

FOOTPRINT SALEM HARBOR STATION

02.26.2013 FOOTPRINT POWER LLC



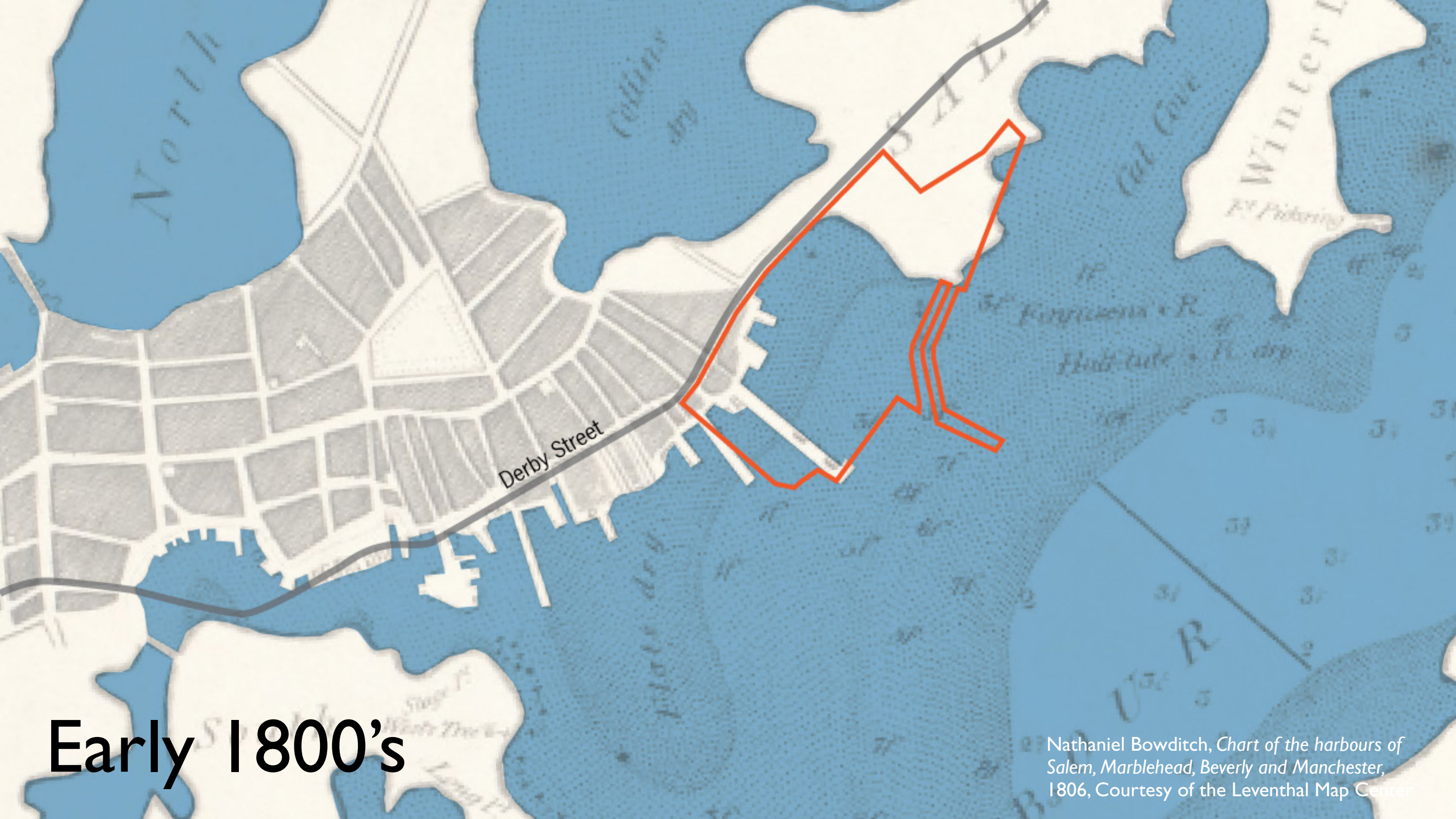
FOOTPRINT COMMITMENTS

- DEMOLITION OF EXISTING PART OF POWER PLANT NOT INTENDED FOR BENEFICIAL REUSE
- ENVIRONMENTAL ISSUES ON SITE:
IN CONFORMANCE WITH
THE MASSACHUSETTS CONTINGENCY PLAN
- NO NEW CHAIN LINK FENCES
- MAJOR CONSTRUCTION MATERIAL
DELIVERED BY WATER
- COMMUNITY BENEFITS AGREEMENT
- TAXES



1806

George Ropes Jr, *Crowninshield's Wharf*, 1806,
Courtesy of the Peabody Essex Museum



Derby Street

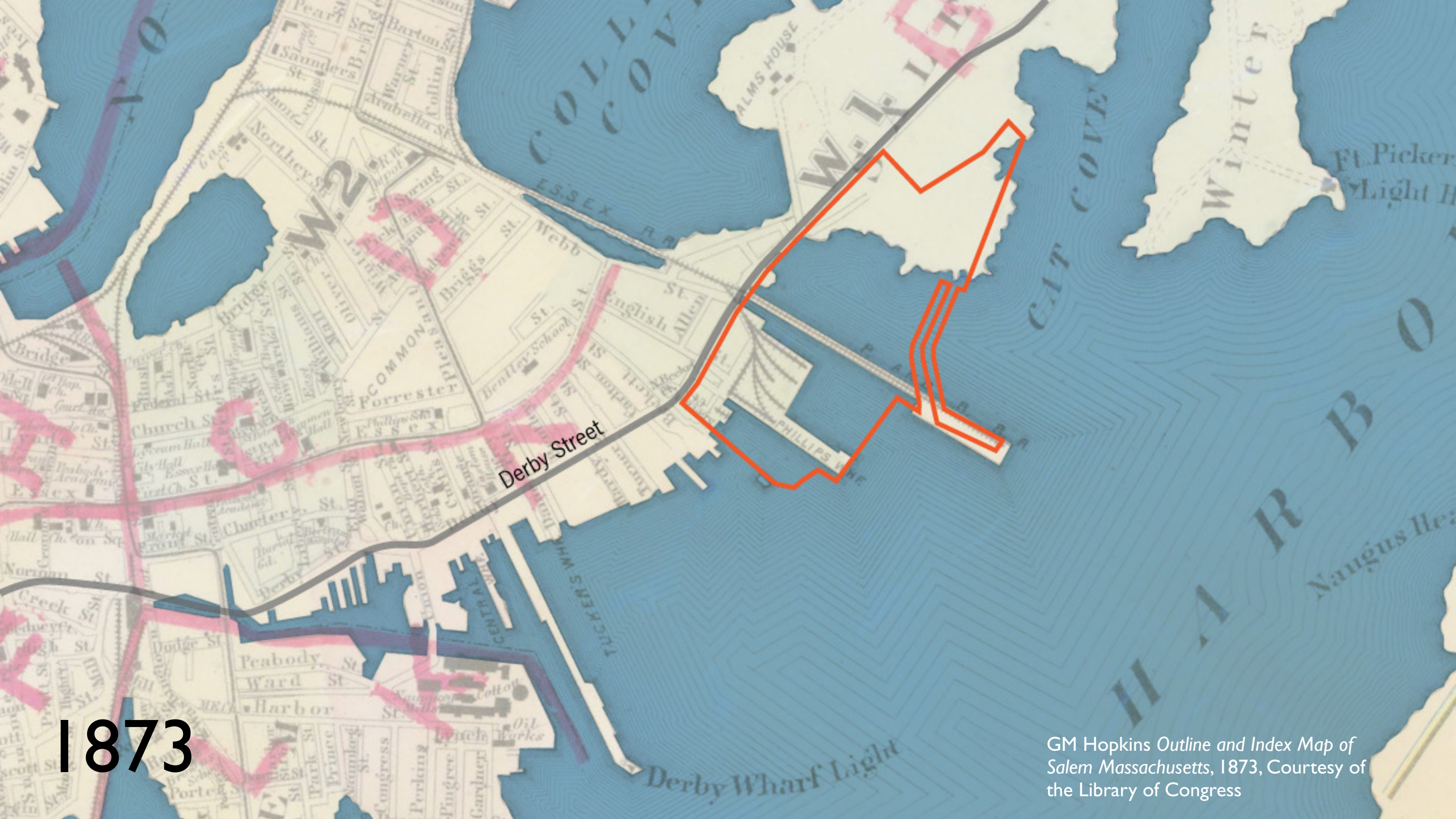
Early 1800's

Nathaniel Bowditch, *Chart of the harbours of Salem, Marblehead, Beverly and Manchester*, 1806, Courtesy of the Leventhal Map Center



1847

HF Walling and Orlando Gray, *City of Salem, 1871*, Courtesy of the David Rumsey Historical Map Collection



1873

GM Hopkins Outline and Index Map of
Salem Massachusetts, 1873, Courtesy of
the Library of Congress



1924

USGS Salem Mass, Edition of 1944,
Courtesy of the Library of Congress



1948-1952

USGS Salem Mass, Edition of 1955,
Courtesy of the Library of Congress



Derby Street

2012

Google Maps, Salem MA 2012

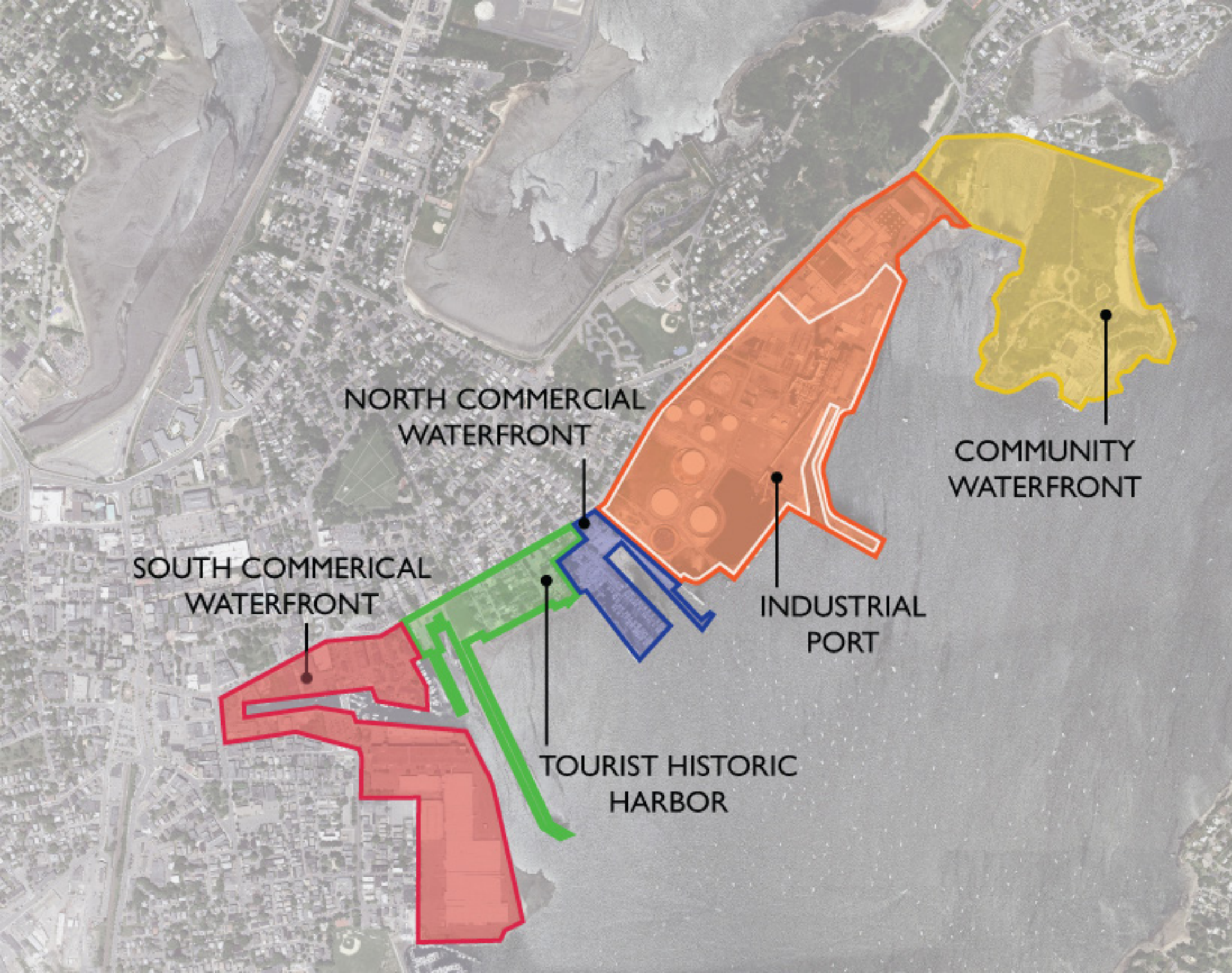
SIZE COMPARISON

Information from the
SASAKI Site Assessment
Study, January 2012



SALEM HARBOR MUNICIPAL PLAN

Information from the
SASAKI Site Assessment
Study, January 2012



ILLUSTRATIVE MASTER PLAN

Information from the
SASAKI Site Assessment
Study, January 2012



New Mixed Use /
Commercial Buildings
and Surface Parking

Potential Shared
Parking Lot

Industrial
Block

Industrial
Block

Industrial
Block

Parking - 250 Spaces

New Terminal
Building with
Supporting
Retail / Commercial

Promenade and
Waterfront Lawn

Cruise Ship / Industrial Dock

Harbor Walk

Jetty Park

Ferry Dock

DPA Channel

LOCAL ZONING

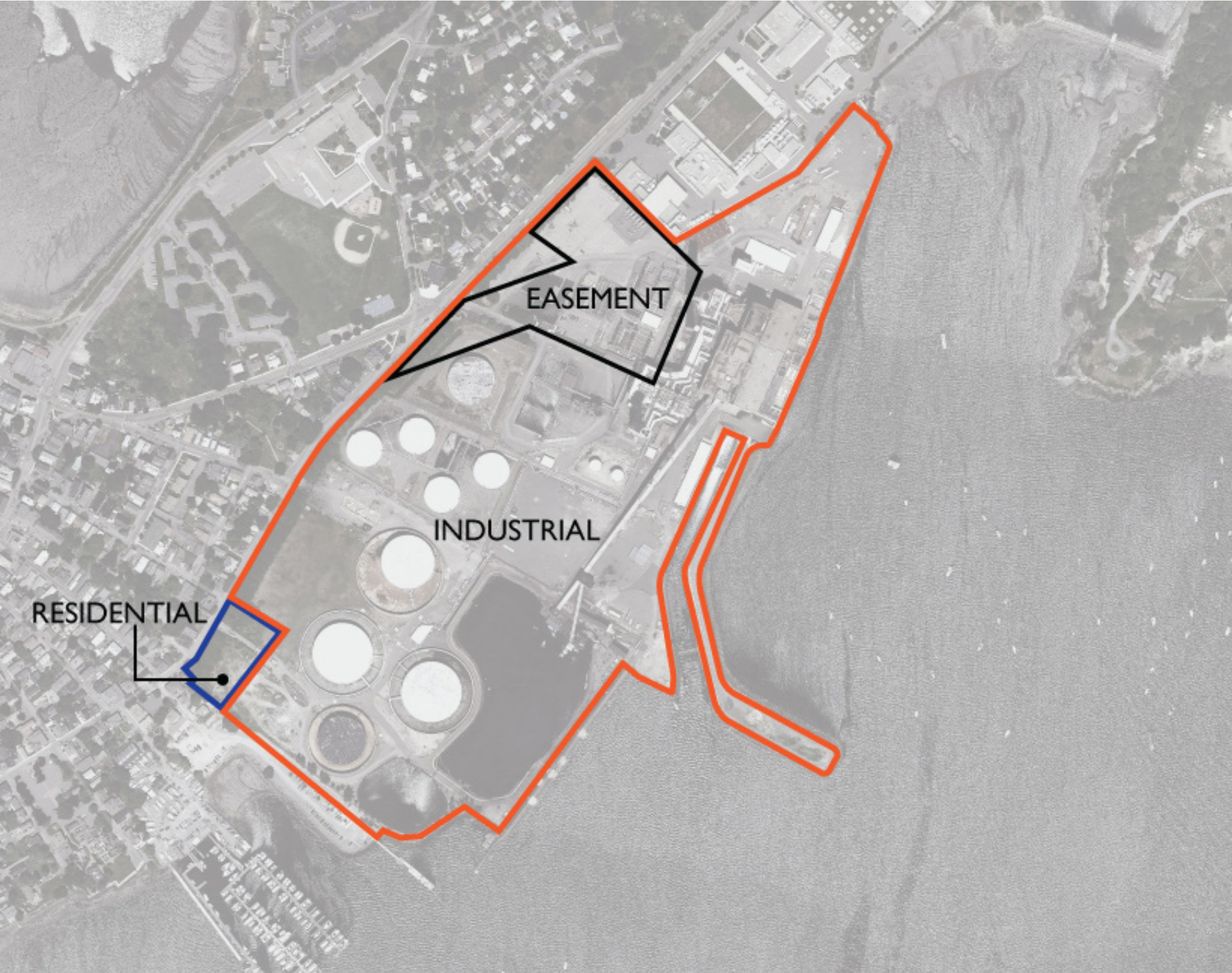
Total site is approx.
62 Acres

Site Breakdown:

