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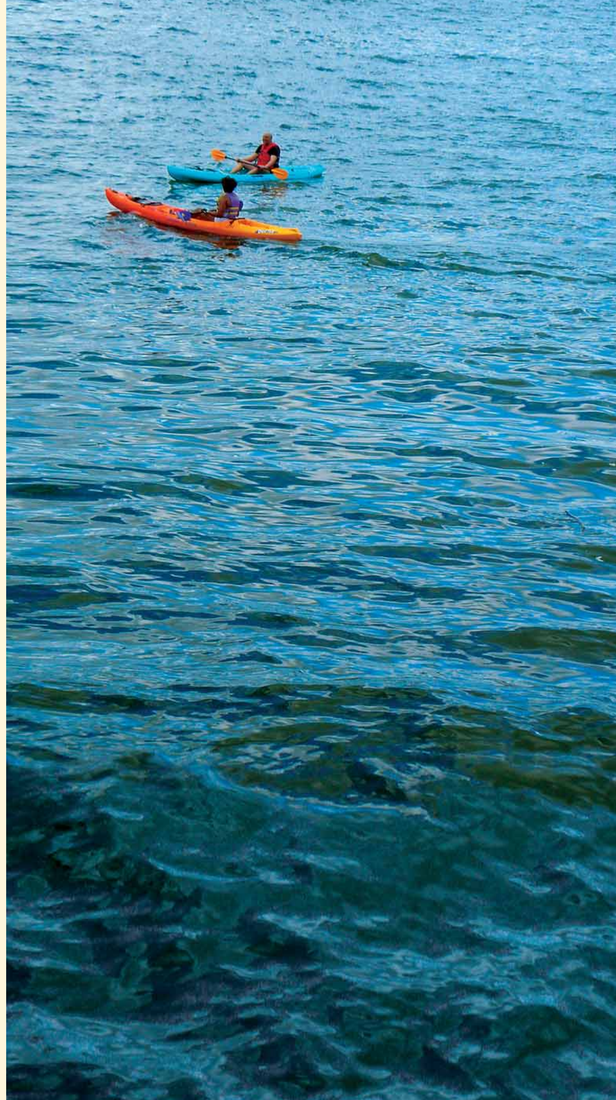
brooklyn bridge park

2005 MASTER PLAN
A FRAMEWORK FOR DESIGN



Brooklyn Bridge Park Timeline

The Brooklyn Bridge Park site is located on the shores of the East River, a 16-mile tidal waterway that flows between the Long Island Sound and the New York Harbor. Like the East River itself, the Brooklyn Bridge Park site has an interesting and varied history that we summarize in the timeline below.

park

1600 1700 1800 1900 1950 2000

1620s
The first significant Dutch settlements are established along the East River; the River is used to harvest energy for the production of flour

1630s
Brooklyn is settled

1642
The first ferry between Brooklyn and Manhattan is established at modern-day Fulton Ferry Landing

1647
The first pier is constructed along the East River at Pearl and Bond Streets

1687
Landfills are established to expand the shoreline of the East River

1748
Brooklynites are furious due to Manhattan's ownership of their shoreline and burn the ferry house at Fulton Ferry Landing

1776
Battle of Long Island, George Washington retreats over the East River

1783
Treaty of Paris is signed and England lifts blockade of New York Harbor; international trade immediately flourishes

1789
The Outer Wharves and Streets Act passes, regularizing the bulkhead line of the East River Piers and establishing the first pierhead line

1800
The size of the Port of New York surpasses those of both Boston and Philadelphia

1801
Brooklyn Navy Yard opens

1814
Robert Fulton establishes steam ferry service from Fulton Ferry Landing

1838
Transatlantic steam service begins

1850s
Brooklyn and Queens industrialize

1870s
East River ferries carry more than 50 million passengers per year

1870
Department of Docks is created to oversee waterfront property on both sides of the East River

1883
The Brooklyn Bridge opens

1890
The U.S. Army Corps sets new pierhead and bulkhead lines

1908
The IRT subway connects Brooklyn to Manhattan

1909
The Manhattan Bridge opens

1921
The Port of New York Authority is established

1925
All commercial ferry service connecting Brooklyn and Manhattan ends

1950s
Port Authority of New York and New Jersey (PANYNJ) build Piers 1–6 in their present configuration and operate them as active break bulk cargo piers

1960s
Containerization revolution in freight shipping; Piers 1–6 lose ships because of a lack of upland container storage

1979
New York State purchases Empire Stores and adjacent property and creates Empire-Fulton Ferry State Park

1983
All cargo ship operations end on Piers 1–6

1984
PANYNJ announces a development plan for Piers 1–5

1987
Community-supported "Harbor Park" plan for Piers 1–6 is released by Brooklyn Heights Association

1988
PANYNJ announces plan to create 3 million square feet of residential development on Piers 1-6, with 3,000 apartments and 15-story towers at the northern and southern ends of the site

1989
PANYNJ announces plans to sell Piers 1–3 and 5 to create a 55-acre commercial development on Piers 1–5. Governor Mario Cuomo blocks PANYNJ's sale and instructs New York State Urban Development Corporation to study the development of the Piers

1992
Park advocates and local officials draft "13 Guiding Principles" for park development

1996
Assemblywoman Eileen Dugan obtains $1.5 million grant to fund park planning

1997
Assemblywoman Joan Millman and Senator Marty Connor secure $1 million for master planning of Brooklyn Bridge Park

1998
Downtown Brooklyn Waterfront Local Development Corporation (LDC) is created by local elected officials to develop a master plan for Piers 1–5

2000
The LDC releases the 2000 Illustrative Master Plan

2001
New York City Department of Parks & Recreation opens the Main Street playground

2002
Governor Pataki and Mayor Bloomberg commit $150 million for the design and construction of the park and create a new city and state entity—Brooklyn Bridge Park Development Corporation (BBPDC)—to build Brooklyn Bridge Park

2005
Pier 6 is added to the total parkland by the City of New York

2005
Master plan completed

2005-2012
Park design and construction

2012
Park construction completed

SOURCES:

Bone, Kevin, ed., The New York Waterfront, Evolution and Building Culture of the Port and Harbor, Monacelli Press, New York, NY, 1997.

Greater Astoria Historical Society, Erik Baard, Thomas Jackson, Richard Milnick, *Images of America- The East River*, Charleston, SC: Arcadia Publishing, 2005.

Robbins, Michael W., ed. and Peltz, Wendy, *Brooklyn: A State of Mind, 125 Original Stories from American Original City*, New York, NY: Workman Publishing, 2001.

Van Alen Institute, *East River Information Site*, August 1, 2005, www.vanalen.org/workshops/east_river/general/histpg.htm

The site is **85 ACRES** of post-industrial waterfront

The site parallels **1.3 MILES** of existing street frontage

The site has **2.8 MILES** of waterfront edge

The site has **25 ACRES** of pile supported platform– piers-over water

The piers are supported by **12,000 WOOD PILES**

The site has **20 ACRES** of warehouse sheds

The site is paved with **60 ACRES OF ASPHALT AND CONCRETE**

The site is crossed by **10 MTA SUBWAY LINES**

The site is crossed by the **BROOKLYN AND MANHATTAN BRIDGES**

The East River has a **TIDAL SHIFT** of **4.5 FEET**, two times a day

The site has **60 ACRES OF UPLAND AREAS**

The average upland width of the site is **300 FEET**

The average ambient noise level on the site is **65 DECIBELS**

The site is separated from the city by the **BROOKLYN QUEENS EXPRESSWAY**

The Brooklyn Heights Promenade is set **60 FEET ABOVE THE SITE**

The site currently parks **612 CARS** and **70 TRACTOR-TRAILER TRUCKS**

Pier 4 has appeared on maps **SINCE THE 1850S**

The stretch along Furman Street used to be called the **WALLED CITY** in the 1880s because it was lined with brick warehouses and stores

The area of Squibb Park has been a neighborhood park **SINCE THE LATE 1890S**

BROOKLYN BRIDGE PARK 2005 MASTER PLAN

A FRAMEWORK FOR DESIGN

THE HONORABLE GEORGE E. PATAKI

Governor, New York State

THE HONORABLE MICHAEL R. BLOOMBERG

Mayor, City of New York

BROOKLYN BRIDGE PARK DEVELOPMENT CORPORATION

633 Third Avenue New York, New York 10017

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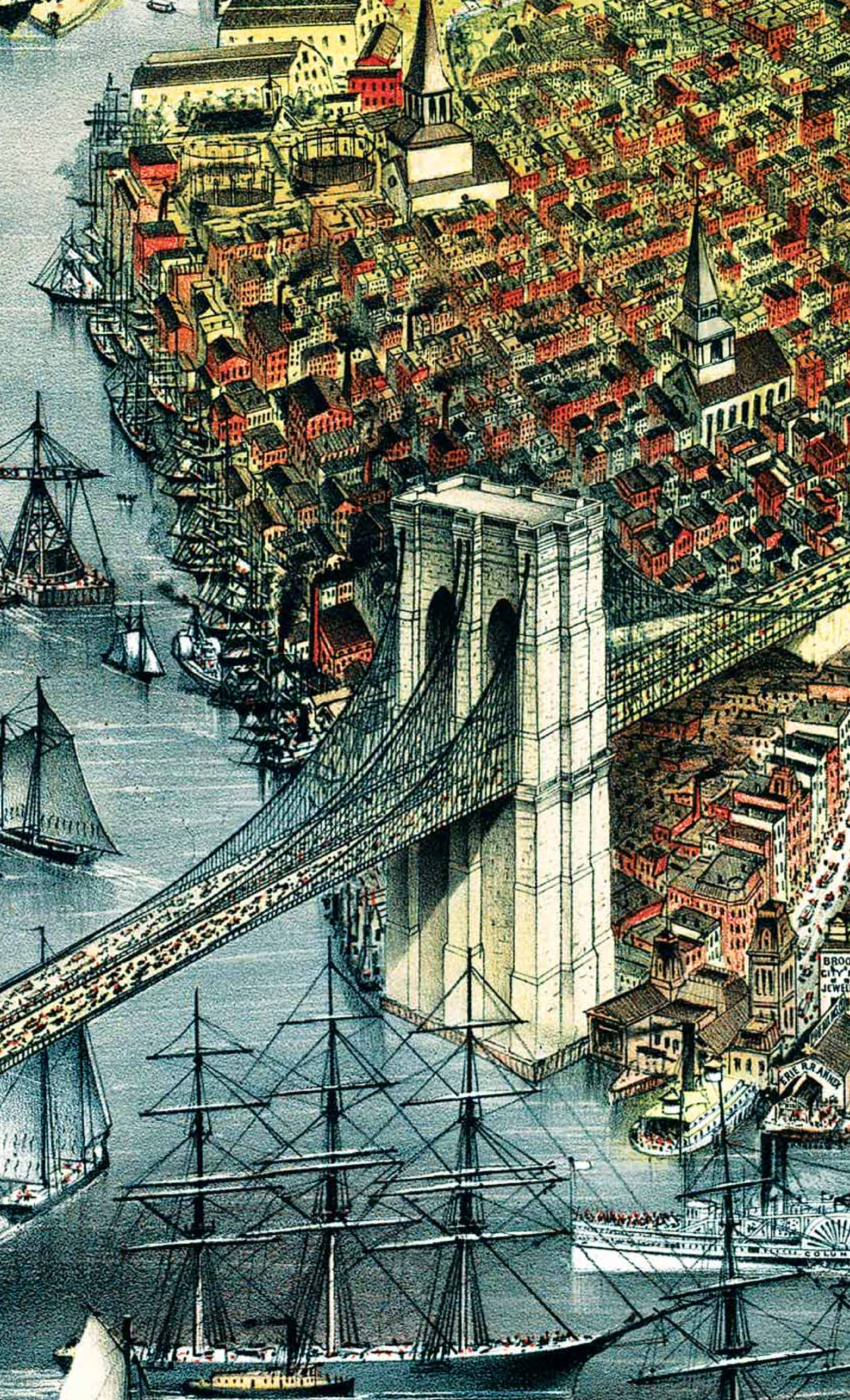
Contents


CITY
ERIE R.R. ANNEX

Brooklyn's Waterfront: Future History The post-industrial waterfront of Brooklyn presents a once-in-a-lifetime opportunity for the neighborhoods of Brooklyn and for the city as a whole. Eighty-five acres of new parkland—adjacent to 800 acres of open water and harbor views—make this the most auspicious Brooklyn park project since Calvert Vaux and Frederick Law Olmsted designed Prospect Park 140 years ago.

Great park projects in New York have never resulted in just local amenities. New York's parks launched a national tradition of park making because they fused social functionality with the emotional impact of landscape aesthetics. Central and Prospect Parks succeeded as truly public art: sequences of landscape scenes that also served vital needs for fresh air, open spaces to play, lakes for boating and skating, and paths for walking and riding. This required a kind of alchemy that took the ordinary features of a site—rock outcrops, hydrologic patterns, topography—and transmuted them into nobler and more powerful versions of themselves.

Brooklyn Bridge Park demands to continue this tradition. This is not just a Brooklyn park or a New York park. It involves economic, social, and design issues that promise to change how Americans think about park making for the new century. The site, which exhibits some of the worst effects of mid-twentieth-century urbanization, embodies the kinds of challenges Olmsted and Vaux faced. The Central Park site,

for example, was once considered to have little potential for beauty, until the designers demonstrated that it was, after all, pure gold.

Brooklyn has changed in 140 years, and successful park design will adapt to new populations and requirements of our modern times. But some basic human needs—to appreciate landscape beauty, to play in open space, to experience genuine public life and a sense of community—are still met by great parks. Well-designed parks still allow us to feel the magical sense of "enlarged freedom" that Olmsted described in the Long Meadow.

The Brooklyn Bridge Park site has landscape features—awesome views of harbor and skyline, a built shoreline shaped by trains and shipping, the imposing BQE—that will make it a great park. It is up to today's designers, artists, and community residents to guide the creative transformation of place that is park making. The master plan presented here describes a framework for how a powerful park landscape can, again, address a new generation of vital social and environmental concerns.

Ethan Carr
Landscape Historian
University of Massachusetts, Amherst
August 2005

Pier 6

Executive Summary

Brooklyn Bridge Park has evolved over the past twenty years under strong community leadership.

The Brooklyn Bridge Park 2005 Master Plan describes a set of design principles to guide the transformation of this former industrial waterfront into a park landscape, one that will serve surrounding neighborhoods as well as all of New York. Governor Pataki and Mayor Bloomberg initiated the design and construction phase of Brooklyn Bridge Park in 2002, and the Brooklyn Bridge Park Development Corporation will oversee $150 million for the project. These commitments culminated many years of community efforts to make the Brooklyn waterfront a park. Grassroots initiatives characterize this generation of park making, and will continue to in the future. Brooklyn has not undertaken a park project of this scale and complexity since 1865. We are determined that with the participation of residents, officials, artists, and everyone else involved, the final design of Brooklyn Bridge Park will continue the tradition of public art and

service—updated for a new kind of site and a new kind of public—that Prospect Park embodies. Brooklyn Bridge Park is also one of a number of projects that mark the transition of the East River from a commercial shipping channel to an ecological waterway and greenway. Brooklyn Bridge Park will serve the recreational needs of the public and will also be a critical component of the continued revival of the biological health of the river and its related ecosystems.

The Brooklyn Bridge Park Site

Brooklyn Bridge Park covers eighty-five acres of what was a busy industrial waterfront. Over the course of two centuries, many generations of piles, platforms, earth filling, and pavement replaced the natural shoreline. Huge and imposing infrastructure—above all the BQE—severed connections between the waterfront and the daily lives of community residents. The final design of the new park must, in part, reverse the

process of industrialization to meet the needs of a post-industrial city. The river's edge must return and become part of our pattern of living. Brooklyn Bridge Park can help heal and reestablish ecological systems, and it can reconnect the river to the city that has grown around it.

Elements of the Plan

The formal elements of the master plan provide for a wide range of uses: open playfields on two of the piers; extensive water recreation, including fishing; a marina; a safe-water kayak area with floating walkways; playgrounds; and a passive recreation area of contemplative spaces and trails in restored native habitats. An extensive system of paths and promenades thread along the water's edge and connect to the upland areas. A series of neighborhood playgrounds and civic lawns serve the surrounding community. The master plan calls for a total of twenty-seven acres of recreational space, from small playgrounds to large

open and enclosed playfields, including four miles of river-edge walks and over fifteen acres of natural habitat for diverse plants and wildlife.

Design Criteria

Four criteria have been fundamental in developing the principles presented in the master plan to guide the final design of the park. The first is connectivity: the park will integrate landscape and community life in visual, physical, and programmatic ways, as part of responsible park and city making, that appeal to the young, the not so young, and the old. The second is sustainability: the restoration of habitats and ecosystems will include plant communities that will thrive in difficult conditions. Stormwater management will be resolved on site, and the park will even generate its own energy. An overall sensibility of material frugality and sensibleness shall prevail. The third is economy: the construction of the park will exploit as many existing site and land-

scape features as possible. The fourth is economic self-sufficiency, the park will generate all of the financial resources for its maintenance.

Objectives for Developing the Design Criteria

These criteria—connectivity, sustainability, economy, and economic self-sufficiency—are the foundations of the master plan. The plan defines limits of development, while providing opportunities to realize diverse public functions and activities. The plan defines recreational programs, and it establishes connectivity with surrounding neighborhoods. The plan provides a framework for sustainability, including the strategic reuse of facilities, the recycling of construction materials, on-site energy production, and the restoration of native ecosystems. Finally, because of the overall approach of the entire design process, the master plan acknowledges the essential historic character of the site.

