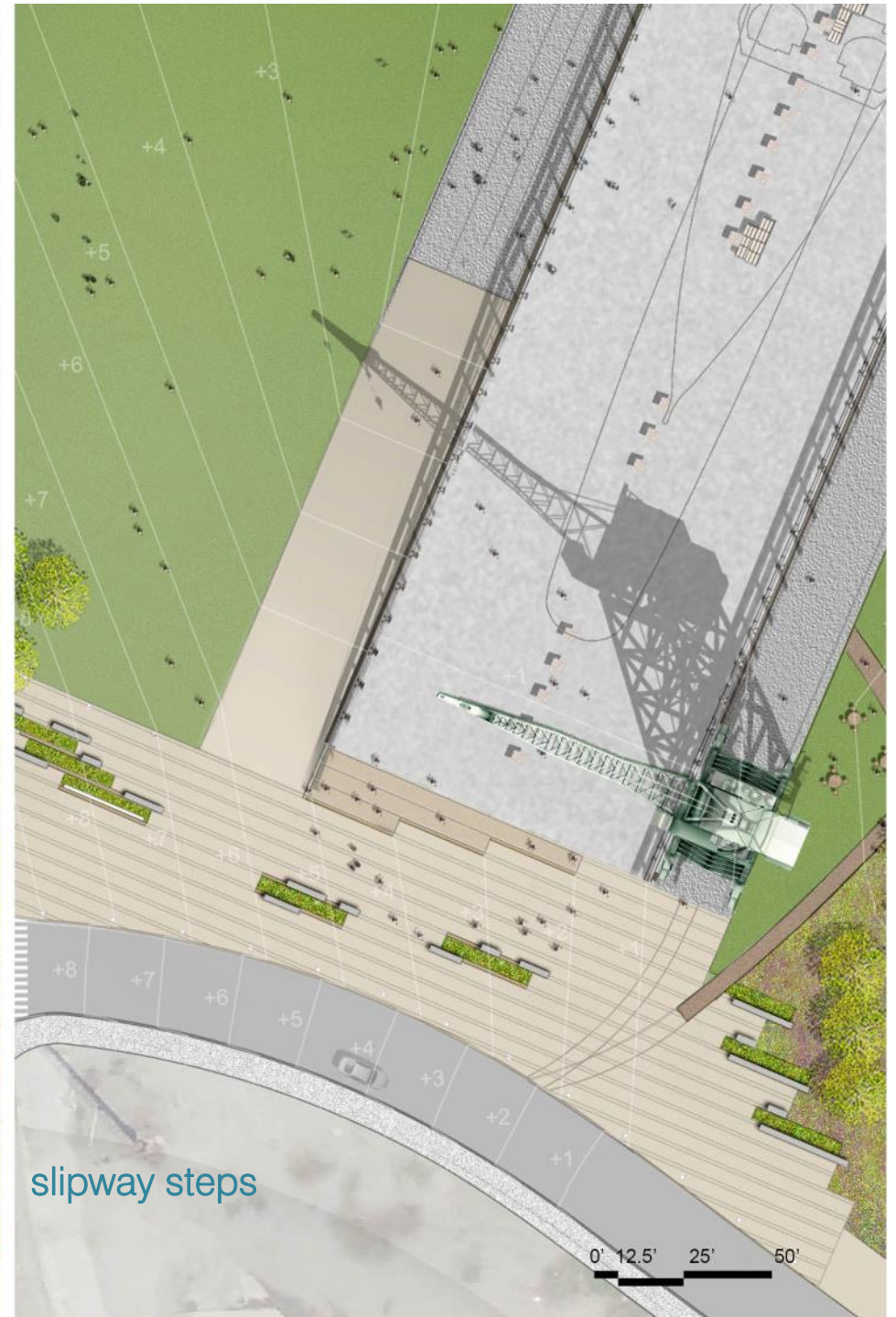
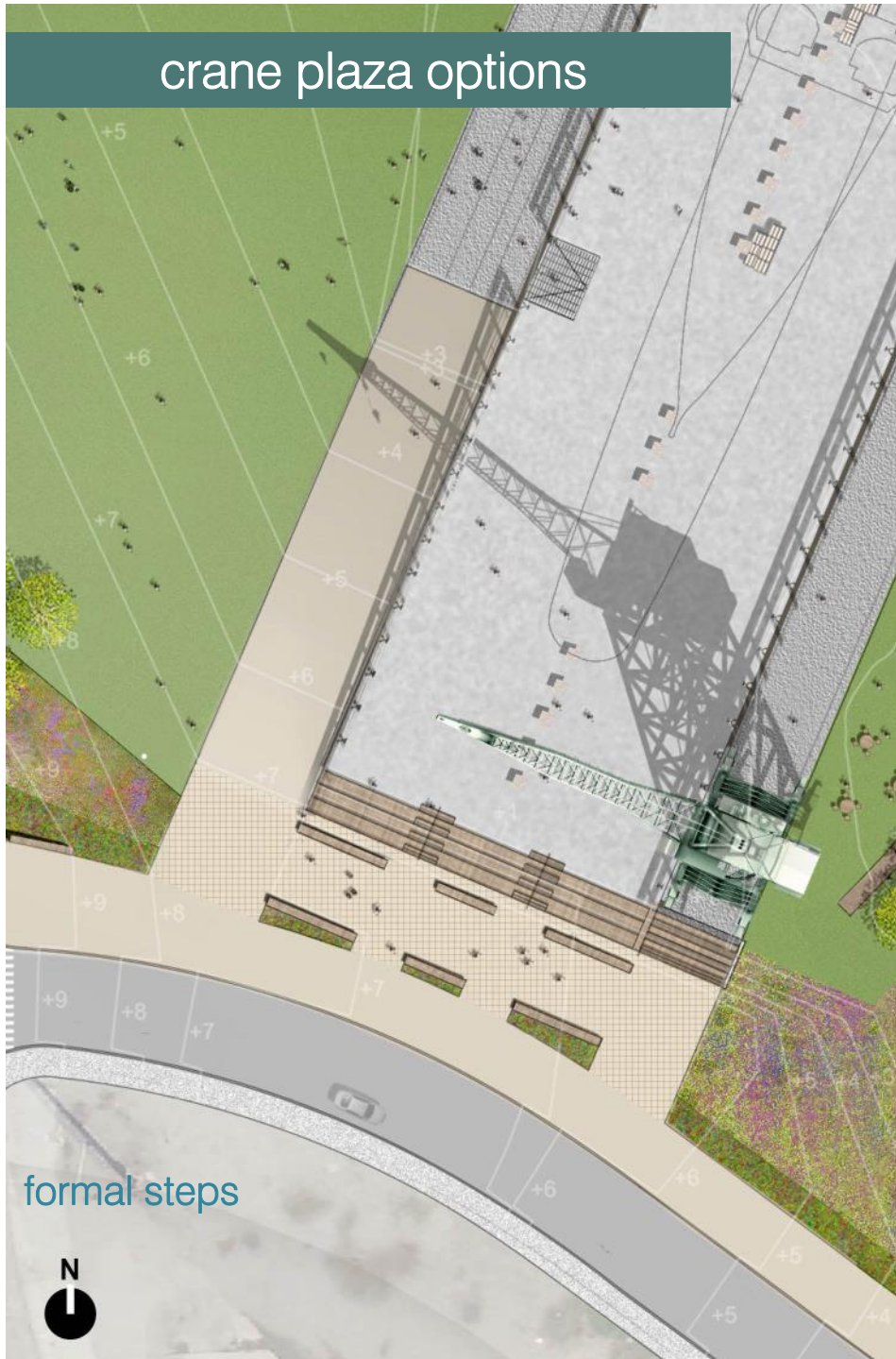
CRANE COVE PARK
19TH STREET AT ILLINOIS STREET
SAN FRANCISCO, CALIFORNIA



5 Freelon Street
San Francisco, California 94107
415.777.2166 p | 415.777-2167 f
www.agsinc.com

JOB NO: KK0210
SCALE: 1" = 40'
DATE: 03/19/14
SHEET:

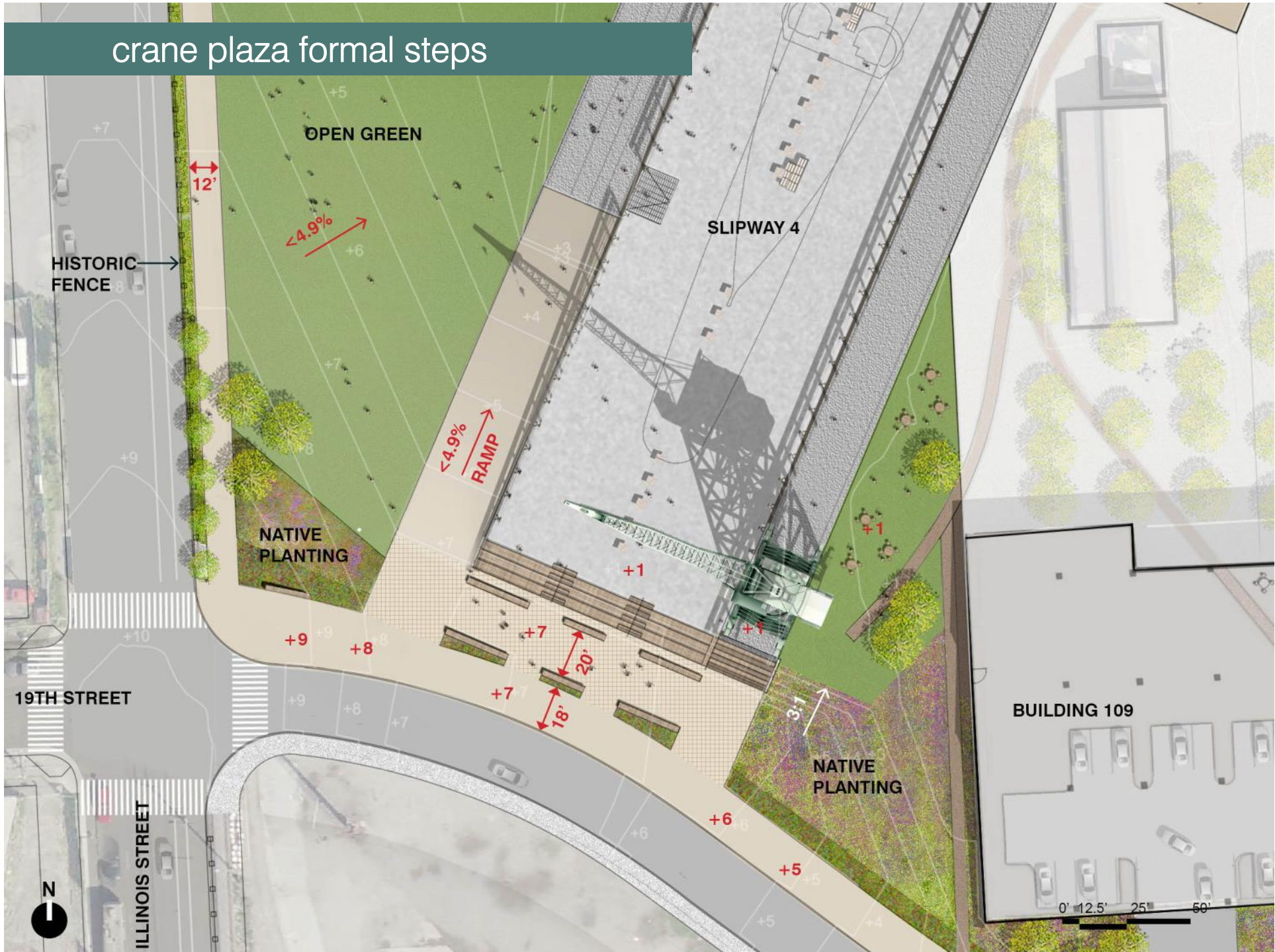
crane plaza options



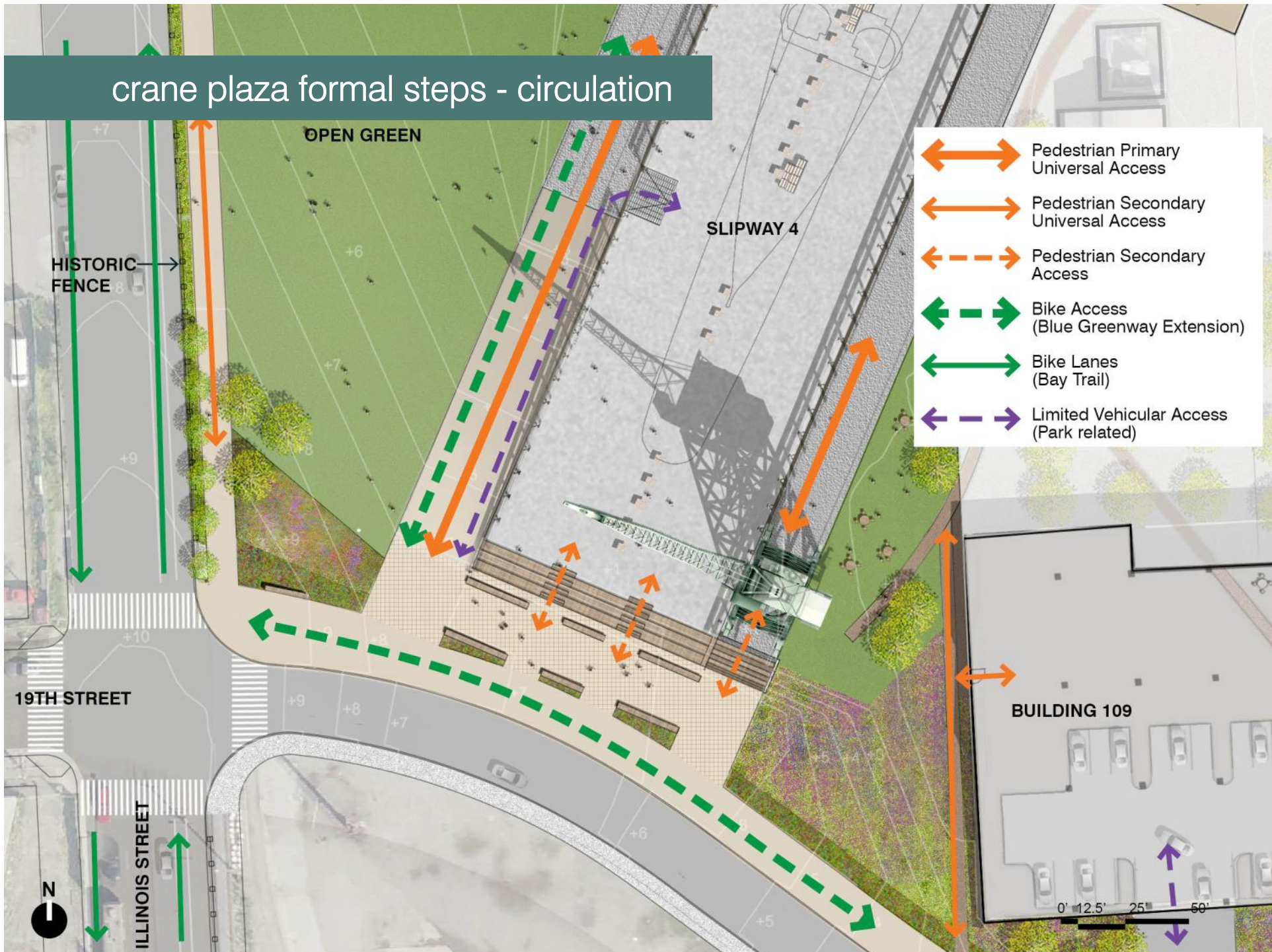
crane plaza options



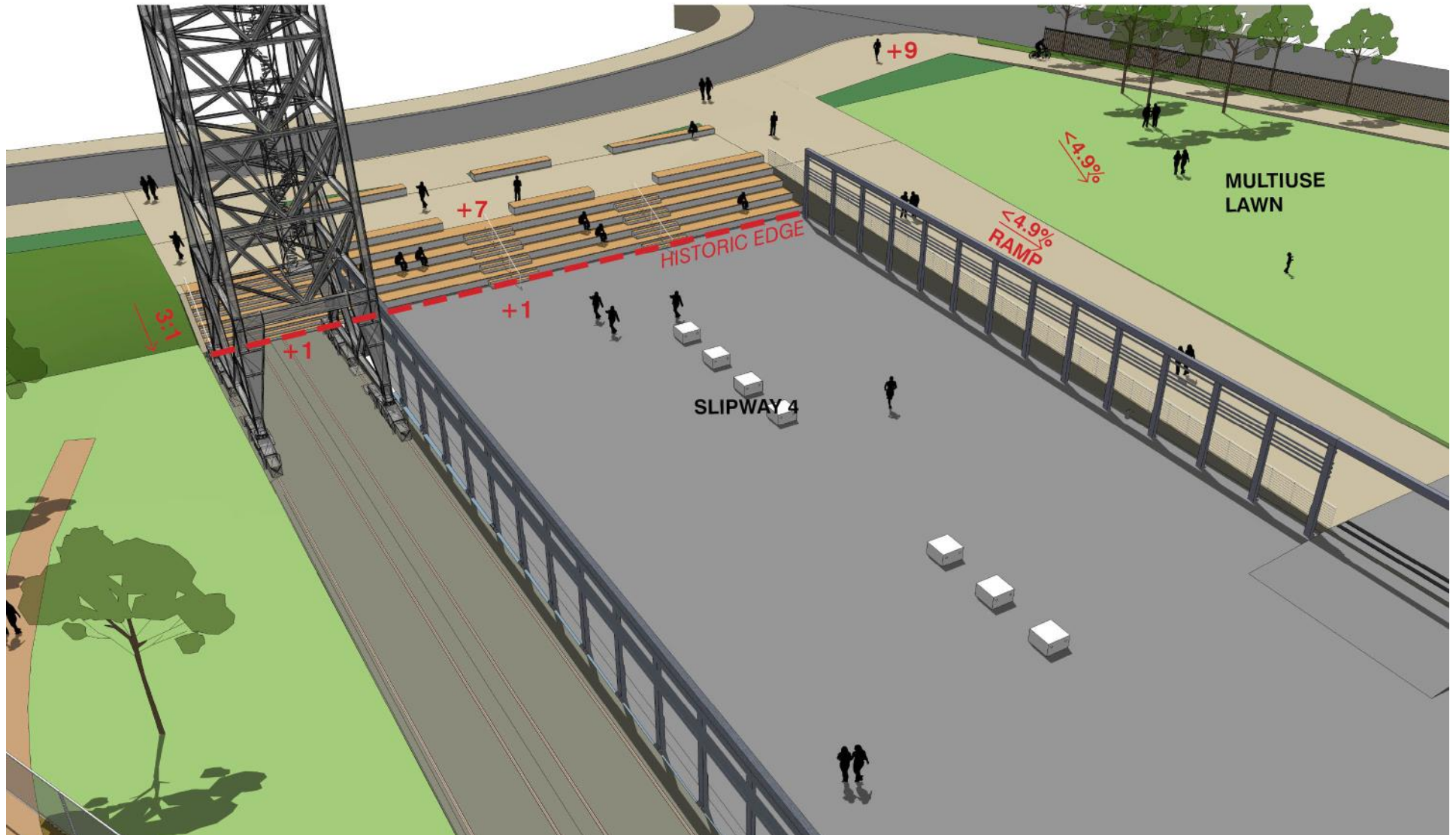
crane plaza formal steps



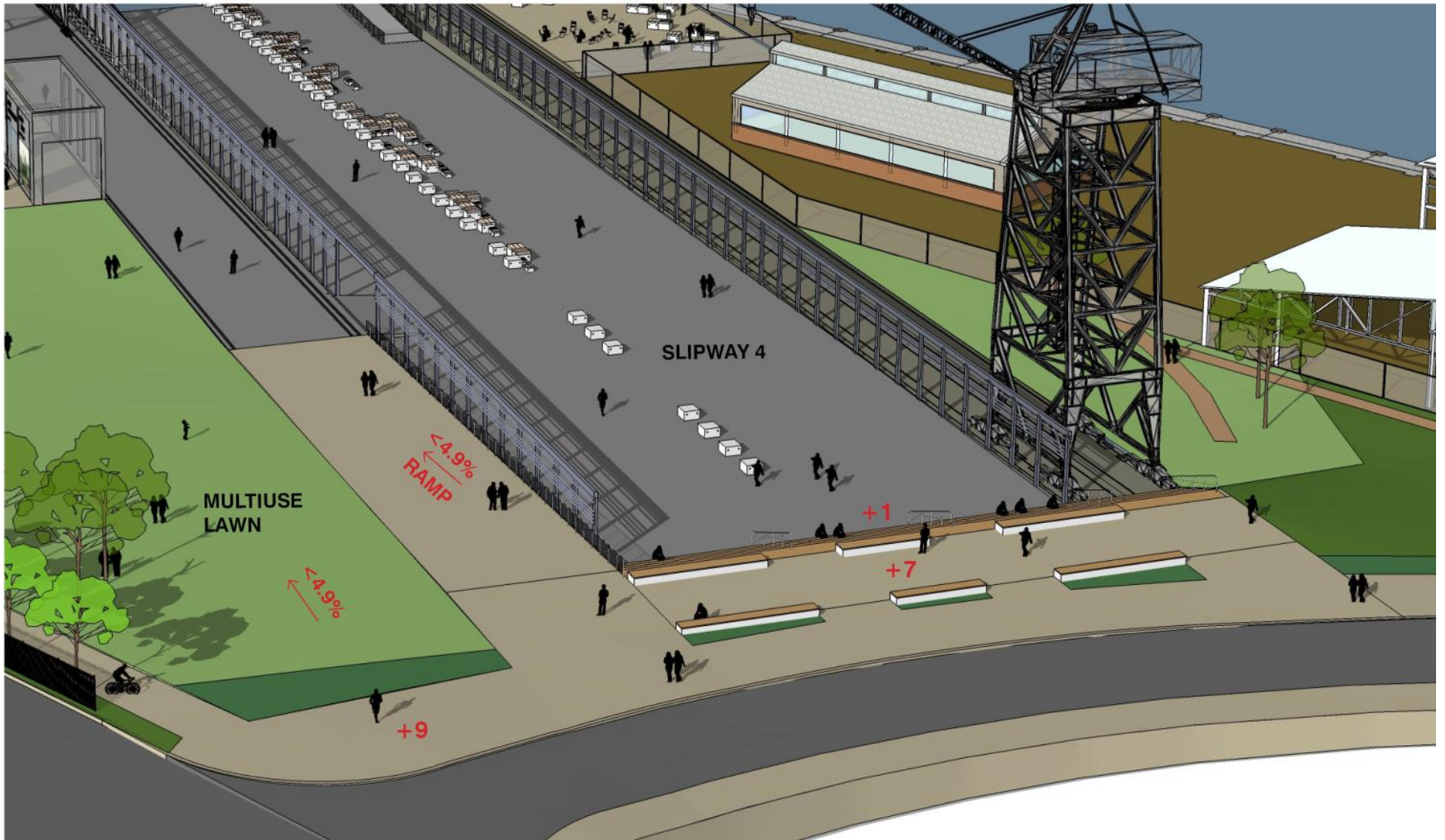
crane plaza formal steps - circulation



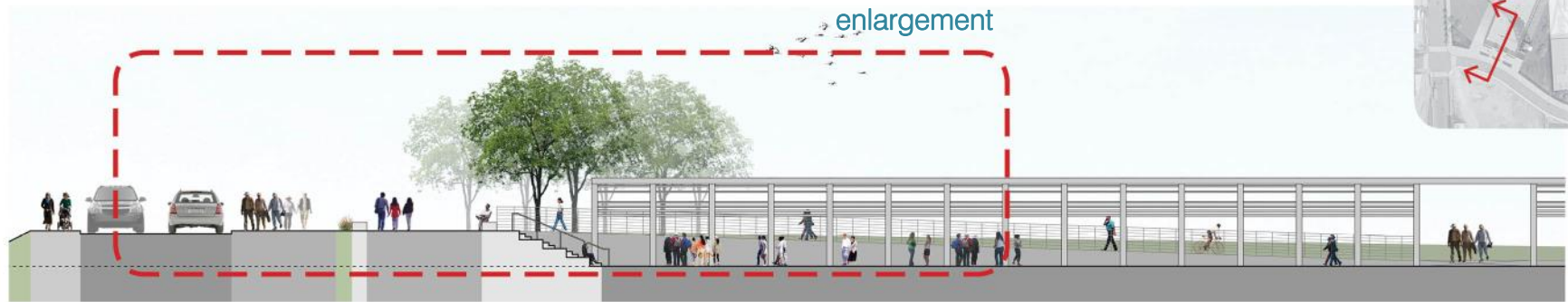
crane plaza formal steps 3D views



crane plaza formal steps 3D views

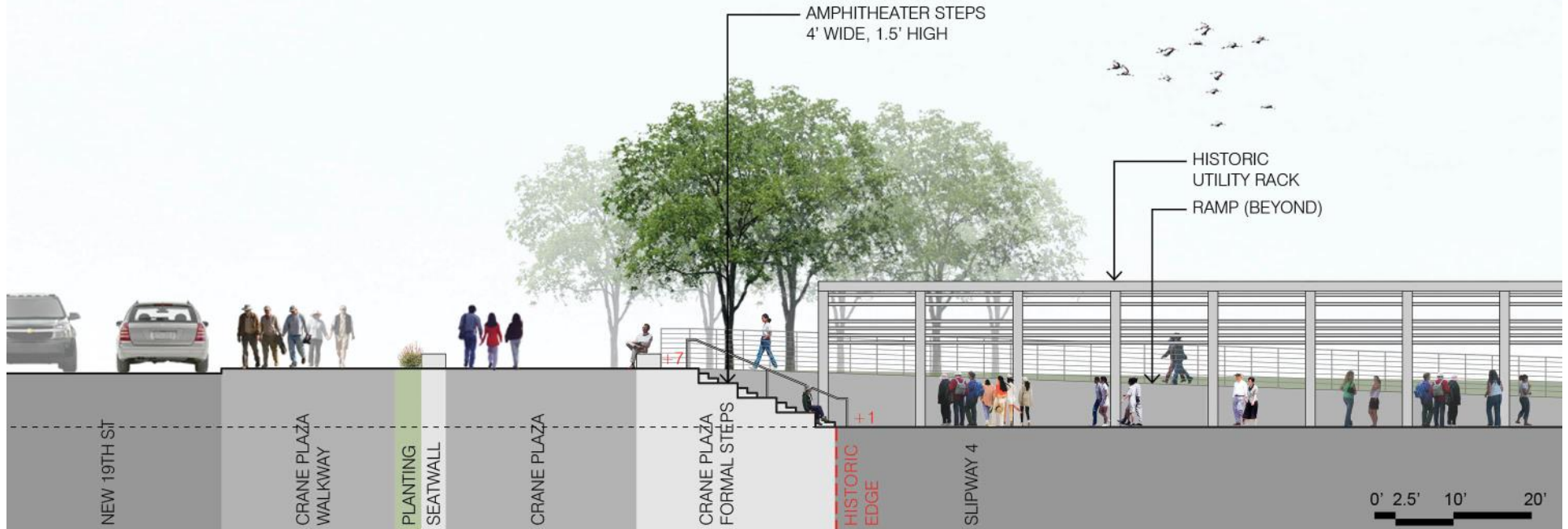


crane plaza formal steps - section



enlargement

section at center of slipway 4 looking west



AMPHITHEATER STEPS
4' WIDE, 1.5' HIGH

HISTORIC
UTILITY RACK
RAMP (BEYOND)

NEW 19TH ST

CRANE PLAZA
WALKWAY

PLANTING
SEATWALL

CRANE PLAZA

CRANE PLAZA
FORMAL STEPS

HISTORIC
EDGE

SLIPWAY 4

0' 2.5' 10' 20'

18' 20'