Includes a 10 Acre
Easement for NGRID
switchyard and substation

Approximately 2 Acres
Zoned Residential

Majority Zoned Industrial



FOOTPRINT SALEM HARBOR STATION

Facility Occupies

20 Acres

-or-

**32% of
total site**



FOOTPRINT POWER STATION

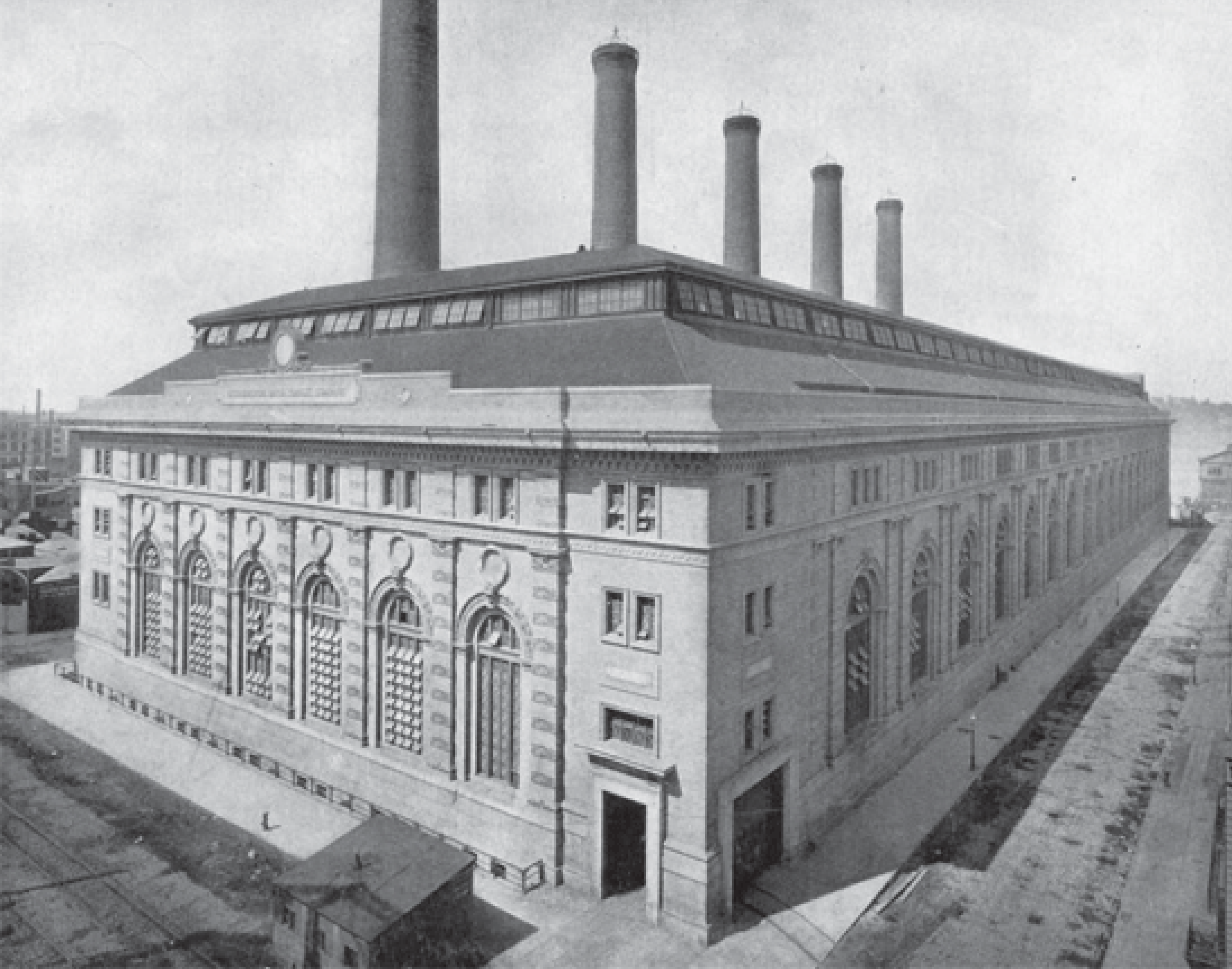
Hardscape Occupies

13 Acres

-or-

**20% of
total site**





POWERPLANT ARCHITECTURE

IRT POWERHOUSE
New York City, 1904

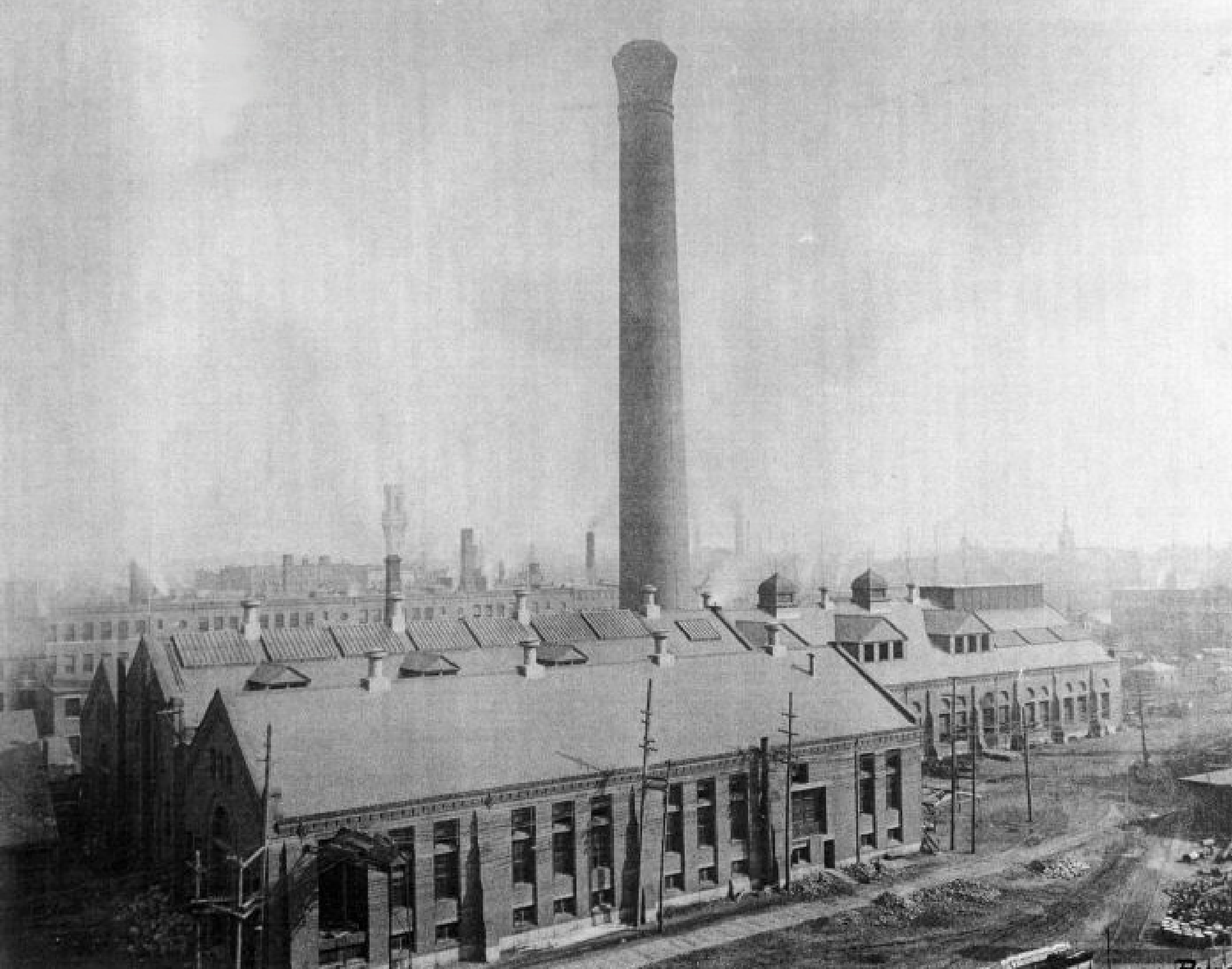
McKim Mead & White



POWERPLANT ARCHITECTURE

BANKSIDE POWER
STATION (now the Tate
Modern)
London, 1947

Sir Giles Gilbert Scott



POWERPLANT ARCHITECTURE

WEST END STREET
RAILWAY CENTRAL
POWER STATION
(now SoWa Arts District)
Boston, 1892