Twenty-First-Century Park Making

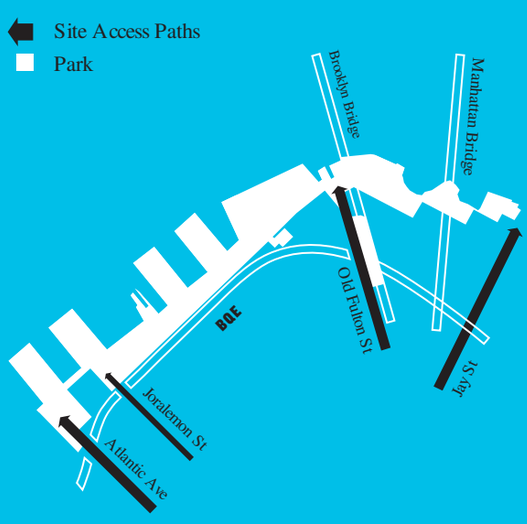
Photograph: John Muggenborg

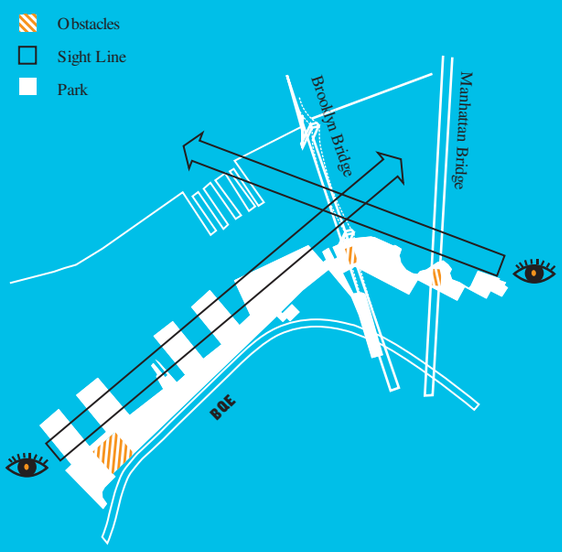
Sociological diversity, programmatic flexibility, and psychological range are fundamental elements of every great park

Social diversity, programmatic flexibility, and psychological range—the fundamental elements of every great park—are as relevant today as they were over 150 years ago when the first great parks of New York were created. But today's park designers are charged with even greater levels of civic obligation. The final park design must provide for the economic self sufficiency of the park, the stewardship of the waterfront ecosystems, and the interpretation of the natural and the cultural history of the site. Today's partnership of designers and planners must fully engage community residents and others who have advocated and remain vitally interested in this endeavor. The Brooklyn Bridge Park Master Plan embraces these challenges as the means to preserve and expand the historic role that parks have played in the life of the City. The plan is presented here as a tool to produce, together, the final design that will achieve shared aspirations for this great park of the future.

project criteria

connectivity





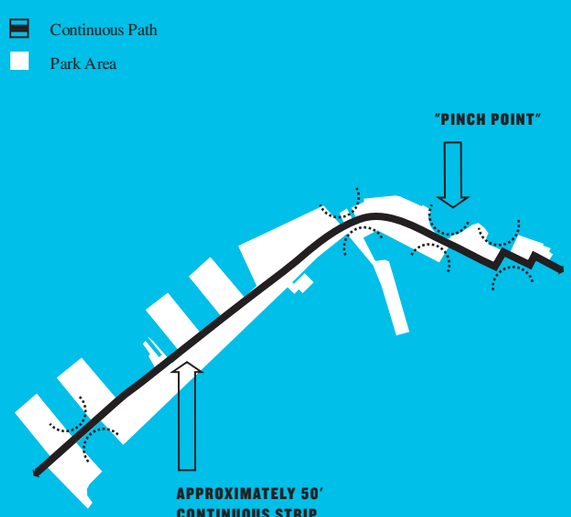
Length + Access

The site has 1.3 miles of street frontage and only four major entry points—each less than a fifteen-minute walk from the nearest subway.

Bend + Obstacles

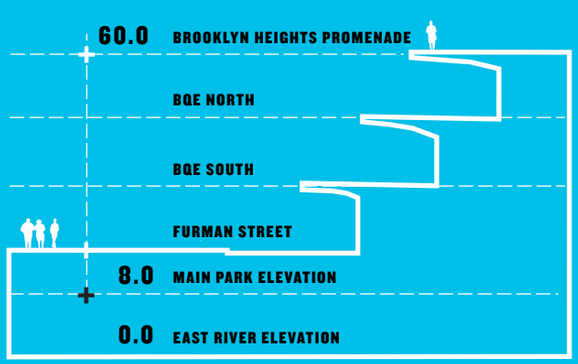
The curvature of the site visually disconnects the ends of the park. Additionally, several buildings block sight lines within the site, exacerbating the challenge of visual discontinuity.

The success of the park design depends in great part on the extent and efficiency of its connections to surrounding parts of the city. Connectivity needs to happen in multiple ways: physically, through the provision of direct urban junctions and links to the water-taxi system; visually, through the provision of gateways, landmarks, identity; creating an overall sense of welcome that will largely extend from the park design itself; and programmatically, through the provision of facilities that will directly benefit the surrounding community.



Width + Continuity

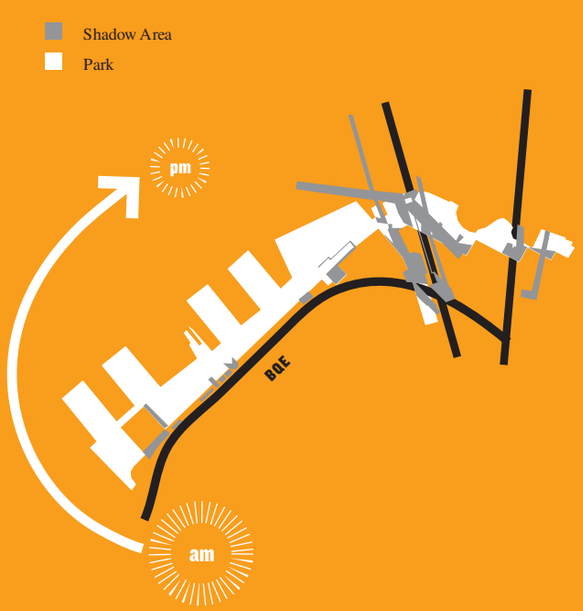
Another problem of creating continuity within the park is that although the average width of the site is 300 feet, it has a series of pinch points (some as narrow as a sidewalk) that restrict pedestrian movement through the park.



Site Cross-Section

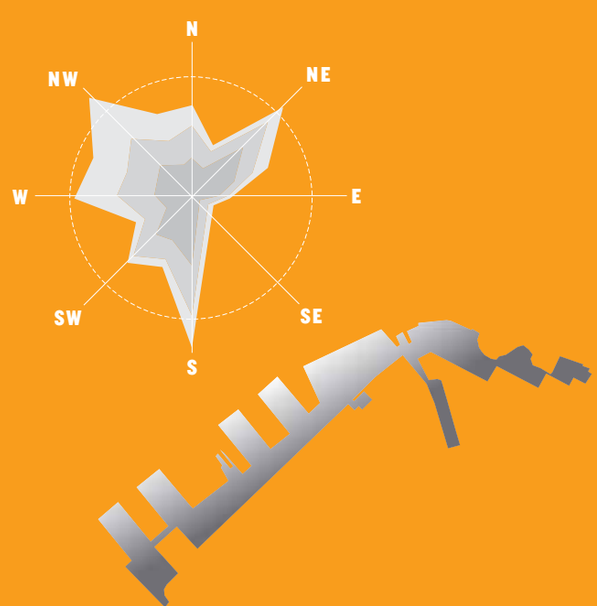
The Brooklyn Queens Expressway (BQE) separates the park from its neighborhoods and severely restricts opportunities for connection to downtown Brooklyn.

sustainability



Sun

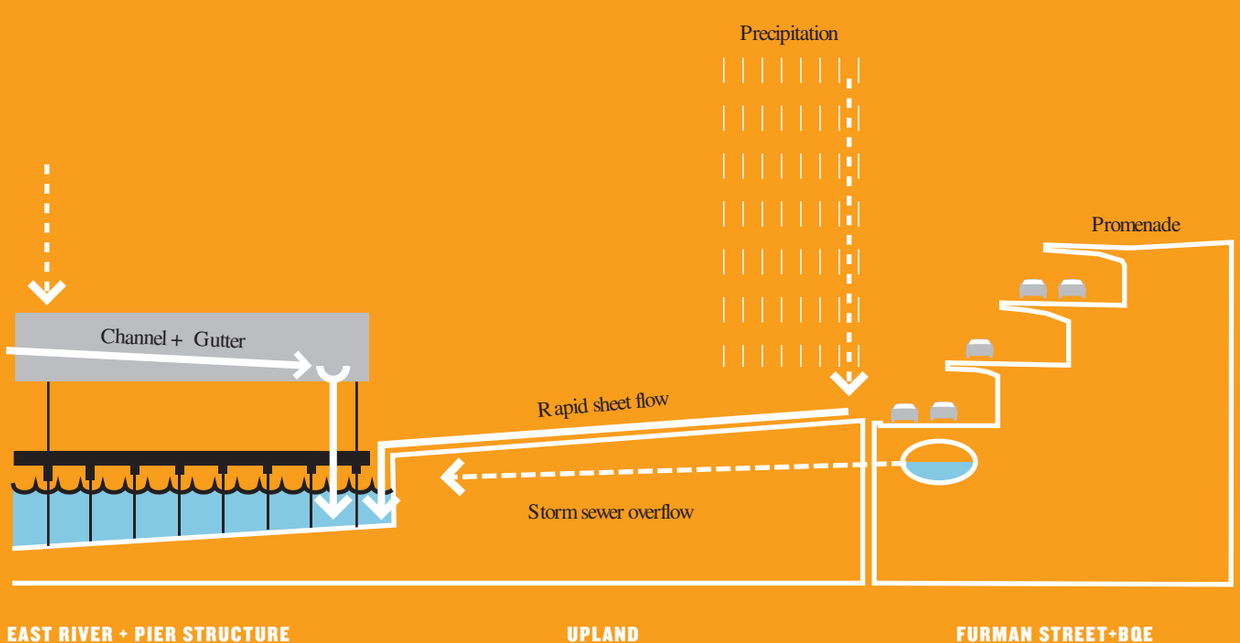
A portion of the upland area of the site is in shadow in the morning hours due to the escarpment of Brooklyn Heights to the east.



Wind

Wind is the primary source of environmental discomfort on the site. The prevailing winter winds from the north-west create increasingly uncomfortable conditions near the water's edge.

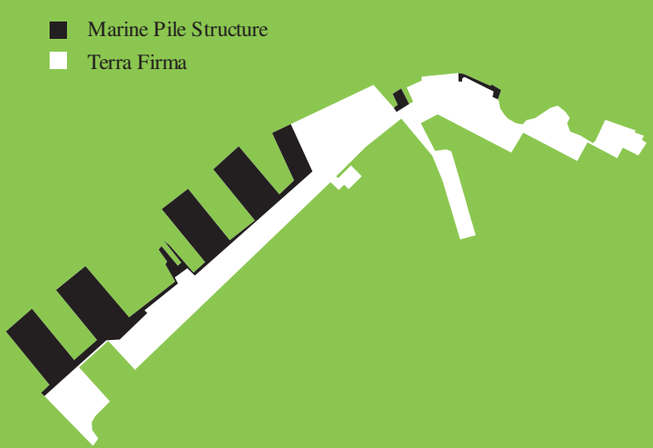
In post-industrial sites, natural systems—water, soils, plants, and wildlife—have become fragmented and severed from the connections that sustain their viability as living and evolving ecologies. Thus reintroducing landscape into the site is not just a matter of placing plants on its surface. Rather, it is organizing new kinds of relationships among soils, vegetation, wind, water, and sun such that a series of self-sustaining ecologies can begin to get established on the site.



Water

The site is mainly impermeable or hard surface. When it rains, runoff moves faster due to low friction between pavement and water. The warmth of the pavement is conducted through the runoff creating a temperature increase, that is unhealthy for aquatic and terrestrial wildlife habitats. Rapid runoff also creates flooding in certain areas.

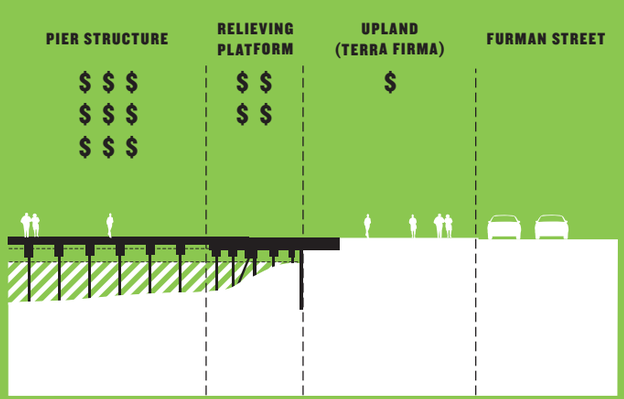
economy of design and construction



Pile-Supported Structure

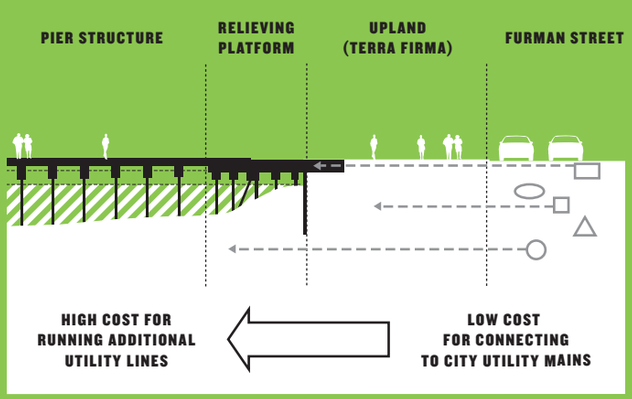
Twenty-five acres of the site are supported by 12,000 marine piles. The usefulness of these structures is severely constrained by their limited weight-bearing capacity and by the future burden of pier maintenance.

The most economical way to use park resources is to match each desired park program with a compatible existing structural condition, ground condition, and/or infrastructure. According to this criterion, the relatively light loads of the recreational fields will be located on the piers—with pile-supported platforms that have limited weight-bearing capacity. In contrast, program that requires topographical variation and raised prospects, such as sound-abatement mounds, hills, and heavily planted areas, will be more suitable on those portions of the site that sit on firm ground, where the subgrade can support greater weight. Similarly, adding utility services becomes increasingly challenging and expensive with increased distance from existing utility lines, and thus structures requiring those services will be located close to existing lines.



Structural Capacity

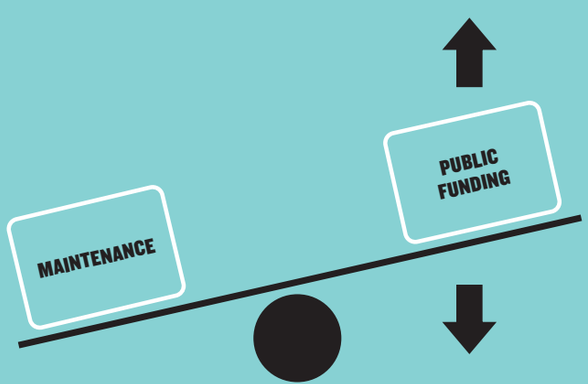
Currently the site has varying degrees of weight-bearing capacity and will require varying levels of investment to carry additional weight; the structural capacities of the park areas suggest the location of programmatic uses.



Infrastructure Gradient

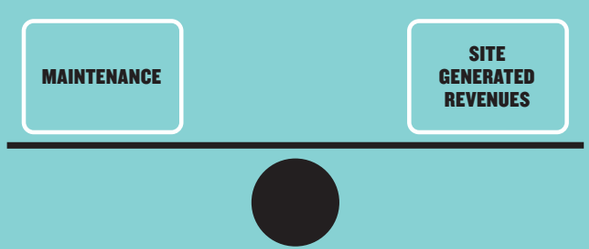
The provision for utility service becomes increasingly challenging and expensive the further one moves from existing utility lines.

economic self-sufficiency



Typical Maintenance and Funding Model

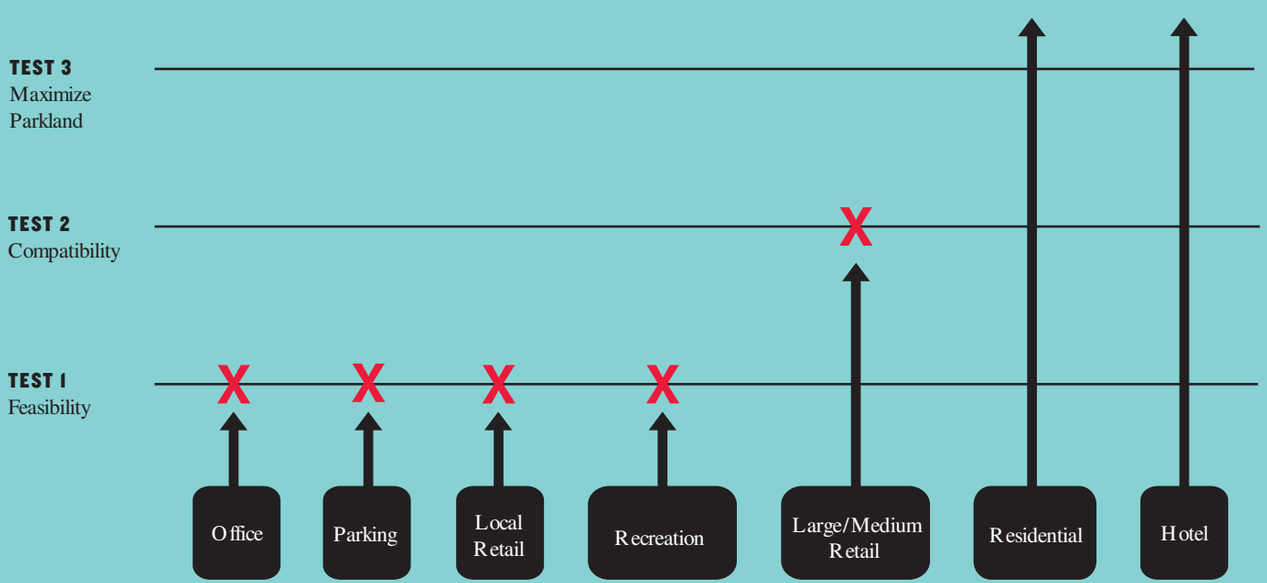
Operating and capital maintenance requirements are typically funded by city and state appropriations, which can vary over time, resulting in poor maintenance and overall park deterioration.