enlargement

crane plaza formal steps

before



view from corner of 19th & Illinois

crane plaza formal steps



view from corner of 19th & Illinois

crane plaza formal steps

before



view at the end of slipway 4

crane plaza formal steps



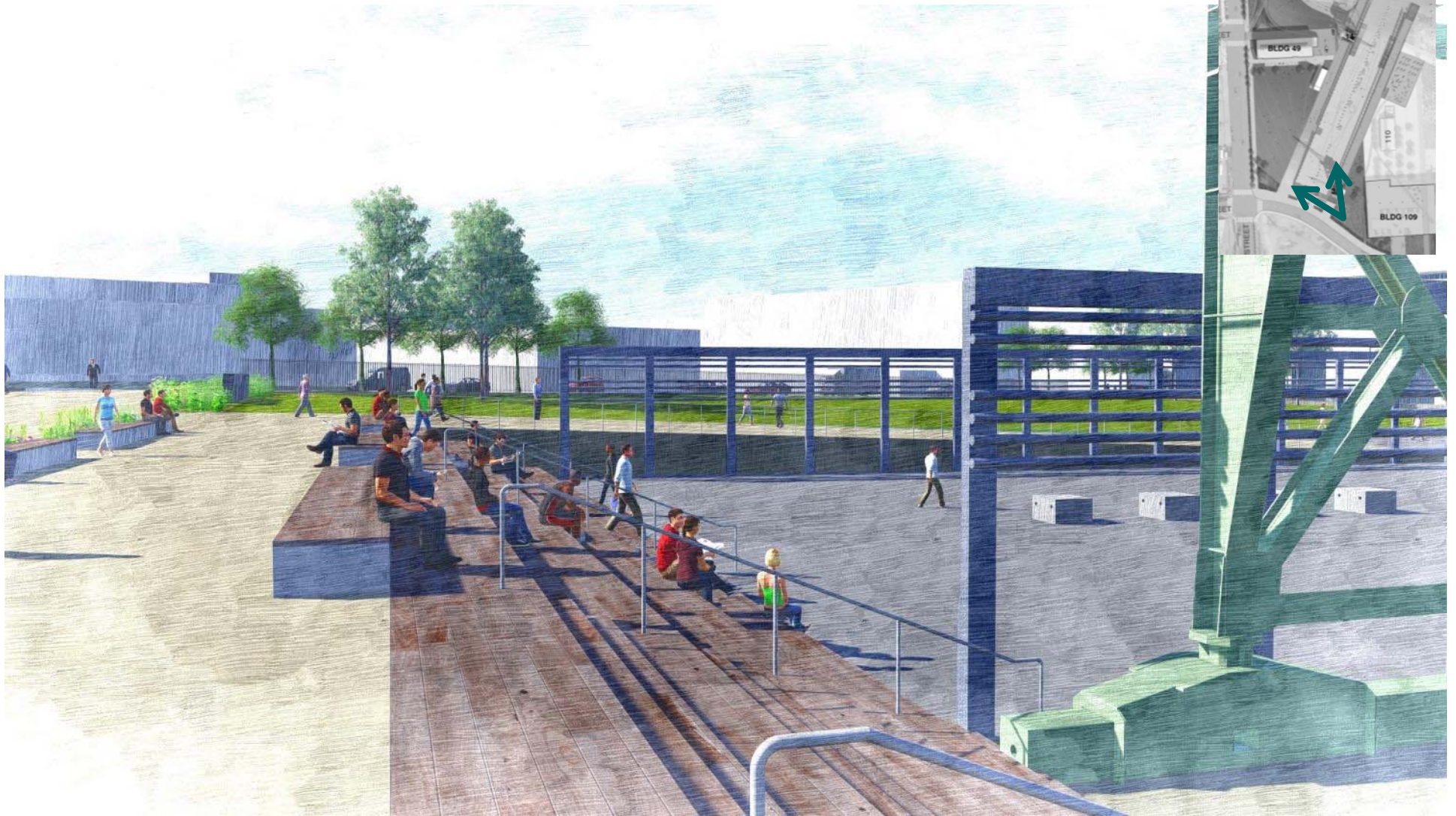
view at the end of slipway 4

option 1 crane plaza formal steps

before

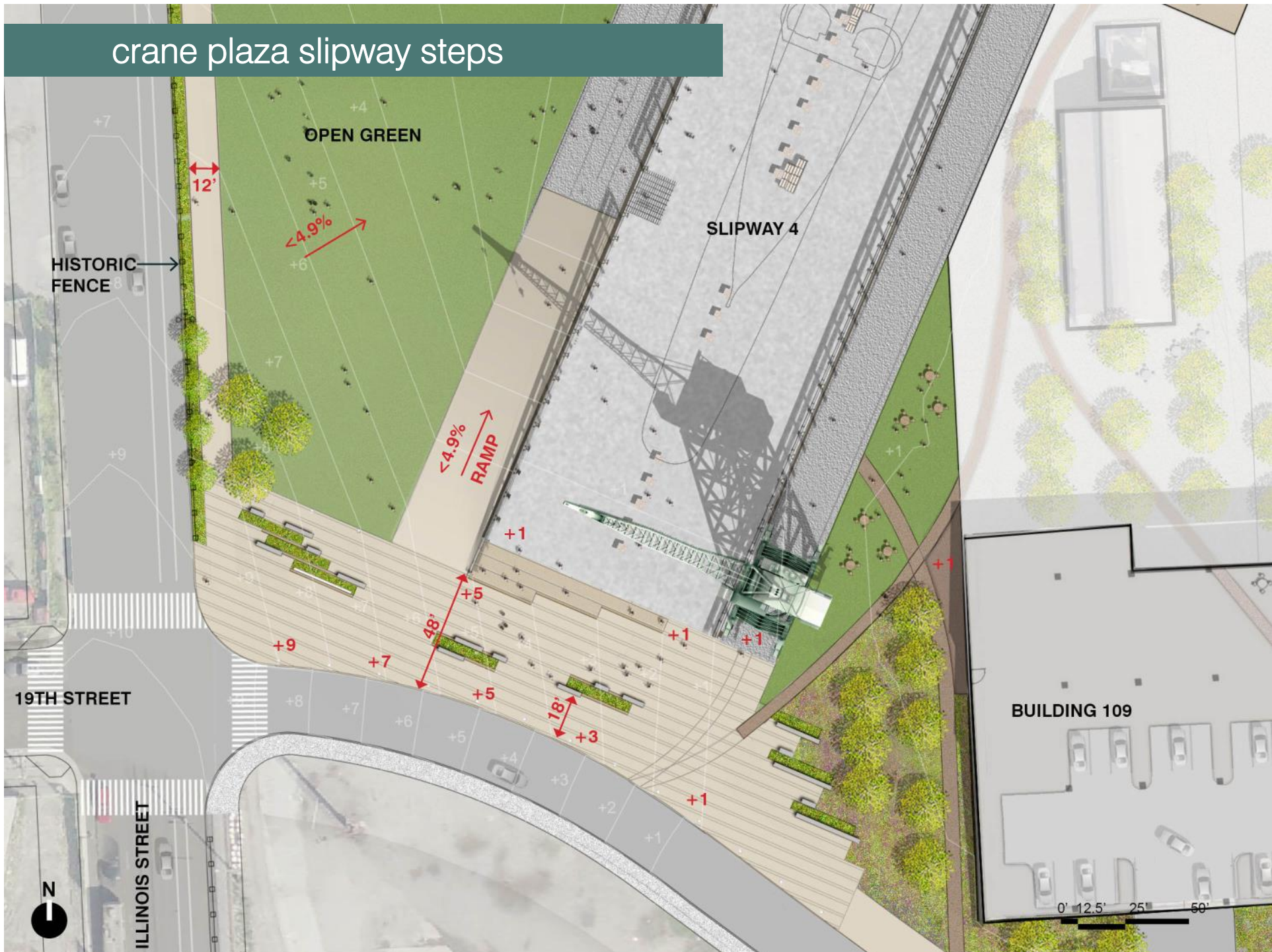