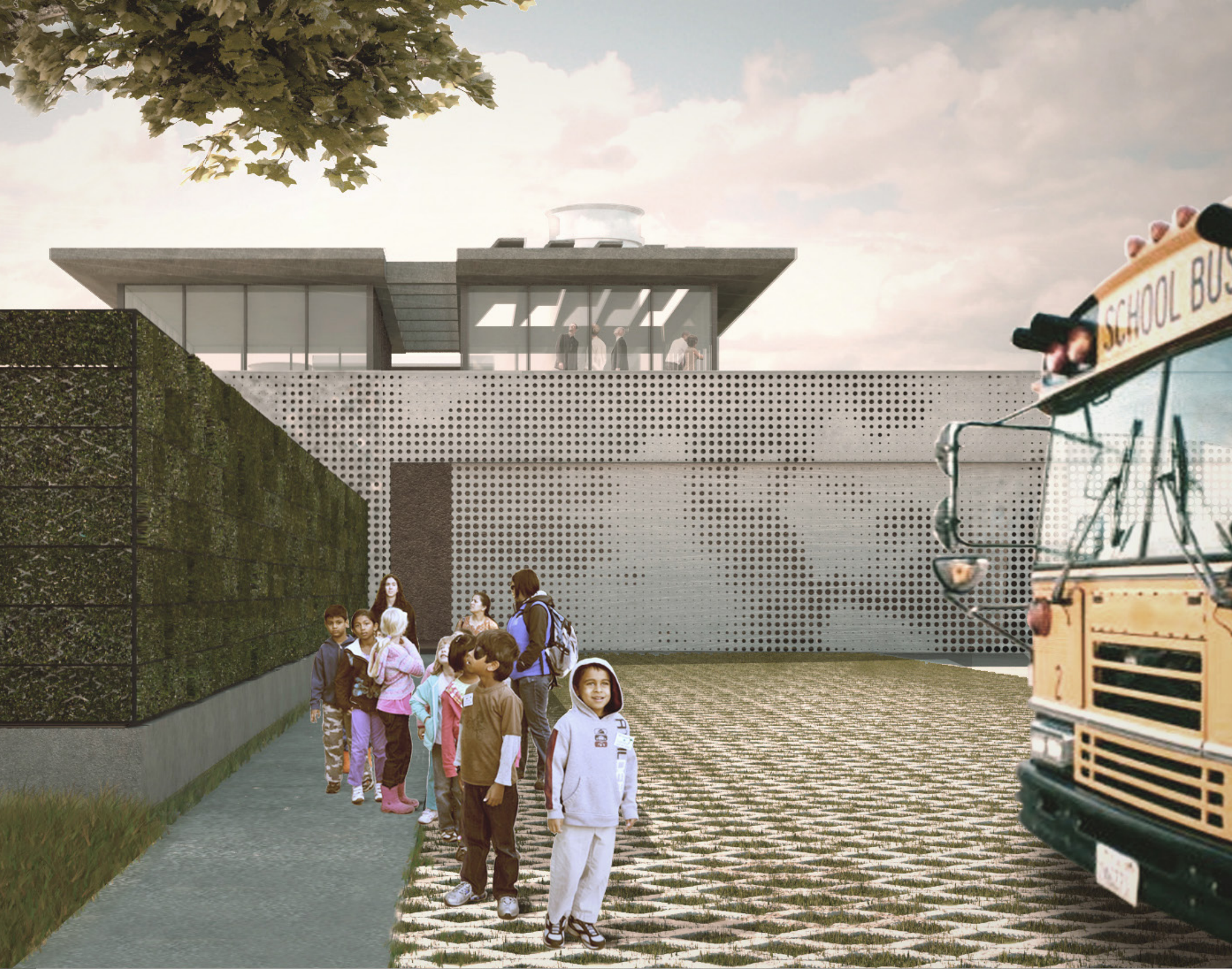
William G Preston

POWERPLANT ARCHITECTURE

GOWANUS
POWER PLAN
New York City, 2008

COOKFOX Architects





POWERPLANT ARCHITECTURE

GOWANUS
POWER PLAN
New York City, 2008

COOKFOX Architects

GAS COMPRESSOR

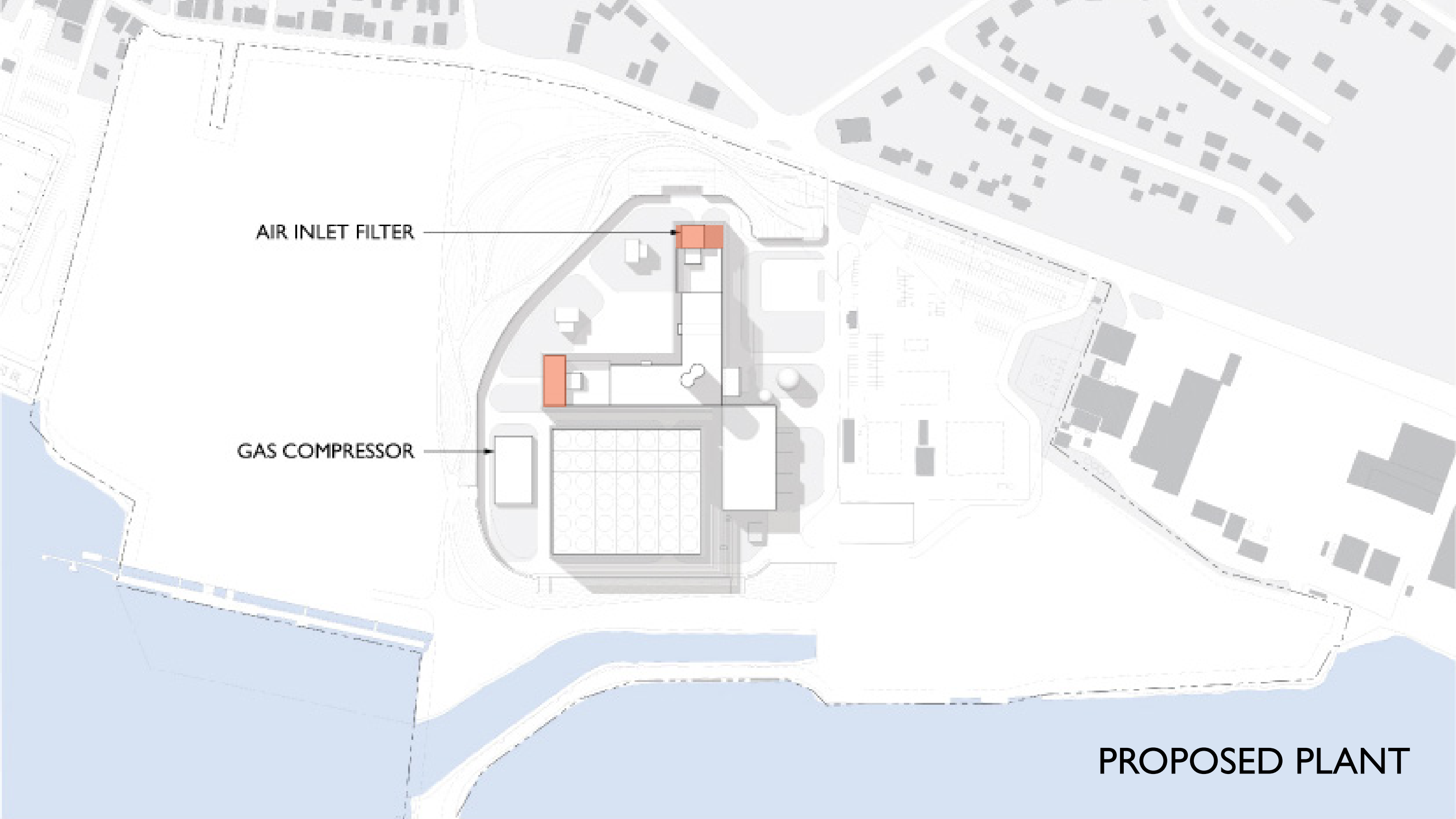


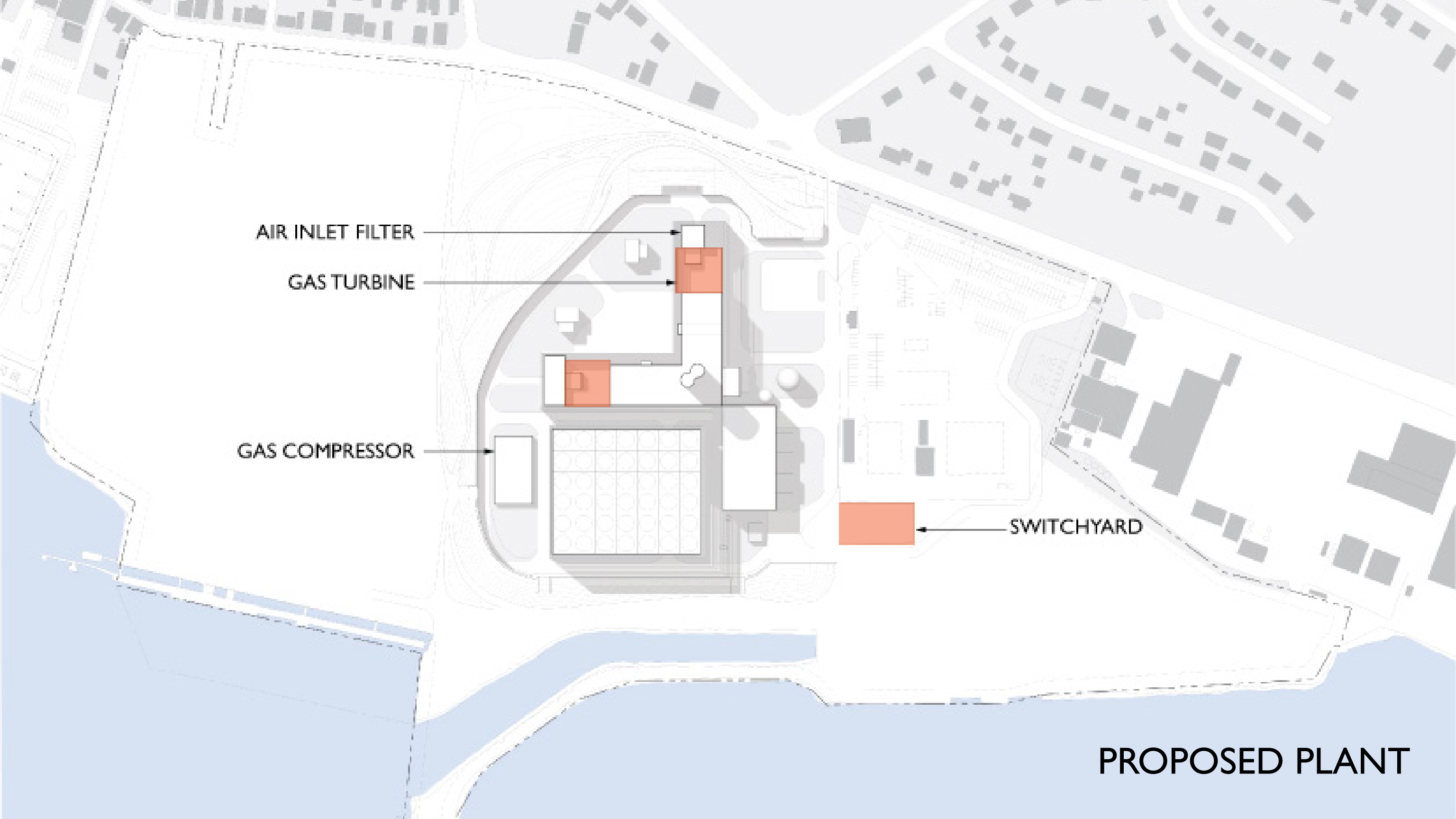
PROPOSED PLANT

AIR INLET FILTER

GAS COMPRESSOR

PROPOSED PLANT





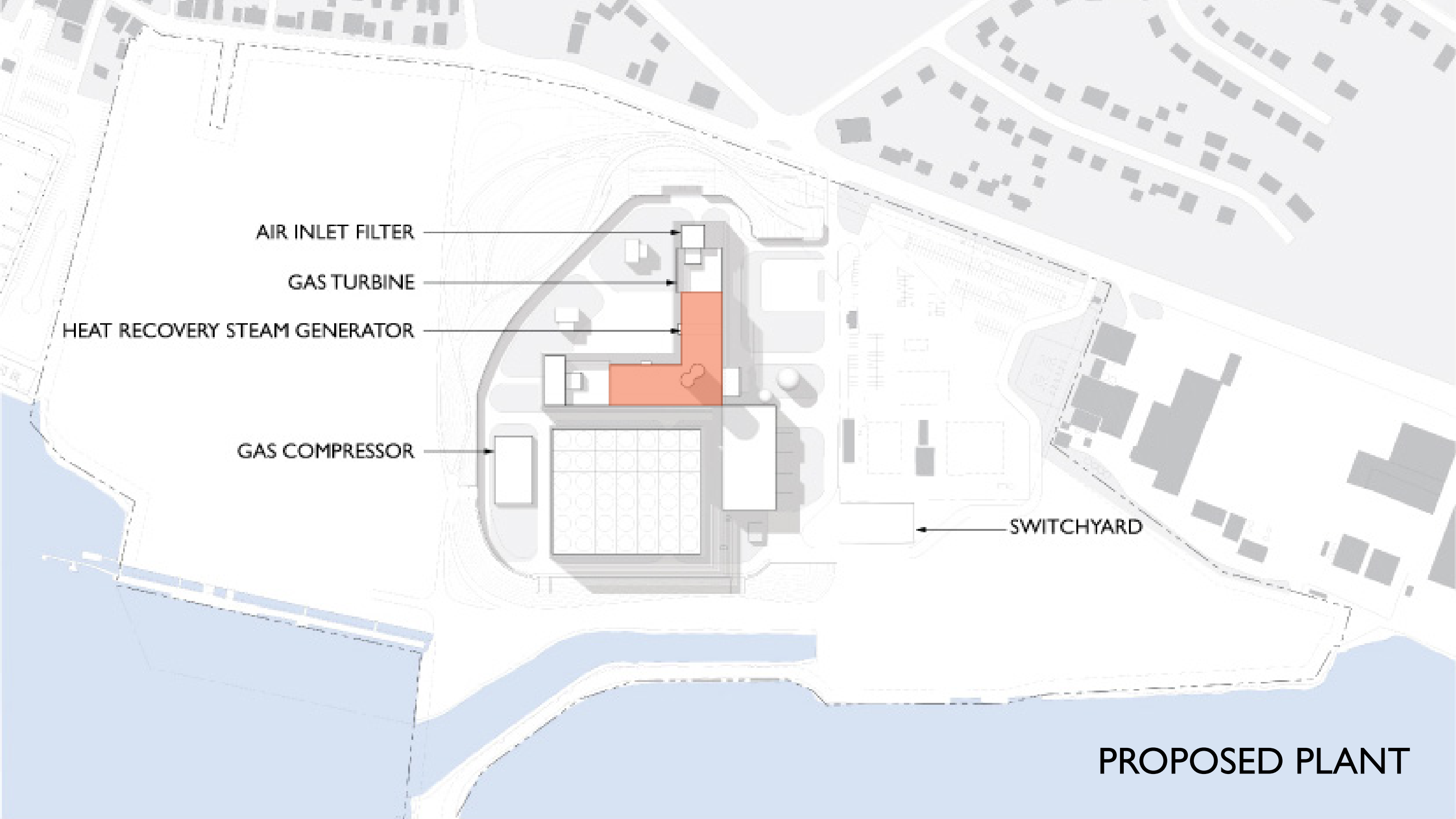
AIR INLET FILTER

GAS TURBINE

GAS COMPRESSOR

SWITCHYARD

PROPOSED PLANT



AIR INLET FILTER

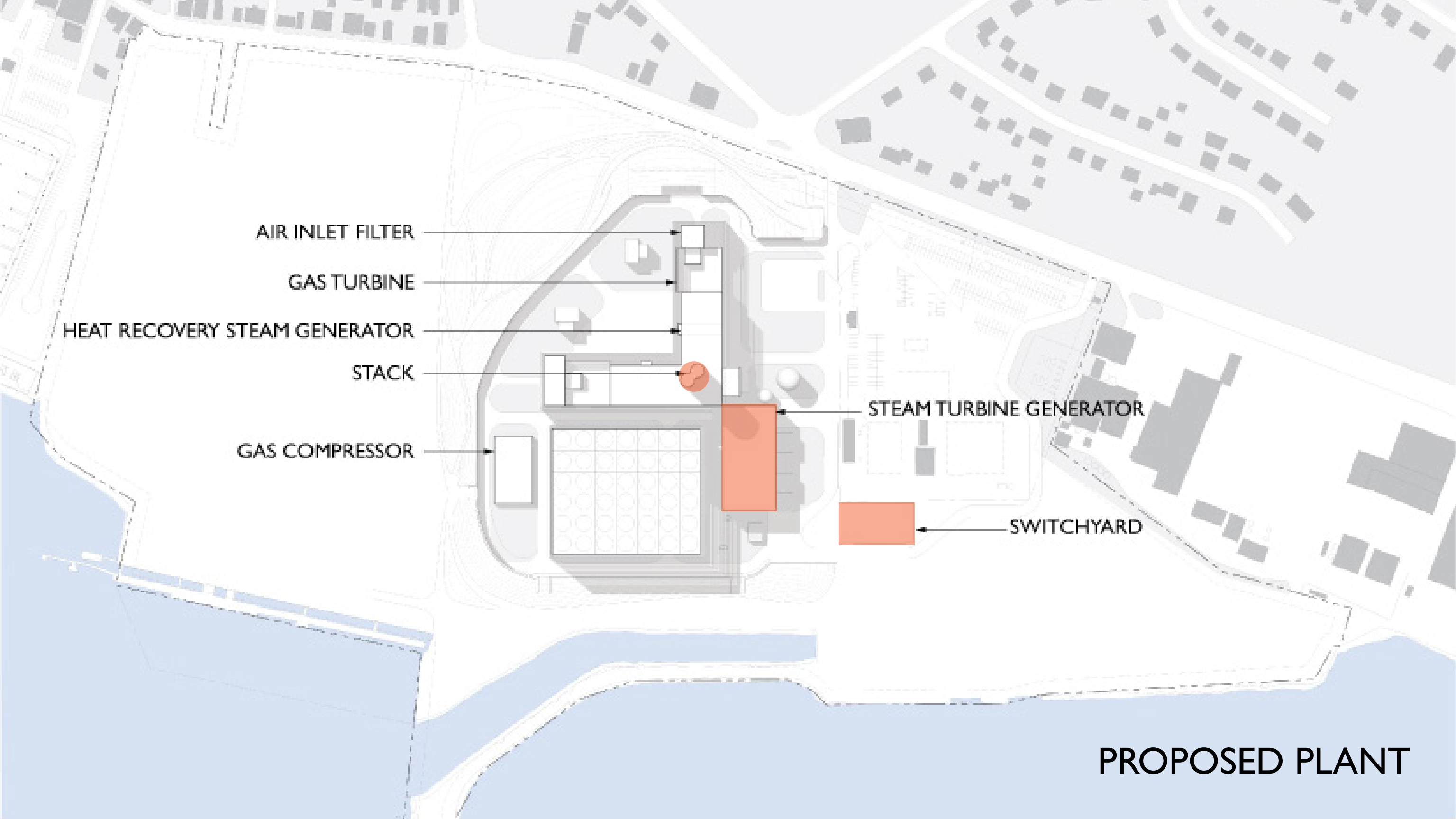
GAS TURBINE

HEAT RECOVERY STEAM GENERATOR

GAS COMPRESSOR

SWITCHYARD

PROPOSED PLANT



AIR INLET FILTER

GAS TURBINE

HEAT RECOVERY STEAM GENERATOR

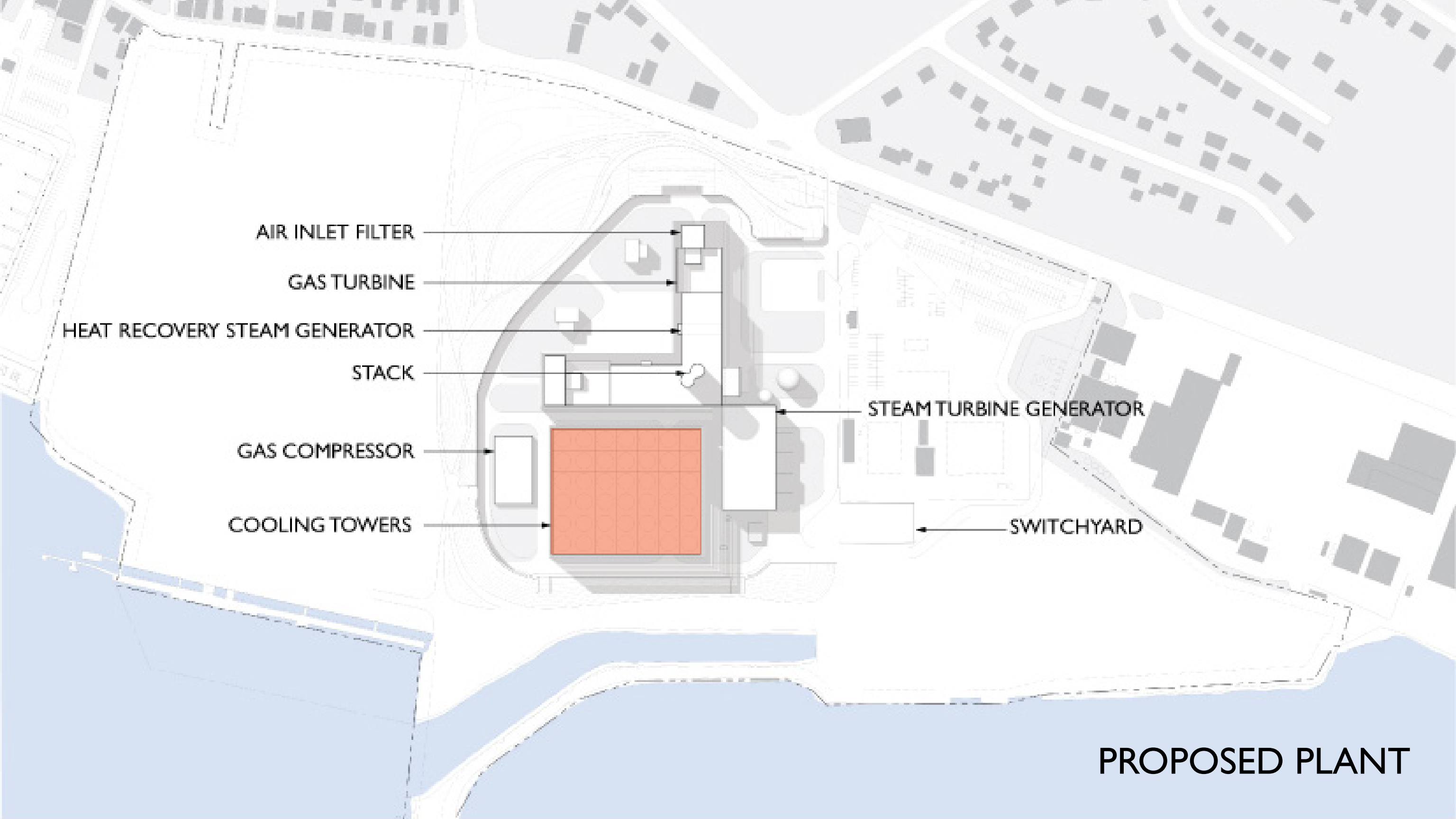
STACK

GAS COMPRESSOR

STEAM TURBINE GENERATOR

SWITCHYARD

PROPOSED PLANT



AIR INLET FILTER

GAS TURBINE

HEAT RECOVERY STEAM GENERATOR

STACK

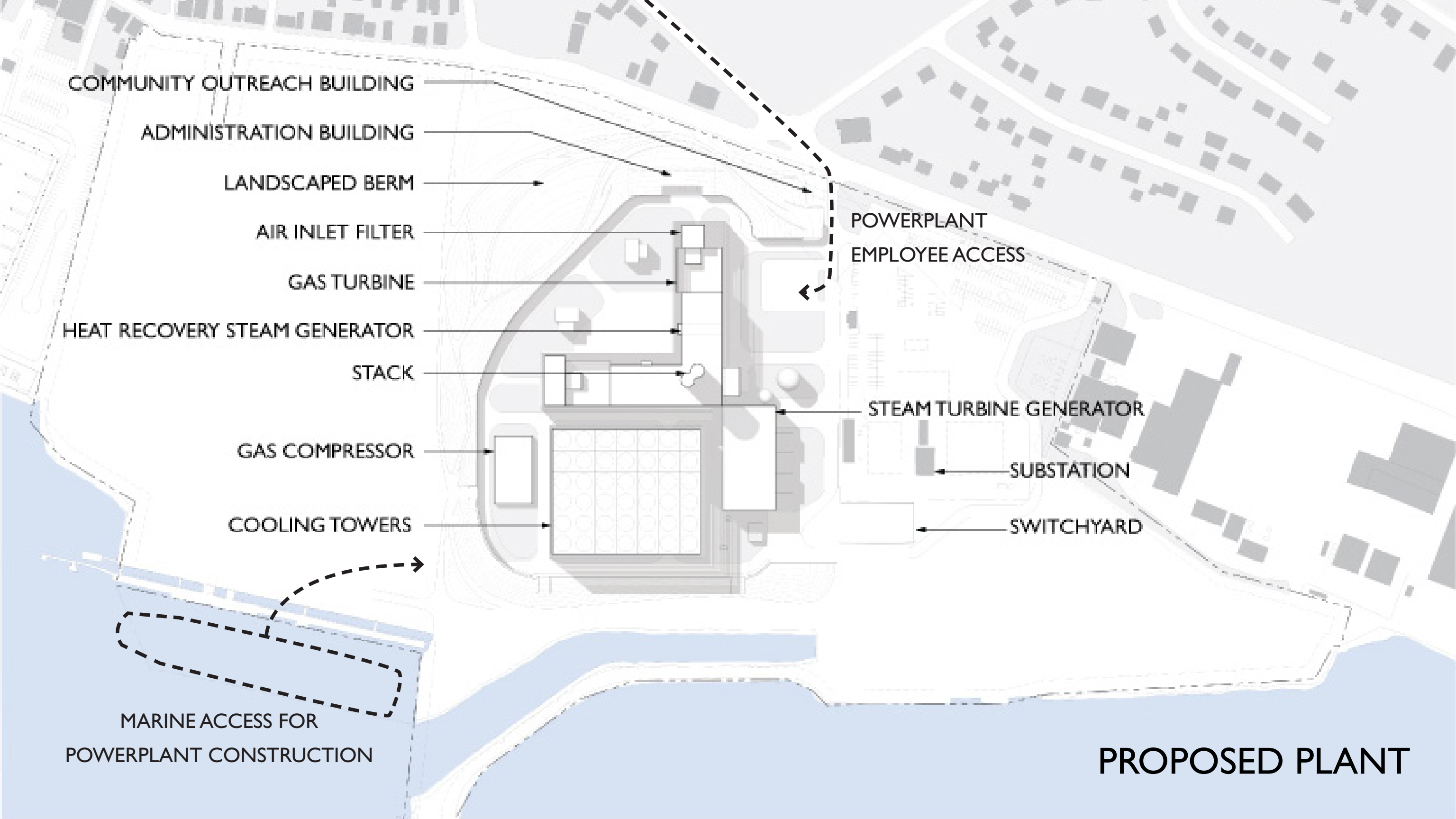
GAS COMPRESSOR

COOLING TOWERS

STEAM TURBINE GENERATOR

SWITCHYARD

PROPOSED PLANT



PRELIMINARY STAGING PLAN

Stage I
Initial Site Preparation
Starts: 8/13 Ends: 3/14



PRELIMINARY STAGING PLAN

Stage 1

Initial Site Preparation

Starts: 8/13 Ends: 3/14

Stage 2

Site Preparation

Starts: 3/14 Ends: 1/15