BBP Economic Sustainability Model

Operating and capital maintenance requirements at Brooklyn Bridge Park will be funded by site-generated revenues.

One of the founding principles behind the Brooklyn Bridge Park, supported by both city and state governments, is that the park be economically self-sufficient. A major criterion in the planning of the park is therefore the integration of income-generating elements that are both capable of covering the park's annual maintenance and operations costs and compatible with the recreational and ecological programs of the park. In addition, the park should be able to operate independent of the resources of government, providing for some or all of its own energy sources, irrigation, and storm-water management on site.



Revenue-Generating Development Tests

Residential and hotel development maximizes revenue, is compatible with the mission of the park, and minimizes building footprints.

design objectives

Based on the previously outlined criteria–connectivity, sustainability, economics–the Brooklyn Bridge Park Master Plan provides specific design objectives for the following elements of the plan.

Choosing and Siting the Recreational Program

Establishing Connectivity with the Surrounding Neighborhoods

Defining the Limits of Development

Ensuring Sustainability

Improving Microclimatic Conditions on the Site

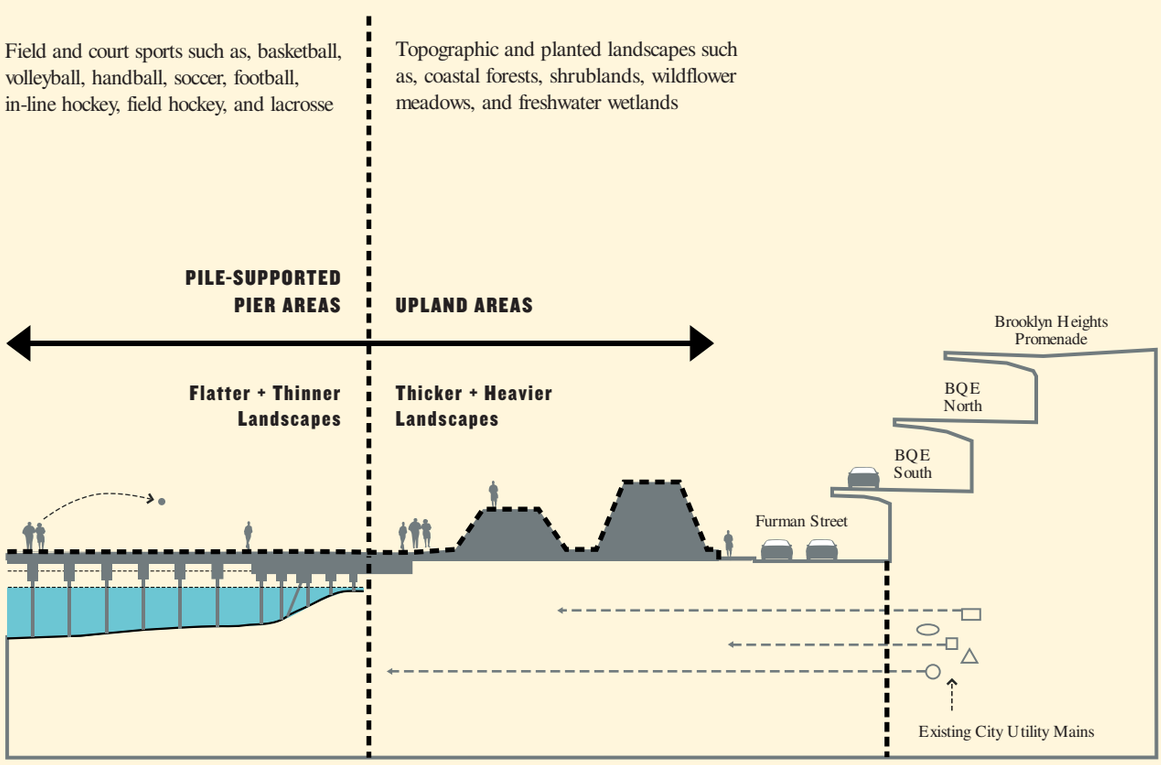
Establishing Ecological Systems

Preserving the Industrial Character of the Site

Choosing and Siting the Recreational Program

1 Location of park program will be in direct response to the varying structural capacities of the site. Activities that do not add significant weight loads, such as field sports, will be located on the piers. Activities that add considerable loads to the ground will be located on terra firma.

2 Location of infrastructure will be in direct response to proximity to existing utilities on the site.



Establishing Connectivity with the Surrounding Neighborhoods

1 Provide neighborhood gateways at access points to the park.

2 Locate citywide and event-based park uses such as the marina and recreational fields, which attract large numbers of people, near the center of the park.

3 Preserve views to and from the site.

4 Define and protect identity of the site and establish clear means of wayfinding.

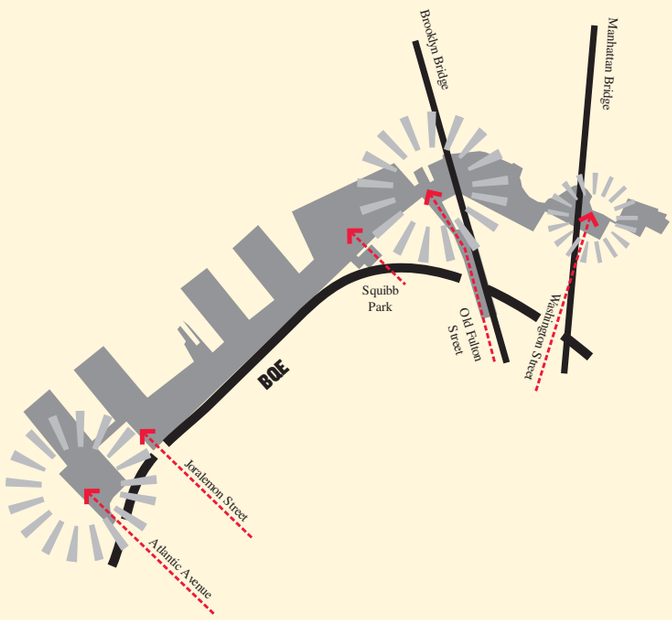
5 Maximize pedestrian access to the site.

6 Provide basic neighborhood park functions—playgrounds, recreational lawns, and promenades—immediately upon entering the park.

7 Allow vehicles to drive in some park areas in the winter to invite winter activity.

8 Provide emergency and police access to all points on the site.

9 Frame views to existing landmarks on the site.



CONNECTION AND ACTIVITY

New buildings with ground-floor activities located at the urban junctions will serve as essential links between the future park and the existing urban fabric. The urban junctions serve as concentrated activity generators infused with twenty-four-hour life, twelve months of the year. This activity will provide eyes on the park as well as year-round amenities for park users at its major entry points.

Defining the Limits of Development

1 Development should be compatible with the park program, generating human activity 365 days a year.

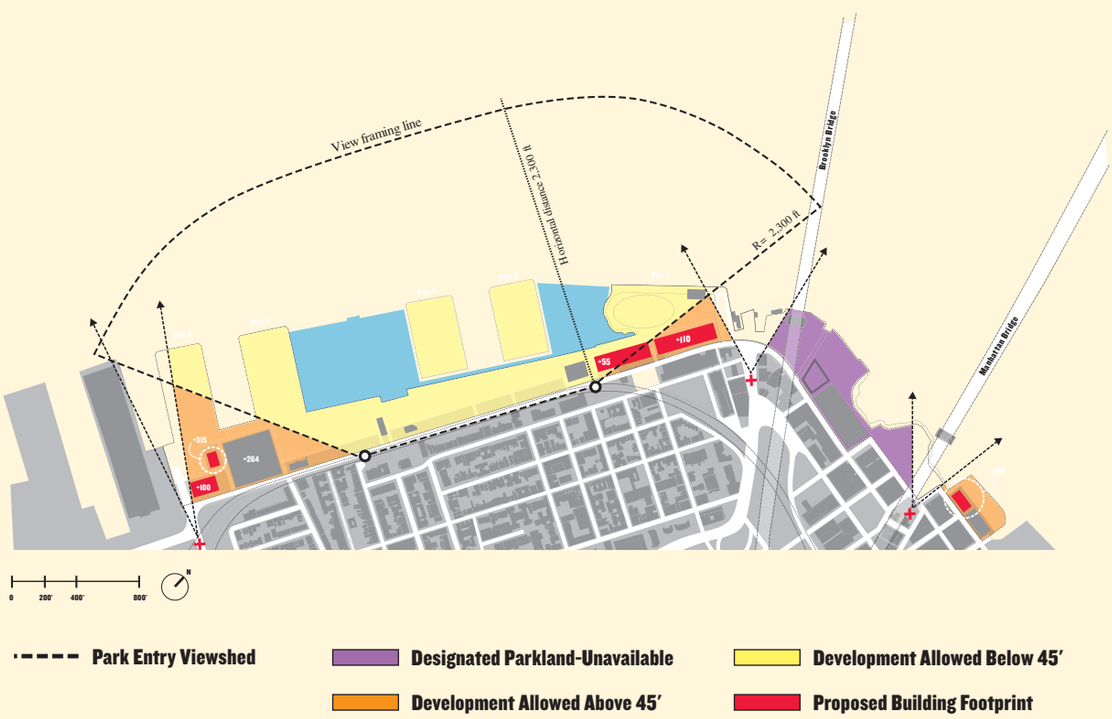
2 Development should generate sufficient revenue to meet the annual maintenance and operations budget of the park.

3 Development should provide street-level amenities that are attractive to park users.

4 Development should minimize its footprint in order to maximize parkland.

5 Development should be located at the city edge and be adjacent to one of three major park entries.

6 Development should fall within the spatial limits established by the development envelopes, which protect views from the Brooklyn Heights Promenade and view sheds at the park entrances.



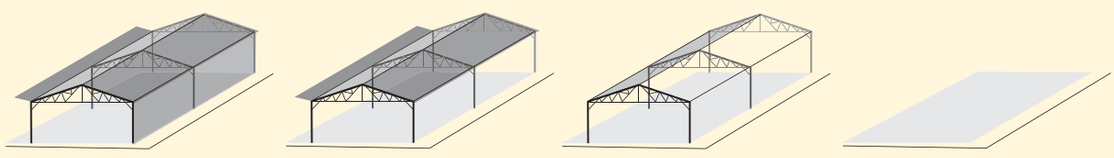
Ensuring Sustainability

1 Incorporate the strategic reuse of pier facilities for new park program.

2 Recycle materials on site.

3 Introduce on-site energy-producing technologies, such as wind turbines and photovoltaic solar collectors.

4 Develop ecologically balanced landscape types.

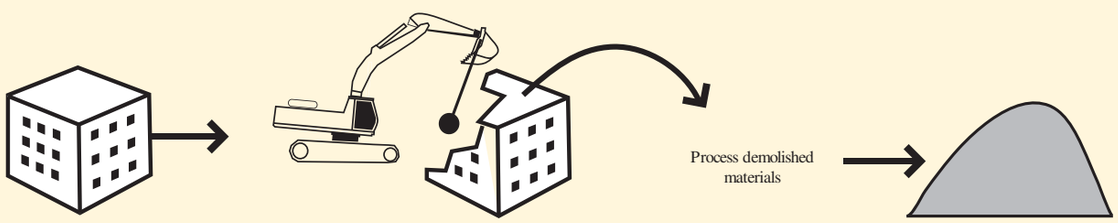


Existing building

Remove wall cladding from pier sheds to provide light—walls could be used for wind protection

Remove portions of roof cladding to provide additional light for possible windbreak planting

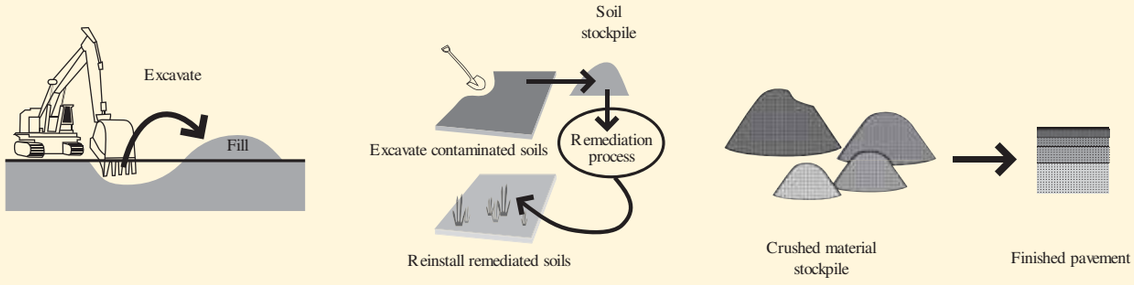
Remove shed structure to provide an open pier surface that could accommodate large civic lawns



Existing building

Demolish existing building

Reuse processed materials



Improving Microclimatic Conditions on the Site

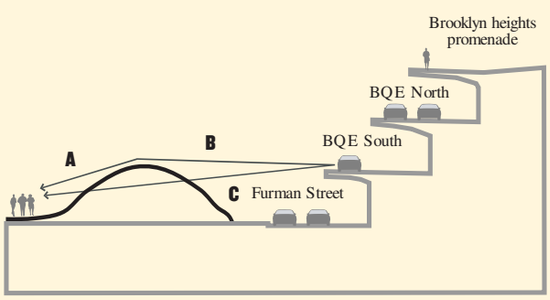
1 Create a system of landforms and planted thickets to create shelter belts for wind protection on the site.

2 Provide sound-attenuating elements and strategies.

3 Provide shelter from the sun during the summer and enhance exposure to it during the winter months.

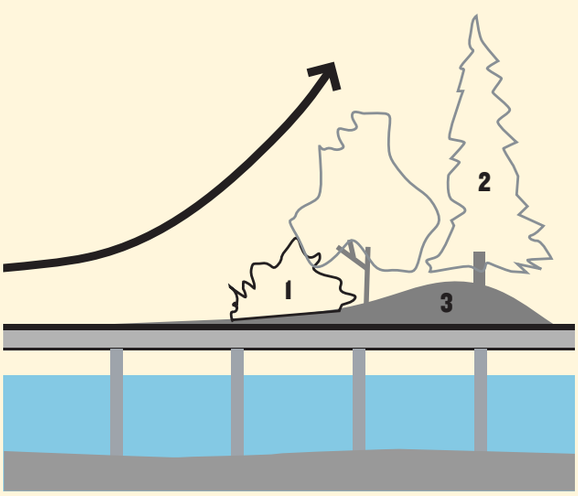
PATH DIFFERENCE (A+B-C)	NOISE ATTENUATION*
Breaking Line of Sight	5-8 dB
1'	9-12 dB
3'	11-14 dB
10'	14-17 dB

* At 550 Hz, a general characterization of traffic noise



BASIC SITE SOUND-ATTENUATION PRINCIPLES

Interrupting the direct line of sight between the noise source and listener (park user) is the general principle for sound attenuation. Considering the Brooklyn Queens Expressway (line noise source) and the use of earth berms or walls as a barrier, a noise reduction of 5–8 dB would be achieved when the line of sight is broken.



PLANTING STRUCTURE FOR SHELTER BELT

The use of a landform increases the height of the shelter belt and minimizes its width.

Establishing Ecological Systems

1 Establish natural drainage systems.

2 Reduce, manage, and use runoff.

3 Utilize gray-water collection systems.

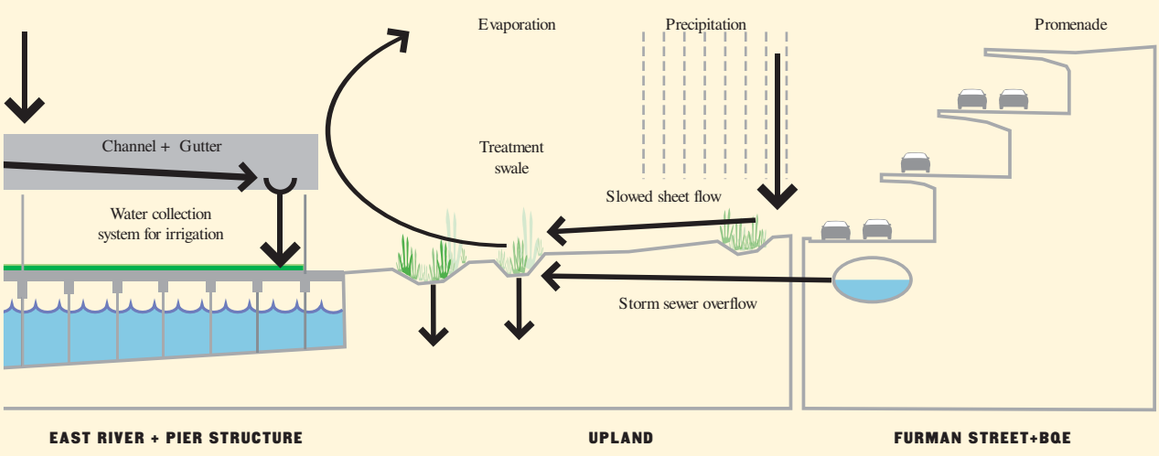
4 Utilize alternative water collection systems.

