



PORT RICHMOND-MARINERS HARBOR



BROWNFIELD OPPORTUNITY AREA | STEP 2 NOMINATION REPORT | JANUARY 2019



PORT RICHMOND-MARINERS HARBOR BROWNFIELD OPPORTUNITY AREA

STEP 2 NOMINATION REPORT

BOROUGH OF STATEN ISLAND

JANUARY 2019



CONTRIBUTORS

This report was prepared for Northfield Community Local Development Corporation and the New York State Department of State with funds provided under the Brownfield Opportunity Area Program.

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ABBREVIATIONS AND ACRONYMS

AMI: Area Median Income
BCP: Brownfield Cleanup Program
BID: Business Improvement District
BRT: Bus Rapid Transit
CSO: Combined Sewer Overflow or Outfall
DCP: New York City Department of City Planning
DEC: New York State Department of Environmental Conservation
DEP: New York City Department of Environmental Protection
DOS: New York State Department of State
EDA: United States Economic Development Administration
EDF: Empire State Economic Development Fund
EPA: United States Environmental Protection Agency
FAR: Floor Area Ratio
FEMA: Federal Emergency Management Agency
FT: Foot
GSF: Gross Square Feet
LDC: Local Development Corporation
LEHD: Longitudinal Employer–Household Dynamics
MS4: Municipal Separate Storm Sewer System
MTA: Metropolitan Transportation Authority
NAICS: North American Industry Classification System
NOAA: National Oceanic and Atmospheric Administration

NPV: Net Present Value
NYC: New York City
NYCDOH: New York City Department of Health and
Mental Hygiene
NYC DOT: New York City Department of Transportation
NYCDPR: New York City Department of Parks and Recreation
NYCEDC: New York City Economic Development Corporation
NYCHA: New York City Housing Authority
NYCIDA: New York City Industrial Development Agency
NYS: New York State
NYU: New York University
PLUTO: Primary Land Use Tax Lot Output (New York City
Department of City Planning)
SBS: New York City Department of Small Business Services
SF: Square Foot
SNWA: Special Natural Waterfront Area
WAP: Waterfront Access Plan
WPA: Works Progress Administration
ZoLa: Zoning and Land Use Map (New York City Department
of City Planning)
ZSF: Zoning Square Feet

EXECUTIVE SUMMARY

I. OVERVIEW

The Port Richmond-Mariners Harbor Brownfield Opportunity Area (BOA) Step 2 Nomination Report explores a socially diverse, culturally dynamic, and economically vital section of the North Shore of Staten Island, encompassing portions of the Port Richmond, Elm Park, Mariners Harbor, and Arlington neighborhoods. With a population of nearly 36,000, from families who have been rooted on the North Shore for generations to new immigrant arrivals from Mexico and the Dominican Republic, these communities are home to significant cultural heritage, employment opportunities, and industrial activity. The BOA study area includes Port Richmond Avenue—the North Shore’s historic commercial corridor that today features lively ethnic restaurants and retailers—as well as one of New York City’s most important concentrations of maritime industry along the Kill Van Kull waterfront, a link to the area’s unique maritime heritage. At the same time, these neighborhoods have been challenged by decades of economic decline, disinvestment, and environmental contamination, offering opportunities to use brownfield redevelopment as a critical tool for community revitalization.

The following report documents a collaborative effort undertaken by the people of Port Richmond and Mariners Harbor to create their community’s cultural, economic, and environmental renewal.

Through a consensus-driven visioning process developed over the course of the BOA study, community members have articulated an ambitious and achievable Revitalization Plan that is grounded in the special qualities of place and community aspirations. Together, these areas are poised for catalytic commercial and residential development, creative industrial uses, and open space that can equitably advance community priorities while protecting and celebrating the area’s culture and character.

The **Lead Project Sponsor** for this BOA study is Northfield Community Local Development Corporation of Staten Island, Inc. (Northfield Community LDC). The organization was awarded a grant from the New York State Department of State (DOS) to complete the BOA study of the western portion of Staten Island’s North Shore. This study was initiated through a previous grant awarded to Northfield Community LDC, resulting in a Phase One BOA study focused on Port Richmond Avenue, which was completed in 2014. For both Phase One and the present BOA study, Northfield Community LDC has engaged a Steering Committee comprised of local stakeholders to provide project oversight and support. To complete the BOA study for the entire project area of Port Richmond and Mariners Harbor, and prepare the following Revitalization Plan, Northfield Community

LDC and the Steering Committee partnered with the following consultant team: WXY as lead project consultant, HR&A Advisors as real estate and economic development consultant, Being Here Landscape Architecture & Environmental Design as community outreach consultant, and Fleming-Lee Shue as environmental consultant.

Reflecting on the BOA community’s challenges and aspirations, the Steering Committee and project team formulated the **Community Vision, Goals, and Objectives** needed to achieve a more healthy, equitable, and sustainable future for the area. This vision is summarized in the five points below:

1. The community wishes to **support and create a vital live-work neighborhood** by protecting and strengthening the existing character of its authentic residential and commercial districts, particularly Port Richmond Avenue. At the same time, anti-displacement strategies are needed to ensure that existing residents and businesses benefit from new public and private investment.
2. The community recognizes the key cultural, economic, and environmental role that maritime industries of the BOA study area play, and wishes to **create quality jobs and workplaces** including training opportunities that can connect neighborhood residents to maritime jobs.
3. The community has voiced a strong desire to **create new civic, cultural, and recreational spaces** through improvements to existing parks, as well as the creation of new waterfront parks, specifically at the northern end of Port Richmond Avenue in conjunction with mixed-use development.
4. Plagued by congestion along Richmond Terrace and the lack of sustainable transit alternatives, the community wishes to see transportation enhancements that would **improve connections and mobility** among neighborhoods.
5. Lastly, Port Richmond and Mariners Harbor have been left a legacy of historic industrial uses that pose environmental hazards. The community vision prioritizes **addressing environmental challenges** to encourage redevelopment in support of community goals.

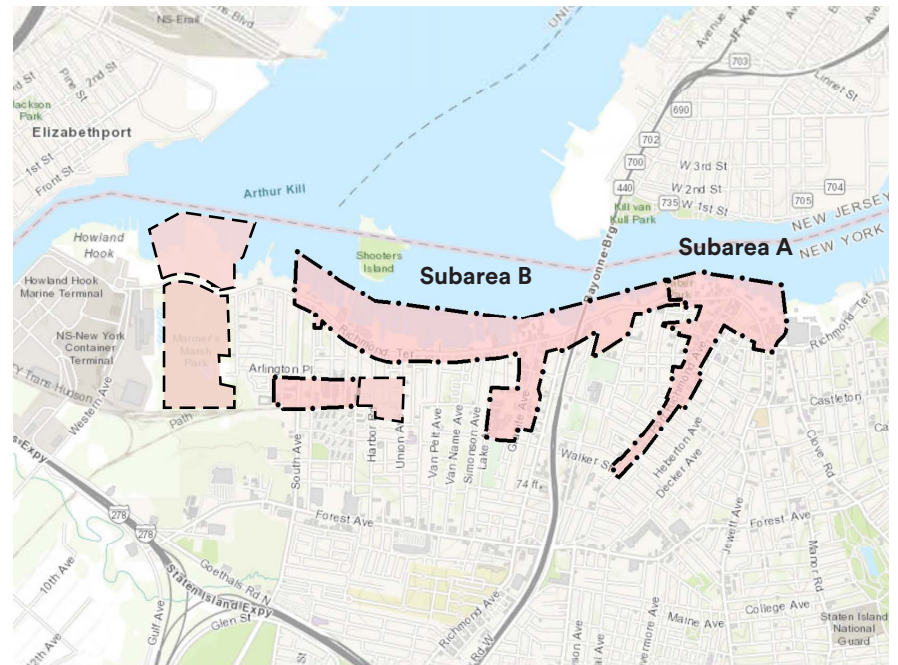


Fig. 1: Port Richmond-Mariners Harbor BOA Study Area Map

To advance the BOA Step 2 process, the consultant team and project partners developed a **Project Boundary** that largely follows zoning district boundaries to include concentrations of manufacturing properties in Port Richmond and Mariners Harbor, as well as the Port Richmond Avenue commercial corridor. The study area was divided into two subareas: Subarea A, which focuses on the Port Richmond Avenue corridor and was the subject of the Phase One Port Richmond BOA study of 2014; and Subarea B, which includes manufacturing zones along the Kill Van Kull as well as two inland manufacturing zones and the open space areas of Mariners Marsh Park and Arlington Marsh. This report incorporates both subareas to complete the entire study area’s Revitalization Plan.

II. COMMUNITY ENGAGEMENT

To engage community partners and guide the BOA process, Northfield Community LDC held **three Steering Committee meetings** over nine months from September 2017 to May 2018.

In addition, **three community meetings** were held to share the BOA vision and solicit feedback from diverse representatives from within the study area including residential, business, arts, environmental conservation, and transportation interests. Finally, outreach through more than **two dozen stakeholder meetings** engaged representatives from a wide variety of sectors. Through these activities, the project team enlisted a cross-section of community leaders, partners, and stakeholders whose voices offered a vision for how the BOA initiative can activate positive neighborhood change.

III. BOA AREA DESCRIPTION

The Port Richmond-Mariners Harbor Brownfield Opportunity Area comprises a unique urban fabric featuring historic assets dating to the American Revolution, diverse immigrant cultures, and critical natural resources along the Kill Van Kull waterway. This area is also strongly shaped by scores of underutilized sites awaiting social and economic renewal. The following analysis of conditions in the BOA area, detailed in Section 3, explores assets and vulnerabilities to help inform the BOA process.

Community and Regional Setting: The BOA study area is located on the western end of the North Shore region, which is home to Staten Island’s most significant concentrations of employment, industrial uses, and multifamily housing. It is also the most densely populated part of the island. Because of its location along the active Kill Van Kull waterway separating Staten Island from New Jersey, the area has long been home to shipbuilding, maritime transport, and related businesses. By the turn of the twentieth century, this concentration supported a thriving shopping destination on Port Richmond Avenue that drew patrons from across Staten Island and around the region. While it has lost its status as a commercial center, today the avenue retains a vital concentration of ethnic restaurants, food purveyors, and related businesses. However, due to poor transit service, the BOA area remains isolated from job opportunities in other New York City boroughs and the metropolitan region. In addition, population growth has been restrained by a limited pool of high-quality jobs within the BOA area, as well as land-use patterns dominated by single- and two-family homes that offer an insufficient variety of housing options for the area’s diverse population.



Fig. 2: The Kill Van Kull Waterfront

Existing Land Use and Zoning: The BOA study area spans 480 acres, with the majority of land zoned M3-1 for heavy industrial uses. These uses directly abut low-density residential and commercial districts. Ship-repair yards, scrap-metal recyclers, auto-body shops, and tug operators work within yards of single-family homes and small retail stores. This juxtaposition of maritime industry and community life has been cause for conflict: congested truck traffic, environmental pollutants, noise, and other impacts are a source of concern for neighbors.

Brownfield, Abandoned, and Vacant Sites: The predominance of manufacturing and industrial facilities on the North Shore has left the BOA area a legacy of brownfield sites with environmental contamination. To identify contaminated, vacant, and abandoned sites, the BOA team reviewed data sources documenting potential contaminants, and conducted a walking tour to identify potential brownfield and strategic sites across the study area. This review resulted in 86 site addresses with brownfields. The team's further environmental review of the six strategic sites for this Revitalization Plan indicated documented or potential environmental impacts at all six strategic sites.

Land Ownership Pattern: Land ownership in the BOA area is largely private. However, sites in public ownership represent considerable opportunities. The City of New York owns a parcel adjacent to Port Richmond Avenue's terminus at the Kill Van Kull that could help re-envision the BOA area waterfront as a catalytic community destination. The North Shore Railroad right-of-way is also publicly owned, offering potential for reactivation for bus-rapid-transit or other uses. New York City also owns right-of-way along Richmond Terrace, which is mapped at 100 feet wide but currently exists as a road that is typically 50 to 55 feet wide.

Parks and Open Space: New York City averages 3.5 acres of open space for every 1,000 people. In the BOA area, there is less than one-third of an acre of park space for every 1,000 people. New park and open space initiatives within the BOA area, however, show that innovative partnerships can help transform vacant and blighted parcels into community assets. Projects such as Van Name Van Pelt Plaza and the Mariners Marsh Park and Arlington Marsh Master Plan are promising efforts to build new community



Fig. 3: The Cemetery at the Reformed Church on Staten Island

and cultural spaces that can reconnect BOA area residents to the Kill Van Kull waterfront.

Building Inventory: The BOA study area contains approximately 4 million square feet of total building floor area. The largest land use category within the area (38%) is devoted to industrial and manufacturing uses, reflecting manufacturing zoning along the Kill Van Kull. The second largest land use is comprised of single- and two-family residential buildings, accounting for 22% of total building floor area. Commercial and office buildings account for 11% of floor area, followed by mixed residential and commercial buildings (11%), principally clustered along the Port Richmond Avenue retail corridor.

Historic or Archaeologically Significant Areas: The BOA area contains existing and underutilized cultural assets that can be leveraged as part of a holistic heritage plan. For example, the historic Reformed Church on Staten Island is a site of national and



Fig. 4: Combined Sewer Overflow Outfall on Richmond Terrace

international significance. It connects different strands of New York City and Staten Island history, from the Dutch settlement to the Revolutionary War and beyond. With its extraordinary graveyard, the church has been envisioned as the anchor of a cultural district that could include other points of interest such as the Port Richmond branch of the New York Public Library and 19th-century landmarks such as the Stephen D. Barnes House on Richmond Terrace that evoke an era when prosperous oystermen anchored their boats on the shore.

Transportation Systems: Port Richmond and Mariners Harbor were once served by multiple transportation modes including rail, streetcars, and ferries that connected Staten Island with the metropolitan region. Today, a lack of transit options, congested roadways, difficult connections among travel modes, wearying commutes, and insufficient infrastructure to support future growth all threaten the community’s potential. Among key issues are truck traffic on Richmond Terrace and Lake Avenue, a need

for improved bus service, and the potential utilization of the North Shore Railroad right-of-way for Bus Rapid Transit or other community uses.

Infrastructure: As the North Shore population grows, its infrastructure has become subject to stresses that threaten community health, safety, and well-being. The BOA area suffers from polluted waterways due to sewer overflows, flooding during storm events, and overcrowding at public schools, particularly among elementary schools. Revitalization strategies must reflect state-of-the-art measures to enhance flood resilience, protect the maritime industry’s valuable deep-water access points, and address a lack of public health infrastructure across the BOA area.

Natural Resources and Environmental Features: Despite the intense industrial uses that have transformed the North Shore, the BOA area is part of a rich estuarine system that supports birds, fish, and plant species. The area also supports some of New York’s most extraordinary wetlands as part of the Northwest Staten Island/Harbor Herons Special Natural Waterfront Area. Mariners Marsh Park and Arlington Marsh offer healthy ecological areas of extraordinary value for wildlife habitat, as well as opportunities to connect the public with urban nature.

Economic and Market Trends: Given the significant number of residents with incomes well below the BOA area’s median household income of \$54,000,¹ there remains a critical need for housing that is affordable across a broad range of income levels. Because the vast majority of housing units within the BOA area are one- and two-family units, most available housing is priced out of reach to the lowest-income residents. Consequently, the BOA area would benefit from multifamily housing that could provide a wider variety of apartment sizes to better accommodate a diverse population. In addition, the BOA area remains a significant employment zone and has seen substantial job growth in certain sectors such as transportation, warehousing, and construction. However, nearly all BOA area jobs are filled by employees who live outside of the study area, pointing to the need for workforce training and other programs that can connect local residents to the area’s quality employment opportunities.²

¹ ESRI Business Analyst Online, 2017
² EMSI and LEHD On the Map, 2017

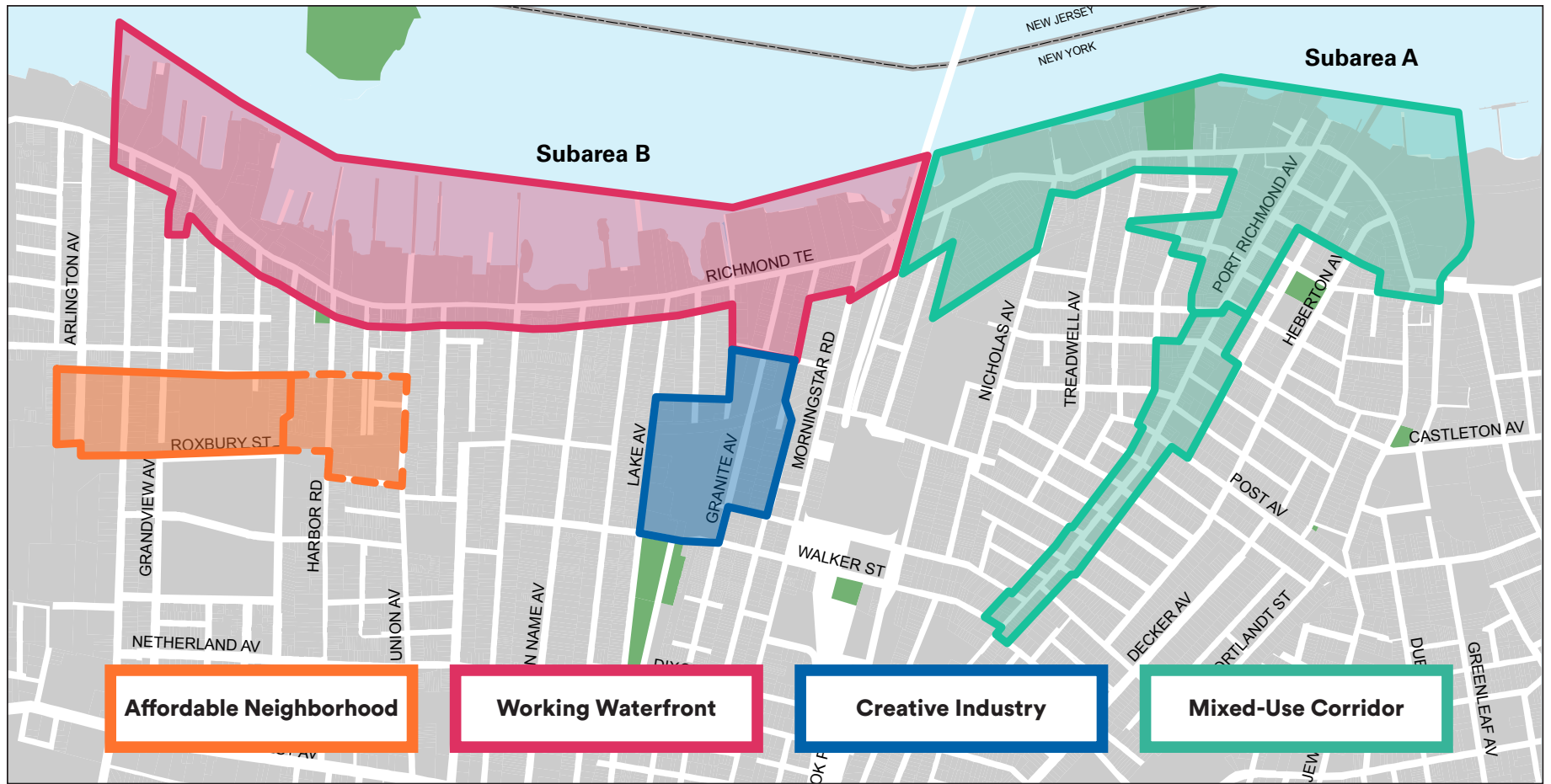


Fig. 5: BOA Area Subdistrict Framework

IV. REDEVELOPMENT VISION

The BOA team’s analysis of existing conditions across the study area, in consultation with the Steering Committee and project partners, has resulted in a consensus-based vision that prioritizes community health and well-being, the creation of affordable housing, protection of neighborhood character, and reconnection to the area’s historic livelihood as a commercial center and working waterfront. To advance this vision, Section 4 of this report explores the potential to revitalize brownfield sites across the BOA study area.

SUBDISTRICT FRAMEWORK

To identify revitalization strategies for the BOA area’s diverse neighborhoods, the study area has been divided into four subdistricts. This framework sets forth fine-grained goals for each subdistrict, addressing local conditions and community needs. These goals in turn guide redevelopment scenarios for six strategic sites, offering templates for new commercial and industrial spaces, mixed-use developments, and community facilities. The four subdistricts, titled according to their primary redevelopment goals, are shown above and described as follows:



AFFORDABLE NEIGHBORHOOD DISTRICT

This subdistrict is centered around a medium-intensity manufacturing district (M2-1) on Davidson Street that includes industrial uses such as warehousing, distribution, welding, and building suppliers, as well as an underutilized property along Union Avenue. Community goals for this subdistrict include the **creation of affordable housing and a community health center** as well as **park, open space, and transit improvements**.



CREATIVE INDUSTRY DISTRICT

This subdistrict is centered on a high-intensity manufacturing zone (M3-1) along Granite Avenue including a large assemblage of industrial properties such as food distributors, automotive uses, warehouse and storage facilities, and a large plumbing supplier. For this subdistrict, the community wishes to **encourage light industrial and office uses, particularly creative-sector production with little truck traffic**, and **reroute existing truck traffic off Lake Avenue** to reduce impacts on local residents.



WORKING WATERFRONT DISTRICT

The Working Waterfront subdistrict consists principally of a high-intensity manufacturing zone (M3-1) on the Kill Van Kull extending from South Avenue on the west to the Bayonne Bridge on the east. Community goals for this subdistrict are to **support job-intensive maritime industrial or light industrial uses, support as-of-right adaptive reuse or new construction on vacant property**, and **improve traffic circulation and mitigate congestion**.



MIXED-USE CORRIDOR DISTRICT

This subdistrict focuses on Port Richmond Avenue and the potential to create a new waterfront destination that would help activate key cultural resources such as the Reformed Church on Staten Island and the unique space beneath the railroad viaduct. The community seeks to **connect commercial activity along the avenue, create mixed office, retail, and affordable residential uses, improve waterfront access and transit connections, and reserve deep-water access points for maritime uses**.

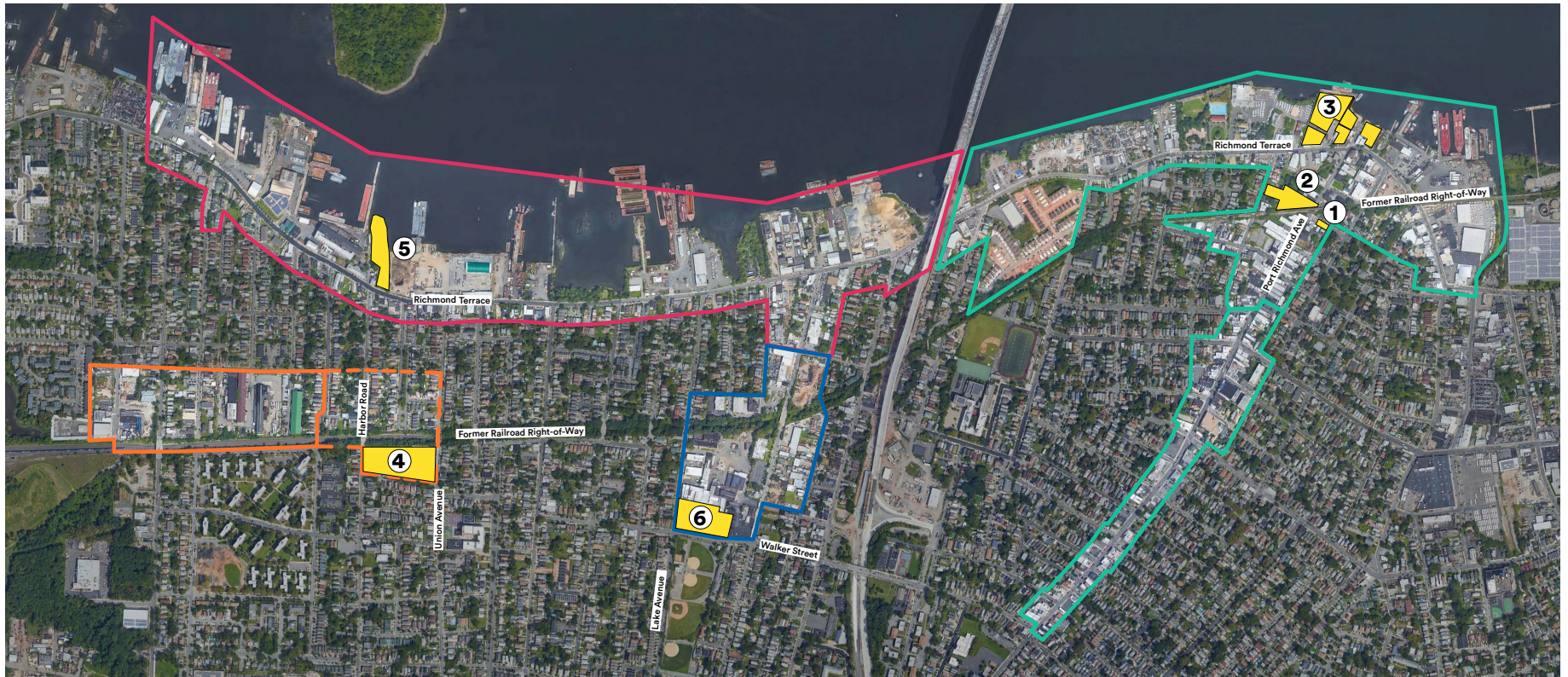


Fig. 6: BOA Area Strategic Site Map

STRATEGIC SITE REDEVELOPMENT SCENARIOS

The identification of strategic site redevelopment scenarios is a key component of the BOA Step 2 Nomination study. These sites, detailed in Section 4 of this report, offer templates whose strategies can apply to underutilized properties throughout the study area. Six strategic sites have been nominated, with each scenario summarized below. Each includes a potential use program and building typology, taking into account neighborhood priorities, market feasibility, known brownfield issues, and urban design opportunities. As the project team developed the strategic site scenarios, key considerations have been identified regarding market potential across all four subdistricts:

- **Many redevelopment scenarios exhibit feasibility gaps today.** Within the BOA study area, a clear market exists for

new single-family homes, but there is a limited track record for multifamily housing, creating funding gaps for most scenarios.

- **These project gaps can be filled through a variety of subsidy programs.** Programs such as the Low-Income Housing Tax Credit, Brownfield Tax Credits, and other programs can help bridge the gap. The study area also contains “En-Zones” that provide additional tax credits, and Opportunity Zones, which offer tax benefits for appropriate investments within a zone.
- **Advance planning will help align future growth with community priorities.** Clear momentum on the North Shore—both in rent and in demand for condominiums—can be expected to fuel market growth and increase the feasibility of revitalization efforts. To equitably harness market momentum, the BOA process can help position Port Richmond and Mariners Harbor to capitalize on revitalization opportunities for the benefit of both existing and future residents.



1. PORT RICHMOND AVENUE STOREFRONT 97 PORT RICHMOND AVENUE

The BOA team explored the feasibility of redeveloping this property to **maximize the creation of affordable residential units, restore its storefront retail space, and respect the historic height and character** that define the commercial corridor's walkable scale. The two most viable scenarios for this property proved to be adaptive reuse and as-of-right demolition and rebuild. The first scenario (pictured above) would rehabilitate the structure in its existing footprint, retaining its three-story, 35-foot height. The scenario allows for three residential units on the upper stories plus a ground-floor commercial space. The second scenario would demolish the existing building and construct a 4-story building reaching 45 feet in height, providing 10 residential units as well as a ground-floor commercial space and six parking spaces.



2. RICHMOND CHANDELIER SITE 76 PORT RICHMOND AVENUE

Due to its location between the commercial heart of Port Richmond Avenue and the Kill Van Kull, this property holds promise to create a **new node reconnecting the community to the water**. The site offers an opportunity to design a mixed-use development that would combine **mixed-income housing, creative retail spaces, and public amenities**. Two typologies were studied. The first option (pictured) includes a mixed-use building with a total of 112 residential units; the second option explored two-story rowhouses, providing 21 residential units and a light-industrial building. In both scenarios, public outdoor space could be created along the edge of the Richmond Chandelier property, and the space underneath the adjacent rail viaduct could potentially be activated with cultural uses.



3. PORT RICHMOND WATERFRONT SITE RICHMOND TERRACE AND PORT RICHMOND AVENUE

This site offers an opportunity to repurpose a large waterfront parcel to better serve community needs and create a **placemaking residential development that can anchor neighborhood growth**. A plan for moderate density was selected, resulting in three U-shaped buildings of up to five stories each, with a total of 350 residential units. The buildings would be set back to four stories along Port Richmond Avenue to contextually meet the surrounding neighborhood. The project would include **ground-floor retail space** and a **large waterfront open space** accessible to the public.



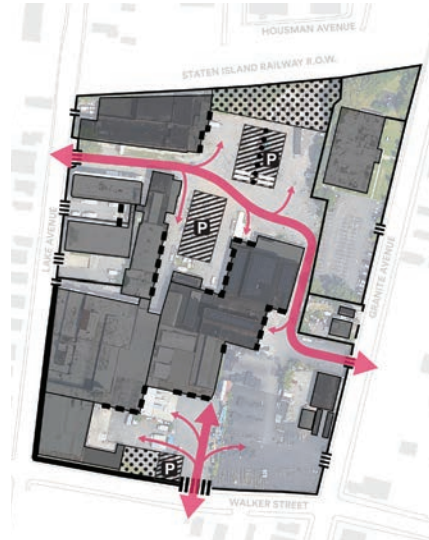
4. UNION AVENUE SITE 130 UNION AVENUE

Working with local health provider Beacon Christian Community Health Center, the project team developed a vision for a “HealthPort” that would provide **health services and neighborhood facilities** for a community in urgent need of additional public health assets. The scenario envisions medical offices as well as community facilities potentially including a gym, community meeting spaces, and a café that would serve healthy foods. The program explores **two options for housing** on the site, including multifamily senior housing (pictured) and row houses.



5. HARBOR ROAD PIER 3001 RICHMOND TERRACE

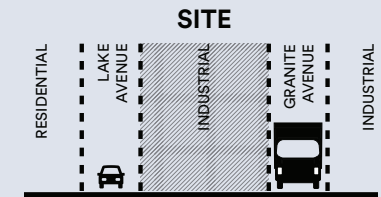
This site presents challenges for reactivation in keeping with the Working Waterfront subdistrict’s goal to support maritime jobs. The property lacks sufficient deep-water access that would permit use by ship repair, towing, or related businesses. Consequently, the BOA team proposed a program of **maritime education and workforce training** modeled on the Harbor School that would leverage the site’s proximity to maritime employers. The proposed scenario envisions an **educational facility and a light industrial space** that would support maritime workforce training initiatives.



Redirect traffic off Lake Avenue through new shared entry/exit gate on Granite Avenue

Improved **site circulation** with **site through-access** and shared central loading & staging area

Explore **demolition of underutilized building(s)** dividing district



6. WALKER STREET DISTRICT 351 WALKER STREET

This cluster of industrial businesses is a significant industrial employment center, but has opportunities to attract more jobs. Moreover, the district generates conflicts with adjacent residential neighborhoods due to truck traffic associated with the present businesses. This suggests an opportunity to better align the site’s uses and circulation with community needs. To address these opportunities, a series of block-level improvements and capital investments, from signage to circulation improvements and new shared amenities, are envisioned to **reinvent the area as a creative light-industrial district** that would **minimize community impacts and attract new business tenants**.

SUMMARY RECOMMENDATIONS

In consultation with the Steering Committee and project partners, the BOA team developed final recommendations which expand and build upon the Phase One BOA Revitalization Plan to incorporate the entire study area. These recommendations are detailed in Section 4 and summarized as follows:

SUPPORT & CREATE A VITAL LIVE-WORK NEIGHBORHOOD

1. Protect and strengthen existing neighborhood character.
2. Expand affordable, mixed-income, and mixed-use housing.
3. Enhance the central commercial corridor and support neighborhood retail.
4. Leverage development to improve infrastructure and transit.
5. Advocate for strategic rezonings to support new residential and retail development.

CREATE QUALITY JOBS & WORKPLACES

1. Support the maritime industry.
2. Allow new uses and job creation in appropriate locations.

CREATE CIVIC, CULTURAL, AND RECREATIONAL SPACES

1. Improve existing and create new waterfront destinations.
2. Coordinate with efforts to create a North Shore greenway.
3. Leverage arts and culture to support economic development.

IMPROVE CONNECTIONS & MOBILITY

1. Strengthen vehicular connections.
2. Increase safe pedestrian and bicycle connections.
3. Expand public transit options.

ADDRESS ENVIRONMENTAL CHALLENGES

1. Identify challenges left by historic industrial use.
2. Clean up brownfield sites.
3. Prevent future contamination.
4. Improve the North Shore's climate resilience.

PRIORITY NEXT STEPS FOR IMPLEMENTATION

In addition to the Final Recommendations, the BOA team developed a series of near-term actions and strategies to advance the Revitalization Plan. These steps are elaborated in Section 4 and presented here in summary form:

1. Connect property owners, developers, and other interested parties with strategic site redevelopment opportunities.
2. Leverage Main Street grants and other funding sources to continue revitalizing the Port Richmond commercial corridor.
3. Promote the utilization of tax credits for site redevelopment under the New York State Brownfield Cleanup Program.
4. Coordinate with state, city, and borough initiatives to market designated Opportunity Zone census tracts to investors.
5. Leverage funding for feasibility studies that support BOA recommendations, such as traffic engineering studies to direct truck traffic off Lake Avenue.
6. Work with elected officials and community representatives to secure funding for a social services siting study, as well as a study of housing needs within the BOA area, including affordability levels, housing type, and size.
7. Advance the creation of a maritime education center by studying New York City maritime occupations and their educational requirements.
8. Support agency planning initiatives to expand public transit options within the BOA area.
9. Advance the proposed Walker Street “creative district” through stakeholder outreach and coordination.

The Step 2 Nomination Study that follows provides an analysis of the study area, with an emphasis on identifying strategic brownfield sites and formulating a comprehensive Revitalization Plan. Through the BOA site assessment, nomination, and designation process, the people of Port Richmond and Mariners Harbor have created a roadmap for redevelopment that provides a sustainable path to achieve a vital live-work neighborhood, expand access to quality jobs, and address environmental contamination. As a result, this community-led plan offers fresh thinking about equitable development, public space activation, and new neighborhood anchors that can fuel catalytic renewal.

SECTION 1

PROJECT DESCRIPTION AND BOUNDARY

I. LEAD PROJECT SPONSORS

The Port Richmond-Mariners Harbor BOA Step 2 Nomination Study is sponsored by Northfield Community Local Development Corporation of Staten Island, Inc. (Northfield Community LDC). The organization was awarded a grant from the New York State Department of State (DOS) to complete the Brownfield Opportunity Area (BOA) study of the western portion of Staten Island’s North Shore. This study was initiated through a previous grant awarded to Northfield Community LDC, resulting in a Phase One study of Subarea A which was completed in 2014 and is discussed below.

Established in 1978 by merchants, property owners, and residents of Port Richmond, Northfield Community LDC is a nonprofit organization with a long history of supporting the communities of Port Richmond and Mariners Harbor through economic development, community revitalization, and advocacy. Today, the organization works across Staten Island through a wide array of programs. These include the development of affordable housing, the rehabilitation of existing housing stock, and energy conservation initiatives. Northfield Community LDC also has a special focus on cultivating a vibrant business community along Port Richmond Avenue’s commercial corridor. Though it serves the

entire borough, the organization focuses much of its efforts within Community Board 1, which encompasses Staten Island’s North Shore and is home to the highest percentage of the borough’s low-income and minority residents, as well as its senior citizens.

To aid in the economic revitalization and environmental remediation of Port Richmond and Mariners Harbor, Northfield Community LDC embarked upon the BOA Step 2 study as a means to facilitate area-wide planning for community revitalization on the North Shore. The BOA program was created through the New York State DOS to assist municipalities and community-based organizations in developing community-driven plans to bring brownfields back into active use and to establish clear neighborhood priorities for economic and environmental revitalization. The program is designed to support efforts that:

- Address problems posed by multiple brownfield sites
- Build consensus on future uses in the area
- Establish sustainable development goals
- Establish the multi-agency and private-sector partnerships necessary to leverage assistance and investments to revitalize neighborhoods and communities
- Address environmental justice concerns for communities that may be burdened by negative environmental consequences



Fig. 7: The Kill Van Kull Viewed from Van Name Van Pelt Plaza

The BOA program takes an area-wide or neighborhood approach to planning, which enables communities to comprehensively assess existing economic, land use, and environmental conditions associated with brownfield blight. Through the BOA program's site assessment, nomination, and designation process, brownfields can be transformed from neighborhood liabilities to community assets that generate jobs and revenues for local economies with the support of tax credit allocations.

Initially, the BOA process was conceived as a three-step program consisting of a Step 1 Pre-nomination Study, a Step 2 Nomination Study, and a Step 3 Implementation Plan. (Steps 1 and 2 have since been consolidated to streamline the program's process.) The present BOA phase, a Step 2 Nomination Study, includes an in-depth analysis of the study area, including economic and market trends, existing conditions, and reuse potential for properties located in the proposed Brownfield Opportunity Area, with an emphasis on the identification of strategic brownfield sites and the formulation of a comprehensive Revitalization Plan.

Throughout both phases of the BOA process, Northfield Community LDC has been supported through an active and engaged Steering Committee that has provided project oversight through a cross-section of local stakeholders including business owners and trade organizations; arts, cultural, and environmental groups; educational institutions; community and immigrant advocates; and representatives of public agencies and officials. These individuals and organizations have provided invaluable support for the BOA study, helping to articulate the study's goals, contributing insight into the BOA area's needs and opportunities, and ensuring the study reflects the vision of Port Richmond and Mariners Harbor's diverse communities.

To complete the BOA study, Northfield Community LDC and the Steering Committee partnered with the following consultant team: WXY as lead project consultant, HR&A Advisors as real estate and economic development consultant, Being Here Landscape Architecture & Environmental Design as community outreach consultant, and Fleming-Lee Shue as environmental consultant. This team has collaborated with project partners to prepare the following Step 2 Nomination Report.

II. PROJECT OVERVIEW

The Port Richmond-Mariners Harbor BOA study area lies within a socially diverse, culturally dynamic, and economically vital section of the North Shore of Staten Island, one of New York City's five boroughs. The BOA communities are part of the New York-Newark-Jersey City, NY-NJ-PA Metropolitan Statistical Area, with a total population of 20.3 million. The area lies within Richmond County, which is coterminous with Staten Island. It encompasses portions of the Port Richmond, Elm Park, Mariners Harbor, and Arlington neighborhoods, which together are home to some of Staten Island's most significant concentrations of employment, industrial uses, and multifamily housing. These social, cultural, and economic assets of the BOA study area offer tremendous potential for revitalization in service of community goals.

Foremost among these assets are the study area's people: a population of nearly 36,000 residents, 7% of Staten Island's total, who are deeply invested in their community. From families who have been rooted on the North Shore for generations, to new immigrant arrivals from Mexico and the Dominican Republic, the BOA study area possesses a wealth of cultural and ethnic diversity: the majority of the population is of Hispanic origin (37%) with somewhat lower shares of African-American (28%) and white residents (25%). A quarter of the population is foreign-born, predominantly from Central and South America.¹

**Foremost among the BOA area's assets
are its people: remarkably diverse residents
deeply invested in community.**

Over the past century, these communities have played critical roles in the life of the vast metropolitan region. They have supported centers of maritime and manufacturing industries that fueled New York City's rise as a global capital of commerce. They have been caretakers of deeply resonant historic and cultural assets dating to the earliest days of the American republic. And they have been stewards of natural resources with regional ecological consequence. Long beset by economic decline and

¹ ESRI Business Analyst Community Profile Reports, 2017

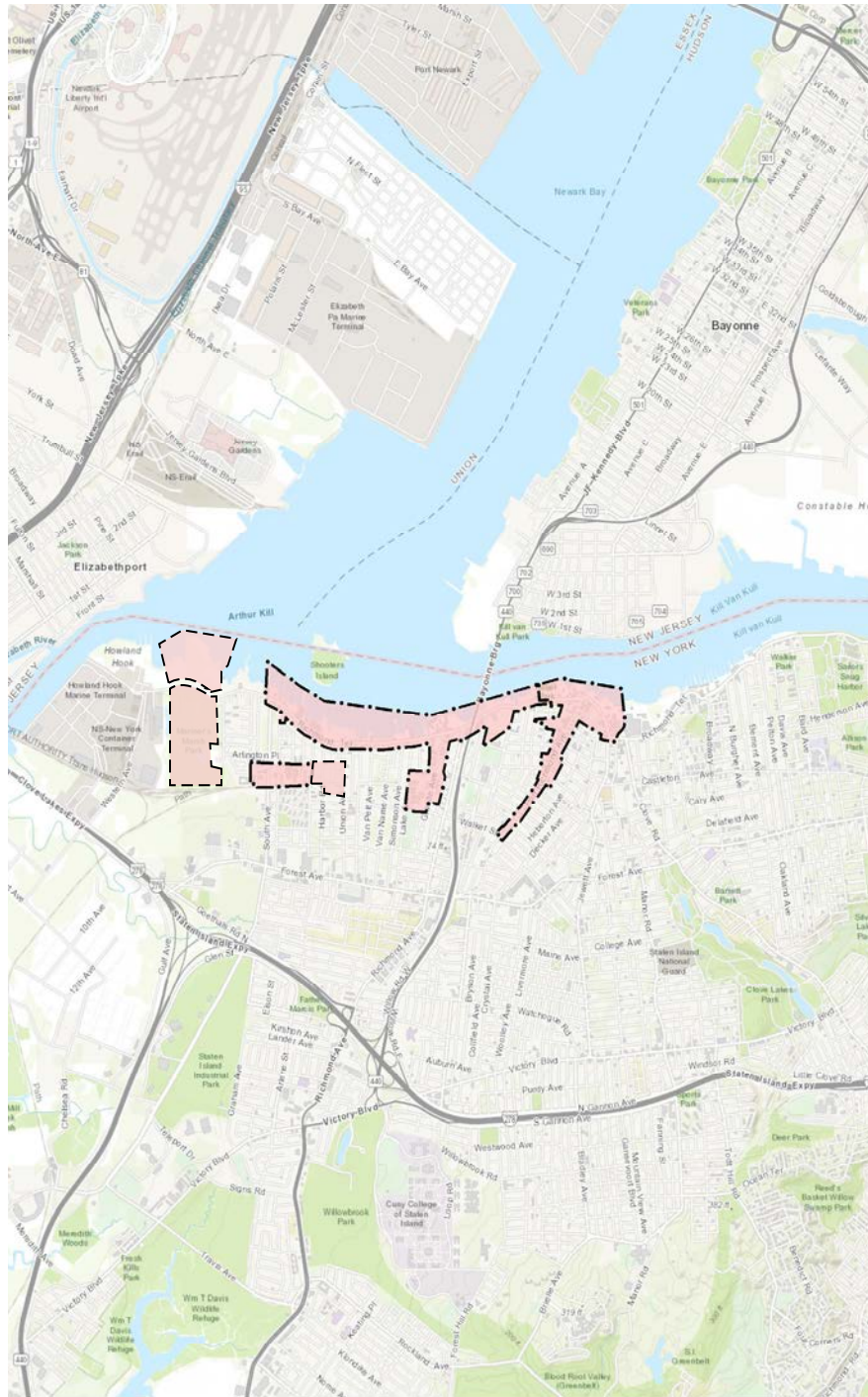


Fig. 8: BOA Study Area Community Context Map

disinvestment, today the people of Port Richmond and Mariners Harbor have come together to create their community’s cultural, economic, and environmental renewal.

A Historic Hub of Commerce

Encompassing 480 acres, the BOA study area is broadly defined by two axes, around which are concentrated the area’s commercial and public life. The first axis is Port Richmond Avenue, running south from the Kill Van Kull waterfront as the district’s historic commercial corridor. Its major historic property, the Reformed Church on Staten Island, originally built in 1718, became the hub for Port Richmond’s development as a town center. Known as a retail destination—called the Fifth Avenue of Staten Island—Port Richmond Avenue drew residents and visitors from across the island and beyond to its well-appointed shopping district.

The area’s rise as a commercial center was due in part to its location within easy reach of New Jersey and New York’s other boroughs. Port Richmond Avenue’s waterfront terminus has been a transportation hub for three centuries, with ferry service dating to at least 1701.² A variety of additional transportation services, including trolley service on Richmond Terrace and Port Richmond Avenue, as well as passenger rail with several stops serving the study area, connected district residents to resources and opportunities across the metropolitan region. While this abundance of transit modes no longer exists, the community’s strategic location remains an outstanding asset.

The second axis defining the BOA study area is Richmond Terrace, the waterfront thoroughfare that provides the area’s only continuous east-west connection. Once a footpath for the Lenape tribe of Native Americans, this route follows the 1,000-foot-wide Kill Van Kull—the waterway separating Staten Island from Bayonne, New Jersey to the north, and connecting New York Harbor with critical freight and logistics infrastructure at Port Newark–Elizabeth Marine Terminal to the west in Newark Bay. This favorable setting has made the BOA study area a bustling industrial hub since the Revolutionary War, home to manufacturing

² Staten Island North Shore Land Use and Transportation Study: Existing Conditions Report, 2008



Fig. 9: Port Richmond Avenue Retail Corridor

and maritime industries including ship building, towing, marine services, and other active uses that thrived through the 1950s. The study area also lies adjacent to important industrial and business centers on Staten Island’s West Shore, which is bordered by the Arthur Kill waterway and Elizabeth, New Jersey beyond. Enhancing the area’s competitiveness as an industrial center are two key bridge connections: the Bayonne Bridge to the north, which bisects the BOA study area and connects to Bergen Point, New Jersey; and the Goethals Bridge to the west, a gateway through New Jersey to the region and nation.

Legacies of Disinvestment: Vacancy and Brownfields

As in many of America’s early industrial towns and cities, a sharp economic downturn during the second half of the twentieth century touched off decades of decline and disinvestment. As manufacturing jobs shifted overseas, industrial businesses on the

North Shore became markedly less competitive. Moreover, the growth of trucking as the city’s principal mode of distributing freight—trucks currently move nearly 90 percent of goods around the city³—along with the consolidation of port activities within a few major hubs on the East Coast, hampered the area’s maritime services businesses. Today manufacturing within the BOA study area, representing the North Shore’s industrial heritage, continues to decline, seeing a 17% loss in jobs since 2010.⁴

Similar impacts have weakened Port Richmond Avenue’s once dominant commercial corridor. Following completion of the Verrazano-Narrows Bridge in 1964, commercial activity shifted toward Staten Island’s interior—culminating in the 1973 opening of the Staten Island Mall—and reduced the viability of the BOA area’s shopping districts. The subsequent rise of big-box retail

³ Freight NYC: Goods for the Good of the City, 2018

⁴ EMSI Labor Market Data, 2017

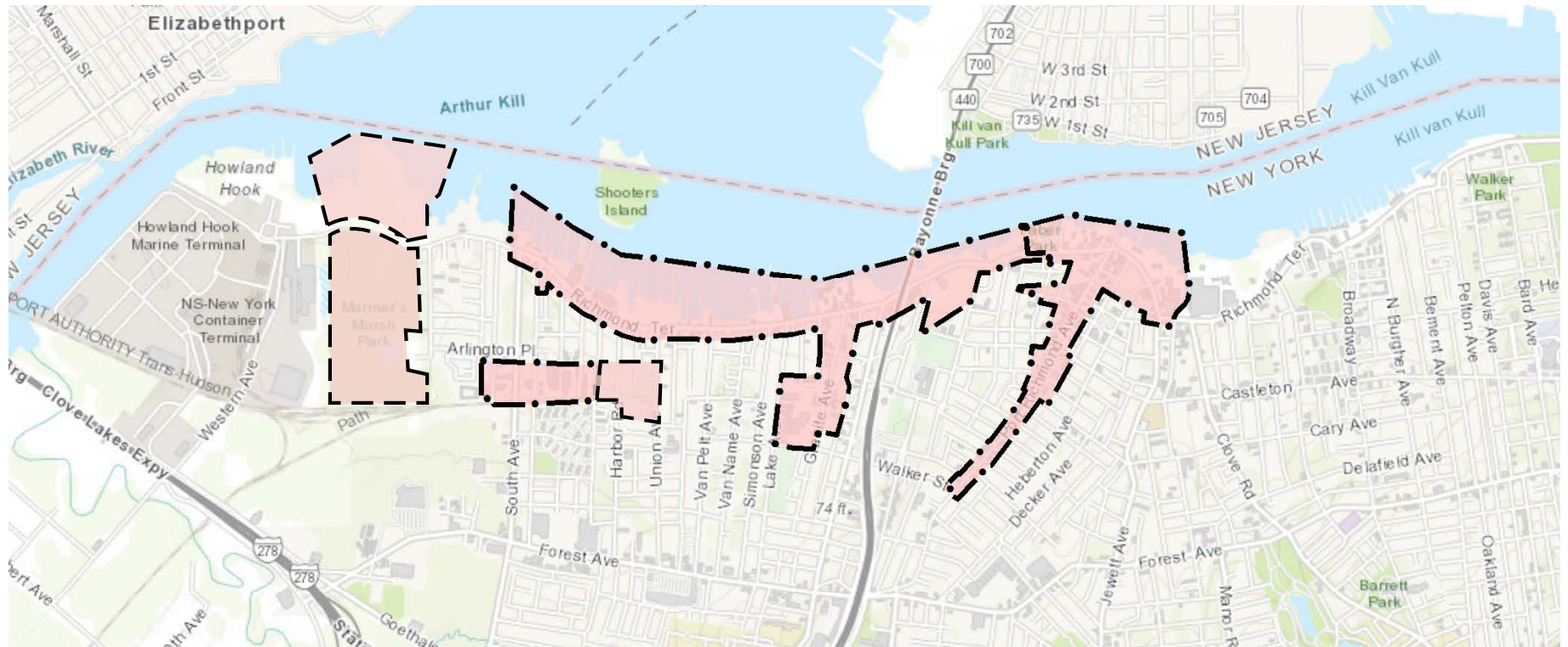


Fig. 10: BOA Study Area Context Map

further drew customers away, while the end of local passenger rail and ferry service posed challenges to maintaining a vibrant commercial district accessible to shoppers across the region. The cumulative impacts of these economic shocks upon the BOA community’s built fabric have been severe. Of 1,313 total tax lots in the study area, 823 are built to less than half of the floor area permitted by zoning—accounting for approximately 85 percent of the study area’s total land. These significantly underutilized properties are largely concentrated on the Richmond Terrace waterfront, a testament to the widespread disinvestment among maritime industries as manufacturing and port activities moved elsewhere. Many of these properties can be assumed to have significant environmental concerns. While no comprehensive study has been completed to investigate contamination across these properties, several sites within the study area have documented environmental hazards. Those notably include the Richmond Terrace Radiological Site, adjacent to the Bayonne

Bridge, which in the early 1940s was used to store uranium-rich ore for the Manhattan Project’s wartime atomic bomb production. The site has tested positive for radiation contamination in surface soil, with one survey reading far exceeding the normal background level. Other sites of known contamination include spaces near Port Richmond Avenue such as Veterans Park, where soil contains arsenic and lead, leading to public warnings to wash hands after leaving the park; and the Jewett White Lead site on Richmond Terrace, a Superfund site where an action to remove lead from the property was completed by the U.S. Environmental Protection Agency in 2013. In addition, Mariners Marsh Park, at the western boundary of the study area, has been found to contain petroleum products, lead, and other hazardous materials dating to the property’s former uses as an ironworks and shipyard.

The perception of blight and contamination along the area’s industrial waterfront is compounded by well-intentioned

regulatory efforts that have had perhaps unintended consequences: for example, existing zoning regulations require opaque fencing, blocking visual access to the active maritime waterfront and contributing to a hostile streetscape environment for pedestrians and cyclists. Furthermore, major impediments to the reconstruction of piers and bulkheads due to environmental regulations have discouraged the expansion of maritime uses within the North Shore, leaving waterfront sites ripe for non-maritime uses such as scrap metal processors and self-storage facilities which often make poor neighbors for adjacent residential districts. In summary, the Port Richmond and Mariners Harbor communities suffer from extensive underutilization, vacancy, and both perceived and actual contamination, posing daunting challenges to neighborhood revitalization.

A Live-Work North Shore “Connected to the Whole City”

Despite the BOA area’s legacy of disinvestment, the community has identified opportunities to reconnect to its industrial past and advance revitalization through housing development, cultural initiatives, and environmental remediation. As rising rents in Manhattan, Brooklyn, and Queens have put once affordable neighborhoods out of reach to New Yorkers, Staten Island has seen notable growth in residential and commercial development. Major investments have begun to transform the North and West Shores, notably in St. George and Stapleton close to the Staten Island Ferry and its 25-minute ride to Lower Manhattan.

Destinations such as New York City’s first outlet mall, Empire Outlets, featuring 100 stores, a hotel, and restaurants, stand to bring transformative impacts to the area. Residential developments include Staten Island Urby, a “mini-neighborhood” on Stapleton’s former industrial waterfront, where 571 rentals opened in 2016, with hundreds more to follow. Marketed to renters priced out of Brooklyn or Queens, these developments open a fresh chapter for Staten Island as a commute-friendly location “connected to the whole city.”⁵

⁵ See <https://www.urbystatenisland.com/>; <https://ny.curbed.com/maps/new-york-staten-island-developments-empire-outlets>.

Meanwhile, the West Shore, promoted by Borough President James Oddo as Staten Island’s “Jobs Coast,”⁶ has recently received major investments to its industrial and commercial infrastructure. To the west of the study area lies the 187-acre Global Container Terminal–New York, the largest marine terminal in New York State. Home to over 300 jobs, with investments planned to boost freight and logistics capacities, the terminal can play a role as an employment center for BOA communities. Further to the south lies the Matrix Global Logistics site, which will be home to new IKEA and Amazon distribution facilities. Combined with a resurgence of interest in maritime shipping and related uses, these initiatives signal a potential economic turnaround for industries and residents within the BOA study area.

⁶ See <http://www.statenislandusa.com/news/new-funding-announced-to-strengthen-jobs-coast-infrastructure>.



Fig. 11: Notice of Contamination in Veterans Park

Crafting a Consensus-Driven Revitalization Plan

Located at a fulcrum between St. George and the West Shore, Port Richmond and Mariners Harbor have an opportunity to reclaim their commercial and residential vitality. For example, the BOA study area remains a significant job center, having seen substantial growth in a diverse range of sectors. Industrial jobs represent the largest share of jobs within the area, with concentrations in transportation, warehousing, and the construction sectors. These industries provide relatively high-paying jobs—yet nearly all jobs in the study area are filled by employees who live elsewhere. This represents an opportunity to connect local residents to quality jobs through the creative redevelopment of vacant and underutilized sites in the study area.⁷

These communities also have significant potential to attract new investment. For example, much of the BOA area is located within census tracts designated as part of the federal Opportunity Zone program. Established in 2017, the program encourages private investment in low-income areas through tax incentives that allow investors to re-invest unrealized capital gains in underserved communities. These zones will retain their designation for 10 years, offering new tools to attract investment aligned with local priorities and needs.

In the midst of such opportunities, the BOA area, like the rest of Staten Island, remains a place where young families have formed and lived for successive generations. Community leaders and residents are unified in their conviction that Port Richmond and Mariners Harbor must remain affordable and welcoming to existing residents, while at the same time embracing positive change. Through the BOA process, and the consensus-driven vision described in the pages that follow, community members have articulated a balanced, ambitious, and achievable Revitalization Plan that is grounded in the special qualities of this place and the aspirations of its people.

PLANNING CONTEXT

Over the past decade, the needs and opportunities of Staten Island’s North Shore have been the subject of extensive study that provides a rich foundation for this Revitalization Plan’s research and analysis. The following plans and reports—both citywide and specific to the Port Richmond and Mariners Harbor communities—have been most relevant for the BOA study, particularly the Phase One BOA Nomination Report for Port Richmond discussed below.