crane plaza formal steps



view at eastern runway facing west

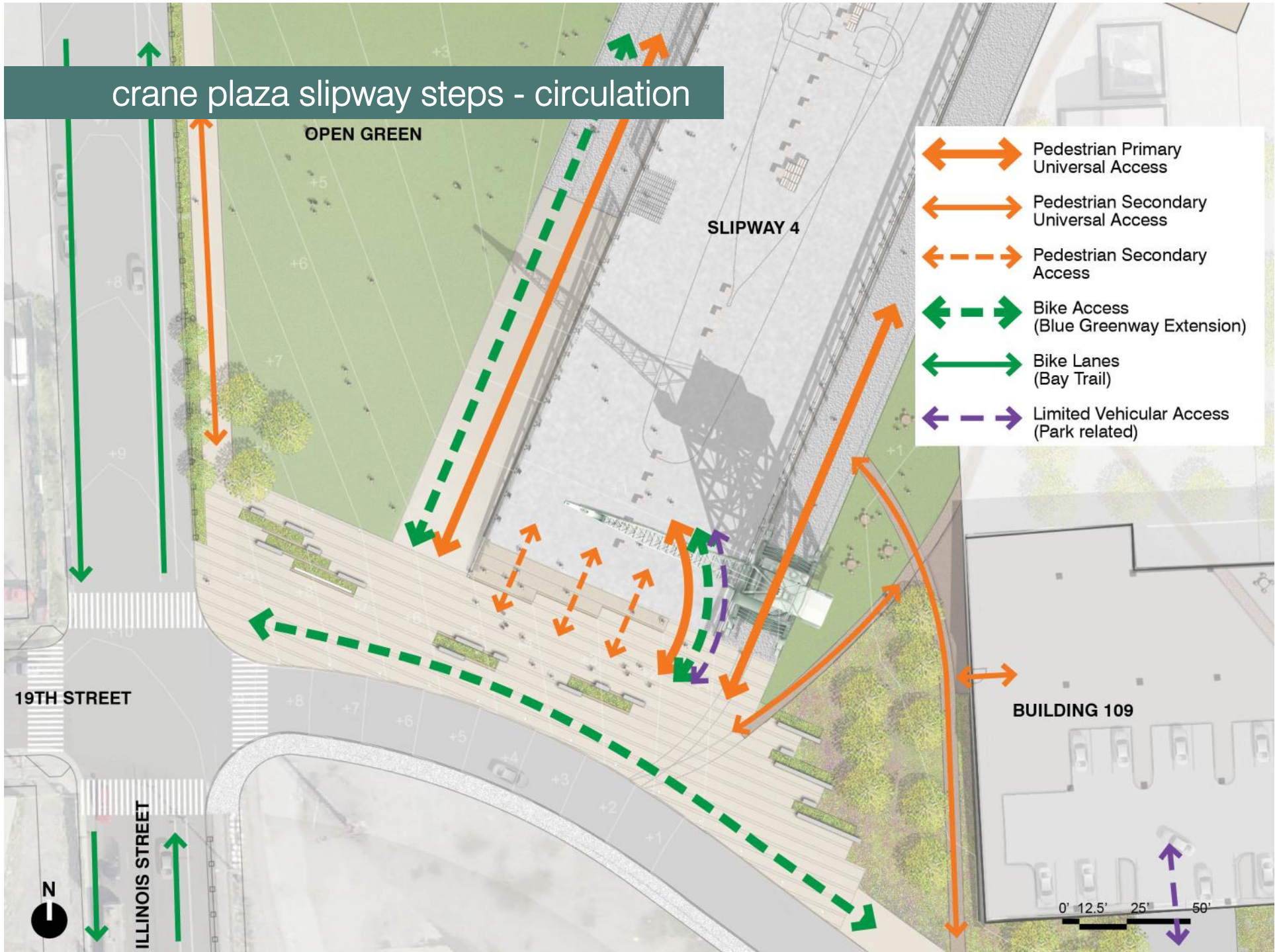
crane plaza slipway steps



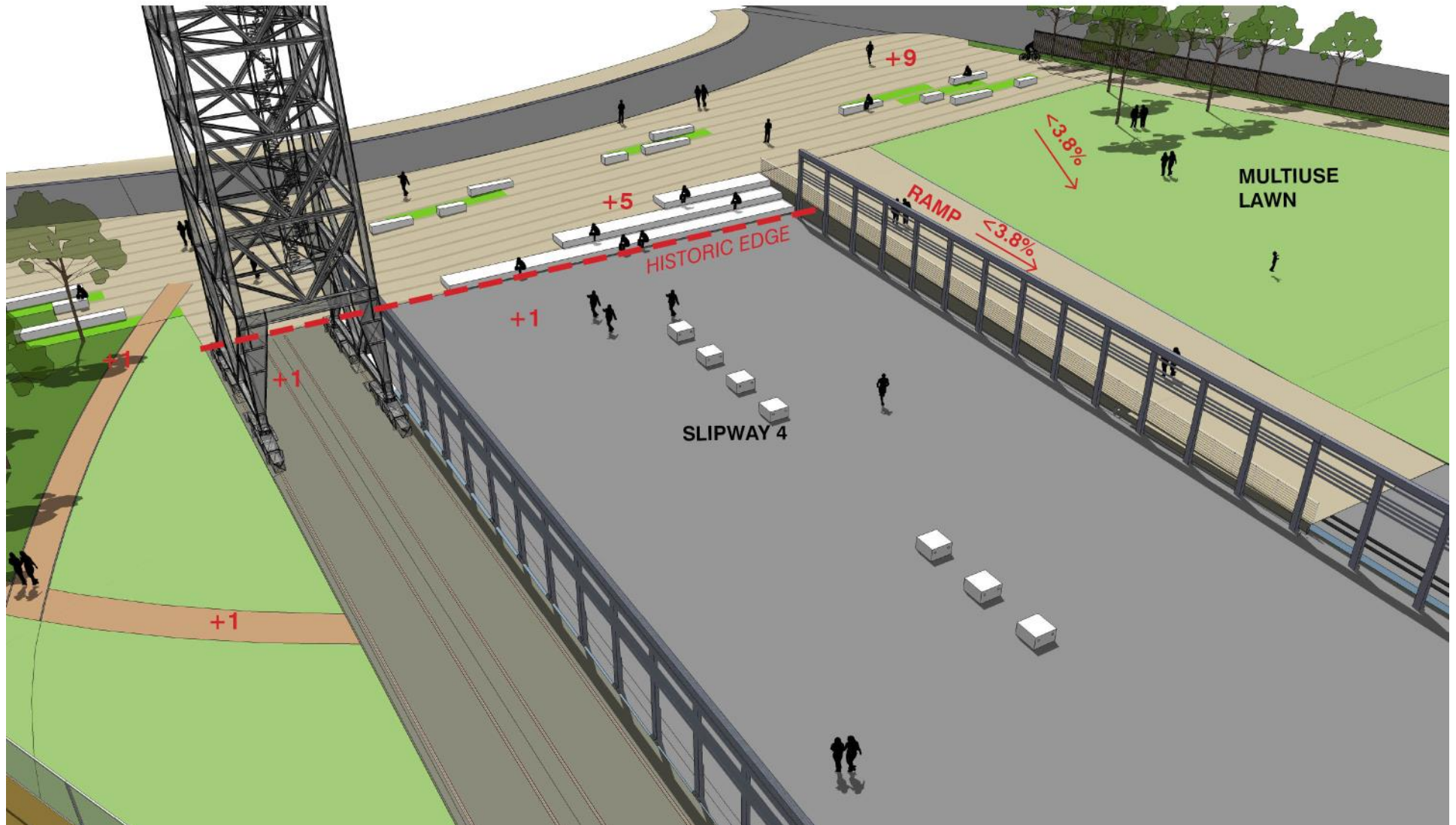
crane plaza slipway steps (cribbage)



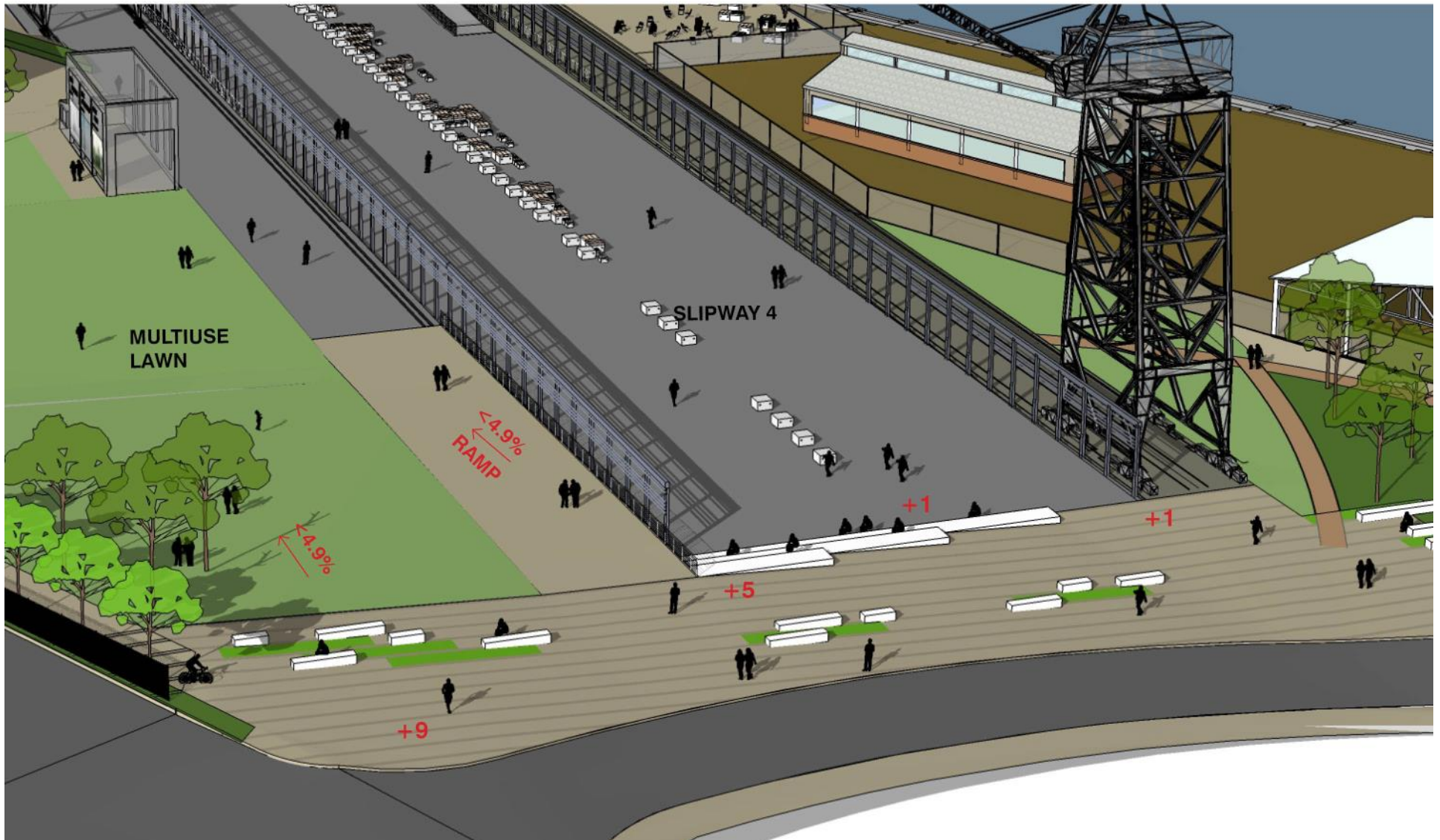
crane plaza slipway steps - circulation



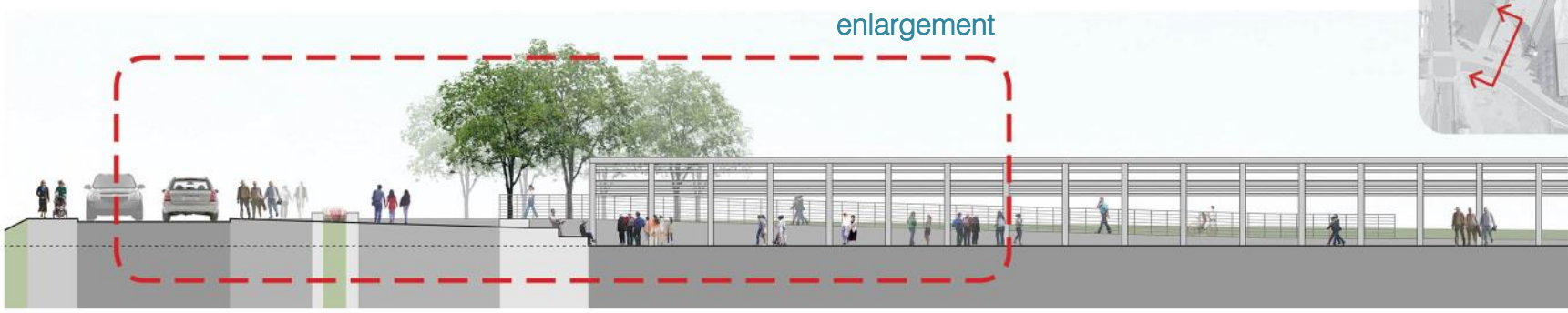
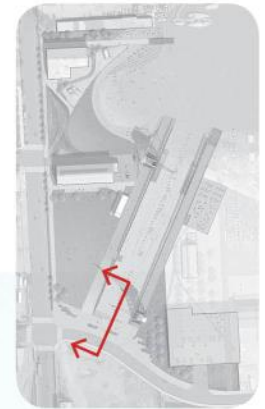
crane plaza slipway steps – 3D view



