The NJ Edge Studio

Bridging Jersey City & Hoboken through the Revitalization of the Lackawanna Center





Hunter College Masters of Urban Planning Studio, Spring 2013



	1
ii	0.0



The NJ Edge Studio

Authors:

Efrain Borrero, Rony Byas, Lauren Connors, John Henry Greenwood, Anna Hellman, David Henry, Donielle Lee, John Namako, Gjela Prenga, Mario Quijano, Ben Rosenblatt, Chang Sung

Under the Guidance Of:

Richard Bass, AICP, PP and Steve Duncan Hunter College Department of Urban Affairs and Planning



iv

Authors

The NJ Edge Studio is comprised of twelve graduate students from the Hunter College Master of Urban Planning Program 2013 Spring Studio. This report is the product of long hours of research, many interviews, analysis, and internal debate.

We thank our professor, Richard Bass, for his support and persistence to, "Be playful and think big." He continually shared his insight, provided guidance, and pushed us to, "Think like Planners!" Another thank you to our Teaching Assistant Steve Duncan for his knowledge, direction, and sense of humor throughout our Studio.

The content and recommendations in this report are the authors' own and do not reflect any of our interviewees or their agencies.





Acknowledgements

Our project crossed municipalities and numerous topical areas. We thank the following people for their guidance and knowledge:

Al Barsky, Barsky Gallery; Jason Bottcher, GIS Specialist, Hudson County Division of Planning; Maryanne Bucci-Carter, Supervising Planner, Jersey City; Denise Byrne, Cast Iron Lofts Representative; Sarah Corey, Marketing Manager, IceStone; Robert D. Cotter, FAICP, PP, Jersey City Planning Director; Sarah Dinkel, Emmes Asset Management; Aimee Harris, Head of Reference, Hoboken Public Library; Bert Hartmann, Hoboken Makerbar; Daniel Horgan, Esq., Water, McPherson, McNeill, P.C.; Naomi Hsu, Jersey City Planning Department; George Karnoupakis, Emmes Asset Management; Danny Klein, Reference Librarian, New Jersey Room, Jersey City Free Public Library; David Lee, Architecture student at CUNY City College; Lee Levine, Architect, Lee Levine Architects, PC; Lynn McCormick, Associate Professor at Hunter College Department of Urban Affairs and Planning; Paul A. Phillips, AICP, PP, Phillips, Preiss, Grygiel LLC; The Hoboken Connectivity Study Group; Tim Occhipinti, Council Member of the 4th Ward in Hoboken, Hoboken Southwest Parks Coalition; Susan Polikwa, AICP, Mobility and Planning Division Head at City of Hoboken; Ed Rawlings, Architect, Rawlings Architects PC; Kristin Russell, Senior Planner, Jersey City; Sara Stojkovic, Hoboken Southwest Parks Coalition; Pedro Texidor, Kobrick Coffee; Jeff Wenger, Jersey City Planning Department.

0.0

V

vi 0	.0



Table of Contents



Front Matter	iii
Authors	iv
Acknowledgements	V
Executive Summary	16
Client	XX
Purpose	xxii
Methodology	xxiv
1.0 Existing Conditions	1
1.1 Study Area	4
Lackawanna Site Location and Description	4
Study Area Description and Boundaries	6
1.2 History	10
Jersey City Historical Overview	10
Jersey City Historic Places & Historic Districts	13
Historic Central Railroad of New Jersey Terminal	13
Jersey City's Warehouse Historic District	13
The Powerhouse Arts District	14
Hamilton Park Historic District	14
Van Vorst Historic District	14
Hoboken Historical Overview	15
Hoboken Historic Districts	17
Hoboken Historic Waterfront	17
The Central Hoboken Historic District	17
Old DL&W Railroad Historic District	18
History of the Lackawanna Center	18
1.3 Political Climate	22
Jersey City	22
Hoboken	23
Hudson County	23
New Jersey Transit	24



1.4 Existing Master Plans	26
Jersey City	26
Hoboken	27
1.5 Land Use	31
Existing Conditions	31
Residential Uses	32
Commercial Uses	32
Industrial Uses	34
Public Uses, Parks, and Open Space	34
Terminal / Railroad Uses	34
Current Zoning	34
Residential Districts	35
Commercial Districts	37
Industrial Districts	38
Rail Road	39
Waterfront District	39
Lackawanna Site Zoning, Bulk, & Land Use	42
New Jersey State Land Use Policy	43
Jersey Avenue Redevelopment Area	43
1.6 Transportation & Infrastructure	48
Introduction	48
Public Transportation	48
Hudson Bergen Light Rail	48
Hoboken Terminal and PATH	50
Public Bus Service	51
Private Bus Companies and Shuttle Services	53
Roadways and Traffic Conditions	54
Cycling Initiatives	57
The Pedestrian Environment	58
Commuting Patterns	61
Infrastructure	61