Port Richmond Brownfield Opportunity Area Nomination Report—Phase One (Northfield Community LDC & NYC Department of City Planning, 2014)

This study of Subarea A within the BOA area was completed in 2014. The present Step 2 Nomination Report expands the 2014 study to include the entire Port Richmond-Mariners Harbor study area. In so doing, the present report incorporates and builds upon the analysis and recommendations made in the 2014 study. The Phase One work included an analysis of existing conditions within Subarea A, which focuses on Port Richmond Avenue, as well as a set of goals and priorities developed with a Steering Committee composed of representatives of civic organizations and public agencies. These goals are summarized as follows:

- Improve waterfront access and open space resources with more diverse recreational opportunities
- Create a public destination at the northern end of Port Richmond Avenue, where it meets the waterfront
- Protect and revitalize the Port Richmond commercial corridor
- Support future transit options
- Support existing maritime businesses
- Create opportunities for new businesses and services
- Improve infrastructure to meet existing and future development needs
- Address brownfield and contamination concerns

In support of these goals, the 2014 Phase One study includes a series of specific actions, such as targeting areas for investment and development of new housing opportunities; ensuring future

⁷ Emsi Labor Market Data, 2017



Fig. 12: Phase One BOA Nomination Report: Vision for a Revitalized Port Richmond Avenue Streetscape (Source: DCP, 2014)

development improves public waterfront access; and providing a traffic circulation plan to accommodate any future development along the waterfront. The 2014 report culminates with the proposal of six strategic sites, one conditional strategic site, and two potential strategic sites. Several Phase One strategic sites have been included in the present Revitalization Plan.

**North Shore 2030:
Improving and Reconnecting the North Shore’s Unique and Historic Assets (NYC Economic Development Corporation & NYC Department of City Planning, 2011)**

This report offers long-term recommendations to guide future private and public investment on the North Shore. The effort

provided a foundational analysis of the BOA study area, largely focused on the Kill Van Kull waterway as a catalytic asset. The report’s vision for Port Richmond and Mariners Harbor includes the following elements, which build on the waterfront’s potential to support positive community impacts:

- A vibrant working waterfront, providing quality jobs and ongoing use of the bulkhead for maritime and industrial uses
- Reactivated retail corridor on Port Richmond Avenue that encourages the reuse of historic buildings, providing housing over businesses and retail serving neighborhood residents
- Revitalized waterfront destination with diverse uses, which anchors Port Richmond Avenue while providing a buffer from maritime businesses and safe access for pedestrians

- New waterfront public access point from Port Richmond Avenue to Faber Park
- An improved Richmond Terrace, with updated pedestrian and bicycle facilities and expanded transit options
- Expanded mix of amenities and retail on Richmond Terrace to fill a gap in services and jobs for residents and workers
- New waterfront and open space public access at Arlington Marsh, Mariners Marsh, city-owned sites, and public street ends providing views of the waterfront and Shooters Island

The study's emphasis on providing an appropriate balance between waterfront industrial use, new mixed-use development, and public amenities offers a well-supported basis for the BOA study's recommendations and strategic redevelopment scenarios.

Staten Island North Shore Land Use and Transportation Study Existing Conditions Report (NYC Economic Development Corporation, NYC Department of City Planning, & Parsons Brinckerhoff, et al., 2008)

This survey provides detailed research documenting the BOA study area, including overviews of the study area's natural environment, infrastructure, transportation, and land use.

One New York: The Plan for a Strong and Just City (City of New York, 2017)

One New York views equity as central to meeting the challenges of growing income inequality, obstacles to job mobility, a crisis of housing affordability, and aging infrastructure—all issues deeply felt by residents of the BOA study area. This inclusive planning effort has informed the BOA team's approach to redevelopment strategies whose aim is a more just community future.

Vision 2020: New York City Comprehensive Waterfront Plan (NYC Department of City Planning, 2011)

Vision 2020's goals and recommendations range from expanding waterfront access and supporting the working waterfront to restoring shoreline ecology and addressing rising sea levels. Specific recommendations for the North Shore include

coordinating with Community Board 1's efforts to designate a multi-purpose pathway along the waterfront, investigating using street-ends as public overlooks of maritime activity, and de-mapping a portion of Port Richmond Avenue to encourage mixed uses and public access on the waterfront.

Resilient Industry: Mitigation and Preparedness in the City's Industrial Floodplain (NYC Department of City Planning, 2018)

Spurred by the extensive flooding of New York's low-lying industrial businesses during Hurricane Sandy, this report identifies challenges faced by these businesses and encourages actions that minimize flood risk. Best practices include protection of mechanical systems within buildings, elevated mezzanines for equipment, and other measures such as truck relocation planning and techniques to secure hazardous materials.

West Brighton Brownfield Opportunity Area (West Brighton Community Local Development Corporation & NYC Department of City Planning, 2016)

This Step 2 Nomination Report focuses on a two-mile portion of North Shore waterfront to the east of the Port Richmond-Mariners Harbor BOA study area. Responding to the departure of maritime uses and the challenge of maintaining waterfront infrastructure, the study addresses limited waterfront access and uninviting public areas through strategies applicable to Port Richmond and Mariners Harbor. These include rezoning portions of manufacturing districts for commercial uses, and locating a private maritime education facility on the North Shore.

Staten Island North Shore Transportation Improvement Strategy (NYC Economic Development Corporation & NYC Department of Transportation, 2017)

This study offers valuable strategies to improve transit conditions, particularly along Richmond Terrace. Recommendations include pedestrian improvements such as high-visibility crosswalks, development of a freight management plan to reduce truck trips, and implementing Bus Rapid Transit along Richmond Terrace.

North Shore Alternatives Analysis (NYC Transit, 2012)

To remedy congested conditions and roadway deficiencies on the North Shore, this analysis weighed transportation measures to improve mobility, enhance the environment, and maximize financial resources. Bus Rapid Transit was selected, running on a dedicated guideway potentially using portions of the right-of-way for the Staten Island Railway North Shore Branch and extending from St. George to a new terminus west of South Avenue in Arlington. This useful analysis of the area's transit needs and opportunities is discussed further in Section 3.

Freight NYC: Goods for the Good of the City (NYC Economic Development Corporation, 2018)

A \$100 million plan to overhaul aging freight distribution systems, Freight NYC proposes strategic investments to modernize maritime and rail assets and create new distribution facilities. Staten Island's North and West Shores are cited as one of the city's five major freight hubs, expected to see anticipated investments that may offer significant opportunities for the BOA study area.

Open Industrial Uses Study (NYC Department of City Planning, 2014)

Seeking to improve manufacturing zones by making industrial areas greener, safer, and more resilient to climate change, this study analyzes unenclosed industrial businesses and proposes measures to address quality of life concerns associated with open uses such as auto dismantling, scrap-metal processing, and the transfer of construction and demolition debris.

Engines of Opportunity: Reinvigorating New York City's Manufacturing Zones for the 21st Century (New York City Council, 2014)

To nurture growth in the manufacturing sector and diversify the economy, Engines of Opportunity proposes to overhaul the city's outmoded industrial land use policies. The study offers trenchant analysis pertinent to the BOA study area's goals of encouraging industrial uses that can bring quality jobs to North Shore residents.



Fig. 13: Future Culture Report (Source: Design Trust for Public Space & Staten Island Arts, 2017)

Port Richmond Avenue Retail Attraction Strategy (NYC Department of Small Business Services & JGSC Group, 2012)

This strategy to enhance Port Richmond's commercial district explores opportunities to serve the needs of local residents and attract destination shoppers. The report includes measures to beautify the district, improve parking, retain businesses, and recruit retailers in the furniture and restaurant categories.

Future Culture: Connecting Staten Island's Waterfront (Design Trust for Public Space & Staten Island Arts, 2017)

Future Culture provides recommendations that cultural organizations and others can use to strengthen culture and enhance the Staten Island waterfront. Its recommendations—including strategies to support cultural communities and strengthen the relationship between the cultural sector and stewards of property—offer tools to better integrate arts and culture with economic development initiatives.

III. COMMUNITY VISION, GOALS, AND OBJECTIVES

Through the development of both the Phase One BOA Revitalization Plan and the present BOA study, a broad and diverse group of residents have come together to reflect on their neighborhood needs, challenges, desires, and aspirations. As expressed over many meetings and conversations, the community has reached a consensus on its shared vision, as well as the goals and objectives needed to achieve a more healthy, equitable, and sustainable future.

VISION STATEMENT

The following statement, developed for the 2014 Revitalization Plan and refined to incorporate comments received over the course of the present BOA phase, articulates study area stakeholders' shared community vision for neighborhood revitalization:

“Port Richmond, Elm Park, Mariners Harbor, and Arlington stakeholders have expressed their hopes for revitalization and to reconnect with the area’s history as a vital retail corridor and working waterfront. The community envisions healthy neighborhoods where residents, businesses, and maritime and other industries can respectfully thrive, quality jobs are available, transportation is improved, quality affordable housing is provided, waterfront access and open space are created, the historic character of the neighborhood is preserved, and a clean environment protects the health and well-being of residents, workers, and visitors.”

GOALS AND OBJECTIVES

Drawing on the community goals presented in North Shore 2030, outlined in the Phase One Revitalization Plan, and further developed through the present study, five goals have been set forth through the community-driven BOA process. These goals and their related objectives are summarized as follows:

1. Support and Create a Vital Live-Work Neighborhood

The residential and commercial districts within the BOA area possess a rich and authentic built context dating to the earliest days of the American republic. The community strongly wishes to protect and strengthen the existing character of these neighborhoods, particularly Port Richmond Avenue, the study area’s historic central corridor. To this end, the community seeks to preserve the corridor’s street wall, height, and character, while providing for higher-density, neighborhood-enhancing development in appropriate locations. The community has also identified opportunities to support retail businesses and make key infrastructure investments. At the same time, concerns have been voiced about the displacement of existing residents through new development. To help mitigate these concerns, residents wish to support anti-displacement strategies—such as infill affordable housing incentives, community benefits agreements, and local hiring requirements—to ensure that existing residents and businesses benefit from new public and private investment. As a related objective, residents seek to maintain and enhance affordable housing options in mixed-use neighborhood centers, providing rental or home-ownership opportunities that are accessible to all. By targeting areas for development of new housing with a focus on affordability—while incorporating a better balance of diverse, active uses and services—the BOA area can be strengthened as an equitable commercial and community center.

2. Create Quality Jobs and Workplaces

Port Richmond and Mariners Harbor together contain one of the city’s most important concentrations of maritime industry. These businesses provide critical services to the entire metropolitan region, along with quality employment opportunities that have the potential to grow in the coming years, as greater focus is placed on sustainable, water-borne transportation. The community recognizes the key cultural, economic, and environmental role that maritime industries of the BOA study area play, and wishes to support these businesses through a variety of means, including the creation of new maritime vocational and educational training opportunities that can connect neighborhood residents to quality maritime jobs, and the expansion of water-dependent uses



Fig. 14: Kirby Offshore Marine

along the industrial waterfront. Elsewhere in the study area, the community wishes to encourage light manufacturing businesses and “creative district” development, aimed at providing local economic benefits without the negative impacts of heavier industrial uses such as truck traffic, noise, and air pollution. A new community health center for the medically underserved population of Mariners Harbor is also a key priority to provide urgent public health improvements.

3. Create New Civic, Cultural, and Recreational Spaces

The neighborhoods of Port Richmond and Mariners Harbor feature few parks and open spaces where residents can come together, celebrate their heritage, be connected to the water, and forge new relationships through arts and culture. The community has voiced a strong desire for improvements to existing parks, as well as the creation of new waterfront parks, specifically a destination open space at the northern end of Port Richmond Avenue in conjunction with mixed-use development. The community also seeks to advance the North Shore greenway to meaningfully connect the



Fig. 15: Faber Park

study area’s diverse commercial and residential districts, while creating a safe, walkable route along Richmond Terrace. Lastly, the community has identified opportunities to leverage the area’s unique arts and culture to support economic development. Whether capitalizing on underutilized cultural assets—through the creation of a Port Richmond cultural district, for example—or building partnerships between the cultural and business sectors to provide a greater sense of public life, the community believes arts and culture can play a pivotal role in the BOA area’s revitalization.

4. Improve Connections and Mobility

The need for transportation improvements has consistently been a key priority for the BOA community. Plagued by congestion along Richmond Terrace and the lack of sustainable transit alternatives, the community wishes to see improvements that would improve connections among neighborhoods and boost mobility options. These objectives include improved safety and traffic flow along Richmond Terrace; safe pedestrian and bicycle connections throughout the BOA area; and enhanced streetscapes with new

street trees, lighting, bus shelters, and street furniture. To provide expanded mobility options, the community also wishes to see the creation of urgently needed bicycle infrastructure such as bike paths, bicycle parking, and shared bike stations at neighborhood centers. Other options favored as part of the community's transportation vision are enhanced bus service, ferry service, and new bike- and car-sharing services. Finally, traffic calming measures along Lake Avenue are desired, including more effective enforcement of truck traffic and idling regulations to mitigate the negative impacts of conflicting uses across the study area.

5. Address Environmental Challenges

Port Richmond and Mariners Harbor have been left a legacy of historic industrial uses that pose environmental challenges to revitalization. The community vision includes the cleanup of brownfield sites across the district, and especially along the Kill Van Kull waterfront that would encourage redevelopment of these precious sites. While many vacant and abandoned properties remain to be remediated, the community has expressed a strong desire to see existing businesses become better neighbors, particularly those operating in close proximity to residential districts. To address these land-use conflicts and prevent future contamination, the community supports efforts that would encourage businesses to limit truck congestion and idling, reduce pollution, and provide greater defenses against flooding and other natural hazards. Improving climate resilience is another environmental objective endorsed by the community, which wishes to see best practices incorporated into new and existing developments to resist flooding, while supporting local resiliency planning to protect community health, safety, and welfare.

IV. BOA BOUNDARY DESCRIPTION AND JUSTIFICATION

The Port Richmond-Mariners Harbor BOA study encompasses an area of Staten Island's western North Shore, largely following zoning district boundaries to include concentrations of waterfront manufacturing properties, two inland manufacturing zones, the Port Richmond commercial corridor, and the open space areas of Mariners Marsh Park and Arlington Marsh.

The study area was divided into two subareas: Subarea A, which was the subject of the Phase One Port Richmond BOA study of 2014; and Subarea B, which has been analyzed as part of the present Step 2 Nomination Report. This report incorporates both subareas to complete the entire study area's Revitalization Plan. The two subareas and their component elements are described in the following sections.

SUBAREA A

This subarea principally includes the Port Richmond commercial corridor, which runs from the northern end of Port Richmond Avenue on the Kill Van Kull waterfront south to Walker Street (on the west) and Beekman Street (on the east). The corridor includes properties on both sides of the avenue, which consist largely of commercial and mixed-use structures, including more than 40 vacant or underutilized sites out of a total of 228 properties.⁸ At Charles Avenue, the boundary extends one block west to take in underutilized sites of community interest. At Grove Avenue, this portion of the boundary extends further west to Sharpe Avenue in a V-shape that incorporates a set of vacant, manufacturing, and mixed-use properties that adjoin the elevated viaduct of the former North Shore Railroad. This portion of the boundary then runs north along Maple Avenue to join Richmond Terrace.

Toward the waterfront, the Subarea A boundary extends east at Ann Street and runs to Jewett Avenue to encompass a cluster of important industrial uses surrounding Richmond Terrace at the eastern boundary of the study area, which intersects the Kill Van Kull waterfront at Bodine Creek, just west of the Port Richmond Water Pollution Control Plant. This boundary corresponds with the start of the study area's concentration of waterfront maritime industries and high-intensity manufacturing sites. The subarea then runs west, incorporating properties on both sides of Richmond Terrace, including underutilized sites of community interest on the south side of Richmond Terrace between Maple Avenue and Faber Street. Subarea A then terminates at the western boundary of Faber Park.

⁸ Northfield Community LDC / NYC Department of Small Business Services Business Attraction & Property Database, 2017



Fig. 16: BOA Study Area Boundary Map



Fig. 17: Clockwise from Top Left: Richmond Terrace Waterfront Property; Granite Avenue District; Residential Neighborhood on Union Avenue; Mariners Marsh Park

SUBAREA B

Subarea B is characterized predominantly by properties in the Mariners Harbor community zoned for high-intensity manufacturing along the Kill Van Kull waterfront. This portion of the study area runs along Richmond Terrace from the edge of Faber Park on the east to the block between South Avenue and Arlington Avenue on the west. The boundary extends north of Richmond Terrace into the Kill Van Kull waterway to include mapped pierhead and bulkhead lines. It typically includes tax lots immediately to the south of Richmond Terrace. At certain points it extends further south to incorporate sites of community interest, notably on Richmond Terrace between Nicholas Avenue and John Street, where it includes a large housing development under construction. The area incorporates major underutilized waterfront properties of community interest, as well as several smaller sections zoned for medium- and low-intensity manufacturing. The subarea also includes two inland manufacturing districts and one open space described below.

Granite Avenue Manufacturing District

This section of the study area is centered on Granite Avenue, extending south from Richmond Terrace to Walker Street. The area is bounded by Lake Avenue on the west and largely by Pulaski Avenue and Winant Streets on the east. This area encompasses a significant cluster of industrial businesses, warehouses, and manufacturing concerns, as well as underutilized portions of properties on either side of Granite Avenue.

Davidson Street Manufacturing District

This portion of Subarea B is focused on a medium-intensity manufacturing zone characterized by underutilization and bounded by Davidson Street on the north, Roxbury Street on the south, and Arlington Avenue to the west. Following community consultation in the present BOA phase, the eastern boundary of this district was extended south and east from Lockman Avenue to include a large, underutilized site bounded by Harbor Road on the west, Union Avenue on the east, Leyden Avenue on the south, and the North Shore Railroad right-of-way on the north.

Mariners Marsh Park and Arlington Marsh

In the present BOA phase, the study area boundary was also extended to encompass a non-contiguous portion of Subarea B that includes Mariners Marsh Park and Arlington Marsh. These two brownfield sites have significant environmental concerns including known contamination, illegal dumping, and marine debris. They are currently the subject of a master planning process funded by the New York State Department of State's Environmental Protection Fund, and led by the New York City Department of Parks and Recreation. The master plan seeks to reopen portions of these former industrial areas to the public for passive and active recreational uses.

SECTION 2

COMMUNITY ENGAGEMENT

I. COMMUNITY PARTICIPATION PLAN

The Community Participation Plan for the Port Richmond-Mariners Harbor BOA was structured to complement and strengthen pre-existing community outreach initiatives that BOA project sponsor Northfield Community LDC and other organizations had been conducting within the BOA study area. In refining the Community Participation Plan, the project sponsor and consultant team considered the types of outreach already completed to date; what sectors and demographics particularly needed to be reached to fill gaps in prior community participation efforts; and which venues and meeting formats would be most effective in reaching the majority of study area participants.

The range of issues addressed throughout the community consultation process included:

- Aspirations for new and expanded uses within the BOA area
- Consideration of waterfront access and waterfront infrastructure improvements

- Strengthening of key community nodes
- Review of potential strategic sites
- Discussion of potential zoning concepts, protection of residents from noxious uses, and transportation improvements, among other topics

STEERING COMMITTEE

To most productively engage community partners and guide the BOA process, Northfield Community LDC enlisted the assistance of an astute and supportive Steering Committee. Over nine months from September 2017 to May 2018, the Steering Committee met three times for presentations and project updates from the consultant team, in addition to reviewing materials through team communications between meeting dates. All three Steering Committee meetings were well attended, with lively discussions centering on strengths, weaknesses, opportunities, and threats for the Port Richmond and Mariners Harbor communities.

The Steering Committee consisted of representatives of the following entities:

Beacon Christian Community Health Center
College of Staten Island
Elm Park Civic Association
Labyrinth Arts Collective
Mariners Harbor / Port Richmond / Elm Park / Arlington Local Area Committee of Staten Island Community Board 1
Mariners Marsh Conservancy
New York City Department of City Planning
New York City Economic Development Corporation
New York City Mayor's Office of Environmental Remediation
Office of Council Member Deborah Rose
Office of Staten Island Borough President James Oddo
Project Hospitality
Reformed Church on Staten Island
St. Philips Baptist Church
Staten Island Economic Development Corporation
Tug & Barge Committee of the Maritime Association of the Port of New York and New Jersey

Throughout the BOA process, the committee offered invaluable insight, feedback, and advice on issues ranging from existing conditions and community priorities to strategic site redevelopment scenarios and final recommendations. Steering Committee members also provided an important focus on actions that advance environmental justice to support the well-being of residents within the study area.

Steering Committee Meeting 1 (September 26, 2017)

The initial Steering Committee meeting began with a review of the community vision and goals from the Phase One Port Richmond BOA study, evaluating the appropriateness of those goals for the entire BOA study area, and affirming the community vision for the present study. The group then reviewed the consultant team's existing conditions summary, providing feedback on land-use and transportation challenges. The subdistrict framework for the study area was also discussed. Finally, the group considered the community meeting schedule and next steps for public outreach.

Steering Committee Meeting 2 (January 23, 2018)

At the second Steering Committee meeting, the committee reviewed subdistrict redevelopment goals, provided feedback on site selection criteria and proposed strategic sites, and considered next steps for the project. Considerable discussion was devoted to challenges posed by truck traffic within the study area, along with potential strategies to abate the negative impacts of heavy truck use associated with manufacturing districts adjacent to residential neighborhoods. Opportunities to support creative light industrial uses, for example, were considered as alternatives to freight-reliant uses within the study area.

Steering Committee Meeting 3 (May 8, 2018)

At the third and final Steering Committee meeting, the agenda began with vetting the final community goals statement and reviewing market opportunities and constraints that guided the team's approach to strategic site redevelopment. The bulk of the meeting was devoted to considering six strategic site scenarios grouped within three key project types: mixed-use residential development; a community facility; and commercial and industrial sites. The group then discussed next steps for community outreach and additional work needed to finalize the Step 2 Nomination Report.

PUBLIC MEETINGS AND OUTREACH

The Port Richmond-Mariners Harbor BOA leadership team has sought to use community meetings as a catalyzing force, viewing these public gatherings as opportunities to generate cross-sector connections and revitalization opportunities. In the three main community meetings held as part of the BOA scope of work, the focus has been on enlisting diverse representatives from within the study area—including residential, business (industrial, maritime, retail, and food), arts, environmental conservation, and transportation interests—to engage in the BOA process and contribute to positive community outcomes.

Because the BOA area encompasses four neighborhoods with distinct identities—Port Richmond, Mariners Harbor, Elm Park,



Fig. 18: Community Meeting 1

and Arlington—the Steering Committee early on noted the need to select meeting locations that were frequented by a broad cross-section of residents. For this reason, the first community meeting was held at Port Richmond High School, which serves the entire BOA area. The second and third community meetings were held in conjunction with the Staten Island Community Board 1 Area Committee, which brings together community leaders representing all of the BOA neighborhoods.

Community Meeting 1 Port Richmond High School (October 24, 2017)

The initial community meeting reached out broadly to Port Richmond and Mariners Harbor residents, along with private, public, and not-for-profit organizations, through publicity that was distributed in both English and Spanish. Northfield Community

LDC distributed flyers through the Steering Committee and other community partners, as well as posting announcements on the organization’s website and social media page. More than 30 stakeholders and community residents participated in the evening session, including agencies such as the NYC Department of Parks & Recreation, NYC Department of Transportation, and NYC Department of City Planning, as well as representatives of the banking community that have supported not-for-profit initiatives within the BOA study area.

After a brief presentation by the consultant team, participants engaged in community visioning activities in small groups arranged around key sector topics: Maritime; Waterfront Zoning, Resiliency, and Access; Business and Residential; Arts and Culture; and Health and Wellness. Led by a facilitator for each sector, participants were asked to respond to a number of questions

specific to each sector, designed to elicit the most useful types of feedback for the BOA scope.

Report-back and networking time was also an important aspect of this meeting. Several participants cited valuable opportunities to interact with others outside their usual sectors. In particular, arts and culture representatives were able to make connections within the business community to explore possible pairings between arts programs and available venues that could enliven the BOA area's business districts and generate pedestrian traffic. Following this meeting, opportunities were offered for participants (or interested parties who were unable to attend the meeting) to submit comments through email to Northfield Community LDC, which posted meeting presentation materials and a comment link on its dedicated BOA web page.

Community Meeting 2 Staten Island Community Board 1 Area Committee (February 20, 2018)

The second Port Richmond BOA community meeting was held as a pre-meeting open house with presentation boards at the Community Board 1 Area Committee meeting, followed by a slide presentation and discussion during the meeting. The decision was made to leverage the Area Committee's longstanding role as a community sounding board, since the committee's stated duties include establishing relationships with community groups and maintaining an awareness of the needs, desires, and challenges facing community residents and businesses. The Area Committee is also charged with holding public hearings and recommending Community Board actions on a variety of topics relevant to the BOA, offering a synergistic opportunity to both learn from the committee's collective insights and forge relationships that could assist in advancing future BOA priorities.

The presentation content focused on briefing the Area Committee on the BOA process and schedule; discussing the subdistrict framework; and offering an overview of the proposed strategic sites. The open house presentation boards provided additional details through profiles for each of the six strategic sites, along with summaries of community goals for each subdistrict.

Feedback gathered at this meeting was particularly valuable for understanding how the strategic sites function within the community, with many comments focusing on tensions generated by commercial uses that generate heavy traffic within adjacent residential neighborhoods.

Community Meeting 3 Staten Island Community Board 1 Area Committee (September 17, 2018)

The third and final community meeting for the Port Richmond-Mariners Harbor BOA Step 2 process was again held in partnership with the Community Board 1 Area Committee. As with the second community meeting, Northfield Community LDC and the consultant team held an open house before the regularly scheduled Area Committee meeting, where Committee members, community residents, and other invited participants viewed presentation boards detailing proposed redevelopment scenarios for the six strategic sites. The consultant team also presented the proposed recommendations of the BOA study to solicit feedback for incorporation within the final Revitalization Plan.

In addition to Steering Committee and Community Meetings, Northfield Community LDC and the consultant team held bi-weekly conference calls for the duration of the BOA project to coordinate and discuss feedback gained through the study's stakeholder meetings, teleconferences, and other outreach initiatives.

II. TECHNIQUES TO ENLIST PARTNERS

During the BOA study, the project sponsor and consultant team have used a variety of consultation methods to identify and inform project partners about the plan's progress and to enlist their assistance in the BOA process. In addition to bringing together a robust Steering Committee and hosting three community outreach meetings, other methods have included an array of small stakeholder meetings held either in person or through conference calls. These outreach activities have been supplemented with numerous individual phone conversations and written correspondence.

To solicit additional feedback over the course of the BOA process, Northfield Community LDC maintained a section of its website devoted to the BOA Step 2 study, providing periodic updates on the process and posting presentation materials for public review. Visitors to the site were also invited to send email comments to the project sponsor for review by the BOA team, and were kept up to date on project activities through email announcements and social media posts.

STAKEHOLDER MEETINGS

More than two dozen stakeholder meetings conducted during the BOA Step 2 process have engaged smaller groups of diverse constituents within the study area, as well as potential partners from outside the BOA area communities. Examples of these stakeholder engagements include:

Local Businesses

Northfield Community LDC and the consultant team held a walking tour of the BOA study area in fall 2017, with in-person outreach to strategic local businesses on Richmond Terrace. Extensive outreach by the project sponsor and team was also made to Port Richmond Avenue merchants—including in-person visits to businesses and personal invitations to merchants' meetings—as well as to businesses along other BOA commercial corridors such as Richmond Terrace and Granite Avenue.

Health Care and Community Services Providers

Multiple meetings and telephone calls with a prominent local healthcare and community services provider, Beacon Christian Community Health Center, were conducted to brief the project team on how the BOA process could potentially advance this health center's desire to expand within the study area, possibly to one of the proposed strategic sites. These meetings informed the BOA team's awareness of community health needs within the study area, and how those could be served through the redevelopment of vacant properties.



Fig. 19: BOA Team Walking Tour at Richmond Terrace

Economic Development, Business, and Industry Organizations

Conference calls and other outreach efforts were made to knowledgeable leaders in the maritime and industrial sectors, particularly regarding the complexities of waterfront development, maritime industry needs, and regulatory issues concerning waterfront properties within the BOA area. In addition, conference calls with local economic development and commerce organizations provided insight into how the BOA process could potentially support the study area's broader business community.

Real-Estate Developers

Extensive email and telephone outreach to local developers (for both housing and commercial properties) was made to provide background on rental rates, construction costs, and the local real-estate market, while also serving to build relationships between the project sponsor and developers who may be interested in the project area. Outreach to developers on Staten Island's West Shore was also made to discuss common goals between the two adjacent industrial and commercial hubs, which include the need



Fig. 20: Clockwise from Top Left: Steering Committee Meeting; Consultation with Business Operator U-Haul; Visit to Star Supply in Mariners Harbor; Harbor School Tour

for greater transportation access and public transit improvements that could better serve workers, residents, and visitors.

Property Owners

Multiple meetings and conference calls with property owners within the BOA area were made to facilitate outreach to and identification of owners of vacant, abandoned, underutilized, and brownfield sites. These highly valuable consultations included owners with interests in key waterfront properties along Richmond Terrace. Northfield Community LDC also reached or attempted to reach property owners for the six strategic sites, in addition to numerous other owners of distressed properties within the study area.

Public Entities

The project team's outreach to public agencies included meeting at the Staten Island Borough President's office to discuss the BOA scope and progress, ascertain the office's priorities for the study area, and explore important transportation issues. The BOA team also developed synergies with the New York City Department of Parks and Recreation, which is completing the Mariners Marsh Park and Arlington Marsh Master Plan. Coordination has included attending one another's meetings for briefings on the respective projects, as well as the expansion of the BOA study area boundary to include Mariners Marsh Park and Arlington Marsh so as to provide potential support for waterfront, natural resource, and public space enhancements at the western edge of the BOA area.

Education and Workforce Development Leaders

To build relationships among providers of maritime education and the BOA study area's maritime business community, the project sponsor and consultant team conducted a number of stakeholder outreach activities, including a tour of the Harbor School on Governors Island, which is New York City's major provider of secondary maritime education and a potential model for career and technical education within the Port Richmond and Mariners Harbor communities.

Outreach to college-level education and workforce development leaders was also made to discuss maritime trades and other employment opportunities that could provide quality jobs with higher salary potential to BOA area residents who may not have a college degree. Finally, the project team convened an interdisciplinary stakeholder meeting to bring together educational and workforce development leaders with maritime industry employers to explore demand and potential synergies for maritime-oriented workforce training.

Immigrant Communities

Northfield Community LDC and the consultant team sought to engage the BOA study area's recent immigrant community through a presentation and Q&A (with Spanish translation) at one of the study area's major immigrant services providers. In addition, the BOA team held meetings and conducted outreach with other organizations serving the district's immigrant groups to explore the needs and aspirations of this critical group of residents and business owners.

Through the multiple channels and outreach activities described above, the project team has made extensive efforts to enlist as partners a diverse cross-section of stakeholders, residents, and community leaders within the BOA study area and beyond. This process has vastly enriched the team's understanding of the complex challenges facing the Port Richmond and Mariners Harbor communities. In passionate and powerful voices, community residents and stakeholders have offered inspiration that the BOA initiative can play a meaningful role in activating positive neighborhood change.

SECTION 3

EXISTING CONDITIONS ANALYSIS

I. OVERVIEW

The Port Richmond-Mariners Harbor Brownfield Opportunity Area comprises a unique urban fabric featuring historic assets dating to the American Revolution, diverse immigrant cultures, and critical natural resources along the Kill Van Kull waterway. This area is also strongly shaped by scores of underutilized sites awaiting social and economic renewal. These often blighted properties are a direct link to the area’s heritage as a manufacturing stronghold, when Staten Island was home to powerhouses like Proctor & Gamble, whose Port Ivory factory adjacent to the BOA study area was named for the company’s Ivory Soap, and Bethlehem Steel, which sent destroyers to World War Two from its Port Richmond shipyard. Today, vacant sites across the BOA area call for fresh ways of thinking about equitable development, public space activation, and new neighborhood anchors.

The following analysis of existing conditions in the BOA area documents a once vibrant center that has suffered decades of disinvestment. Key challenges include few housing options affordable to low- and middle-income residents, poor public transit service, a lack of access to open space, and alarming

community health indicators. At the same time, Port Richmond and Mariners Harbor are poised in important respects for catalytic renewal fueled by the area’s maritime heritage and waterfront access.

Vacant BOA sites call for fresh thinking about equitable development, public space activation, and new neighborhood anchors.

This exploration of the neighborhood’s unmatched assets and its vulnerabilities has informed the BOA process and community-supported visions, detailed in Section 4, to spark area-wide revitalization.

II. COMMUNITY AND REGIONAL SETTING

The BOA study area is part of the New York metropolitan region, the largest in North America with a population of 20.3 million. This globally important center of commerce and culture includes New York City’s five boroughs as well as Long Island, New Jersey’s

five largest cities, and population clusters in Connecticut and Pennsylvania. The BOA area's proximity to the immense economic resources and cultural riches across this regional tapestry offers key opportunities to advance community-led redevelopment.

The borough of Staten Island, where the BOA area is located, lies at a regional crossroads. On the southwestern edge of New York City, five miles by water from Lower Manhattan, the borough of nearly 480,000 residents is isolated from the metropolitan core yet provides strategic connections. Linked to Brooklyn on the east by the Verrazano-Narrows Bridge, and to New Jersey on the north, west, and south through the Bayonne and Goethals bridges and the Outerbridge Crossing, Staten Island serves as a gateway to New York City. Nearby nodes such as the Port Newark–Elizabeth Marine Terminal and Newark Liberty International Airport, along with port infrastructure in Brooklyn and elsewhere in New York Harbor, make Staten Island ideally situated to serve the region and link it with the world.

Yet Staten Island's bridge connections—all reliant on ever more congested automobile traffic—represent challenges as the borough seeks to sustain a growing population. With long commutes by express bus to job centers in Manhattan or Brooklyn, the island is poorly served by public transportation. While the Staten Island Ferry, a 25-minute ride to Manhattan, is a welcome exception, access to the St. George ferry terminal is often difficult for those without a car. Poor transit connections have reinforced Staten Island's distinction as the least-populated borough, with a density less than half that of Queens and one-eighth that of Manhattan. Population growth has been further restrained by a limited pool of high-quality jobs and land-use patterns dominated by single- and two-family housing.

In this geographic context, the BOA area possesses key advantages that offer revitalization opportunities. The area is located on the western end of the larger North Shore region, which is Staten Island's most significant center of employment, industrial uses, and multifamily housing, as well as the most densely populated part of the island. Because of its location along the active Kill Van Kull waterway separating Staten Island from New Jersey, the area has long been home to shipbuilding,

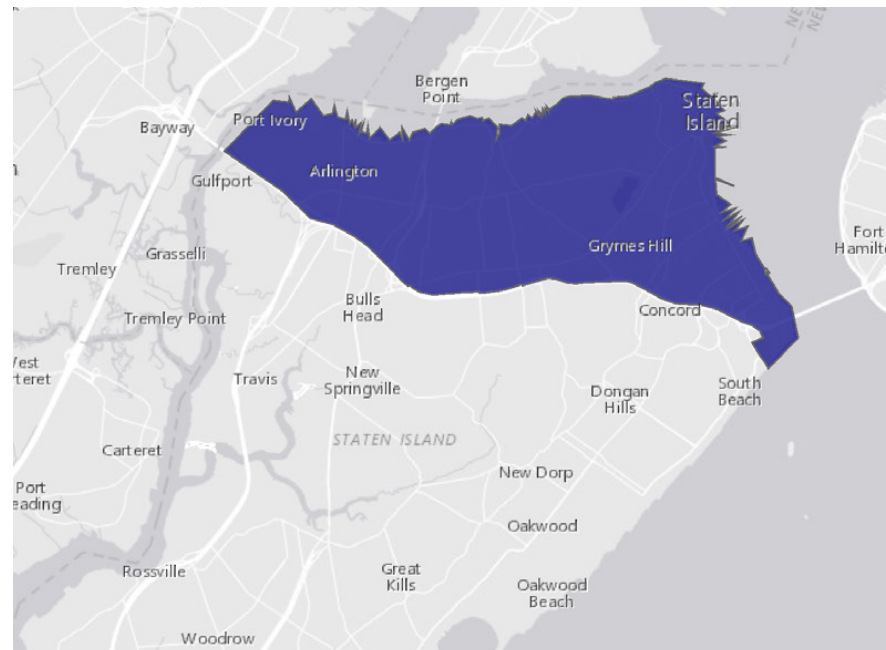


Fig. 21: The North Shore Region

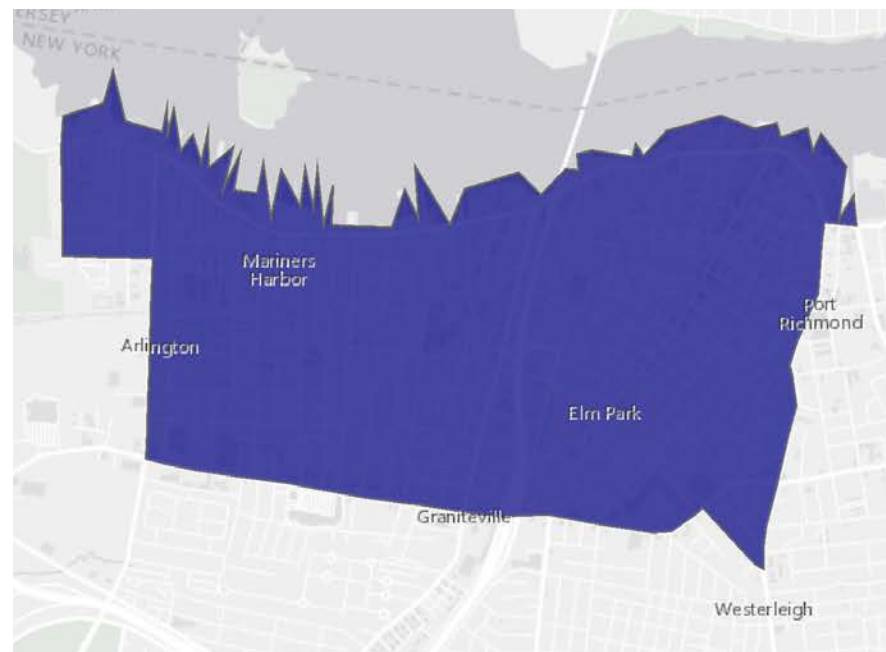


Fig. 22: U.S. Census Block Groups Analyzed for the BOA Study Area

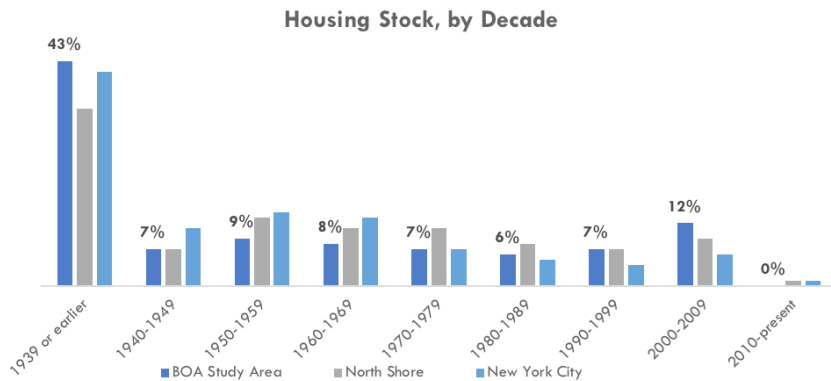
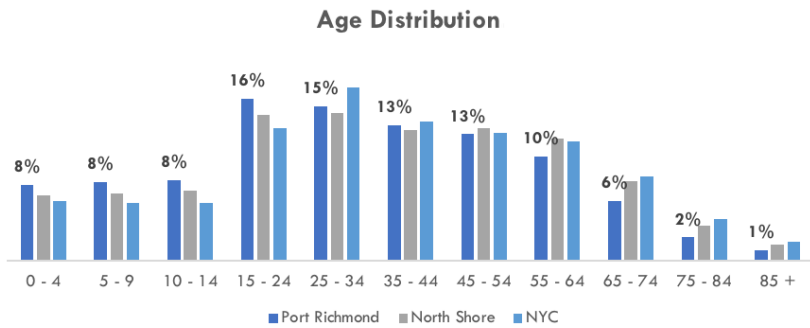
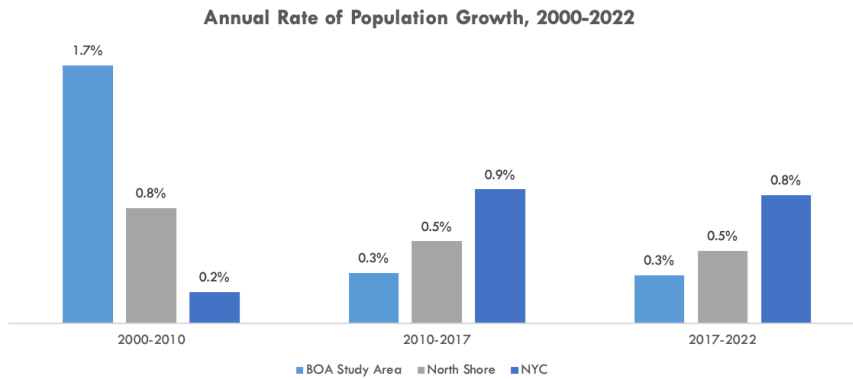


Fig. 23: Demographic and Housing Statistics (Source: ESRI Business Analyst, 2017)

maritime transport, and related businesses. By the turn of the twentieth century, this concentration supported a thriving shopping destination on Port Richmond Avenue, which ranked among the region’s premier commercial corridors. While it has lost its status as a commercial center, today the avenue retains a lively cluster of ethnic restaurants, food purveyors, and related businesses that reflect both the borough’s Italian heritage and its newer immigrant arrivals. With their animated street frontage, these establishments foster a sense of community spirit and reflect the BOA area’s distinctive cultural character.

Within the North Shore, the study area includes portions of census tracts 207, 213, 247, 223, 231, 239, 319.02, and 323. To allow for demographic and market data to be collected for the discontinuous BOA boundary, the area included in this analysis encompasses U.S. Census block groups that overlap with study area boundaries (Figure 22). Data for the broader North Shore region, generally coterminous with Staten Island Community District 1, has been consulted where more granular data is not available. Additional data, detailed by submarket, is presented in the Economic and Market Trends section of this report. Unless otherwise indicated, all figures in this section are sourced from ESRI Business Analyst.

Port Richmond and Mariners Harbor are among Staten Island’s most diverse and dynamic communities.

The BOA area is a historic community of almost 36,000 residents, and encompasses portions of the Port Richmond, Elm Park, Arlington, and Mariners Harbor neighborhoods. The study area represents almost 20% of the North Shore’s population, and 7% of the borough’s total population. The population of the North Shore has been relatively stable since 2010, with an annual growth rate of 0.5%. The BOA area’s population has grown slightly more slowly, with an annual growth rate of 0.3% since 2010.

The study area leads Staten Island in cultural and ethnic diversity. This area is predominantly Hispanic (37%) and Black (28%), but also has a large share of White residents as well (25%). A quarter of all residents are foreign-born, on par with the North Shore (26%) and slightly below New York City (37%). While the

majority (72%) of foreign-born residents are from Central or South America, nearly a quarter are from Asian countries.

Like the rest of Staten Island, the study area is a place where young families have formed and lived for successive generations. The North Shore has one of the highest concentrations of children in the city. Forty-two percent of study area households include at least one child under 18 (compared to 18% citywide). On average, residents of the BOA area are younger than New York City or the North Shore. However, as Baby Boomers age, the share of population aged 65 and older is growing. Between 2006 and 2016, Staten Island's senior share grew by 3.6%, the highest of any city borough.¹ Notable population gains have also been seen in the 25 to 34 age group, with 480 new residents in the BOA area, representing a 9.5% increase for the cohort.

A large number of low-income residents live within the BOA study area.

Median household income within the area is \$54,000, lower than the North Shore (\$63,400) and slightly lower than that of New York City (\$55,300). The BOA area's unemployment rate is 4.2%, roughly in line with the North Shore and below the citywide rate of 5.4%. However, there is a large concentration (21%) of households in the area earning incomes less than \$15,000, compared to 17% for the North Shore, and 16% for the City. This concentration presents challenges for the provision of neighborhood services, especially housing accessible to low- and very-low-income families. Moreover, 44% of BOA area residents are not in the labor force, compared with 36% for the New York metropolitan area, indicating a considerable share of the population is neither working nor looking for work.²

Educational attainment for BOA area residents has remained below that of the North Shore, with approximately one-fifth of the population earning a bachelor's degree or higher compared

¹ NYU Furman Center, *State of New York City's Housing and Neighborhoods in 2017*

² 2016 American Community Survey; U.S. Census Bureau. Persons who are neither employed nor unemployed are considered "not in the labor force." This category includes retired persons, students, those taking care of children or other family members, and others who are neither working nor seeking work.



Fig. 24: Single-Family Housing on Port Richmond Avenue

to the North Shore (30%) and New York City (37%). The relative lack of education has limited opportunities for BOA area residents seeking quality jobs in many of the city's dominant employment sectors. Consequently, residents are in particular need of career, vocational, and technical education initiatives tailored to jobs that are accessible within the commercial and industrial centers of Port Richmond and Mariners Harbor.

Residential fabric is dominated by single- and two-family homes.

There are approximately 1,215 homes within the study area. The typology of these units largely reflects the North Shore and Staten Island's zoning, which favors low- to medium-density residential development. Housing is dispersed throughout the study area, including neighborhoods abutting concentrations of commercial and industrial properties. The housing stock is primarily composed of single-family homes more typical of suburban residential patterns, as well as two-family homes. However, other typologies exist, including low-rise, garden-style apartments and several New York City Housing Authority properties.

Staten Island has the highest homeownership rate in the city, about 70% island-wide.³ This prevalence of owner-occupied housing is reflected in the BOA area, although with somewhat lower homeownership rates. Within the area, 43% of residents own their homes and 49% rent (compared with 46% for both owning and renting in the North Shore). The area's homeownership rate still significantly outpaces New York City as a whole, which has a rate of 28%.

The median age of the housing stock is 66 years, which is older than the North Shore (59 years), and trails slightly behind New York City (67 years). The median home value in the area is \$358,000, compared to \$399,000 in the North Shore and \$551,000 in New York City. The median rent is \$900, compared to \$996 in the North Shore and \$1,144 in New York City.

The BOA area's commercial and industrial zones represent significant opportunity for the region.

In addition to residential uses, designated commercial and industrial zones define Richmond Terrace and parts of the inland BOA areas, presenting opportunities for denser, more community-enhancing development, as well as quality employment options. In total, the BOA study area includes more than 1.1 million square feet of industrial space, representing 19.4% of the industrial space on Staten Island.⁴ However, this space tends to be outmoded, leading to significant industrial vacancy and industrial uses that are not job intensive. The vacancy rate suggests that newer, more flexible industrial spaces, better suited to accommodate a range of contemporary uses, are needed within the BOA area.

**Among its maritime assets,
Mariners Harbor is home to the
most significant “tug alley”
on the East Coast.**

Notable manufacturing zones are located along Richmond Terrace, which remains home to a concentration of both industrial

activities and vacant properties. These present considerable opportunities for the district, which has seen job growth among its industrial sectors and possesses key maritime assets. For example, the area contains the most significant “tug alley” on the Eastern seaboard, part of a maritime services sector that is integral to the region's shipping, port, logistics, and freight operations. These industrial districts are served by a retail inventory including Port Richmond Avenue's historic neighborhood shopping district, big-box retail along the southern border of the BOA study area, and smaller neighborhood uses along Richmond Terrace. Section 4 specifically explores the role that these industrial and commercial assets could play in brownfield redevelopment that advances community priorities.

III. INVENTORY AND ANALYSIS

EXISTING LAND USE AND ZONING

The BOA study area spans 480 acres, with the majority of land zoned M3-1 for heavy industrial uses. Across the area, the top land uses by square footage are industrial and manufacturing (3,131,724 square feet) transportation and utility (1,695,090 square feet), and vacant land (1,396,772 square feet). These uses directly abut low-density residential and commercial districts. Ship-repair yards, scrap-metal recyclers, auto-body shops, and tug operators work within yards of single-family homes and small retail stores. Against the backdrop of vast, ocean-going vessels transiting the Kill Van Kull, this juxtaposition of maritime industry and community life has given Port Richmond and Mariners Harbor their unique and enduring identity.

Yet this proximity is also cause for conflict: congested truck traffic, environmental pollutants, noise, and other impacts are a source of constant concern for neighbors. The residential districts that once housed thousands of shipyard and factory workers across Richmond Terrace or Davidson Street are now home to diverse new residents with little connection to the North Shore's maritime past. An analysis of the BOA area's existing land use shows that this defining mix of uses, if sensitively reimagined to serve community well-being, may hold the key to the area's renewal as a vibrant, live-work neighborhood.

³ NYU Furman Center, 2017
⁴ CoStar, 2017

Land Uses by Tax Lot (Pluto 2017)

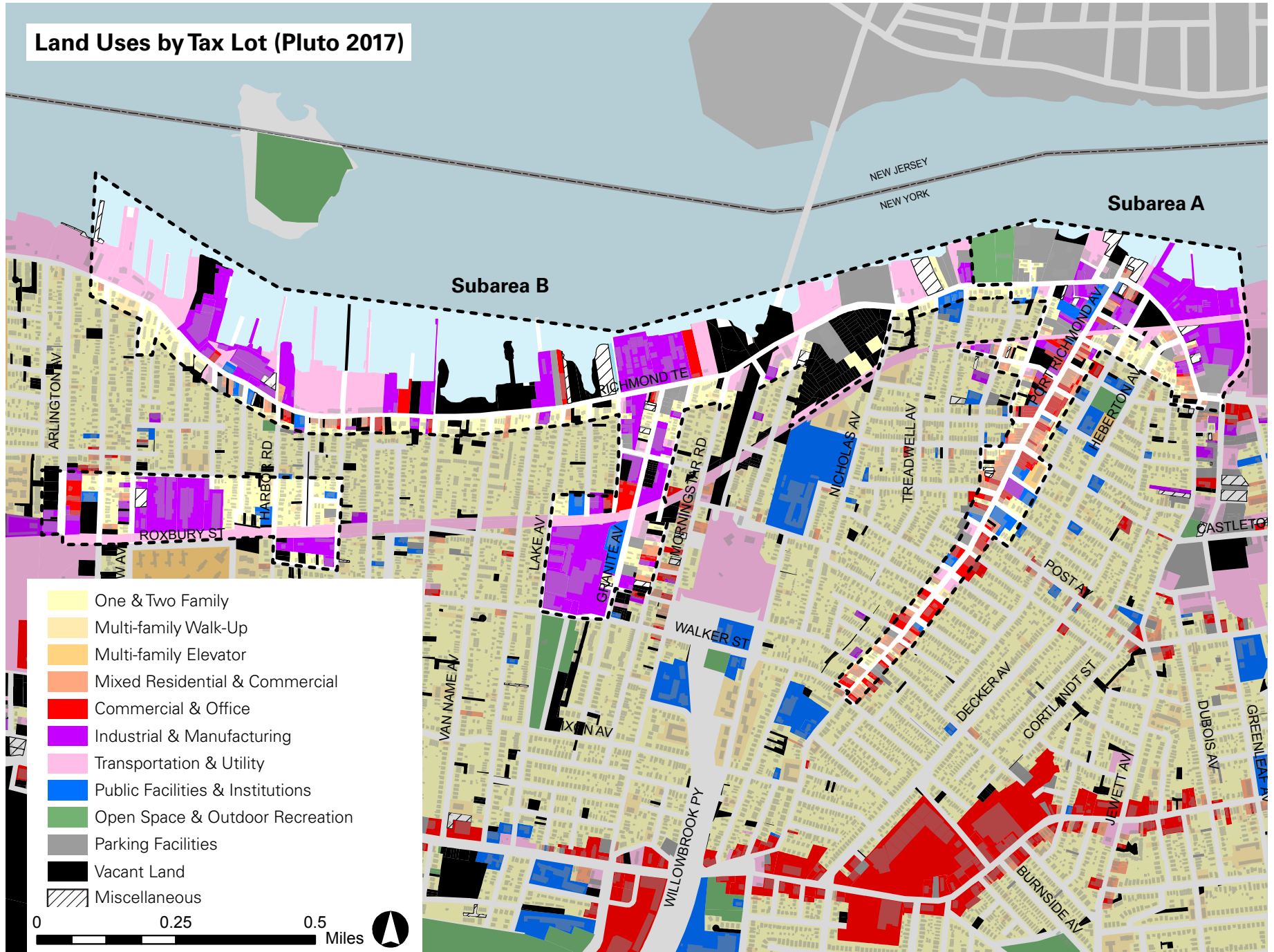


Fig. 25: Map of BOA Area Land Uses by Tax Lot (Source: Pluto, 2017)



Fig. 26: Clockwise from Top Left: Automotive Use on Port Richmond Avenue; Ralph's Italian Ices; North Shore Railroad Viaduct; the Retail Corridor

Port Richmond Avenue remains an anchor commercial corridor.

Port Richmond Avenue is the BOA study area's primary retail corridor, zoned for medium-density commercial uses. Much of the avenue, from Richmond Terrace south to Post Avenue, is within a C4-2 district intended for regional commercial centers. This zoning district, which dates to New York City's 1961 zoning resolution, permits a range of commercial, community facility, and residential uses, with a requirement that the retail street frontage be maintained to reinforce the sense of a walkable, neighborhood "main street." Most of the buildings along the corridor are mixed-use with two and three stories, comprised of a commercial ground-floor with residential units above. Many of these structures retain historic architectural details that contribute to the avenue's sense of place and authenticity. Most of the buildings on the corridor were constructed prior to the C4-2 designation, which permits considerably higher densities with heights of up to six stories. Parking requirements and other factors have discouraged redevelopment, however, leaving few practical options to take advantage of available floor area.

As Port Richmond Avenue declined from its heyday as a destination shopping district in the early twentieth century, its character has evolved. Today the avenue's retail landscape is typified by discount and variety stores, delis, pharmacies, and beauty parlors, with rare institutional anchors such as the Port Richmond Station Post Office or the Reformed Church on Staten Island. Vacancies are common, with more than 40 vacant or underutilized sites out of a total of 228 properties, creating pockets of blight that interrupt the retail frontage.⁵ Other challenges to a more successfully connected district include the North Shore Railroad viaduct, which creates a visual and physical barrier between the commercial district and the waterfront. The opportunity to re-purpose this infrastructure for use as a Bus Rapid Transit corridor, or as a public space that could support local business activity, is discussed further in Section 4.

Near the southern end of the BOA study area, a section of Port Richmond Avenue between Post and Rainbow Avenues carries

⁵ Northfield Community LDC / NYC Department of Small Business Services Business Attraction & Property Database, 2017

a C8-1 designation, which is zoned for both commercial and manufacturing uses. Here, a cluster of businesses set back from the avenue, including a car wash, gas station, and strip malls, interrupt the retail frontage and discourage pedestrian activity. Further to the south is a section of R3-2 zoning with a commercial overlay. This area features low-density residential and small multifamily buildings intermixed with businesses mainly accessed by car. With poor pedestrian infrastructure, the area offers little sense of street life that defines the northern end of the corridor.

Port Richmond Avenue retains a sense of energy and appeal owing to its lively ethnic restaurants and related businesses.

Despite these challenges, the district as a whole retains a sense of energy and appeal largely owing to its concentration of restaurants and ethnic markets. This economic and cultural cluster is anchored on the southern end of the study area by two Staten Island establishments rooted in the borough's Italian heritage: Denino's Pizzeria and Tavern, opened in 1937 and one of the island's destination Italian restaurants; and Ralph's Famous Italian Ices and Ice Cream, established in 1949 by immigrant Ralph Silvestro. The northern end of the corridor features a vibrant mix of Mexican restaurants and other immigrant-owned businesses. In addition to its restaurants, a cluster of furniture dealers and related home furnishing stores can be found in this area, recalling Port Richmond's past as a regional retail center. These two business clusters offer the potential to be cultivated as destination sectors that could underpin the area's commercial revival.