5 Make soil preparation specific to proposed habitat.

6 Introduce a diverse mixture of plant species typical of native coastal plant communities (salt-tolerant and drought resistant) and obtain materials from local sources.

7 Monitor park for invasive non-native species from the beginning of the planting operation.

8 Minimize dependence on fertilizers, pesticides, herbicides, and fungicides.



PROPOSED MANAGEMENT TECHNIQUES

By creating areas that slow down or contain the runoff, there is a decrease in the speed with which the water is moving, allowing the water to either be infiltrated back into the groundwater table, evaporated, or recycled for irrigation.

Preserving the Industrial Character of the Site

1 Reuse many of the existing buildings on the site, preserving their architectural character while adapting them to new program.

2 Integrate historically significant artifacts into the design of the park and its construction details.

3 Acknowledge the site's remarkable maritime and mercantile history.







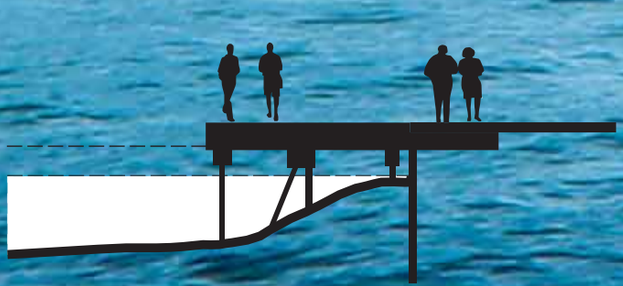


design principles

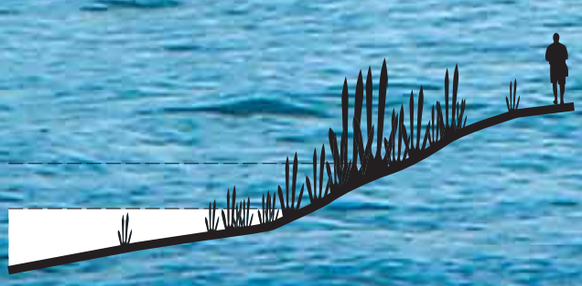
provide programmatic range

Brooklyn Bridge Park will serve park users' diverse needs by providing broad programmatic range. The right mix of contemporary park activities—organized and individual sports, strolling, nature appreciation, sunbathing, water access, refreshment, and special events—will be balanced with the logistical concerns of site organization. Within this programmatic range, the framework for design establishes a level of flexibility that will accommodate competing uses and changing needs over time.

create variety at the water's edge

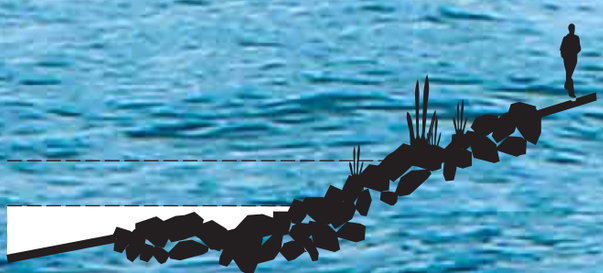


Constructed Edges

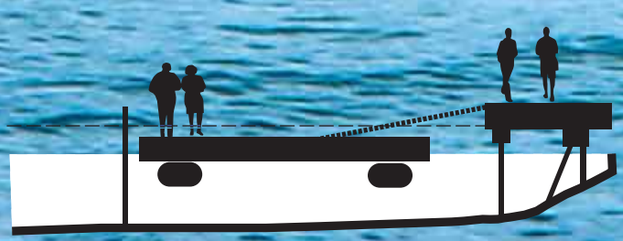


Natural Edges

The water's edge is one of the most important programmatic elements within Brooklyn Bridge Park and, ultimately, it is the sense of freedom and expansiveness experienced at the water's edge that will draw the greatest number of visitors. The design principles embrace the two existing edge types—constructed bulkhead and riprap—as useful remnants of the site's history. They also reintroduce earlier edge types—natural and floating—to allow people more levels of experience at the water's edge, emphasizing its importance as the programmatic focus of the park. The new shadows of these over-water structures are traded off against a shade-bank that is created by the elimination of a pier-supported concrete deck at the south end of Pier 1; thus conforming to federal and state regulations.

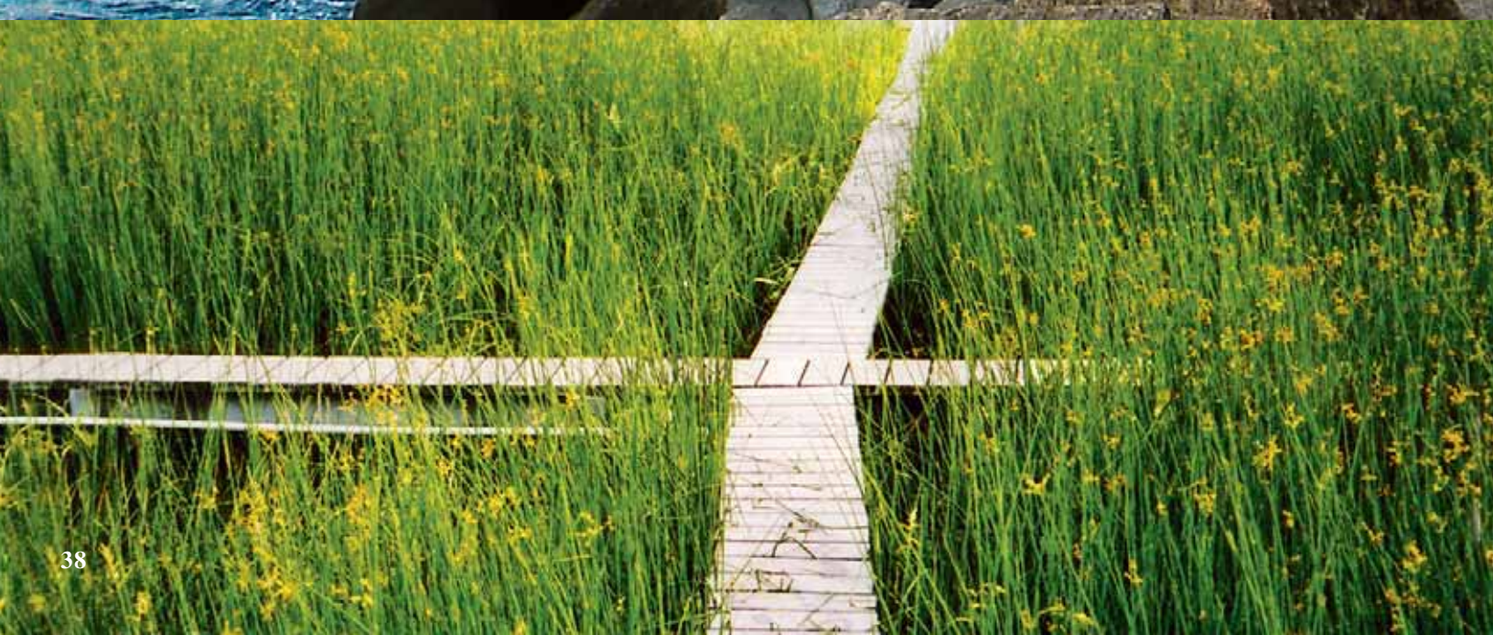


Stabilized Edges

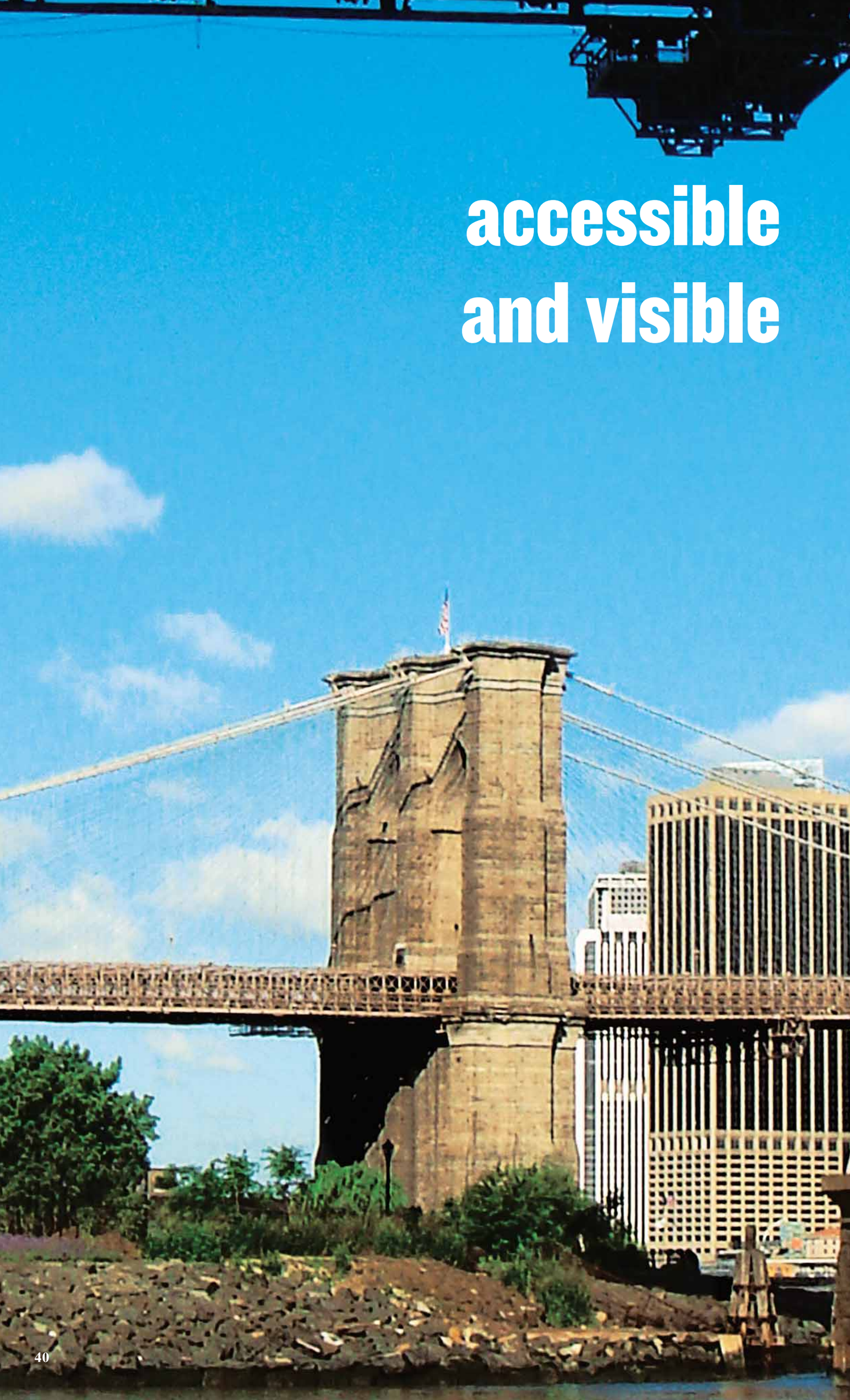


Floating Edges

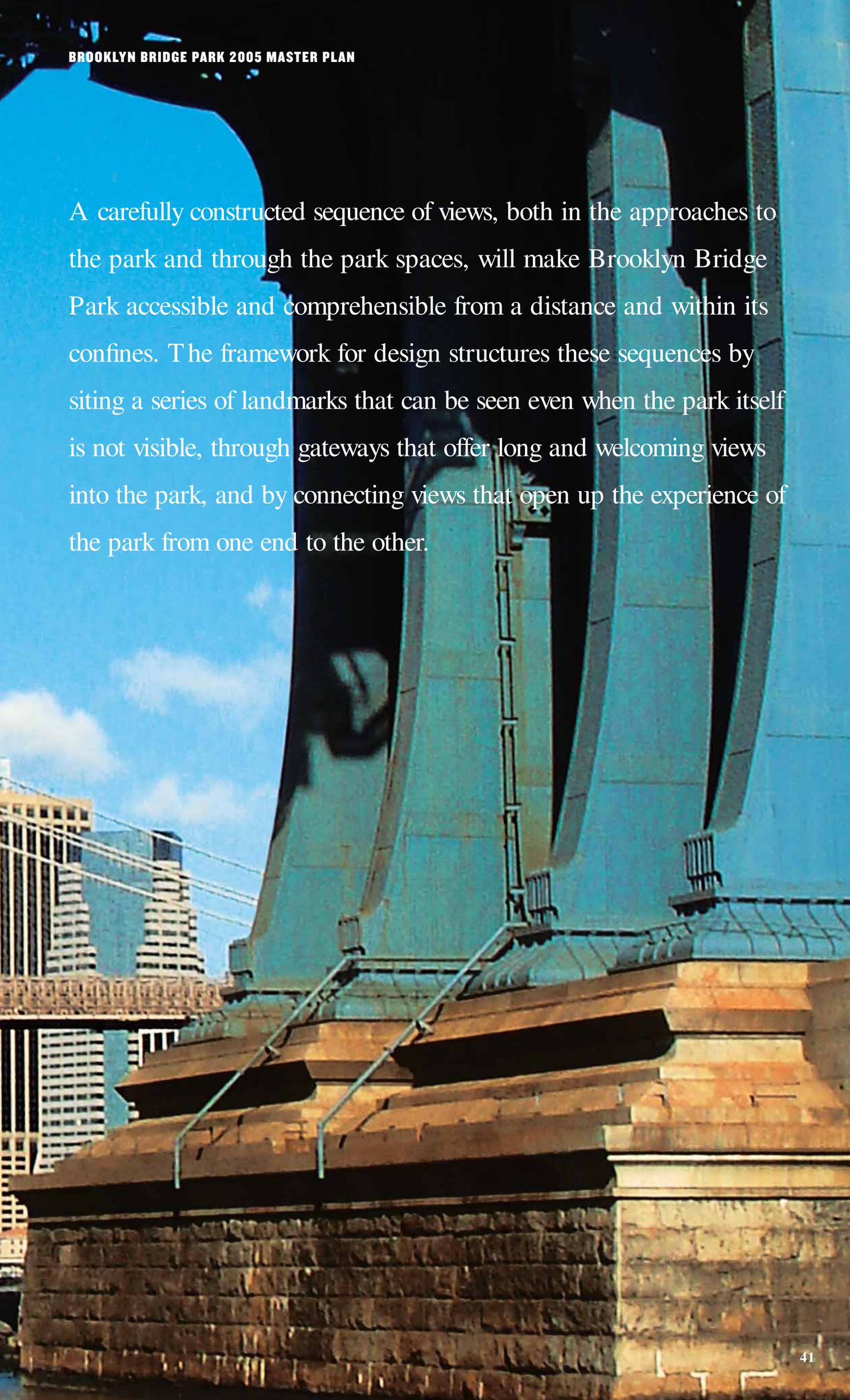
provide a mosaic of nature and activity



A parkwide strategy for the reintroduction of nature favors an integrated approach that weaves nature in and out of the other park uses, rather than segregating it to one or two controlled locations. Measures to accommodate the needs of one can be designed to support the needs of the other, thus creating the potential for a complementary mosaic of natural areas juxtaposed with park activity areas.