An aerial photograph of a large industrial or commercial site. A red outline delineates the 'DEMOLITION AREA'. Inside this area, there are several buildings and parking lots. One building is labeled 'STORAGE' and another 'OFFICE'. There are also some smaller structures and what appears to be a large pile of debris or material. The site is bordered by a residential area on the left and a body of water on the right.

DEMOLITION
AREA

PRELIMINARY STAGING PLAN

Stage 1

Initial Site Preparation

Starts: 8/13 Ends: 3/14

Stage 2

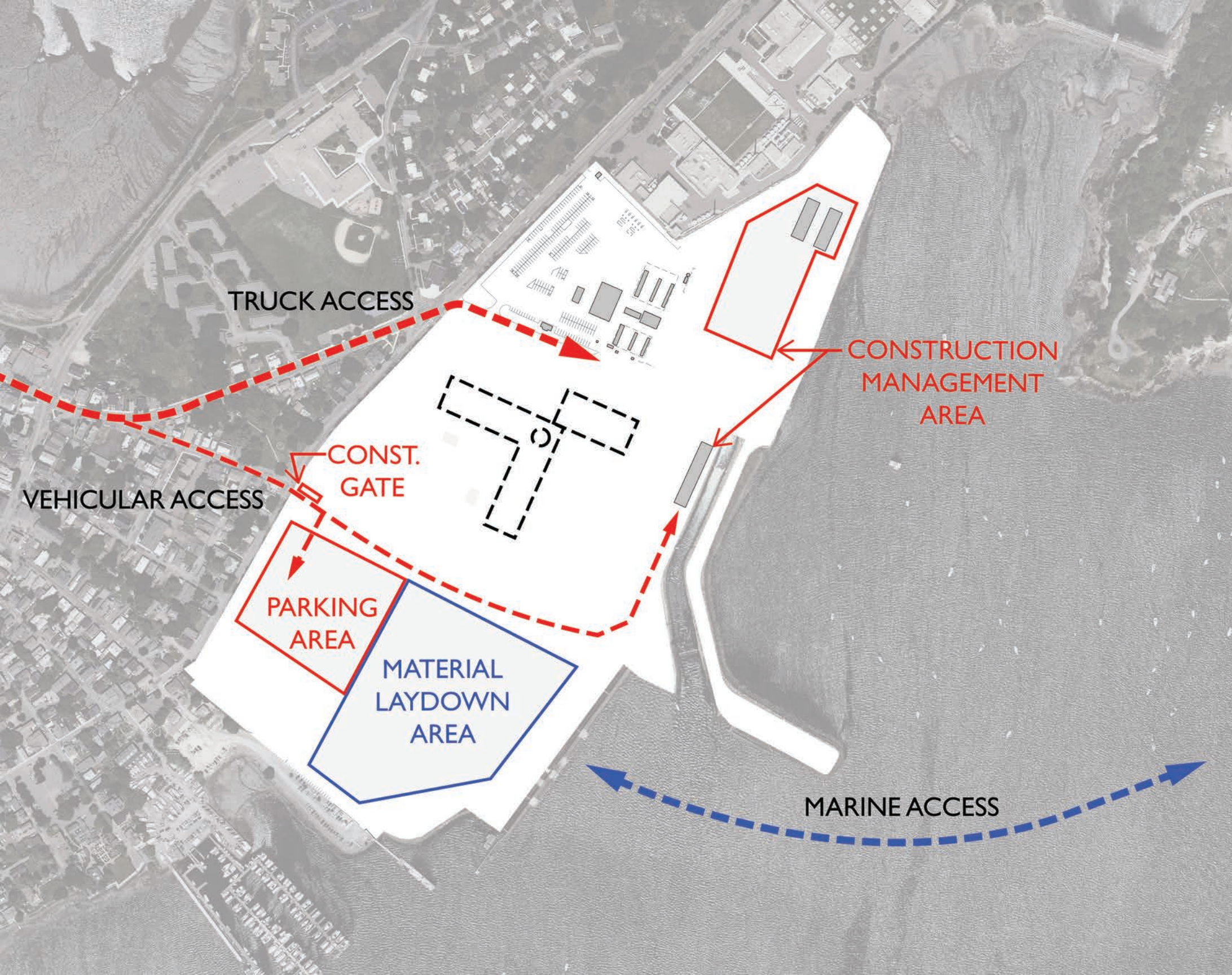
Site Preparation

Starts: 3/14 Ends: 1/15

Stage 3

Foundation Construction

Starts: 7/14 Ends: 12/14



PRELIMINARY STAGING PLAN

Stage 1

Initial Site Preparation

Starts: 8/13 Ends: 3/14

Stage 2

Site Preparation

Starts: 3/14 Ends: 1/15

Stage 3

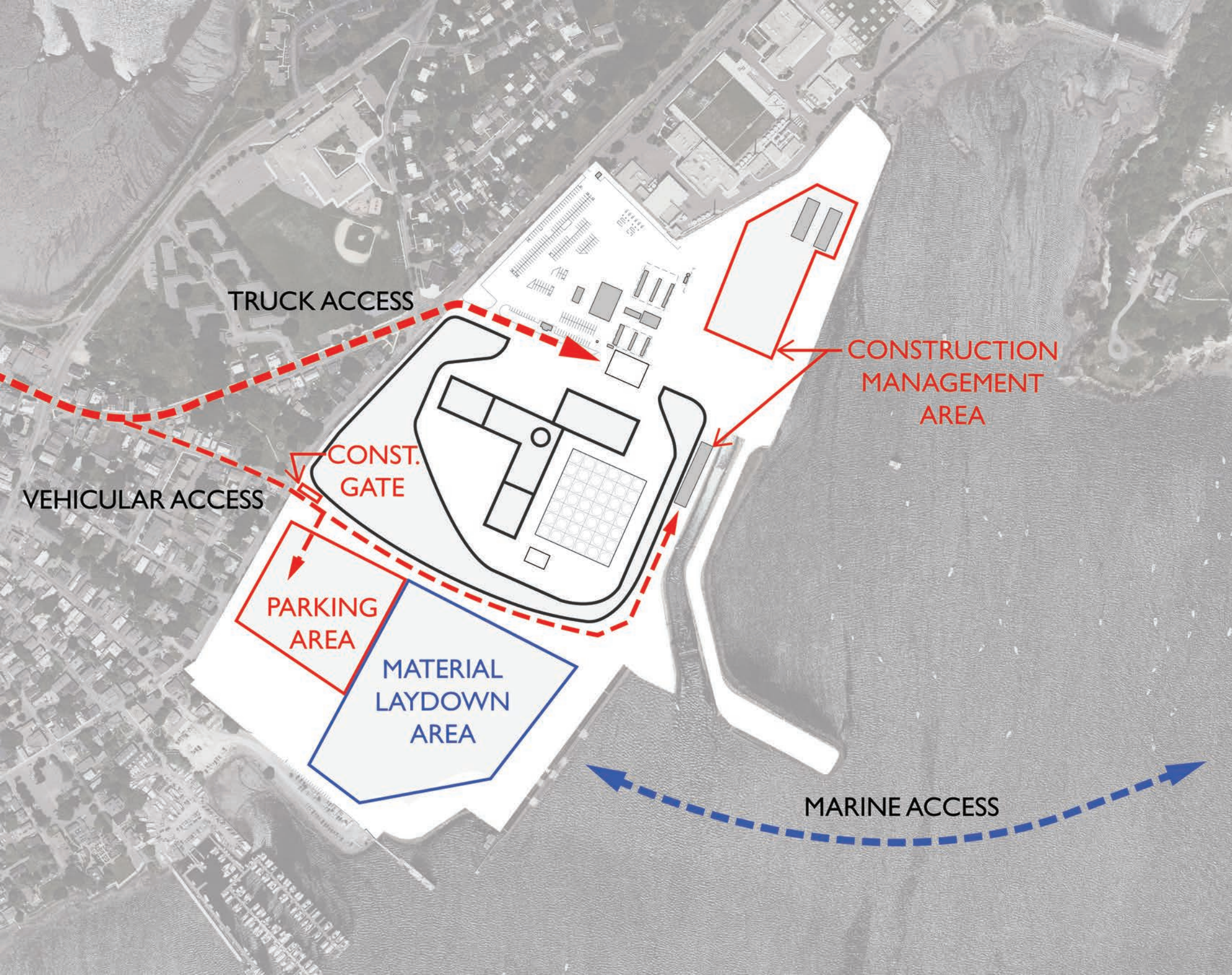
Foundation Construction

Starts: 7/14 Ends: 12/14

Stage 4

Above Ground Construction

Starts: 12/14 Ends: 4/16



An aerial photograph of a coastal area. A white outline defines a construction site on a peninsula. Inside this outline, a light blue shaded area represents the foundation construction zone. The site includes several rectangular building footprints, a parking lot, and a circular feature. Surrounding the site are residential neighborhoods, a baseball field, and a large body of water.