crane plaza slipway steps – 3D view

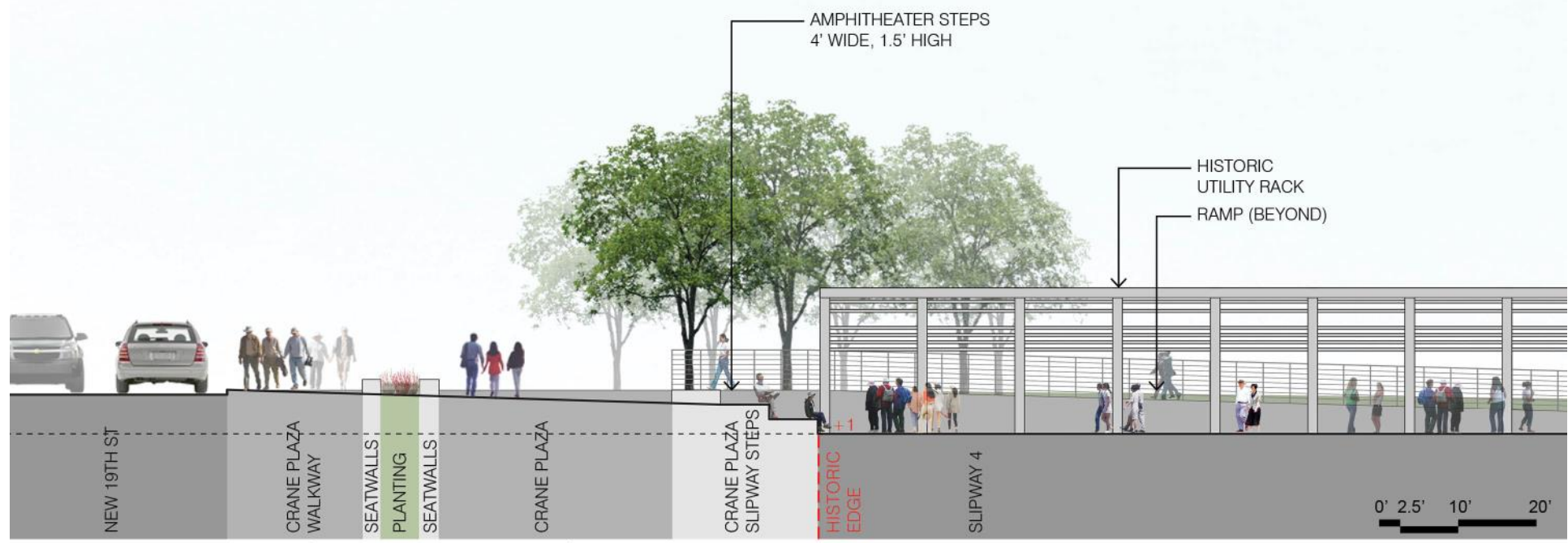


crane plaza slipway steps- section



enlargement

section at center of slipway 4 looking west



AMPHITHEATER STEPS
4' WIDE, 1.5' HIGH

HISTORIC
UTILITY RACK
RAMP (BEYOND)

NEW 19TH ST

CRANE PLAZA
WALKWAY

SEATWALLS
PLANTING
SEATWALLS

CRANE PLAZA

CRANE PLAZA
SLIPWAY STEPS

HISTORIC
EDGE

SLIPWAY 4

18'

22'

0' 2.5' 10' 20'

enlargement

crane plaza slipway steps

before



view from corner of 19th & Illinois

crane plaza slipway steps



view from corner of 19th & Illinois

crane plaza slipway steps

before



view at the end of slipway 4

crane plaza slipway steps



view at the end of slipway 4

crane plaza slipway steps



view at eastern runway facing west

crane plaza slipway steps



view at eastern runway facing west

material palette

PERMEABLE PAVING



CONCRETE PAVER



STONE COBBLE (OPTION)



STABILIZED DG (OPTION)

IMPERMEABLE PAVING



MEDIUM SANDBLAST

GRAY CONCRETE 1

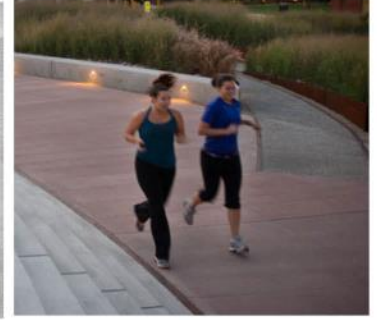


BROOM FINISH

GRAY CONCRETE 2



COLOR CONCRETE 1



COLOR CONCRETE 2

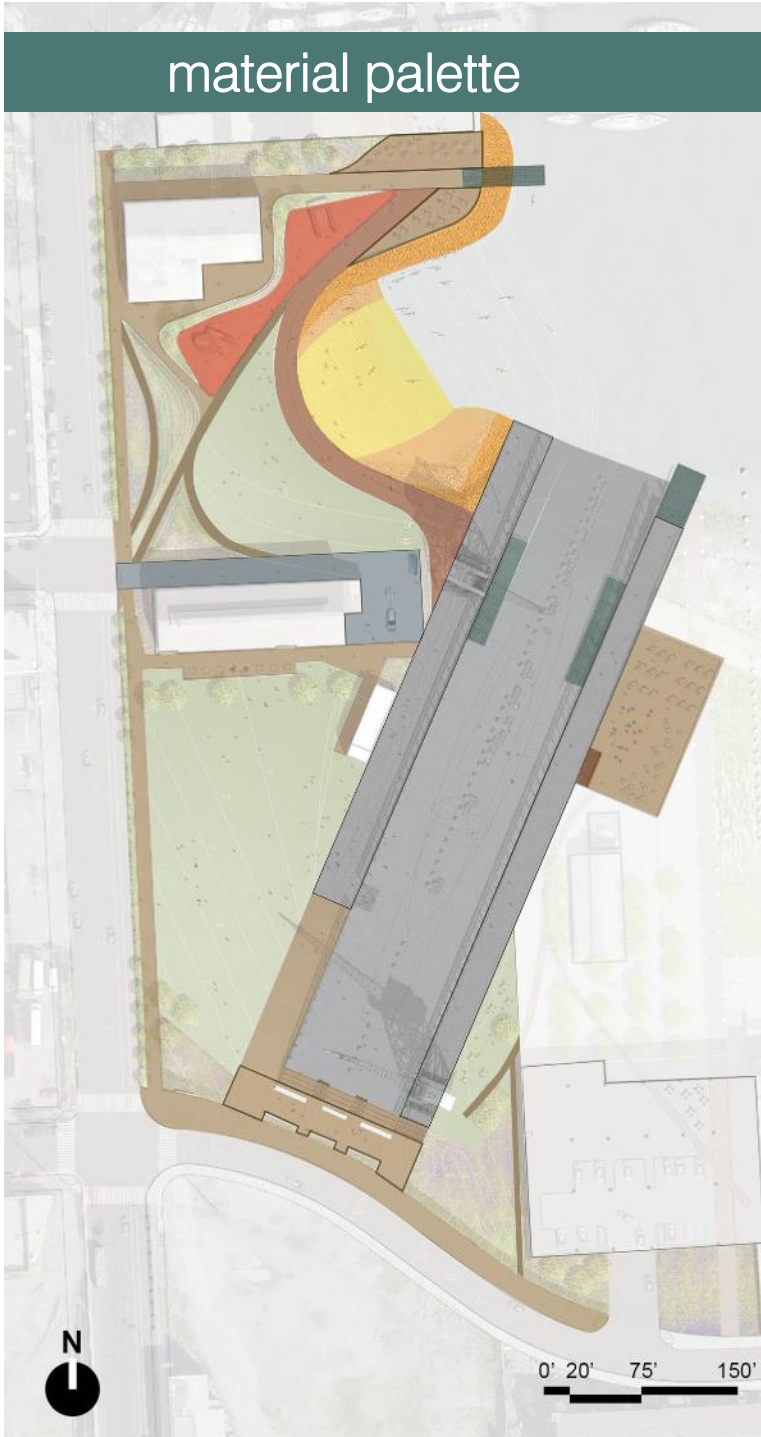


EXPOSED AGGREGATE

CONCRETE



COLOR ASPHALT



material palette

SANDY LAUNCH



CROWN BEACH, ALAMEDA

 SAND



 ROUND COBBLE



 RIPRAP

MARINE STRUCTURES



 METAL GRATE

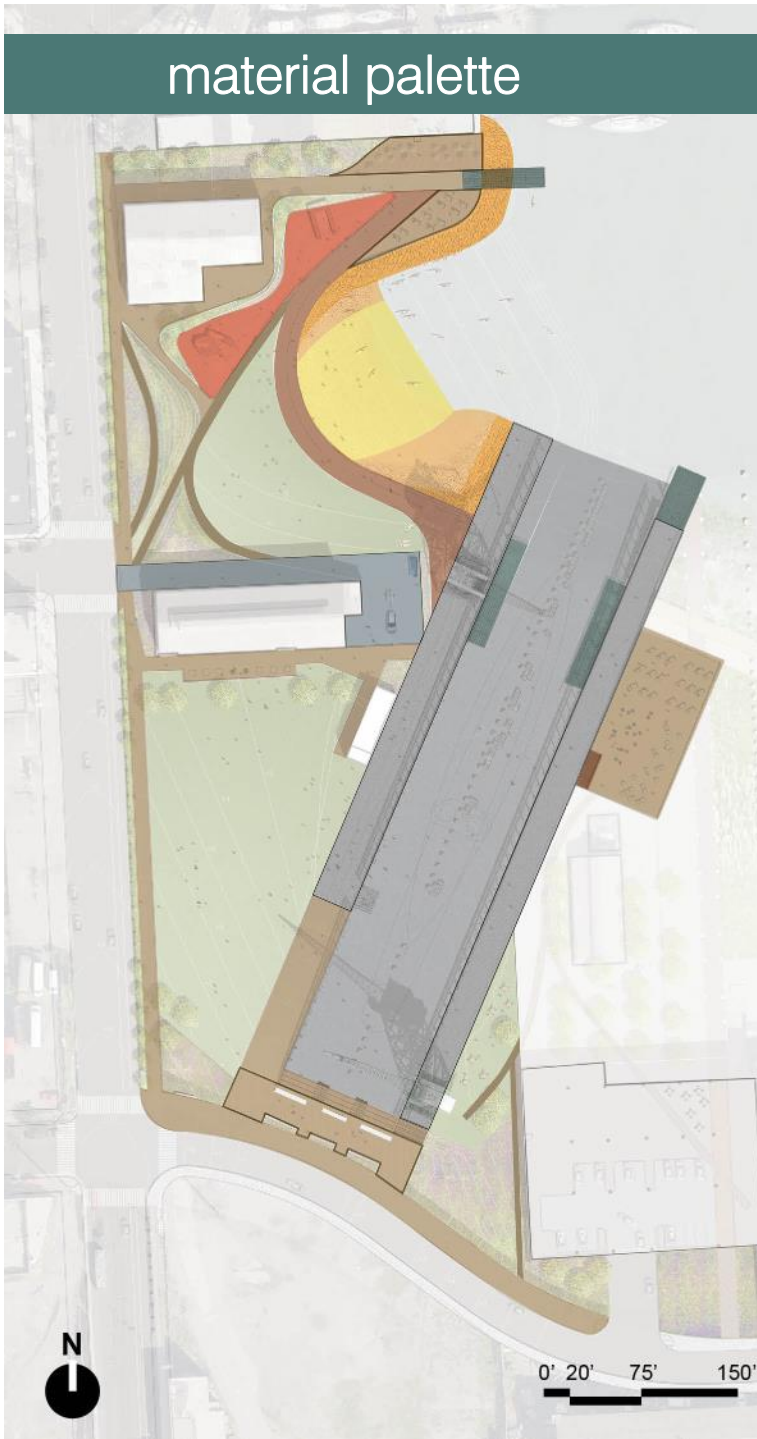


RECYCLED PLASTIC LUMBER
(OPTION)