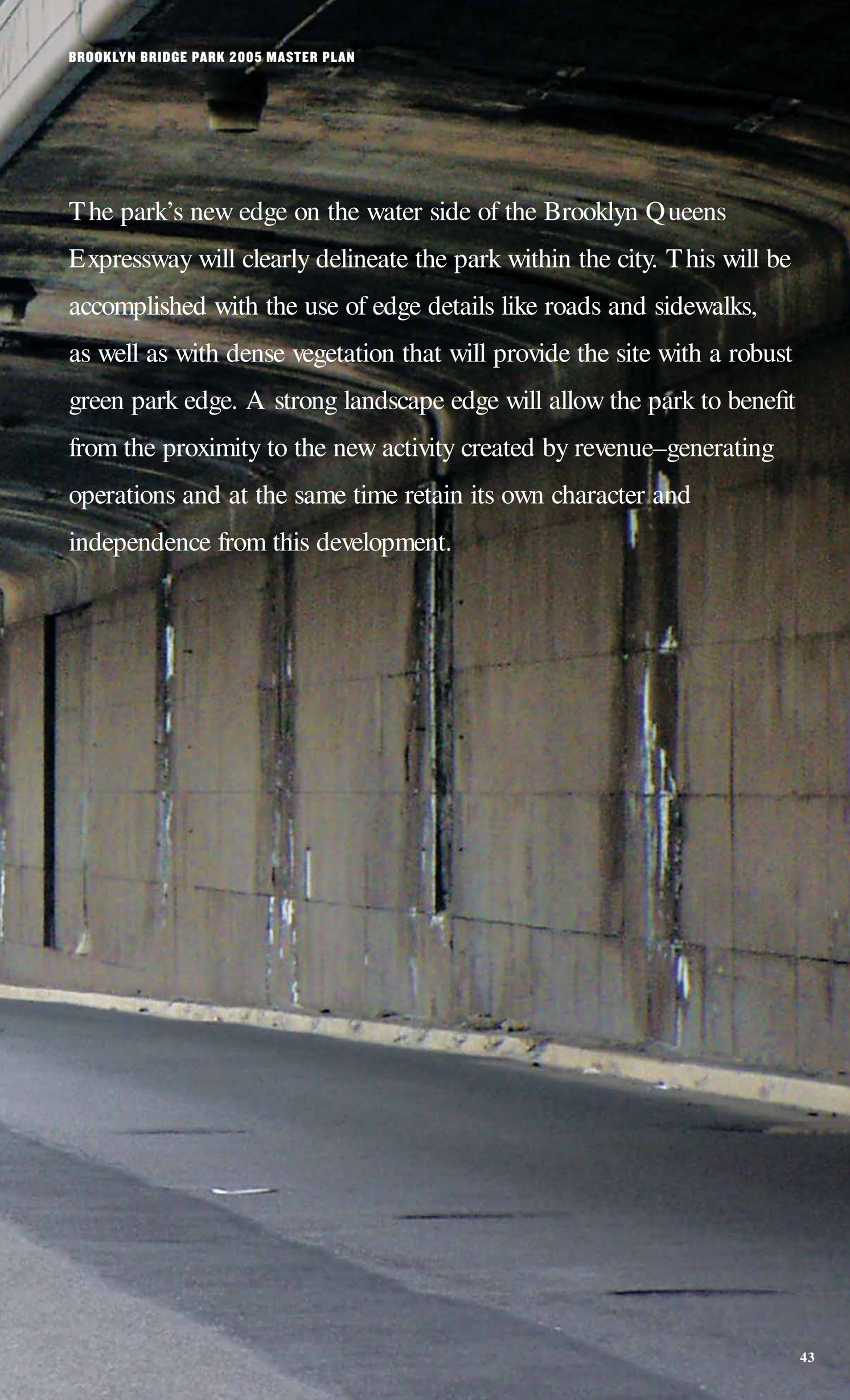


accessible and visible



A carefully constructed sequence of views, both in the approaches to the park and through the park spaces, will make Brooklyn Bridge Park accessible and comprehensible from a distance and within its confines. The framework for design structures these sequences by siting a series of landmarks that can be seen even when the park itself is not visible, through gateways that offer long and welcoming views into the park, and by connecting views that open up the experience of the park from one end to the other.

create a new city edge



The park's new edge on the water side of the Brooklyn Queens Expressway will clearly delineate the park within the city. This will be accomplished with the use of edge details like roads and sidewalks, as well as with dense vegetation that will provide the site with a robust green park edge. A strong landscape edge will allow the park to benefit from the proximity to the new activity created by revenue–generating operations and at the same time retain its own character and independence from this development.

promote environmental sustainability

Key Environmental Factors

Stormwater

Wildlife

Renewable Energy

Existing Materials

The design of the park will embody a healthy, productive relationship with the natural world through the materials and practices employed in its construction, through its maintenance, and through the way it coexists with the site's natural systems. Green technologies and landscape strategies will be used to curtail the park's consumption of natural resources.

Park Design Response

On-site Treatment

- INCREASE PERVIOUS MATERIALS
- BIO-SWALES
- STORMWATER STORAGE AND REUSE
- MINIMIZE IMPACT ON CITY INFRASTRUCTURE

On-site Habitat

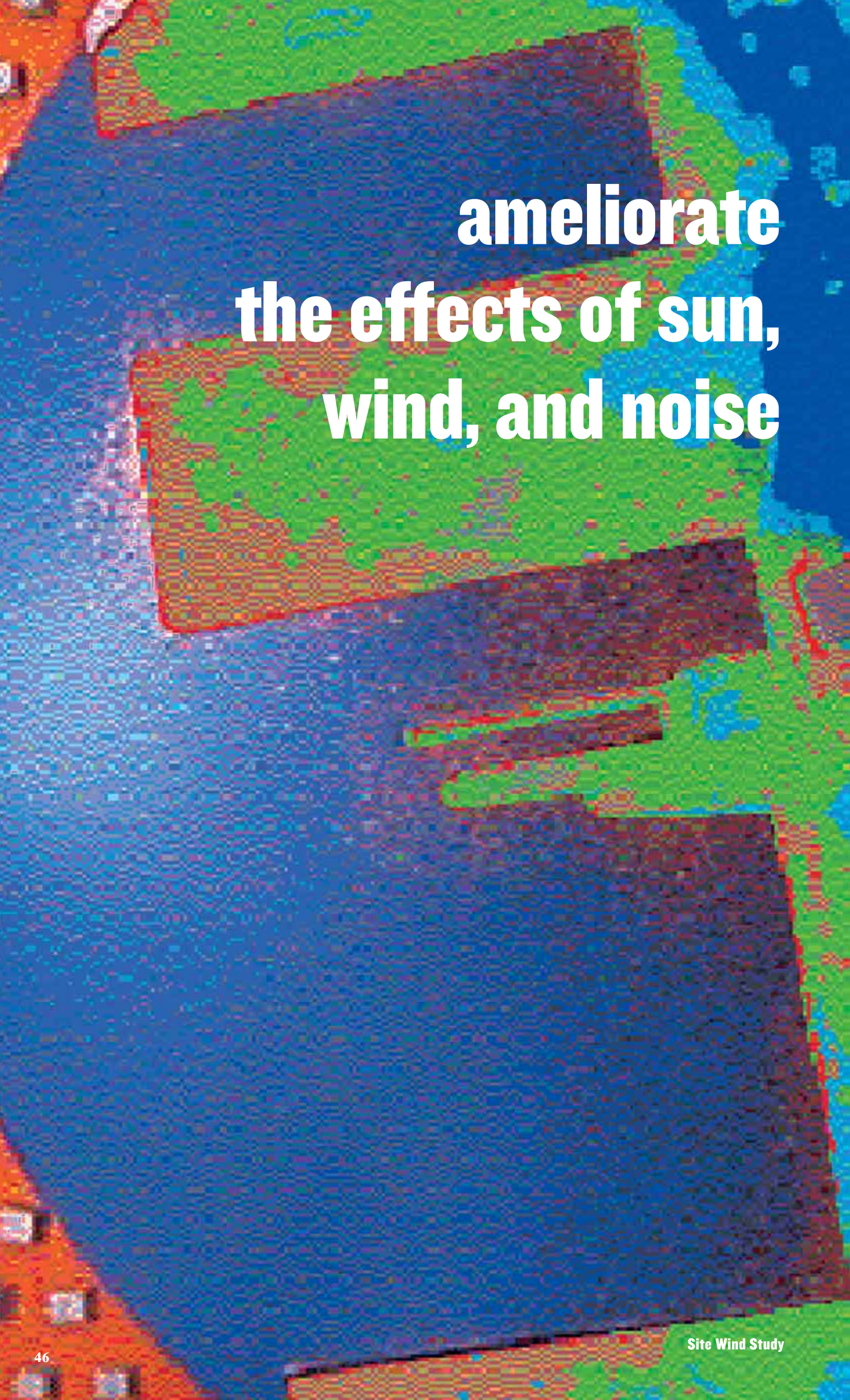
- SHALLOW WATER-SUBTIDAL
- SALTWATER LAGOON AND MARSHES
- DUNE
- WILDFLOWER MEADOW
- SHRUBLAND
- FRESHWATER SWALE AND WETLAND
- COASTAL FOREST
- ROOKERY ISLAND

On-site Resources

- WIND (WIND TURBINES)
- SUN (PHOTOVOLTAIC SYSTEM)
- HYBRID SYSTEM

On-site Reuse

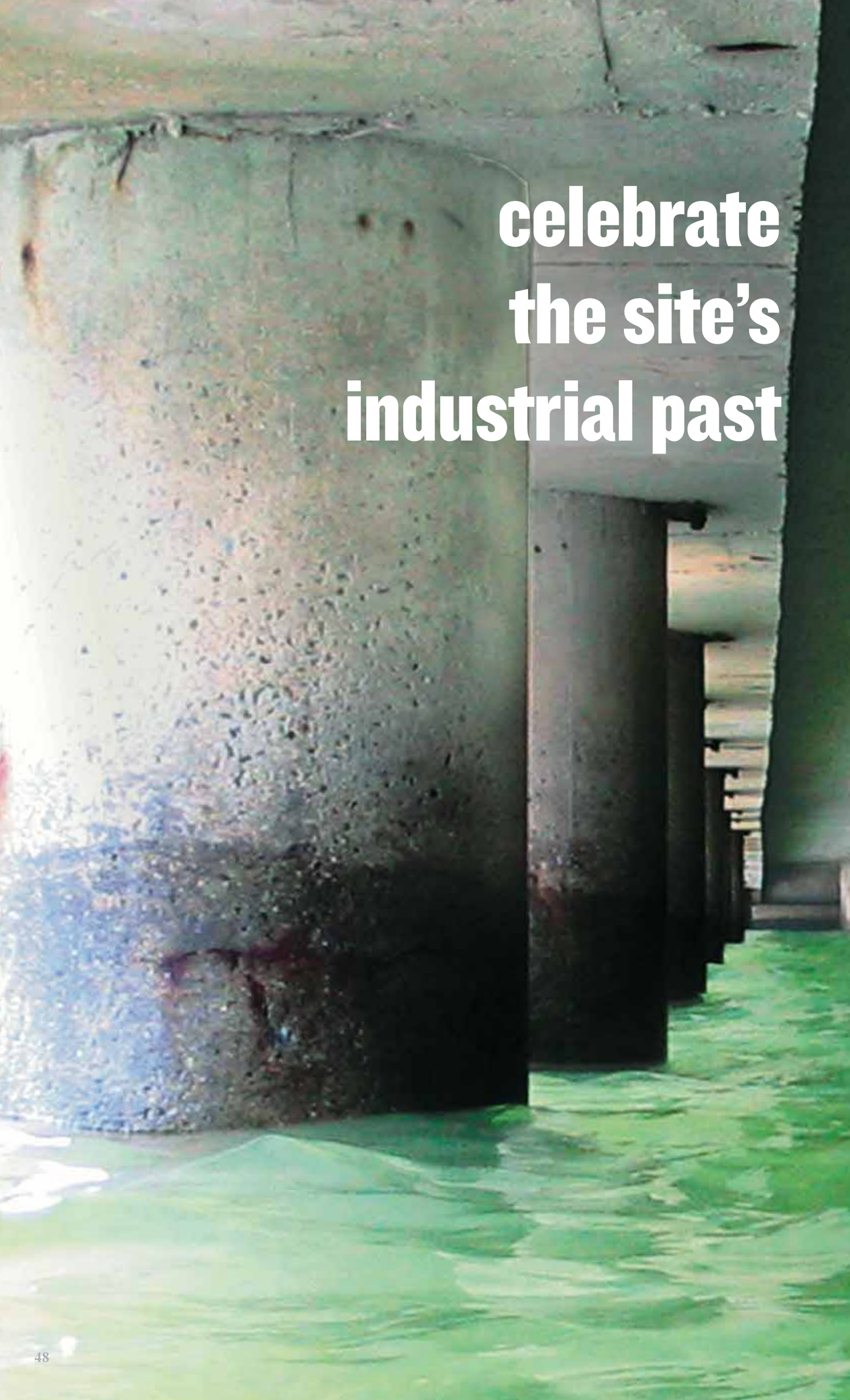
- BUILDINGS AND STRUCTURES
- MATERIAL PROCESSING



ameliorate the effects of sun, wind, and noise

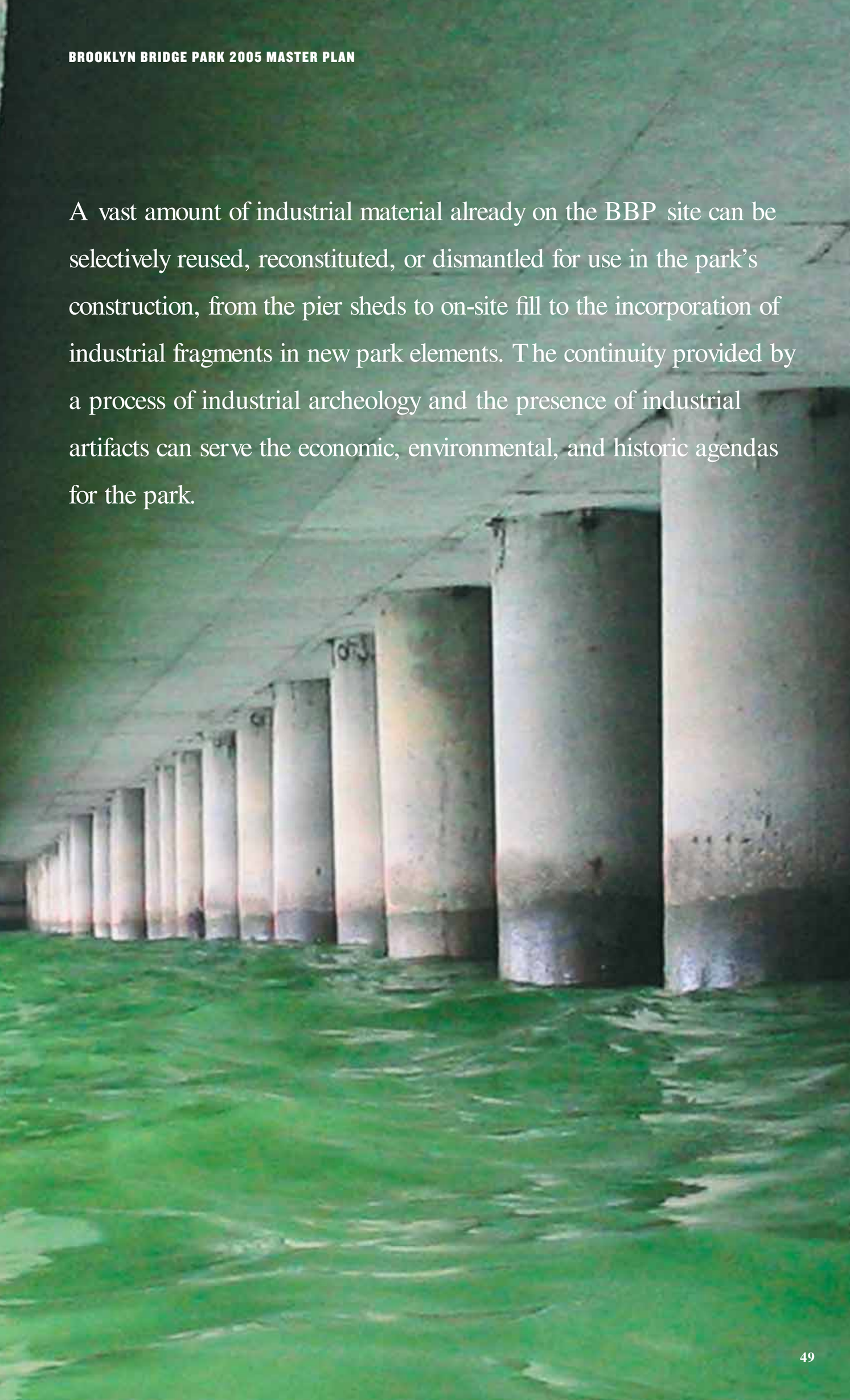
Site Wind Study

Areas within the park that need improved microclimatic conditions have been identified through detailed wind, solar, and sound analysis. Providing shade in the summer, warmth in the winter, protection from the wind, and moments of less noise will create comfort precincts within Brooklyn Bridge Park that encourage visitors to extend their stay.