The BOA area would benefit from a more diverse housing and business mix.

Across the BOA study area, residential development has overwhelmingly focused on single- or two-family homes, with limited small multifamily buildings. Residential districts along the south side of Richmond Terrace and bordering the study area are largely zoned as R3A, permitting low-density, one- and two-family housing, or R3-2, which includes small multifamily apartment

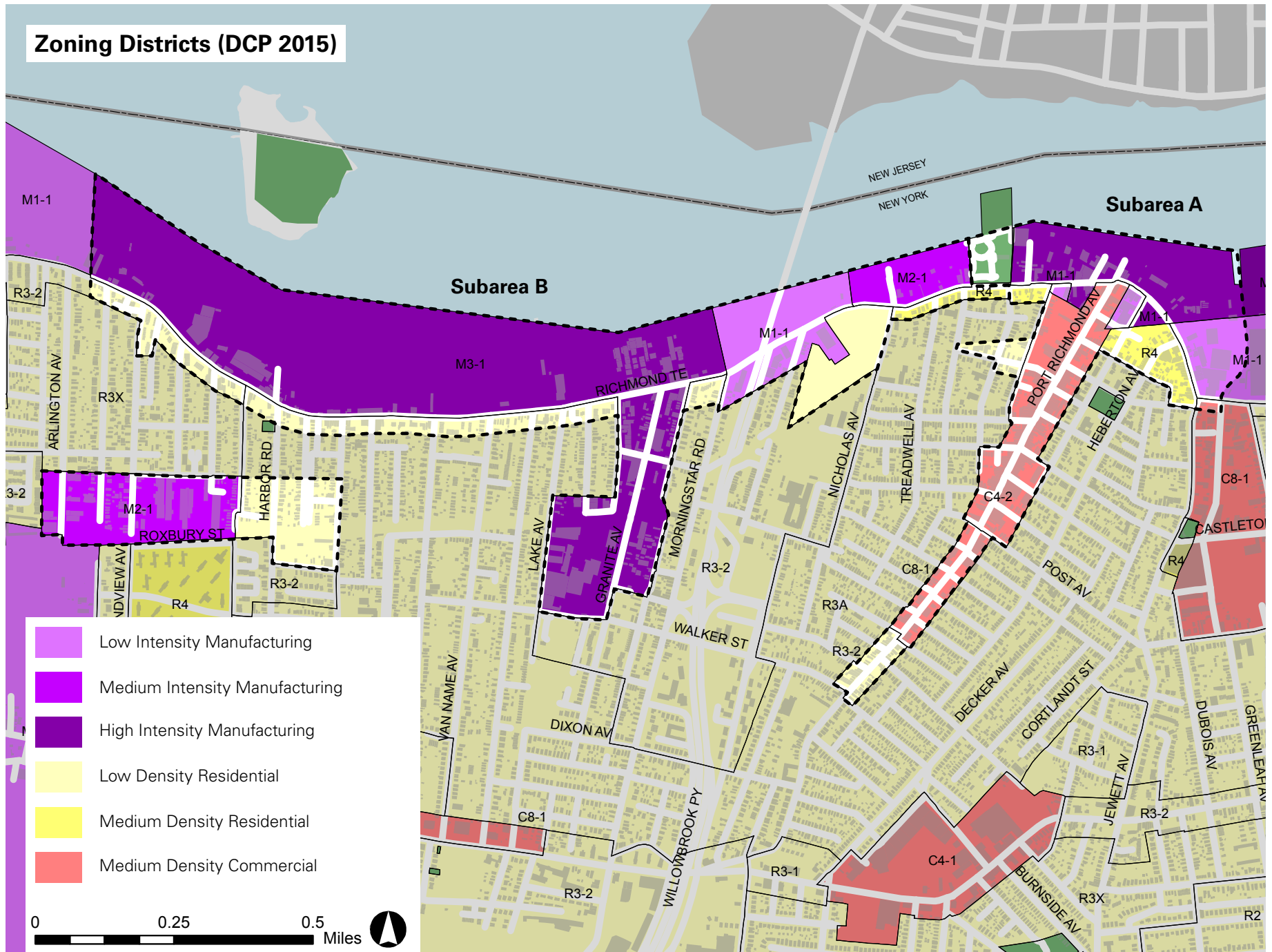


Fig. 27: Map of BOA Area Zoning Districts (Source: DCP, 2015)



Fig. 28: Attached Residences Within the BOA Area's R3-2 District

houses along with one- and two-family homes. Districts in the study area that allow for residential use are in a Lower Density Growth Management Area, which requires new low-density residential developments to provide additional off-street parking, larger yards, and more open space than would typically be necessary. These requirements are intended to address areas with rapid growth and high car ownership.

With much development focused on low-density housing, and very few multifamily units available, an opportunity exists to develop multifamily housing that can accommodate additional residential density and more residents with a range of incomes. For example, many single-family homes within the area have been subdivided into multiple rental units. While creating affordable dwellings for single occupants or young families, particularly newer immigrants, this practice has prompted concern that such units may pose safety hazards due to overcrowding and potential building code violations. A broader mix of housing types, including

affordable multifamily developments close to transit connections, would better serve the BOA area's diverse population.

To achieve its potential, the BOA study area would also benefit from a broader array of businesses that would help restore its neighborhoods as walkable centers with vibrant concentrations of activity and services. While the area's dominant cluster of ethnic restaurants and food purveyors is considered a community asset, there remains a need for additional service-oriented businesses such as banks, daycare providers, and hardware stores to fulfill a broader range of community needs.

In addition, there is widespread concern that the commercial corridor contains a relatively large number of not-for-profit organizations and social service providers. Particular focus has been directed toward the abundance of supportive housing, homeless services, and related uses. These include a 36-unit, single-room-occupancy facility at the corner of Richmond Terrace and Port Richmond Avenue; a residential treatment facility at Heberton Avenue and Albion Place; and an agency serving adults with mental illness on Castleton Avenue, east of the BOA area. While services that support community health and well-being are important for any neighborhood, and especially for a socially and economically diverse district such as the BOA area, community members have called for a more balanced retail and housing mix that includes the development of affordable and market-rate units.

This view crystallized during debate over two proposed hotels—one at 109 Port Richmond Avenue and the second at 35 Port Richmond Avenue—which community members believe could be converted into accommodations for homeless individuals. Nearly all residents agree that New York City has a duty to provide shelter, aid, and support for the homeless. But growing concern has focused on the inhumane treatment of homeless families who are placed in cluster housing and hotel-to-shelter conversions. Local political representatives and community members have advocated for more holistic efforts to assist homeless families, focusing on prevention, re-housing, and planning. Such approaches would reinforce community stability and contribute to the revitalization of a more diverse Port Richmond corridor that serves a broader cross-section of residents and visitors.

The Kill Van Kull's industrial waterfront is a regional asset.

The properties along Richmond Terrace that front on the Kill Van Kull are largely zoned M3-1, permitting high-intensity manufacturing. Small sections of M1-1 zoning exist near the Bayonne Bridge and in the area east of Port Richmond Avenue, typically including light industrial uses, repair shops, and storage facilities. These manufacturing districts, spanning two miles from Jewett Avenue to South Avenue, contain the heart of the maritime industry that defines the BOA area waterfront.

This industrial hub, a regionally important asset, is protected by several special land-use districts. First is the North Shore Industrial Business Zone, which includes most properties along Richmond Terrace extending from the western border of Faber Park to Holland Avenue, at the far western end of the study area. This zone is one of 16 created in 2006 by New York City to foster industrial-sector growth. The zones are supported by tax credits for relocating within them, zone-specific planning efforts, and certain business assistance. City officials have stated that they would not support the rezoning of these areas for residential use.



Fig. 29: Maritime Industry on Richmond Terrace

The waterfront's second special designation is as a Significant Maritime and Industrial Area. The Kill Van Kull waterfront is designated as one of New York City's seven such areas, designated to help preserve and foster working waterfront activities. The Kill Van Kull area contains approximately 665 acres and encompasses substantially all of the study area waterfront excepting Faber Park, Mariners Marsh, and Arlington Marsh. Policies for such areas are intended to support maritime and industrial uses as well as provide infrastructure improvements that enhance the working waterfront.

Lastly, much of the BOA area waterfront is designated as a Priority Marine Activity Zone. This designation applies to areas with a concentration of water-dependent activity or sites that are key nodes in the waterborne transportation network. A designation of the NYC Waterfront Revitalization Program, such zones are characterized by shorelines used for vessel docking, berthing, or tie-up, and where the maritime infrastructure, such as bulkheads, docks, piers, and fendering, is designed to support such uses. The zones are intended to prioritize the design of shoreline structures that accommodate water-dependent uses.





Fig. 30: Richmond Terrace Radiological Site

BROWNFIELD, ABANDONED, AND VACANT SITES

The BOA area contains an abundance of underutilized and brownfield properties.

The predominance of heavy manufacturing and industrial facilities on the North Shore since at least the 19th century has left the BOA area with a legacy of brownfield sites that have confirmed environmental contamination. To identify the key contaminated, vacant, and abandoned sites in the study area, the BOA team reviewed data sources documenting potential contaminants including sites within NYSDEC's databases of Spill Incidents, Petroleum Bulk Storage, and Chemical Bulk Storage sites. The team also reviewed sites within the New York State Superfund,

Brownfield Cleanup, Environmental Restoration, Voluntary Cleanup, and Hazardous Waste Disposal programs, as well as other local, state, and federal data sources. This research was supplemented by a BOA team walking tour to identify potential brownfield and strategic sites across the study area.

This review resulted in 86 site addresses with brownfields, which are detailed in the Appendix. Some addresses had multiple types of contamination listed. These include sites that have long been a source of community concern over unaddressed health hazards. For example, the Richmond Terrace Radiological Site, adjacent to the Bayonne Bridge, is known for being the site of an Archer Daniels Midland Company warehouse that received raw uranium ore destined for the United States government's atomic weapons

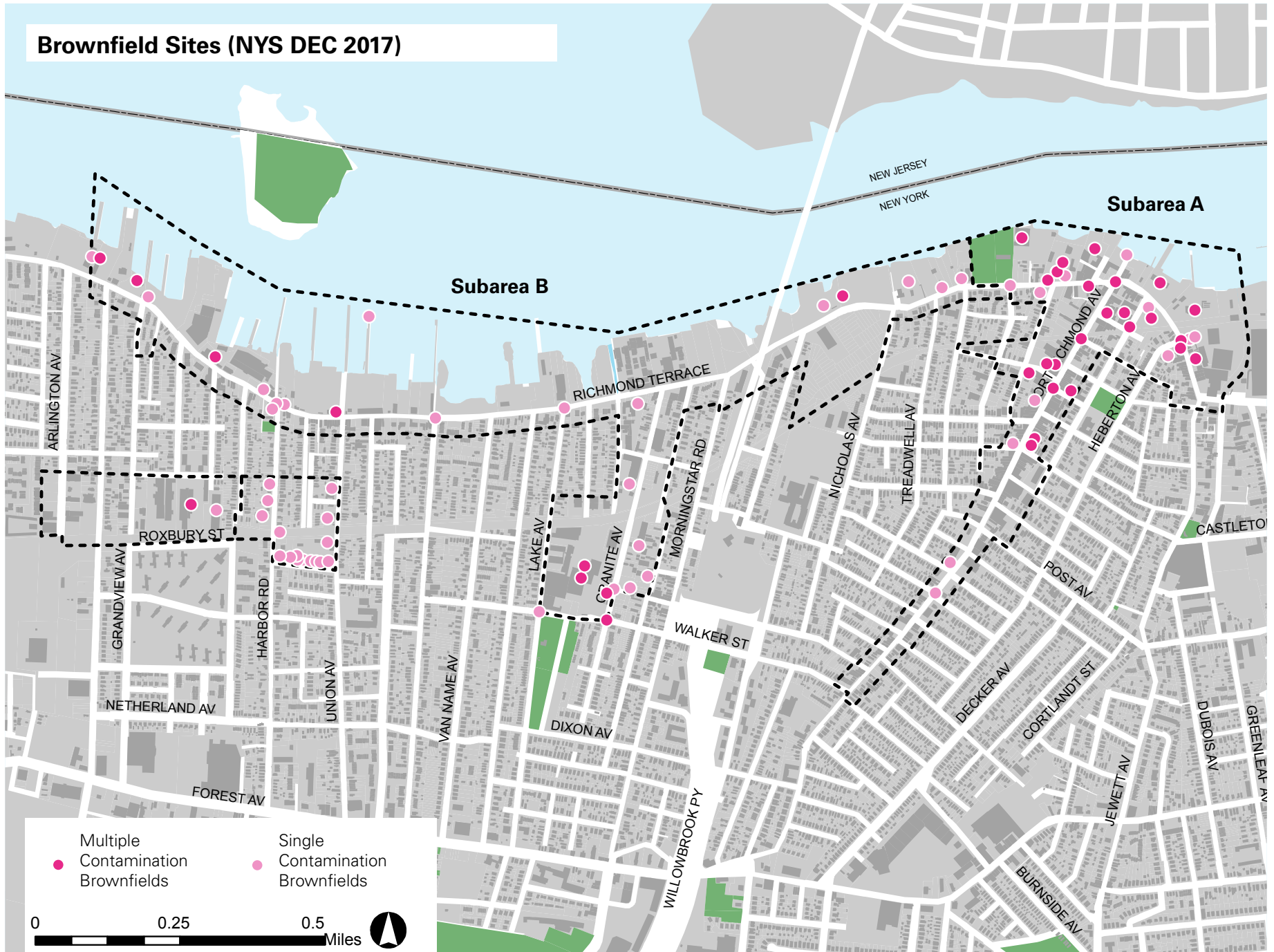


Fig. 31: Map of Brownfield Sites Within the BOA Area (Source: NYS DEC, 2017)

program. The site has tested positive for radiation contamination in surface soil, with one survey reading over 160 times the normal background level. The site is documented through the U.S. Environmental Protection Agency’s Superfund program, but no cleanup action has been initiated to date.

The close proximity of contaminated sites to residential neighborhoods and public spaces adds additional urgency to the need for remediation, as toxins may pose health risks to residents, and widespread contamination may interfere with future investment in the area. For example, a heavily used park just east of the BOA area, Veterans Park, tested positive for toxins in the soil including arsenic and lead. According to the U.S. EPA, lead found in the park did not originate at the nearby Jewett White Lead site, but is likely derived from the environmental presence of lead-based paint or leaded gasoline. In addition, at Mariners

Marsh Park, at the western boundary of the study area, a variety of contaminants were found including petroleum products, lead, and other hazardous materials dating to the property’s former uses as an ironworks and shipyard.

Candidates for Site Assessment Funding

The BOA team has identified sites with suspected contamination where environmental assessment would support the redevelopment of strategic sites and other properties with catalytic revitalization potential. These candidate sites, summarized in Figure 32, would benefit from further investigation and potential application to and inclusion in the Brownfield Cleanup Program with its associated tax benefits and development incentives. The team’s environmental review of the six strategic sites for this BOA’s Revitalization Plan (described

Site Name	Address	Regulatory Agency Database/ Environmental Concern	Environmental Concern within 400 ft. Buffer
Tug Terror & United Newport Pilots	North End of Port Richmond Ave.	MANIFEST, RCRA NONGEN / NLR	YES
Flag Container Services Inc.	11 Ferry Street	RCRA-CESQG	YES
Standard Boat Company	2037 Richmond Terrace	NY SPILLS	YES
Crown Muffler & Spring Shoppes	2121 Richmond Terrace	EDR HIST AUTO	NO
Edkin’s Auto Sales Inc.	2239 Richmond Terrace	SWF/LF, SPDES	NO
Mardikos Property	3001 Richmond Terrace	FINDS	YES
Sherwin-Williams Co.	41 Port Richmond Avenue	MANIFEST, FINDS, RCRA NONGEN / NLR, ECHO	NO
Lumber Yard	130 Union Avenue	NY SPILLS, E DESIGNATION	YES
Terminal Lumber Yard	140 Union Avenue	NY SPILLS	YES
Lot 70, Tax Block 1226	142 Union Avenue	E DESIGNATION	YES
60 Davidson Street LLC	60 Davidson Street	MANIFEST, RCRA-LQG	NO
Westerleigh Press	351 Walker Street	NY SPILLS	YES
Kitchen’s Gallery	351 Walker Street	FINDS	YES
Staten Island Towing Service	125 Lake Avenue	NY SPILLS	NO

Fig. 32: Table of Candidates for Site Assessment Funding (See Appendix for Database Abbreviations)

in Section 4) indicated documented or potential environmental impacts to soil, groundwater, and soil vapor at all six strategic sites. If designated through the Brownfield Cleanup Program, these sites will be eligible for tax credit allocations that can advance community-supported redevelopment opportunities.

Due to environmental challenges in the area—resulting in an increase in the number of children with elevated lead levels in their blood—the U.S. EPA named the North Shore an Environmental Justice Showcase community in 2009, one of ten such communities in America. The program dedicated \$100,000 to each community to address environmental concerns that affect low-income or minority districts. The program has established a task force to respond to potential environmental concerns related to 21 sites of interest, evaluated children’s potential exposure to pesticides, and supported a local coalition to prioritize environmental and public health concerns. In addition, the U.S. EPA has also leveraged the support of government, business, and community organizations involved in local brownfields redevelopment projects across the study area.

Portions of the study area are within an Environmental Zone (“En-Zone”) designated by the New York State Department of Labor. These zones include census tracts with a poverty rate of 20 percent and an unemployment rate at least 1.25 times the statewide unemployment rate. Within the study area, these zones chiefly encompass sections between Port Richmond Avenue and Morningstar Road, as well as the area west of Harbor Road. Sites within an En-Zone are eligible for additional tax credits through New York State’s Brownfield Cleanup Program.

In addition to sites with documented or suspected contamination, the BOA study area contains a great number of sites that are significantly underutilized. Of 1,313 total tax lots in the study area, 823 are built to less than half of the floor area permitted by zoning—accounting for approximately 85 percent of the study area’s total land. These sites are frequently blighted or contain undesirable uses with negative community impacts.

LAND OWNERSHIP PATTERN

Land ownership throughout the BOA area is largely private.

Of the BOA area tax lots, a majority are in private ownership, with the top private land-owners as follows: MG Richmond LLC (47 lots), 139 Alvin, LLC (38 lots), Ferry Street Enterprises (8 lots), and Richmond Industrial (7 lots). Of publicly owned land, the City of New York owns 37 lots. These include a parcel at the northern end of Port Richmond Avenue that could be instrumental in re-envisioning the BOA area waterfront as a catalytic community destination. This site, under the jurisdiction of the Department of Small Business Services, was the location of a ferry landing in the 19th century. Other city-owned parcels include open spaces such as Faber Park and the wetlands along Richmond Terrace that are part of the future Van Name Van Pelt Plaza. Several city-owned parcels to the east of the wetlands are used for parking. In addition, the North Shore Railroad right-of-way is publicly owned by the New York City Economic Development Corporation. Discussed below, this right-of-way offers extraordinary potential for reactivation as a public asset. New York City also owns a right-of-way along Richmond Terrace, which is mapped at approximately 100 feet wide but exists as a roadway that is typically 50 to 55 feet wide in the study area. This right-of-way is occupied by built properties on the north side of Richmond Terrace, which poses challenges to the use of the mapped width for needed street widening.

New York State owns two parcels east of the Richmond Terrace wetlands, part of a lot assemblage occupied by Great Lakes Dredge & Dock Company. The Port Authority of New York and New Jersey owns two parcels beneath the Bayonne Bridge that have most recently been used in association with construction to elevate the bridge’s roadway. The lots along the Richmond Terrace waterfront tend to be among the largest assemblages of property in the study area. One site currently for sale at Richmond Terrace and Nicholas Avenue is nearly 9 acres. Known as the Edkins Auto Sales site, the property is located near Faber Park—and within an area not suitable for maritime use—giving it potential to advance community priorities such as a waterfront greenway that would help connect community open spaces.

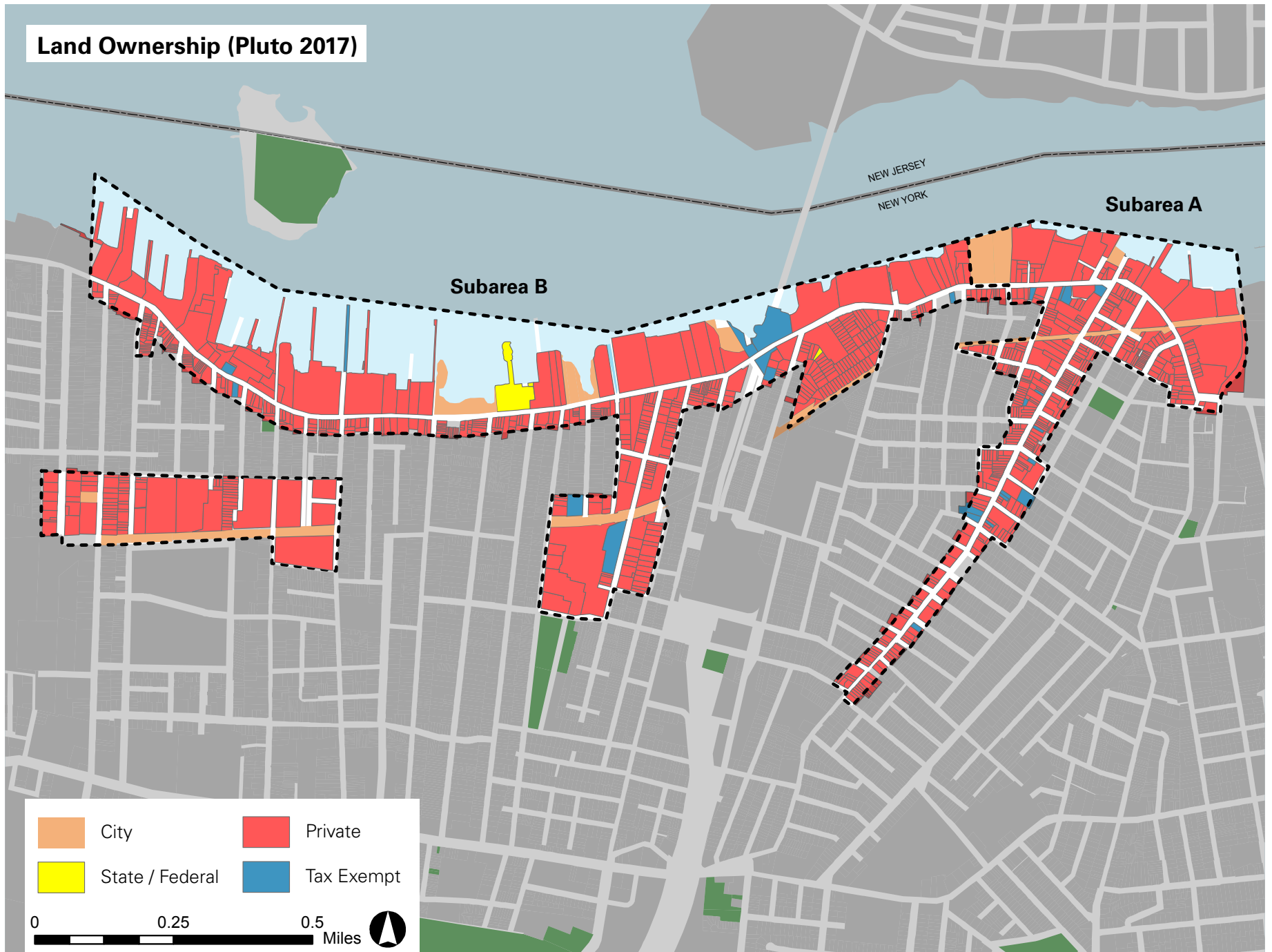
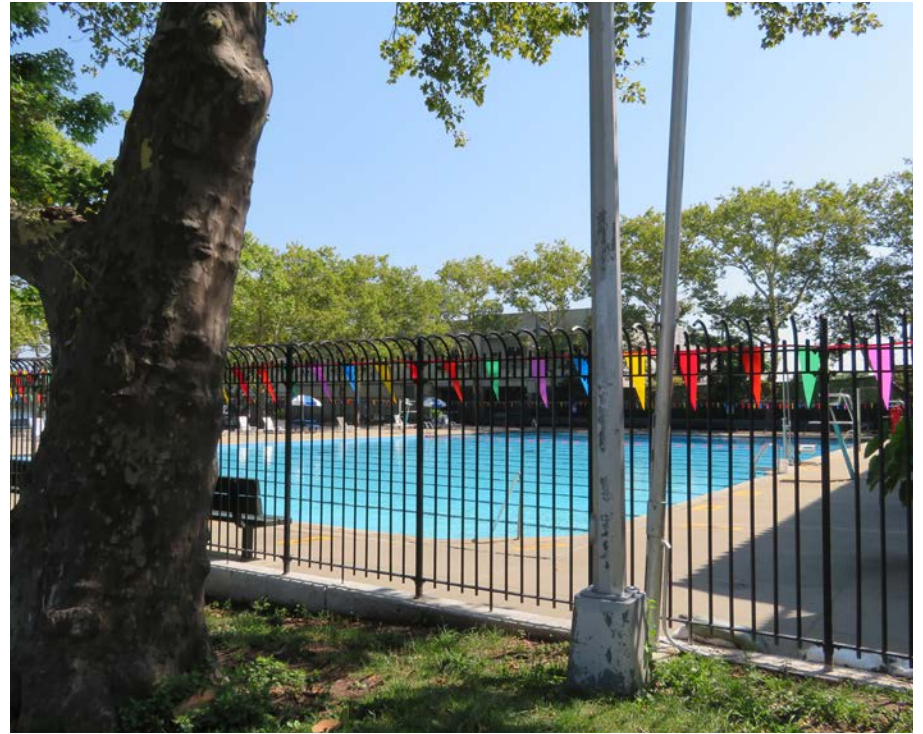


Fig. 33: Map of BOA Area Land Ownership (Source: Pluto, 2017)



Fig. 34: Faber Park and Pool



PARKS AND OPEN SPACE

Port Richmond and Mariners Harbor have few open space amenities. New York City averages 3.5 acres of accessible open space for every 1,000 people. In the BOA study area, there is less than one-third of an acre of park space for every 1,000 people. In certain neighborhoods, such as along Richmond Terrace in Mariners Harbor, there is virtually no public open space. While existing recreational assets are seeing current or planned rehabilitations—such as at Mariners Harbor Playground and Grandview Playground, both outside the study area boundary—new efforts are needed to strengthen these critical community assets. Particularly for a district with a high percentage of children, this lack of park infrastructure has broad consequences for residents’ health and well-being. An analysis of open space initiatives within the BOA area shows that key opportunities exist to enhance and expand access to these important resources.

The BOA community is cut off from its waterfront heritage.

Due to the dense industrial character of the Kill Van Kull waterfront, the BOA community is deeply disconnected from this natural resource. Because the waterfront is largely hidden behind warehouses and opaque fencing, many residents and visitors are not aware the Kill Van Kull and its maritime splendors lie just yards from Richmond Terrace. Faber Park and Pool remains to date the only accessible waterfront park in the entire BOA study area. Located along Richmond Terrace at Faber Street, this 4-acre, WPA-era property includes a waterfront promenade, skate park, and pool—the latter opened in 1932 to offer an alternative to swimming in the polluted Kill Van Kull. Today this popular park offers a glimpse of the diverse public amenities that could be provided through waterfront redevelopment that prioritizes public access and reconnects the BOA community to its maritime roots.

Parks & Open Space (Pluto 2017)



Fig. 35: Map of Parks and Open Space Within the BOA Area (Source: Pluto, 2017)



Fig. 36: The Future Wetland Area at Van Name Van Pelt Plaza

New models are catalyzing innovative open space initiatives.

Three waterfront park projects—two within the BOA boundary and one to the east—offer instructive examples of equitable open space development within this complex industrial context. The first, Van Name Van Pelt Plaza, is located on Richmond Terrace between Van Pelt Avenue and Van Name Avenue in Mariners Harbor. This public plaza and wetland area, currently under development, is the result of a multi-agency partnership including the office of Council Member Deborah Rose, the Department of Parks & Recreation, and the Department of Transportation, as well as Northfield Community LDC, which served as the community sponsor. The deteriorated site will be transformed into a community asset including a pier that provides expansive

waterfront views. An entrance plaza will feature new lighting, benches, and bike racks, while a gathering space will include engraved maps that describe the evolution of the island and waterway. While prioritizing public access, the design preserves important wetland areas and enhances avian habitat, successfully knitting together the area’s natural and cultural history.¹

The second public park project is the Mariners Marsh Park and Arlington Marsh Master Plan. Developed by the New York City Department of Parks & Recreation, in partnership with the New York State Department of State, this master plan will guide the future vision for 135 acres of Mariners Marsh Park and Arlington Marsh, located at the western end of the study area. The plan for this formerly industrial site will aim to restore natural habitats, revitalize wetland health, provide public access, and create recreational opportunities. This extraordinary site, a former rolling mill and shipyard, has abundant potential to connect the surrounding residential neighborhood to the waterfront including views of Newark Bay, New Jersey, and Lower Manhattan. The potential relocation of an adjacent facility occupied by the New York City Department of Transportation would provide even greater public access to a reclaimed shore.

Lastly, though not in the BOA study area, Heritage Park offers a precedent for reclaiming the waterfront through resilience-enhancing open space redevelopment. In 2013, a partnership between the Trust for Public Land, the Port Authority of New York and New Jersey, and the New York City Department of Parks and Recreation remediated a former brownfield site known as the Blissenbach Marina in West Brighton. The site is considered a model of storm-resilient design that absorbs surges and coastal flooding, while opening physical access to the waterfront and improving an environmentally sensitive area.

The North Shore Greenway offers a blueprint for waterfront connectivity.

All four parks described above are links in a vision that would connect nearly 8 miles of waterfront between the Goethals Bridge

¹ NYC Public Design Commission, *Thirty-Fourth Annual Awards for Excellence in Design, 2018*



Fig. 37: Mapped Public Street End at Port Richmond Avenue

and the Verrazano-Narrows Bridge. Known as the North Shore Greenway, this multi-modal pathway for pedestrians and bicyclists would link communities with a multitude of waterfront-adjacent historic resources, natural amenities, and sites of industrial heritage. This concept offers a powerful organizing template for waterfront open space that would prioritize a continuous pathway through the BOA area. As parcels become available for redevelopment, and as financial resources are identified, greenway links could gradually be created as they have on Manhattan's West Side or the Brooklyn waterfront. This holistic vision unites community health, alternative transit options, and economic development that is grounded in a sense of place.

Street end right-of-ways are untapped public space assets.

Among the BOA area's hidden open space assets—and potential greenway links—are publicly owned areas at street ends where they meet the Kill Van Kull. These mapped public right-of-ways exist at certain locations along the waterfront, yet are largely

obscured and inaccessible to the public. For example, the public right-of-way at the end of Port Richmond Avenue extends to the waterfront and could potentially be envisioned as a public plaza overlooking maritime activity on the Kill Van Kull. The area is currently used for parking and access to an adjacent storage lot. Similar sites at the foot of Union Avenue and Harbor Road in Mariners Harbor—used for access to adjoining industrial properties—also hold the potential to be reimagined as public spaces offering unique waterfront vistas. Public use of such sites could help leverage access to waterfront properties adjoining street-end right-of-ways. For example, maritime stakeholders have noted that certain properties near street ends could potentially be suitable for a “tug port” that would offer services for tug boats and their personnel. Such a facility could also host a restaurant overlooking the water, accessed through the street-end right-of-way. This creative combination of public and private uses would further connect BOA area residents and visitors to the long-barricaded waterfront.

BUILDING INVENTORY

The BOA study area contains approximately 3,908,250 square feet of total building floor area. The largest land use category within the study area—accounting for more than a third of the total floor area (38%)—is devoted to industrial and manufacturing uses, reflecting the area’s dominant manufacturing zoning along the Kill Van Kull waterfront. Many of these industrial buildings date to the area’s peak manufacturing period in the early and mid-twentieth century, and today tend to be aging, outmoded, and underutilized. The largest structures are clustered to the west of the study area at the May Ship Repair property on Richmond Terrace and Lockman Avenue, where a series of sizable warehouses and manufacturing buildings date to 1931. Another significant cluster of large industrial buildings can be found within the manufacturing district along Davidson Street in Mariners Harbor, where a number of industrial structures dating to 1930 are believed to have been formerly used in connection with ship-building activities. Given their largely deteriorated condition and limited current use, these buildings pose significant challenges for revitalization and reuse.

The second largest land use within the study area is comprised of one- and two-family residential buildings, accounting for 22%

Land Use	Total Building Floor Area (SF)
One- & Two-Family Buildings	852,310
Multifamily Walk-Up Buildings	90,534
Multifamily Elevator Buildings	56,100
Mixed Residential & Commercial Buildings	412,051
Commercial & Office Buildings	428,481
Industrial & Manufacturing	1,465,705
Transportation & Utility	139,215
Public Facilities & Institutions	268,938
Open Space & Outdoor Recreation	5,880
Parking Facilities	189,036

Fig. 38: Table of Land Use By Building Floor Area

of total building floor area. As the dominant residential typology on the North Shore, these single-family and two-family detached and semi-detached homes largely date to the first decades of the twentieth century. Today they span a wide variety of conditions, with some homes very well maintained and others in poor states of repair. The subdivision of some of these homes into multifamily units to accommodate new renters in the area such as young immigrant families has placed additional stress on the area’s aging residential fabric.

Commercial and office buildings account for the next largest category of uses within the area (11%), followed by mixed residential and commercial buildings (11%). These structures are principally clustered along the Port Richmond Avenue retail corridor, with additional commercial structures along Richmond Terrace on waterfront properties and within the neighborhood commercial district on the south side of Richmond Terrace. Many of the buildings on Port Richmond Avenue, dating to the first decades of the twentieth century, constitute some of the most valuable and distinctive building stock within the BOA area. Those that have retained their architectural character contribute significantly to the area’s sense of place and foster community pride. Other commercial structures have been altered over the years and have lost their architectural integrity. Particularly along the southern end of Port Richmond Avenue, more recently constructed commercial buildings set back from the street wall relate poorly to the commercial fabric and detract from the area’s promise as a walkable retail district.

The remaining building area is largely comprised of public facilities and institutions (7%), parking facilities (5%), transportation and utility structures (4%), and multifamily walk-up buildings (2%). The presence of public facilities and institutions within the area constitutes a considerable community asset. These anchors include the Reformed Church on Staten Island and its cemetery on Port Richmond Avenue, as well as the Mariners Harbor Library on South Avenue within the Davidson Street manufacturing district. Both are rare examples of community and cultural resources within the BOA area, highlighting the need to foster additional opportunities for community gathering spaces as part of the BOA’s community-led revitalization vision.

Building Inventory and Historic Resources

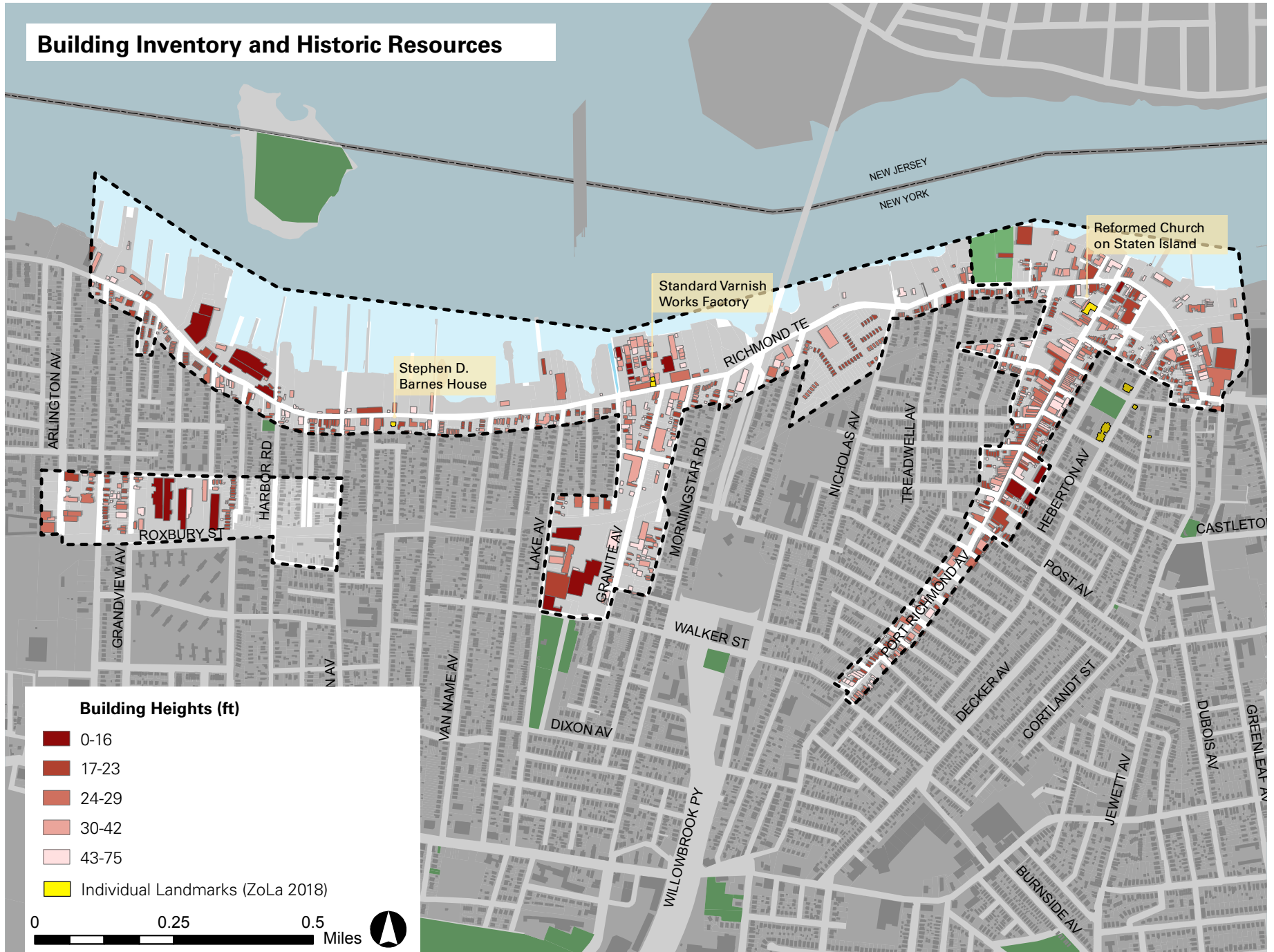


Fig. 39: Map of BOA Area Building Inventory and Historic Resources

HISTORIC OR ARCHAEOLOGICALLY SIGNIFICANT AREAS

Preserving and celebrating the historic character of Port Richmond and Mariners Harbor is a deeply held priority for BOA stakeholders. The area's resonant history dates to its settlement by Dutch and French Huguenots in the 1600s, making it one of the oldest neighborhoods in New York City. To briefly survey its diverse cultural heritage, the study area features sites of historic significance spanning pre-Colonial, Revolutionary, and early industrial eras. These sites date to some of the island's earliest known inhabitants: manufacturing zones bear traces of the Lenape Indians, whose ancestors' burial and village remains were once found at Mariners Marsh Park.

The area has a colorful history associated with the American Revolution, when British soldiers were stationed on the island, occupying Port Richmond from 1776 to 1783. Having established a center of military activities, British forces used the local ferry landing as an embarkation point for troops. The North Shore was a shipbuilding center as early as 1776, and the BOA area's subsequent commercial and industrial heritage includes the Staten Island Whaling Company (1836), the first bank on Staten Island (1837), and the Jewett White Lead Company (1839), later part of Dutch Boy Paints. The area includes Staten Island's oldest public park, Veterans Park (1836), originally a village green. That same year, Aaron Burr died at the former St. James Hotel at Port Richmond Avenue and Richmond Terrace. Just west of the BOA study area, in 1907 Proctor & Gamble constructed its sprawling factory for Ivory Soap and other products. As these examples show, Port Richmond and Mariners Harbor offer an industrial and maritime heritage of uncommon variety and interest. Through a collaborative vision that integrates arts and culture into public life, BOA area residents have an opportunity to make heritage the heart of revitalization efforts.

The BOA area contains underutilized cultural assets with powerful potential.

Port Richmond and Mariners Harbor contain many existing and underutilized cultural assets that can be leveraged as part of a holistic heritage plan. For example, the historic core of the BOA

area is the Reformed Church on Staten Island. A site of national and international significance, the church was commissioned in 1715 on a site known as the "Burial Place," used as a cemetery as early as 1690. The site connects different strands of New York City and Staten Island history, from the Dutch settlement to the Revolutionary War and beyond. With its extraordinary graveyard, the church, whose current structure was built in 1844, has been envisioned as the anchor of a cultural district that could include other points of interest across the BOA area.

In addition to the Reformed Church and its cemetery, other sites that would merit inclusion in a cultural district include New York City landmarks just east of the BOA boundary. The Port Richmond branch of the New York Public Library (1905), is one of four Staten Island branches built with funds from Andrew Carnegie, and designed by renowned architectural firm Carrère & Hastings. (John Carrère lived on Staten Island and helped plan the island's Civic Center.) The library is currently developing plans for a complete renovation that will restore its status as a social and civic landmark.

Across Veterans Park is the Public School 20 Annex constructed in the 1890s in a Romanesque Revival style. Featuring a prominent four-story bell tower, it reflects a striking expression of civic pride. It is now home to Parkside Senior Citizen Apartments, an adaptive reuse project developed by Northfield Community LDC to provide affordable senior housing. Nearby is a small saltbox house at 29 Cottage Place (1848), whose occupants included carpenters and boatmen likely employed in Port Richmond's maritime industries. It offers a visible link to the community's history as a thriving commercial center, when steam ferries traveled between Port Richmond and Lower Manhattan (beginning in 1823), and boat builders and sail makers set up shop to serve the growing ranks of shippers, sea captains, and oystermen that began to colonize the waterfront between Port Richmond and Mariners Harbor.

Beyond Port Richmond, the BOA area contains two individual landmarks that also deserve to be celebrated through cultural heritage activities. The first is the Stephen D. Barnes House (1853) at Richmond Terrace near Dehart Avenue. The house is a rare surviving example from the "Captains' Row" which once



Fig. 40: Clockwise from Top Left: Stephen D. Barnes House; Reformed Church on Staten Island; Industrial Artifacts along Harbor Road; Veterans Park

faced the Kill Van Kull and was home to prosperous oystermen who anchored their boats on the shore. The second individual landmark is the office building of the Standard Varnish Works (1892-3), at Richmond Terrace near Granite Avenue. Thought to be the largest varnish works in the country, the firm produced varnishes, enamels, and specialty coatings at this enormous, 7-acre site that were used on the Queen Mary and some of the largest skyscrapers in New York.

The ruins of early manufacturing sites hold promise for industrial archaeology.

With its long and largely little-known industrial past, the BOA area offers a wealth of opportunity for the exploration of its early manufacturing era's remnants through industrial archaeology. One of the most promising sites for this purpose is Mariners Marsh, where in 1903 the Milliken Brothers, one of the world's largest manufacturers of steel products, established an iron works and rolling mill. The site evolved as Downey's Shipyard, which during World War One fulfilled large government shipbuilding contracts. These businesses altered the landscape in ways still evident today. Sand was excavated to create basins for ship construction, leaving ten ponds that are still extant today, as are remains of concrete runners that were part of a rail system carrying newly-built ships to the water. These and other ruins could tell an evocative story of the BOA area's industrial evolution.

Other sites within the BOA area deserve to be similarly explored. For example, the Elm Park neighborhood was home to an interesting concentration of early industries that took advantage of local resources. Clay works, granite quarries, brick works, and a chalk factory all occupied this area. Hundreds of workers were said to be employed digging clay and transporting it to factories for brick production. Granite was also an important area resource. The Richmond Granite Company had a quarry east of Morningstar Road, while the Staten Island Brick and Granite Company built a gravity-operated rail line that carried stone from its quarry in Granite Village (today still known as Graniteville) to its dock at Granite Street. The enduring place names and landscape features left behind by these industries yield clues to an industrial past that demands fuller archaeological investigation.

TRANSPORTATION SYSTEMS

As commercial and industrial hubs, Port Richmond and Mariners Harbor were once served by multiple transportation modes that connected it to communities across Staten Island and the metropolitan region: street cars, passenger and freight rail, and ferry service all traversed the BOA area, contributing to its dynamism and prosperity. Today, poor transportation infrastructure poses some of the area's most consequential challenges. A lack of transit options, congested roadways, difficult connections among travel modes, wearying commutes, and insufficient infrastructure to support future growth all threaten the community's potential for revitalization.

Lacking a regular street grid like many other parts of the city, the BOA area is served by four major routes in or out of the neighborhood: Richmond Terrace, Castleton Avenue, Forest Avenue, and Port Richmond Avenue. Commuters traveling to Manhattan have some of the longest trip times in New York City due in part to the local bus network's use of highly congested roadways. The lack of efficient and reliable public transit options has led a majority of study area residents to travel by car: approximately half of North Shore residents commute to work by car alone, while 36% rely on mass transit. The number of car users in the area negatively impacts the environment and community health, while adding to roadway congestion. Transportation demands are only anticipated to increase along with continued population growth. The following transportation challenges and opportunities are among the most critical to be addressed in support of the BOA area's redevelopment efforts.

Truck traffic is a paramount community concern.

Richmond Terrace, with its narrow width and winding route, has long suffered from vehicular congestion that is a major point of conflict between the community's industrial and residential uses. As the only continuous east-west connection serving the BOA area, Richmond Terrace has seen steadily growing traffic destined for other neighborhoods within Staten Island and to areas outside of the island—a load that far surpasses the local travel needs for which the roadway was designed. Like the street network

Freight Network (NYC DOT 2016)



Fig. 41: BOA Area Freight Network (Source: NYC DOT, 2016)



Fig. 42: Congestion on Port Richmond Avenue

throughout the study area, Richmond Terrace developed to serve the community’s relatively dense and walkable neighborhoods. Originally a Native American foot trail along the circuitous shoreline, the road evolved to provide access to local commercial centers and waterfront industrial properties. In 1907, the roadway was mapped at a width of 100 feet in anticipation of future growth, but it was never built to the full width and today in most places the roadway is roughly half that wide.

As a result, Richmond Terrace features one travel lane in each direction, along with many turning movements that create frequent delays at intersections. Additionally, trucks entering and exiting industrial properties, or buses picking up or dropping off passengers, often block traffic due to the lack of space for pullout areas or passing lanes. The growing number of businesses reliant on truck traffic along this roadway has contributed to travel delays, pollution, and other impacts upon BOA area residents.

A second zone of heavy truck usage with notable community impacts is Lake Avenue, which serves the large complex of industrial tenants bounded by Lake and Granite Avenues, Walker Street, and the North Shore Railroad right-of-way. A number of loading zones and access points to the block’s large warehouses are located on Lake Avenue, causing trucks to frequently idle in this area as they await their destination. This causes congestion on narrow Lake Avenue, where trucks are often parked on the street, and has resulted in reported truck collisions with other vehicles. In addition, noise is generated by refrigerated trucks that are left in berths overnight, prompting complaints from residents of the adjacent residential neighborhood. Community members have also cited the proximity of trucks to a large open space on the south side of Walker Street that is home to the West Shore Little League. The heavy truck traffic and lack of adequately marked crosswalks pose significant safety concerns in this area frequented by young children. To address these challenges, strengthened regulatory enforcement will be needed in combination with capital improvements and changes to the existing traffic flow.

Several truck routes serving the area’s industrial businesses also contribute to the prevalence of truck traffic. Local truck routes are designated along Richmond Terrace, Port Richmond Avenue, Castleton Avenue, Jewett Avenue, and Walker Street, generally connecting to routes leading off the island such as State Route 440 over the Bayonne Bridge.

Improved bus service across the BOA area is urgently needed.

Though Staten Island has the highest rate of car ownership in New York City, the North Shore is home to the borough’s highest percentage of people without access to a car. This leads residents to rely on the study area’s sole form of public transportation: bus service. Several bus lines terminate at the Port Richmond Terminal, located on Port Richmond Avenue near Richmond Terrace. These lines are the S53 (to Bay Ridge), the S57 (New Dorp), the S59 (Tottenville), and the S66 (weekday service to St. George). The BOA area to the west of Port Richmond Avenue is mainly served by the S40/90 line, which originates in St. George and terminates on the West Shore, with an extension planned in 2018 to reach the Matrix Global Logistics Park. The S46/96 runs

Bus Routes (MTA 2010)

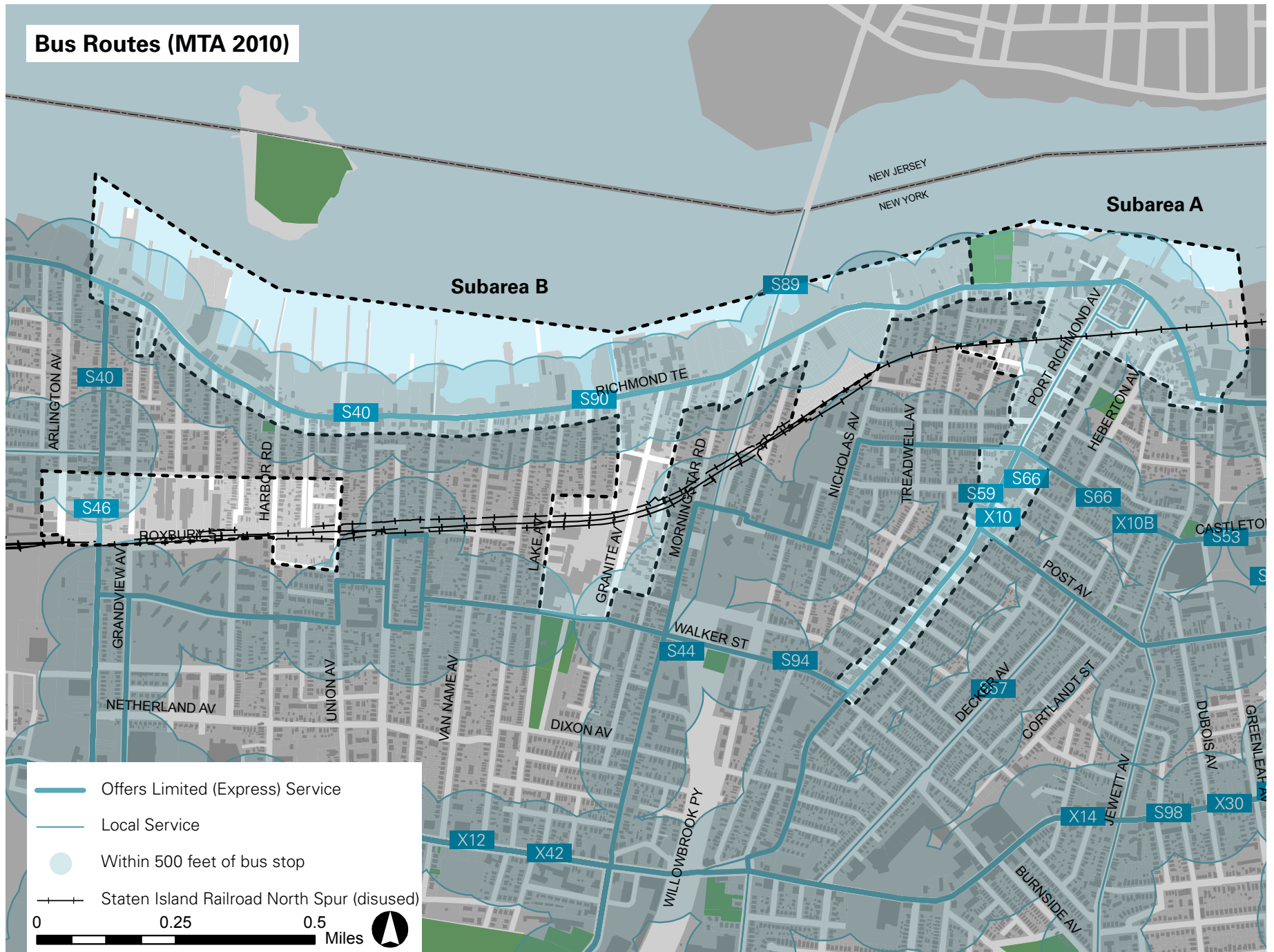


Fig. 43: BOA Area Bus Routes (Source: MTA, 2010)



Fig. 44: The Derelict North Shore Railroad Viaduct and Rail Line



from St. George along Castleton Avenue, Walker Street, and Brabant Street before continuing south along the West Shore. Other lines in the area include the S44/94, running along Post Avenue and Port Richmond Avenue to the Staten Island Mall. Two routes of express service to Manhattan, recently redesigned by New York City Transit to offer more direct service, stop at Port Richmond Avenue and Castleton Avenue on their way to the Verrazano-Narrows Bridge.

Despite the number of bus lines that reach the BOA area, congested conditions on roadways across the North Shore have resulted in unreliable bus service and long travel times for commuters. Even if their destination is not the Staten Island Ferry Terminal, travelers from the study area generally must still make connections at St. George, where most buses and the Staten Island Railway terminate. Following the implementation of recommendations to improve express bus service, New York City Transit is currently conducting a comprehensive bus study to improve Staten Island's local bus network.

Reinventing the former North Shore Railroad can transform the BOA area.

Until 1953, the North Shore Railroad provided passenger service between St. George and New Jersey. The line traversed the entire BOA area, at times on an elevated viaduct, and continued over the Arthur Kill's vertical lift rail bridge to an interchange yard in Cranford, New Jersey. The route included seven stops within the BOA area, at Port Richmond, Tower Hill, Elm Park, Lake Avenue, Mariners Harbor, Harbor Road, and Arlington, with an additional stop to the west at Port Ivory. The line's former right-of-way is now owned by the New York City Economic Development Corporation. Given its potential to reconnect the North Shore, and the value of its infrastructure for possible transportation, recreation, and cultural uses, much attention has been devoted to the future of this outstanding community asset.

In 2012, the Metropolitan Transportation Authority (MTA) released a study evaluating potential options for reuse of the rail line, and proposed to develop a Bus Rapid Transit (BRT) system

that would run along the rail corridor on a dedicated, bus-only roadway serving a projected 12,000 daily riders. However, much of the right-of-way, particularly in sections east of the BOA area that run close to the waterfront, have suffered from erosion. In addition, a portion of the proposed route in St. George has now become the site for the Empire Outlets development, currently under construction. The MTA subsequently awarded a contract to update its 2012 analysis and develop a revised alignment for the system. Meanwhile, the Staten Island Economic Development Corporation has promoted an alternative vision that would reinvent the elevated viaduct as a “skyway” with public uses such as a greenway, farmer’s market, or art installations. Whether it proves viable as a BRT route or can accommodate other public activities, this corridor holds remarkable potential to catalyze revitalization across the BOA area.

Restored ferry service at Port Richmond Avenue would serve a growing commuter base.

Significant interest among BOA area residents and business owners has focused on the potential of reactivating ferry service at Port Richmond Avenue. This location on the Kill Van Kull has been a hub for ferry service dating to at least 1701, with ferries serving Bergen Point, New Jersey, until 1961. Restoring ferry service from this location would potentially offer another node in the NYC Ferry system, which launched in 2017 and currently has six routes connecting all of the city’s boroughs except for Staten Island. Seeking to expand on the system’s success, NYCEDC commenced a ferry feasibility study in 2018, which will examine sites for consideration as future landings or routes, considering factors such as water depths, population density, existing access to transit, and travel time comparisons between existing modes of mass transit. Business operators on South Avenue and the West Shore are particularly interested in the potential of ferry service from the North Shore that would help employees, hotel guests, and business patrons access the area.

In addition, the city of Bayonne is preparing to launch ferry service between the city’s eastern waterfront and Lower Manhattan. The Bayonne ferry site lies within the former Military Ocean Terminal, now being converted into a large mixed-use development with



Fig. 45: The Former Bergen Point Ferry (Source: New York Public Library)

significant density including more than 1,500 residential units. City officials have suggested that a ferry stop at this location could be complemented with a route extending around Constable Hook and to the city’s southwestern shore, which would pass directly by Port Richmond and Mariners Harbor and present another opportunity for regionally linked ferry service.²

Marine freight service can help reduce traffic congestion.