PRELIMINARY STAGING PLAN

Stage 1

Initial Site Preparation

Starts: 8/13 Ends: 3/14

Stage 2

Site Preparation

Starts: 3/14 Ends: 1/15

Stage 3

Foundation Construction

Starts: 7/14 Ends: 12/14

Stage 4

Above Ground Construction

Starts: 12/14 Ends: 4/16

Stage 5

Facility Operations Begin

April 2016

PRELIMINARY STAGING PLAN

Stage 1

Initial Site Preparation

Starts: 8/13 Ends: 3/14

Stage 2

Site Preparation

Starts: 3/14 Ends: 1/15

Stage 3

Foundation Construction

Starts: 7/14 Ends: 12/14

Stage 4

Above Ground Construction

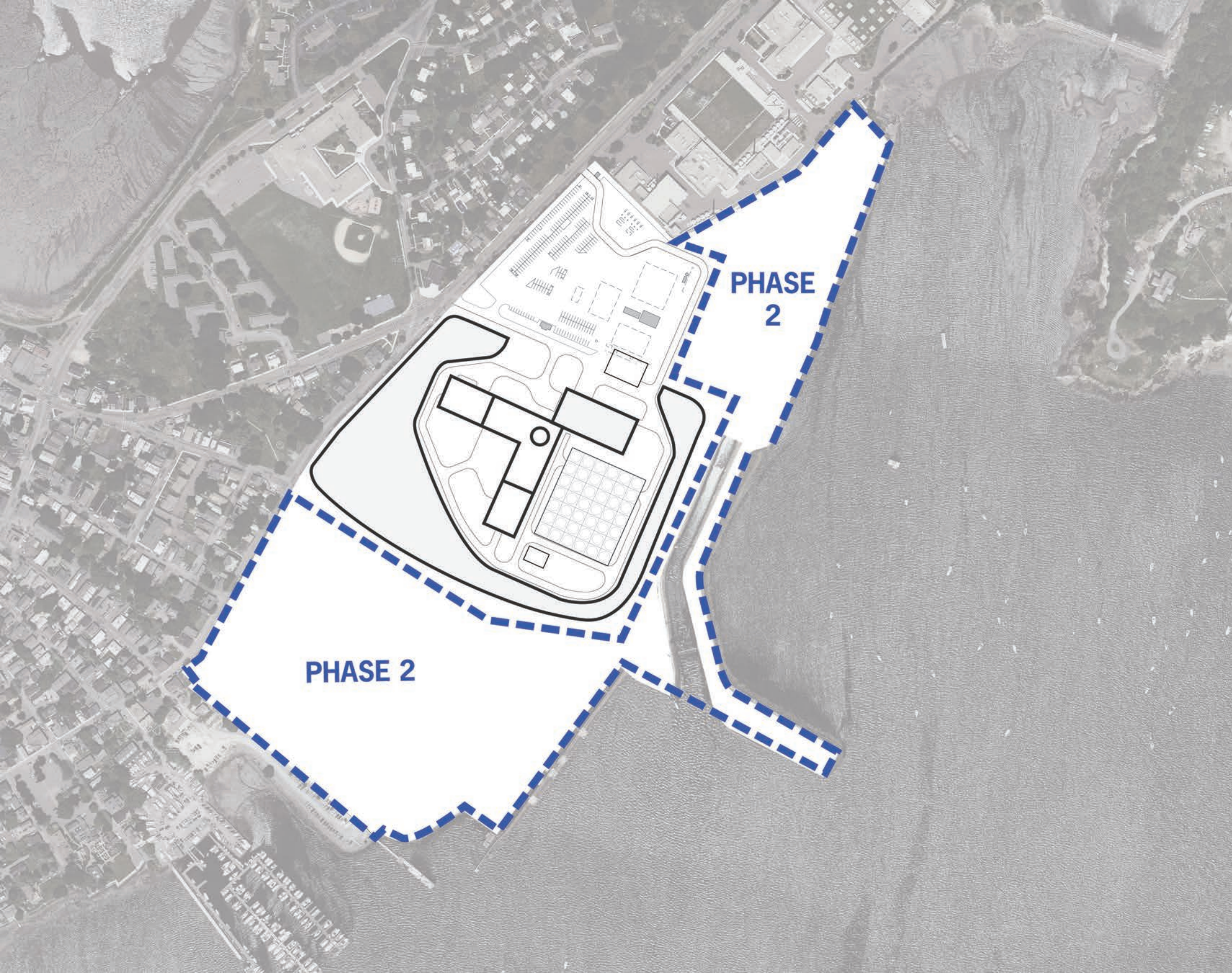
Starts: 12/14 Ends: 4/16

Stage 5

Facility Operations Begin

April 2016

Phase 2



VISUAL IMPACT STUDY LOCATIONS

- 1) Bentley Elementary
- 2) Winter Island
- 3) Marblehead
- 4) Cat Cove





I) View from Bentley Elementary



Proposed
2) View from Winter Island



3) View from Marblehead

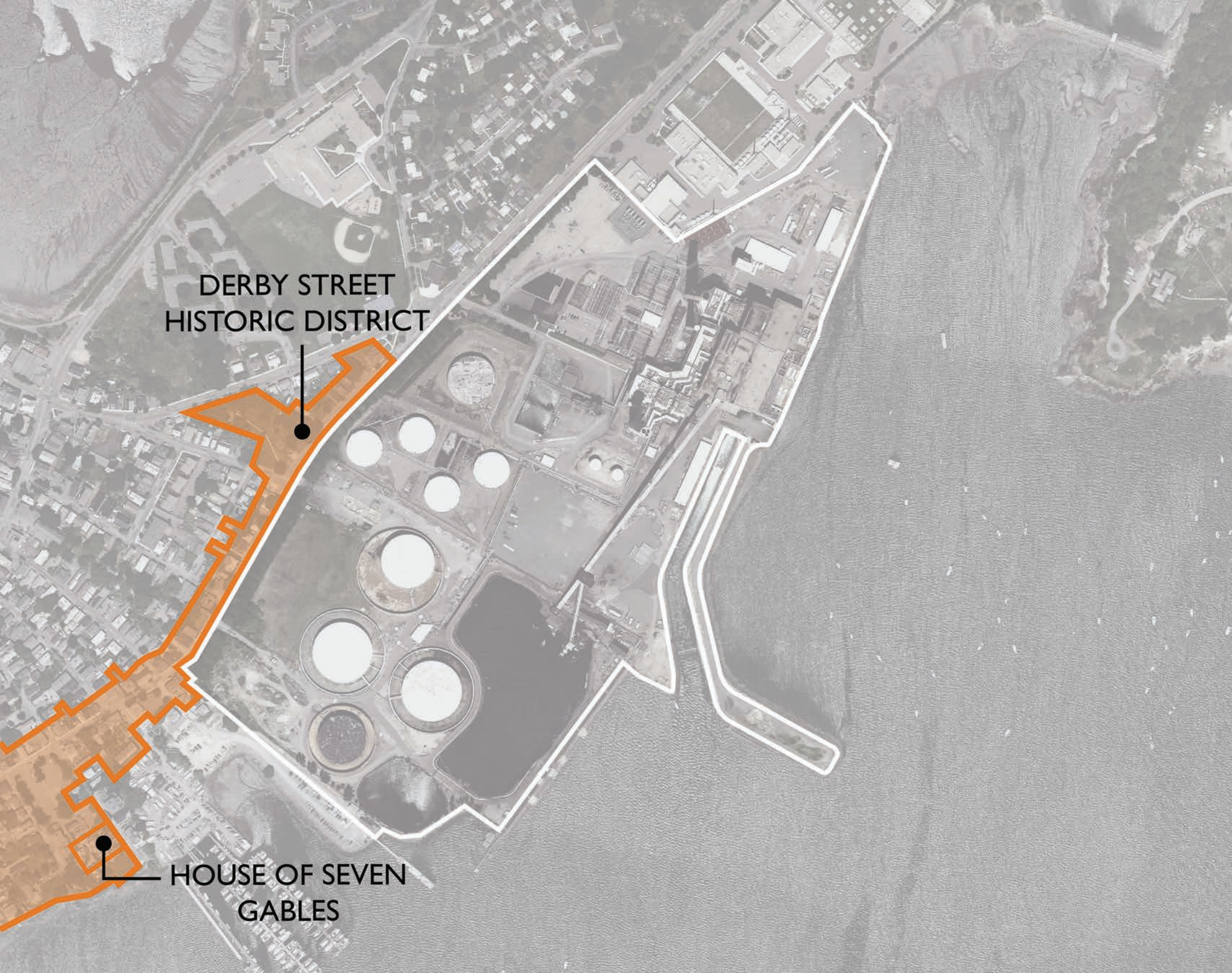


Proposed
4) View from Cat Cove

DERBY STREET HISTORIC DISTRICT

Established in 1974, added
to the National Register
of Historic Places in 1976.

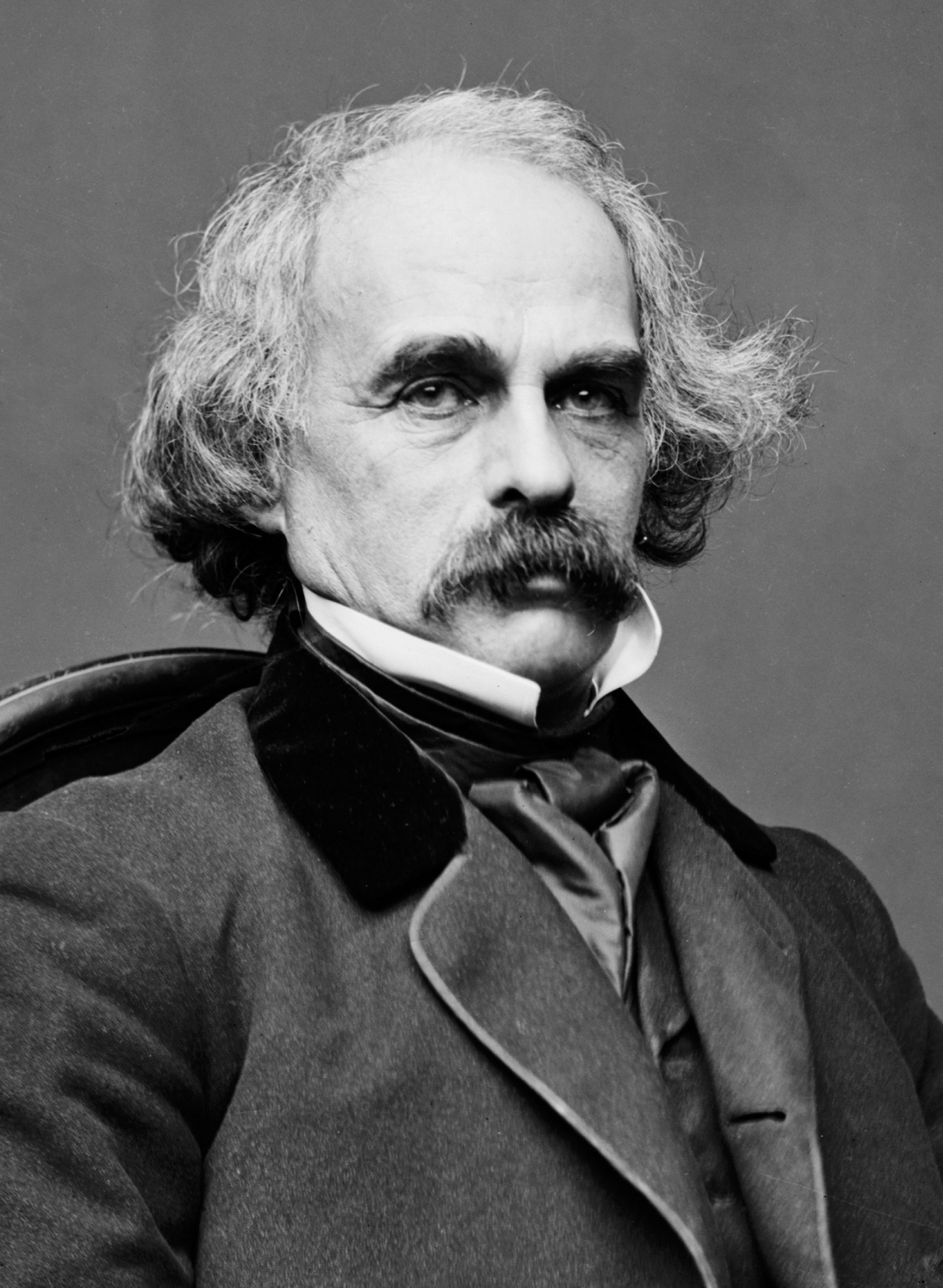
Includes works by noted
Salem architect Samuel
McIntire and the House
of Seven Gables





1667

House of the Seven Gables
Turner Street



**NATHANIEL
HAWTHORNE**
(1804-1864)

**“THE BOOK MAY BE READ STRICTLY AS A
ROMANCE, HAVING A GREAT DEAL MORE
TO DO WITH THE CLOUDS OVERHEAD
THAN WITH ANY PORTION OF THE
ACTUAL SOIL OF THE COUNTY OF ESSEX.”**

Lenox, Jan 27, 1851



1780

Hawkes House
Derby Street Historic District

SAMUEL MCINTIRE (1757-1811)

Local Craftsman and
Architect who worked in
the Federal Style.