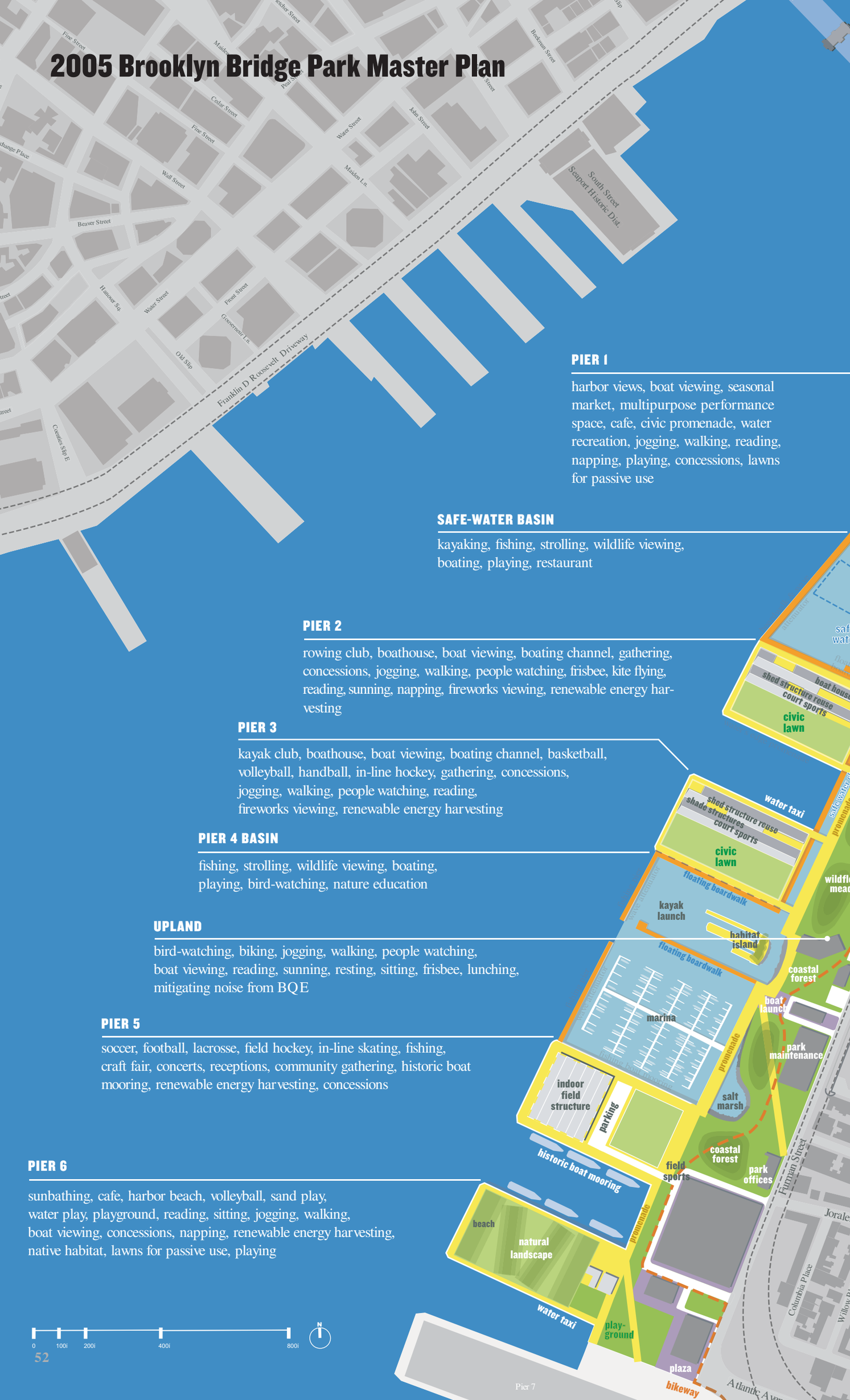
celebrate the site's industrial past

A vast amount of industrial material already on the BBP site can be selectively reused, reconstituted, or dismantled for use in the park's construction, from the pier sheds to on-site fill to the incorporation of industrial fragments in new park elements. The continuity provided by a process of industrial archeology and the presence of industrial artifacts can serve the economic, environmental, and historic agendas for the park.



park walk-through

2005 Brooklyn Bridge Park Master Plan



PIER 1

harbor views, boat viewing, seasonal market, multipurpose performance space, cafe, civic promenade, water recreation, jogging, walking, reading, napping, playing, concessions, lawns for passive use

SAFE-WATER BASIN

kayaking, fishing, strolling, wildlife viewing, boating, playing, restaurant

PIER 2

rowing club, boathouse, boat viewing, boating channel, gathering, concessions, jogging, walking, people watching, frisbee, kite flying, reading, sunning, napping, fireworks viewing, renewable energy harvesting

PIER 3

kayak club, boathouse, boat viewing, boating channel, basketball, volleyball, handball, in-line hockey, gathering, concessions, jogging, walking, people watching, reading, fireworks viewing, renewable energy harvesting

PIER 4 BASIN

fishing, strolling, wildlife viewing, boating, playing, bird-watching, nature education

UPLAND

bird-watching, biking, jogging, walking, people watching, boat viewing, reading, sunning, resting, sitting, frisbee, lunching, mitigating noise from BQE

PIER 5

soccer, football, lacrosse, field hockey, in-line skating, fishing, craft fair, concerts, receptions, community gathering, historic boat mooring, renewable energy harvesting, concessions

PIER 6

sunbathing, cafe, harbor beach, volleyball, sand play, water play, playground, reading, sitting, jogging, walking, boat viewing, concessions, napping, renewable energy harvesting, native habitat, lawns for passive use, playing

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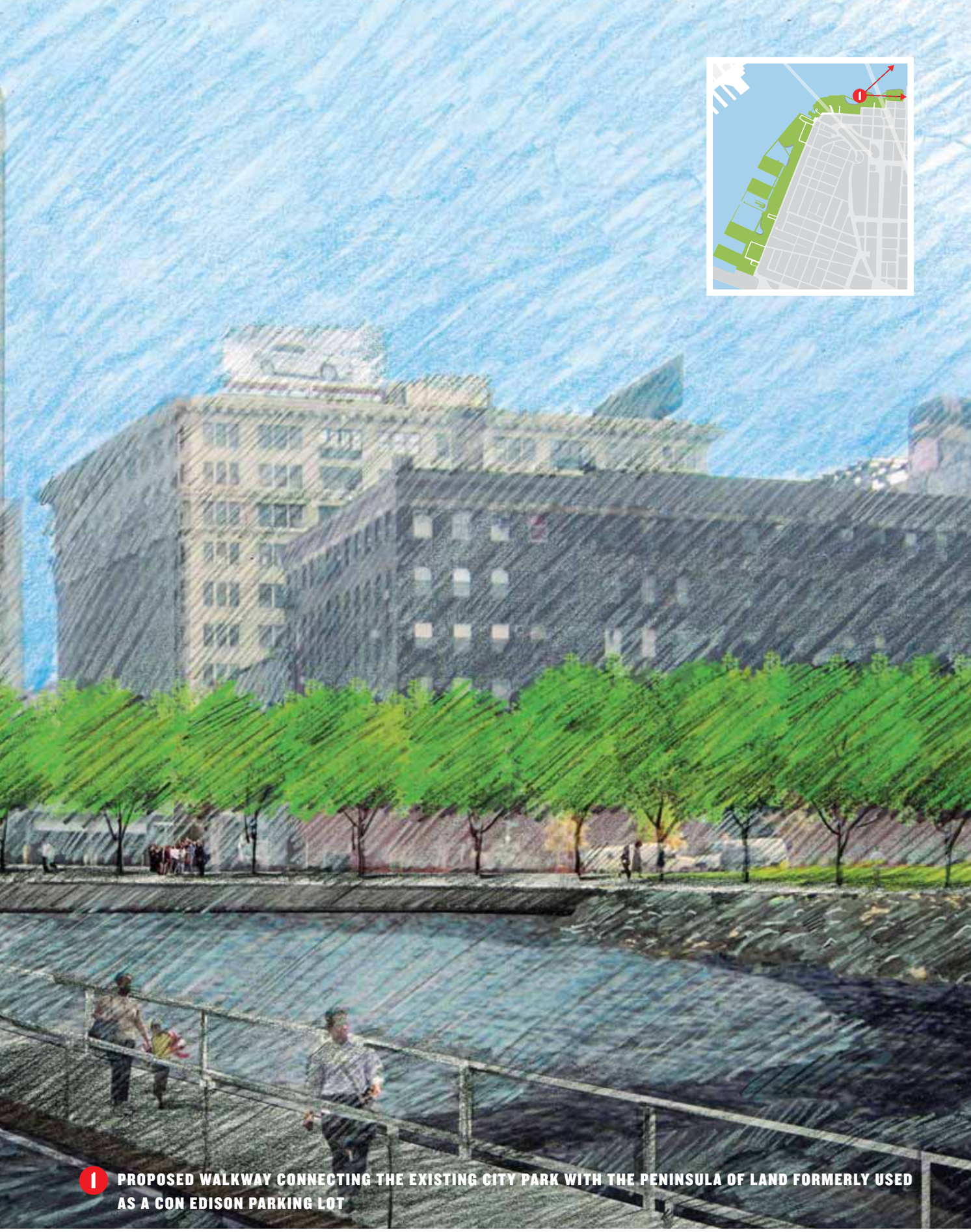
Brooklyn Bridge
Manhattan Bridge
INTERBRIDGE ZONE
event and celebration space, fireworks viewing, movies, garden, harbor and river views, lunching, sunning, frisbee, coastal habitat viewing, resting, park concessions, playing, jogging, bicycling, exhibition space/green market, playing
JOHN STREET SITE
sunning, bridge and river views, fishing, sitting, strolling, reading, playing, boat watching, bird-watching, concessions
FULTON FERRY LANDING
bridge and river views, river cafe, barge music, concessions, seasonal market, lunching, civic gatherings, movies, jogging, walking, bicycling, garden, reading
water taxi
prospect hill
bridge connection
lawn
natural beach cove
playground
education center
bridge plaza
river cafe
terrace
multi-purpose space
plaza
entry plaza
restaurant
performance lawn
promenade
tour bus drop-off
prospect hill
pile field
salt marsh
safe water
kayak launch
park maintenance
parking
boat houses
coastal forest
safe water channel
wetland
sound attenuation
wildflower meadow
Brooklyn Heights Promenade
Squibb Park playground
Furman Street
Columbia Heights
Old Fulton Street
Doughty Street
Vine Street
Water Street
Dock Street
Front Street
Main Street
Washington Street
Anchorage Place
Adams Street
John Street
Plymouth Street
Jay Street
BQE
York Street
Poplar Street
Middagh Street
Cranberry Street
Orange Street
Pineapple Street
Clark Street
Henry Street
Hicks Street
Willow Street
Monroe Place
Clinton Street
Cadman Plaza East
Cadman Plaza West
Brooklyn Bridge Boulevard
Tillary Street
Nassau Street
High Street
Pearl Street
Tech Place
Myrtle Ave.
Lawrence Street
Montague Street
Pierrepont Street
Montague Street Pierre
Remsen Street
Grace Court
Joralemon Street
Willow Place
Garden Place
Sidney Place
Court Street
State Street

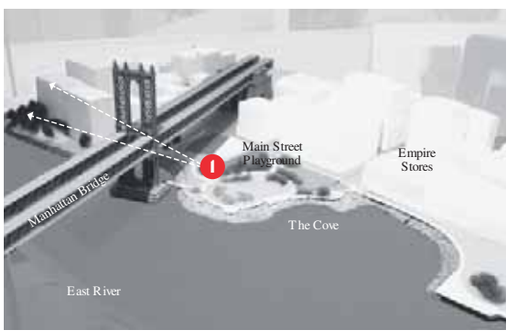
John Street Site

Located on a small peninsula, the John Street site is now tenuously connected by a single sidewalk and is bordered by a large electrical transformer station to the north. A proposed fixed-pier walkway crossing the cove underneath the Manhattan Bridge will form a strong connection to the remainder of the park. A large prospect hill will afford spectacular harbor views from the park, encompassing the Manhattan and Brooklyn Bridges to the south and the East River to the north. To anchor this area as a major point of entry into the park, a parcel along John Street between Adams and Pearl Streets is proposed to host a residential building.



1 **PROPOSED WALKWAY CONNECTING THE EXISTING CITY PARK WITH THE PENINSULA OF LAND FORMERLY USED AS A CON EDISON PARKING LOT**

EXISTING CONDITIONS
John Street Site



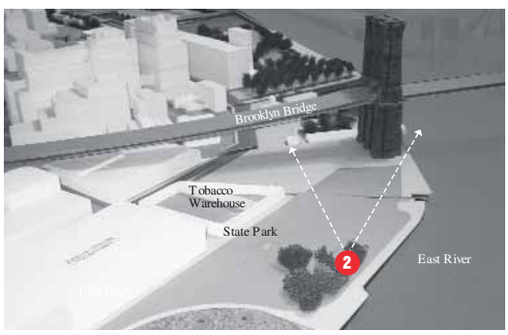
MODEL VIEW
Empire-Fulton Ferry State Park and Manhattan Bridge Ferry

Empire-Fulton Ferry State Park

The Empire-Fulton Ferry State Park site borders a pivotal junction between the Brooklyn Bridge and a major bend in the East River. Currently at this important location lies the Purchase Building, blocking critical views and the physical circulation corridor of the park. The proposed removal of this building vastly improves both visibility and circulation within the park. Empire Stores, the brick Civil War era warehouses, will be transformed into a mixed-use development. Nearby, the restored shell of the former tobacco warehouse may house a walled garden, café, or space for community and arts groups. The existing cove would be retained, allowing park visitors access to the shoreline. The newly constructed Main Street Playground would be incorporated into the project.

2 EMPIRE-FULTON FERRY STATE PARK WITH NEW VIEWS TO PIER I LANDSCAPE

EXISTING CONDITIONS
View to the Brooklyn Bridge with Purchase Building



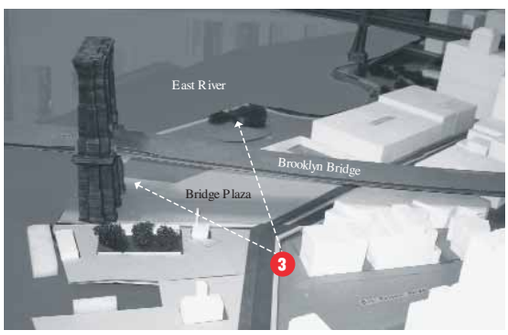
MODEL VIEW
Empire-Fulton Ferry State Park and Brooklyn Bridge Plaza

Fulton Ferry Landing

This major park entrance has the potential for a powerful entry sequence. The unmistakable form of the Brooklyn Bridge pier beckons from afar, leading one to approach Old Fulton Street upon arrival at Fulton Ferry Landing, where views to the Manhattan Bridge, the East River, and Empire-Fulton Ferry State Park are revealed. The proposed Bridge Plaza directly below the Brooklyn Bridge will become a great public open space at this important nexus. The plaza provides a flexible-use urban space perfectly situated for seasonal events, public gatherings, temporary markets, or other uses that will evolve with the life of the future park.

3 OLD FULTON STREET LOOKING NORTH TOWARD THE PROPOSED BRIDGE PLAZA AND THE STATE PARK

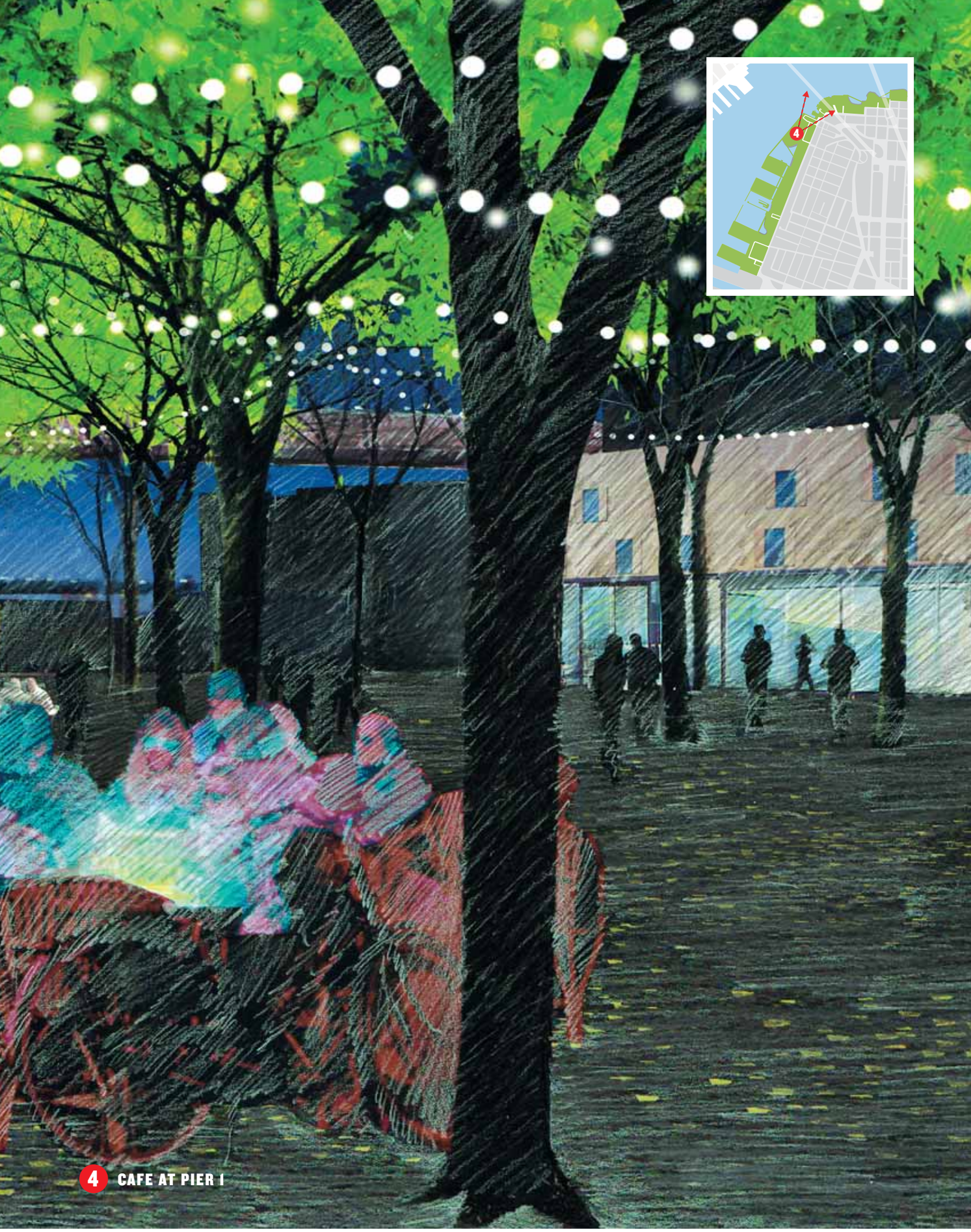
EXISTING CONDITIONS
Old Fulton Street looking north to the Purchase Building



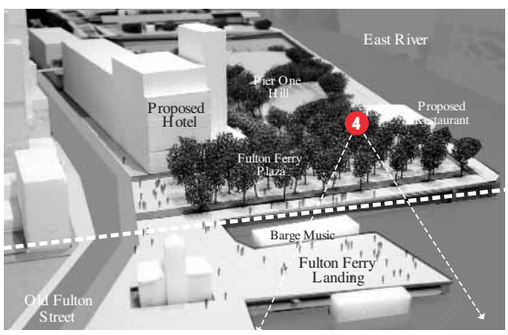
MODEL VIEW
Fulton Ferry Landing and Brooklyn Bridge Plaza

Fulton Ferry Landing and Pier 1

At each of its three major entrances, vibrant park thresholds will give visitors an immediate sense of welcome. These "urban junctions" address the isolation of the site by concentrating key elements of the program–residential and commercial activity, transportation, neighborhood uses, and strong indicators of park identity–at park entrances. To this end, the park entrance at the junction of Fulton Ferry Landing and Pier 1 offers welcoming civic plazas and comfortable urban spaces such as a waterfront restaurant/café, taxi pickup and drop-off, and water transportation. This active nexus is adjacent to expansive rolling lawn areas and green spaces on the Pier 1 peninsula.