The West Shore and North Shore of Staten Island are jointly designated as one of five geographically dispersed freight hubs in New York City targeted for investment as part of Freight NYC, New York City’s 2018 plan to overhaul its aging freight infrastructure and strengthen connections to multimodal freight networks. Citing an overreliance on trucks—which move almost 90% of New York’s freight tonnage³—and the resulting traffic congestion along with its detrimental impacts upon commerce

² http://www.nj.com/ijournal-news/index.ssf/2018/03/bayonne_mayor_expects_commuter.html

³ *Freight NYC: Goods for the Good of the City, 2018*



Fig. 46: Pedestrian Conditions on Richmond Terrace

and quality of life, the plan calls for a transformation of how freight enters New York City through major upgrades to rail and maritime transportation nodes.

Improvements to marine freight infrastructure across the North Shore stand to have wide-ranging benefits for the BOA area, creating additional quality job opportunities while reducing the number of trucks serving area freight terminals. Freight NYC’s ambitious, \$100 million plan dovetails with other major investments in the region’s maritime freight infrastructure. These include raising the Bayonne Bridge 64 feet in 2017, which has allowed the newer and larger generation of “New-Panamax” container ships to reach terminals at Ports Newark and Elizabeth in New Jersey as well as Global Container Terminal–New York, the significant port facility west of the study area with access to the Arthur Kill. In 2018, the Port Authority of New York and New Jersey also substantially completed the new Goethals Bridge, seeking to better accommodate freight traffic to and from Global Container Terminal–New York and potentially add future transit service. By concentrating industrial activity at existing

freight facilities, these infrastructure upgrades stand to boost maritime industry job creation at targeted locations on the North and West Shore. At the same time, the citywide marine freight plan will reduce truck traffic, making more welcoming streets for pedestrians and supporting community efforts to revitalize properties within the BOA area.

The North Shore needs better pedestrian, bicycle, and alternative transit infrastructure.

With its predominance of vehicular traffic, the BOA area lacks adequate infrastructure to serve pedestrians, bicyclists, and other alternative transit modes. Sidewalks in the area are generally narrow and in poor condition, making them unwelcoming to pedestrian travel. Crosswalks are also frequently absent or poorly designed, creating hazardous conditions at key intersections. As the area’s major walkable shopping district, Port Richmond Avenue in particular lacks well-designated crosswalks, as well as street furniture, signage, and bus shelters that would present a more welcoming streetscape and encourage pedestrian activity.

Similarly, an absence of bicycle lanes and other bicycle infrastructure throughout the study area has discouraged the use of this healthy transit mode. Given the popularity of bike sharing services such as CitiBike in other areas of the city, as well as the newer, dockless JUMP and Lime systems that have been piloted in Staten Island, the BOA area would benefit from access to such services and their potential to offer a flexible, commute-friendly transit mode. Other alternative modes, including car-sharing services like Zipcar, would provide additional options to area residents who do not own cars and need occasional access to a vehicle. Local stakeholders have also proposed ambitious transportation visions such as an aerial gondola that would link the BOA neighborhoods to Bayonne, New Jersey across the Kill Van Kull. Currently the subject of a feasibility study sponsored by the Staten Island Economic Development Corporation, the gondola would offer a 10-minute journey running parallel to the Bayonne Bridge and connect to Bayonne’s light-rail infrastructure—providing cost-effective access to regional transit and job opportunities.



Fig. 47: Combined Sewer Overflow Outfall on Richmond Terrace

INFRASTRUCTURE

As the North Shore population grows, its infrastructure has become increasingly subject to stresses that threaten community health, safety, and well-being. The BOA area suffers from polluted waterways due to sewer overflows, damaging flooding during storm events, and overcrowding at public schools, particularly among elementary schools. As the following section makes clear, redevelopment initiatives must address a range of potential impacts upon public infrastructure, while promoting innovative strategies to bolster the capacity and resilience of critical systems.

The area’s stormwater infrastructure is outmoded.

Port Richmond and Mariners Harbor are served by the Port Richmond Water Pollution Control Plant, which processes

both wastewater and stormwater through the combined sewer system. This system carries sanitary sewage from buildings as well as stormwater from catch basins and storm drains through sewer lines within the street. The Port Richmond plant is located immediately east of the study area on Richmond Terrace at Bodine Creek, and is designed with a capacity of 60 million gallons per day. According to the Department of Environmental Protection, the average flow is approximately 40 million gallons per day during dry weather, indicating adequate capacity for normal operations when treated wastewater is discharged into the Kill Van Kull. However, during heavy rainfall events, when the capacity of the plant is exceeded, untreated overflow is also discharged into the waterway through Combined Sewer Overflow (CSO) outfalls, as shown in Figure 48. These are generally located where north-south streets intersect Richmond Terrace, including locations at Port Richmond Avenue, Nicholas Avenue, Housman

Infrastructure: CSOs (NYS DEC 2017)



Fig. 48: Map of Combined Sewer Overflow Outfalls Within the BOA Area (Source: NYS DEC, 2017)

Avenue, Union Avenue, Harbor Road, and South Avenue. Such events negatively impact water quality throughout the New York City area. Moreover, existing sewer lines, which are aging, are typically 6 or 8 inches in diameter, and will need to be upgraded to 10-inch lines to accommodate the North Shore's growing population.

Given the ecological and economic importance of the Kill Van Kull and adjoining waterways, more innovative measures are needed to protect the environment and accommodate growing stresses upon this vital infrastructure. As a first step in efforts to reduce the likelihood of polluted runoff from entering the city's waterways, the New York City Department of Environmental Protection has begun to deploy "green infrastructure" strategies such as bioswales in areas served by CSOs that capture stormwater and reduce overflow during rain events. In addition, Staten Island features a highly praised Bluebelt system that uses ecologically sensitive measures such as natural infiltration areas and detention ponds to manage stormwater for approximately one-third of the island. The BOA area is not currently served by a Bluebelt, but would clearly benefit from this system as part of more effective and holistic stormwater management strategies.

In 2018, New York City submitted the final NYC Stormwater Management Program Plan to the New York State Department of Environmental Conservation to further improve the health of New York Harbor. The plan is the city's first comprehensive effort to reduce pollution in stormwater runoff in areas served by the municipal separate storm sewer system (MS4). This system conveys stormwater from streets, catch basins, gutters, and storm drains directly to local waterbodies, resulting in large volumes of pollutants entering the harbor waters. While the BOA area is largely not drained through the MS4 system, certain portions of Mariners Harbor, Arlington, Elm Park, and Port Richmond are within MS4 drainage areas. The 2018 plan seeks to reduce stormwater pollution from MS4 areas by leveraging existing programs and developing new stormwater management initiatives. Progress on this plan should further aid the BOA area in overhauling its aging sewer infrastructure.

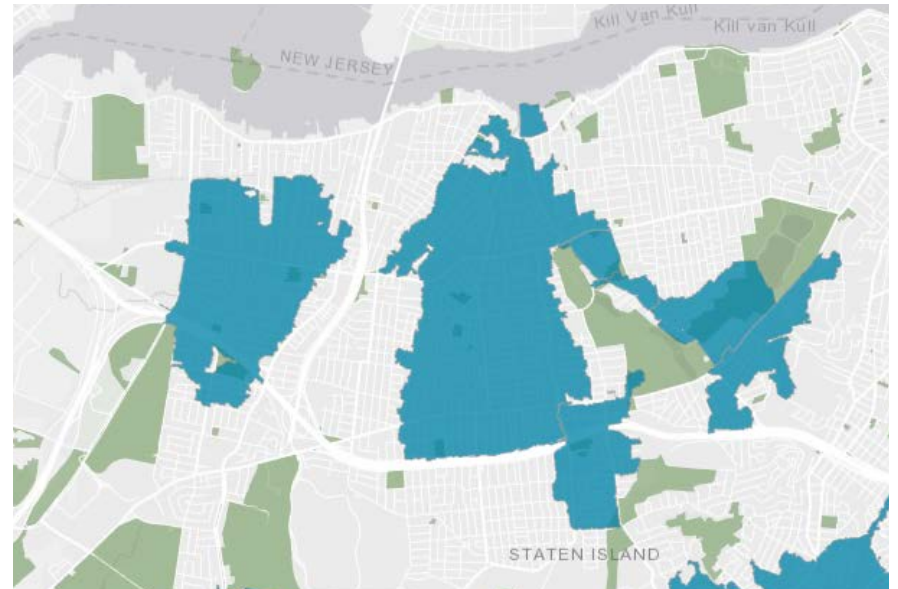


Fig. 49: North Shore MS4 Drainage Areas (Source: NYC DEP / NYC DPR, 2018)

Social and economic assets are acutely vulnerable to flooding.

The effects of Hurricane Sandy upon New York City in 2012 laid bare the region's vulnerability to catastrophic flood events. Approximately 350 buildings, or more than 30% of structures within the BOA area, were inundated by Hurricane Sandy floodwaters, causing major damage and disruption to the working waterfront. Flooding particularly affected areas near Port Richmond Avenue, where the surge traveled as far as the North Shore Railroad viaduct, as well as the area near Nicholas Avenue, where numerous structures south of Richmond Terrace were flooded. Similar low-lying areas along Richmond Terrace near Union Avenue, Harbor Road, and points west were also inundated.

These events, along with routine flooding during much more minor storms, have prompted a widespread re-evaluation of flood maps, flood insurance requirements, and resiliency across New York City. The 100-year flood zone established by FEMA in 1983 was substantially exceeded during Hurricane Sandy, prompting the agency to expand this zone in an effort to better

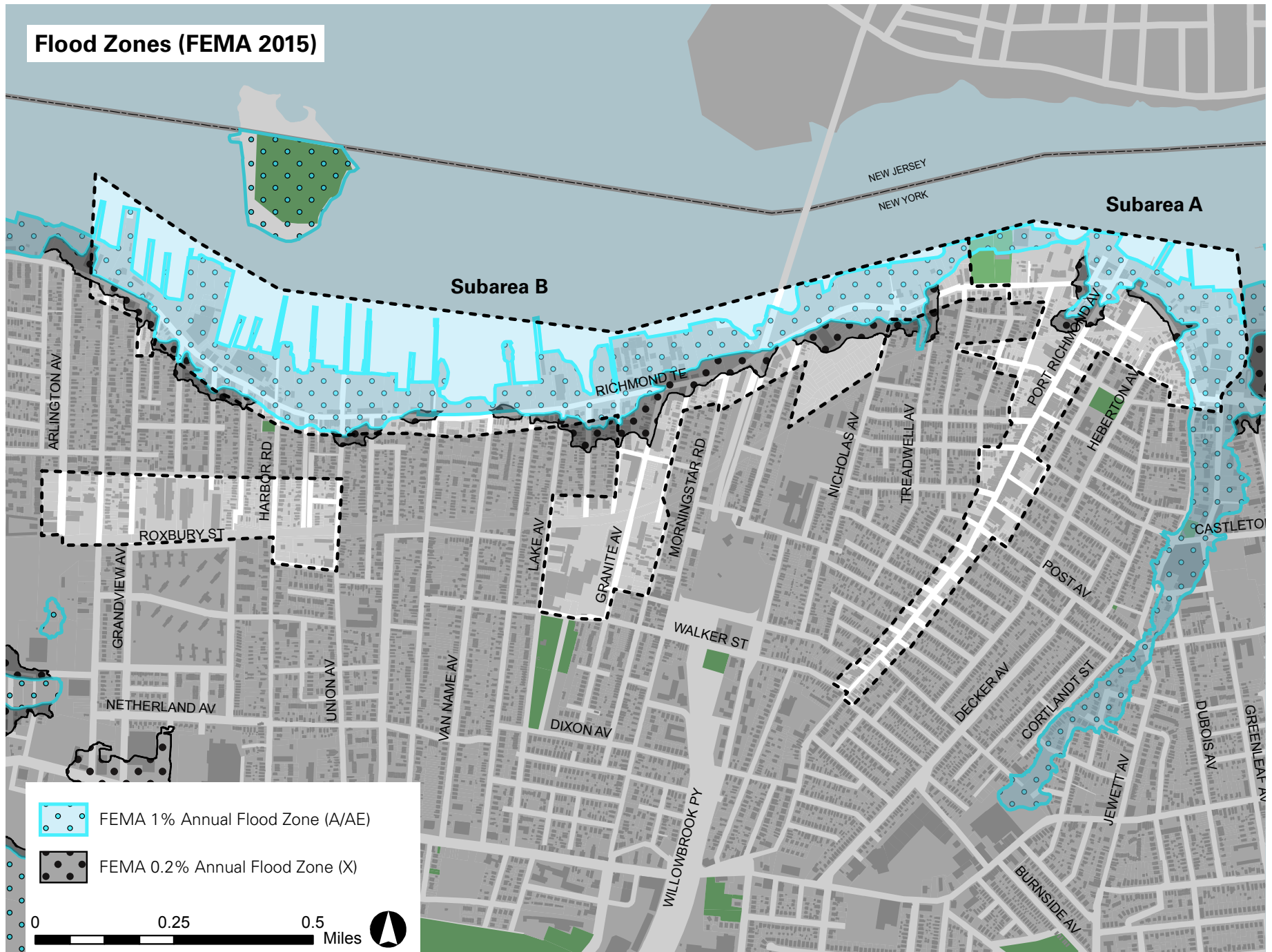


Fig. 50: Map of BOA Area Flood Zones (Source: FEMA, 2015)

account for flood vulnerability. Today, residents and business owners face uncertainty as they prepare for higher insurance premiums and more stringent regulatory measures intended to protect property and infrastructure within these zones. New York City's ongoing efforts to increase resiliency, from floodproofing critical wastewater equipment to launching climate resiliency design guidelines, will continue to advance best practices that are applicable to the BOA area. As the BOA community envisions a more sustainable and equitable future, revitalization strategies must reflect state-of-the-art measures to enhance flood resilience infrastructure.

Maritime businesses critically depend on deep-water access.

The BOA area's piers and bulkheads are another form of infrastructure that must be protected and supported as part of community revitalization initiatives. Maritime businesses within Port Richmond and Mariners Harbor provide essential support services throughout the region and are vital to the economy. To function, many of these industries need access to deep water, a rare feature of New York's present-day shoreline due to the harbor's natural and industrial evolution. The piers and bulkheads along the Kill Van Kull are home to a number of such sites, becoming highly valuable locations where dry docks, shipyards, and other marine businesses can accommodate large vessels. However, the deterioration of maritime infrastructure, especially on properties no longer occupied by water-dependent uses, poses challenges for the preservation and expansion of this critical sector. Restoration of piers and bulkheads, particularly once they are disused, can be very costly due to stringent regulatory requirements intended to protect the natural environment. As port activity in the region rises, and demand for such services grows, the limited capacity of the area's deep-water infrastructure could threaten the ability of maritime support services to expand. Brownfield redevelopment efforts should carefully consider impacts upon maritime infrastructure, and support strategies to upgrade and enhance these critical resources.

BOA residents lack access to community health services.

North Shore communities are considerably lacking in public health

infrastructure. The entire BOA study area west of the Bayonne Bridge is designated as a medically underserved area by the U.S. Health Resources and Services Administration. This is the only such area in Staten Island marked by a lack of access to primary care services. As a result, BOA area residents face widespread challenges to community well-being. The North Shore ranks higher than both Staten Island and New York City in rates of preterm births, teen births, and elementary school absenteeism—all troubling indicators for child and adolescent health. Notably, the infant mortality rate is more than six times the rate of Manhattan's Upper East Side. Meanwhile, the incarceration rate—associated with mental illness and other health conditions—is double the rate of Staten Island as a whole.

The North Shore also has the highest rates of alcohol- and drug-related hospitalizations in Staten Island, and is disturbingly vulnerable to community violence, with an injury assault rate 40% higher than the rate citywide. Tobacco use is endemic, with North Shore adults reporting the highest rate of smoking—22%—in New York City.⁴ These alarming indicators suggest a range of initiatives are needed to enhance health care access and improve health outcomes among this vulnerable population.

NATURAL RESOURCES AND ENVIRONMENTAL FEATURES

Despite the intense industrial uses that have transformed the North Shore over the last two centuries, this region possesses natural resources and environmental features of broad significance. The BOA area is located within one of the largest estuaries in the United States, encompassing over 1,600 square miles. As part of this system, the Hudson-Raritan Estuary contains Port Richmond and Mariners Harbor, and encompasses New York and New Jersey coastal areas from the Lower Hudson River to the Atlantic Ocean. This estuary supports residents and migrants of almost 300 species of birds, over 100 species of fish, and over 2,000 vascular plant species.⁵

The BOA area's ecological assets are integral to the health and survival of these estuarine ecosystems. Like other areas of Staten

⁴ NYCDOH *Community Health Profile, 2015*

⁵ *Hudson-Raritan Estuary Ecosystem Restoration Feasibility Study, 2017*

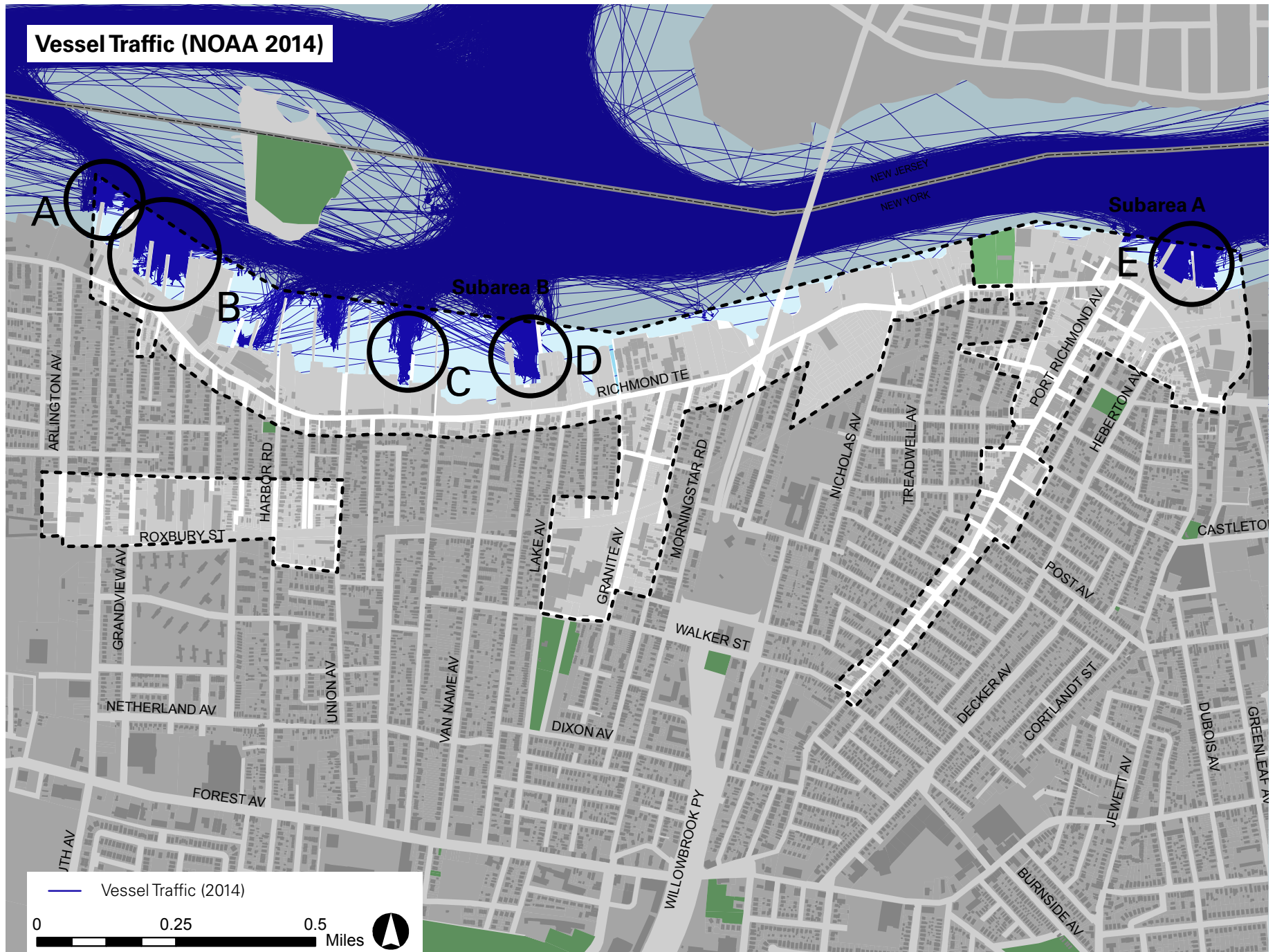


Fig. 51: Map of Vessel Traffic Within the BOA Area (Source: NOAA, 2014)

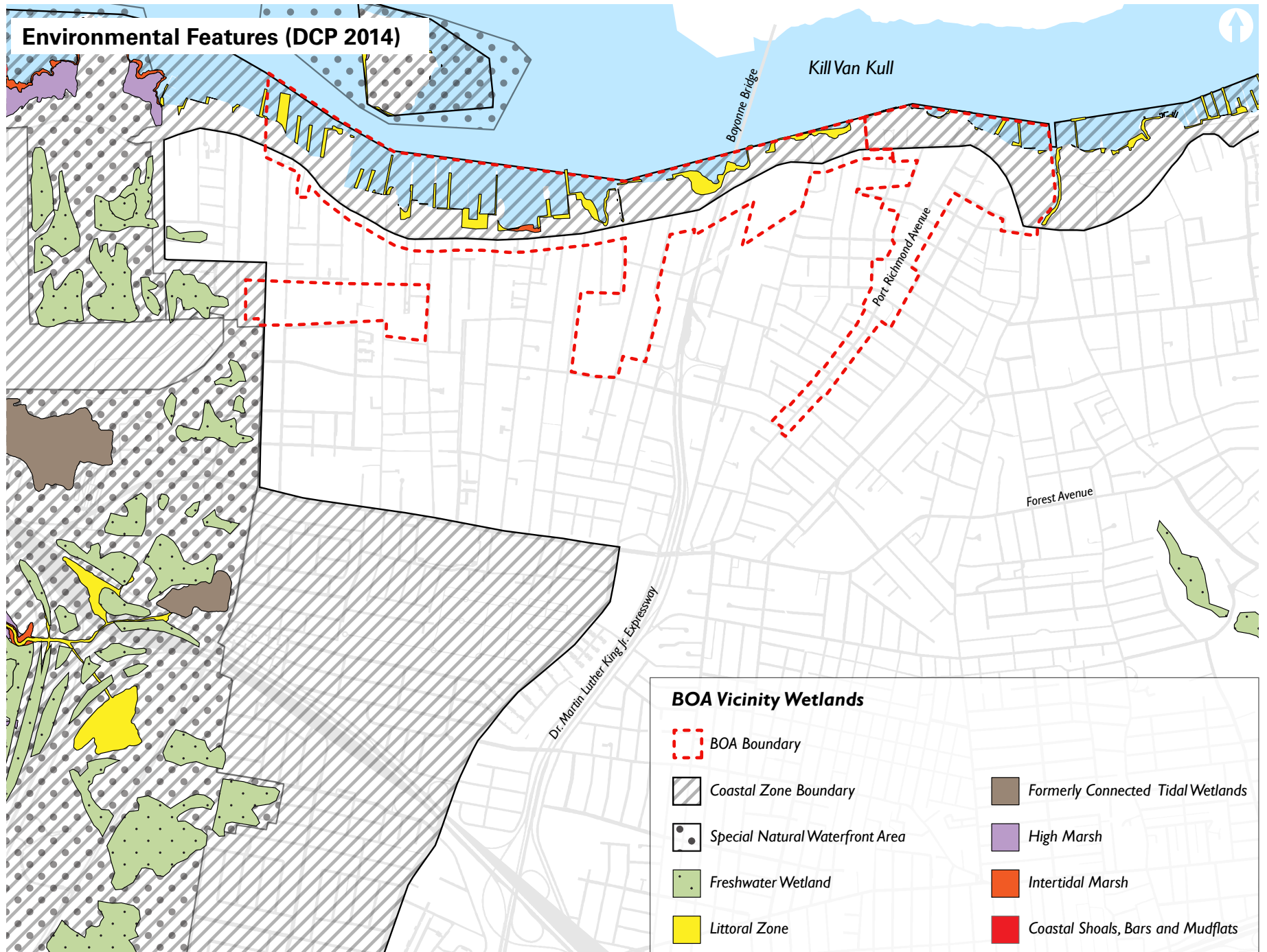


Fig. 52: Map of BOA Area Environmental Features (Source: DCP, 2014)

Island, Port Richmond and Mariners Harbor were once part of a mosaic of wide-ranging landscapes—including creeks, forests, grasslands, salt marshes, mudflats, and wetlands—with abundant natural habitat. The area’s topography slopes toward the Kill Van Kull from high points to the south, resulting in low-lying natural features along the waterfront and western edge of the study area that remain particularly diverse within the city.

However, as in most of New York City, the extensive loss of habitats and wetlands, along with impacts to water quality due to urbanization, have reduced the abundance and diversity of wildlife on the North Shore. Additional ecological impacts have resulted from impervious surfaces such as asphalt, concrete, and buildings that cover approximately half of the study area. Little native habitat exists, resulting in the presence of aggressive, non-native species and low biodiversity. Consequently, the BOA area’s remaining resources should be protected and enhanced as part of any redevelopment vision. The following section characterizes the area’s environmental features and ecological potential.

The BOA area supports some of New York’s most extraordinary wetlands.

Staten Island is uniquely situated at the entrance of New York Harbor. Surrounded by the waterways of the Arthur Kill, Newark Bay, the Kill Van Kull, New York’s Upper and Lower Bays, the Raritan Bay, and the Atlantic Ocean, the island offers abundant marshes, wetlands, shoals, and other features that are home to concentrations of wetlands and other resources. Within and adjacent to the BOA area, these resources are designated as the Northwest Staten Island/Harbor Herons Special Natural Waterfront Area (SNWA). Such areas are established by the New York City Department of City Planning’s Waterfront Revitalization Program to help protect and support areas with significant open spaces and concentrations of natural resources such as wetlands, habitats, and buffer areas. Each SNWA has a combination of important coastal ecosystem features, many of which are protected through a variety of regulatory programs.

The SNWA that includes portions of the BOA area is bounded by the Kill Van Kull to the north, the Arthur Kill to the west,

residential zones to the east, and Fresh Kills to the south. The area hosts what is perhaps the most diverse array of wetland types in the city, including salt and freshwater meadows, spring-fed ponds, forested swamps, creeks, and salt marshes. In its wooded upland areas abutting tidal complexes, the area supports diverse avian species, amphibians, reptiles, and mammals.⁶ Extending to the southwest and the array of wetland areas along the Arthur Kill, the SNWA also includes the nearby Goethals Pond Complex. This 67-acre freshwater pond, surrounded by a dense forested wetland, has become one of the most popular bird-watching areas in Staten Island. The BOA community plays a critical ecological role as a link in this corridor of treasured natural destinations.

Shooters Island is home to rare waterbird habitat.

Part of the Special Natural Waterfront Area, Shooters Island sits off the Richmond Terrace waterfront at the confluence of the Arthur Kill and the Kill Van Kull. The island is one of three within what is known as the Harbor Herons Complex. Along with Pralls Island in the Arthur Kill and the Isle of Meadows further south, these islands have supported significant portions of nesting populations of several wading bird species in New York State. (Although the islands do not currently support active wading bird rookeries, they provide habitat for other bird species, and may be recolonized by wading birds in the future.) Shooters Island’s rare, undisturbed upland habitat has provided a nesting area for birds such as the great egret, yellow-crowned night heron, green-backed heron, little blue heron, and black-crowned night heron. Foraging sites within the BOA area, such as Arlington Marsh, are considered essential to the survival of birds nesting on the island, due to the lack of alternative foraging areas in the vicinity. Any revitalization efforts within the BOA area must consider impacts upon these interrelated resources.

Mariners Marsh Park and Arlington Marsh can connect the public with urban nature.

Along with supporting shorebirds, the areas within Mariners Marsh Park and Arlington Marsh offer a range of important habitat. The park’s ecological assets include a pin-oak swamp

⁶ *Vision 2020: New York City Comprehensive Waterfront Plan, 2011*



Fig. 53: Mariners Marsh Park (Source: NYC DPR, 2018)

and prairie grasslands. Its soils support oak species, rare sedges, highbush blueberry, and other plants. The area's pond system is a favored spot for waterfowl and muskrat lodges, while other birds supported by the park include the vesper sparrow and short-eared owl.⁷ These healthy ecological areas create a setting of extraordinary value for wildlife habitat, as well as opportunities for its observation through public infrastructure and programs. The current planning process for the park, led by the New York City Department of Parks and Recreation, has noted the potential of the site to host educational programming. With its connections to residential neighborhoods and nearby S48/98 bus service, the park is an ideal gateway for public access that celebrates both natural history and the BOA area's maritime heritage.

The Kill Van Kull remains a vital ecological corridor.

Notwithstanding its history of industrial use and consequent degradation as a marine habitat, the Kill Van Kull remains a critical element of the Hudson-Raritan Estuary. The waterway and nearby deepwater habitats are home to more than 60 species of migratory and resident fish. Given the Kill Van Kull's regional ecological role, future actions related to the cleanup and

development of sites within Port Richmond and Mariners Harbor should carefully consider potential impacts on fish and wildlife habitats as well as water quality.

ECONOMIC AND MARKET TRENDS

While the BOA area's broad demographic profile has been outlined above, the following section highlights key housing and employment challenges facing Port Richmond and Mariners Harbor, as well as opportunities to stimulate more equitable multifamily housing and access quality local jobs. This summary of market trends is followed by a discussion of four submarket districts within Port Richmond and Mariners Harbor, offering a more fine-grained community portrait that underlies the redevelopment visions for each subdistrict described in Section 4.

Affordable and low-income multifamily housing is needed for a growing population.

According to the NYU Furman Center's analysis of New York City housing conditions, residents of Staten Island face particular housing challenges. On the North Shore, 34.5% of households are severely rent-burdened, meaning they spend more than 50% of their income on rent. The study also notes that 77.8% of recently available rental units are affordable at 80% of the area median income (AMI). In New York City, according to the U.S. Department of Housing and Urban Development, that amounts to a household income of approximately \$72,000 for a family of four.⁸ Given the significant number of BOA area residents with incomes below that level, there remains a critical need for housing that is affordable across a range of income levels, including residents earning well below the area median income. This range includes households defined as extremely low-income (earning less than 30% of AMI), very low-income (earning between 30% and 50% of AMI) and low-income (earning between 50% and 80% of AMI).

As previously discussed, the vast majority of housing units within the BOA area are one- and two-family units out of reach for the lowest-income residents. For example, one of the most significant

⁷ <https://www.nycgovparks.org/about/history/historical-signs/listings?id=115>

⁸ NYU Furman Center, 2017; U.S. Department of Housing and Urban Development, 2016



Fig. 54: Two-Family Housing Under Construction at Nicholas Estates

new housing developments in the study area, Nicholas Avenue Estates, is a project of 78 two-family detached homes constructed on ten acres of vacant land on Richmond Terrace, between Nicholas Avenue and John Street. Each home is comprised of a three-bedroom master unit intended to be occupied by the owner, with a one-bedroom unit to be used as a rental property. These two-family homes were initially priced at \$449,900, with subsequent units priced at \$550,000. To make such homes more affordable, the Housing Partnership secured a subsidy from the New York State Affordable Housing Corporation to provide “principal reduction” grants of up to \$95,000 for purchasers earning between 75% and 100% of area median income.⁹ However, these units are clearly inaccessible to the large number of area residents earning below that level. Moreover, as noted previously, the BOA area would benefit from a wider variety of apartment

⁹ <http://housingpartnership.com/affordable-housing/for-home-buyers/recent-home-developments/>

sizes to better accommodate the study area’s diverse population. Multifamily units are a potential solution to provide more suitable housing options within the BOA area. However, in Port Richmond and Mariners Harbor, just 20 multifamily units have been delivered over the past decade. By contrast, nearby St. George and Stapleton have seen much more multifamily construction, with over 720 multifamily units delivered in the last 10 years. Many of these new units are able to command much higher rents than in Port Richmond and Mariners Harbor due to their positioning as high-amenity buildings marketed to young professionals. Nonetheless, the small number of multifamily units within the BOA area should be seen as an opportunity to explore creative housing finance strategies that can equitably create new rental housing that is accessible to all.

Port Richmond and Mariners Harbor are centers of industrial job creation.

The BOA area remains a significant employment zone for the North Shore and has seen substantial job growth in certain sectors. The zip codes comprising the study area collectively contain 11,000 jobs, representing 21% of the North Shore’s total job market. Most job activity is focused in industrial and manufacturing uses, as well as transportation and utilities. Cutting across these sectors, approximately 390 workers are in occupations that support local maritime industrial operations and logistics—including marine cargo handling and freight transportation, navigational services to shipping, and ship building and repairing.¹⁰

Statistically, the industrial (37%) and health care (13%) sectors account for roughly half of the study area’s workforce. Industrial jobs represent the largest share of total jobs, with transportation and warehousing employing 1,500 people, and construction employing 1,300 people.¹¹ Altogether, these jobs have grown nearly 20% over the past decade. This increase is driven in part by businesses relocating from Brooklyn, Queens, and other

¹⁰ EMSI and LEHD *On the Map*, 2018

¹¹ *The Industrial Sector is defined by the U.S. Bureau of Labor Statistics as employment in Construction, Wholesale Trade, Transportation & Warehousing, Manufacturing, Repair & Maintenance, and Waste Management & Remediation Services.*

areas of the city that are facing rising commercial rents and shrinking industrial inventory. Within the BOA area's industrial sector, growing occupations include construction laborers and electricians. Additionally, plumbers and carpenters have seen a healthy increase in total employment since 2010. Fabrication jobs have also expanded, posting an increase of 18.6% in the last decade, while food manufacturing has been identified as a further area growth sector.

The BOA area's industrial sector provides relatively high-paying jobs, with average annual salaries of \$91,000, surpassing average industrial salaries for the North Shore (\$84,800) and New York City (\$82,500).¹² Jobs in construction pay on average \$86,666. Manufacturing, representing the area's industrial heritage, has annual earnings of \$63,000, while fabrication has average annual salaries of approximately \$50,000.

Of all job categories, the fastest growing sectors between 2010 and 2017 were government positions, which added 420 jobs (a growth rate of 131%); health care and social assistance, which added 445 jobs (growing 48%); and construction, which added 500 jobs (growing 37%). On the other hand, manufacturing has seen a 17% loss in jobs since 2010, pointing to continued weakness in this sector as large-scale manufacturing operations continue to migrate overseas and to more competitive areas of the nation. Jobs in marine-related industries fell by 9.8% over the same period. This loss in part reflects constraints for maritime expansion along the Richmond Terrace waterfront, including regulatory barriers to bulkhead and pier improvements, shallow waterfront sites, constrained vehicular access, and residential adjacencies.

Few of the BOA area's quality jobs go to local residents.

Despite the BOA area's role as an employment hub for the island, nearly all jobs (92%) are filled by employees who live outside of the study area. This contributes to sharp discrepancies between the incomes of residents and workers in the study area, with BOA area household incomes much lower than the area's industrial

¹² BOA area industrial salaries are based on NAICS codes (mining, utilities, construction, manufacturing, transportation and wholesale trade), and geographically encompass the two zip codes within the study area (10303 and 10302).

salaries. Residents of the BOA communities overwhelmingly commute to other areas around Staten Island, Manhattan, and into New Jersey for employment. This presents a key opportunity for BOA revitalization efforts to connect local residents to the study area's quality jobs and its growing employment sectors.

BOA businesses can capitalize on the West Shore's resurgence.

A number of new and planned developments have made the West Shore of Staten Island, immediately southwest of the BOA study area, a growing employment hub known as the borough's "Jobs Coast." This district, supported by coordinated public and private investments, offers opportunities for BOA area businesses and residents to benefit from regional economic development.

West of the study area, for example, lies the 187-acre Global Container Terminal–New York (formerly New York Container Terminal), the largest marine terminal in New York State. Situated along the Arthur Kill, this facility is home to over 300 jobs. It is expected to receive additional infrastructure investment as part of New York City's Freight NYC plan, which targets Staten Island's North and West Shores as one of the city's five major distribution centers. Further south on the West Shore is the Matrix Global Logistics Park, set to open in 2018 as the home of a fulfillment center for Amazon as well as a distribution facility for furniture retailer Ikea, which are expected to create well over 2,000 jobs.¹³ Combined with recent commercial development along nearby South Avenue—referred to as Staten Island's "Medical Mile" for its cluster of healthcare services—the growth of the West Shore stands to make transformative economic impacts.

SUBMARKET ANALYSIS

Variations in economic and real estate conditions across the BOA study area prompted the consultant team to establish four submarkets as the basis for a localized analysis of land uses, demographic indicators, economic conditions, and building typologies. The study sought to use the submarket framework to assess opportunities and challenges across different portions of the area, and examine local market and physical contexts to

¹³ https://www.silive.com/news/2017/09/amazon_center_coming_to_bloomf.html

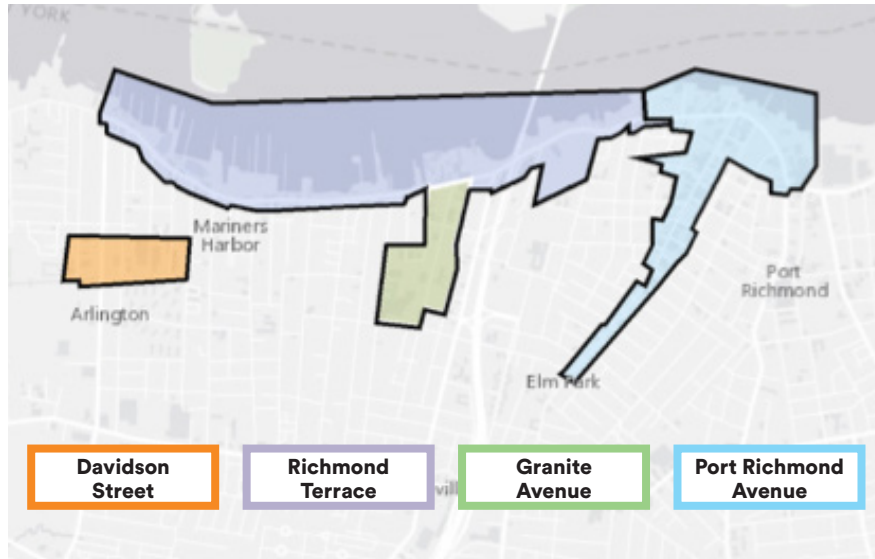


Fig. 55: BOA Area Submarkets

ensure that strategic recommendations for future development sufficiently align with local conditions. The following summarizes economic and market trends for each of the four submarkets. Community priorities and redevelopment scenarios for the BOA study’s corresponding subdistricts are discussed in Section 4.

Submarket A: Port Richmond Avenue Mixed-Use Corridor

The Port Richmond Avenue submarket is characterized by its strong retail corridor with historic architecture and open space assets. This area contains the popular waterfront Faber Park, new adjacent housing developments farther west along Richmond Terrace, and the historic Reformed Church on Staten Island. The submarket’s dormant rail corridor is also a major feature, providing an opportunity for new transit infrastructure and the potential to attract new retail and residential density.

Employment & Demographic Key Indicators: Submarket A features economic conditions that largely mirror those of the BOA study area as a whole. Population and employment in the submarket have slightly declined since 2010. Still an active commercial zone, the total residential population of the submarket

is approximately 11,000 residents, equaling 3,100 households. Median household income in this submarket is \$54,800, on par with the New York City median household income of \$55,300. Submarket A supports a total of 2,700 jobs.

Real Estate: The real estate inventory of the submarket is comprised of 1.7 million square feet of built floor area. The distribution of uses is summarized below, with overall submarket rent and vacancy indicators. Despite vacancies on Port Richmond Avenue, demand exists for up to 40,000 square feet of additional retail uses, including food and beverage businesses. However, the corridor’s businesses must compete with national and big-box retailers on Forest Avenue, the major thoroughfare at the southern terminus of Port Richmond Avenue, to the south of the study area, as well as suburban shopping centers and online retailers. To this end, the corridor would benefit from an enhanced shopping experience as well as additional residents near and on the avenue to increase activity and retail demand.

Land Use	SF/Units	Median Rent PSF	Vacancy
Industrial	478,300 SF	\$15/month	0.3%
Office	110,800 SF	\$18/month	4.2%
Retail	207 spaces	\$15/month	1.3%
Multifamily	291 units	\$12/year	1.4%

These summary statistics are based on available market data for existing properties in this submarket, as tracked by CoStar.

Submarket B: Granite Avenue Employment Hub

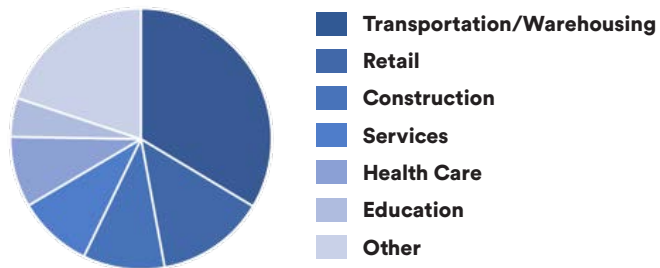
The Granite Avenue employment hub is centered between Granite and Lake Avenues, and borders Walker Street to the south. This hub supports over 800 workers. Industrial uses are predominant, although industrial rents are significantly lower than those of the BOA study area overall. This area contains a diverse mix of uses, including light-industrial warehouses and a K-12 private school.

Employment & Demographic Key Indicators: The Granite Avenue submarket analyzed here includes both the adjacent residential community and an active industrial district south of the North Shore Industrial Business Zone, with many heavy and

Submarket A

Port Richmond Avenue

EMPLOYMENT DISTRIBUTION BY SECTOR



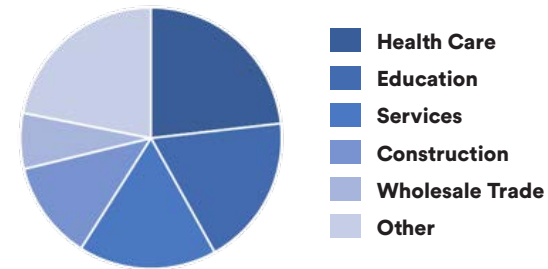
EARNINGS DISTRIBUTION BY WORKERS



Submarket B

Granite Avenue

EMPLOYMENT DISTRIBUTION BY SECTOR



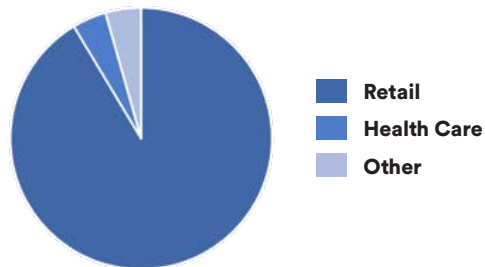
EARNINGS DISTRIBUTION BY WORKERS



Submarket C

Davidson Street

EMPLOYMENT DISTRIBUTION BY SECTOR



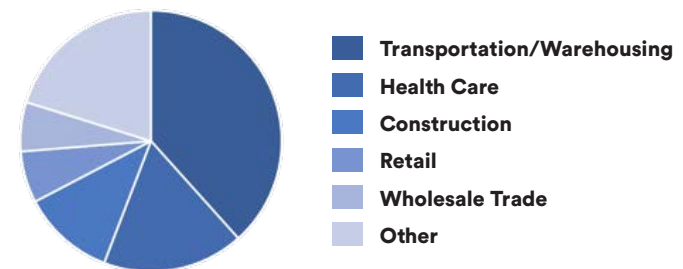
EARNINGS DISTRIBUTION BY WORKERS



Submarket D

Richmond Terrace

EMPLOYMENT DISTRIBUTION BY SECTOR



EARNINGS DISTRIBUTION BY WORKERS

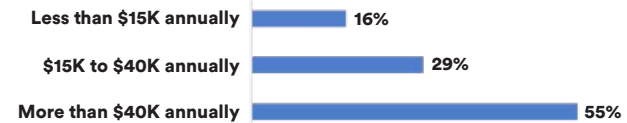


Fig. 56: Economic Statistics for Submarkets (Source: ESRI Business Analyst/Community Profile Data/U.S. Census LEHD Data, 2017). This data is aggregated from U.S. Census block groups that overlap with the study area.

open-air industrial uses. The total population of the submarket is roughly 2,000 residents, and fewer than 600 households. Median household income in this submarket is \$57,000.

Real Estate: The real estate inventory of Submarket B is comprised of approximately 335,000 square feet of built floor area. The distribution of total uses is summarized below, with overall submarket rent and vacancy indicators. These findings are based on available data for all existing property in this submarket.

Land Use	SF/Units	Median Rent PSF	Vacancy
Industrial	232,300 SF	\$10/month	0%
Office	15,800 SF	N/A	0%
Retail	19 spaces	\$26/month	13%
Multifamily	N/A	N/A	N/A

These summary statistics are based on available market data for existing properties in this submarket, as tracked by CoStar.

Submarket C: Davidson Street Mixed-Use District

The Davidson Street submarket is located in the southwest quadrant of the study area, centered on the manufacturing district between Davidson Street and Roxbury Street on either side of South Avenue. This submarket features significantly lower household incomes than the BOA area as a whole, with twice the level of unemployment. Industrial rents, however, are among the strongest of any found in the BOA area.

Employment & Demographic Key Indicators: This submarket contains the smallest residential population in the BOA study area: approximately 4,000 residents, equaling 1,300 households. Median household income in this submarket is \$32,000, representing the lowest in the BOA area. The submarket supports a total of 405 jobs.

Real Estate: The real estate inventory of the Davidson Street submarket is comprised of approximately 805,000 square feet of built floor area. The distribution of uses is summarized below, with overall submarket rent and vacancy indicators. These findings are based on available data for all existing property in this submarket.

Land Use	SF/Units	Median Rent PSF	Vacancy
Industrial	243,200 SF	\$21/month	14%
Office	16,200 SF	\$16/month	0%
Retail	8 spaces	\$24/month	0%
Multifamily	N/A	N/A	N/A

These summary statistics are based on available market data for existing properties in this submarket, as tracked by CoStar.

Submarket D: Richmond Terrace Working Waterfront

Transportation and warehousing are major components of Richmond Terrace, reflecting the area's extensive maritime infrastructure. While local worker incomes in this submarket are higher than those of the BOA area, residential incomes are notably lower. This area contains large waterfront industrial, storage, and maritime uses located along Richmond Terrace.

Employment & Demographic Key Indicators: This submarket contains the second-largest residential population in the BOA study area, approximately 8,000 residents or 2,500 households. Median household income in this submarket is \$42,000, \$12,000 below the New York City median household income. The submarket supports a total of 2,000 jobs.

Real Estate: The real estate inventory of Submarket D is comprised of approximately 614,000 square feet of built floor area. The distribution of total uses is summarized below, with overall submarket rent and vacancy indicators.

Land Use	SF/Units	Median Rent PSF	Vacancy
Industrial	311,700 SF	\$24/month	11%
Office	39,000 SF	\$21/month	0%
Retail	35 spaces	\$27/month	1%
Multifamily	N/A	N/A	N/A

These summary statistics are based on available market data for existing properties in this submarket, as tracked by CoStar.

SECTION 4

ANALYSIS, FINDINGS & RECOMMENDATIONS

I. OVERVIEW

The BOA process is designed to catalyze community-supported redevelopment by establishing a clear and actionable plan for neighborhood revitalization. The BOA team’s analysis of existing conditions across the study area, in consultation with the Steering Committee and project partners, has resulted in a consensus-based vision that prioritizes community health and well-being, the creation of affordable housing, protection of neighborhood character, and reconnection to the area’s historic livelihood as a commercial center and working waterfront.

To advance this vision, what follows is a roadmap for redevelopment. Section 4 explores the potential to revitalize

brownfield sites in four subdistricts within the BOA area. It sets forth fine-grained goals for each subdistrict, addressing local conditions and community needs. These goals in turn guide redevelopment scenarios envisioned for six strategic sites, offering templates for new commercial and industrial spaces, mixed-use developments, and community facilities.

A “roadmap for redevelopment” offers ideas and inspiration for public and private partners who are essential to achieving community goals.

While each scenario is tailored to its specific location and site requirements, these detailed physical, programmatic,

and financial strategies are applicable to brownfield and underutilized properties across the study area. In reimagining these sites as neighborhood assets, the scenarios presented here offer tools and insights for public agencies and private-sector partners whose investments are needed to realize the BOA area’s community vision.

Strategic site scenarios are followed by recommendations that provide actionable strategies that can be carried forward at site, subdistrict, and area-wide scales. Altogether, this roadmap provides a sustainable path to create a vital live-work neighborhood, expand access to quality jobs, and address environmental contamination within the BOA community—bringing together new infrastructure, resources, and inspiration for the people of Port Richmond and Mariners Harbor.



Fig. 57: The BOA Subdistricts, Clockwise from Top Left: Mixed-Use Corridor; Working Waterfront; Creative Industry; Affordable Neighborhood

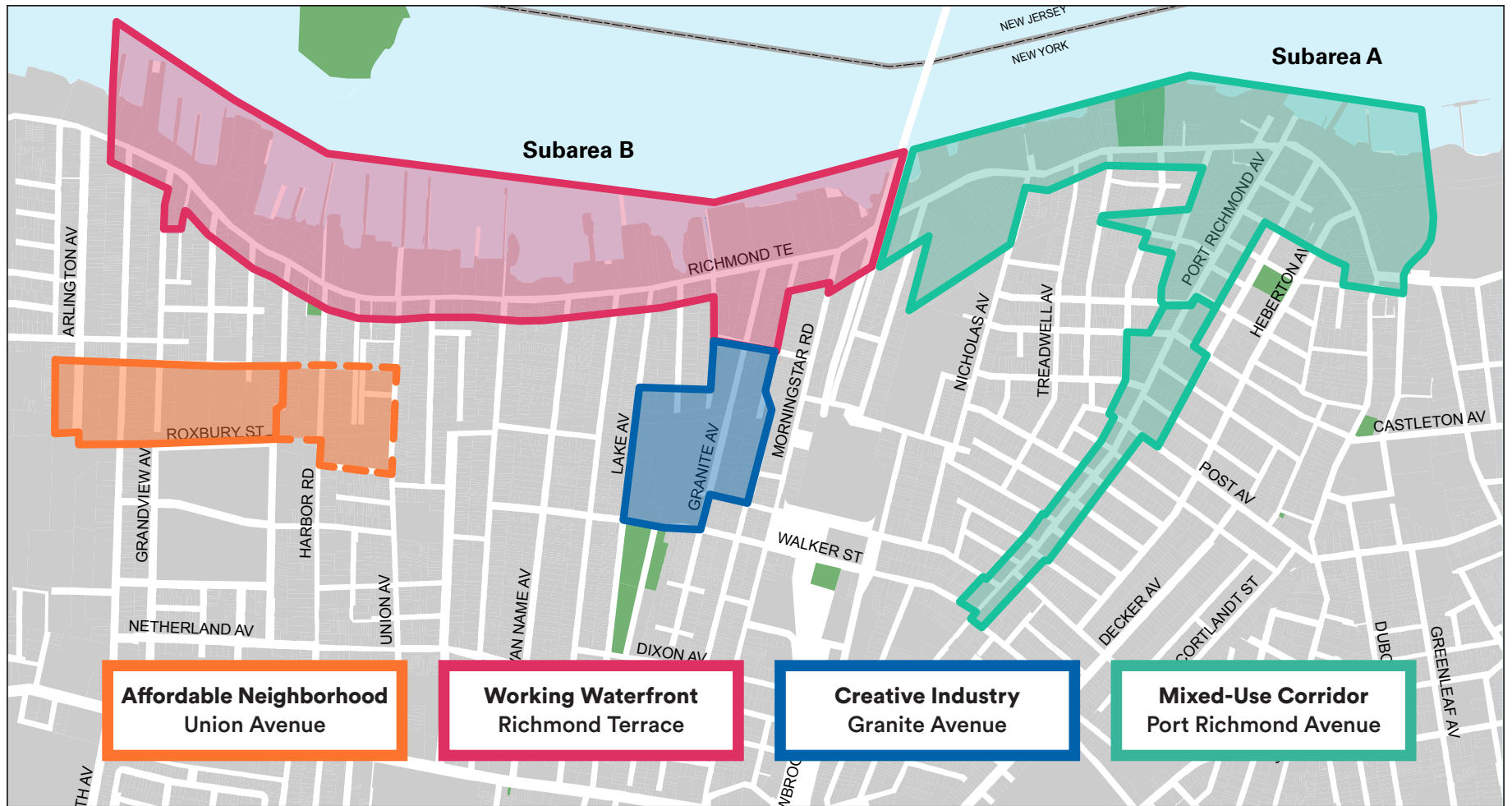


Fig. 58: Port Richmond-Mariners Harbor BOA Subdistrict Framework

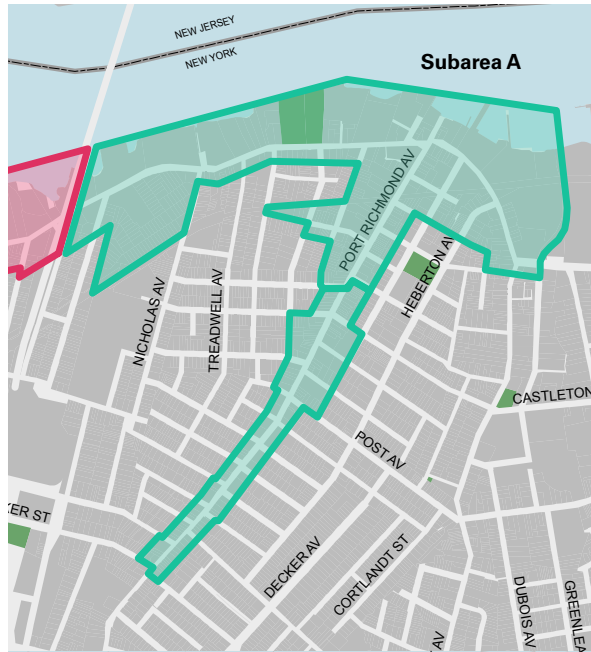
II. SUBDISTRICT FRAMEWORK

To identify the most appropriate and effective revitalization strategies for the BOA area’s diverse neighborhoods, the study area has been divided into four subdistricts that are described below. The project team sought to use this subdistrict framework to assess opportunities and

challenges across different portions of the study area, and examine local market and physical contexts to ensure that strategic recommendations for future development align with local conditions.

The boundaries of the four subdistricts were drawn with input from the Steering Committee and informed by the initial submarket analysis detailed in Section 3.

Each subdistrict reflects a consistent set of zoning and land use patterns, infrastructure, and economic conditions. Analysis of these conditions has informed the development of goals tailored to advance community-supported redevelopment actions for each subdistrict. Since this framework is focused on development opportunities, Mariners Marsh and Arlington Marsh have not been included in the subdistrict discussion.



SUBDISTRICT KEYMAP

MIXED-USE CORRIDOR: PORT RICHMOND AVENUE

Existing Conditions: This subdistrict encompasses the commercial core of Port Richmond Avenue and extends west along the Richmond Terrace waterfront to the Bayonne Bridge. On Port Richmond Avenue, the subdistrict begins at the southern edge of the study area, at Walker Street, and includes portions of the avenue zoned R3-2 and C8-1 as well as the larger C4-2 district that comprises the heart of the walkable commercial corridor. This grouping consists principally of mixed-use buildings, with occasional single-family residential homes, automotive uses, and commercial structures clustered at the southern end of the subdistrict. Given the



Fig. 59: View Toward the Kill Van Kull at Port Richmond Avenue and Richmond Terrace

largely intact fabric of street-level retail in the heart of the corridor—extending from Post Avenue north to Richmond Terrace—the district possesses an economic and urban cohesion that remains from its era as a regional shopping destination. Today the area’s existing business clusters of ethnic restaurants and home furnishing retailers reinforce its commercial identity.