PLAYGROUND



 RUBBER SURFACE



furnishing palette

SEAT WALLS



CONCRETE



TOP CAPPED (OPTION)



TOP & SIDE CAPPED (OPTION)

SEATING OPTIONS



BENCH (OPTION)



BENCH (OPTION)



BENCH (OPTION)



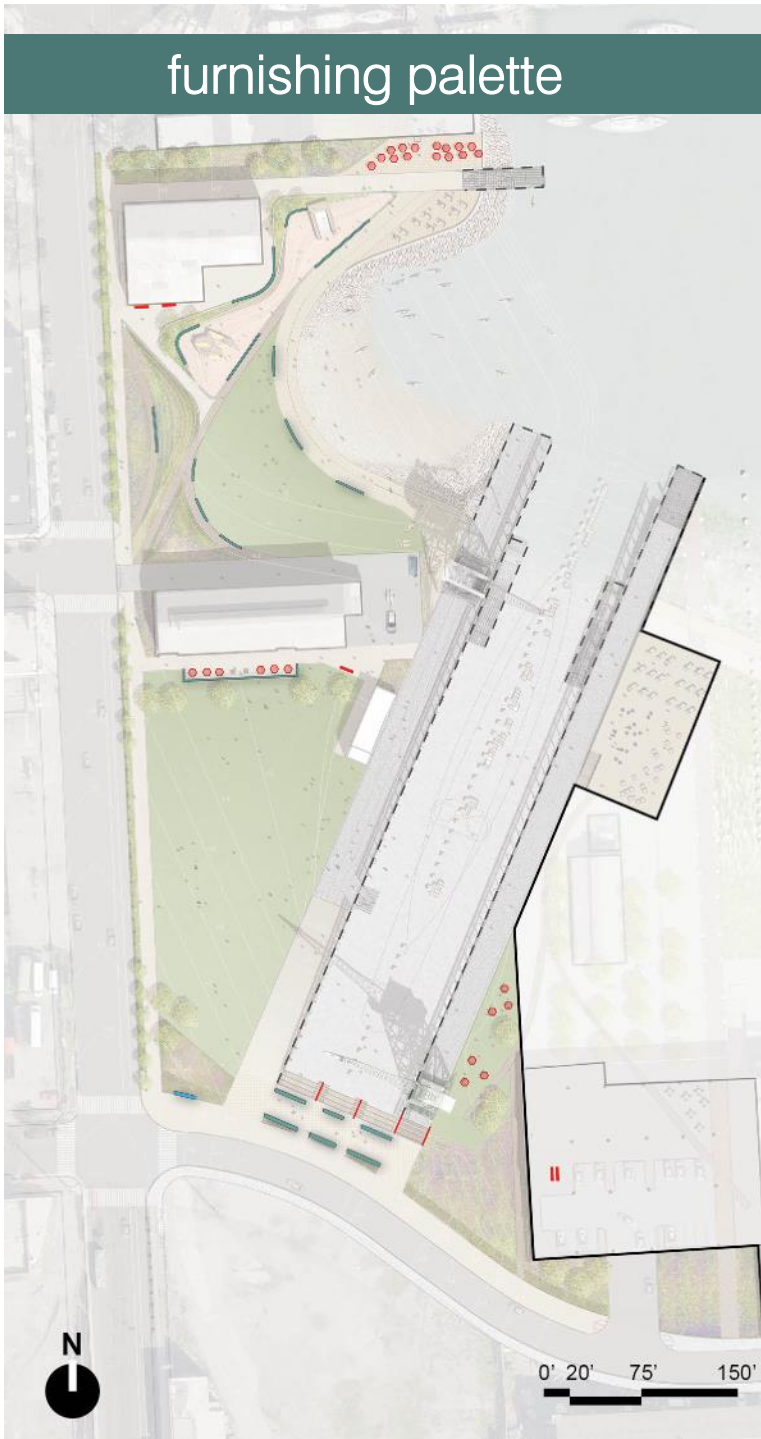
TABLE & CHAIRS



TABLE & CHAIRS



PICNIC TABLE

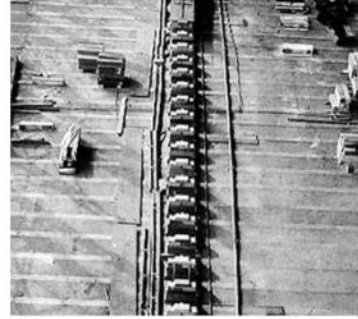


keel park (slipway 4)

INSPIRATION (KEEL BLOCKS)



HISTORIC KEEL BLOCK

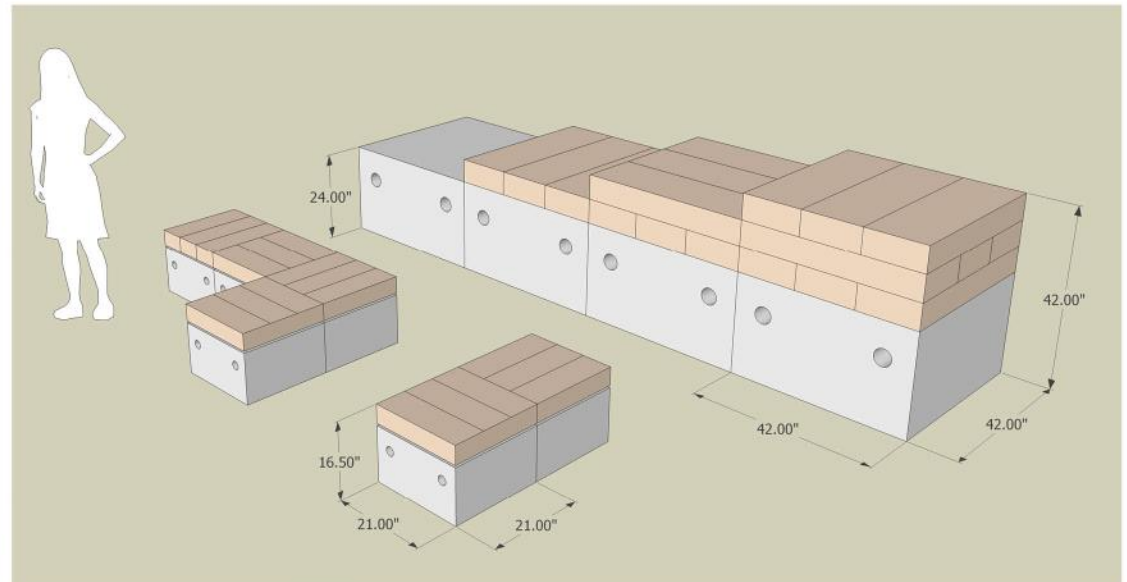


KEEL LINE, HISTORIC PHOTO



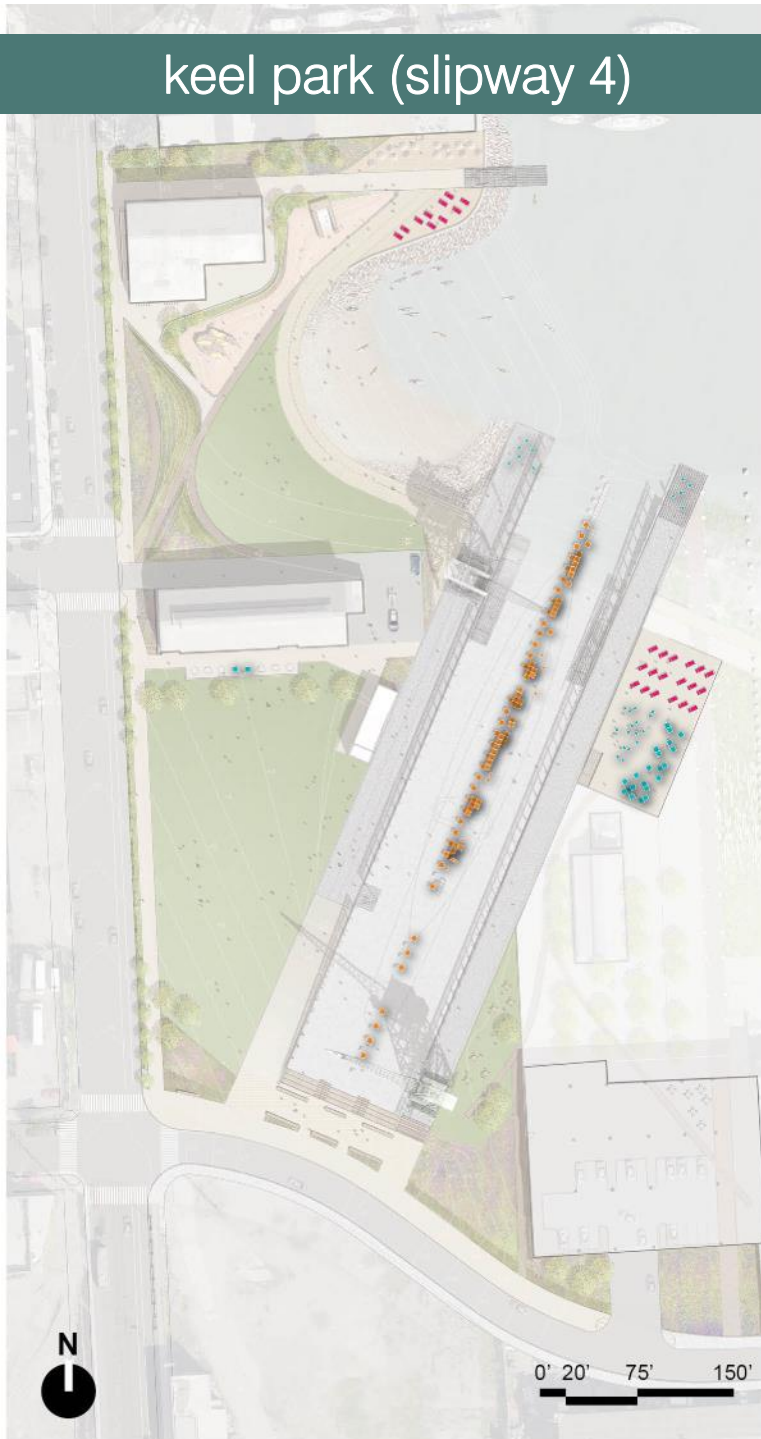
SHIP LAUNCH, HISTORIC PHOTO

CUSTOM FURNITURE IN SLIPWAY 4 - SEATING SERIES



SEATING

HISTORIC KEEL BLOCK



keel park (slipway 4)