EXISTING CONDITIONS
Pier 1 looking to the Brooklyn Bridge



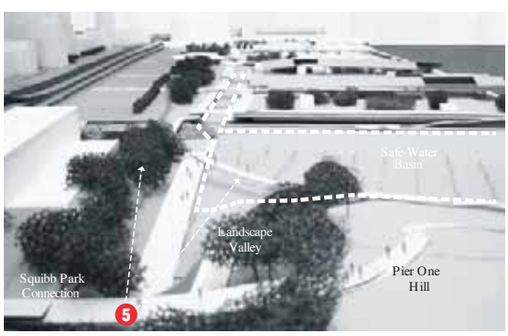
MODEL VIEW
Pier 1 and Fulton Ferry Landing

Pier 1

Despite its name, the majority of Pier 1 is actually a peninsula of solid ground rather than a pile-supported platform. The depth and weight-bearing capacity of this land offers the opportunity for a promontory hill, and for planting areas with sufficient depth and breadth to allow trees to attain mature sizes. As one proceeds south into the park from Fulton Ferry Landing, the new topography momentarily obscures views to the harbor and provides a contrasting moment of enclosure within the park. At the hill's apex, all is revealed again, with even more dramatic views into the park and out toward the harbor, Governors Island, the Statue of Liberty, Manhattan, and the Brooklyn Bridge.

5 PROPOSED HILL AND SQUIBB PARK CONNECTION AT PIER 1

A mixed-use hotel and residential development is proposed for the Pier1 upland adjacent to Furman Street. Park roads and sidewalks are utilized at each of the development sites to separate the proposed buildings from the park in order to make the buildings feel like they belong to the city and to draw a clear line between private ownership and where the park begins. A planned pedestrian bridge links the promontory directly to Squibb Park, a park occupying a terrace between Brooklyn Heights and Furman Street. This pedestrian link, which will bridge Furman Street, will forge a new connection between Brooklyn Heights and the park, adding a needed new entry that will increase access to the park.



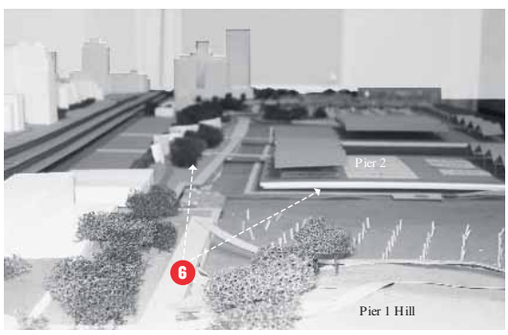
MODEL VIEW
Enclosed landscape valley at Pier 1

Pier 1

The removal of Pier 1's southern portion—a pile-supported deck structure—and the addition of walkways create an exciting new two-sided waterfront promenade and provide a large basin for kayaking, canoeing, row-boating, and other forms of recreational water activity. Some of the piles that previously supported the pier would remain as historical remnants, visually interesting from the upland and spatially interesting from the water. In addition, Pier 1's size and location provide the opportunity to create a major landscaped zone including plantings, site furnishings, and large paved areas. Multipurpose spaces and landscapes will accommodate a wide variety of uses.

6 **PIER 1 LOOKING SOUTH ALONG THE PARK PROMENADE AT THE INTERTIDAL INCURSION**

EXISTING CONDITIONS
Pier 1 looking south to Atlantic Avenue



MODEL VIEW
Intertidal marsh at Pier 1

Safe-Water Basin

A large safe-water basin is created between Piers 1 and 2 by the removal of the pier deck on the southern portion of Pier 1, a key element in the shade-swapping strategy for the park. In this strategy, the removal of existing over-water structure allows for the construction of park-related walkways, connections, and features such as the floating walks, boat launches, and pile-field exercise course pictured here.

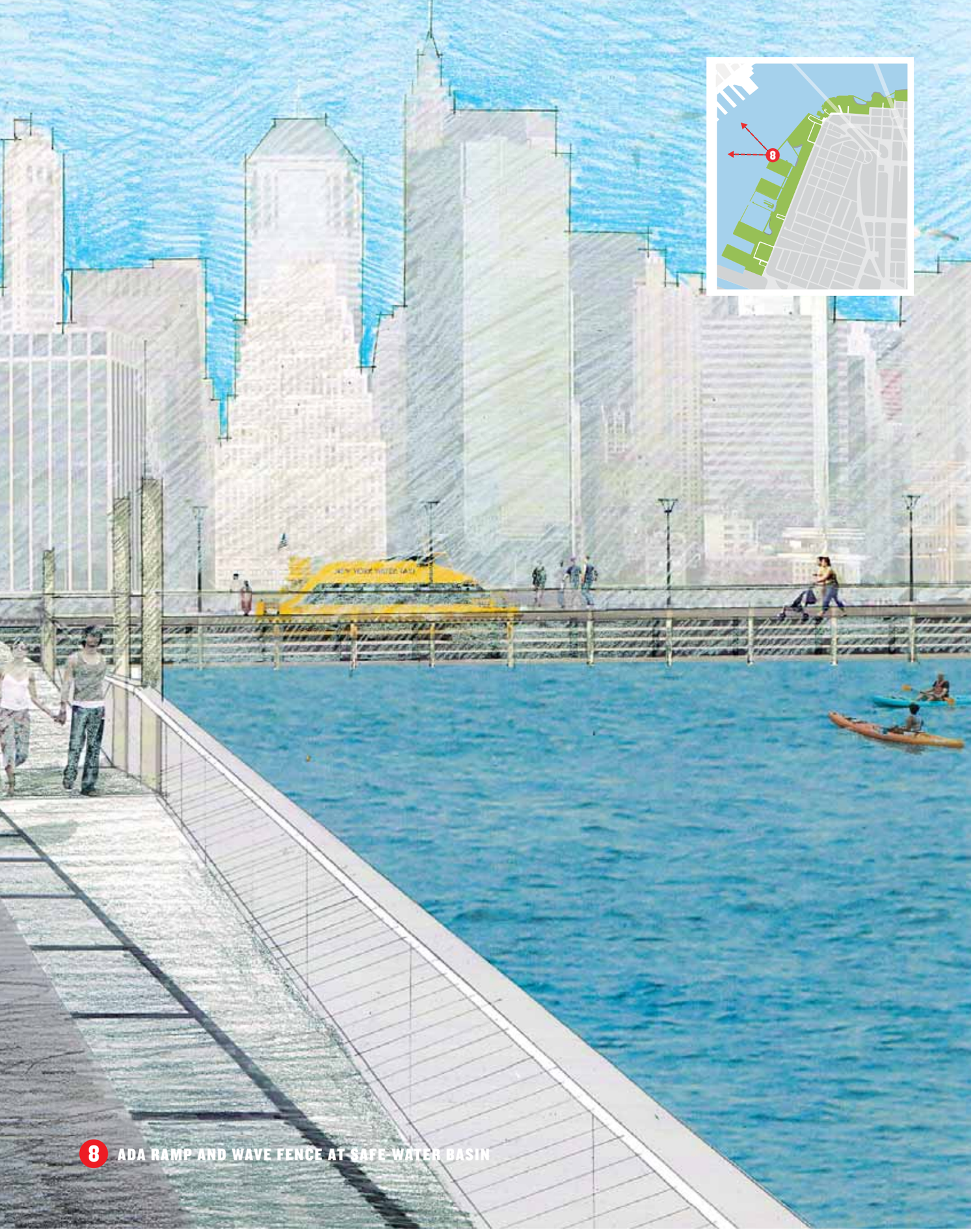
7 BOAT LAUNCH AT THE SAFE-WATER BASIN WITH VIEWS TO THE PROSPECT HILL ON PIER 1

EXISTING CONDITIONS
Pier 2 looking North to Pier 1

MODEL VIEW
Wave fence and walkway connecting Piers 1 and 2

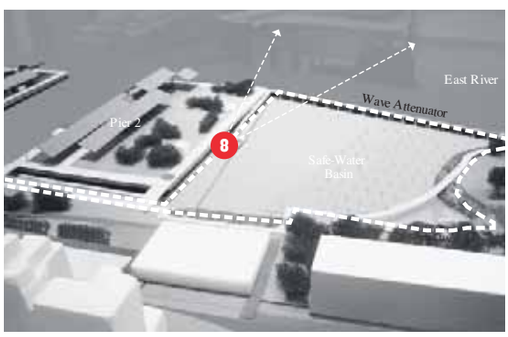
Safe-Water Basin

The safe-water basin includes the introduction of ramped access to the floating walkway network and boat launches at the edge of Pier 2 as well as the wave-attenuating pedestrian bridge connection between Piers 1 and 2. These new elements allow for increased connectivity between parts of the park, bring park users into close contact with the water, and provide previously inaccessible perspectives of the Manhattan waterfront.

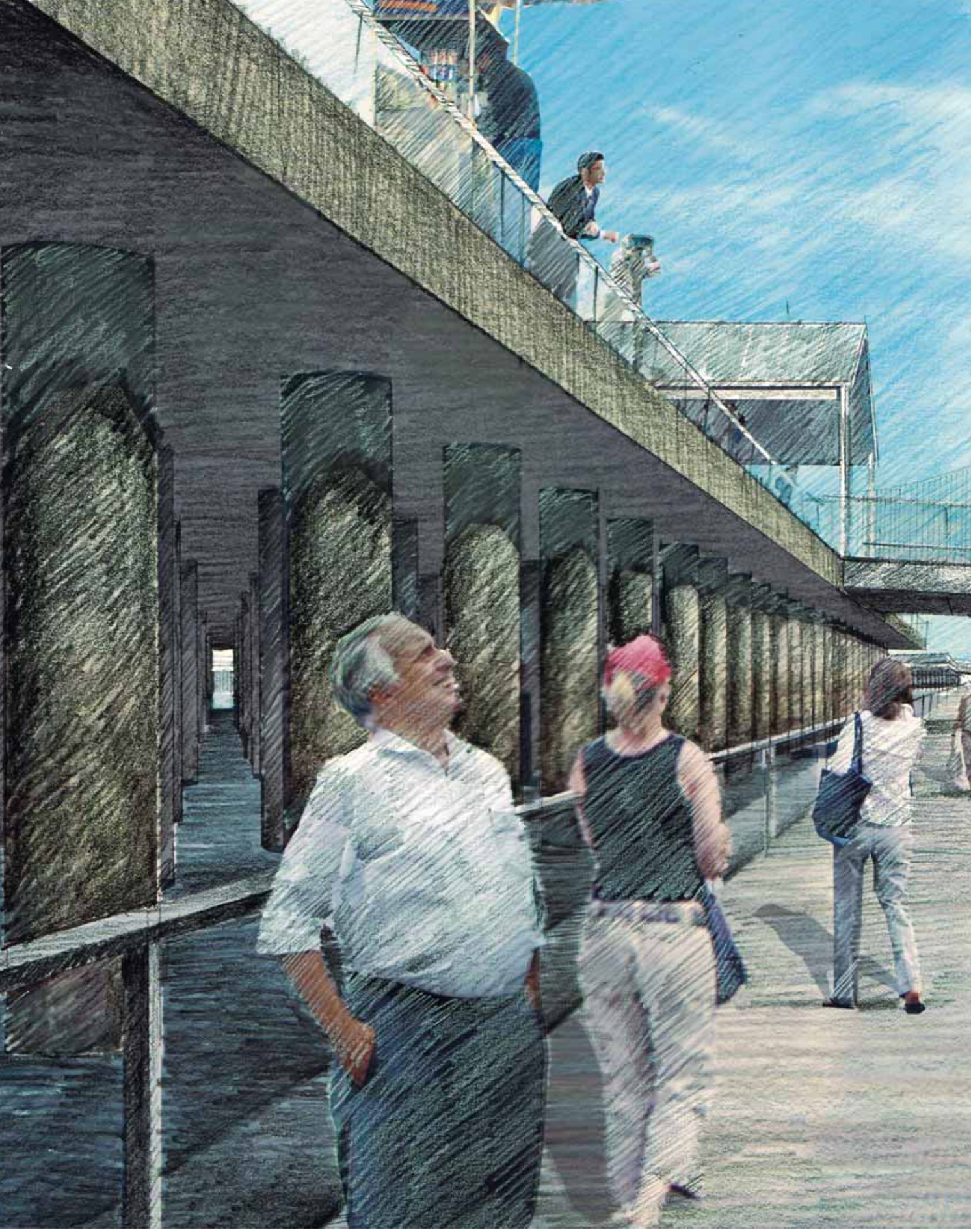


8 ADA RAMP AND WAVE FENCE AT SAFE-WATER BASIN

EXISTING CONDITIONS
North side of Pier 2 looking to Manhattan

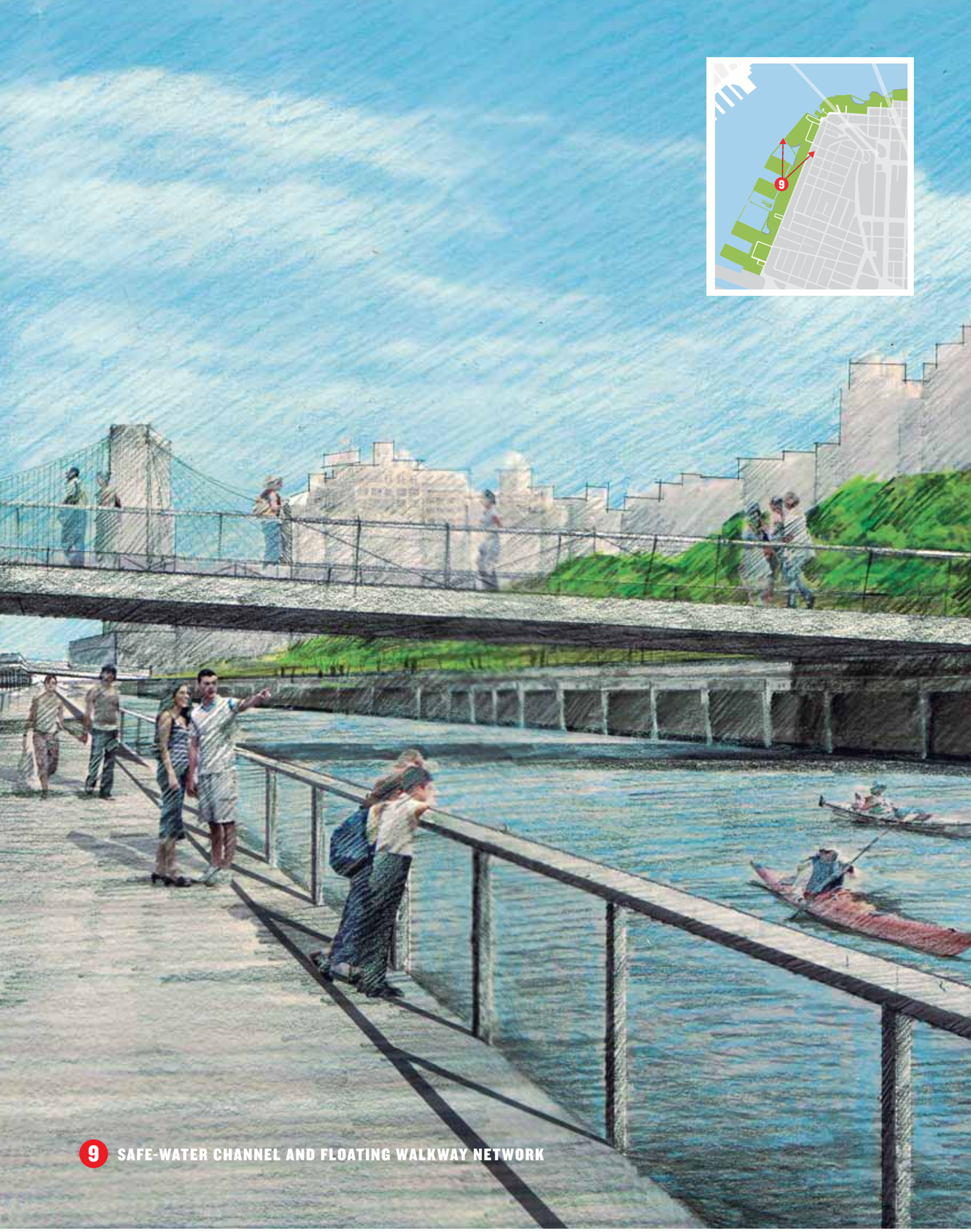


MODEL VIEW
Transition ramp along Pier 2 and boating basin



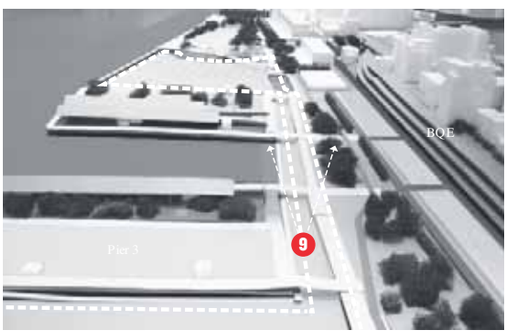
Safe-Water Channel

A dramatic new place is added to the experience of the park in the form of an open-water channel created by the removal of a swath of the marine structure that connects Piers 2 and 3 to the upland. New floating walkways along this channel are key components of a new circulation network within the park, and their position below the level of the pier deck would allow New Yorkers to discover previously hidden marine infrastructure. New bridge connections between the piers and upland allow controlled access to Piers 2 and 3, which become islands in the proposed plan.