At the northern end of Port Richmond Avenue, the subdistrict includes properties along Richmond Terrace from the eastern boundary of the study area, at Bodine Creek, and extends west to the Bayonne Bridge. These properties are almost entirely zoned for low- and medium-intensity manufacturing uses (M1-1 and M2-1), with exceptions for certain inland properties on

the south side of Richmond Terrace that are zoned for low- and medium-density residential uses (typically R4 and R3A). These uses include a cluster of water-dependent maritime businesses including Reinauer Transportation and Moran Towing at the eastern edge of the subdistrict. At Port Richmond Avenue’s northern terminus on the Kill Van Kull are several adjoining sites of community interest including a series of tax lots owned by Flag Container Services, which operates a construction and demolition waste transfer station on the waterfront. Extending west to the Bayonne Bridge, the subdistrict contains numerous waterfront sites with non-water-dependent uses, including storage facilities, parking, autobody shops, and building supply yards.

Goals: The community vision for this subdistrict seeks to **connect commercial activity along Port Richmond Avenue to create a more coherent, walkable district.** This includes the redevelopment of vacant and underutilized parcels along the avenue, particularly near the northern end where it approaches Richmond Terrace and the Kill Van Kull waterfront. This critical gateway to the commercial corridor and the BOA area to the west should be strengthened to create more continuous retail frontage extending to the waterfront and to nearby bus and future ferry connections. The community also wishes to see **the creation of mixed office, retail, and affordable residential uses** that will strengthen the area as a vibrant, live-work neighborhood and provide more residential density along the commercial corridor.

A third goal for the subdistrict is **improved waterfront access and public transit connections, while reserving deep-water access points for maritime uses.** Supporting existing maritime infrastructure is critical to enhancing the area's economic vibrancy, but waterfront industrial use must be balanced with greater public access to the Kill Van Kull and the creation of much-needed community open space. To facilitate a new, mixed-use neighborhood anchor on the waterfront, the community also recommends rezoning for higher-density, mixed-use development at the northern end of Port Richmond Avenue. This proposed rezoning would support subdistrict goals and permit the creation of new housing and community amenities at one of the most historic and significant locations in the BOA study area.

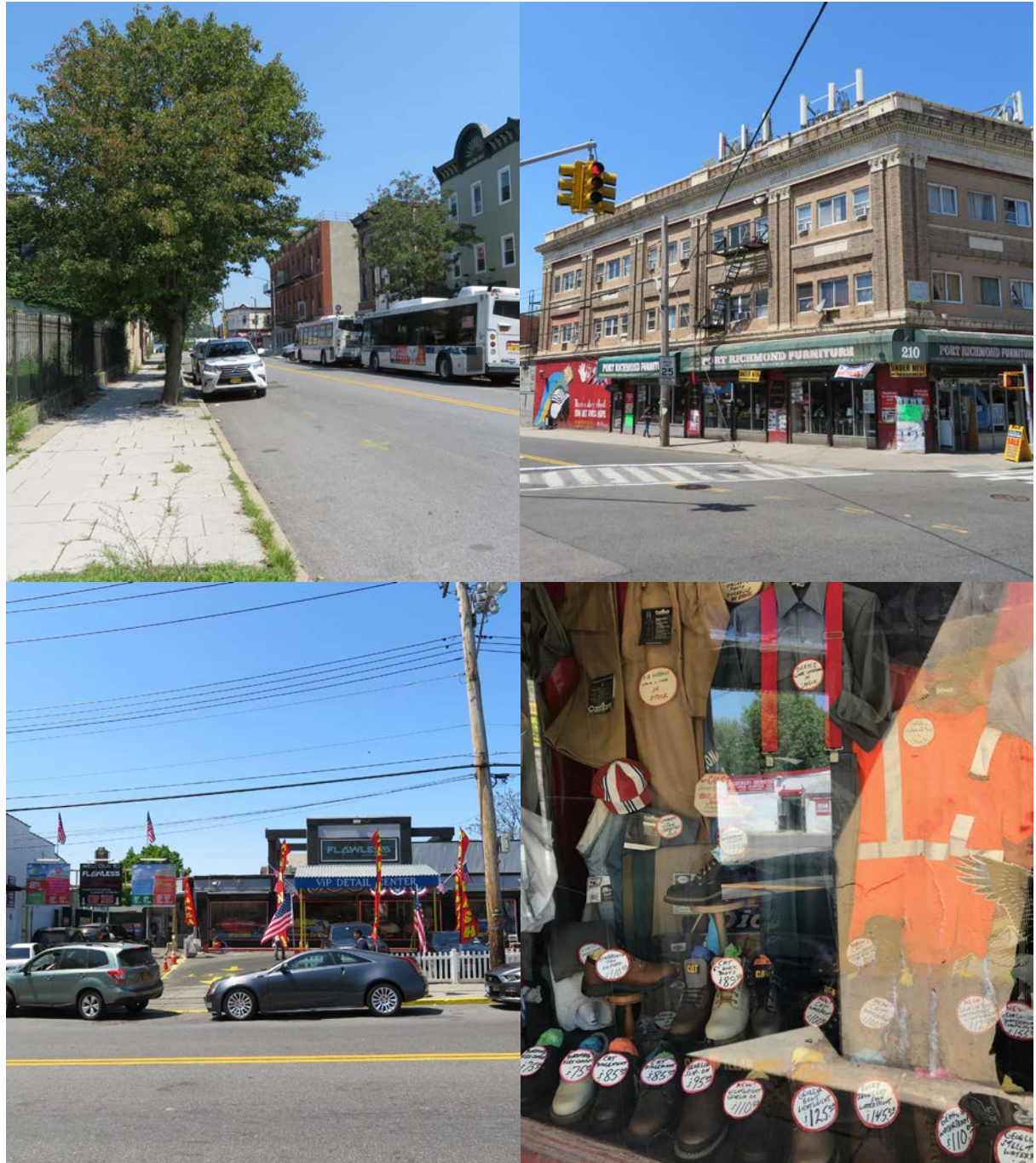
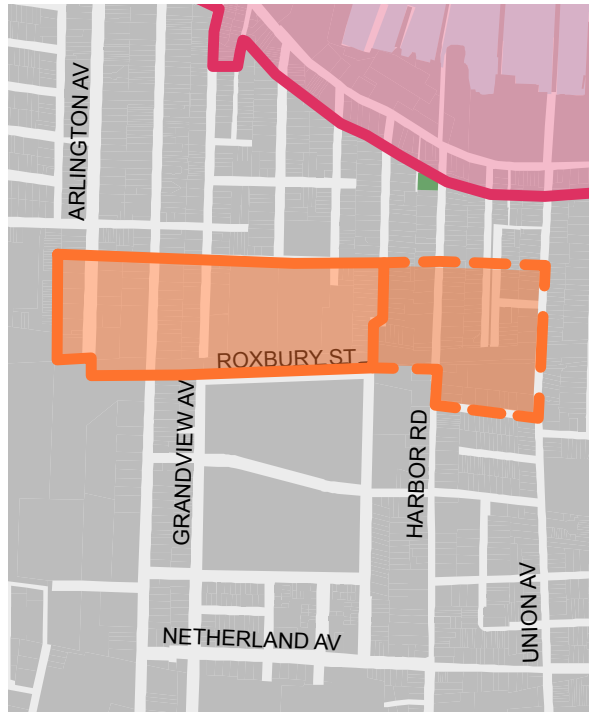


Fig. 60: Clockwise from Top Left: Bus Terminal at Port Richmond Avenue; Furniture Dealer at Castleton Avenue; Storefront Window Display; Automotive Use Within the Avenue's C8-1 District



SUBDISTRICT KEYMAP

AFFORDABLE NEIGHBORHOOD: UNION AVENUE

Existing Conditions: The Affordable Neighborhood subdistrict is centered around a medium-intensity manufacturing district (M2-1) bounded approximately by Arlington Avenue on the west, Lockman Avenue on the east, Davidson Street on the north, and Roxbury Street on the south. This district includes two large lots totaling 6.1 acres owned by 60 Davidson LLC, which abut the North Shore Railroad right-of-way, as well as smaller lots occupied by a variety of industrial uses including warehousing, distribution, welding, ironworking, and building suppliers.



Fig. 61: Davidson Street Industrial Site

The subdistrict extends east and south of the manufacturing zone to include an underutilized property of community interest bounded by Union Avenue, Harbor Road, Leyden Avenue, and the North Shore Railroad right-of-way. This site, composed of several adjoining tax lots, is largely vacant but includes several single-story storage facilities on its perimeter. The site is zoned for low-density residential development (R3A), and, like the subdistrict's manufacturing zone, is located within a context of detached and semi-detached one- and two-family residences.

The subdistrict also includes cultural and educational facilities such as the Mariners

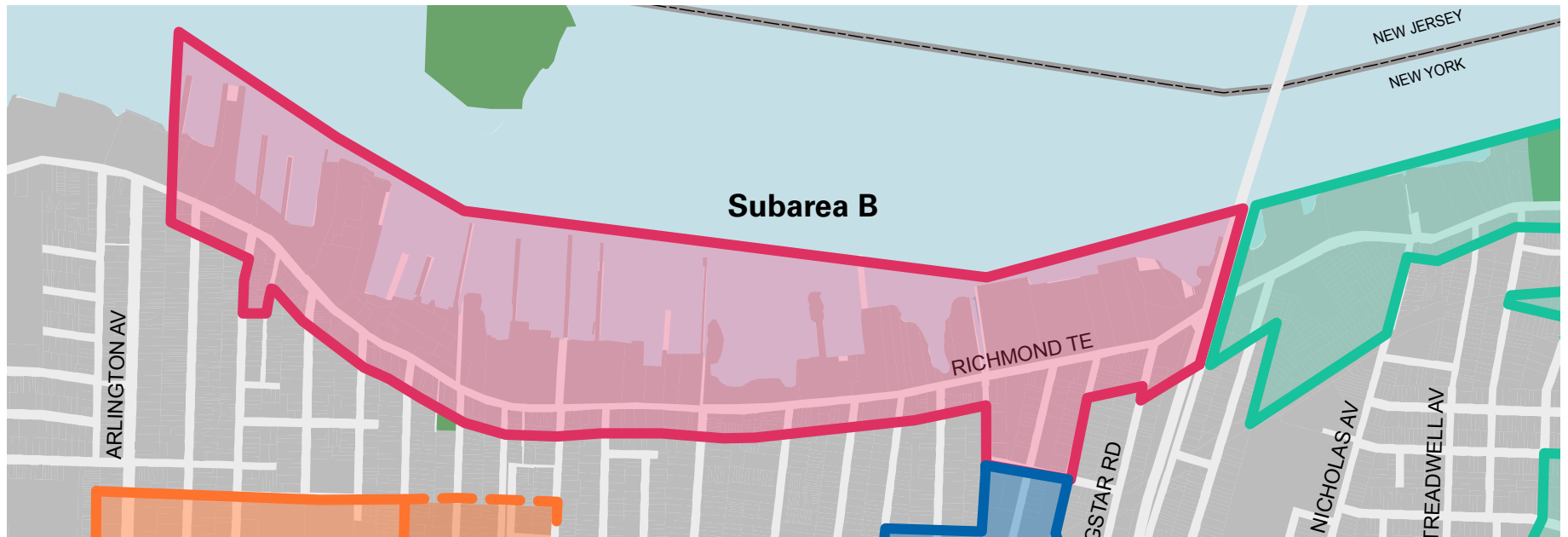
Harbor Library, a single-story branch of the New York Public Library opened in 2013 on South Avenue, and Public School 44, located on Union Avenue at Brabant Street. A large New York City Housing Authority complex lies to the south of the subdistrict's core manufacturing zone, between Roxbury Street and Continental Place.

Goals: Community goals for this subdistrict include the **creation of affordable housing and community facility uses, specifically a community health center.** Given its location within a largely residential neighborhood, the subdistrict offers potential to provide multifamily affordable housing that would offer greater options for both young families



and seniors within Mariners Harbor. A community health facility is also highly needed within this medically underserved area. To accompany additional residential density and community uses, additional goals include **parks, open space, and transit improvements that would provide key infrastructure and amenities** in this underserved area. To achieve these goals, the community recommends rezoning the Davidson Street industrial area to a mixed-use district. Such a district would allow for more productive use of currently vacant tax lots, and provide the setting for a more cohesive neighborhood fabric that includes diverse residents, businesses, and services.

Fig. 62: Clockwise from Top Left: Low-Density Housing on Leyden Avenue; Mariners Harbor Library; Vacant Storage Structure on Union Avenue; Building Supply on Arlington Avenue



SUBDISTRICT KEYMAP

WORKING WATERFRONT: RICHMOND TERRACE

Existing Conditions: The Working Waterfront subdistrict consists principally of a high-intensity manufacturing zone (M3-1) on the Kill Van Kull waterfront extending from approximately South Avenue on the west to the Bayonne Bridge on the east. This industrial waterfront contains key deep-water access points and some of the BOA area's most important maritime businesses, including Kirby Offshore Marine, McAllister Towing, May Ship Repair, and Great Lakes Dredge & Dock Company.

A number of non-water-dependent uses are also located in this subdistrict, including self-storage, plumbing and building trades, auto salvage, parking,

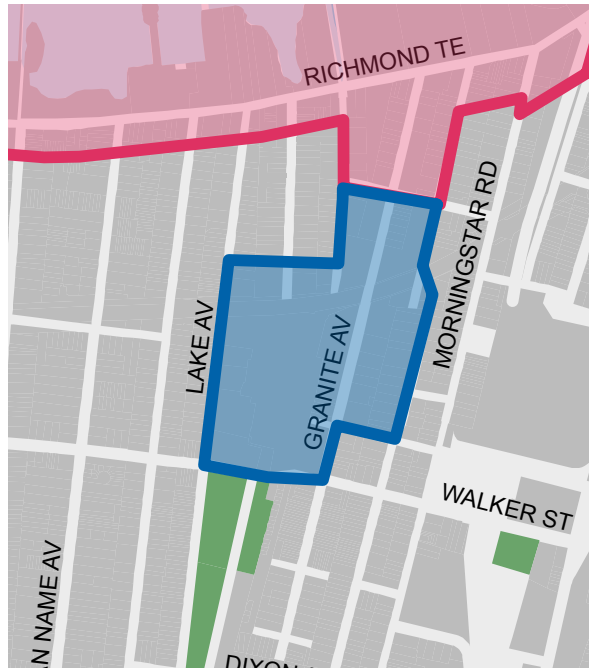
and vacant land. An area zoned for low-intensity manufacturing (M1-1) close to the Bayonne Bridge includes the North Shore Terminal, a provider of stone and other building materials. The subdistrict contains the future Van Name Van Pelt Plaza, set to become a rare community open space and ecological asset. A mix of zoning is found on the south side of Richmond Terrace, including M3-1 districts and residential districts R3A and R3-2, the latter permitting small multifamily apartment houses. A neighborhood commercial district serving the area includes delis, restaurants, and business suppliers. The subdistrict contains numerous vacant and underutilized parcels.

Goals: Community goals for this subdistrict are to **support job-intensive maritime industrial or light industrial**

uses, especially those with limited truck distribution requirements. This includes the utilization of limited deep-water access points for maritime uses to protect these prized waterfront sites within New York Harbor that provide access for deep-draft vessels and support the city's critical marine services sector. The community also wishes to **support as-of-right adaptive reuse or new construction on vacant property** to leverage the potential of this district to support a larger number and wider variety of industrial businesses that can create quality jobs accessible to local residents. Finally, a key transportation goal for this subdistrict is roadway widening and improved access along Richmond Terrace as may be feasible to **improve traffic circulation and mitigate congestion** on this narrow neighborhood thoroughfare.



Fig. 63: Clockwise from Top Left: May Ship Repair; Waterfront Self-Storage Facility; Ethnic Restaurant Within Neighborhood Commercial District; McAllister Towing



SUBDISTRICT KEYMAP

**CREATIVE INDUSTRY:
GRANITE AVENUE**

Existing Conditions: The fourth and final subdistrict is centered on a high-intensity manufacturing zone (M3-1) extending south from Richmond Terrace at Granite Avenue and including a large assemblage of industrial properties bounded by Lake Avenue, Granite Avenue, Walker Street, and the North Shore Railroad right-of-way. This area contains a range of industrial tenants including food distributors, automotive uses, warehouse and storage facilities, and a large plumbing supplier. These uses are in close proximity to the surrounding low-density residential neighborhood (R3A and R3-2) as well as an educational facility serving children with autism. In addition,



Fig. 64: Residential Dwellings Adjacent to Industrial Uses on Granite Avenue

the site is directly across Walker Street from a heavily used community baseball facility, which draws pedestrian traffic during games and poses a potential safety hazard given the volume of truck traffic entering and exiting the Granite Avenue industrial block. The area’s significant volume of truck traffic also reflects the proximity of Morningstar Road and several entry and exit ramps to the Bayonne Bridge, with its regional connections via Route 440. Granite Avenue is characterized by a relatively more industrial context, while Lake Avenue tends to be more residential in character between Walker Street and Richmond Terrace.

Goals: The community wishes to **encourage light industrial and office uses within this district, particularly creative-sector**

production, small manufacturing, and “maker” uses that do not generate truck traffic through adjacent residential neighborhoods. To advance this goal, the team focused on the industrial “district” block bounded by Granite Avenue to the south, Lake Avenue to the west, and Walker Street to the east, and recommends a series of improvements and interventions. As-of-right adaptive reuse of existing underutilized buildings is desired, as well as strategies to better utilize the district’s large open areas that are currently devoted to parking, storage, and vehicular circulation. In addition, there is broad community support for **rerouting existing truck traffic off Lake Avenue** to reduce negative impacts on local residents.



Fig. 65: Clockwise from Top Left: Industrial Tenants at 125 Lake Avenue; Loading Bay on Lake Avenue; Site Entry Point on Walker Street; Adjacent Residential Context

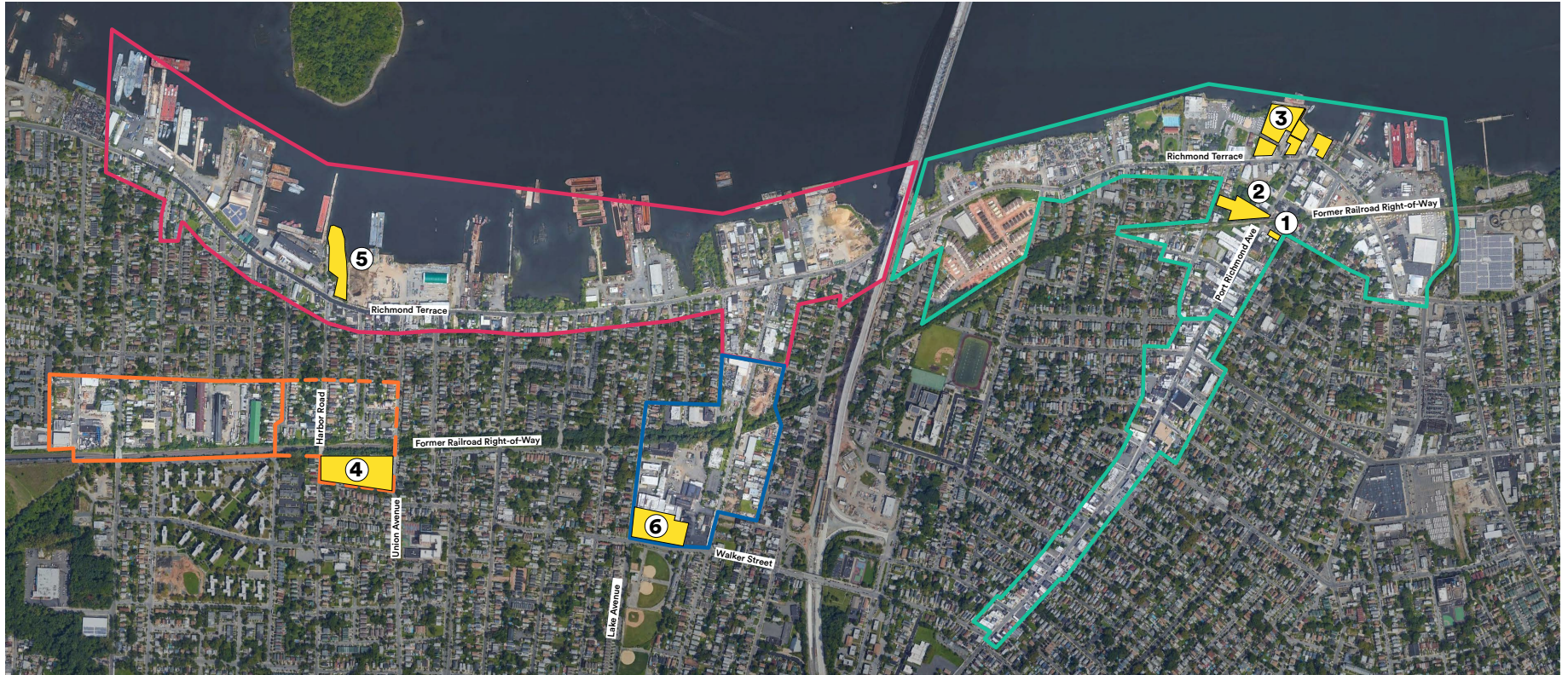


Fig. 66: Strategic Site Map

III. STRATEGIC SITE REDEVELOPMENT SCENARIOS

The identification of strategic site redevelopment scenarios is a key component of the BOA Step 2 Nomination Study. These representative sites offer templates whose strategies can apply to vacant and underutilized properties throughout the study area. Tailored to each subdistrict, the redevelopment strategies presented below are both pragmatic and visionary. They provide actionable scenarios that are grounded in market realities and modeled to reflect known site conditions

and regulatory constraints. Using market data collected during the submarket analysis and industry-standard assumptions for construction and financing, the BOA team has conducted a pro forma analysis to assess the development feasibility of each scenario and provide guidance on potential financing and incentive structures to improve project feasibility. At the same time, certain strategies are aspirational, offering visions of future development that may not be attainable in the near term, but are potentially feasible as the market continues to evolve. By testing these scenarios now, and identifying steps needed to achieve them, the BOA process can galvanize the

community support, partnerships, and investments that will be instrumental in seeing such longer-term visions to fruition.

Six strategic sites have been nominated for the BOA study area. These sites are grouped under three broad land-use types. Three **mixed-use residential developments** are proposed for the Port Richmond Avenue subdistrict. These include the redevelopment of a modest property along the commercial corridor, activation of a key underutilized area along the North Shore Railroad right-of-way, and a new community anchor at the northern end of Port Richmond Avenue. In the Union

Avenue subdistrict, a **community facility** is proposed that would provide critical medical services to support neighborhood health and well-being. Lastly, two **commercial and industrial** scenarios are proposed: a maritime education center on a waterfront parcel along Richmond Terrace, and on Granite Avenue, what is now a fragmented industrial district with negative community impacts would be reimagined to promote a more coherent district of creative and compatible manufacturing uses.

Each redevelopment scenario describes a potential use program and building typology, taking into account neighborhood needs and priorities, market feasibility, known brownfield issues, urban design opportunities, and zoning considerations. These ambitious and yet achievable visions represent a cross-section of site typologies, land uses, neighborhood contexts, and financial tools. They marshal the BOA area’s social, economic, and environmental assets in service of community goals, while showing how dormant properties can be reactivated as catalysts for revitalization.

SITE SELECTION CRITERIA

To identify strategic sites, the BOA team developed a number of criteria to assess their suitability to create catalytic community impacts. First, the team considered a site’s market readiness, including criteria such as public or private site ownership, whether a known or engaged owner has been identified, whether a site has been actively listed on the market, and its listing price. Second, the team evaluated site readiness. This

included assessing criteria such as zoning characteristics, maximum allowable floor area, unused floor area, as-of-right permitted uses, building condition, and flood risk. Third, the team evaluated catalytic impact potential through criteria that included site scale, proximity to public transit and truck routes, connection to open space, and fit for the proposed program. Additional criteria considered included community support for site redevelopment, and the potential for neighborhood development and job generation. In considering strategic sites, the team also sought to ensure a distribution of properties across the area’s four subdistricts, and took into account a site’s actual or perceived brownfield status.

Through an initial walking tour of the BOA area, along with an analysis of vacant, underutilized, and brownfield properties conducted as part of the existing conditions research discussed in Section 3, the project team developed an initial list of 15 sites, whose detailed profiles are included in the Appendix. This list included a number of sites identified during Phase One of the Port Richmond-Mariners Harbor BOA study. The Phase One Nomination Report put forth six strategic sites, one conditional strategic site, and two potential strategic sites, all clustered at the northern end of Port Richmond Avenue and along the Kill Van Kull waterfront.

SITE EVALUATION MATRIX	1 Richmond Chandelier	2 Port Richmond Storefront	3A City-Owned Waterfront	3B Former Standard Boat	3C Flag Services	4 Harbor Road	5 Union Ave	6 Walker St.
MARKET READINESS	3	5	3	1	1	4	3	4
RE Market for Proposed Use	●	●	●	●	●	●	●	●
Ownership	Private	Private	Public	Private	Private	Private	Private	Private
Known/Engaged Owner	CONFIRM	Yes	CONFIRM	No	No	Yes - TBD	CONFIRM	Yes - TBD
Live on Market	CONFIRM	Yes	CONFIRM	No	No	Yes - TBD	CONFIRM	Yes - TBD
SITE READINESS	3	5	3	1	1	4	3	4
Built Status	Vacant	Partial	Vacant	Vacant	Partial	Partial	Vacant	Built
Zoning Action?	Maybe	Maybe	YES	YES	YES	NO	Maybe	NO
Current Zoning	C4-2	C4-2	M3-1	M3-1	M3-1	M3-1	R3A	M3-1
Max. Allowable FAR	3.4	3.4	2.0	2.0	2.0	2.0	1.0	2.0
% Underbuilt	100%	51%	100%	100%	90%	98%	87%	7%
Flood Risk	500 yr	Outside	100 yr	100 yr	100 yr	100 yr	Outside	Outside
CATALYTIC IMPACT	4	4	5	5	5	4	5	4
Site Scale								
Lot Size (Acres)	0.80	0.1	0.45	0.62	2.6	2.2	1.68	0.93
Proximity to Public Transit	●	●	●	●	●	●	●	●
Proximity to Truck Routes	●	●	●	●	●	●	●	●
Connection to Open Space	●	●	●	●	●	●	●	●
Fit for Proposed Program	●	●	●	●	●	●	●	●
Community Support	-	-	-	-	-	-	-	-
Neighborhood Development	●	●	●	●	●	●	●	●
Job Generation	●	●	●	●	●	●	●	●
Distribution of Subdistricts	Mixed-Use	Mixed-Use	Mixed-Use	Mixed-Use	Mixed-Use	Waterfront	Neighborhood	Industry
TOTAL SCORE	10	14	11	7	7	12	11	12

Fig. 67: Strategic Site Evaluation Matrix

The list of 15 sites was analyzed according to the strategic site criteria. In consultation with the Steering Committee, the final selection of six strategic sites was made based on those sites which ranked highest on a site evaluation matrix. The selected sites consist of a range of vacant, partially vacant, and built properties with locations in each of the study area's four subdistricts. They have been selected with an emphasis on their potential to achieve catalytic community impacts, fulfill identified community goals, and serve as models that can guide public and private investment in similar sites throughout the study area. Complete environmental assessments for each site are included in the Appendix.

AREA-WIDE CONSTRAINTS AND OPPORTUNITIES

As the project team developed the strategic site scenarios, key considerations have been identified regarding market potential for sites across all four subdistricts.

Many redevelopment scenarios exhibit feasibility gaps today.

Many of the strategic site proposals outlined below show funding gaps. The economic challenges inherent in these scenarios are driven by a number of factors. Within the BOA study area, a clear market exists for new single-family, for-sale homes, but there is a limited track record for multifamily rental housing. The project team's analysis shows that the feasibility of multifamily construction depends on a project's ability to command rents that are approximately 10% higher than study

area rents today. Moreover, for larger redevelopment projects, the cost of creating structured parking to accommodate parking requirements adds to the financial gap. Larger projects also have a slow absorption timeframe, given the relatively small number of units the BOA area market can be expected to absorb each year. As a consequence, more ambitious projects with higher density require additional investment to sustain a project until it is fully occupied. Meanwhile, the development of industrial and community facilities is often financially challenging, even amid a climate of economic growth.

Subsidy programs exist to help fill gaps in the near term.

To achieve community-supported redevelopment goals, these project gaps can be filled through a variety of subsidy programs. For mixed-income housing, programs such as the Low-Income Housing Tax Credit can increase project feasibility while ensuring long-term affordability. This tax credit can be particularly powerful when combined with tax incentives through the Opportunity Zone program described below. Brownfield Tax Credits and other programs tied to the area's environmental challenges can also help close the gap, as can other programs managed by the NYC Department of Housing Preservation and Development that help subsidize affordable housing and community facility development. Lastly, programs are available to reduce direct or indirect costs for industrial companies and builders who grow the area's workforce. The most relevant such programs are summarized in Figure 68.

Two programs deserve special mention due to their potential to support redevelopment within the BOA area. The first is the Environmental Zone ("En-Zone"), which includes census tracts with a poverty rate of at least 20% and an unemployment rate at least 1.25 times the statewide rate. In the study area, these zones include sections between Port Richmond Avenue and Morningstar Road, and the area west of Harbor Road. Applicants to the New York State Brownfield Cleanup Program for sites within an En-Zone may receive additional tangible property tax credits of 5%.

The second program is the federal Opportunity Zone initiative. Launched in 2017, the program identifies economically-distressed communities where new investments may be eligible for preferential tax treatment. An Opportunity Zone is a low-income census tract with an individual poverty rate of at least 20% and median family income no greater than 80% of the area median. The BOA study area contains three census tracts designated as Opportunity Zones: 319.02, 223, and 207. These tracts encompass much of the study area, from Holland Avenue on the west to Jewett Avenue on the east. The designated area includes Port Richmond Avenue south to Charles Avenue, and the entire study area waterfront along Richmond Terrace. Opportunity Zones retain their designation for 10 years. Investors may defer tax on almost any capital gain up to Dec. 31, 2026 by making an appropriate investment in a zone. While there is no guarantee that investments will be made in a particular zone, a strong framework such as the BOA Revitalization Plan is essential to help steer

Tool	Program	Source	Benefit	Key Points
<i>Capital Support</i>	Regional Economic Development Council Capital Fund Program	NYS	Capital Grant	Funding for capital-based economic development initiatives for job development and/or retainment.
<i>Tax Incentives</i>	Industrial and Commercial Abatement Program (ICAP)	NYC Department of Finance	Property Tax Abatement	Provides abatements for property taxes of up to 25 years.
<i>Tax Incentives</i>	Relocation and Employment Assistance Program (REAP)	NYCEDC	Local Tax Credit	12-year annual tax credit of \$3,000 for each qualified job relocated into targeted areas.
<i>Tax Incentives</i>	Industrial Incentives for Developers	NYC IDA	Sales Tax Exemption and Mortgage Recording Tax Waiver	Developers of designated spaces can seek waivers and exemptions on specified taxes.
<i>Other</i>	Futureworks NYC Services	NYCEDC	Technical Assistance	Provides funding for services focused on creating employment opportunities in advanced manufacturing.
<i>Additional</i>				
<i>Industrial:</i> Con Edison Economic Development Program, Emerging Developer Loan Fund, Energy Cost Savings Program, Exempt Facilities Bond Program, Manufacturing Facilities Bond Program, NYC Industrial Developer Fund, NYCIDA Industrial Program, Sales Tax Exemption for Manufacturers				

Fig. 68: Funding and Incentive Programs for Industrial Development Initiatives Within the BOA Area

potential investments to projects that have been identified as community priorities.

Advance planning will help align future growth with community priorities.

Despite current redevelopment challenges, the BOA area is well positioned to capitalize on opportunities in the coming years. A growing residential population will strengthen retail demand, while a stronger retail district will in turn attract new residents. The mixed-use scenarios detailed below are intended to support this

cycle of synergistic housing and commercial growth. New jobs, like those proposed in this section’s industrial-sector revitalization scenarios, also increase neighborhood desirability. Clear momentum on the North Shore—both in rent and in demand for condominiums—can also be expected to fuel market growth and increase the feasibility of revitalization efforts.

To equitably harness market momentum, advance planning is important. The BOA process can help position Port Richmond and Mariners Harbor to capitalize on

revitalization opportunities for the benefit of both existing and future residents. This is critical given potential game-changing investments that could fuel broader investment in the BOA area. These include a possible Bus Rapid Transit connection to St. George, the activation of the North Shore Railroad viaduct (whether above or below), and a future ferry connection to Manhattan. The continued and focused leadership of Northfield Community LDC and other stakeholders will help ensure that such transformative investments are shaped to support community goals and priorities.

PORT RICHMOND AVENUE STOREFRONT

97 Port Richmond Avenue

The Socially Sustainable Storefront

Exploring strategies to address storefront vacancies on Port Richmond Avenue, this scenario offers a model for enhancing the street's residential and commercial vibrancy. Adaptive reuse of the building would add affordable residential units to the site, while remaining sensitive to community context and restoring an active ground-floor retail space to serve neighborhood needs.

Site Profile: This site consists of Tax Block 1005, Lot 8 and is bounded by Port Richmond Avenue to the west, commercial units to the north and south, and residential units to the east. It is located within the Mixed-Use Corridor subdistrict, zoned as C4-2. It occupies a lot between Bennett and Ann Streets on a block just south of the North Shore Railroad viaduct. The site is developed with a three-story commercial building including upper-story residential units, a first-story extension to the rear of the lot, and a garage. Property records indicate that the existing building was built in 1931, and was most recently used as a retail store.

Environmental Assessment: Based on a review of Sanborn Maps, historical uses of properties adjoining and surrounding the site include dry cleaning facilities, an auto garage, filling stations, paint stores, and parking facilities. A site of potential environmental concern was identified within a 400-foot buffer at 70 Park Avenue containing underground fuel-oil storage tanks. These surrounding uses may have adversely impacted the environmental quality of the site, including soil, groundwater, and soil vapor. Further investigation should be performed to determine the extent of potential



Fig. 69: 97 Port Richmond Avenue



EXISTING CONDITION

environmental impacts. Because the development or reuse of the property may be complicated by the presence or potential presence of contaminants, the site is recommended for a BOA nomination. Due to its location within an En-Zone, the property would be eligible for additional tax credits under the Brownfield Cleanup Program.

Redevelopment Vision: Port Richmond Avenue’s vibrancy has been dimmed by a significant number of storefront vacancies that interrupt the retail frontage and contribute to a sense of neighborhood disinvestment and diminished street life. At the same time, the creation of more affordable housing units is a top priority for the community, which particularly seeks to provide housing that can serve immigrant workers and others employed by the area’s

retail and service businesses. The BOA team thus explored the feasibility of redeveloping this property to maximize the creation of affordable residential units, restore its storefront retail space, and respect the historic height and character that define the commercial corridor’s walkable scale.

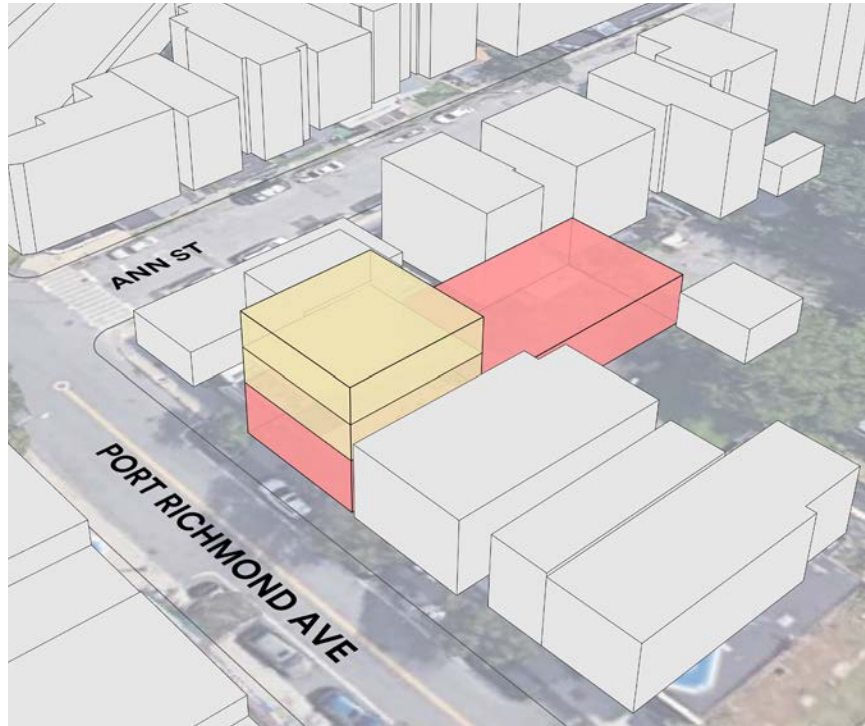
While many properties along the avenue are distinguished by their architectural character befitting a regional commercial center, this aging building falls into a second class of structures that has lost its original detail and charm over time. The project team thus tested a variety of redevelopment strategies to consider the most effective uses of the building and site. The two most viable options for this property proved to be adaptive reuse and as-of-right demolition and rebuild.

SITE 1 KEYMAP

The first scenario would rehabilitate the structure in its existing footprint, retaining its three-story, 35-foot height and rear ground-floor extension. The scenario allows for three residential units on the upper two stories totaling 3,079 square feet, plus a ground-floor commercial space of 4,376 square feet for a total project area of 7,455 square feet.

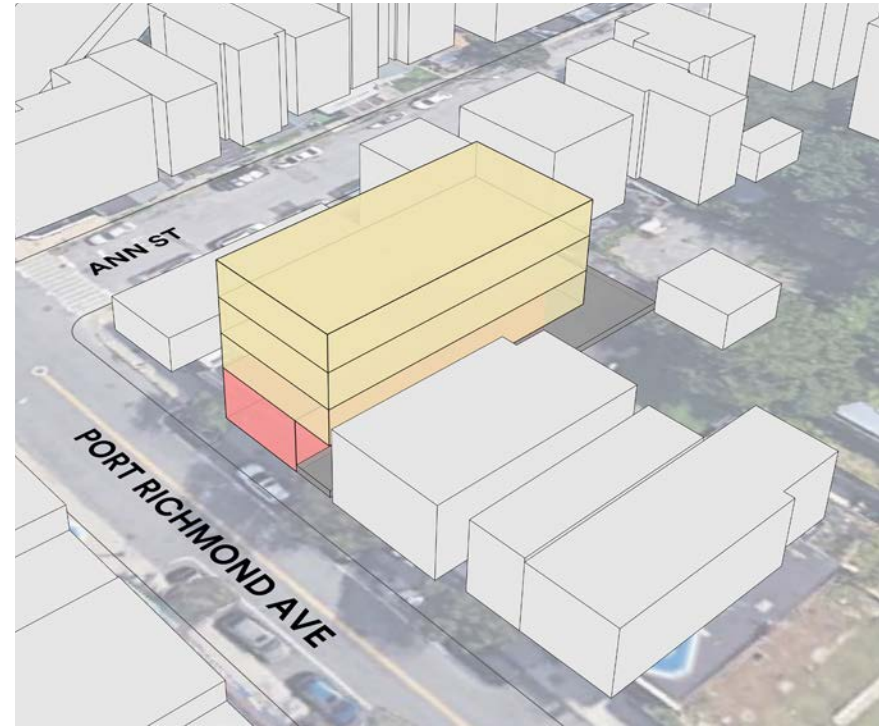
The second scenario would demolish the existing building and construct a 4-story building reaching 45 feet in height. Extending the upper three residential floors to the rear of the lot would provide 10 residential units totaling 9,641 square feet. In this scenario, the ground-floor commercial space is reduced by nearly half to 2,204 square feet, due to the need to provide six parking spaces at the rear of the lot. This

ADAPTIVE REUSE SCENARIO



Zoning	C4-2
Max. Commercial FAR	3.4
Max. Residential FAR	2.2
Lot Area (SF)	4,376
Max Building Height (FT)	55
ZSF	14,878
GSF	7,500
Proposed Commercial GSF	4,500
Proposed Residential GSF	3,000
Proposed Residential Units	3
Proposed Parking Spaces	0
Total Development Costs (Incl. Acquisition)	\$3,900,000
Potential Value of Brownfield Tax Credits	(\$350,000)
Development Costs After Tax Credits	\$3,550,000
Project Gap	(\$270,000)
Project Gap per Built SF	(\$36.00)

DEMOLITION AND REBUILD SCENARIO



Zoning	C4-2
Max. Commercial FAR	3.4
Max. Residential FAR	2.2
Lot Area (SF)	4,376
Max Building Height (FT)	55
ZSF	14,878
GSF	12,000
Proposed Commercial GSF	2,000
Proposed Residential GSF	10,000
Proposed Residential Units	10
Proposed Parking Spaces	6
Total Development Costs (Incl. Acquisition)	\$4,950,000
Potential Value of Brownfield Tax Credits	(\$400,000)
Development Costs After Tax Credits	\$4,550,000
Project Gap	(\$370,000)
Project Gap per Built SF	(\$30.83)



Fig. 70: Storefront Vacancies on Port Richmond Avenue

rear parking area would be accessed by a driveway running beneath the structure's cantilevered upper stories at the side of the lot. This scenario, totaling 11,845 square feet, provides significantly more residential units, although it does exceed the typical height along this part of Port Richmond Avenue, which consists almost entirely of one-, two-, and three-story buildings.

Financial Feasibility Analysis: Both scenarios show a gap between market-rate property values and what a private developer would be able to pay. Due to the deteriorated condition of the building, which appears to have significant interior structural damage, it is unclear whether the adaptive reuse scenario would provide cost savings over the demolition and rebuild scenario. Given the expense of rehabilitating such a compromised structure, it could prove more feasible to demolish the building and rebuild in its entirety.

This analysis shows that maximizing residential units on Port Richmond Avenue will require subsidies that could potentially be provided under affordable housing programs such as the Low-Income Housing Tax Credit or NYC Housing Preservation and Development programs intended to support the creation of affordable homes. Other subsidies, such as those provided by New York State's Main Street program, are also available for projects that revitalize mixed-use neighborhood commercial districts. The potential for rising commercial rents within the corridor as the retail environment improves could help offset the funding gap, making such projects more feasible over time. However, a community desire to provide deeper levels of affordability, making these units accessible to low-income families, would require increased subsidy levels.

Conclusion: Despite its challenges, this scenario has significant potential to inform similar redevelopment projects along Port

Richmond Avenue. The area has seen a number of recent projects to restore residential and commercial space, showing that the successful redevelopment of properties on the avenue is possible given available subsidy sources.

For example, at 162 Port Richmond Avenue, a new two-bedroom apartment over street-level retail was completed in 2017. Northfield Community LDC selected this project to receive a New York Main Street grant of \$75,000, and a new furniture store has subsequently opened in the ground-floor space. At 128-130 Port Richmond Avenue, also designated for a New York Main Street grant of \$200,000, the site's redevelopment is expected to result in 10 new apartments and two retail spaces. And at 41 Port Richmond Avenue, a Phase One strategic site, the property owner recently filed for approval of a 4-story apartment building. With additional properties under study for redevelopment, models for the creation of affordable residential space along the corridor can help sustain working families while restoring a vibrant retail district.

RICHMOND CHANDELIER SITE

76 Port Richmond Avenue

Activating the Avenue

Affordable housing with a placemaking focus would activate a key node on Port Richmond Avenue. Now largely a parking lot, this site would see mixed-income residences with art studios and creative spaces. A public forecourt would enliven the adjacent rail viaduct with an outdoor cafe or market. Alternative scenarios offer townhomes with a light industrial building, or apartments with ground-floor retail and commercial units that would add density and affordability. Both visions promise to create a key link between the avenue's commercial core and the waterfront.

Site Profile: This 1.1-acre site consists of Tax Block 1073, Lots 200, 97, and 31. It is bounded by Port Richmond Avenue to the east, commercial units to the north, and residential units to the west. Directly to the south is the elevated viaduct for the North Shore Railroad. The property extends the full width of the block, offering frontage on both Port Richmond Avenue and Maple Avenue. Located within the Mixed-Use Corridor subdistrict, and zoned C4-2, the site is partially built with a single one-story commercial building and an asphalt paved parking lot located south of the building. The site is currently used by lighting and electrical supplier Richmond Chandelier for storage and parking, operated in conjunction with the company's retail storefront and lot across the street.

Environmental Assessment: Based on a review of Sanborn Maps, historical site use as a filling station and a paint and wallpaper store may have impacted soil, groundwater, and/or soil vapor on the property. A site of potential environmental concern at 17 Grove Avenue was also identified within an approximate 400-foot buffer during a review of environmental databases and historical records. That site is listed in the NY Spills database for an open spill case and was previously used as a gas station. Further



Fig. 71: Richmond Chandelier Site



EXISTING CONDITION

investigation should be performed to determine if any of the above-identified environmental concerns have adversely impacted the environmental quality of the site. As the development or reuse of the property may be complicated by the presence or potential presence of contaminants, the site is recommended for a BOA nomination. Due to its location within an En-Zone, the property would be eligible for additional tax credits under the Brownfield Cleanup Program.

Redevelopment Vision: Located at a nexus between the commercial heart of Port Richmond Avenue and the Kill Van Kull, this largely underutilized property holds particular promise to create a new node reconnecting the community to the water. The relatively large size of the site offers an opportunity to design a multilayered, mixed-

use development that would be unique in Port Richmond and Mariners Harbor for its combination of mixed-income housing, creative retail spaces, and public amenities. Two residential typologies were studied. The first option includes a mixed-use building that maximizes retail frontage along Port Richmond Avenue. Four residential stories rise above the 5,000-square-foot ground-floor retail space, bringing the maximum building height to 55 feet. A lower setback along the avenue provides consistency with adjacent buildings, rising three stories to 35 feet. At the rear of the site, along Maple Avenue, a second residential building rises six stories to 55 feet, again with a setback to meet the neighborhood context at 45 feet. A parking area between the two buildings is accessed from Maple Avenue. With a total of 112 residential units, the development



SITE 2 KEYMAP

would substantially contribute to the revitalization of this portion of the retail corridor, increasing street life, retail activity, and affordable housing.

The second option explored two-story rowhouses on the site, modeling a typology more typical of the community context. This option would provide 21 residential units broken into three blocks. Two blocks would be set back from Port Richmond Avenue in the center of the site, with the third set along Maple Avenue. A two-story, light-industrial building would be constructed on Port Richmond Avenue, adjacent to the existing commercial structure to the north of the site. This building would offer potential use by artists, small manufacturers, and other creative production facilities.

MULTIFAMILY MIXED-USE SCENARIO



Zoning	C4-2
Max. Commercial FAR	3.4
Max. Residential FAR	2.2
Lot Area (SF)	48,609
Max Building Height (FT)	55
ZSF	165,271
GSF	117,000
Proposed Commercial GSF	5,000
Proposed Residential GSF	112,000
Proposed Residential Units	112
Proposed Parking Spaces	77
Total Development Costs (Incl. Acquisition)	\$40,080,000
Potential Value of Brownfield Tax Credits	(\$2,800,000)
Development Costs After Tax Credits	\$37,280,000
Project Gap	(\$1,985,000)
Project Gap per Built SF	(\$16.97)

ROWHOUSE/LIGHT INDUSTRIAL SCENARIO



Zoning	C4-2
Max. Commercial FAR	3.4
Max. Residential FAR	2.2
Lot Area (SF)	48,609
Max Building Height (FT)	55
ZSF	165,271
GSF	36,000
Proposed Commercial GSF	6,000
Proposed Residential GSF	30,000
Proposed Residential Units	21
Proposed Parking Spaces	32
Total Development Costs (Incl. Acquisition)	\$16,855,000
Potential Value of Brownfield Tax Credits	(\$1,300,000)
Development Costs After Tax Credits	\$15,555,000
Project Surplus	\$1,025,000
Project Surplus per Built SF	\$28.47



Fig. 72: Richmond Chandelier Site, Clockwise from Top Left: Railroad Viaduct; Beneath the Viaduct; Maple Avenue Neighborhood Context; The Site from Maple Avenue

In both scenarios, the property’s adjacency to the rail viaduct—currently an unwelcoming neighborhood barrier—presents an opportunity to turn a liability into an asset. This space underneath the viaduct could potentially be activated with cultural uses such as a farmer’s market, art installations, and performances. Public outdoor space could also be created along the edge of the Richmond Chandelier property, which could host a café, seating area, or green space.

The site’s vulnerability to flooding—it lies partially within the 500-year flood plain—would need to be addressed in either scenario by locating critical uses above the flood elevation and providing other resiliency measures to ensure the safety of residents and commercial tenants.

Financial Feasibility Analysis: With nearly 120,000 square feet, the mixed-use option is an ambitious redevelopment scenario and

carries a significant funding gap. However, the rowhouse/light industrial scenario, with 36,000 square feet, represents a much lower capital investment. With higher for-sale valuations given the existing market for rowhouses and two-family homes within Port Richmond and Mariners Harbor, the rowhouse scenario does operate at a surplus to the developer.

In both cases, the Brownfield Tax Credit could potentially offset expenses, along with affordable housing or other subsidies that could include the New York City Department of Housing Preservation and Development’s Mixed Income or Mixed Middle Income programs. The latter program, for example, funds the new construction of multifamily rental housing affordable to low-, moderate-, and middle-income families up to 165% of area median income (AMI). Under the initiative, 20% of the units in a new development must be reserved for low-income households earning less than 50% of the New York City AMI, with at least 15% of these low-income units set aside for very low-income families earning less than 40% of AMI.

Conclusion: This site’s location on the north side of the railroad viaduct presents a transition point between the lower-scale retail corridor to the south and the industrial-scale uses of the waterfront. Whether developed through the achievable rowhouse scenario—or through the more ambitious mixed-use option—the site can be leveraged to reconnect these two areas, while providing needed affordable housing and supporting cultural activity to fulfill key community goals for the subdistrict.

PORT RICHMOND WATERFRONT SITE

Richmond Terrace and Port Richmond Avenue

A Catalytic Community Destination

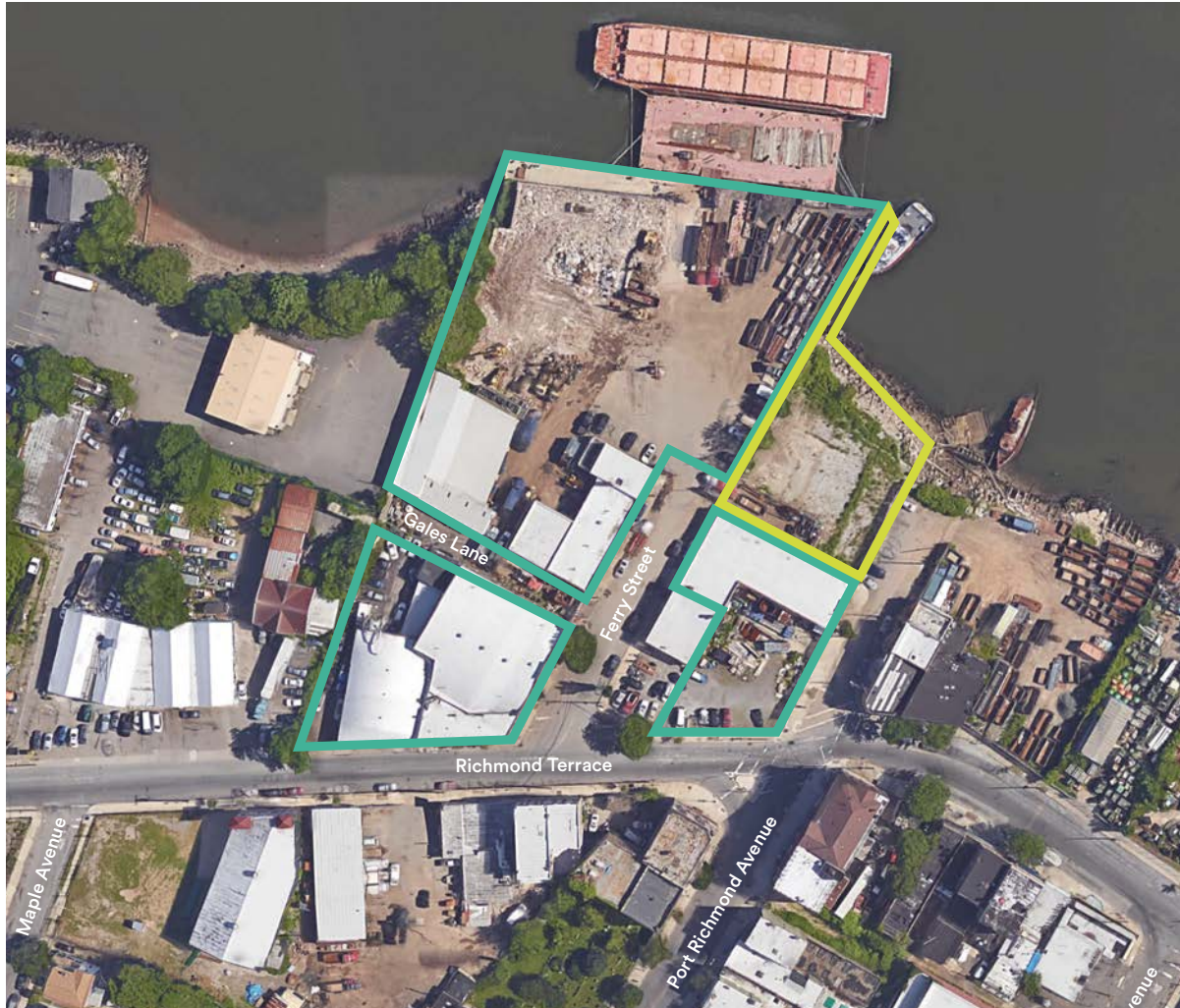
This assemblage of sites at the northern end of Port Richmond Avenue would create a new community anchor with a destination open space on the Kill Van Kull. Rezoning for mixed-use development would connect Port Richmond’s commercial district to the water, add new affordable housing, create a North Shore greenway link, and potentially reactivate an adjacent historic ferry stop.



Fig. 73: The Kill Van Kull Viewed from the Port Richmond Waterfront Site

Site Profile: This assemblage of 13 tax lots at the northern end of Port Richmond Avenue contains 4.8 acres of waterfront property. It is located within the Mixed-Use Corridor subdistrict, and is currently zoned M3-1 for high-intensity manufacturing use. One of the lots in the assemblage (Tax Block 1068, Lot 1) is vacant and publicly owned by the New York City Department of Small Business Services. The majority of the remaining lots are owned by Ferry Street Enterprises and occupied by Flag Container Services. These lots include the former Standard Boat Company site (Tax Block 185, Lots 568 and 578), which is largely vacant, and a series of lots that constitute Flag Container Services’ operating facilities including a construction and demolition waste transfer station (Tax Block 1068, Lots 9, 14, 17, 44, 45, 60, and 67). These lots also contain multiple warehouse buildings, an undeveloped area for the staging of vehicles and equipment, and a church and auto body shop. In addition, the assemblage incorporates three lots occupied by small businesses including a live poultry slaughter house, a liquor store, a small restaurant, and a deli (Tax Block 185, Lots 572, 575, and 576).

Environmental Assessment: These sites have been used for a wide array of activities in the past including a shoemaker, a hotel, lumber yards, coal storage, lime storage, oil and gasoline storage, a cement and asphalt plant, and mason materials storage. Several



EXISTING CONDITION

sites of potential environmental concern were identified within a 400-foot buffer during a review of environmental databases and historical records. Flag Container Services is listed in multiple environmental databases. Its properties contain three onsite tanks for used oil storage, and had a reported spill from the dispensing of diesel from a fuel truck. The facility is also listed

for prior storage of mercury. On the former Standard Boat Company site, a gasoline spill was caused by the leaking of fluids from tanks of junked vehicles. The adjacent intersection of Richmond Terrace and Port Richmond Avenue is listed for a 100-gallon raw sewage spill. Due to the historic and current site uses, documented contamination, and surrounding automotive and industrial oper-



SITE 3 KEYMAP

ations, these sites may have adverse environmental impacts to soil, groundwater, and soil vapor. Further investigation is recommended to determine if the above-identified environmental concerns have adversely impacted the properties. As the development or reuse of the properties may be complicated by the presence or potential presence of contaminants, these sites are recommended for a BOA nomination. Due to its location within an En-Zone, the property would be eligible for additional tax credits under the Brownfield Cleanup Program.