OTHER MCINTIRE WORKS IN SALEM

1792

Peirce-Nichols House
McIntire Historic District





1805

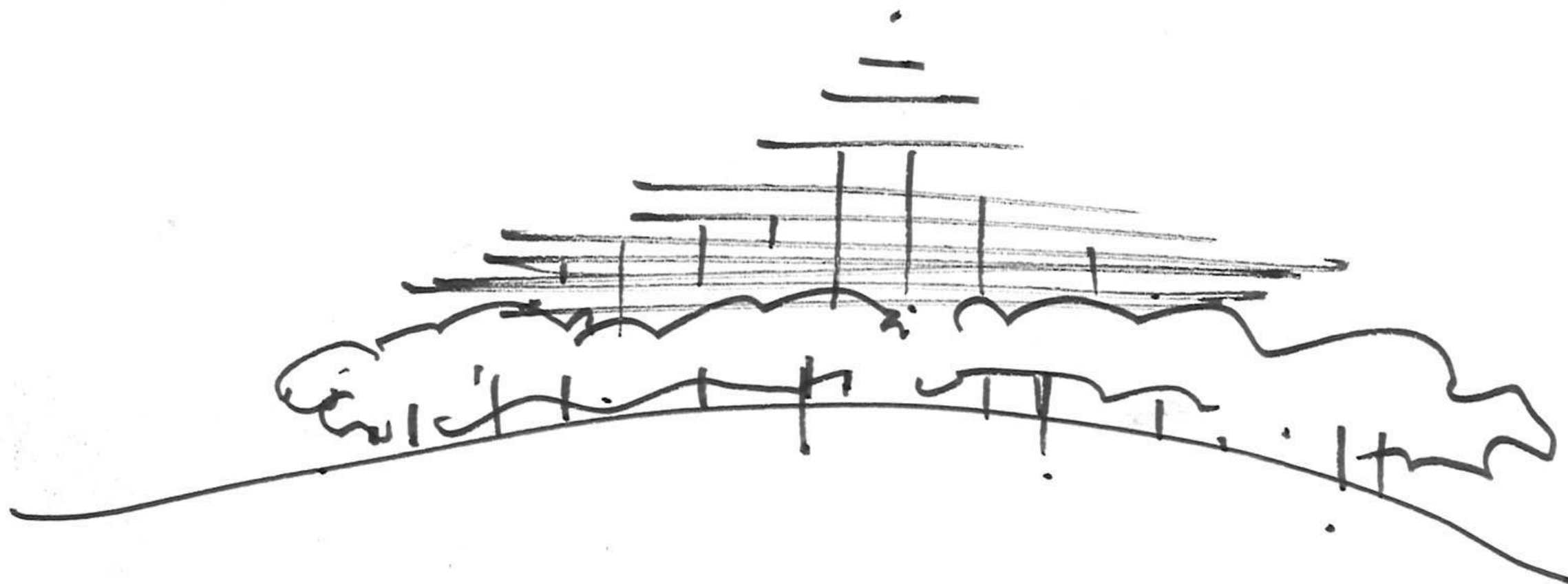
Gardner-Pingree House
Essex Institute Historic District

“There is no visible roof at all: the balustrade of the late Georgian roof has been moved out to the very edge, to frame the facade like a lacy cornice.”

Kostof, Spiro, *A History of Architecture*, Oxford University Press 1985



E H Derby House, 1798

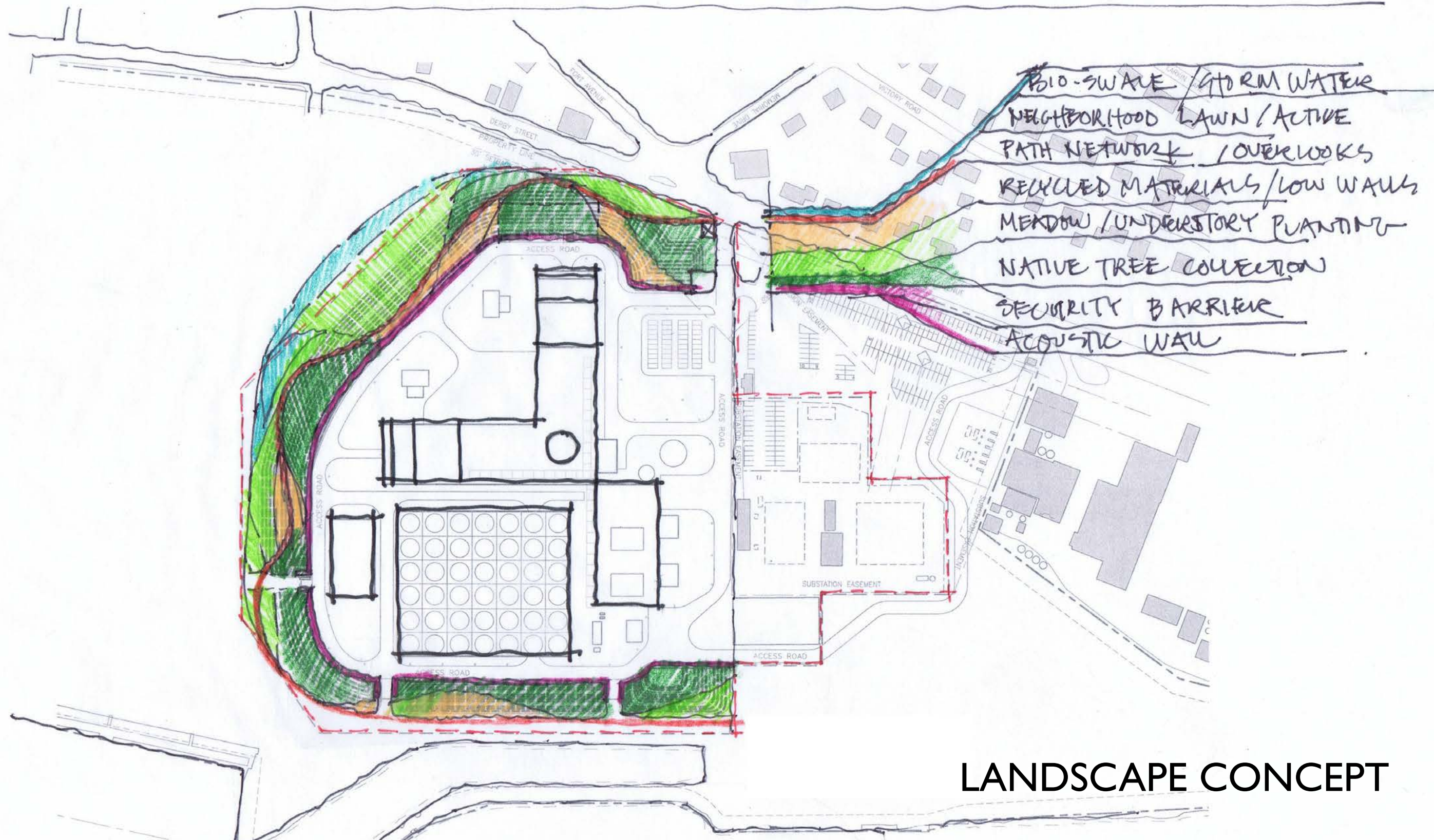


ARCHITECTURAL CONCEPT

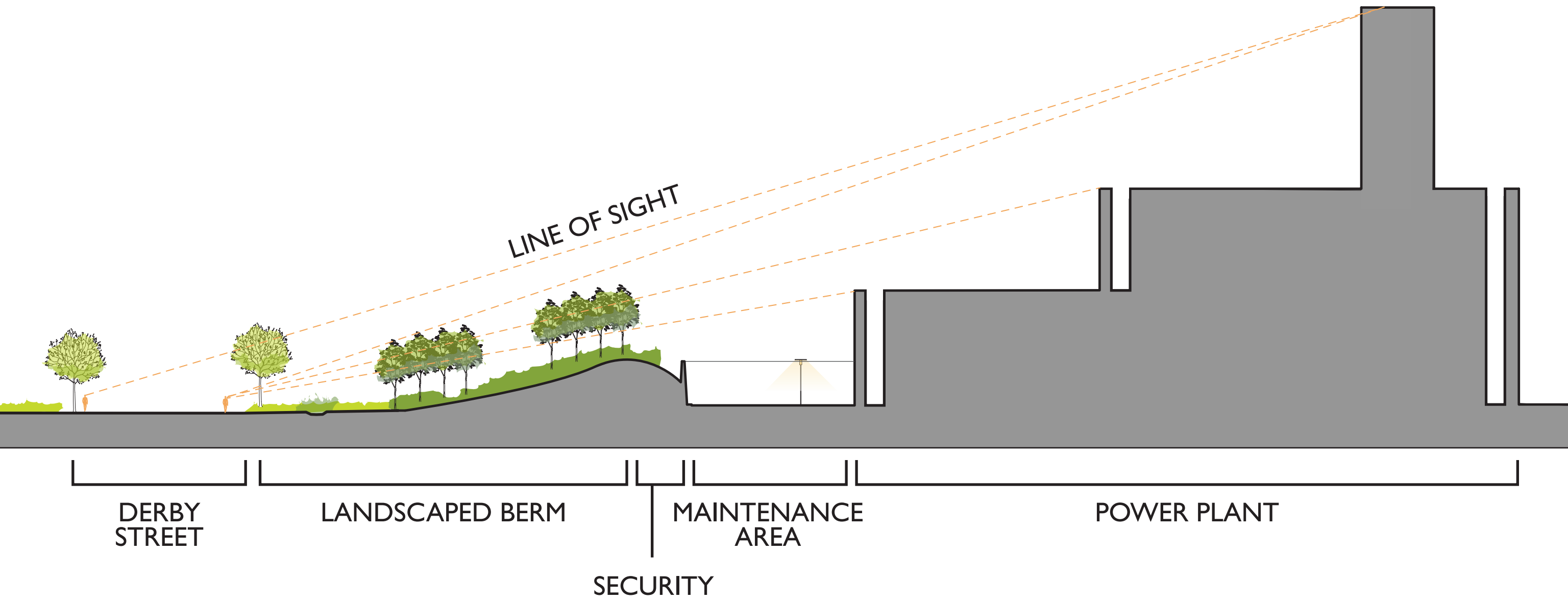




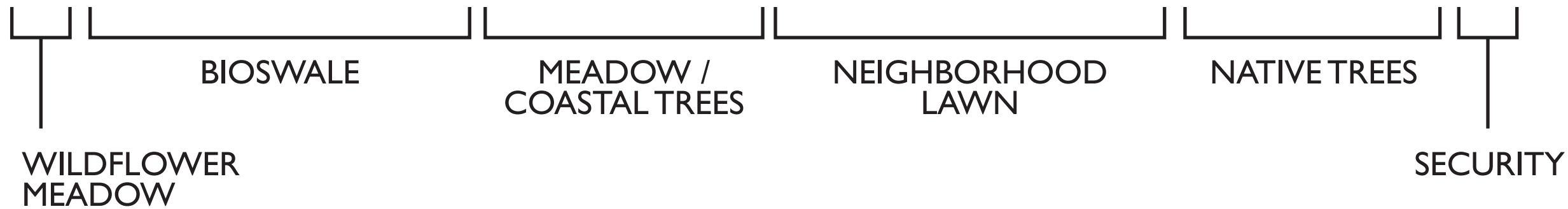
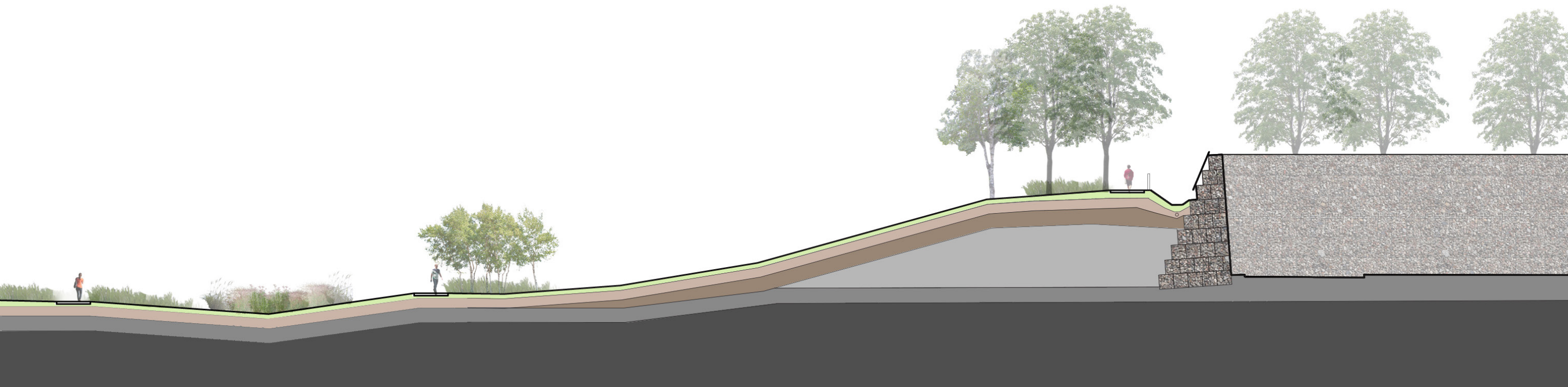
L A N D S C A P E R I B B O N