9 SAFE-WATER CHANNEL AND FLOATING WALKWAY NETWORK

EXISTING CONDITIONS
Bulkhead between Piers 2 and 3



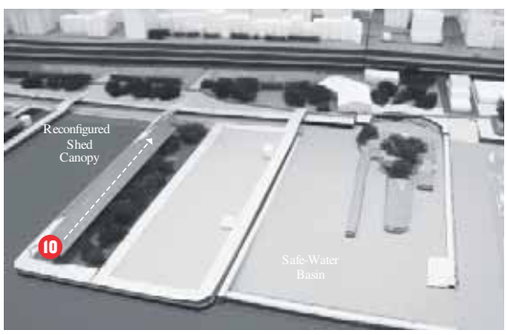
MODEL VIEW
Boating basin between Piers 2 and 3

Piers 2 and 3

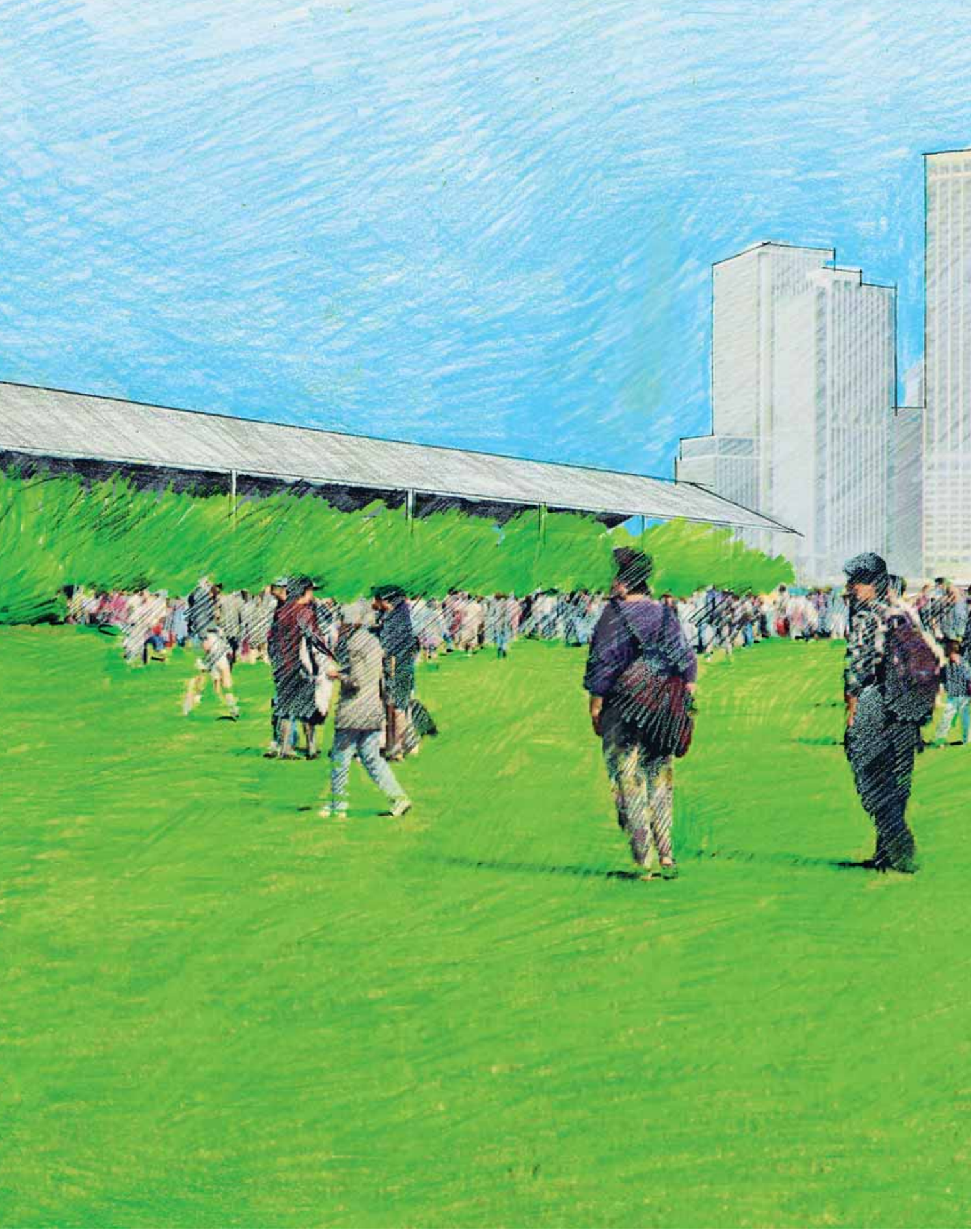
The creative reuse of many existing structures is an integral component of the park plan. For example, reused portions of the warehouse sheds on Piers 2 and 3 will shelter active recreation courts. After selectively removing the building facades and roofs, these sheds will provide essential shading at a fraction of what it would cost to build new shade structures. In addition to conserving park dollars, the reuse of these structures is consistent with the park's commitment to both environmental sustainability and the continuity of the industrial history of the site. In conjunction with strategic planting, these architectural measures will enhance the piers' microclimate by buffering the wind.

10 ATHLETIC COURTS AT PIER 2

EXISTING CONDITIONS
Pier 2 shed



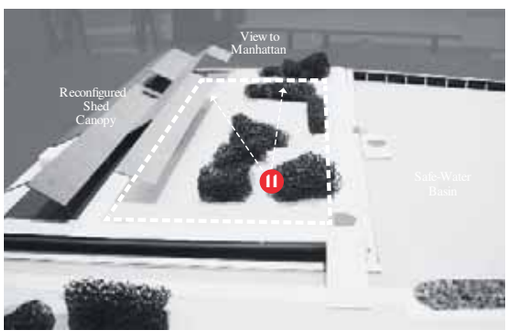
MODEL VIEW
Pier 2 shed and Pier 3 shed



Piers 2 and 3

The flat platforms of the pier decks are well suited for multipurpose lawns, as turf does not require a thick, heavy soil base. Likewise, the lawn surfaces will capitalize on their dramatic placement over the river, providing areas characterized by sweeping views and expansive sunny openness.

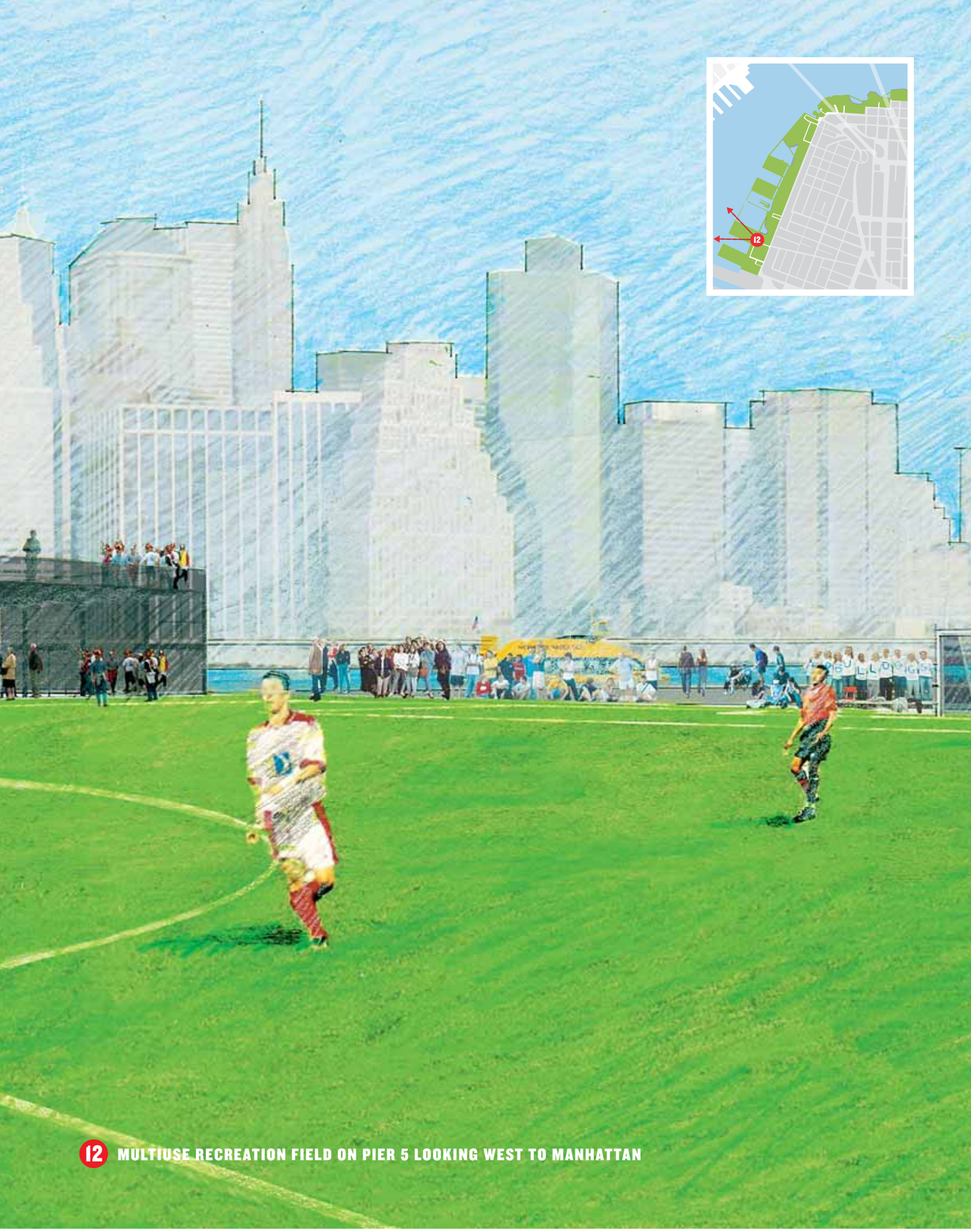
EXISTING CONDITIONS
Pier 2 shed



MODEL VIEW
Pier 2 civic lawn, looking to Manhattan

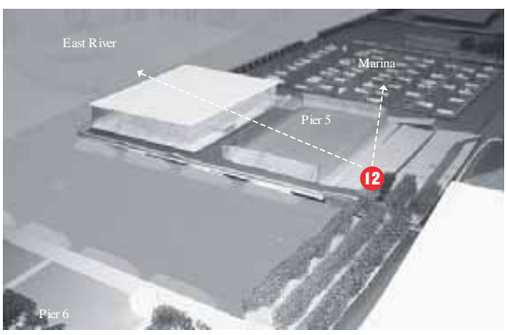
Pier 5

In addition to accommodating shade structures, multiuse lawns, and perimeter promenades, the flat surfaces of the pier decks are also well suited to dedicated sports facilities with durable surfaces, allowing for league play in any season, day or night. To this end, two outdoor fields are proposed on Pier 5. Not included in the master plan budget is an indoor recreation pavilion proposed for the river end of Pier 5 (more fully described on page 78), which could be funded by external sources. This recreation pavilion would provide year-round sports courts while maintaining the transparency of a lightweight structure. 360 Furman an existing industrial building will be converted to residential condominiums.

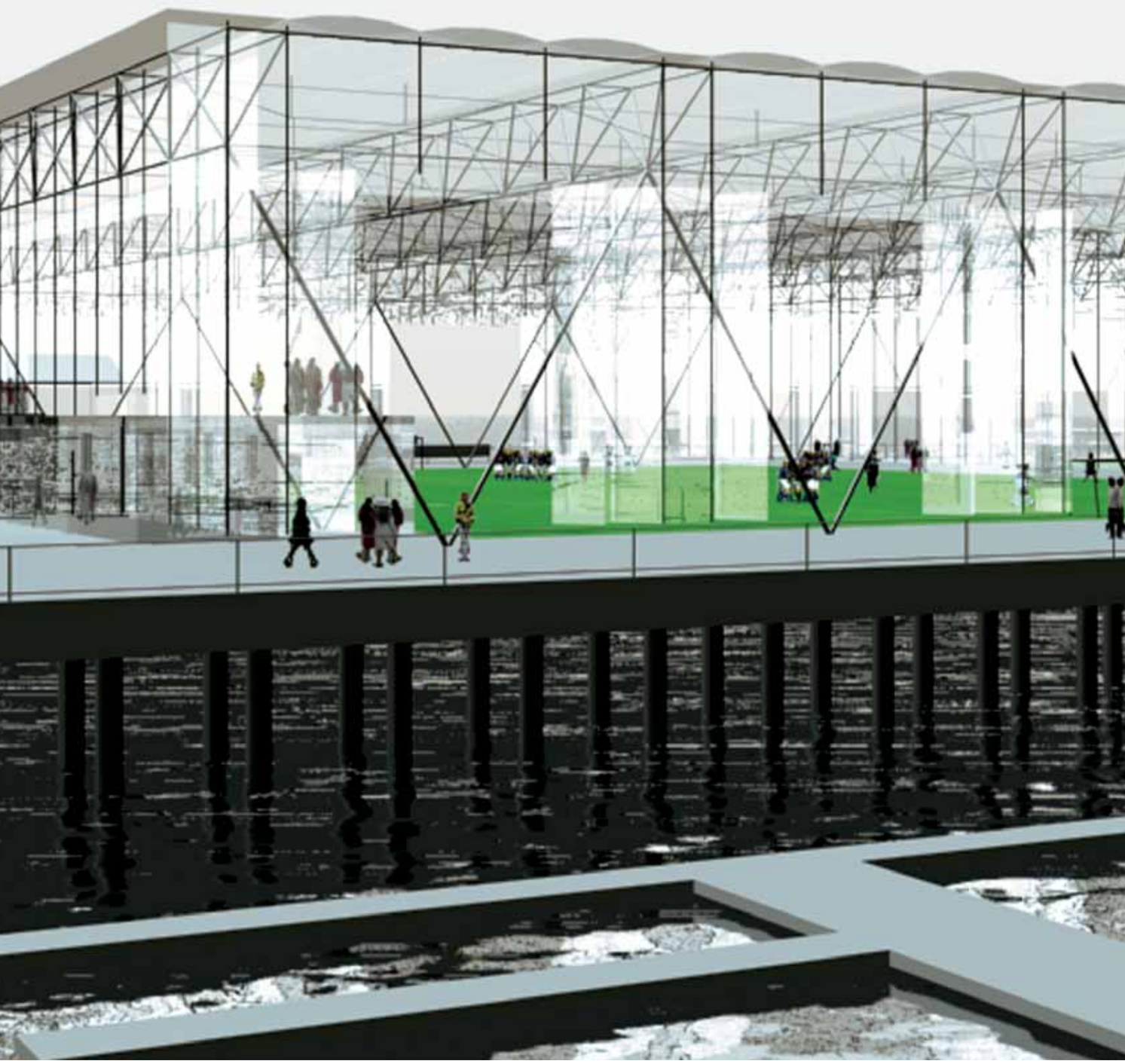


12 MULTIUSE RECREATION FIELD ON PIER 5 LOOKING WEST TO MANHATTAN

EXISTING CONDITIONS
Pier 5 shed



MODEL VIEW
Recreation fields at Pier 5

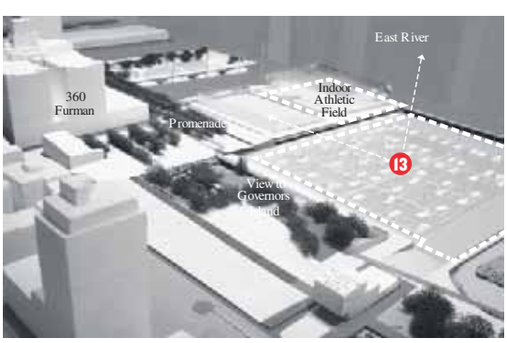


Pier 5 Recreation Pavilion

Satisfying a specific request from the surrounding communities for an enclosed recreational space in the park, the proposed multiuse structure for Pier 5, if funded, could become a vital activity beacon within the park, visible from the BQE, the Brooklyn Heights Promenade, and Lower Manhattan. Off-season parking, night lighting, and sustainably designed climate control will allow the pavilion to be used all year long, day and evening, bringing life and activity to this portion of the park and satisfying a burgeoning need for recreational space.

13 MULTIUSE RECREATION STRUCTURE ON PIER 5
JAMES CARPENTER DESIGN ASSOCIATES

MODEL VIEW
Multiuse recreation pavilion as seen from the Brooklyn Heights Promenade



MODEL VIEW
Proposed marina and Pier 5

Pier 6 and Atlantic Avenue Gateway

This sector of the park is the third location planned to provide a full complement of park amenities in close reach of a main neighborhood entrance. Nearby amenities include a park esplanade, playground, and sitting areas as well as a unique landscape experience on Pier 6. The Pier 6 landscape is proposed to take advantage of this location's sunny, windy environment and well-drained structure to create a vigorous landscape at a major park entrance. The landscape will block wind and will set up a mosaic within which other active programming will be inserted, such as beach volleyball and water-play areas for children. Two residential buildings will be located on the upland of Pier 6 and will help define the spatial qualities of the Atlantic Avenue park entrance.

14 NATURAL LANDSCAPE ON PIER 6

EXISTING CONDITIONS
Pier 6

MODEL VIEW
Pier 6

Brooklyn Bridge Park Site Facts