Redevelopment Vision: This redevelopment scenario represents the most aspirational vision of the six strategic sites. As the gateway to the Port Richmond Avenue commercial district, and a key location on the Kill Van Kull with potential to provide open

MEDIUM DENSITY MIXED-USE REZONING SCENARIO



Proposed Zoning	M3-1/R6
FAR	2
Lot Area (SF)	160,300
Max Building Height (FT)	55
GSF	365,000
Proposed Commercial GSF	15,000
Proposed Residential GSF	350,000
Proposed Residential Units	350
Proposed Parking Spaces	350
Structured Parking Spaces	171
Open Space and Street Infrastructure Costs	\$5,910,000
Development Costs (Incl. Acquisition)	\$151,155,000
Total Development Costs (Incl. Acquisition)	\$157,065,000
Potential Value of Brownfield Tax Credits	(\$14,800,000)
Development Costs After Tax Credits	\$142,265,000
Project Surplus	\$12,310,000
Project Surplus per Built SF	\$33.73

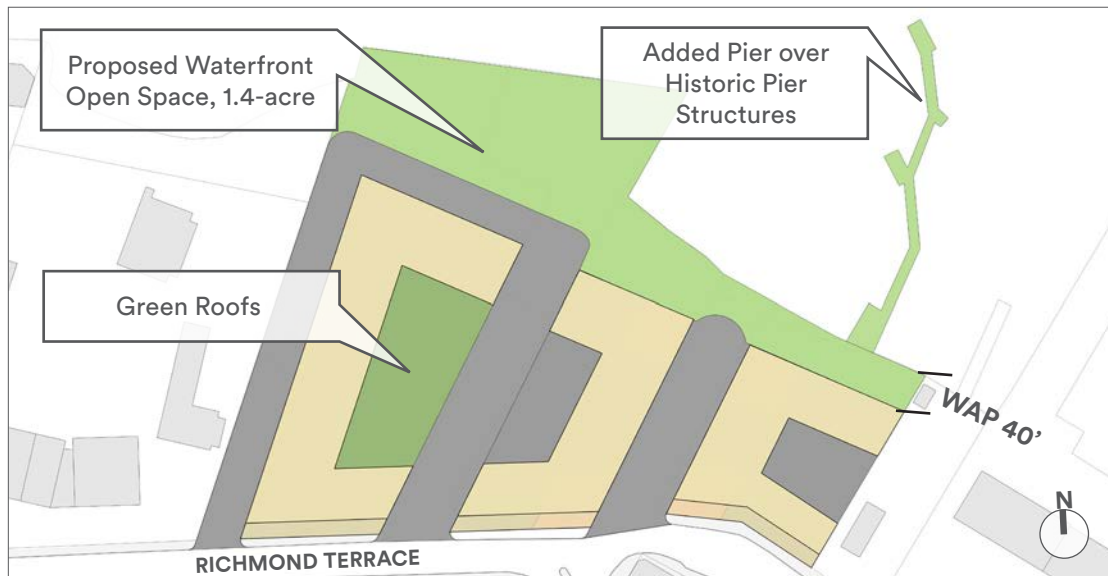




Fig. 74: Clockwise from Top Left: Port Richmond Avenue at the Kill Van Kull; Former Standard Boat Site; Existing Waterfront Condition; Port Richmond Avenue and Richmond Terrace

space and other amenities, the site offers an opportunity to repurpose a large waterfront parcel to better serve community needs and create a placemaking residential development that can anchor neighborhood growth.

To explore the site's potential as a catalytic mixed-use development, the project team evaluated a range of scales and densities, site configurations, parking scenarios, and financial models. In all of the site plans con-

sidered, the team prioritized a large waterfront open space accessible to the public. This 1.4-acre open space would encompass the site's entire waterfront edge. The area would extend from a generous public space on the west, with views to the Bayonne Bridge, and connect on the east with a pier reconstructed on the site of historic pier structures. This community amenity would provide needed open space in an area with precious little parkland. It would also pro-

vide a key connection in the North Shore Greenway, potentially serving as a link in a future continuous pathway stretching from Heritage Park on the east to Faber Park, a 4-minute walk to the west. The greenway's transformative potential as an asset for community health and heritage would be significantly advanced by the site's redevelopment. This key node in an open-space corridor spanning between the Goethals Bridge and the Verrazano-Narrows Bridge would positively impact not just the BOA community but the entire North Shore.

To most successfully accommodate mixed-use construction on the remainder of the site, the team proposed removing Gales Lane, a short mapped street that bisects two of the lots and is currently used exclusively by Flag Container Services. This allows for a site plan with buildings clustered in three blocks and accessed by parallel roads ending in cul-de-sacs at the waterfront. The circulation plan offers the potential to separate pedestrian and vehicular access, while providing adequate fire access.

The team investigated a variety of massing and density scenarios, ranging from a relatively high floor-area-ratio of 4.6 (containing 13-story buildings with more than 750 residential units) to 1.5 (with up to five-story buildings and 245 units). In consultation with the Steering Committee and project partners, a plan for moderate density and a balanced approach to site massing was selected, resulting in a floor-area-ratio of 2.1. This plan would create three U-shaped buildings of up to five stories each, with a total of 350 residential units. The buildings would be set back to four stories, or 45 feet



SITE CONTEXT AND OPPORTUNITY

in height, along Port Richmond Avenue to contextually meet the surrounding neighborhood. The project would also include 15,000 square feet of ground-floor destination retail space, located at building corners along Port Richmond Avenue in the block between Richmond Terrace and the water.

In providing new, mixed-income residential units within the BOA area, this development would offer a needed diversity of housing options, particularly for younger, smaller, or new immigrant families that are seeking smaller rental units. The development also offers an ideal location to accommodate the community's growing population around a future transit hub. The site includes the landing for Port Richmond Avenue's original ferry service. Restoring a ferry dock in con-

nection with this new waterfront development would reconnect the area to its waterfront heritage while offering needed transit links to New Jersey and Manhattan.

Special care would need to be taken to implement resiliency measures on this site given its location within the 100-year flood plain. Adherence to all applicable New York City regulations regarding new residential construction in the flood plain will likely require site elevation strategies, as well as other solutions to mitigate flood hazards. This presents an opportunity to show how creative design and infrastructure solutions could be leveraged to provide safe housing at the water's edge at a time of rising sea levels and frequent severe weather events. In addition, parallel planning for appropriate

infrastructure to address development impacts such as school capacity, wastewater treatment capacity, and traffic circulation would also be necessary.

This ambitious scenario would require a rezoning from the existing manufacturing uses to accommodate mixed-use residential development. It would also require the relocation of existing businesses on the site, notably the construction and demolition waste transfer station. While this business provides a needed service to Staten Island and is a significant employer for Port Richmond and Mariners Harbor, its reliance on trucking and its open industrial uses present a source of conflict for the nearby neighborhood. Redevelopment of the property would include the identification of incentives that

would permit the existing business to relocate to a site better suited to its operational needs, while allowing the redevelopment of this catalytic Port Richmond property in accordance with community priorities.

Financial Feasibility Analysis: Unlike some strategic sites, this redevelopment scenario would be financially feasible, but with certain caveats. Feasibility depends on the inclusion of condominium units as part of the housing mix, which would reduce the number of affordable rental units available. Project costs are driven in part by the new infrastructure needed to accommodate the site's open space and streets, as well as the provision of 350 total proposed parking spaces for the project. Given the large number of new units contemplated and the current residential market, the project could be difficult to lease up within a traditional timeframe of 12 to 15 months. On the other hand, the project would likely be eligible for a Brownfield Tax Credit that could considerably offset expenses.

The scenario's feasibility can also be expected to increase over time. As the North Shore market for multifamily housing strengthens, and the areas around St. George and Stapleton continue to see strong investment in mixed-use waterfront development, increased demand can be expected in other North Shore neighborhoods including Port Richmond and Mariners Harbor. Regional precedents in Brooklyn and New Jersey illustrate the potential for mid-rise, multifamily residential development in waterfront districts as the market matures. For example, Harbor Pointe in Bayonne, New Jersey, opened in 2009 with 544 units; City

Lights in Bayonne opened in 2015 with 28 units; and The Oyster in Edgewater, New Jersey, opened in 2016 with 100 units. These projects show that multifamily housing in emerging markets can feasibly provide critical rental options for families with a diverse range of housing needs and household incomes.

Conclusion: While this vision is aspirational relative to the current market in Port Richmond, it offers a template for redevelopment that stands to make transformative community impacts. Beyond reconnecting Port Richmond to the waterfront, and potentially catalyzing the restoration of ferry connections to Manhattan, a project of this size would powerfully stimulate demand for retail in the surrounding neighborhood. This vision is also highly adaptable to other sites within the Mixed-Use Corridor subdistrict. For example, a large underutilized property immediately west of the strategic site, currently used for parking and storage, could accommodate a similar program with comparable community impacts. As the multifamily housing market matures on the North Shore, advance planning will be crucial to ensure that new development on large sites such as these appropriately supports the community's area-wide revitalization vision.

UNION AVENUE SITE

130 Union Avenue

A Community “HealthPort”

This partially vacant site in Mariners Harbor, an area in need of additional health services and low-income housing, is envisioned as a holistic health center and neighborhood anchor with clinical space, recreational facilities, and a cafe offering healthy food options. The program would also include townhome residential units, while a proposed height variance would allow four-story senior housing along Union Avenue.

Site Profile: The site consists of Tax Block 1226, Lot 57 and is bounded by Union Avenue to the east, Leyden Avenue to the south, Harbor Road to the west, and the North Shore Railroad right-of-way to the north. It is owned by 647-649 Washington Ave., LLC and was used for lumber company operations for at least five decades. Located in the Affordable Neighborhood subdistrict, the site is zoned for low-density residential (R3A). It is partially built, with a warehouse to the east along Union Avenue and a large asphalt lot to the west. Residential properties adjoin the lot to the south.

Environmental Assessment: Based on a review of Sanborn Maps, historical site use as a lumber yard and coal storage facility, along with the presence of active railroad operations, may have impacted soil, groundwater, and/or soil vapor. The site is listed in regulatory databases for a fuel oil spill. Numerous additional sites of environmental concern are located within a 400-foot buffer. Further investigation should be performed to determine if any of the recognized environmental concerns have adversely impacted the site’s environmental quality. As development or reuse of the property may be complicated by the presence or potential presence of contaminants, the site is recommended for a BOA nomination.



Fig. 75: Union Avenue Site Interior



EXISTING CONDITION

Redevelopment Vision: This site presents an opportunity to establish a new type of community anchor for Mariners Harbor. Working with local health provider Beacon Christian Community Health Center, the project team has developed a vision for a “HealthPort” that would provide health services and neighborhood facilities for a community in urgent need of additional public health assets. As previously noted, Mariners Harbor has been designated as the only medically underserved area in Staten Island. In response, Beacon opened in 2006 to holistically address residents’ physical, mental, emotional, and spiritual needs. Beacon is seeking to expand its services, offering the BOA team an opportunity to test a scenario for a new health center in Mariners Harbor.

In the same way that the region’s waterfront ports serve as destinations for maritime services and provide safe harbor, so this facility would be a port for community well-being. The scenario envisions a 35,000-square-foot facility sited along Union Avenue, close to existing S46/96 bus service. The site would include approximately 25,000 square feet of medical offices offering primary care and other medical and surgical specialties. The space would also potentially include a chapel, counseling spaces, and services to support behavioral health care. Nutrition facilities, including classrooms with live kitchen space, would provide food education.

Medical space would be complemented by 10,000 square feet of community facilities. These areas would potentially include a gym for public use as well as for physical therapy,

SITE 4 KEYMAP

community meeting spaces, and a café that would serve healthy foods for a neighborhood whose eating options largely consist of fast-food restaurants. The café would also offer employment opportunities for the area’s low-income population, and become a community hub building social connections.

The program would also include housing on the site. Two housing typologies were explored. The first, as-of-right option proposes five, two-story rowhouses. Three rowhouses would be placed on the site’s southeast corner, with two additional rowhouses adjacent to existing housing on Leyden Avenue. Fifteen residential parking spaces would be provided, accessed from Union Avenue. The second housing option would require a height variance to accommodate a four-story, 45-foot-tall building at

AS-OF-RIGHT SCENARIO WITH ROWHOUSES



HEIGHT-VARIANCE SCENARIO WITH SENIOR HOUSING



Zoning	R3A
Max. Commercial FAR	1
Max. Residential FAR	0.5
Lot Area (SF)	78,221
Max Building Height (FT)	35
ZSF	78,221
GSF	45,500
Proposed Community Facility GSF	35,000
Proposed Residential GSF	10,500
Proposed Residential Units	5
Total Parking Spaces	67
Total Development Costs (Incl. Acquisition)	\$28,120,000
Potential Value of Brownfield Tax Credits	(\$2,500,000)
Development Costs After Tax Credits	\$25,620,000
Project Gap	(\$2,970,000)
Project Gap per Built SF	(\$62.53)

Zoning	R3A
Max. Commercial FAR	1
Max. Residential FAR	0.5
Lot Area (SF)	78,221
Max Building Height (FT)	45
ZSF	78,221
GSF	55,500
Proposed Community Facility GSF	35,000
Proposed Residential GSF	20,500
Proposed Residential Units	18
Total Parking Spaces	102
Total Development Costs (Incl. Acquisition)	\$31,420,000
Potential Value of Brownfield Tax Credits	(\$2,600,000)
Development Costs After Tax Credits	\$28,820,000
Project Gap	(\$4,450,000)
Project Gap per Built SF	(\$79.46)



Fig. 76: Left: Silos Viewed from Leyden Avenue; Right: NYCHA Housing at Grandview Avenue

the corner of Union and Leyden Avenues. This mixed-use building would offer ground-floor medical or community space, with the upper stories providing housing to serve the area’s growing senior population. Two two-story rowhouses would be constructed further west on Leyden Avenue. This option would provide 18 residential units, with 32 residential parking spaces.

The large site offers an opportunity to contribute to community open space needs. Its western portion could include exercise or playground facilities with potential access from both Union and Leyden Avenues. An opportunity also exists to extend this open space to Harbor Road on the west through two adjoining tax lots owned by the same property owner. These lots are vacant with the exception of abandoned silos likely dat-

ing to the property’s use as a coal-storage facility. The silos could be rehabilitated as industrial artifacts, and this portion of the site opened to public access.

Financial Feasibility Analysis: Both options for this redevelopment scenario carry a funding gap, with a larger gap for the height-variance scenario. The project’s feasibility could be enhanced through potential resources including New Markets Tax Credits, New York State funding programs through the Regional Economic Development Council Consolidated Funding Application, programs of the NYC Industrial Development Agency, and philanthropic contributions. Use of the Brownfield Tax Credit Program could also offset expenses, with an additional bump-up available due to the site’s location within an En-Zone.

Conclusion: Given the neighborhood’s public health needs, the HealthPort presents an ideal use in this subdistrict and could be adapted to potential sites throughout the area. The location on Union Avenue, as well as other sites along Davidson Street or near South Avenue, offer unique opportunities for a community health center. This part of Mariners Harbor has no central gathering place that would strengthen social, cultural, and economic infrastructure. Adjacent to the North Shore Railroad right-of-way, the subdistrict stands to benefit from future transit connections should the right-of-way be reactivated for transit service. In addition, proximity to the New York City Housing Authority complex between Lockman and Grandview Avenues offers convenient access for this large population that would benefit from health services.

A recommended rezoning of the subdistrict’s manufacturing zone to permit mixed-use development would further provide for the synergistic creation of new housing, retail, and community facilities to support the South Avenue commercial corridor while creating a dynamic new center for Mariners Harbor.

HARBOR ROAD PIER

3001 Richmond Terrace

A Harbor School for the North Shore

Located on an underutilized waterfront site, this scenario would provide education and training programs that leverage access to the Kill Van Kull and support job generation among the North Shore's maritime industries. Modeled on the Harbor School, which provides career and technical education to high-school students, the facility would also train adults seeking access to high-quality maritime jobs.



Fig. 77: Harbor Road Pier Site Viewed from Richmond Terrace

Site Profile: This 2.2-acre site in the Working Waterfront subdistrict, zoned for high-intensity industrial use (M3-1), consists of Tax Block 1206, Lot 23. The site is bounded by Harbor Road to the west, Richmond Terrace to the south, the Kill Van Kull channel to the north, and an undeveloped lot to the east. The property is owned by RCA Richmond Terrace LLC and has historically been used as a lumber yard and leasing facility. The site is partially built, with a warehouse to the east and a large undeveloped lot to the north. An adjacent two-story building on a separately owned tax lot at the corner of Richmond Terrace and Harbor Road is occupied by a small restaurant and residential dwellings.

Environmental Assessment: Based on a review of Sanborn Maps, the site's historical use as a lumber yard may have impacted soil, groundwater, and/or soil vapor, especially if wood preservatives such as creosote were used. Surrounding properties have been associated with numerous environmental concerns including a 16,192-gallon spill of #6 oil, which affected surface water, and a tank failure which resulted in the release of 50,000 gallons of a mixture of #6 oil and waste oil from a sunken barge. The historical site use and extensive spill history associated with surrounding properties may



EXISTING CONDITION

have adversely impacted the environmental quality of the site. Further investigation is suggested to determine the extent of potential environmental impacts. As redevelopment may be complicated by environmental impacts, the site is recommended for a BOA nomination.

Redevelopment Vision: This site, in the heart of Mariners Harbor’s industrial zone, presents challenges for reactivation in keeping with the Working Waterfront sub-district’s goal to support maritime jobs. Like similar sites along the BOA area waterfront, the property lacks sufficient deep-water access that would permit use by ship repair, towing, or related businesses. Its shoreline does not contain a bulkhead, pier to deeper water, or associated improvements that would be necessary to make it viable

for intense maritime use. Due to previously discussed regulatory barriers and major investments needed to upgrade shoreline infrastructure, reuse of this site by a water-dependent maritime business is unlikely.

Consequently, the BOA team, in consultation with the Steering Committee and maritime stakeholders, has proposed a program of maritime education and workforce training that would leverage the site’s proximity to some of the North Shore’s most important maritime employers. Such a use would benefit from waterfront access, but without requiring extensive investments to infrastructure or inducing significant additional truck traffic within the neighborhood. The proposed redevelopment scenario envisions a 35,000-square-foot educational facility and a 20,000-square-foot light industrial



SITE 5 KEYMAP

space that would support maritime workforce training initiatives. These uses would be located in a four-story building extending from Richmond Terrace toward the waterfront, stepping down in height to three stories and then two before terminating at a large open space where the property meets the Kill Van Kull. Given the size of comparable educational facilities, the program could accommodate an estimated 365 students.

This vision has been inspired in part by the Harbor School, which opened on Governors Island in 2010 and currently serves 520 students. Its diverse maritime career and technical education programs include vessel operations, professional scuba diving, marine policy, marine biology, marine systems technology, and ocean engineering. A number of specialized facilities support

EDUCATION AND WORKFORCE TRAINING SCENARIO



Zoning	M3-1
Max. Manufacturing FAR	2
Lot Area (SF)	95,832
Max Building Height (FT)	60
ZSF	191,664
GSF	55,000
Proposed Workforce GSF	20,000
Proposed Educational GSF	35,000
Min. Accessory Parking	55
Proposed Parking Spaces	65
Total Development Costs (Incl. Acquisition)	\$29,640,000
Potential Value of Brownfield Tax Credits	(\$2,950,000)
Development Costs After Tax Credits	\$26,690,000
Project Gap	(\$2,700,000)
Project Gap per Built SF	(\$49.09)

the school's mission, such as an electronic bridge simulator, boat building workshop, and welding shop. The school receives 900 applicants each year for 140 seats, suggesting high demand for its programs. Such interest reflects an increased emphasis on career and technical education as a national priority. Given a surging need for engineers and technology innovators, the Harbor School's students reportedly enjoy strong career opportunities, whether destined for college or moving directly into the field.

Representatives of the BOA area's maritime businesses have cited a lack of qualified personnel on the North Shore who can perform the range of needs required for their operations. Even though jobs in marine-related industries have declined over the

last decade within the BOA area, current and future initiatives suggest that citywide maritime job opportunities may increase in the coming years. These initiatives include:

Job training opportunities for the emerging offshore wind industry. Wind power developers and federal energy planners have long seen the New York region as an ideal location for developing wind farms, and the state has set a goal of 2,400 megawatts of offshore wind by 2030. Fabrication and service of these facilities offers considerable employment opportunities for the sector.

Reactivation of the South Brooklyn Marine Terminal. In 2018, New York City announced plans to reactivate the South Brooklyn Marine Terminal as a major shipping hub, bring-

ing new industrial uses and 250 jobs to the South Brooklyn waterfront including waste paper recycling and export, import cargoes of lumber, salt, and aggregate material, and container-on-barge operations.

Freight NYC. New York City's freight volumes are projected to increase each year, reaching 312 million tons by 2045, a 58% increase over the 2016 volume. The city's \$100 million Freight NYC plan responds to this need by making strategic investments to modernize maritime and rail assets and create new distribution facilities.

A future regional barge network. In 2018, the Port Authority of New York and New Jersey and NYCEDC took initial steps to establish a regional barge network that would

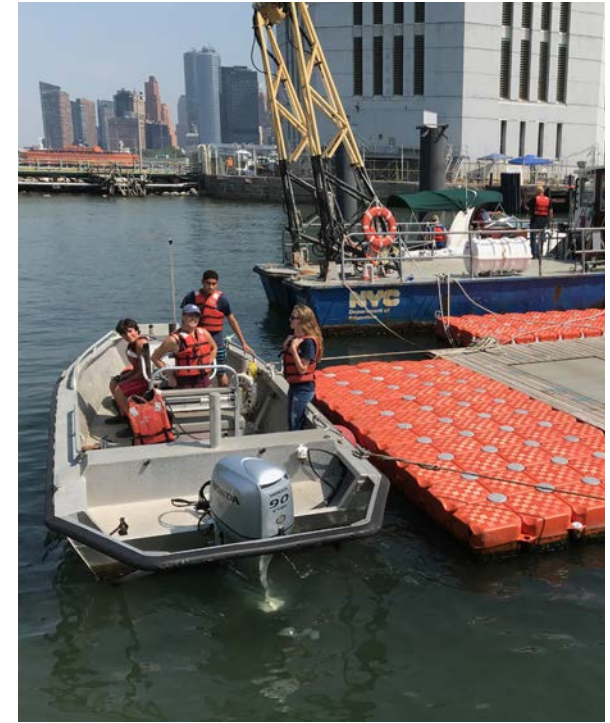
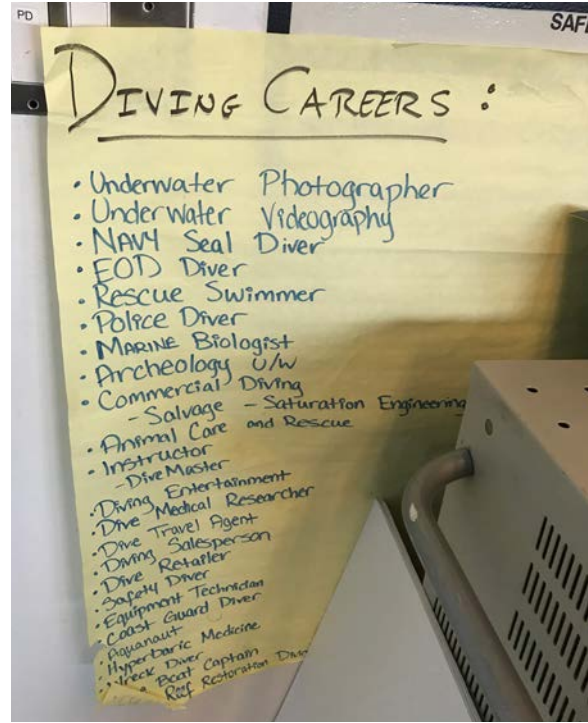


Fig. 78: Scenes from the Harbor School: Oyster Setting Tank; Diving Career Opportunities; Preparing for an On-Water Assignment

foster the use of barge services to move goods in the metropolitan region, offsetting the use of trucks carrying freight to and from the Port of New York and New Jersey.

Financial Feasibility Analysis: Development of an educational facility as described here would require a subsidy for construction, which increases when factoring in land acquisition costs. This funding gap could be reduced through a range of subsidy programs, including New Markets Tax Credits, New York State’s Regional Economic Development Council Consolidated Funding Application programs, and philanthropic contributions. A number of potentially applicable programs are highlighted in Figure 68.

Conclusion: This redevelopment vision promises to support the employment needs of the BOA area’s maritime businesses while connecting local residents to quality maritime jobs. The proposed site has distinct advantages for such a program. Located directly south of Shooters Island, it is protected from the channel’s busy shipping traffic. Nearby Mariners Marsh Park and Arlington Marsh offer opportunities for environmental education as part of the school curriculum. Proximity to May Ship Repair, directly west of the site, could offer potential collaboration with an active maritime business. Lastly, the publicly owned street-end at Harbor Road could be integrated into the site’s open space, allowing public access to potential waterfront amenities on the site.

Realizing this vision will require a more comprehensive understanding of needs and gaps in workforce training among maritime businesses. As a first step, a taxonomy should be created of maritime-sector jobs across the region—from welding to logistics to piloting—as well as their educational requirements. Further consultation with public agencies and region-wide education providers would add additional insights to refine the program structure. Development of the school would also benefit from collaboration with institutions providing strong career and technical education tracks such as the Harbor School and local schools such as Ralph R. McKee Career and Technical Education High School, Staten Island Technical High School, and the Harbor View School.

WALKER STREET DISTRICT

351 Walker Street

A Hub for Creative Industry

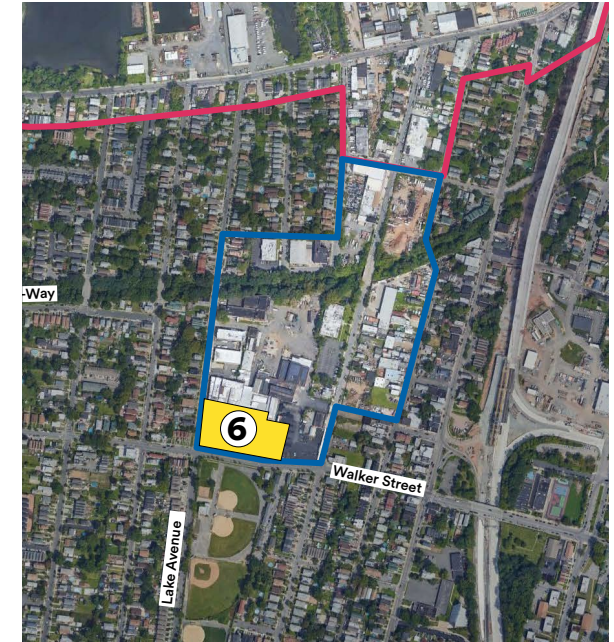
This manufacturing district is a significant employment center, yet offers a powerful opportunity to attract more jobs while being a better neighbor. Block-level improvements and investments can minimize community impacts—including shifting truck parking from Lake Avenue to the site’s interior—while providing workspace and studio tools to attract creative industrial tenants.



Fig. 79: Walker Street Site and Context

Site Profile: This site includes seven separate tax lots largely under separate ownership and encompassing nearly 11 acres. Zoned for high-intensity manufacturing (M3-1), and within the Creative Industry sub-district, this assemblage of industrial properties is bounded by Lake Avenue, Granite Avenue, Walker Street, and the North Shore Railroad right-of-way. The area contains a range of industrial tenants including food distributors, automotive uses, warehouse and storage facilities, and a large plumbing supplier. An adjacent tax lot contains an Eden II educational facility serving children with autism. The block includes a 4-story commercial warehouse, smaller warehouse and storage structures, and a large interior paved area used for parking and storage.

Environmental Assessment: Based on a review of Sanborn Maps, these sites and adjacent properties have included historical uses as a cement warehouse, manufacturing warehouse, oxidizing buildings, linoleum works, a copper shop, and an auto shop. A review of regulatory databases shows these properties to have environmental concerns including a liquid sealer spill. The properties’ historic operations, as well as contaminants cited in regulatory listings, may have adversely impacted environmental quality, including soil, groundwater, and soil vapor.



EXISTING CONDITION

Further investigation is suggested to assess environmental impacts of the above-identified concerns. Because development or reuse of the site may be complicated by the presence or potential presence of contaminants, the site is recommended for a BOA nomination.

Redevelopment Vision: This cluster of industrial businesses is a significant industrial employment center—with 182 reported employees—but it has opportunities to attract more jobs. For example, one of the site’s largest buildings, at 351 Walker Street, appears to be leased, though it employs only 23 people across 76,000 square feet of space. Moreover, as discussed in Section 3, the district generates conflicts with adjacent residential neighborhoods due to truck traffic associated with the present businesses.

This suggests an opportunity to better align the site’s uses and circulation with community needs. To address these opportunities, a series of block-level improvements and capital investments are envisioned to reinvent the area as a creative light-industrial district that would minimize community impacts and attract new business tenants.

As an overarching strategy, the district would be repositioned through a new, unified identity. A current lack of signage, disparate industrial uses, and poor site infrastructure would be addressed through a new district brand that would better position it to capture the growing need for creative industrial workspace.

A successful precedent for this type of commercial development is the Staten Island

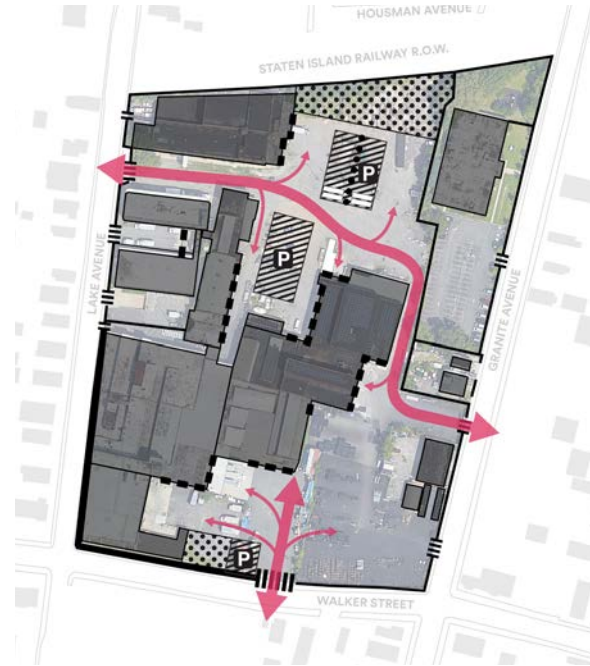
SITE 6 KEYMAP

Makerspace, opened in Stapleton in 2012. The 6,000-square-foot workspace provides studios and tools for artists, engineers, and other creative industrial occupations, as well as programming for local youth. Initial funding was provided through the New York City Economic Development Corporation and Futureworks NYC, a program to support advanced manufacturing in partnership with local businesses and educational centers. The Walker Street area’s rebranding as a creative district of this type—with cohesive signage, security, and gate system—would enhance its viability to attract creative tenants and leverage underutilized spaces. Other improvements would include shared worker amenities such as food truck parking and outdoor eating areas to create a sense of community among creative tenants. To improve transportation and minimize



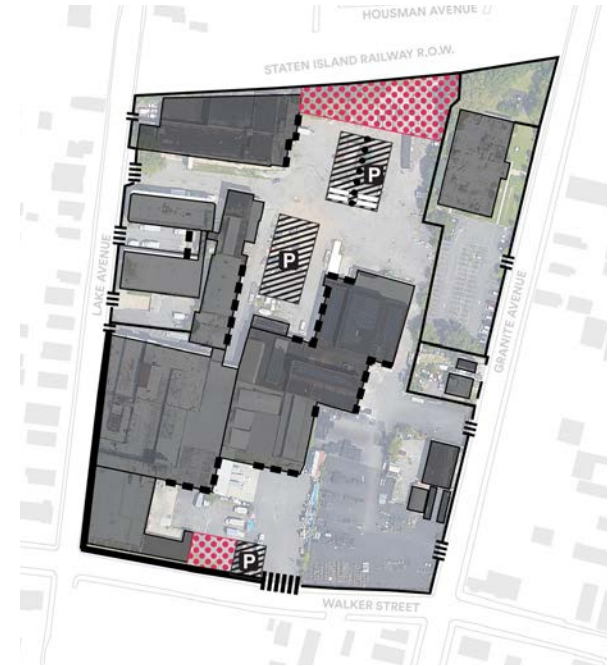
UNIFIED FENCING & GATING SYSTEM

- Single **district identity** with branded fencing & gate system
- **Industrial BID** purveyor
- Clear, **shared entry points** that optimize access/circulation
- Improved **district security**
- Improved **residential barrier**



NEW CIRCULATION ROUTE & THROUGH-SITE ACCESS

- **Redirect traffic off Lake Ave.** through shared entry/exit gate on Granite Ave.
- Improved **site circulation** with shared central loading area
- Explore **demolition of underutilized building(s)** dividing district



SHARED AMENITY AREAS & FOOD TRUCK PARKING

- Shared **worker amenity spaces** at both ends of the district area
- **Industrial BID** maintenance
- Additional **buffer area** for Eden school
- Amenity to drive **new creative businesses & tenant attraction**

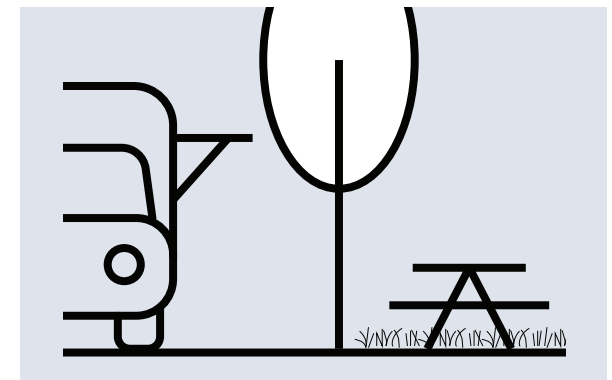
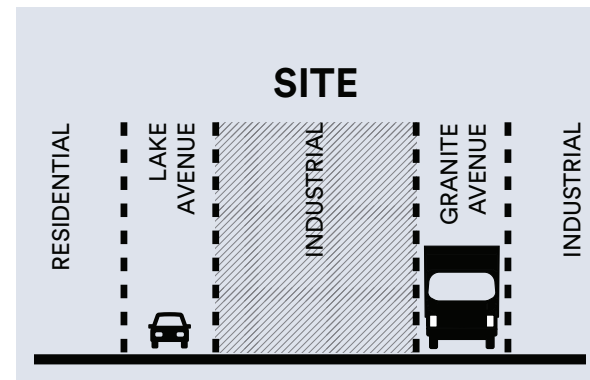
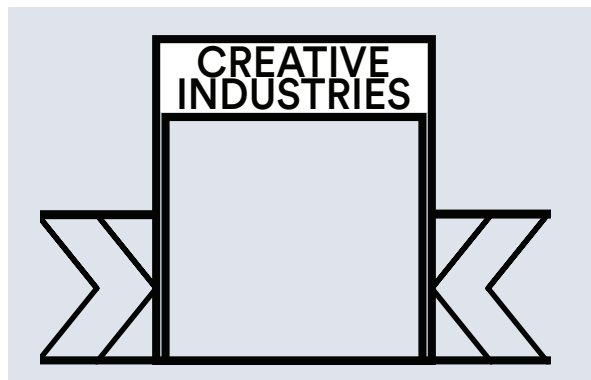




Fig. 80: Existing Structures within the Walker Street District

impacts on the surrounding neighborhood, traffic would be redirected off Lake Avenue by locating principal vehicle entry gates on Granite Avenue and Walker Street, both streets with more industrial character. Selective demolition of outmoded structures within the property would also allow greater use of the site's interior for loading and circulation, further reducing truck conges-

tion on adjoining streets. To reduce idling, electric standby infrastructure could provide an alternative clean energy source for trailer refrigerator units. Related improvements to reduce truck impacts include exploring one-way traffic on Lake Avenue, and adding left-turn directional signals in both directions at Walker Street and Morningstar Road.

Financial Feasibility Analysis: Support for block-level improvements within this district is complicated by the diverse ownership of businesses and tax lots. An ideal solution would be the creation of an overarching management entity such as a business improvement district that could help fund and coordinate site-wide investments and maintenance across the individual properties. To provide support for such investments, targeted funding is available at both the state and city level through low-cost financing options, credit enhancements, and capital support to subsidize new and renovated industrial spaces. Creative industrial uses can also leverage funding through additional tax incentives offered through the New York City Economic Development Corporation.

Conclusion: As New York City's economy continues to evolve from one grounded in heavy industry to one driven by technology and creative production, spaces that can accommodate the particular needs of the maker community will be in increasing demand. With other boroughs already growing too expensive for small creative businesses, Staten Island has an opportunity to repurpose some of its existing industrial building stock to house this burgeoning economic sector. The Creative Industry subdistrict has significant potential as a test case for turning existing underutilized assets into incubators for new ideas and positive community impacts. The future of the BOA area can be found in this dynamic interweaving of a unique place-based culture, creative economic development, and a strong focus on putting people and their needs at the heart of revitalization planning.

IV. FINAL RECOMMENDATIONS

The following recommendations expand and build upon the Phase One BOA Revitalization Plan to incorporate the entire study area including the neighborhoods of Port Richmond, Mariners Harbor, Elm Park, and Arlington. They encompass area-wide policies and revitalization strategies, as well as recommendations specific to subdistricts and strategic sites.

Although not the primary focus of the BOA study, climate resilience should be considered a key strategy for community revitalization. Ongoing New York City initiatives to bolster resiliency, as noted in studies and efforts including Vision 2020: New York City Comprehensive Waterfront Plan, Resilient Industry: Mitigation and Preparedness in the City's Industrial Floodplain, and One New York: The Plan for a Strong and Just City, will be instrumental in protecting the BOA community and ensuring that future development is appropriately designed to withstand climate events. Specific resiliency recommendations are discussed below.

Wherever possible, these recommendations include actions to be undertaken by both public and private-sector entities to advance community-supported goals. Whether carried forward through a BOA Step 3 Implementation Plan or through other state, local, and community initiatives, these recommendations offer a wide-ranging set of tools, strategies, and resources tailored to achieve the BOA community's vision for neighborhood revitalization.

SUPPORT & CREATE A VITAL LIVE-WORK NEIGHBORHOOD

1. Protect and strengthen existing neighborhood character.

- Protect Port Richmond Avenue's rich and authentic built context by preserving the street wall, height, and character of the study area's historic central corridor, while providing for new higher-density, community-enhancing development in appropriate locations, for example as shown in the Richmond Chandelier strategic site scenario.
- Investigate options for providing state tax credits to property owners for preserving, maintaining, and restoring historic buildings through New York State Historic Preservation Office historic district designation.

- Advocate for community benefit agreements and local hiring requirements to ensure existing residents and businesses benefit from any new public and private investment.

2. Expand and strengthen affordable, mixed-income, and mixed-use housing options in neighborhood centers.

- Target mixed-use areas for investment and development of new mixed-income housing opportunities: Leverage technical assistance grants from organizations including Smart Growth America and Leaders for Livable Communities to fund an additional neighborhood study that would identify blocks within the Mixed-Use Corridor and Affordable Neighborhood subdistricts which are appropriate for mixed-use development around future transit nodes.
- Advocate for a balance of diverse, active uses and services along Port Richmond Avenue to reinforce the corridor as a commercial and community center. For example, use NYS Main Street funding to support the redevelopment of vacant properties such as 97 Port Richmond Avenue to provide diverse new residential and commercial uses.
- Seek funding to conduct a study on the impact and concentration of supportive services in the study area.

3. Enhance the central commercial corridor and support neighborhood retail.

- Leverage public funding for neighborhood development and commercial revitalization studies such as EDA, Neighborhood 360°, and NYS Main Street grant programs to study opportunities to:
 - Invest in streetscape elements such as signs, lights, and street furniture to improve streetscape conditions on Port Richmond Avenue and at commercial nodes along Richmond Terrace.
 - Use marketing initiatives to encourage retail activity and strengthen commercial clusters on Port Richmond Avenue and Richmond Terrace.

4. Leverage new development to improve infrastructure, roads, and transit service.

- Work with the Borough President’s Office to coordinate interagency efforts to implement key intersection improvements and strategic widenings of Richmond Terrace.
- Advocate for new transit service opportunities in the BOA area, such as the reuse of the abandoned North Shore Railroad right-of-way for Bus Rapid Transit service, and work with NYCDOT to conduct a feasibility study for BRT service connecting the study area with St. George.
- As sites are redeveloped across the study area, support the integration of citywide stormwater management practices and tools such as bioswales, roof gardens, and other on-site stormwater detention facilities. In addition, work with NYCDEP to explore potential connections to the Staten Island Bluebelt to integrate the BOA area within this borough-wide stormwater management system.

5. Advocate for strategic rezonings to support new residential and retail development.

- Work with the Department of City Planning to rezone Port Richmond Avenue in order to expand the retail business corridor to the waterfront and Faber Park, including mixed-use development on underutilized sites on the northern end of Port Richmond Avenue.
- Rezone Port Richmond Avenue’s waterfront terminus for medium-density, mixed-use residential development and public open space along the waterfront east of the Bayonne Bridge. Ensure that public waterfront access requirements are built into any rezoning in this area.
- Rezone Port Richmond Avenue between Post Avenue and Rainbow Avenue to support mixed commercial and residential development and better connect retail destinations.
- Rezone the manufacturing district between Davidson and Roxbury streets in Mariners Harbor to accommodate new affordable and low-income housing and community facilities, including medical services, grocery stores, and other needed neighborhood services.

- As rezonings are proposed, advocate for infrastructure investments to serve existing and new residents including potential additional school seats, upgrades to wastewater treatment and sewage facilities, expansion of transportation networks, and other infrastructure needs.
- Work with NYCDEP to update the North Shore drainage plan and identify stormwater management needs as rezonings are proposed.
- Incorporate public waterfront access requirements into any new zoning regulations along Richmond Terrace.

CREATE QUALITY JOBS & WORKPLACES

1. Support the maritime industry.

- Work with the College of Staten Island to support maritime businesses by creating a center for maritime vocational and educational training along the Mariners Harbor waterfront, providing both secondary and workforce training to connect neighborhood residents to quality maritime jobs.
- Support the expansion of existing water-dependent uses and businesses along the industrial waterfront.
- Carefully consider the impact of brownfield redevelopment upon the area’s limited deep-water infrastructure, and support strategies to upgrade and enhance these critical maritime resources, including the following:
 - Improve maritime infrastructure by exploring ways to streamline regulatory hurdles that currently discourage redevelopment of maritime infrastructure.
 - Identify financial tools to encourage bulkhead upgrades, pier improvements, and floodproofing.
 - Identify off-shore areas of City-owned lots to expand available mooring space for maritime businesses and provide revenue for bulkhead improvements and open-space maintenance.

2. Allow new uses and job creation in appropriate locations.

- Leverage vertical development gap financing tools (e.g. the New York City Industrial and Commercial Abatement

Program and the Economic Development Fund) to encourage capital investments to attract new light manufacturing businesses and “creative district development,” aimed at maximizing local economic benefits and minimizing the negative impacts of heavier industrial uses such as truck traffic, noise, and air pollution.

- Provide opportunities for job creation on the West Shore by coordinating with the West Shore 2030 recommendations and exploring relocation options for non-water dependent and noncompatible uses in locations that allow for their expansion and provide better connections to the local highway network.
- Support and protect existing industrial businesses that provide employment and apprenticeship opportunities for the local community.
- Provide greater access to affordable healthcare by working with the Beacon Christian Community Health Center to develop a mixed-use health center in Mariners Harbor including medical services, training and community facilities, affordable senior housing, and the provision of fresh, healthy foods.

CREATE NEW CIVIC, CULTURAL, AND RECREATIONAL SPACES

1. Improve existing and create new public waterfront parks and destinations.

- Develop a destination open space along the waterfront at Port Richmond Avenue in conjunction with a rezoning permitting new mixed-use development that would provide high-quality public amenities while reconnecting residents and visitors to the Kill Van Kull.
- Explore options including the NYCDOT plaza program to close street ends at appropriate locations along the Port Richmond and Mariners Harbor waterfronts, such as Harbor Road, to provide visual access to the harbor and open space.
- Support the New York City Parks Department master planning process for Mariners / Arlington Marsh Park, seeking to restore natural habitats, revitalize wetland health, provide public access, and create recreational opportunities.

2. Coordinate with ongoing community efforts for a North Shore greenway.

- Coordinate Northfield Community LDC’s advocacy efforts with Community Board 1’s initiative to designate a multi-purpose pathway along the North Shore waterfront to develop a safe, walkable route along Richmond Terrace from St. George to Arlington.
- Create pedestrian and bike connections between existing and new parks on the North Shore by identifying funding and design options to advance greenway connections between Heritage Park, Port Richmond Avenue, Faber Park, Veterans Park, Mariners Marsh Park, Arlington Marsh, and the future Van Name Van Pelt Plaza.

3. Leverage the area’s unique arts and culture to support economic development.

- Capitalize on the BOA study area’s existing and underutilized cultural assets and encourage funding of arts initiatives, including the creation of a Port Richmond cultural district, opportunities for public art installations that activate the commercial corridor, and maritime-related interpretive projects.
- Advocate for cultural uses as part of the North Shore Railroad right-of-way’s future reuse, such as activating areas underneath the viaduct with public markets, art installations, food hubs, and other uses.
- Explore partnership opportunities between the cultural and business sectors to support tourism development, beautify streetscapes, build connections between community groups, enhance the district’s identity, and provide a greater sense of public life and cultural activity on Port Richmond Avenue.

IMPROVE CONNECTIONS & MOBILITY

1. Strengthen vehicular connections.

- Improve safety and traffic flow by identifying feasible options for use of the unbuilt mapped width of Richmond

Terrace for improvements in chronically congested areas, including the intersections of Jewett Avenue and Port Richmond Avenue.

- Work with NYCDOT to devise a traffic circulation plan to relieve traffic on Richmond Terrace and address impacts of any future development along the waterfront.

2. Increase safe pedestrian and bicycle connections.

- Work with NYCDOT to improve pedestrian safety along Port Richmond Avenue and Richmond Terrace by incorporating sidewalk improvements and new crossings into road improvements.
- Identify and implement improvements to the streetscape such as adding amenities like street trees, lighting, bus shelters, and street furniture to improve the pedestrian experience along the Port Richmond Avenue retail corridor.
- Add bicycle infrastructure to the transportation network by incorporating bike paths into road improvements and realignment plans for major thoroughfares. Add bicycle parking and shared bike stations at neighborhood centers and other destinations including Port Richmond Avenue, Faber Park, and community hubs such as the proposed health center at the Union Avenue strategic site.
- Implement traffic calming measures along Lake Avenue, and enforce truck traffic and idling regulations to mitigate negative impacts of conflicting uses within the study area.
- Leverage private rezonings and new development to include strategic streetscape improvements and other public amenities as sites are redeveloped.

3. Expand public transit options.

- Support the MTA's ongoing efforts to evaluate and enhance bus service on the North Shore.
- Identify funding sources to advance the reuse of the former North Shore Railroad right-of-way for public transit and other community-supporting uses.
- Explore potential fast ferry site options along the waterfront, including funding for a feasibility study for ferry service at Port Richmond Avenue.

- Support the introduction of new urban mobility options in the area such as Lime bikes, JUMP bikes, Zipcar, and other car sharing services.

ADDRESS ENVIRONMENTAL CHALLENGES

1. Identify challenges left by historic industrial use.

- Identify contamination issues on strategic sites by working with property owners, developers, and New York City, matching them to funding sources for Phase I and Phase II Environmental Site Assessments to determine if cleanup is necessary.

2. Clean up brownfield sites.

- Further analyze zoning tools and other programs to encourage redevelopment and remediation of North Shore sites. These tools include the En-Zone program, in which designated properties are eligible for additional tax credits through New York State's Brownfield Cleanup Program. Other tools include federal Opportunity Zones, increasing FAR to incentivize redevelopment, and modifying parking regulations to reduce redevelopment costs.
- Use strategic sites as catalysts for revitalization by working with property owners to develop properties in accordance with the BOA Revitalization Plan, and use the BOA designation's potential to leverage additional funding for cleanup of contaminated sites.
- Devise a marketing plan to attract investment to the area, leveraging the attractive new terms available under the federal Opportunity Zones program, which encourages long-term, private capital to invest in eligible low-income communities.

3. Prevent future contamination.

- Support New York City agencies in further adopting recommendations from the Open Industrial Uses study to encourage industrial businesses to be better neighbors.

4. Improve the North Shore's climate resilience.

- Encourage best practices to resist flooding and storm surge across the study area, including recommendations from DCP's Resilient Industry Study and the West Brighton BOA. These strategies include:
 - Elevating new waterfront developments such as the mixed-use project proposed for the strategic site at the northern end of Port Richmond Avenue to meet New York City flood-elevation guidelines.
 - Utilizing tools outlined in the Department of City Planning's Retrofitting Buildings for Flood Risk report, such as elevating mechanical and plumbing systems, electrical utilities, and other building system components; applying wet and dry floodproofing strategies; and converting lowest-level residential units to community facility uses to reduce residential flood vulnerability in ground-floor spaces.
 - Structurally repairing bulkheads that are in poor condition to improve drainage capacity and help protect against soil erosion and water seepage.
 - Coordinating with MTA to ensure that any future Bus Rapid Transit alignments are appropriately elevated to create a flood-resilient transportation corridor.
 - Supporting NYCDEP efforts to advance ongoing green infrastructure programs in the area, such as a proposal to expand the Bluebelt program to the North Shore.
- Support local resiliency planning to protect the health, safety, and welfare of vulnerable BOA residents and businesses. For example, New York City's 2013 plan A Stronger, More Resilient New York contains actionable recommendations for both rebuilding communities impacted by Hurricane Sandy and increasing the resilience of infrastructure and buildings citywide. The Phase One BOA report represented an effort to apply this plan's "resiliency toolkit" to the BOA area. Some of the plan's recommendations include:
 - Zoning changes to encourage retrofits of existing buildings and construction of new resilient buildings in the 100-year floodplain.
 - Initiatives to encourage existing buildings in the 100-year floodplain to adopt flood resiliency measures through an incentive program and targeted mandate.
 - A program to raise bulkheads and other shoreline structures in low-lying areas most at risk of flooding, including, potentially, areas of the North Shore.
 - Loans and grants to help New Yorkers make resiliency investments in their businesses, including a sales tax abatement program for owners of industrial buildings in the 100-year floodplain.
 - The establishment of Community Design Centers to assist property owners in developing design solutions for reconstruction and retrofitting, and connect them to available New York City programs.
 - Investments to promote community and economic recovery, including planned and on-going investments on the North Shore.
- Ensure that all new development within the BOA area is built to New York City's current resiliency standards.

V. PRIORITY NEXT STEPS FOR IMPLEMENTATION

The following section summarizes near-term actions, opportunities, and strategies to advance the BOA Revitalization Plan recommendations and support key neighborhood goals. As the North Shore's real-estate market matures over the coming years and provides new opportunities for investment within the BOA study area, these priority steps for implementation will help set the stage for community-supported redevelopment, ensuring that future growth is aligned with community priorities through advance planning and coordination among private and public-sector interests.

1. **Connect property owners, real-estate investors, developers, and other interested parties with strategic site redevelopment opportunities.**

Through targeted outreach, make potentially interested parties aware of BOA strategic site opportunities, particularly those sites with near-term redevelopment potential such as the Port Richmond Avenue Storefront, Richmond Chandelier, Union Avenue, and Harbor Road Pier sites. In addition, ensure that development partners are aware of available support for vertical development gap financing and technical assistance, including the following resources:

- **Industrial and Commercial Abatement Program:** Property tax abatements for up to 25 years are available for industrial and commercial buildings that are built, modernized, expanded, or otherwise physically improved. Properties must be improved by at least 30% of their assessed value to qualify for the abatement. Industrial properties improved by at least 40% of their assessed value are eligible for an additional abatement.
- **Economic Development Fund (EDF):** This statewide program provides assistance to ensure diverse business needs are being met. With a focus on economic activity generation and job creation, EDF funds assist with construction, expansion, and rehabilitation of facilities; acquisition of machinery and equipment; working capital; and the training of full-time permanent employees.

- **Metropolitan Economic Revitalization Fund:** Funding support is provided through loans (up to a maximum of \$5 million, or 10% of project costs) to improve land and/or buildings, as well as construction or renovation costs.
- **NYC Industrial Developer Fund:** Project financing for industrial real-estate development projects is provided through grants, low-interest subordinate loans, and guarantees on senior private loans.
- **New York State Energy Research and Development Authority (NYSERDA) New Construction Program:** Technical and finance support provides NYSERDA project managers and consultants to work with commercial building owners or tenants to analyze efficiency opportunities in new or renovated properties.
- **NYSERDA Small Commercial Energy Efficiency Program:** Energy assessment is available for small businesses and nonprofits to implement energy-efficient strategies.
- **New York State Division of Housing and Community Renewal Funding Opportunities:**
 - New Construction Capital Program (NCP)
 - Supportive Housing Opportunity Program (SHOP)
 - Senior Housing Program (SENIOR)
 - Public Housing Preservation Program (PHP)
 - Multifamily Preservation Program (MPP)
 - Rural and Urban Community Investment Fund (CIF)
 - Mitchell-Lama Program
 - State Low Income Housing Credit Program (SLIHC)
 - Federal Housing Trust Fund Program (Federal HTF)
 - Small Building Participation Loan Program

2. **Leverage New York State Main Street grants and other funding sources to continue redevelopment and revitalization of the Port Richmond Avenue commercial corridor.**

As properties along Port Richmond Avenue become available for redevelopment, continue to utilize Main Street funding to assist project sponsors in rehabilitation of existing properties or new construction that supports BOA area goals.

Brownfield Cleanup Program Tax Credit Incentives

Site Preparation Credit and On-Site Groundwater Remediation Credit

- 22% for Track 4 cleanup, up to 50% for Track 1 cleanup

Tangible Property (Redevelopment) Credit

- 10% base credit with 5% “bump ups” (below), up to a credit maximum of 24% or three times (3x) the site preparation costs:
 - Affordable Housing (5%)
 - En-Zone (5%)
 - Brownfield Opportunity Area Compliant (5%)
 - Manufacturing (5%)
 - Track 1 (5%)
- Non-manufacturing projects: \$35 million cap or three times (3x) the site preparation costs, whichever is less
- Manufacturing projects: \$45 million cap or six times (6x) the site preparation costs, whichever is less

Fig. 81: Tax Credits Available Through the New York State Brownfield Cleanup Program (Source: NYSDEC)

3. Promote the utilization of tax credits for site redevelopment under the New York State Brownfield Cleanup Program.

To advance the cleanup of contaminated sites within the BOA area, assist property owners and development partners in utilizing tax credits for site redevelopment under the New York State Brownfield Cleanup Program (BCP). The BCP encourages private-sector cleanups of brownfields and promotes their redevelopment as a means to revitalize economically blighted communities. The BCP provides both site preparation and tangible property tax credits as described in Figure 81. In New York City, a site must meet both the brownfield site definition and one of the following criteria to receive both site preparation and tangible property tax credits:

- (1) 75% upside down (cleanup cost is 75% of property value)
- (2) 50% of site in En-Zone
- (3) Meet BCP “affordable housing” definition
- (4) Meet BCP “underutilized” definition

4. Coordinate with state, city, and borough initiatives to market designated Opportunity Zone census tracts to investors.