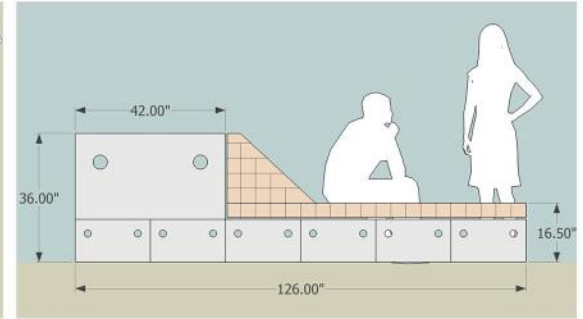
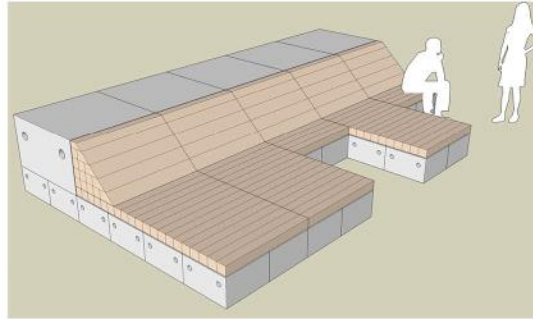


keel park (slipway 4)

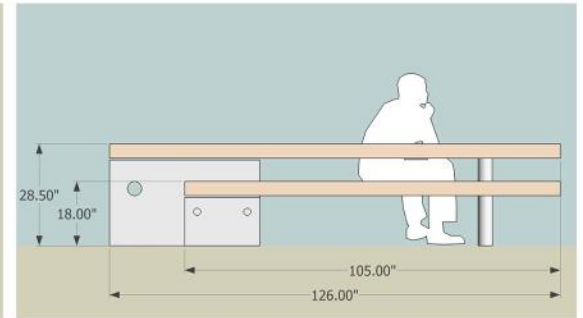
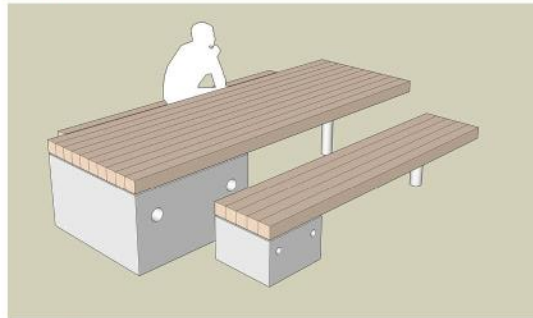


keel park (slipway 4)

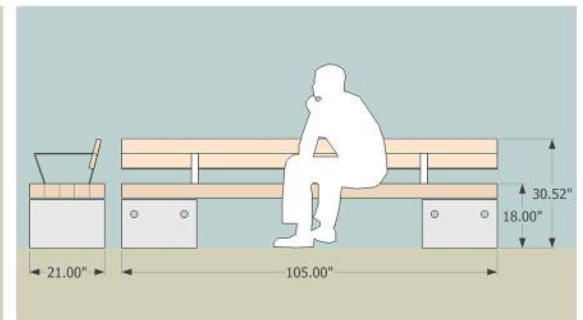
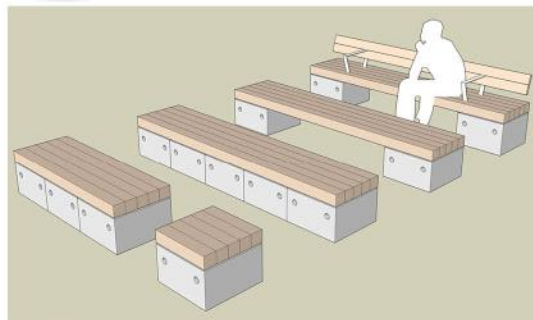
CUSTOM FURNITURE



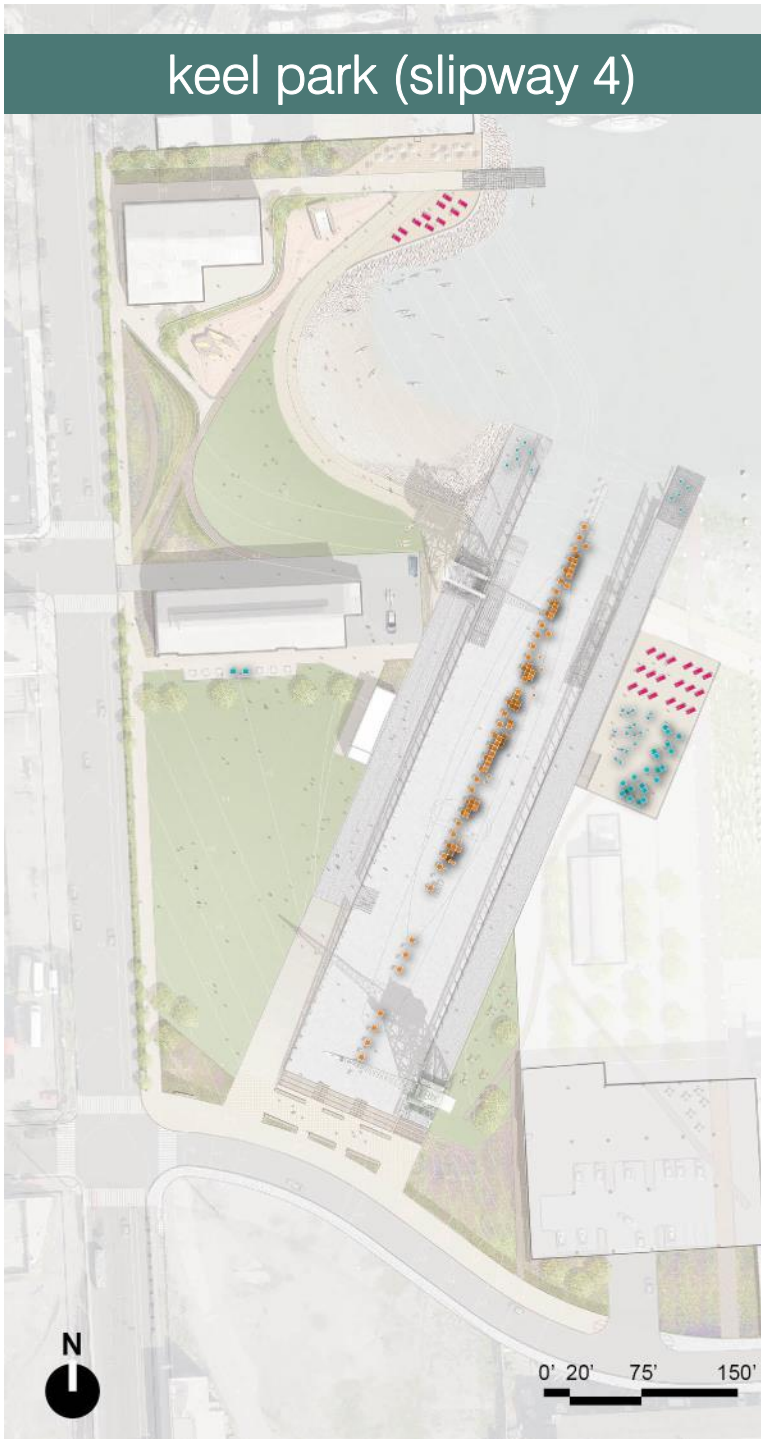
■ LOUNGE SERIES



■ PICNIC TABLE



■ BENCH SERIES



furnishing palette

RAILING / FENCING



MESH GUARDRAIL



HANDRAIL



FENCE (BOUNDARY)



PLAYGROUND FENCE (OPTION)

BIKE RACKS



BIKE RACK

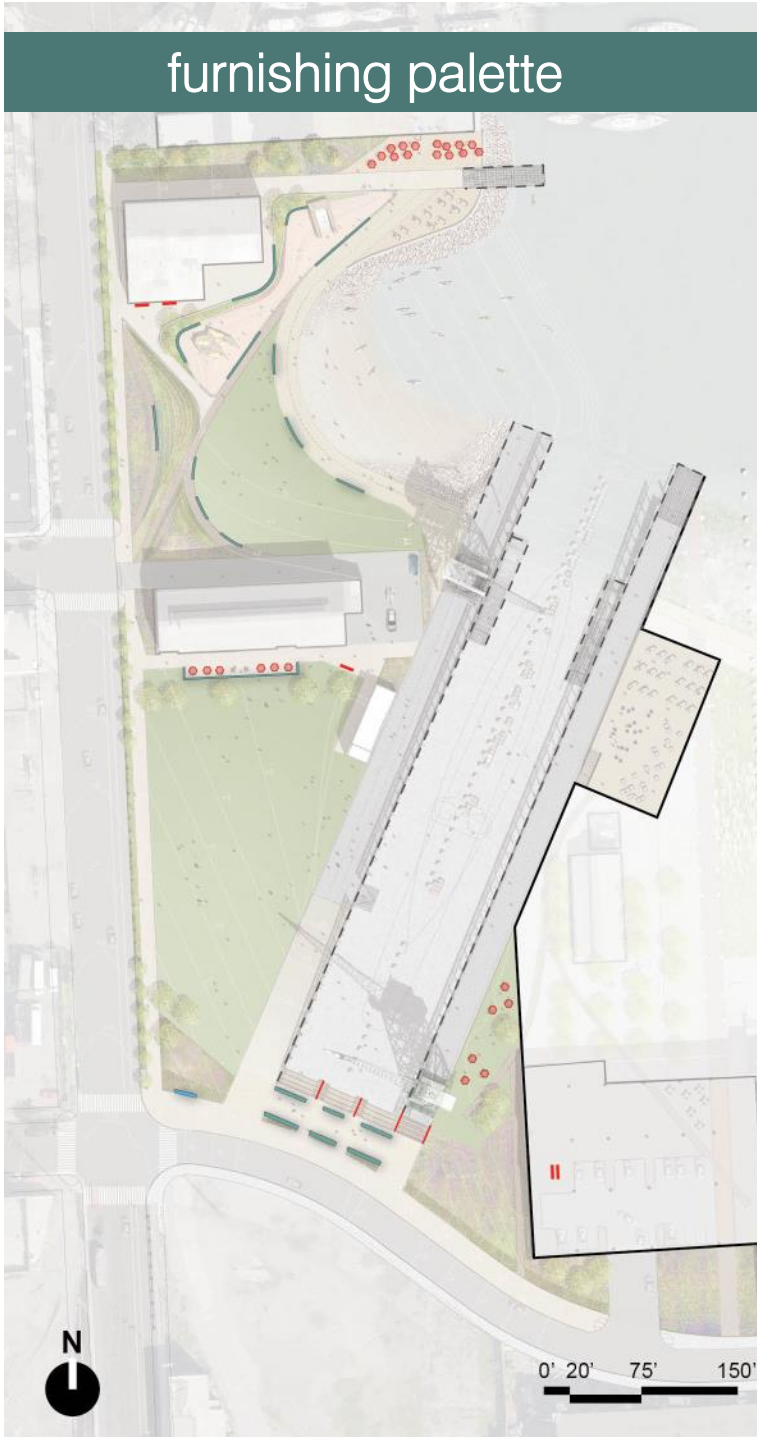


BIKE RACK (OPTION)

RECEPTACLES



RECEPTACLES (OPTION)