LANDSCAPE CONCEPT



LANDSCAPE CONCEPT



ENLARGED SECTION

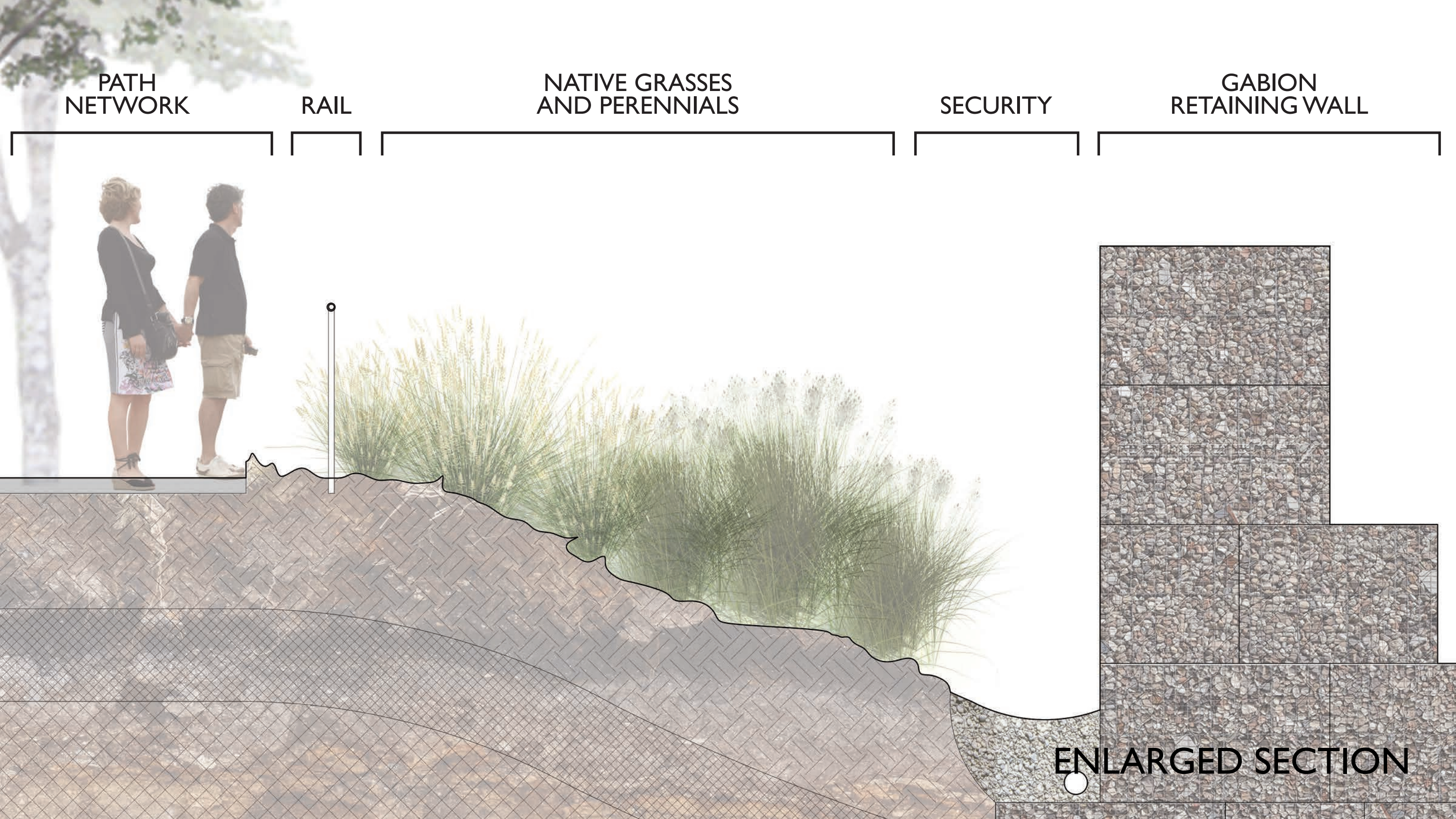
PATH
NETWORK

RAIL

NATIVE GRASSES
AND PERENNIALS

SECURITY

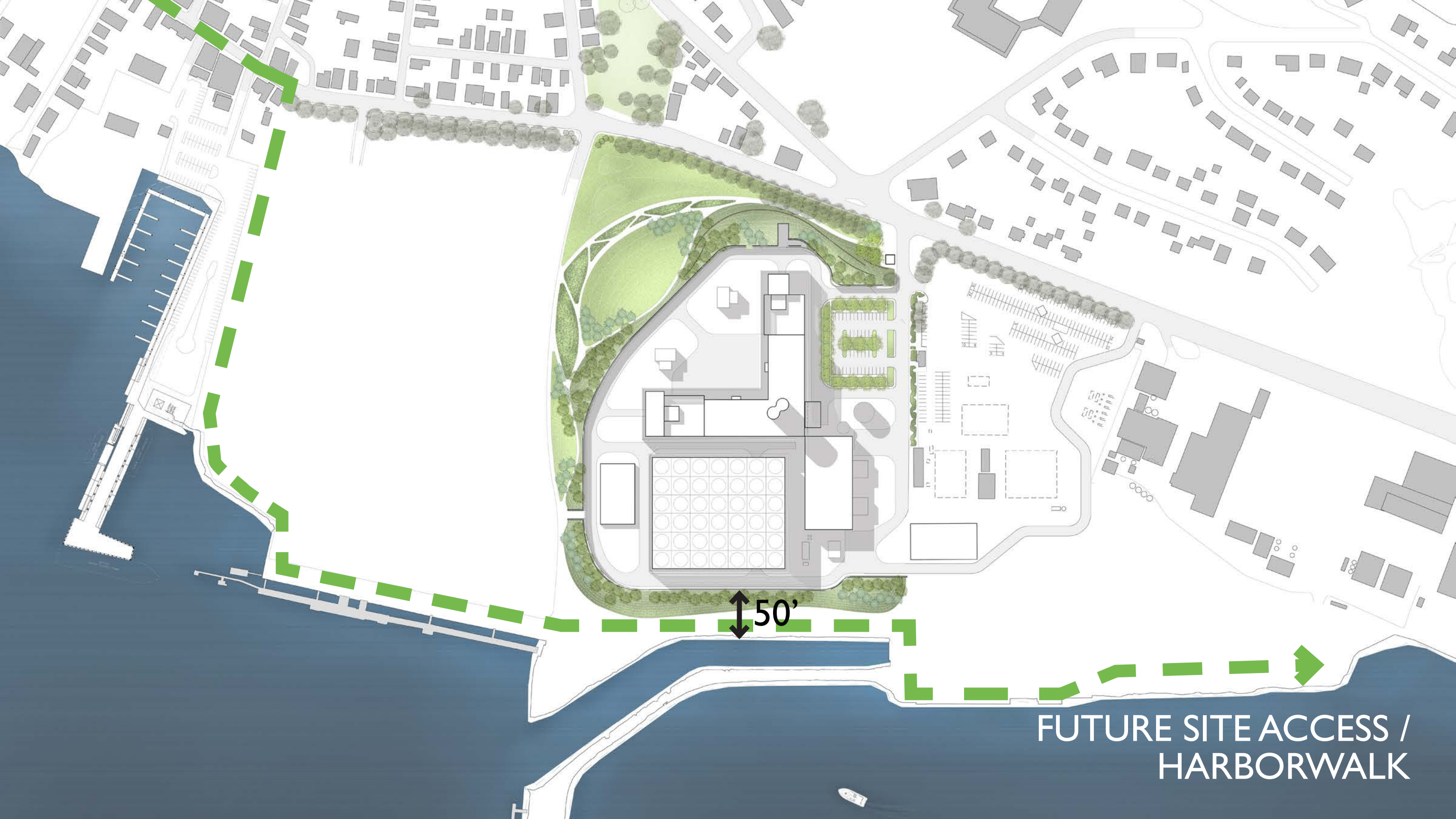
GABION
RETAINING WALL



ENLARGED SECTION



SECURITY PERIMETER



↕ 50'