To attract investors to potential development opportunities within the BOA area’s qualifying Opportunity Zone census tracts, collaborate with public-sector entities to market Staten Island’s Opportunity Zones to investors who are seeking to take advantage of the program’s substantial capital gains tax incentives by making investments in areas with high poverty

and unemployment. Because there are 8,700 Opportunity Zones across the country for investors to choose from, it is important that the BOA community proactively markets development opportunities and solicits investor interest in the potential redevelopment scenarios advanced through the BOA Revitalization Plan.

5. Leverage funding for feasibility studies that support BOA recommendations.

Utilize funding sources that would provide technical assistance and other grants to support revitalization initiatives. Potential sources include U.S. Economic Development Administration programs to support feasibility studies in areas of severe economic distress, allowing the BOA community to apply for Public Works or additional EDA and federal funding. In addition, New York City’s Neighborhood 360° program supports projects that strengthen and revitalize streets, small businesses, and community-based organizations that anchor New York City neighborhoods. Such programs could support a range of BOA recommendations to enhance the central commercial corridor, strengthen neighborhood character, and improve community infrastructure.

6. Work with elected officials and community representatives to secure funding for a social services siting study, as well as a housing needs study for the BOA area.

Coordinate with state and borough representatives to secure funding for a comprehensive study of social services within the BOA area to determine whether the area hosts a disproportionate number of social service providers. A study of this type could be coordinated with New York City Council efforts to reform existing “Fair Share” criteria intended to ensure that no one community hosts an outsize share of services or facilities that may be undesirable at the local level. In addition, funding should be sought to support a study of housing needs within the BOA area. This study would provide a detailed understanding of the affordability levels, housing types, and unit sizes needed to more equitably house the diverse BOA community.

7. Advance the creation of a center for maritime education and vocational training by studying New York City maritime occupations and their educational requirements.

Collaborate with education and maritime partners to study the wide variety of maritime occupations in New York City and the educational requirements associated with each one to better understand needs and gaps for workforce training across the region. Such a study would help frame programmatic and operational strategies for the type of maritime education facility proposed for the Harbor Road Pier strategic site. Building upon relationships established with the Billion Oyster Project and the Harbor School will also help identify future development opportunities and partnership structures.

8. Support agency planning initiatives to expand public transit options within the BOA area.

Work with NYCDOT and MTA to support and inform ongoing studies with the potential to improve transit options for BOA area residents, including the MTA’s study of Staten Island bus service and the examination of a potential Bus Rapid Transit alignment on the North Shore.

9. Advance the proposed Walker Street “creative district” through stakeholder outreach and coordination.

Convene stakeholders for the Walker Street strategic site, including property owners, tenants, brokers, and neighbors to advance the BOA study’s proposed creative industry district. Public-sector partners could also assist in providing resources for the creation of a district identity, site circulation improvements, and tenant attraction initiatives.

These priority steps offer actions that BOA area stakeholders can take today to advance the recommendations outlined in this Revitalization Plan. Through incremental community improvements, targeted planning efforts, and public-private partnerships, the community vision established through the BOA process can be realized. The continued leadership of Northfield Community LDC, with engaged residents and stakeholders, will help ensure that this community—with its maritime heritage, vital retail corridor, and distinctive cultural assets—is renewed as a thriving, healthy, and resilient place with opportunity for all.

APPENDIX

STRATEGIC SITE ANALYSIS

To identify key contaminated, vacant, and abandoned sites in the study area, the BOA team reviewed data sources documenting potential contaminants including sites within NYSDEC's databases of Spill Incidents, Petroleum Bulk Storage, and Chemical Bulk Storage sites. The team also reviewed sites within the New York State Superfund, Brownfield Cleanup, Environmental Restoration, Voluntary Cleanup, and Hazardous Waste Disposal programs, as well as other local, state, and federal data sources. This research was supplemented by a BOA team walking tour to identify potential brownfield and strategic sites across the study area. Sites identified through the initial brownfield inventory are detailed in Appendix A1 and A2. Specific locations of interest are also noted including bulk storage facilities (Appendix A3), combined sewer outfalls (Appendix A4), and NYSDEC remediation sites (Appendix A5).

Based on a review of potential brownfield sites and consultation with project partners, 15 candidate strategic sites were identified. This list included a number of sites identified during Phase One of the Port Richmond-Mariners Harbor BOA study. Individual profiles for those 15 sites are presented as Appendix B.

The final selection of six strategic sites was made by the project partners after evaluating candidate sites based on a site selection matrix as described in Section 4 of this report. Full environmental reviews for the six final selected strategic sites are included as Appendix C.

REGULATORY AGENCY DATABASE ABBREVIATIONS

AST: Aboveground Storage Tank
CBS: Chemical Bulk Storage
CESQG: Conditionally Exempt Small Quantity Generator
CORRACTS: Corrective Action Report
ECHO: Enforcement and Compliance History Online
E-DESIGNATION: NYC Office of Environmental Remediation E-Designation
EDR HIST AUTO: EDR Proprietary Historic Gas Stations
FINANCIAL ASSURANCE: EPA Financial Assurance Module
FINDS: Facility Index System
HSWDS: Hazardous Substance Waste Disposal
ICIS: Integrated Compliance Information System
LIENS 2: CERCLA Lien Information
LTANKS: Leaking Storage Tank Incident
LUST: Leaking Underground Storage Tank
LQG: Large Quantity Generator
MANIFEST: Hazardous Waste Manifest System
MOSF: Major Oil Storage Facility
NJ RELEASE: New Jersey Release Database
NLR: No Longer Regulated
NY SPILLS: New York Spills Database
PADS: PCB Activity Database System
PBS: Petroleum Bulk Storage
PRP: Potentially Responsible Party
RCRA: Resource Conservation and Recovery Act Site
RCRA NONGEN: Generators That Do Not Persistently Generate Hazardous Waste
SEMS: Superfund Enterprise Management System
SEMS-ARCHIVE: Superfund Enterprise Management System Archive
SHWS: State Hazardous Waste Site
SPDES: State Pollutant Discharge Elimination System
SQG: Small Quantity Generator
SWF/LF: Solid Waste Facility/Landfill
SWRCY: Solid Waste and Recycling Facilities
TANKS: Storage Tank Facility
US AIRS: Sub-system of Aerometric Information Retrieval System
UST: Underground Storage Tank
VCP: Voluntary Cleanup Program

APPENDIX A1: BROWNFIELD INVENTORY

This table outlines 86 site addresses containing brownfields that have been identified within the study area. Please refer to p. 61 for a map locating these brownfield sites. Note that many sites have

multiple types of contamination on the site or at the same address. Regulatory listings for each individual contamination site and type are detailed in Appendix A2.

Address	Waterfront	Environmental Concern Within 400-Foot Buffer	Number of Contamination Listings at Site
3001 Richmond Terrace	X	X	1
3075 Richmond Terrace	X	X	8
2945 Richmond Terrace	X		3
3015 Richmond Terrace			1
Richmond Terrace & Harbor Road			1
3010-3012 Richmond Terrace			1
Port Richmond Avenue / Richmond Terrace	X		1
2901 Richmond Terrace	X		1
3165 Richmond Terrace	X		1
Richmond Terrace & Van Pelt Avenue	X		1
3245 Richmond Terrace	X		2
3249 Richmond Terrace	X		2
3333 Richmond Terrace			1
3418 Richmond Terrace			1
2600 Richmond Terrace			1
Port Richmond Po. Drawer S.	X	X	1
11 Ferry Street	X	X	3
Port Richmond Avenue		X	1
2037 Richmond Terrace	X	X	1
2076 Richmond Terrace		X	3
41 Port Richmond Avenue			3
7 North Street	X		4
Richmond Terrace & Faber Street			1
2217 Richmond Terrace			1
2319 Richmond Terrace	X		2

2351 Richmond Terrace	X		1
2239 Richmond Terrace	X		1
2265 Richmond Terrace	X		1
1983 Richmond Terrace			3
Richmond Terrace & Heberton Avenue			3
21 Heberton Avenue			1
1959 Richmond Terrace			1
1960 Richmond Terrace			2
1939 Richmond Terrace			2
1957 Richmond Terrace			1
2015 Richmond Terrace	X		5
13 Park Avenue			1
2123 Richmond Terrace			3
2117 Richmond Terrace			2
2101 Richmond Terrace			2
2000 Richmond Terrace			4
Ann Street & Port Richmond Avenue		X	2
124 Port Richmond Avenue		X	4
95 Vreeland Street		X	2
Vreeland Street & Port Richmond Avenue			2
Park Avenue & Church Street			1
17 Grove Avenue			2
15 Church Street			2
28 Grove Avenue			2
162 Port Richmond Avenue			1
2128 Richmond Terrace			1
2119 Richmond Terrace			1
2121 Richmond Terrace			1
199 Port Richmond Avenue			2
205 Port Richmond Avenue			2
207 Port Richmond Avenue			1
210 Port Richmond Avenue			1
141A Andros Avenue			1
60 Davidson Street			2
351 Walker Street		X	2

BROWNFIELD INVENTORY

Lake Avenue & Richmond Terrace		X	1
Lake Avenue & Walker Street		X	1
125 Lake Avenue			3
Granite Avenue Roadway			1
214 Granite Avenue			2
Walker Street & Granite Avenue			2
267 Hooker Place			1
224 Pulaski Avenue			1
145 Granite Avenue			1
124 Granite Avenue			1
121 Harbor Road		X	1
103 Harbor Road		X	1
111 Harbor Road		X	1
130 Union Avenue		X	1
19 Leyden Avenue		X	1
21 Leyden Avenue		X	1
15 Leyden Avenue		X	1
142 Union Avenue		X	1
140 Union Avenue		X	1
27 Leyden Avenue		X	1
35 Leyden Avenue		X	1
39 Leyden Avenue		X	1
98-2 Leyden Avenue		X	1
106 Union Avenue		X	1
37 Leyden Avenue		X	1
151 Harbor Road		X	1

APPENDIX A2: BROWNFIELD SITE LONGLIST

This table details 145 regulatory listings documenting contaminated sites within the study area. As noted above, certain sites have multiple types of contamination on the site or at the same address.

Site Name	Address	Regulatory Agency Database	Environmental Concern Within 400-Foot Buffer
Mardikos Property	3001 Richmond Terrace	FINDS	X
May Ship Repair Contracting Corp.	3075 Richmond Terrace	RCRA NONGEN / NLR	X
May Ship Repair Contracting	3075 Richmond Terrace	MANIFEST	X
May Ship Repair	3075 Richmond Terrace	MANIFEST	X
Boston 30 (Aka Mariners Harbor) Oil Spill	3075 Richmond Terrace	LTANKS	X
Waste Management (Village Carting Co.)	3075 Richmond Terrace	NY SPILLS, SWF/LF	X
May Ship Repair Contracting Corp.	3075 Richmond Terrace	AST	X
Reinauer Transportation Co. Inc.	3075 Richmond Terrace	MANIFEST, FINDS, RCRA NONGEN / NLR, ECHO	
Infanti Chair Mfg.	3075 Richmond Terrace Bldg. 1	FINDS, RCRA NONGEN / NLR, ECHO	X
American United Wood Inc.	2945 Richmond Terrace	NY SPILLS, LTANKS, SWF/LF	
Nathan B	2945 Richmond Terrace	MANIFEST, PADS, RCRA NONGEN / NLR	
First Assoc. Marine Ent. Inc.	2945 Richmond Terrace	FINDS, ICIS, RCRA NONGEN / NLR, ECHO	
Berman Nathan T B	2945 Richmond Terrace	MANIFEST, FINDS, RCRA NONGEN / NLR, ECHO	
Expert Recycling Service, LLC	3015 Richmond Terrace	SWRCY	
Star Sand & Gravel Corp.	Harbor Road & Richmond Terrace	SWF/LF	
Soil	3010 Richmond Terrace	NY SPILLS	
NYC DEP	Richmond Terrace & Port Richmond Ave.	MANIFEST	
2901 & 2945 Richmond Terrace	2901 Richmond Terrace	LTANKS, VCP	
3i/New York Marine	3165 Richmond Terrace	NY SPILLS, TANKS, MOSF	
Van Name Van Pelt	Van Pelt Ave. & Richmond Terrace	US BROWNFIELDS	
Trader II	3245 Richmond Terrace	MOSF	
DBL 81	3245 Richmond Terrace	MOSF	
Clean Water of New York Inc.	3249 Richmond Terrace	NY SPILLS, SWF/LF, MOSF	
T/B Number Two	3249 Richmond Terrace	MOSF	
Bayview Auto Wreckers Inc.	3333 Richmond Terrace	NY SPILLS, CBS, SWF/LF, SPDES	

BROWNFIELD SITE LONGLIST

Mariners Marsh	3418 Richmond Terrace	SEMS	
Standard T Chemical	2600 Richmond Terrace	FINDS, CORRACTS, RCRA NONGEN / NLR, ECHO, SEMS-ARCHIVE	
Texas Eastern Gas M & R 058	364 Port Richmond Avenue	RCRA-CESQG, PADS	X
Flag Container Service	11 Ferry Street	AST	X
Flag Container Services Inc.	11 Ferry Street	RCRA-CESQG	X
Flag Container Corp.	11 Ferry Street	MANIFEST, NY SPILLS, SWF/LF, FINANCIAL ASSURANCE, SPDES	X
Regulator 37	Port Richmond Avenue	NY SPILLS	X
Standard Boat Company	2037 Richmond Terrace	NY SPILLS	X
Nynex	2076 Richmond Terrace	MANIFEST	X
Nynex	2076 Richmond Terrace	MANIFEST	
Nynex	2076 Richmond Terrace	MANIFEST	
Sherwin-Williams Co.	41 Port Richmond Avenue	MANIFEST, FINDS, RCRA NONGEN / NLR, ECHO	
Sherwin-Williams Co.	41 Port Richmond Avenue	MANIFEST, FINDS, RCRA NONGEN / NLR, ECHO	
Sherwin-Williams Co.	41 Port Richmond Avenue	MANIFEST, FINDS, RCRA NONGEN / NLR, ECHO	
Atlantic Express Transportation Group	7 North Street	MANIFEST, RCRA SQG	
Uhaul of Staten Island	7 North Street	AST	
Tavenna Fuel Co., Inc.	7 North Street	MOSF	
Uhaul of Staten Island	7 North Street	UST	
Faber Pool	Faber Street & Richmond Terrace	CBS	
Chelsea Terminal	2217 Richmond Terrace	HSWDS	
Edkin's Auto Scraps	2319 Richmond Terrace	SEMS	
Dac's Trucking Corp.	2319 Richmond Terrace	SWF/LF	
Richmond Terrace Radiological Site	2351 Richmond Terrace	SEMS	
Edkin's Auto Sales Inc.	2239 Richmond Terrace	SWF/LF, SPDES	
Edkin's Foreign Auto Parts Inc.	2265 Richmond Terrace	NY SPILLS, SWF/LF	
RTC 41	1983 Richmond Terrace	NY SPILLS, MOSF	
Reinauer Transportation Companies LLC	1983 Richmond Terrace	FUELS PROGRAM	
Reinauer Transportation Company LLC	1983 Richmond Terrace	MANIFEST, AST, FINDS, RCRA-CESQG, NJ RELEASE, MOSF, SPDES, ECHO	
Con Edison	Richmond Terrace & Heberton Avenue	MANIFEST	

Con Edison Pole: 183	Richmond Terrace & Heberton Ave.	FINDS, RCRA NONGEN / NLR	
Con Edison Manhole 89	Richmond Terrace & Heberton Ave.	MANIFEST, MANIFEST, RCRA NONGEN / NLR	
Central Auto Body	21 Heberton Avenue	MANIFEST, MANIFEST, RCRA-CESQG, US AIRS	
Reliant Transportation	1959 Richmond Terrace	AST	
County Garage	1960 Richmond Terrace	MANIFEST, FINDS, RCRA NONGEN / NLR, ECHO	
Stallion LLC	1960 Richmond Terrace	AST	
Huff Enterprises/Richmond Refuse & Cart.	1939 Richmond Terrace	MANIFEST, SWF/LF	
Huff Enterprises	1939 Richmond Terrace	LIENS 2, SEMS-ARCHIVE	
Mv Transportation	1957 Richmond Terrace	TANKS, SPDES	
Moran Towing	2015 Richmond Terrace	MANIFEST, MANIFEST, RCRA-LQG	
Towing Yard	2015 Richmond Terrace	NY SPILLS	
Seaboard Shipping Co.	2015 Richmond Terrace	MANIFEST, NY SPILLS, FINDS, RCRA NONGEN / NLR, ECHO	
Moran Towing & Transportation Co. Inc.	2015 Richmond Terrace	RCRA NONGEN / NLR	
Barge Portland	2015 Richmond Terrace	NY SPILLS, LTANKS, MOSF	
Getty #200	13 Park Avenue	NY SPILLS	
Gibraltar Transmissions	2123 Richmond Terrace	MANIFEST, FINDS, RCRA NONGEN / NLR, ECHO	
Relda Automotive Corp.	2123 Richmond Terrace	EDR HIST AUTO	
Gibraltar Transmissions	2123 Richmond Terrace	MANIFEST, FINDS, RCRA NONGEN / NLR, ECHO	
D.T.V. Imported Cars Ltd.	2117 Richmond Terrace	AST	
D.T.V. Imported Cars Ltd.	2117 Richmond Terrace	AST	
Tristate Plumbing	2101 Richmond Terrace	SWRCY	
Tristate Plumbing	2101 Richmond Terrace	SWRCY	
Jewett White Lead Co.	2015 Richmond Terrace	MANIFEST, RCRA-LQG, PRP, SEMS	
Con Ed Vs 7173	2000 Richmond Terrace	MANIFEST, RCRA NONGEN / NLR	
Schrafft's Ice Cream Co. Ltd.	2000 Richmond Terrace	UST, CBS	
Schrafft's Ice Cream Co. Ltd.	2000 Richmond Terrace	NY SPILLS, SWF/LF, CBS AST	
Con Ed Vs 7173	2000 Richmond Terrace	MANIFEST, RCRA NONGEN / NLR	
At Intersection	Port Richmond Ave. & Ann Street	NY SPILLS	X
At Intersection	Port Richmond Ave. & Ann Street	NY SPILLS	X
124 Port Richmond Ave.	124 Port Richmond Avenue	AST	X
Family Dollar Store #5724	124 Port Richmond Avenue	RCRA-CESQG	X
124 Port Richmond Avenue	124 Port Richmond Avenue	AST	X
Family Dollar Store #5724	124 Port Richmond Avenue	RCRA-CESQG	X
Spill Number 0303651	95 Vreeland Street	NY SPILLS	X

BROWNFIELD SITE LONGLIST

Spill Number 0303651	95 Vreeland Street	NY SPILLS	
Nynex	Vreeland St. & Port Richmond Ave.	MANIFEST	
Nynex	Vreeland St. & Port Richmond Ave.	MANIFEST	
Drum Run - Under Rail Tracks	Church Street & Park Avenue	NY SPILLS	
Vacant Parking Lot - Oer	17 Grove Avenue	NY SPILLS	
Vacant Parking Lot - Oer	17 Grove Avenue	NY SPILLS	
Port Richmond S/S. Car Leaked Oil	15 Church Street	NY SPILLS	
Port Richmond Substation	15 Church Street	NY SPILLS	
Si Motor Repair Corporation	28 Grove Avenue	AST	
Si Motor Repair Corporation	28 Grove Avenue	AST	
600 Gulf Avenue LLC	162 Port Richmond Avenue	EDR HIST AUTO	
Capeci Service Station	2128 Richmond Terrace	EDR HIST AUTO	
Rich-Ter Body Works Inc.	2119 Richmond Terrace	EDR HIST AUTO	
Crown Muffler & Spring Shoppes	2121 Richmond Terrace	EDR HIST AUTO	
Con Edison Service Box: 217	199 Port Richmond Avenue	MANIFEST, FINDS, RCRA NONGEN / NLR, ECHO	
Con Edison Service Box: 217	199 Port Richmond Avenue	MANIFEST	
Con Edison Service Box: 220	205 Port Richmond Avenue	MANIFEST	
Con Edison Service Box: 220	205 Port Richmond Avenue	MANIFEST, FINDS, RCRA NONGEN / NLR, ECHO	
Richmond Dry Cleaner	207 Port Richmond Avenue	MANIFEST, FINDS, RCRA NONGEN / NLR, ECHO	
Con Edison - Manhole Mh-225	210 Port Richmond Avenue	MANIFEST, RCRA-LQG	
Drum Run - Under Rail Tracks	Church Street & Park Avenue	NY SPILLS	
Regulator 37	Richmond Terrace & Port Richmond Ave.	NY SPILLS	
J & J Towing, Inc.	141 Andros Avenue	AST	
60 Davidson Street LLC	60 Davidson Street	MANIFEST, RCRA-LQG	
SOTS Leasing Corp	60 Davidson Street	NYSPILLS, SWRCY	
Westerleigh Press	351 Walker Street	NY SPILLS	X
Kitchen's Gallery	351 Walker Street	FINDS	X
Lake Avenue	Lake Ave. & Richmond Terrace	NY SPILLS	X
Spill Number 9910309	Lake Ave. & Walker Street	NY SPILLS	X
Staten Island Towing Service	125 Lake Avenue	NY SPILLS	
125 Lake Avenue Industrial Park	125 Lake Avenue	UST	
Customer Service Center Warehouse	125 Lake Avenue	MANIFEST, FINDS, RCRA NONGEN / NLR, ECHO	

Granite Avenue Roadway	Granite Avenue	NY SPILLS	
Platinum Auto Collision	214 Granite Avenue	RCRA-CESQG	
Platinum Auto Collision	214 Granite Avenue	MANIFEST	
Federal Express Corp.	Granite Ave. & Walker Street	MANIFEST, RCRA NONGEN / NLR	
Towing Company	Granite Ave. & Walker Street	NY SPILLS	
John Francesco Scrap Inc.	267 Hooker Place	SWRCY, SPDES	
Whitehouse Suppliers Corp.	224 Pulaski Avenue	CBS, CBS AST	
Auto Sphere Inc.	145 Granite Avenue	MANIFEST, MANIFEST, FINDS, RCRA-CESQG, ECHO	
Spanpico	124 Granite Avenue	LTANKS	
Lot 11, Tax Block 1226	121 Harbor Road	E-DESIGNATION	X
Lot 5, Tax Block 1226	103 Harbor Road	E-DESIGNATION	X
Lot 3, Tax Block 1226	111 Harbor Road	E-DESIGNATION	X
Lumber Yard	130 Union Avenue	NY SPILLS, E-DESIGNATION	X
Lot 78, Tax Block 1226	19 Leyden Avenue	E-DESIGNATION	X
Lot 79, Tax Block 1226	21 Leyden Avenue	E-DESIGNATION	X
Lot 77, Tax Block 1226	15 Leyden Avenue	E-DESIGNATION	X
Lot 70, Tax Block 1226	142 Union Avenue	E-DESIGNATION	X
Terminal Lumber Yard	140 Union Avenue	NY SPILLS	X
Lot 83, Tax Block 1226	27 Leyden Avenue	E-DESIGNATION	X
Lot 84, Tax Block 1226	35 Leyden Avenue	E-DESIGNATION	X
Lot 86, Tax Block 1226	39 Leyden Avenue	E-DESIGNATION	X
Lot 1, Tax Block 1226	98-2 Leyden Avenue	E-DESIGNATION	X
106 Union Avenue	106 Union Avenue	NY SPILLS	X
Lot 87, Tax Block 1226	37 Leyden Avenue	E-DESIGNATION	X
Lot 7, Tax Block 1226	151 Harbor Road	E-DESIGNATION	X

APPENDIX A3: BULK STORAGE FACILITIES

Site Name	Address	Type	Site Type
SCHRAFFT'S ICE CREAM CO. LTD.	2000 RICHMOND TERRACE	CBS	Manufacturing (Other than Chemical)/Processing
WHITEHOUSE SUPPLIERS CORP.	224 PULASKI AVENUE	CBS	Chemical Distributor
FABER POOL	RICHMOND TERRACE & FABER ST.	CBS	Municipality
STATEN ISLAND FLEET SERVICES	1893 RICHMOND TERRACE	CBS	Trucking/Transportation/Fleet Operation
NEW YORK COMMERCIAL LUBRICANTS, INC.	229 ARLINGTON AVENUE	CBS	Storage Terminal/Petroleum Distributor
STATEN ISLAND FLEET SERVICES	1893 RICHMOND TERRACE	PBS	Municipality
SOUTH AUE AUTO INC.	3228 RICHMOND TERRACE	PBS	Unknown
DBA ABLE PLUMBING	40 LASALLE STREET	PBS	Other
ST. MARY OF THE ASSUMPTION CHURCH	2230 RICHMOND TERRACE	PBS	Religious Building
MOBIL S/S 17-B1A CREST CAD	438 PORT RICHMOND AVENUE	PBS	Unknown
TAVENNA FUEL CO., INC.	7 NORTH STREET	MOSF	Storage Terminal/Petroleum Distributor
STATEN ISLAND BOROUGH HALL	10 RICHMOND TERRACE	PBS	Municipality
SIPCO OIL COMPANY	2541 RICHMOND TERRACE	PBS	Unknown
RICHMOND GAS AND CONV., INC.	387 PORT RICHMOND AVENUE	PBS	Retail Gasoline Sales
DRURY ENTERPRISES INC.	2589 RICHMOND TERRACE	PBS	Unknown
SCARA-MIX INC.	2537 RICHMOND TERRACE	PBS	Manufacturing (Other than Chemical)/Processing
ENGINE CO. 157	1573 CASTLETON AVENUE	PBS	Other
70 PARK AVENUE	70 PARK AVE. (81 & 85 ANN ST.)	PBS	Unknown
AUTO WORKS GROUP INC.	312 PORT RICHMOND AVENUE	PBS	Retail Gasoline Sales
SCHRAFFT'S ICE CREAM CO. LTD	2000 RICHMOND TERRACE	PBS	Other
UHAUL OF STATEN ISLAND	7 NORTH STREET	PBS	Trucking/Transportation/Fleet Operation
REINAUER TRANSPORTATION CO. LLC	1983 RICHMOND TERRACE	PBS	Trucking/Transportation/Fleet Operation
31/NEW YORK MARINE	3165 RICHMOND TERRACE	PBS	Other
VILLA MARIN GMC, INC.	2699 RICHMOND TERRACE	PBS	Unknown
EGRET REALTY CORPORATION	3247 RICHMOND TERRACE	PBS	Other
PERRYS BRICK COMPANY, INC.	221 ARLINGTON AVENUE	PBS	Unknown
NEW YORK COMMERCIAL LUBRICANTS, INC.	229 ARLINGTON AVENUE	PBS	Storage Terminal/Petroleum Distributor
STALLION LLC	1960 RICHMOND TERRACE	PBS	Other
ST. MARYS OF ASSUMPTION	2222 RICHMOND TERRACE	PBS	School
SUPERGEAR TRANSMISSION INC.	80A GRANITE AVENUE	PBS	Other
GETTY #561	387 PORT RICHMOND AVENUE	PBS	Retail Gasoline Sales

STAR AUTO SERVICE CENTER	58 WINANT STREET	PBS	Other
D.T.V. IMPORTED CARS LTD.	2117 RICHMOND TERRACE	PBS	Other Wholesale/Retail Sales
FLAG CONTAINER SERVICE	11 FERRY STREET	PBS	Other Wholesale/Retail Sales
CJR AUTO REPAIR INC.	1890 A RICHMOND TERRACE	PBS	Other
MAY SHIP REPAIR CONTRACTING CORP.	3075 RICHMOND TERRACE	PBS	Other
AMERICAN WRECKING INT.	2625 RICHMOND TERRACE	PBS	Other
A1C INC.	2581 RICHMOND TERRACE	PBS	Apartment Building/Office Building
ACCU-CHECK AUTO REPAIR INC.	2612 RICHMOND TERRACE	PBS	Other
EDKINS AUTO SALES INC.	2239 RICHMOND TERRACE	PBS	Other
FEDERAL EXPRESS - LLYA	2400 RICHMOND TERRACE	PBS	Other
J & J TOWING , INC.	141A ANDROS AVENUE	PBS	Other
SI MOTOR REPAIR CORPORATION	28 GROVE AVENUE	PBS	Auto Service/Repair (No Gasoline Sales)
125 LAKE AVENUE INDUSTRIAL PARK	125 LAKE AVENUE	PBS	Other
STATEN ISLAND AUTO WERKS	2265 RICHMOND TERRACE	PBS	Auto Service/Repair (No Gasoline Sales)
MV TRANSPORTATION	1957 RICHMOND TERRACE	PBS	Storage Terminal/Petroleum Distributor
RELIANT TRANSPORTATION	1959 RICHMOND TERRACE	PBS	Auto Service/Repair (No Gasoline Sales)
KEVIN'S AUTO BODY	58 GRANITE AVENUE	PBS	Auto Service/Repair (No Gasoline Sales)
PRIMARY CARE AMBULANCE	2699 RICHMOND TERRACE	PBS	Other

APPENDIX A4: COMBINED SEWER OUTFALLS

SPDES Permit	Outfall Number	CSO Identifier	Facility Name
NY0026107	25	NY0026107-025	NYCDEP - Port Richmond WPCF
NY0026107	26	NY0026107-026	NYCDEP - Port Richmond WPCF
NY0026107	27	NY0026107-027	NYCDEP - Port Richmond WPCF
NY0026107	28	NY0026107-028	NYCDEP - Port Richmond WPCF
NY0026107	29	NY0026107-029	NYCDEP - Port Richmond WPCF
NY0026107	37	NY0026107-037	NYCDEP - Port Richmond WPCF

APPENDIX A5: NYS DEC REMEDIATION SITES

Site Code	Site Name	Program	Site Class	Address
V00251	2901 & 2945 Richmond Terrace	Voluntary Cleanup Program	A	2901 & 2945 Richmond Terrace

APPENDIX B: CANDIDATE STRATEGIC SITE PROFILES

SITE 1: RICHMOND CHANDELIER SITE

SUBDISTRICT: Mixed-Use Corridor
ADDRESS: 76 Port Richmond Avenue
BLOCK: 1073
LOT: 200, 97, 94, 31
OWNER: Port Richmond Realty
LOT SIZE (ACRES): 1.1
BUILT STATUS: Partially Built
OWNERSHIP: Private
ZONING: C4-2
MAX. ALLOWABLE FAR: 3.4
COMBINED BUILT FAR: 0.12 (6,000 SF)
UNUSED FLOOR AREA: 159,271 SF
% UNDERBUILT: 96%
USES AS-OF-RIGHT: Mixed Commercial / Residential
CURRENT USES: Parking / Storage
FLOOD RISK (FEMA PFIRM 2015): Partially in 500-Year Flood Plain
NYS ENVIRONMENTAL ZONE: Yes
INDUSTRIAL BUSINESS ZONE: No



SITE CONDITIONS: The site is used as a parking lot and electrical supply retailer. Property records indicate that the existing building was built in 1931, and Sanborn Maps show that it was initially designated as a commercial lot occupied by a retail store. Available City Directory records identify Richmond Chandelier under site uses between 1990 and 2005. According to historical Sanborn Maps, a store was built on Lot 97 between 1917 and 1950. By 1962, an office was located on the lot, and between

1977 to 2007, the lot was used as a parking facility. This series of lots has been used in conjunction with Richmond Chandelier's retail storefront and warehouse across Port Richmond Avenue. The site offers potential due to its relatively large size as well as its location spanning Port Richmond Avenue and Maple Avenue, with street frontage on both avenues. It also offers potential for use in connection with the adjacent elevated viaduct of the former North Shore Railroad. An entry point and stairway to the viaduct is

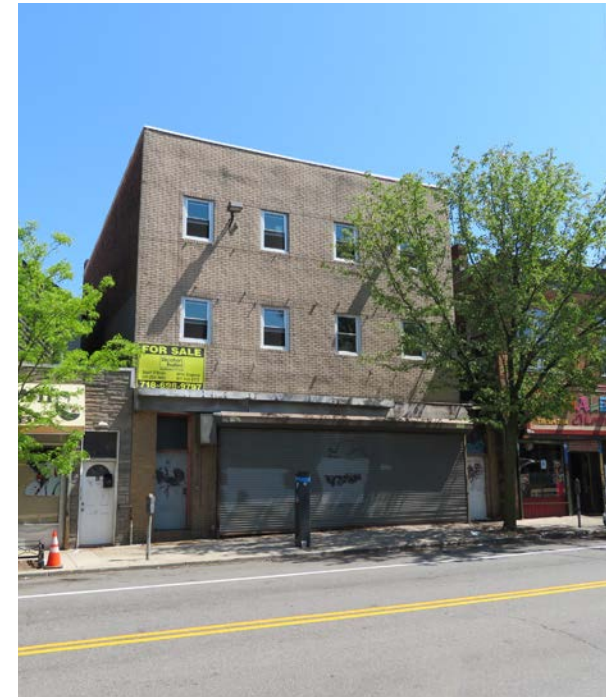
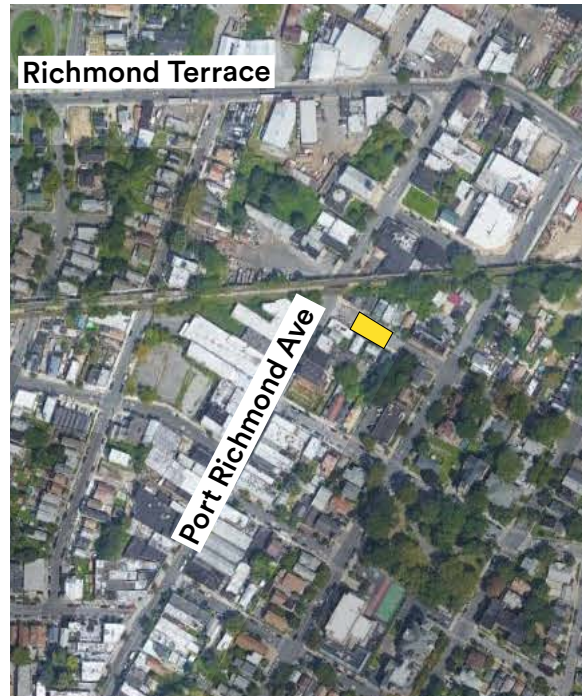
located immediately south of the site under the viaduct.

ENVIRONMENTAL STATUS: Historic site use as a filling station, as well as a paint and wall paper store, in addition to surrounding automobile operations, dry cleaning facilities, and regulatory database listings for surrounding properties including AST and NY Spills records, may have adversely impacted the environmental quality of the site, including soil, groundwater, and soil vapor.

CANDIDATE STRATEGIC SITE PROFILES

SITE 2: PORT RICHMOND AVENUE STOREFRONT

SUBDISTRICT: Mixed-Use Corridor
ADDRESS: 97 Port Richmond Avenue
BLOCK: 1005
LOT: 8
OWNER: Aarna Realty, Inc.
LOT SIZE (ACRES): 0.1
BUILT STATUS: Built
OWNERSHIP: Private
ZONING: C4-2
MAX. ALLOWABLE FAR: 3.4
COMBINED BUILT FAR: 1.67 (7,300 SF)
UNUSED FLOOR AREA: 7,570 SF
% UNDERBUILT: 51%
USES AS-OF-RIGHT: Mixed Commercial / Residential
CURRENT USES: Vacant
FLOOD RISK (FEMA PFIRM 2015): Outside Zone
NYS ENVIRONMENTAL ZONE: Yes
INDUSTRIAL BUSINESS ZONE: No



SITE CONDITIONS: This three-story commercial building with residential units, a first-story extension, and a garage is typical of the Port Richmond Avenue retail corridor. Property records indicate that the existing building was built in 1931 and Sanborn Maps show that it was initially designated as a dwelling between 1885 and 1898. Between 1898 and 1917, a retail store occupied the site. Available City Directory records identify Wexler’s Bedding and Furniture and a residential dwelling under site uses between

1995 and 2005. The building has been significantly altered from its original state, with few surviving architectural details. Its interior is reportedly in poor condition, complicating potential renovation of the structure.

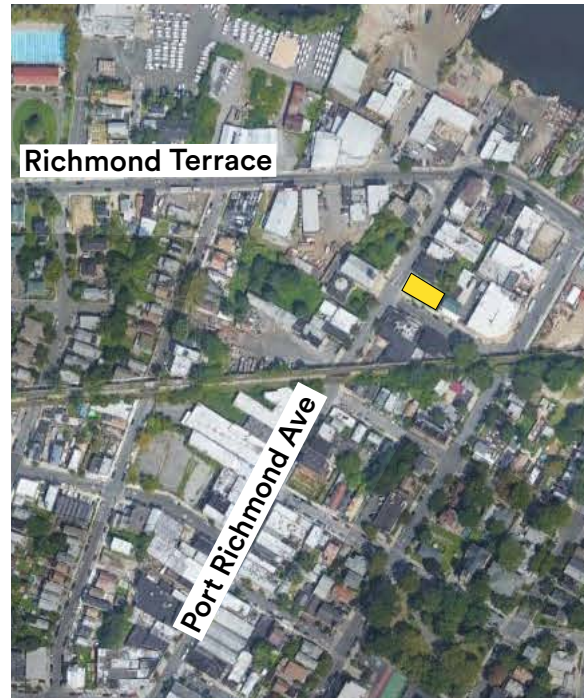
The site offers a key link between the Port Richmond Avenue commercial core to the south and the waterfront, with a number of small businesses in the immediate area suggesting a promising opportunity to leverage the building’s adaptive reuse to create

an active commercial node that would strengthen the retail corridor.

ENVIRONMENTAL STATUS: Surrounding automobile repair operations, drycleaner operations, and regulatory database listings for the surrounding properties (including UST and Historic Auto facilities) may have adversely impacted the environmental quality of the site, including soil, groundwater, and soil vapor.

SITE 3: SHERWIN WILLIAMS SITE

SUBDISTRICT: Mixed-Use Corridor
ADDRESS: 41 Port Richmond Avenue
BLOCK: 1003
LOT: 1
OWNER: Sherwin Williams
LOT SIZE (ACRES): 0.1
BUILT STATUS: Vacant
OWNERSHIP: Private
ZONING: C4-2
MAX. ALLOWABLE FAR: 3.4
COMBINED BUILT FAR: 0
UNUSED FLOOR AREA: 17,204 SF
% UNDERBUILT: 100%
USES AS-OF-RIGHT: Mixed Commercial / Residential
CURRENT USES: Vacant
FLOOD RISK (FEMA PFIRM 2015): Partially in 500-Year Flood Plain
NYS ENVIRONMENTAL ZONE: Yes
INDUSTRIAL BUSINESS ZONE: No



SITE CONDITIONS: Located on the southwest corner of Port Richmond Avenue and Church Street, this site is currently vacant. A three-story wood frame building previously on the site served as a storefront dating to the 1800s. It became a hardware store around 1917 and was occupied by a Sherwin Williams paint and wallpaper store from the 1950s until the building was demolished in 2011. Due to its strategic location on Port Richmond Avenue and directly across from

the historic Reformed Church on Staten Island, the site holds important potential as a key node in commercial district revitalization. The site's location near the Port Richmond Bus Terminal and the North Shore Railroad viaduct also give it potential to play a role in support of transit-oriented development. Near a hub of cultural activity, and given the potential reactivation of the rail viaduct for transit service or other community uses, the site should be considered a

priority for community-supported redevelopment. As with other sites on Port Richmond Avenue, redeveloping this lot would also serve to strengthen and support the pedestrian-oriented retail district.

ENVIRONMENTAL STATUS: Surrounding industrial activity and its former use as a paint store make the site a potential brownfield. Further investigation will be required to assess potential environmental concerns.

CANDIDATE STRATEGIC SITE PROFILES

SITE 4: JEWETT WHITE LEAD SITE

SUBDISTRICT: Mixed-Use Corridor
ADDRESS: 2000 Richmond Terrace
BLOCK: 1006
LOT: 32
OWNER: Perfetto Realty Co. Inc.
LOT SIZE (ACRES): 1.0
BUILT STATUS: Vacant
OWNERSHIP: Private
ZONING: M3-1
MAX. ALLOWABLE FAR: 2.0
COMBINED BUILT FAR: 0
UNUSED FLOOR AREA: 84,000 SF
% UNDERBUILT: 100%
USES AS-OF-RIGHT: Industrial
CURRENT USES: Vacant / Storage
FLOOD RISK (FEMA PFIRM 2015): Partially in 500-Year Flood Plain
NYS ENVIRONMENTAL ZONE: Yes
INDUSTRIAL BUSINESS ZONE: No



SITE CONDITIONS: This property is a former Superfund site designated by the U.S. Environmental Protection Agency (EPA), with a long history of environmental issues. The Jewett White Lead Company, and later National Lead Industries, operated a lead smelter and processed lead and linseed oil at this location. After the closing of the lead factory, the property was home to a variety of uses including an automotive repair and filling station, a miniature golf course, and the Sedutto Ice Cream Company factory.

It was then vacant for a number of years. The EPA's Superfund removal action was completed in 2013. The site is now used for equipment storage and as a staging area for construction projects.

Since the site was not remediated to a standard suitable for residential development, it could be developed in a manner that offers commercial services, potentially providing new jobs and workplaces for the community. It has also been envisioned as a

potential parking area for a future Bus Rapid Transit system planned for the reactivation of the former North Shore Railroad right-of-way. This site's location near the foot of Port Richmond Avenue, a gateway for the commercial corridor, as well as its proximity to key waterfront sites with potential for redevelopment as community assets, give it a significant role in future planning efforts. The site's reuse should be carefully considered so as to support community revitalization priorities.

SITE 5: CITY-OWNED WATERFRONT SITE

SUBDISTRICT: Mixed-Use Corridor

ADDRESS: Port Richmond Avenue (Western Foot)

BLOCK: 1068

LOT: 1

OWNER: NYC SBS

LOT SIZE (ACRES): 0.9

BUILT STATUS: Vacant

OWNERSHIP: Public

ZONING: M3-1

MAX. ALLOWABLE FAR: 2.0

COMBINED BUILT FAR: 0

UNUSED FLOOR AREA: 77,624 SF

% UNDERBUILT: 100%

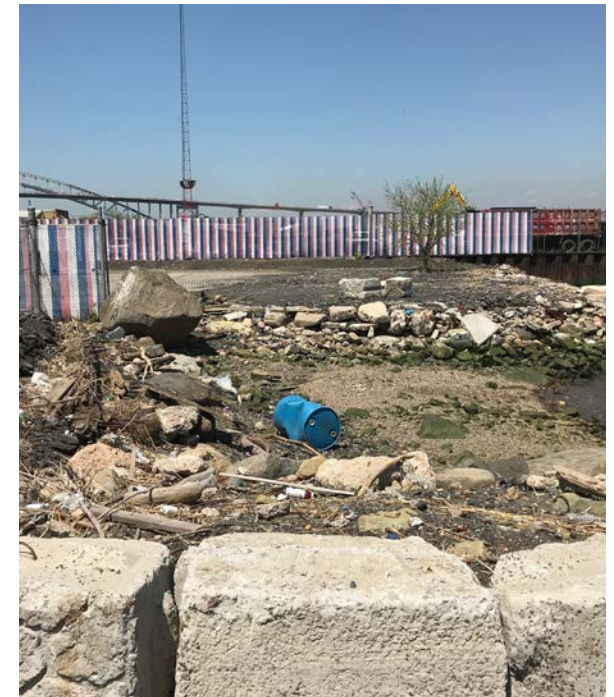
USES AS-OF-RIGHT: Industrial

CURRENT USES: Vacant

FLOOD RISK (FEMA PFIRM 2015): Within 100-Year Flood Plain

NYS ENVIRONMENTAL ZONE: Yes

INDUSTRIAL BUSINESS ZONE: No



SITE CONDITIONS: The site is City-owned and currently under the jurisdiction of the Department of Small Business Services. Flag Container Services has a lease agreement with the New York City Economic Development Corporation providing an easement that runs along the southern portion of the site and offers access to the automotive garage located on an adjacent lot. This site was the location of the original ferry landing in Port Richmond, which operated here until around 1900, when it moved to the east

side of Port Richmond Avenue. According to historical maps, the site became a location of saloons and a barber shop until the 1930s, when it became vacant. A wooden bulkhead remained on the site through the 1950s. Today the shoreline consists of riprap, with the interior used for the storage of containers.

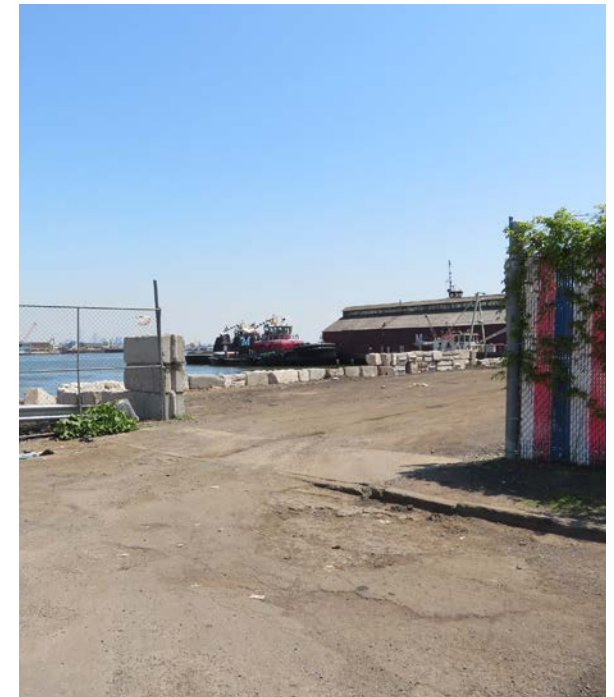
ENVIRONMENTAL STATUS: Based on a review of Sanborn Maps, it does not appear that historical use has impacted the environmental quality of the site. A review of regu-

latory databases indicates that the site is not listed in any such database. However, sites of potential environmental concern were identified within a 400-foot buffer, including a reported spill from the dispensing of diesel and a gasoline spill caused by the leaking of fluids from the tanks of junked vehicles. Further investigation should be performed to determine if these concerns have adversely impacted the site's environmental quality.

CANDIDATE STRATEGIC SITE PROFILES

SITE 6: FORMER STANDARD BOAT SITE

SUBDISTRICT: Mixed-Use Corridor
ADDRESS: 7 Port Richmond Avenue,
2037 Richmond Terrace
BLOCK: 185
LOT: 568, 578
OWNER: Ferry Street Enterprises
LOT SIZE (ACRES): 1.2
BUILT STATUS: Vacant
OWNERSHIP: Private
ZONING: M3-1
MAX. ALLOWABLE FAR: 2.0
COMBINED BUILT FAR: 0
UNUSED FLOOR AREA: 104,340 SF
% UNDERBUILT: 100%
USES AS-OF-RIGHT: Industrial
CURRENT USES: Container Storage
FLOOD RISK (FEMA PFIRM 2015): Within 100-
Year Flood Plain
NYS ENVIRONMENTAL ZONE: Yes
INDUSTRIAL BUSINESS ZONE: No



SITE CONDITIONS: The site was purchased by Ferry Street Enterprises in 2006 from the Standard Boat Company, and appears to be used for the storage of containers. The site was originally used as a commercial lot, which included a coal and lumber yard, a ferry landing area, a grocery store, and a candy store, according to 1885 Sanborn Maps. Records indicate that after 1937 a transfer bridge was constructed to serve the ferry. The site's waterfront edge consists of riprap, with no bulkhead in evidence. Rem-

nant pilings from a pier structure extend into the water, suggesting the potential for a reconstructed pier as a future ferry terminal or for waterfront access. The site is bordered on the east by active maritime businesses including a large property utilized by Moran Towing. Several small businesses occupy three lots immediately southwest of the site, including a live poultry slaughter house, a liquor store, a small restaurant, and a deli. Lot 568 is L-shaped and includes street frontage on Richmond Terrace.

ENVIRONMENTAL STATUS: Based on a review of Sanborn Maps, historical site use as a lumber yard and coal yard may have impacted soil, groundwater, and/or soil vapor at the site. Further investigation should be performed to determine if such uses have adversely impacted the site's environmental quality.

SITE 7: FLAG CONTAINER SERVICES SITE

SUBDISTRICT: Mixed-Use Corridor

ADDRESS: 11 Ferry Street

BLOCK: 1068

LOT: 9, 14, 17, 44, 45, 60, 67

OWNER: Ferry Street Enterprises

LOT SIZE (ACRES): 2.6

BUILT STATUS: Partially Built

OWNERSHIP: Private

ZONING: M3-1

MAX. ALLOWABLE FAR: 2.0

COMBINED BUILT FAR: 0.26 (30,000 SF)

UNUSED FLOOR AREA: 197,478 SF

% UNDERBUILT: 87%

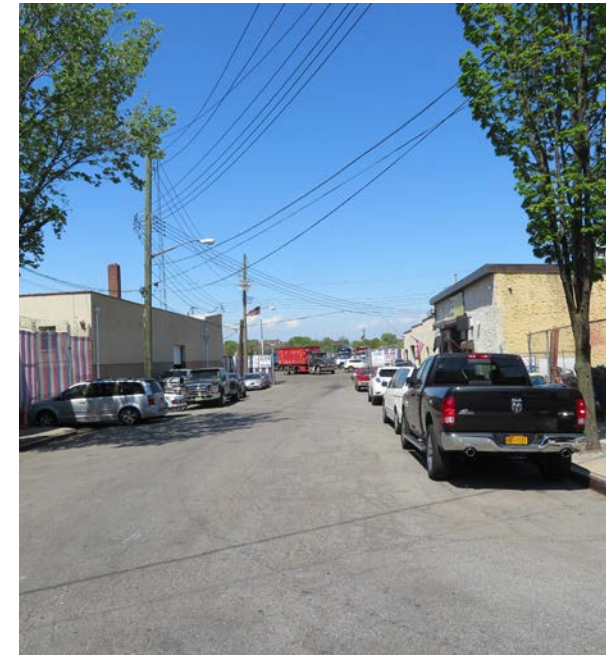
USES AS-OF-RIGHT: Industrial

CURRENT USES: Waste Transfer

FLOOD RISK (FEMA PFIRM 2015): Within 100-Year Flood Plain

NYS ENVIRONMENTAL ZONE: Yes

INDUSTRIAL BUSINESS ZONE: No



SITE CONDITIONS: Lots 9, 14, and 17 are occupied by an auto body shop. Lots 44 and 45 are occupied by Flag Container Services, which operates a waste transfer facility on the site. The lots contain multiple warehouse buildings and an undeveloped area to the north for the staging of vehicles and equipment. Lots 60 and 67 are occupied by a church and auto body shop respectively. Property records indicate that existing buildings were built around 1931. According to an 1885 Sanborn Map, site uses originally

included a lumber yard, commercial stores and groceries, and dwellings. City Directory records identify an asphalt corporation, a building mason's company, and an auto parts facility on the site. The waterfront portion of a site has a bulkhead allowing access by barges and other vessels. A short mapped street, Gales Lane, divides the site and appears to be used exclusively by Flag for storage. The assemblage of sites includes frontage on Richmond Terrace at the key intersection of Port Richmond Avenue.

ENVIRONMENTAL STATUS: Based on a review of Sanborn Maps, historical site use as a lumber yard and auto body facility may have impacted soil, groundwater, and/or soil vapor at the site. Further investigation should be performed to determine if these concerns have adversely impacted the site's environmental quality.

CANDIDATE STRATEGIC SITE PROFILES

SITE 8: HARBOR ROAD PIER

SUBDISTRICT: Working Waterfront

ADDRESS: 3001 Richmond Terrace

BLOCK: 1206

LOT: 23

OWNER: Nicholas J. Markidos / RCA Richmond Terrace LLC

LOT SIZE (ACRES): 2.2

BUILT STATUS: Partially Built

OWNERSHIP: Private

ZONING: M3-1

MAX. ALLOWABLE FAR: 2.0

COMBINED BUILT FAR: 0.03 (2,900 SF)

UNUSED FLOOR AREA: 188,764 SF

% UNDERBUILT: 98%

USES AS-OF-RIGHT: Industrial

CURRENT USES: Vacant / Storage

FLOOD RISK (FEMA PFIRM 2015): Within 100-Year Flood Plain

NYS ENVIRONMENTAL ZONE: No

INDUSTRIAL BUSINESS ZONE: Yes



SITE CONDITIONS: This largely vacant lot is located on a stretch of Richmond Terrace with a small commercial district that has potential as a neighborhood center. Property records indicate that the existing building on the site was built in 1931, and Sanborn Maps show that the site was used as a lumber yard between 1898 to 2007. Records indicate other site uses as “Snyder and Son Building Materials” between 1928 to 1979, “Thomas Transportation Corp” between 1979 to 1984, and “JNT Enterprise,” “Nautical Leasing,” “Ambrit Corrosion Engineers,” and “Carib-

bean Transport Lines Inc” between 1984 to 2005. The site has historically been surrounded by industrial and commercial uses. Its waterfront edge is naturalized with no existing bulkhead or pier structures. A separate tax Lot 30 occupies the corner of the site at Harbor Road and Richmond Terrace, including a small restaurant and a residential dwelling. The site is adjacent to a publicly owned street end at Harbor Road. Across Harbor Road is a large industrial facility operated by May Ship Repair, including an actively used pier structure.

ENVIRONMENTAL STATUS: Based on a review of Sanborn Maps, historical site use as a lumber yard may have impacted soil, groundwater, and/or soil vapor at the site, especially if wood preservatives such as creosote were used. Further investigation should be performed to determine whether the above-identified concerns have adversely impacted the site’s environmental quality.

SITE 9: STORAGE BIN SITE

SUBDISTRICT: Working Waterfront

ADDRESS: 2945 Richmond Terrace,
2901 Richmond Terrace

BLOCK: 1206, 1205

LOT: 1 (1206), 27 (1205)

OWNER: Storage Bin Inc

LOT SIZE (ACRES): 18.5

BUILT STATUS: Partially Built

OWNERSHIP: Private

ZONING: M3-1

MAX. ALLOWABLE FAR: 2.0

COMBINED BUILT FAR: 0.14 (57,200 SF)

UNUSED FLOOR AREA: 1,557,801 SF

% UNDERBUILT: 97%

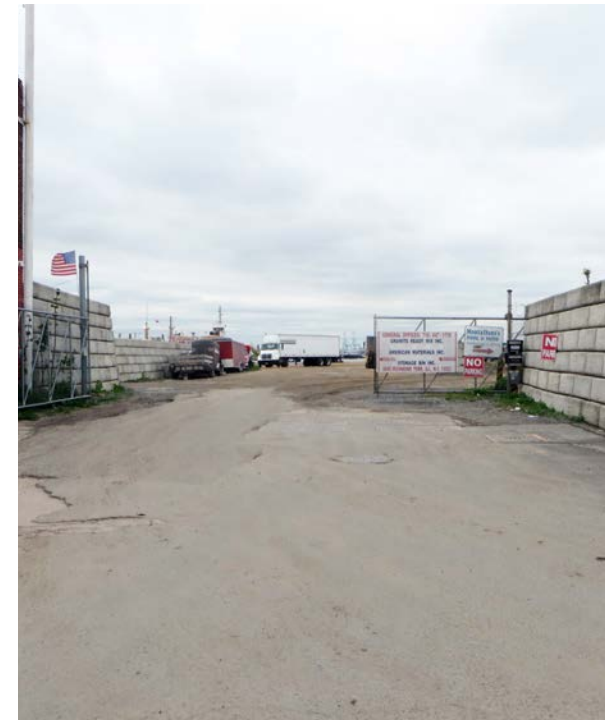
USES AS-OF-RIGHT: Industrial

CURRENT USES: Concrete / Commercial /
Building Supply

FLOOD RISK (FEMA PFIRM 2015): Within 100-
Year Flood Plain

NYS ENVIRONMENTAL ZONE: Yes

INDUSTRIAL BUSINESS ZONE: Yes



SITE CONDITIONS: These two large lots are currently used by a variety of businesses including building suppliers, an auto parts dealer, a pool and patio supplier, and a lumber supplier. The site is partially built, with several large warehouse structures along Richmond Terrace. Much of the rest of the site is vacant or used for storage and staging. The waterfront edge is partially bulkheaded, with the balance either a naturalized shoreline or stabilized with riprap.