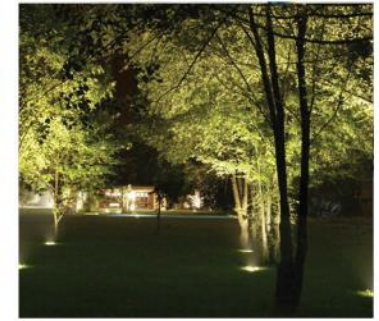
lighting palette



CRANE UPLIGHT



RECESSED WALL LIGHT



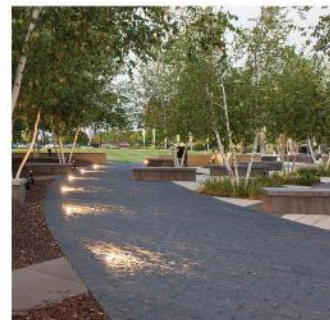
TREE UPLIGHT



UTILITY RACK UPLIGHT



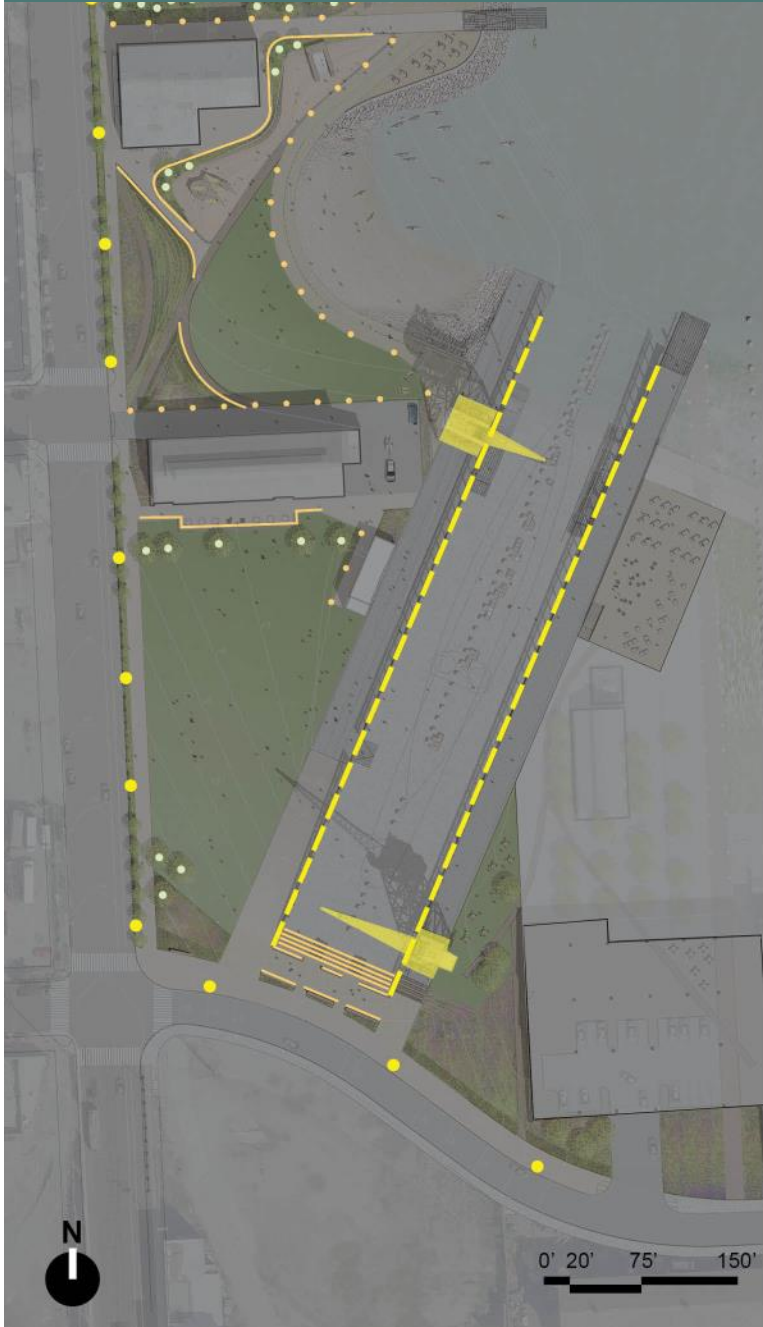
PEDESTRIAN POLE LIGHT (OPTION)



IN-GRADE PEDESTRIAN LIGHT



STREET POLE LIGHT (CITY)



0' 20' 75' 150'

planting palette



NATIVE GARDEN



DOUGLAS IRIS
IRIS DOUGLASIANA



SILVER DUNE LUPINE
LUPINUS CHAMISSONIS



ORCHID ROCKROSE
CISTUS PURPUREUS



CALIFORNIA BRITTLEBUSH
ENCELIA CALIFORNICA



BUCKWHEAT
ERIOGONUM SP.



WHITE SAGE
SALVIA APIANA



SAGE
SALVIA SP.

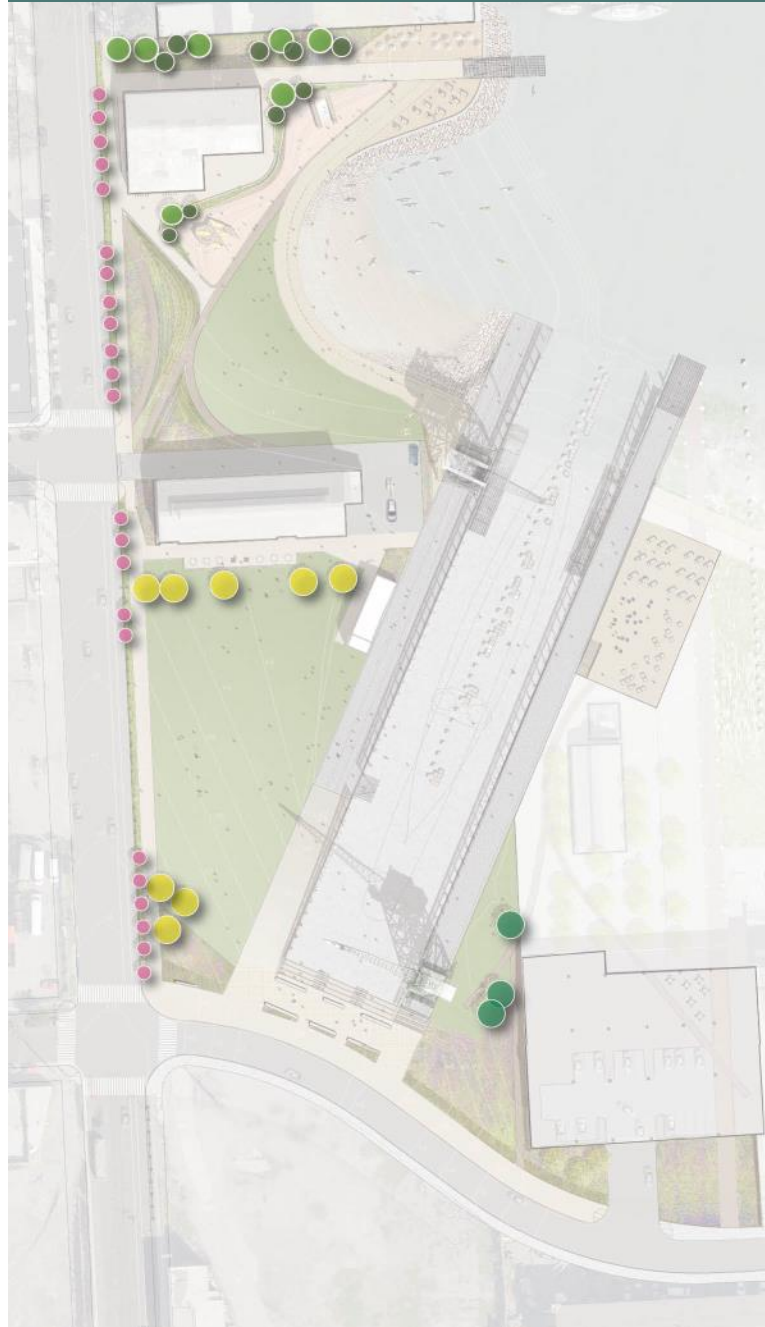


SPINY RUSH
JUNCUS ACUTUS



AMERICAN DUNE GRASS
LEYMUS MOLLIS

planting palette



● STREET TREES



WESTERN REDBUD
CERCIS OCCIDENTALIS



CALLERY PEAR
PYRUS CALLERYANA



WEeping BOTTLEBRUSH
CALLISTEMON VIMINALIS

● ● PARK TREES



CALIFORNIA BUCKEYE
AESCULUS CALIFORNICA



MONTEREY CYPRESS
CUPRESSUS MACROCARPA



BRISBANE BOX
LOPHOSTEMON CONFERTUS



SMALL LEAF TRISTANIA
TRISTANIOPSIS LAURINA

NATIVE GARDEN TREES



● MANZANITA
ARCTOSTAPHYLOS MANZANITA



● VINE MAPLE
ACER CIRCINATUM

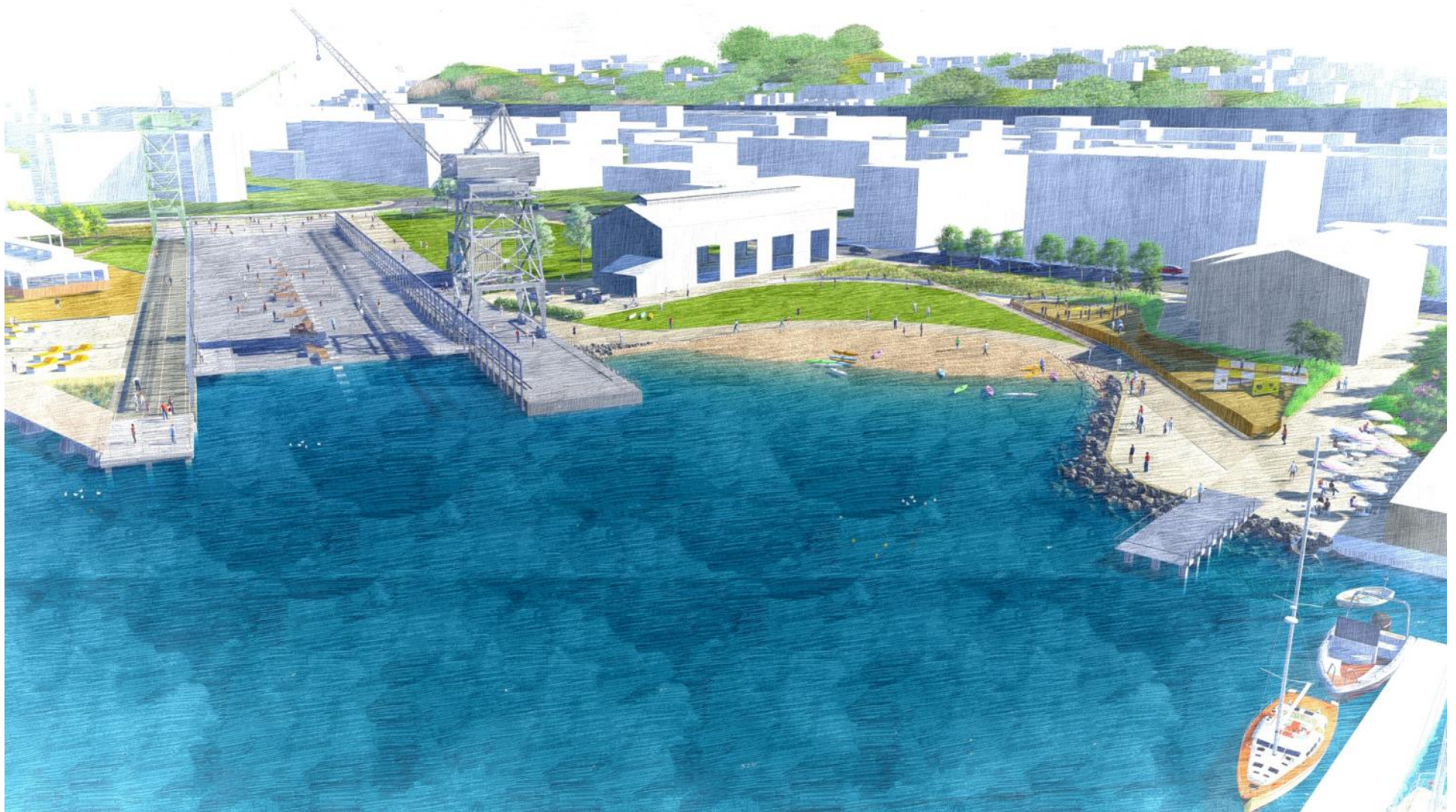
schematic design




schematic design



schematic design





next steps

- ✓ schematic design (SD), SD review, revise cost estimates
(Feb 14- July 14)
- ✓ begin detail design (DD), DD review, revise cost estimates
(July 14 – Dec 14)
- ✓ bid & award construction- begin construction
(Jan 15-Jun15)