FUTURE SITE ACCESS /
HARBORWALK



PERSPECTIVES



I) VIEW FROM INTERSECTION OF
DERBY STREET AND ENGLISH STREET

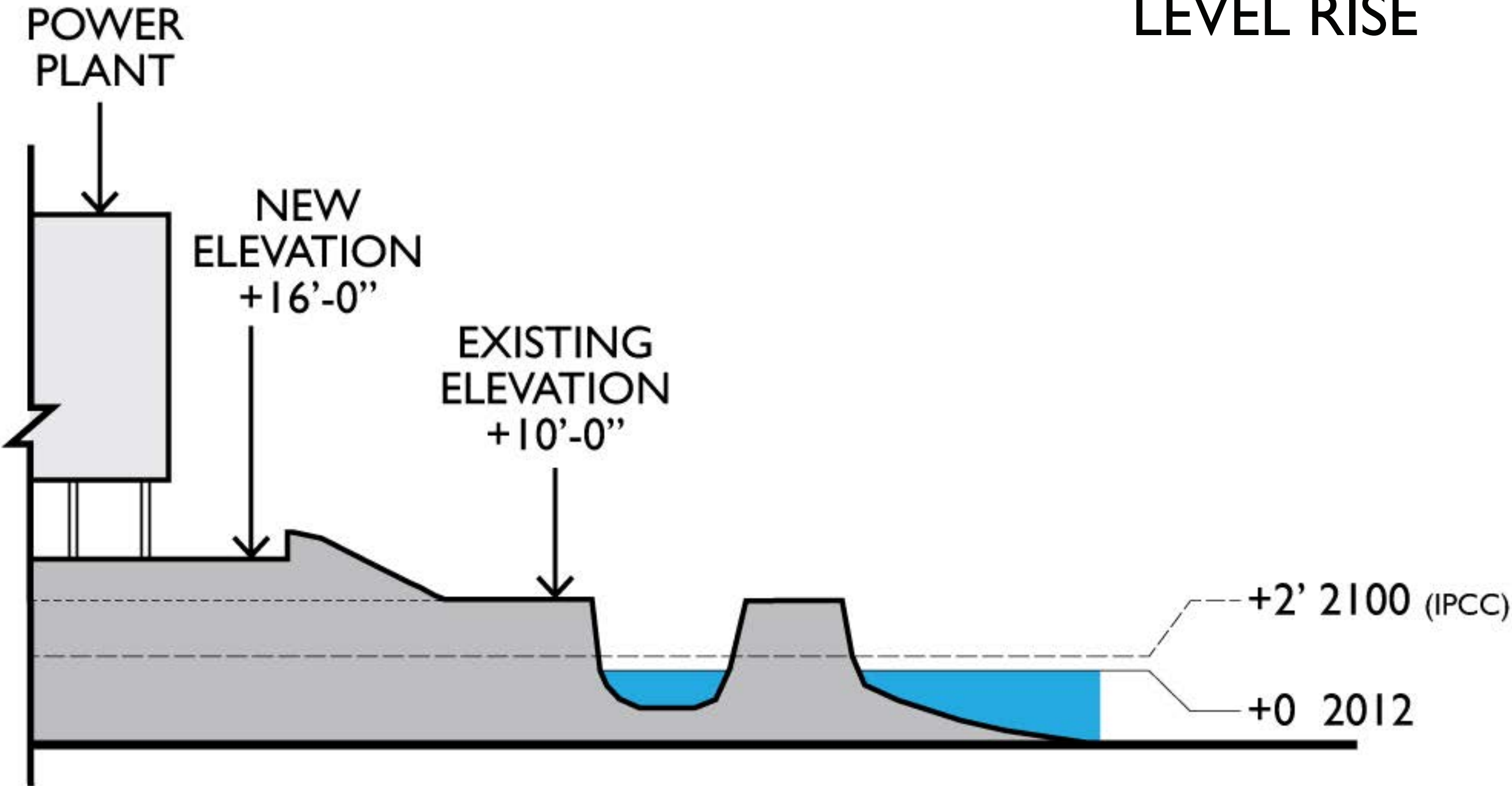


2) VIEW FROM INTERSECTION OF
DERBY STREET AND FORT AVENUE



3) VIEW ACROSS CAT COVE
FROM WINTER ISLAND

EXPECTED SEA
LEVEL RISE

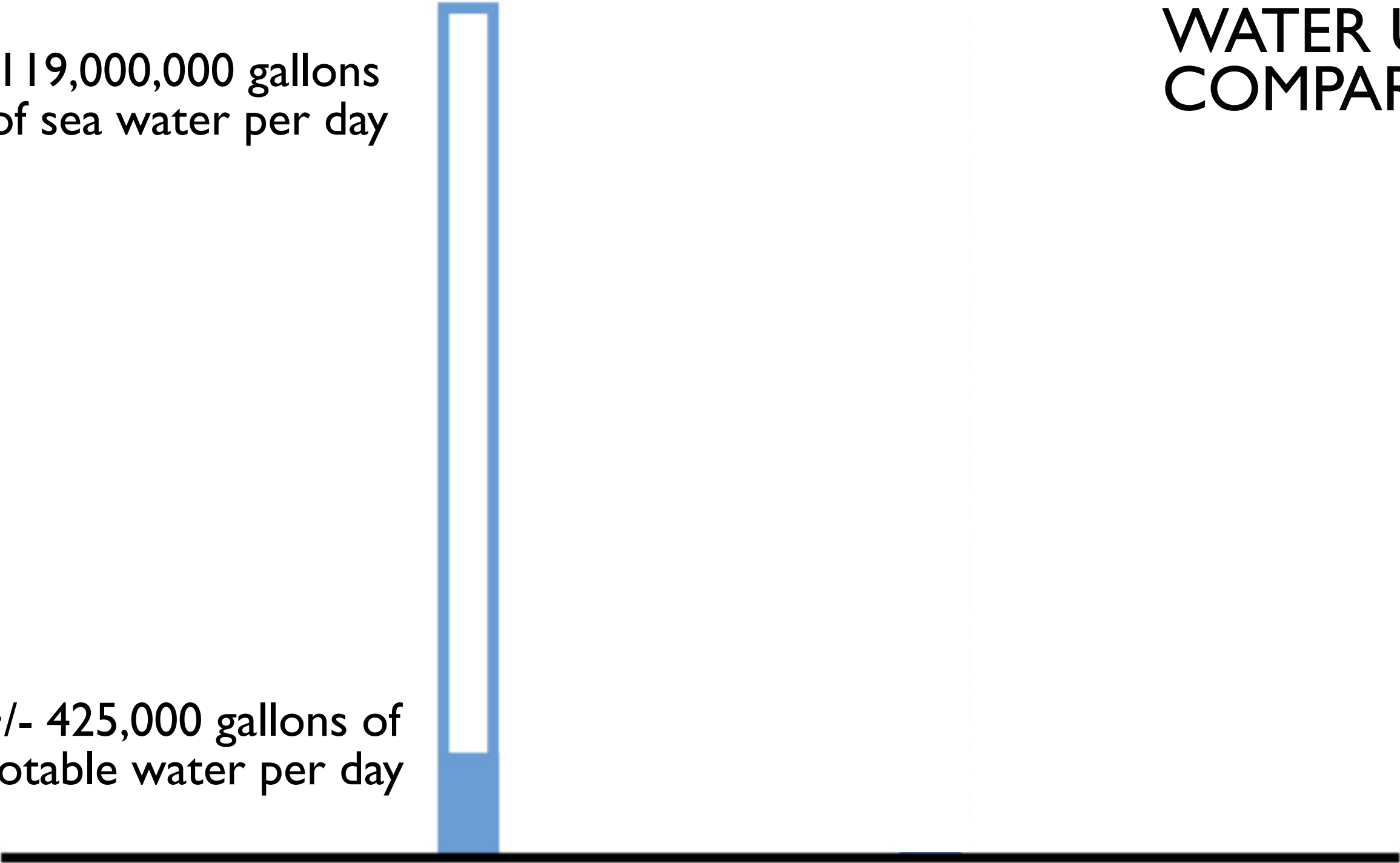


WATER USE COMPARISON

119,000,000 gallons
of sea water per day

+/- 425,000 gallons of
potable water per day

EXISTING PLANT



WATER USE
COMPARISON

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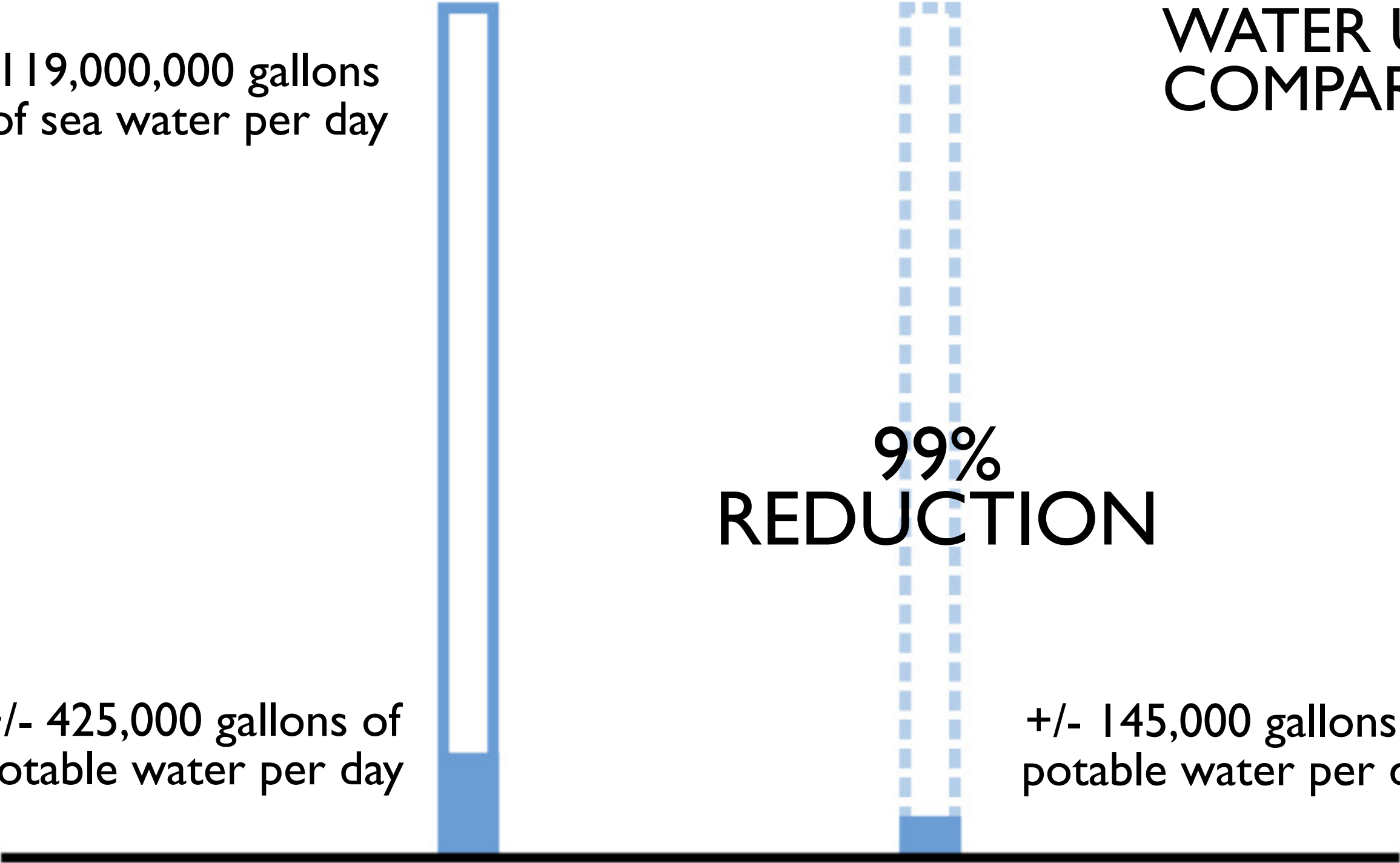
+/- 425,000 gallons of
potable water per day

EXISTING PLANT

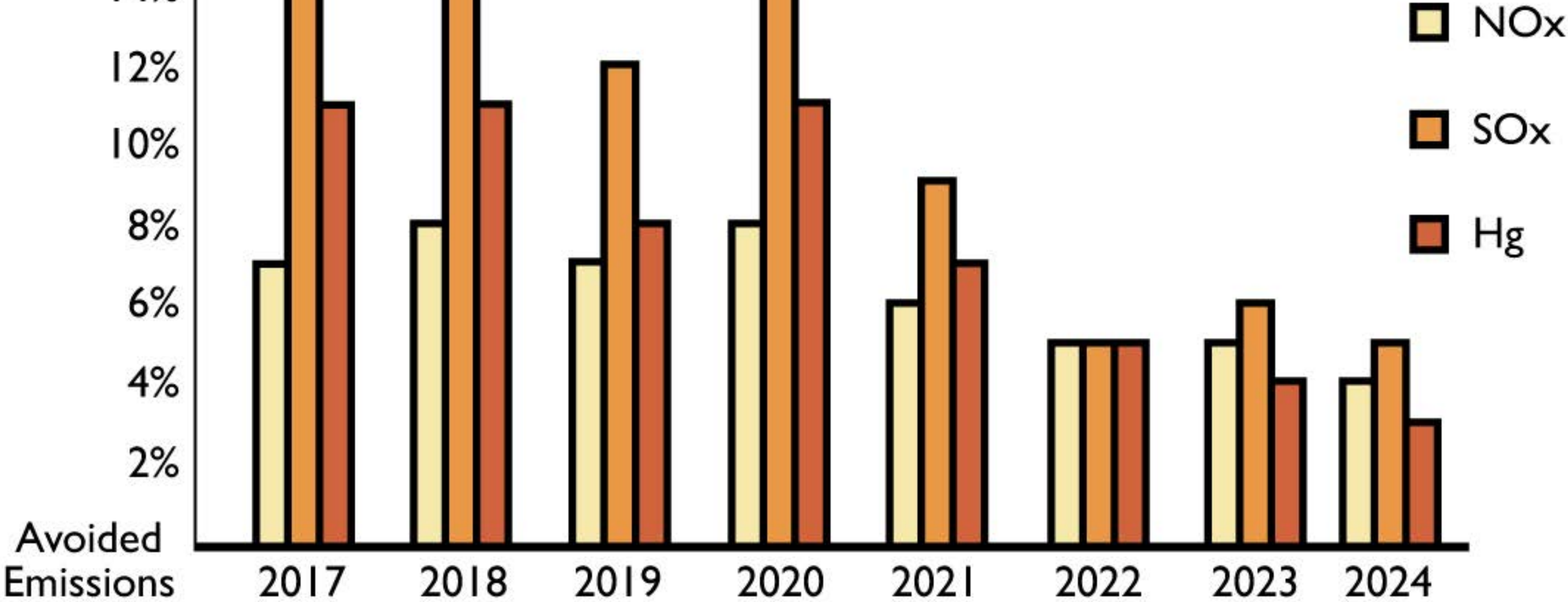
99%
REDUCTION

+/- 145,000 gallons of
potable water per day

NEW PLANT



AVOIDED
EMISSIONS
ACROSS ISO-NE



Emissions
in tons

CO₂
REDUCTION

600,000

120,000

500,000

100,000

400,000

80,000

300,000

60,000

200,000

40,000

100,000

20,000

Cars off
the road

2017

2018

2019

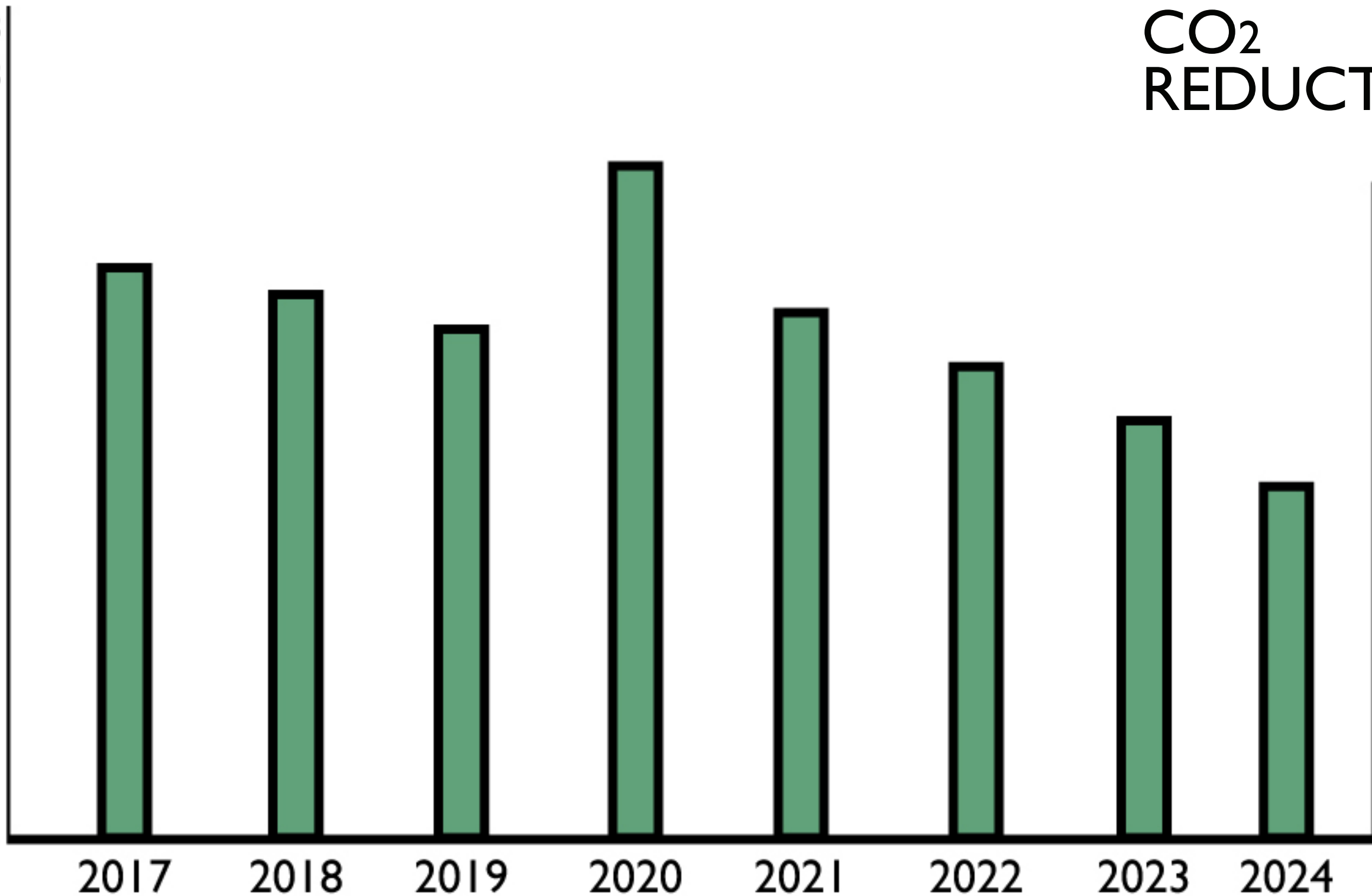
2020


2021

2022

2023

2024





Annual average of
90,000 cars
removed from the road



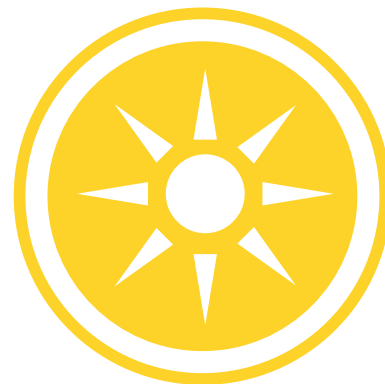
LEADERSHIP IN ENERGY & ENVIRONMENTAL DESIGN



Sustainable
Sites



Water
Efficiency



Energy and
Atmosphere



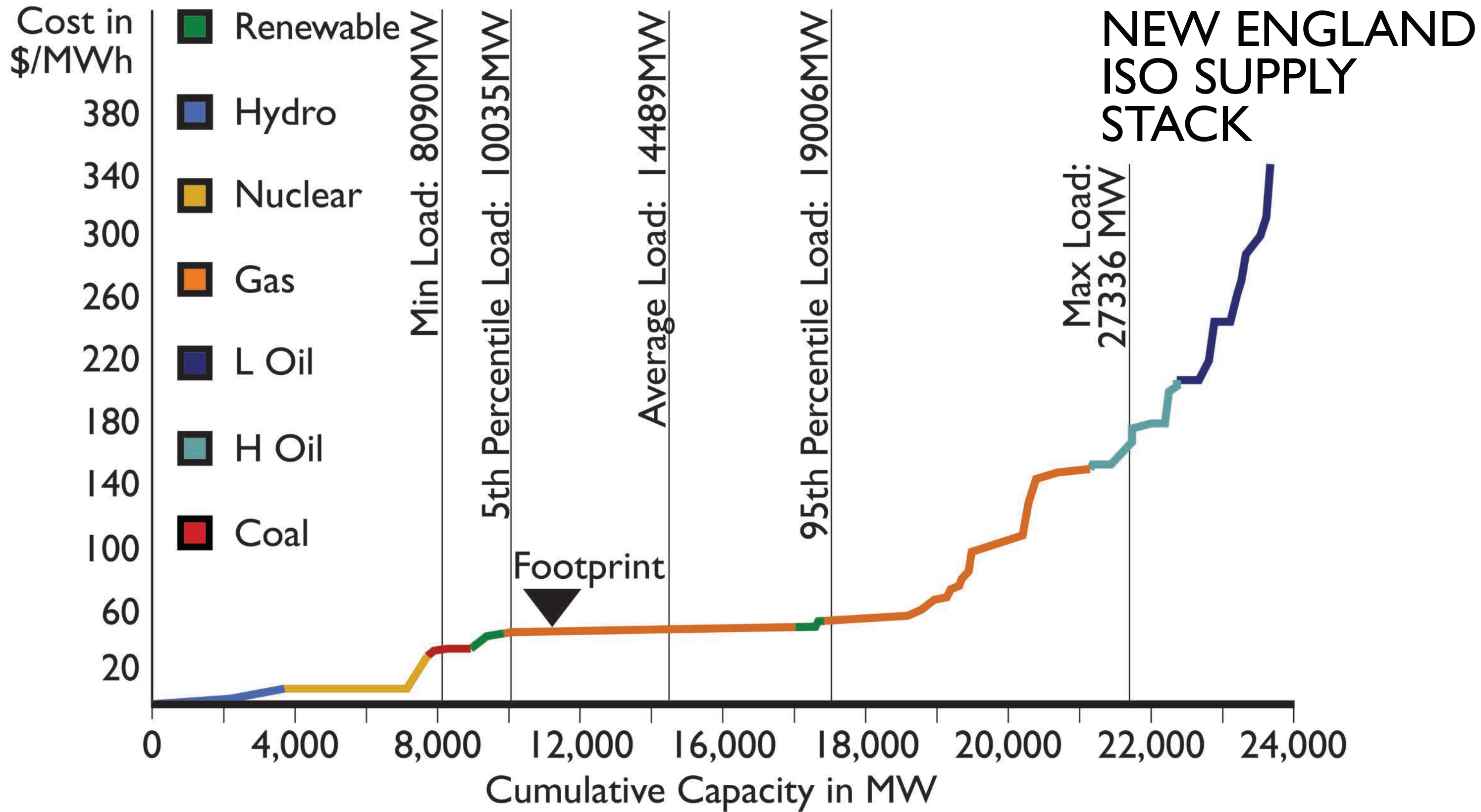
Materials
and Resources



Indoor
Environment Quality



Innovation
in Design



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