The site is immediately east of candidate strategic site 8, the Harbor Road Pier. To the east of the site is a marine towing operator and a marine equipment leasing company. The site's Richmond Terrace street frontage, which largely consists of solid brick and cinderblock walls of warehouse structures, is located near a small commercial district between Union Avenue and Harbor Road with potential for revitalization as a neighborhood center.

ENVIRONMENTAL STATUS: Surrounding industrial operations, as well as regulatory database listings for surrounding properties, indicate environmental concerns within a 400-foot buffer. Further investigation should be performed to determine if such concerns have adversely impacted the environmental quality of the site.

CANDIDATE STRATEGIC SITE PROFILES

SITE 10: EDKINS AUTO SALES SITE

SUBDISTRICT: Mixed-Use Corridor

ADDRESS: 2239-83 Richmond Terrace,
2319 Richmond Terrace

BLOCK: 1070, 1105

LOT: 62, 65, 68, 71, 79 (1070), 1 (1105)

OWNER: Benedetto di Costanzo / Edkins Auto
Sales Inc. / Helene Iacono / 2319 Richmond
Terrace

LOT SIZE (ACRES): 8.5

BUILT STATUS: Partially Built

OWNERSHIP: Private

ZONING: M2-1

MAX. ALLOWABLE FAR: 2.0

COMBINED BUILT FAR: 0.04 (7,000 SF)

UNUSED FLOOR AREA: 727,460 SF

% UNDERBUILT: 99%

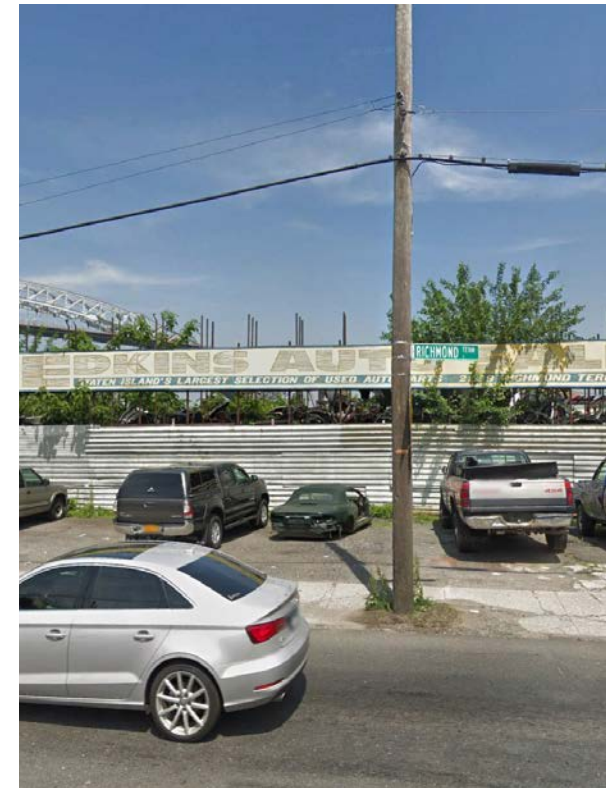
USES AS-OF-RIGHT: Industrial

CURRENT USES: Concrete / Autobody /
Storage

FLOOD RISK (FEMA PFIRM 2015): Within 100-
Year Flood Plain

NYS ENVIRONMENTAL ZONE: Yes

INDUSTRIAL BUSINESS ZONE: Yes



(Source: Google Street View)

SITE CONDITIONS: This large waterfront parcel was listed for sale in 2018 as an industrial development property. Currently, fifteen month-to-month tenants lease small portions of the site, which is devoted largely to automotive uses but is also used for concrete supply and storage. The site's water-

front edge is naturalized, with no bulkhead or pier structures evident. To the west are properties occupied by construction and stone supply businesses. To the east are properties used for parking and storage, as well as a wholesale meat purveyor. Faber Park is located further to the east. The site

is partially opposite a large new residential development, Nicholas Estates, consisting of two-family homes. The property is also located two blocks from the entrance to Route 440 and the Bayonne Bridge.

SITE 11: DAVIDSON SITE EAST

SUBDISTRICT: Affordable Neighborhood

ADDRESS: 60 Davidson Street

BLOCK: 1256

LOT: 40

OWNER: 60 Davidson LLC

LOT SIZE (ACRES): 2.7

BUILT STATUS: Partially Built

OWNERSHIP: Private

ZONING: M2-1

MAX. ALLOWABLE FAR: 2.0

COMBINED BUILT FAR: 0.41 (48,000 SF)

UNUSED FLOOR AREA: 186,000 SF

% UNDERBUILT: 79%

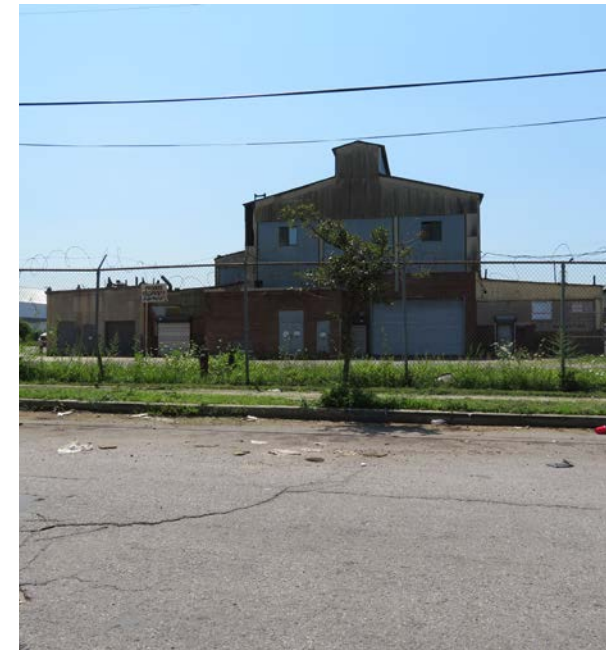
USES AS-OF-RIGHT: Industrial

CURRENT USES: Welding / Autobody

FLOOD RISK (FEMA PFIRM 2015): Outside
Zone

NYS ENVIRONMENTAL ZONE: Yes

INDUSTRIAL BUSINESS ZONE: No



SITE CONDITIONS: This large underutilized site is located in a manufacturing district which formerly served Mariners Harbor's shipbuilding operations in the early twentieth century. Today it is part of a district that is home to welding, autobody, scrap metal, distribution, and other industrial operations. The southern edge of the property abuts the former North Shore Railroad right-of-way, while the eastern and northern sides of the site are defined by residential neighbor-

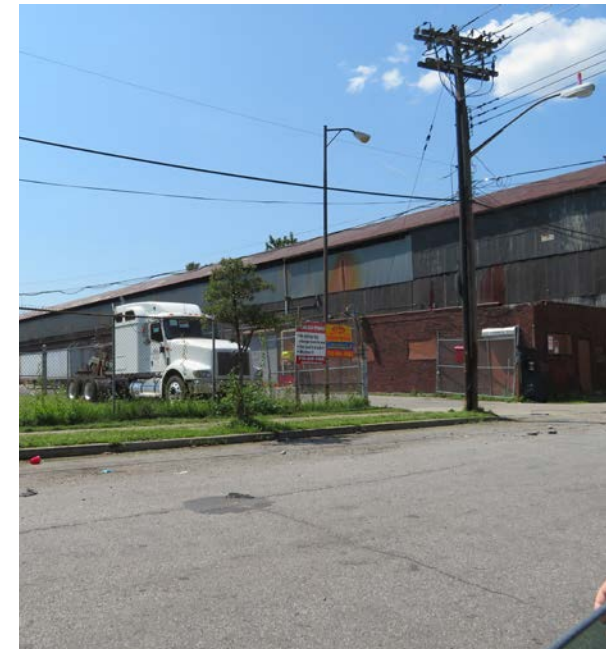
hoods. A small commercial district along nearby South Avenue includes the Mariners Harbor branch of the New York Public Library as well as delis, a laundromat, and a beauty supply store. Directly south across the right-of-way is a large New York City Housing Authority complex. The site lies between two overpasses crossing the right-of-way at South Avenue and Harbor Road. Due to this lack of easy access across the right-of-way, the Davidson Street site is isolated

between dead-end streets at Grandview Avenue and Andros Avenue. In addition, Davidson Street is not directly accessible from the South Avenue corridor, requiring access via Arlington Place and the adjacent residential neighborhood. The lack of access and closely adjacent residential dwellings pose challenges for the site's reuse, which will require careful consideration to best support community priorities.

CANDIDATE STRATEGIC SITE PROFILES

SITE 12: DAVIDSON SITE WEST

SUBDISTRICT: Affordable Neighborhood
ADDRESS: 82 Davidson Street
BLOCK: 1256
LOT: 92
OWNER: 60 Davidson LLC
LOT SIZE (ACRES): 3.5
BUILT STATUS: Partially Built
OWNERSHIP: Private
ZONING: M2-1
MAX. ALLOWABLE FAR: 2.0
COMBINED BUILT FAR: 0.39 (58,000 SF)
UNUSED FLOOR AREA: 242,500 SF
% UNDERBUILT: 81%
USES AS-OF-RIGHT: Industrial
CURRENT USES: Scrap Metal / Storage
FLOOD RISK (FEMA PFIRM 2015): Outside Zone
NYS ENVIRONMENTAL ZONE: Yes
INDUSTRIAL BUSINESS ZONE: No



SITE CONDITIONS: Like Site 11, 82 Davidson Street is occupied by large industrial structures that date to a time when Mariners Harbor was a hub of shipbuilding operations in the early twentieth century. Today this outlying and underutilized industrial district is home to welding, autobody, scrap metal,

distribution, and other industrial operations. The M2-1 manufacturing district that includes this site extends awkwardly west of South Avenue to include properties on Arlington Avenue, bisecting residential blocks on Grandview and South Avenue. Given the significant conflicts between manufac-

turing uses in close proximity to residential dwellings, a rezoning of this district to allow mixed-use residential and commercial development could be considered to better align site uses with community needs and priorities for affordable housing and neighborhood services.

SITE 13: UNION AVENUE SITE

SUBDISTRICT: Affordable Neighborhood

ADDRESS: 130 Union Avenue

BLOCK: 1226

LOT: 57

OWNER: 647-649 Washington Ave., LLC

LOT SIZE (ACRES): 1.7

BUILT STATUS: Partially Built

OWNERSHIP: Private

ZONING: R3A

MAX. ALLOWABLE FAR: 1.0 for Community Facility / 0.6 for Residential

COMBINED BUILT FAR: 0.13 (9,700 SF)

UNUSED FLOOR AREA: 63,300 SF

% UNDERBUILT: 87%

USES AS-OF-RIGHT: Low-Density Residential

CURRENT USES: Vacant / Storage

FLOOD RISK (FEMA PFIRM 2015): Outside Zone

NYS ENVIRONMENTAL ZONE: No

INDUSTRIAL BUSINESS ZONE: No

SITE CONDITIONS: The site is developed with a warehouse to the east and a large asphalt lot to the west. Residential properties adjoin the lot to the south. The site was primarily used as a lumber company between 1928 and 1995, per City Directory records. According to Sanborn Maps, the site was vacant between 1910 to 1917 until it was occupied by “Arthur Dreyer & Sons Coal, Lumber & Mason’s Materials” by 1937. Adjacent properties have been historically used



primarily for residential purposes. Records show that adjacent commercial uses include firewood packaging, a church, a grocery, a plumber’s shop, and auto repair. Structures believed to be former coal storage silos associated with the property are still extant along Harbor Road.

ENVIRONMENTAL STATUS: Based on a review of Sanborn Maps, historical site use as a lumber yard, coal storage facility, and



the presence of active railroad operations may have impacted soil, groundwater, and/or soil vapor. Further investigation should be performed to determine if any of the above-identified recognized environmental concerns have adversely impacted the site’s environmental quality.

CANDIDATE STRATEGIC SITE PROFILES

SITE 14: WALKER STREET SITE

SUBDISTRICT: Creative Industry

ADDRESS: 351 Walker Street

BLOCK: 1161

LOT: 10

OWNER: 351 Walker LLC

LOT SIZE (ACRES): 0.9

BUILT STATUS: Built

OWNERSHIP: Private

ZONING: M3-1

MAX. ALLOWABLE FAR: 2.0

COMBINED BUILT FAR: 1.87 (76,000 SF)

UNUSED FLOOR AREA: 5,358 SF

% UNDERBUILT: 7%

USES AS-OF-RIGHT: Industrial

CURRENT USES: Storage / Distribution

FLOOD RISK (FEMA PFIRM 2015): Outside
Zone

NYS ENVIRONMENTAL ZONE: No

INDUSTRIAL BUSINESS ZONE: No



SITE CONDITIONS: The site is developed with a 4-story commercial warehouse to the southwest and an asphalt paved parking lot to the east. The property was initially used as a cement warehouse in 1917. The warehouse was then removed and residential dwellings were developed at the site by 1937. By 1950, a manufacturing warehouse was developed and remained on the site until 2007. Property records indicate that the existing building was built in 1945. The existing structure is the largest on the industrial block bounded by Walker Street, Lake

Avenue, Granite Avenue, and the former North Shore Railroad right-of-way. Other uses within this manufacturing district include a plumbing supplier, food distributors, automotive suppliers, and storage. This M3-1 district extends from the Richmond Terrace waterfront south along Granite and Lake Avenues to the site, bringing its manufacturing uses into close proximity with residential neighborhoods. The presence of loading bays on Lake Avenue, along with associated truck traffic and idling, are a significant source of conflict with surround-

ing neighbors. The site is also located across Walker Street from a baseball facility where pedestrian access is potentially hazardous due to nearby active truck traffic.

ENVIRONMENTAL STATUS: Based on a review of Sanborn Maps, historical site use as a manufacturing warehouse may have impacted soil, groundwater, and/or soil vapor. Further investigation should be performed to determine if the identified environmental concerns have adversely impacted the site's environmental quality.

SITE 15: LAKE AVENUE SITE

SUBDISTRICT: Creative Industry

ADDRESS: 125 Lake Avenue

BLOCK: 1161

LOT: 1

OWNER: 135 Lake Avenue Realty

LOT SIZE (ACRES): 7.6

BUILT STATUS: Partially Built

OWNERSHIP: Private

ZONING: M3-1

MAX. ALLOWABLE FAR: 2.0

COMBINED BUILT FAR: 0.50 (166,000 SF)

UNUSED FLOOR AREA: 495,661 SF

% UNDERBUILT: 75%

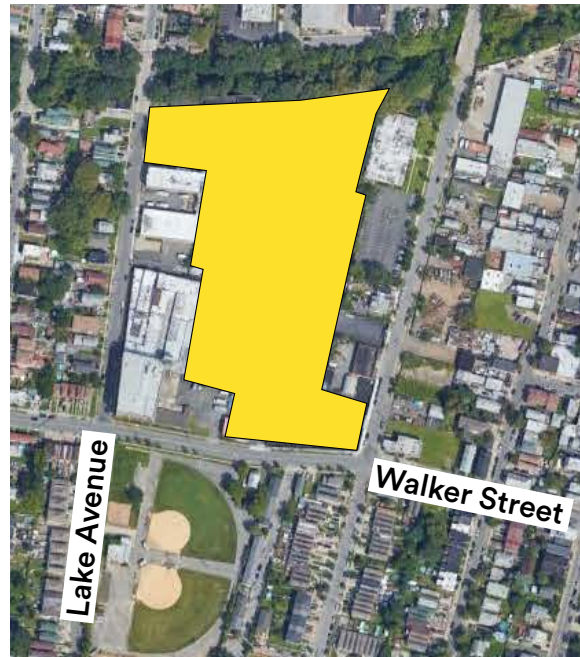
USES AS-OF-RIGHT: Industrial

CURRENT USES: Distribution / Parking

FLOOD RISK (FEMA PFIRM 2015): Outside
Zone

NYS ENVIRONMENTAL ZONE: No

INDUSTRIAL BUSINESS ZONE: No



SITE CONDITIONS: At more than 7 acres, this large block interior contains several commercial and warehouse structures, storage and parking areas, and access routes used for site circulation. The lot also includes street frontage on both Lake and Granite Avenues. A significant portion of this property is underutilized, particularly the northeastern section where the property is adjacent to the former North Shore Railroad right-of-way. In addition, a large area

used for storage is located at the corner of Walker Street and Granite Avenue, which could potentially be used more productively for site access from Walker Street or for creative industrial development. With so much of the full block under the control of a single owner, the potential exists to use this lot in a catalytic fashion to create a more neighbor-friendly industrial district focused on the creative production sectors.

ENVIRONMENTAL STATUS: Based on a review of Sanborn Maps, surrounding site use as a lumber yard, coal storage facility, and the presence of active railroad operations may have impacted soil, groundwater, and/or soil vapor. Further investigation should be performed to determine if the above-identified recognized concerns have adversely impacted the site's environmental quality.

APPENDIX C: STRATEGIC SITE COMPREHENSIVE ENVIRONMENTAL REVIEW

PORT RICHMOND AVENUE STOREFRONT

Site Conditions: The site consists of Tax Block 1005, Lot 8 and is bounded by Port Richmond Avenue to the west, commercial units to the north and south, and residential units to the east. The site is developed with a three-story commercial building with residential units, a first-story extension, and a garage. There are no other structures, roads, or improvements at the site.

Onsite: The site is owned by 97 Port Richmond Ave, LLC and was most recently used as a retail store. Property records indicate that the existing building was built in 1931 and Sanborn Maps show that it was initially designated as a dwelling between 1885 and 1898. Between 1898 and 1917, a retail store occupied the site. Available City Directory records identify Wexler’s Bedding and Furniture and a residential dwelling under site uses between 1995 and 2005.

Information obtained from historical Sanborn Maps is detailed below. Historical Sanborn Maps available for the site and surrounding areas are dated 1885, 1898, 1917, 1937, 1950, 1962, 1977, 1981, 1983, 1986, 1987, 1988, 1989, 1990, 1992, 1993, 1995, 1996, 2001, 2002, 2003, 2004, 2005, 2006, and 2007.

The site was initially used for residential purposes between 1885 and prior to 1917. After 1917, a store was built on the site

Year	Observations
1885	Site: The site appears to be developed with a single residential dwelling. Surrounding Properties: Surrounding properties consist of mostly residential uses. A grocery store is located west of the Site across Richmond Avenue, and a carriage factory is located northwest across Ann Street.
1898	Site: The site appears unchanged from the previous map. Surrounding Properties: A railroad has been developed directly north of the site. Two additional stores have been built south of the site.
1917	Site: The site appears to be developed as a store. Surrounding Properties: Commercial stores surround the site to the north, south, and west. A theatre has been developed southwest of the site. An auto garage is built south of the site (upgradient) past Vreeland Street.
1937	Site: The store/building has expanded. Surrounding Properties: Filling stations have been developed northwest (near Ann Street) and southwest (near Grove Avenue) of the site. A post office has been developed south of the site. Machine shops are located southwest of the site along Bennett Street, and north of the site along Richmond Avenue and Church Street.
1950	Site: The site appears unchanged from the previous map. Surrounding Properties: A paint and wallpaper store has been developed north of the site, across Church Street.
1962	Site: The site is labeled a furniture store. Surrounding Properties: The former theatre southwest of the site is no longer indicated. An auto repair shop and filling station are located northeast of the site along Park Avenue. The two nearby filling stations are no longer indicated on the map.
1977-1988	Site: The site appears unchanged from the previous map. Surrounding Properties: A dry-cleaning facility has been developed directly north of the site at the corner of Richmond Avenue and Ann Street. A parking lot, machine shop, and furniture store have been developed north of the site.
1990-2007	Site: The site appears unchanged from the previous map. Surrounding Properties: Additional stores and residential dwellings have been developed east and southeast of the site. The office southeast of the site has been designated a State office and now includes a parking lot. The dry-cleaning facility formerly located north of the site has been repurposed as a tile store.

which was subsequently expanded. It was designated a furniture store between 1962 and 2007. Based on a review of the Sanborn Maps, it does not appear that historical site use has impacted the environmental quality of the site. A review of the EDR radius map and regulatory databases indicated that the site is not listed in any of the above regulatory databases.

Offsite: Adjacent properties have been historically used primarily for commercial, light industrial, and residential uses, with several commercial units to the north, south and west, light industrial uses to the north past Richmond Terrace, and commercial units to the south. According to City Directory records, commercial uses include food markets, electronics stores, paint stores, cafes, and churches, among other uses.

Based on a review of Sanborn Maps, historical uses of properties adjoining and surrounding the site include dry cleaning facilities, an upgradient auto garage, upgradient and downgradient filling stations, paint stores and parking facilities.

A site of potential environmental concern was identified within a 400-foot buffer during a review of environmental databases and historical records:

- 70 Park Avenue, located 286 feet northeast and cross-gradient with the site is a listed UST site for its onsite #2 fuel oil underground storage tanks.

Two sites of potential environmental concern were identified within 1/8th of a mile south and upgradient of the site:

- 600 Gulf Avenue LLC, located 643 feet south and upgradient of the site, is listed as an EDR Historic Auto site.
- St. Philips Baptist Church, located 412 feet southeast and upgradient of the site, is listed as an AST site for its onsite #2 fuel oil tank.

Recommendation: The surrounding automobile repair operations, drycleaner operations and regulatory database listings for the surrounding properties (including UST and Historic Auto facilities) may have adversely impacted the environmental quality of the site, including soil, groundwater, and soil vapor. Further investigation should be performed to determine if any of the above-identified recognized environmental concerns have adversely impacted the environmental quality of the site. The development or reuse of the property may be complicated by the presence or potential presence of contaminants and therefore the property should be considered for a BOA nomination.

COMPREHENSIVE ENVIRONMENTAL REVIEW

RICHMOND CHANDELIER SITE

Site Conditions: The site consists of Tax Block 1073, Lots 200, 97, and 31 and is bounded by Port Richmond Avenue to the east, commercial units to the north and south, and residential units to the west. The site is developed with a single one-story commercial building with an asphalt paved parking lot located south of the building. There are no other structures, roads, or improvements at the site.

Onsite: The site is owned by Port Richmond Realty Associates and used as a parking lot and electrical supply retailer. Property records indicate that the existing building was built in 1931 and Sanborn Maps show that it was initially designated as a commercial lot occupied by a retail store. Available City Directory records identify Richmond Chandelier under site uses between 1990 and 2005. According to historical Sanborn Maps, a store was built on Lot 97 between 1917 and 1950. By 1962, an office was located on the lot, and between 1977 to 2007, the lot was used as a parking facility.

Information obtained from historical Sanborn Maps is detailed below. Maps available for the site and surrounding areas are dated 1885, 1898, 1917, 1922, 1937, 1950, 1962, 1977, 1981, 1983, 1986, 1987, 1988, 1989, 1990, 1992, 1993, 1995, 1996, 2001, 2002, 2003, 2004, 2005, 2006, and 2007.

Year	Observations
1885	Site: The site appears to be developed with a single residential dwelling. Surrounding Properties: A carriage factory, graveyard, and church are located directly north of the site. Residential homes are located south and east of the site. An empty lot and residential homes are developed west of the site.
1898	Site: The site appears to be developed with multiple residential dwellings. Surrounding Properties: A railroad has been developed directly south of the site. A carriage shop is located directly north of the site. The former graveyard lots are no longer indicated on the map. Commercial stores have been developed east of the site.
1917	Site: The site appears to be developed with two residential dwellings. Surrounding Properties: Commercial stores and offices have been developed north and south of the site. A cemetery has been developed north of the site. A theatre (“Palace Theatre”) has been developed south of the site, past the railroad.
1937	Site: A filling station has been developed along the southern edge of the site. A commercial store has been developed along the eastern boundary of the site. Surrounding Properties: A dry-cleaning facility has been developed directly north of the site. A filling station was developed south of the site at 128 Port Richmond Avenue. A paint and wallpaper store has been developed northeast of the site.
1950	Site: The onsite filling station is no longer indicated on the map. Surrounding Properties: Surrounding sites appear unchanged from the previous map.
1962	Site: The store to the east has been changed into an office. Surrounding Properties: The filling station south of the site is no longer indicated and has been replaced with a parking lot.
1977-1981	Site: The site is designated as a parking lot. Surrounding Properties: A dry-cleaning facility has been developed southeast of the site, across Richmond Avenue. A parking lot has been developed east of the site.
1983-1989	Site: The site appears unchanged from the previous map. Surrounding Properties: Additional stores and residential dwellings have been developed east and southeast of the site.
1990-2007	Site: The site appears unchanged from the previous map. Surrounding Properties: Additional stores and residential dwellings have been developed east and southeast of the site.

The site was initially used for residential purposes in 1917. After 1917, a filling station was built on the site which remained until at least 1937. A store occupied the site between 1937 through 1950. By 1962, an office building occupied the same space. Between 1977 through 2007, the site was solely designated as a parking lot.

A review of the EDR radius map and regulatory databases indicates that the site is not listed in any of the researched regulatory databases.

Offsite: Adjacent properties have been historically used primarily for commercial, light industrial, and residential uses, with several commercial units to the east, residential units to the west along Maple Avenue, light industrial uses to the north past Richmond Terrace, and commercial units to the south. According to City Directory records, commercial uses include food markets, electronics stores, paint stores, cafes, and churches, among other uses.

Based on a review of Sanborn Maps, historical uses of properties adjoining and surrounding the site include historical filling stations, dry cleaning facilities, retail stores, and parking facilities.

Based on a review of the EDR radius map, current uses of properties adjoining and surrounding the site include automobile repair facilities, a paint supplier, and retail stores. A site of potential environmental concern,

located upgradient and cross-gradient of the site, was identified within an approximate 400-foot buffer during a review of environmental databases and historical records:

- A vacant parking lot, located at 17 Grove Avenue, 435 feet south and upgradient of the site, is listed in the NY Spills database for an open spill case (Spill # 1502514). This property has been used as a parking lot for the last fifty years and was previously used as a gas station. The DEC Memo indicates that soil and groundwater contamination was detected during a Phase II Investigation. Testing has also shown gasoline impacts to soil potentially from former gas station operations over thirty years ago.

An additional site of concern was identified within 1/8th of a mile south and upgradient of the site:

- SI Motor Repair Corporation, located at 28 Grove Avenue, 539 feet southwest and upgradient of the site, is listed in the AST database for the presence of three used oil storage tanks.

Recommendation: The historic site use as a filling station and paint and wallpaper store, in addition to the surrounding automobile operations, dry cleaning facilities, paint store, and regulatory database listings for the surrounding properties (including AST and NY Spills records) may have adversely

impacted the environmental quality of the site, including soil, groundwater, and soil vapor. Further investigation should be performed to determine if any of the above-identified recognized environmental concerns have adversely impacted the environmental quality of the site. The development or reuse of the property may be complicated by the presence or potential presence of contaminants, and the property therefore should be considered for a BOA nomination.

COMPREHENSIVE ENVIRONMENTAL REVIEW

PORT RICHMOND WATERFRONT SITE (CITY-OWNED WATERFRONT SITE)

Site Conditions: The site consists of Tax Block 1068, Lot 1 and is bounded by Flag Container Services to the west, Port Richmond Avenue to the east, G&G Custom Auto Body to the south, and the Kill Van Kull channel to the north. The site appears to be an undeveloped lot.

Onsite: The site is owned by NYC SBS and is used for the storage of shipping containers. Property records indicate that the immediately southern adjacent property building was built around 1931 and was originally used as a “steamboat hotel” according to the 1885 Sanborn Maps. The target property lot was used as a Port Richmond ferry landing area. Between 1898 and 1917, the site was occupied by stores along its eastern and western boundaries. Between 1937 and 2007, a wooden bulkhead and stone and gravel piles occupied the site. No City Directory records were available for this site.

Information obtained from historical Sanborn fire insurance maps is detailed below. Sanborn Maps available for the site and surrounding areas are dated 1885, 1898, 1917, 1922, 1937, 1950, 1962, 1977, 1981, 1983, 1986, 1987, 1988, 1989, 1990, 1992, 1993, 1995, 1996, 2001, 2002, 2003, 2004, 2005, 2006, and 2007.

Year	Observations
1885	Site: The site appears to be developed as a Port Richmond ferry landing area. Surrounding Properties: A “steamboat hotel” and other commercial units occupy the lot directly south of the site. Additional commercial units are located further south of the site beyond Shore Road and east beyond Richmond Avenue. Multiple lumber sheds are located west of the site. Multiple lead and corroding houses are located east of the site near Park Avenue and Richmond Terrace. A hotel is located near the intersection of Shore Road and Richmond Avenue.
1898-1917	Site: Stores occupy the lot’s eastern and western boundaries. Surrounding Properties: The hotel southeast of the site is no longer indicated.
1937	Site: A wooden bulkhead and stone and gravel piles occupy the site. Surrounding Properties: The lead and corrosion facility east of the site is no longer indicated. A cement and tile store is located directly south of the site. Multiple paint stores and a furniture store are located further south along Ferry Street and Richmond Terrace. A movie theatre has been built southwest of the site. A “ferry slip” has been built east of the site.
1950-1962	Site: The site appears unchanged from the previous map. Surrounding Properties: The former tile store south of the site (upgradient) has been repurposed into an auto repair shop. A private garage has been built west of the site. A bowling alley, furniture store, and cemetery have been built west and south of the site.
1977-1986	Site: The site appears unchanged from the previous map. Surrounding Properties: The former lumber yard west of the site has been converted to an automobile junk yard. Additional commercial units have been developed south of the site. A telephone equipment yard has been developed east of the site.
1988	Site: The site appears unchanged from the previous map. Surrounding Properties: The automobile junk yard west of the site has been converted to a container storage yard.
1989-2007	Site: The site appears unchanged from the previous map. Surrounding Properties: Richmond Avenue has been renamed to Port Richmond Avenue.

Based on the review of Sanborn Maps, it does not appear that historical site use has impacted the environmental quality of the site. A review of regulatory databases indicated that the site is not listed in any of the regulatory databases.

Offsite: Adjacent properties historically have been used for commercial and industrial uses, with several commercial units to the south, west, and east of the site. According to City Directory records, commercial uses include lead corrosion engineering facilities, a post office, restaurants, a pharmacy, churches, and automobile services.

Four sites of potential environmental concern were identified within a 400-foot buffer during a review of environmental databases and historical records:

- Flag Container Services, located at 11 Ferry Street, 235 feet west and cross-gradient of the site, is listed in multiple environmental databases, including RCRA-CESQG, AST, MANIFEST, NY SPILLS, SWF/LF, FINANCIAL ASSURANCE, and SPDES. The site contains three onsite tanks for used oil storage and had a reported spill on 9/15/2004 (SPILL # 0406956) from the dispensing of diesel from a fuel truck. The spill was closed on 9/24/2004. The facility is listed in the MANIFEST database for its prior storage of mercury onsite, which has since been shipped on 5/3/2004. No violations were found for its handler

status as a conditionally exempt small quantity generator.

- The intersection of Richmond Terrace and Port Richmond Avenue, located 238 feet south and upgradient of the site, is also listed as a NY SPILLS site for a 100-gallon raw sewage spill which occurred on 3/3/2007 due to an equipment failure. The primary source affected was the Kill Van Kull surface water. The spill was closed on 3/5/2007 and referred to the NYSDEC water division.
- 3 Port Richmond Avenue, located 129 feet southeast and upgradient of the site, is listed as a NY SPILLS site for a spill reported on 8/27/1999 (Spill # 9906338). The spill was reported in response to an unknown material release causing an observable “5- to 10-gallon sheen” at the water surface. The spill was closed by 8/30/1999. Standard Boat Company, located at 2037 Richmond Terrace, is also listed as a NY SPILLS site for a spill caused on 9/4/1987 by a gasoline spill (SPILL # 8704953). The spill was caused by the leaking of fluids from the tanks of junked vehicles at the site. Subsequent cleanup efforts and sampling verified that the soil and groundwater met Technical and Administrative Guidance criteria, and the spill was thereafter closed on 11/24/2009.
- “Texas Eastern Gas M & R 058” and “Tug Terror & United Newport Pilots” are both located at the foot of the Port Richmond Avenue dock (approximately 170 feet east and cross-gradient of the

site). Texas Eastern Gas is listed as a RCRA-CESQG (Conditionally Exempt Small Quantity Generator) and a historic LQG (Large Quantity Generator), for its generation of ignitable wastes. Tug Terror & United Newport Pilots is listed as a non-generator of hazardous wastes; however, it was formerly classified as a large quantity generator for its generation of halogenated solvents.

COMPREHENSIVE ENVIRONMENTAL REVIEW

PORT RICHMOND WATERFRONT SITE (FORMER STANDARD BOAT SITE)

Site Conditions: The site consists of Tax Block 185, Lots 568 and 578, and is bounded by Richmond Terrace to the south, Port Richmond Avenue to the west, the Kill Van Kull channel to the north, and an industrial lot to the east. Lot 568 appears to be an undeveloped/unpaved lot. Lot 578 is incorporated within the larger undeveloped lot and directly adjoins a poultry market to the south.

Onsite: The site is owned by Ferry Street Enterprises and appears to be used for the storage of shipping containers. No certificates of occupancy or building records were found for the two lots. The site was originally used as a commercial lot, which included a coal and lumber yard, a ferry landing area, a grocery store, and a candy store, according to the 1885 Sanborn Maps. Available City Directory records identify Ritz Diner and Leth Carlo Lunch Wagon under site uses between 1960 and 1965.

Information obtained from historical Sanborn Maps is detailed below. Due to the geographic proximity to Sites 3A and 3C, the table at right details features pertaining to Site 3B exclusively. Sanborn Maps available for the site and surrounding areas are dated 1885, 1898, 1917, 1922, 1937, 1950, 1962, 1977, 1981, 1983, 1986, 1987, 1988, 1989, 1990, 1992, 1993, 1995, 1996, 2001, 2002, 2003, 2004, 2005, 2006, and 2007.

Year	Observations
1885	Site: The site appears to be developed as a commercial lot, which includes a coal and lumber yard, a ferry landing area, a vacant building, a grocery store, and a candy store.
1898	Site: Additional stores occupy the lot's southern and western boundaries. The former coal and lumber yard has been labeled as just a coal yard. The coal yard has been divided into a separate lot from the commercial lot to the west.
1917-1922	Site: A driveway has been placed at the center of the site.
1937-1962	Site: The site has been subdivided into the current lot arrangement. A transfer bridge has been built for the ferry. A new store has been developed at the southeast corner of the lot.

The site was used a coal and lumber yard as early as 1885. Based on a review of Sanborn Maps, historical site use as a lumber yard and coal yard may have impacted soil, groundwater, and/or soil vapor at the site.

A review of the regulatory databases indicates that the site is listed as a NY SPILLS site for a spill caused on 9/4/1987 by a gasoline spill (SPILL # 8704953). The spill was caused by the leaking of fluids from the tanks of junked vehicles at the site. Subsequent cleanup efforts and sampling verified that the soil and groundwater met Technical and Administrative Guidance criteria, and the spill was thereafter closed on 11/24/2009.

Offsite: In addition to the sites of potential concern described for Site 3A, an additional

three sites have been identified within an approximate 400-foot buffer from Site 3B:

- 13 Park Avenue, located 378 feet southeast and upgradient of the site, is listed on the NY SPILLS database for a one-gallon petroleum spill (NY SPILLS # 0800946) caused by a gas dispenser leak at a former Getty gas station. The spill was reported on 4/23/2008 and closed on 10/24/2008. A pump and treatment system has been operating prior to this spill in response to an older spill.
- 2000 Richmond Terrace, located 506 feet southeast and upgradient of the site, is listed in a number of databases under various site names. Listings include MANIFEST, for the handling of petroleum oil onsite, RCRA-LQG for the

onsite generation of lead, UST, and NY SPILLS. The SPILLS listing is in reference to NY SPILLS # 9308076, which occurred on 10/3/1993 and was closed the same day upon a NYCDEP investigation.

- 2015 Richmond Terrace, located 462 feet east and cross-gradient of the site, is also listed in a number of databases under various site names. It is listed on the MANIFEST database for the generation of lead and various debris onsite, RCRA-LQG for its handling of ignitable wastes, and NY SPILLS. There have been three spills reported at this address, but only two of them indicate actual discharge. NY SPILL # 1610266, which occurred on 2/12/2017 and was closed on 3/13/2017, refers to a 5-gallon spill of motor oil due to overfilling of a day tank. SPILL # 9909754 refers to a two-gallon #2 fuel oil spill which occurred on 11/11/1999 and was closed on 11/13/1999. The spill was caused from a brief release occurring during a fuel transfer.

COMPREHENSIVE ENVIRONMENTAL REVIEW

PORT RICHMOND WATERFRONT SITE (FLAG CONTAINER SERVICES SITE)

Site Conditions: The site consists of Tax Block 1068, Lots 9, 14, 17, 44, 45, 60, and 67. Lots 9, 14, and 17 are bound by Port Richmond Avenue to the east, Richmond Terrace to the south, Ferry Street to the west, and an industrial lot to the north. Lots 60 and 67 are bound by Richmond Terrace to the south, Ferry Street to the east, Gales Lane to the north, and a truck rental facility to the west. Lots 44 and 45 are bound by the Kill Van Kull channel to the north, an industrial lot to the east, Ferry Street and Gales Lane to the south, and a truck rental facility to the west. Lots 9, 14, and 17 are occupied by an auto body shop. Lots 44 and 45 are occupied by Flag Container Services, a debris removal contractor. The lots contain multiple warehouse buildings and an undeveloped area to the north for the staging of vehicles and equipment. Lots 60 and 67 are occupied by a church and auto body shop respectively.

Onsite: This group of sites is owned by Ferry Street Enterprises and used for the purposes of an auto shop, a church, and a debris removal contractor's operations. Property records indicate that existing buildings were built around 1931. According to the 1885 Sanborn Map, site uses originally included a lumber yard, commercial stores and groceries, and dwellings. Available City Directory records identify an asphalt corporation, a building mason's company, an auto parts fa-

Year	Observations
1885	Site: The lots are occupied by a lumber yard (Lot 45), dwellings and shops (Lots 60 and 67), a horse infirmary, and additional dwellings (Lots 9, 14, 17).
1898	Site: Additional dwellings occupy Lot 67. Additional stores and a bakery have been developed on Lots 14 and 17.
1917-1922	Site: Lot 60 appears to be vacant. Lot 67 is now occupied by a tenement building.
1937-1962	Site: A large building has been developed on Lot 60. Multiple stores have been developed on Lot 67. Lot 9 is now utilized as a cement and tile store.
1977	Site: The former lumber yard is now used as an auto body facility.
1981-1990	Site: Lot 9 is no longer indicated as a tile store.
1992-2007	Site: Lots 14 and 17 appear to be vacant.

cility, and Flag Container Services under site uses for 11 Ferry Street (Lots 44 and 45). Site uses for 2018 Richmond Terrace include a building contractor's firm (Lot 60). Site uses for 10 Port Richmond Avenue (Lot 9) include an auto repair shop and a pilot's association.

Information obtained from historical Sanborn Maps is detailed below. Please note that due to the geographic proximity to the two previously reviewed sites, the above table only details features pertaining to the Flag Container site exclusively. Historical Sanborn Maps available for the site and surrounding areas are dated 1885, 1898, 1917, 1922, 1937, 1950, 1962, 1977, 1981, 1983, 1986,

1987, 1988, 1989, 1990, 1992, 1993, 1995, 1996, 2001, 2002, 2003, 2004, 2005, 2006, and 2007.

The site was used as a lumber yard as early as 1885. Based on the review of Sanborn Maps, historical site use as a lumber yard and auto body facility may have impacted soil, groundwater, and/or soil vapor at the site.

A review of regulatory databases indicates that the site (Flag Container Services) is listed in multiple environmental databases, including RCRA-CESQG, AST, MANIFEST, NY SPILLS, SWF/LF, FINANCIAL ASSURANCE,

and SPDES. The site contains three onsite tanks for used oil storage and had a reported spill on 9/15/2004 (NY SPILL # 0406956) from the dispensing of diesel from a fuel truck. The spill was closed on 9/24/2004. The facility is listed in the MANIFEST database for its prior storage of mercury onsite, which has since been shipped on 5/3/2004. No violations were found for its handler status as a conditionally exempt small quantity generator.

Offsite: No additional spill sites have been identified that were not already mentioned as part of the previous search radius for the two previously reviewed sites.

Recommendation: The historic and current site use and surrounding automobile and industrial operations, in addition to the adjacent spills and regulatory listings encompassing the three site areas of the Port Richmond Waterfront site, may have adversely impacted the environmental quality of the site, including soil, groundwater, and soil vapor. Further investigation should be performed to determine if any of the above-identified recognized environmental concerns have adversely impacted the environmental quality of the site. The development or reuse of the property may be complicated by the presence or potential presence of contaminants, and the property therefore should be considered for a BOA nomination.

COMPREHENSIVE ENVIRONMENTAL REVIEW

UNION AVENUE SITE

Site Conditions: The site consists of Tax Block 1226, Lot 57 and is bounded by Union Avenue to the east, Leyden Avenue to the south, Harbor Road to the west, and the North Shore Railroad right-of-way to the north. The site is developed with a warehouse to the east and a large asphalt lot to the west. Residential properties adjoin the lot to the south.

Onsite: The site is owned by 647-649 Washington Ave., LLC and was primarily used as a lumber company between 1928 and 1995, per City Directory Records. Property records indicate that the existing building was built around 1931. According to Sanborn Maps, the site was vacant between 1910 to 1917, until it was occupied by “Arthur Dreyer & Sons Coal, Lumber & Mason’s Materials” by 1937.

Information obtained from historical Sanborn Maps is detailed below. Maps available for the site and surrounding areas are dated 1898, 1910, 1917, 1937, 1950, 1962, 1977, 1981, 1983, 1986, 1987, 1988, 1989, 1990, 1992, 1993, 1995, 1996, 2001, 2002, 2003, 2004, 2005, 2006, and 2007.

Initially vacant in 1910, the site was used as a lumber yard between 1937 and 2007. A commercial warehouse and residential dwellings were developed south of the lot by 1937. Based on a review of Sanborn Maps, histor-

Year	Observations
1898	Site: Site details could not be identified in the map due to image obscurity. Surrounding Properties: Residential dwellings surround the site to the east and north. A park is located southwest of the site at the intersection of Chestnut Street and Union Avenue. Railroad tracks are located north of the site.
1910	Site: The site is vacant. Surrounding Properties: Residential dwellings directly south adjoin the site lot. Additional stores and residential dwellings have been developed across Union Avenue east of the site.
1917	Site: The site appears unchanged from the previous map. Surrounding Properties: Oak Street has been changed to Leyden Street. Elm Street has been changed to Journey Street.
1937-1962	Site: The site has been occupied by Arthur Dreyer & Sons Coal, Lumber & Mason’s Materials. Railroad tracks appear to extend into the site’s lot. Coal silos and multiple warehouses have been developed onsite. Surrounding Properties: Additional residential dwellings and a private 12-car garage have been developed south of the site. A warehouse has been developed southeast and adjacent to the site.
1977-1981	Site: The site is now occupied by Lumber Terminal Corp. Surrounding Properties: Surrounding properties appear unchanged from the previous map.
1983-2007	Site: The site appears unchanged from the previous map. Surrounding Properties: Additional residential dwellings have been developed south of the site between Leyden Avenue and Journey Street.

ical site use as a lumber yard, coal storage facility, and the presence of active railroad operations may have impacted soil, groundwater, and/or soil vapor at the site.

A review of the EDR radius map and regulatory databases indicates that the site is

listed in the NY SPILLS database. The listing refers to NY SPILLS # 0403695, a #6 fuel oil spill occurring on 7/7/2004. The spill was discovered during a remedial investigation which revealed minor exceedances in semi-volatile organic compounds (SVOCs). The low level of contamination did not war-

rant remediation, and the spill was closed on 9/20/2004. The site is further listed in the E-Designation database (E-265), with the requirement of Window Wall Attenuation & Alternate Ventilation.

Offsite: Adjacent properties have been historically used primarily for residential purposes. According to City Directory records, commercial uses include firewood packaging, a church, a grocery, a plumber's shop, and auto repair.

Thirteen sites of potential environmental concern were identified within a 400-foot buffer. Each of the identified sites has at least one E-Designation issued by the New York City Mayor's Office of Environmental Remediation (OER). A property can have an E-Designation for hazardous materials and/or noise and/or air quality. OER must provide a Notice to Proceed (NTP) or Notice of No Objection (NNO) prior to issuance of building permits. The identified properties and their corresponding E-Designations are listed below:

- Lot 11, Block 1226, located 364 feet west and cross-gradient of the site: E-265 with the following requirements - Window Wall Attenuation & Alternate Ventilation and Air Quality - HVAC fuel limited to natural gas.
- 151 Harbor Road, located 276 feet west and cross-gradient of the site: E-265 with the following requirements - Window Wall Attenuation & Alternate Ventilation and Air Quality - HVAC fuel limited to natural gas.

- Lot 5, Block 1226, located 368 feet west and cross-gradient of the site: E-265 with the following requirements - Air Quality - HVAC fuel limited to natural gas.
- Lot 3, Block 1225, located 378 feet southwest and upgradient of the site: E-265 with the following requirements - Air Quality - HVAC fuel limited to natural gas.
- 37 Leyden Avenue, located 240 feet southwest and upgradient of the site: E-265 with the following requirements - Air Quality - HVAC fuel limited to natural gas and Hazardous Materials Phase I and Phase II Testing Protocol.
- Lot 1, Block 1226, located 305 feet southwest and upgradient of the site: E-265 with the following requirements - Air Quality - HVAC fuel limited to natural gas.
- Lot 84, Block 1226, located 227 feet southwest and upgradient of the site: E-265 with the following requirements - Hazardous Materials - Phase I and Phase II Testing Protocol and Air Quality - HVAC fuel limited to natural gas.
- Lot 86, Block 1226, located 251 feet southwest and upgradient of the site: E-265 with the following requirements - Hazardous Materials - Phase I and Phase II Testing Protocol and Air Quality - HVAC fuel limited to natural gas.
- Lot 83, Block 1226, located 206 feet southwest and upgradient of the site:

- E-265 with the requirements - Air Quality - HVAC fuel limited to natural gas.
- Lot 79, Block 1226, located 148 feet southwest and upgradient of the site: E-265 with the following requirements - Hazardous Materials - Phase I and Phase II Testing Protocol.
- Lot 78, Block 1226, located 145 feet south and upgradient of the site: E-265 with the following requirements - Air Quality - HVAC fuel limited to natural gas.
- Lot 77, Block 1226, located 148 feet south and upgradient of the site: E-265 with the following requirements - Air Quality - HVAC fuel limited to natural gas.
- Lot 70, Block 1226, located 200 feet south and upgradient of the site: E-265 with the requirements - Air Quality - HVAC fuel limited to natural gas.

Recommendation: The historic industrial onsite operations including use as a lumber yard and coal storage facility, and the presence of active railroad operations, the onsite spill history, and surrounding regulatory listings may have adversely impacted the environmental quality of the site, including soil, groundwater, and soil vapor. Further investigation should be performed to determine if any of the above-identified recognized environmental concerns have adversely impacted the environmental quality of the site. The development or reuse of the property may be complicated by the presence or potential presence of contaminants and therefore the property should be considered for a BOA nomination.

COMPREHENSIVE ENVIRONMENTAL REVIEW

HARBOR ROAD PIER

Site Conditions: The site consists of Tax Block 1206, Lot 23 and is bounded by Harbor Road to the west, Richmond Terrace to the south, the Kill Van Kull channel to the north, and an undeveloped lot to the east. The site is developed with a warehouse to the east and a large unpaved/undeveloped lot to the north.

Onsite: The site is owned by RCA Richmond Terrace LLC and was most recently used as a leasing facility in 2005, per City Directory Records. Property records indicate that the existing building was built around 1931 and Sanborn Maps show that the site has historically been used as a lumber yard between 1898 to 2007. City Directory records indicate site uses as “Snyder and Son Building Materials” between 1928 to 1979, “Thomas Transportation Corp” between 1979 to 1984, “JNT Enterprise,” “Nautical Leasing,” “Ambrit Corrosion Engineers,” and “Caribbean Transport Lines Inc” between 1984 to 2005. The site has historically been surrounded by industrial and commercial uses.

Information obtained from historical Sanborn Maps is detailed below. Sanborn Maps available for the site and surrounding areas are dated 1898, 1917, 1922, 1937, 1950, 1962, 1977, 1981, 1983, 1986, 1987, 1988, 1989, 1990, 1992, 1993, 1995, 1996, 2001, 2002, 2003, 2004, 2005, 2006, and 2007.

Year	Observations
1898	Site: The site appears to be developed as a lumber yard. Surrounding Properties: Stores and dwellings occupy the lot to the west. A chapel is located southwest of the site on Richmond Terrace. A flour mill is located at the waterfront lot east of the site.
1917-1922	Site: A theatre, a store, and residential dwellings are developed on the southern foot of the lot. Surrounding Properties: Brewer Dry Dock Co. and an additional lumber yard have been developed further west of the site. A ship yard is located east of the flour mill.
1937-1962	Site: The on-site lumber yard has been renamed to J R Snyder and Sons, Inc. Surrounding Properties: Summerfield Avenue has been renamed to Harbor Road. A boiler shop and machine shop have been developed west of the site. Additional docks have been developed northwest of the site. The flour mill to the east has been replaced by multiple industrial facilities. A boat repair facility has been developed east of the site. Additional stores have been built to the south across Richmond Terrace.
1977-2007	Site: The site appears unchanged from the previous map. Surrounding Properties: The separate docks to the northwest have been converted to a single marina.

The site was used as a lumber yard between 1898 and 2007. Additional commercial properties have been developed on the lot by 1917. Based on the review of Sanborn Maps, historical site use as a lumber yard may have impacted soil, groundwater, and/or soil vapor at the site, especially if wood preservatives such as creosote were used.

A review of the radius map and regulatory databases indicates that the site is listed in the EPA Facility Index System (FINDS) database. The listing has no associated spills, violations, or waste generator records to note and no further information was provided in the EDR reports.

Offsite: Adjacent properties have been historically used primarily for industrial, commercial, and residential uses, with several commercial and industrial units to the south, west, and east. According to City Directory records, commercial uses include a fuel oil company, a post office, restaurants, hardware suppliers, and churches, among other uses.

Four sites of potential environmental concern were identified within a 400-foot buffer during a review of environmental databases and historical records. All four listings of concern are associated with a single address, 3075 Richmond Terrace, located 382 feet southwest and upgradient of the

site. The following site occupants are listed on the MANIFEST, AST, LTANKS, and NY SPILLS databases for the same address:

- Reinauer Transportation Company is listed on the MANIFEST database for its generation of non-listed ignitable wastes.
- May Ship Repair Contracting is listed as a historical generator of ignitable and corrosive wastes, as well as an AST location for its onsite waste oil aboveground storage tank.
- Infanti Chair Manufacturing is listed as a historical halogenated solvents generator.
- Waste Management (Village Carting Co.) is listed on the NY SPILLS database for SPILL # 0110543, which occurred on 2/4/2002. This spill references oil and gasoline contamination found in the soil during sampling. The spill source is unknown but believed to have been caused by two onsite diesel tanks. Since the diurnal tides have been flushing the groundwater below the site since the spill occurred, the case was closed on 5/20/2011. The site's LTANKS (Leaking Storage Tanks Incident Reports) listing references a previously ruptured #6 oil container in a barge, which led to a 16,192-gallon spill affecting surface water near Mariners Harbor. The impacted shores have since been cleaned up and the spill was closed on 4/9/2015.

An additional site of concern was identified within 1/8th of a mile south and upgradient of the site:

- 2945 Richmond Terrace, located 455 feet southeast and upgradient of the site, is listed on the MANIFEST database for 4,000 pounds of waste oil residue generated from tank cleaning. Additionally, the site is listed on the LTANKS database for a tank failure, which occurred when a sunken barge released 50,000 gallons of a mixture of #6 oil and waste oil affecting the surface water of the Kill Van Kull (NYSDEC SPILL # 9007045). The spill occurred on 9/27/1990 and was closed on 9/2/2003. An additional ten spills are associated with the site. NYSDEC SPILL # 8910970 was reported when an oil sheen was observed on the surface of the Kill Van Kull on 2/16/1990. An unknown amount of #2 fuel oil and waste oil was released. The spill was closed on 12/8/1992. NYSDEC SPILL # 0910462 refers to a 30-gallon #2 fuel oil spill occurring on 12/23/2009 due to a loose gasket causing an equipment failure. The spill was cleaned up and closed on 1/6/2010. All other additional spills have been closed and are detailed in the 3001 Richmond Terrace EDR Radius Map Report.

Recommendation: The historical site use and the surrounding industrial operations, extensive spill history, and regulatory database listings for the surrounding properties

may have adversely impacted the environmental quality of the site, including soil, groundwater, and soil vapor. Further investigation should be performed to determine if any of the above-identified recognized environmental concerns have adversely impacted the environmental quality of the site. The development or reuse of the property may be complicated by the presence or potential presence of contaminants and therefore the property should be considered for a BOA nomination.

COMPREHENSIVE ENVIRONMENTAL REVIEW

WALKER STREET SITE

Site Conditions: The site consists of Tax Block 1161, Lot 10 and is bounded by Granite Avenue to the east, Walker Street to the south, Lake Avenue to the west, and commercial properties north and adjacent to the site. The site is developed with a 4-story commercial warehouse to the southwest and an asphalt paved parking lot to the east.

Onsite: The site is owned by 351 Walker Street LLC and was primarily used as a manufacturing facility between 1950 and 2007, per City Directory records. Property records indicate that the existing building was built in 1945. According to Sanborn Maps, the site was originally occupied by two smaller warehouse buildings in 1917, and the current site and lot structure was not developed until at least 1950.

Information obtained from historical Sanborn Maps is detailed below. Sanborn Maps available for the site and surrounding areas are dated 1898, 1917, 1937, 1950, 1962, 1977, 1981, 1983, 1986, 1987, 1988, 1989, 1990, 1992, 1993, 1995, 1996, 2001, 2002, 2003, 2004, 2005, 2006, and 2007.

The site was initially used as a cement warehouse in 1917. The warehouse was then removed and residential dwellings were developed at the site by 1937. By 1950, a manufacturing warehouse was developed and has remained on-site until 2007. Based

Year	Observations
1898	Site: Site details could not be identified in the map due to image obscurity. Surrounding Properties: Residential dwellings surround the site to the west and north.
1917	Site: The site is occupied by a cement warehouse. Surrounding Properties: Two oxidizing buildings have been developed east and adjacent to the site. A linoleum works building and printing facility have been developed north of the site.
1937	Site: The site is split into three separate lots and is occupied by residential dwellings. Surrounding Properties: A copper shop has been developed northeast of the site.
1950-1996	Site: A manufacturing warehouse has been developed. Surrounding Properties: Additional commercial units have been developed north of the site.
1962-1996	Site: The site appears unchanged from the previous map. Surrounding Properties: An auto shop was developed east of the site along Walker Street and Granite Avenue.
2001-2007	Site: The site appears unchanged from the previous map. Surrounding Properties: Additional residential dwellings have been developed southwest of the site.

on a review of Sanborn Maps, historical site use as a manufacturing warehouse may have impacted soil, groundwater, and/or soil vapor at the site.

A review of the radius map regulatory databases indicates that the site is listed in the NY SPILLS database. The listing refers to NY SPILLS # 1312197, a liquid sealer spill that occurred on 3/29/2014. The spill was not petroleum related and was washed to a storm drain. The spill was closed on 3/31/2014.

Offsite: Adjacent properties have been historically used for residential and industrial purposes, with several residential units to the west and south, and industrial facilities to the north and east. According to City Directory records, commercial uses include towing services, a textile facility, groceries, automobile services, and a daycare.

Database review has revealed that none of the identified environmental records or spill sites within a 400-foot buffer present an immediate environmental concern to the site.

Recommendation: The historic manufacturing and industrial onsite operations, adjacent industrial operations, and regulatory listings may have adversely impacted the environmental quality of the site, including soil, groundwater, and soil vapor. Further investigation should be performed to determine if any of the above-identified recognized environmental concerns have adversely impacted the environmental quality of the site. The development or reuse of the property may be complicated by the presence or potential presence of contaminants, and therefore the property should be considered for a BOA nomination.