ix

Table of Contents

Tab	le	of	Contents

1.7 Housing	64
Housing Goals	64
Housing Statistics	65
Housing Basics	65
Newly Arrived Residents	65
Dwelling Unit Ownership/Rental Rates	66
Units in Structure	66
Household Size, Bedrooms, and Occupants per Room	67
Household by Type	68
Housing History	68
Housing Values, Costs and Expenses	69
Housing Values, Costs, Rents, and Expenses – Year 2000	70
Housing In and Around the Study Area	70
Downtown Housing and Historic Areas	70
Waterfront Development	70
Public Housing	71
New Developments	71
Mount Laurel Decision	71
1.8 Jersey City Open Space	74
Noteworthy Open Spaces in Jersey City	74
Liberty State Park	74
Jersey City Reservoir #3	74
Hoboken Open Space	76
Noteworthy Open Spaces in Hoboken	76
1600 Park and Hoboken Cove Parks	76
Sinatra Field	77
Open Spaces in the Study Area	77
1.9 Environment & Natural Resources	80
Pipeline	80
Flooding	81



xi

Advisory Base Flood Elevation Map Changes	81
Flood Zone Categories	82
Stormwater Management	82
Hazardous Waste Sites & Brownfields	84
1.10 Community Facilities & Services	88
Schools	88
Hospitals	90
Homeless Services	90
Emergency Services	91
Religious Facilities	92
Cultural Resources	92
Food Access	92
1.11 Economic Development	96
Employment Sectors	96
Jersey City Employment Sectors	96
Hoboken Employment Sectors	96
Economic Development Programs	97
NJEDA Financing Initiatives	97
NJEDA Tax Credit and Grant Programs	98
UEZs and SIDs	100
Local Existing Businesses	102
Textiles	103
Moving, Storage and Rental	103
Miscellaneous	104
Month – to – Month	104
2.0 Research & Analysis	105
2.1 Population	108
Statistics	108
Cummon/	110

Summary1102.2 Income and Poverty116Income116



Household Median Income Change Over Time	116
Poverty	118
Summary	122
2.3 Labor Force	126
Statistics	126
Summary	127
2.4 Employers	134
2.5 Educational Attainment	136
Statistics	136
2.6 Transportation	140
Commute Times – City, Region, and State	140
Modal Split – City, Region, and State	142
Automobile Ownership – City, Region, and State	142
Commute Times – Study Area Census Tracts	144
Modal Split – Study Area Census Tracts	144
Automobile Ownership – Study Area Census Tracts	146
County-to-County Travel Analysis	148
2.7 Housing Statistics	152
Dwelling Unit Growth and Vacancy Rates	152
Housing Costs and Rent Burdened Households	154
2.8 Land Use	158
Land Use Analysis	158
Population Projection on Soft Sites	160
2.9 Crime	170
3.0 Recommendations	173
3.1 Summary of Recommendations	175
3.2 Study Area Recommendations	178
Transportation Improvements	179



Design and Construction of Complete Streets	179
Study Area Bicycle Plan	185
Bus Service Improvements	188
Light Rail Station	190
Open Space	193
Proposed Parkland	193
Greening the Edge	194
Land Use	196
Subdivision of Tax Lots	196
Hoboken Study Area Zoning	198
Affordable Housing Requirements	203
Green Building District	205
Special Improvement District	206
Description	206
Next Steps	206
Environment	207
Flooding	207
Pipeline	207
3.3 Lackawanna Center Recommendations	212
Building Subdivision	213
LEED Certification	220
Recommendations for Potential Tenants	221
Tech Center	221
Charter School	224
Observation Deck	226
Vertically Integrated Food Cluster	227
4.0 Conclusion	239
Conclusion	240
Back Matter	243



A.1 Appendix: Jersey City Open Space	243
A.2 Appendix: Demographics	249
B.1 References	259



Executive Summary



Executive Summary

The border area between Jersey City and Hoboken, New Jersey, was historically home to heavy manufacturing and industrial uses. The steady decline of manufacturing and warehousing industries left vacant parcels and commercial space, underemployment, and a lack of human infrastructure. The impending redevelopment of the area has provided the opportunity to assess the area's current conditions and needs, as well as form a plan that capitalizes on its assets and re-integrates land use patterns and infrastructure. This neighborhood is the home of the Lackawanna Center, a historic warehouse and the focus of our study. We are the New Jersey Edge studio, a group of students in the Masters of Urban Planning Program at City University of New York, Hunter College, tasked with formulating a plan for the area as well as the Lackawanna Center. Our client, Emmes Asset Management, seeks to reposition the warehouse as it now commands low rents and occupancy.

The Lackawanna Center is an industrial behemoth and its massive size and scale contrast with the surrounding vacant lots. It was built for railroad transport, with adjacent second floor rail platforms and loading docks, eight stories, nearly 22-inch thick floors, and almost 1.3 million square feet of space. The building stands as a reminder of when northern New Jersey was at the epicenter of America's railroad and shipping industries.

The surrounding neighborhood is typified by disjointed but overlapping jurisdictions and a patchwork of redevelopment plans. Hoboken, Jersey City, and New Jersey Transit have not addressed the neighborhood as a coherent whole. The result is a maze of strip malls, highways, paved overpasses and empty lots, and not a livable community.



17

This report provides a vision for a cohesive community with revamped human infrastructure, new job opportunities, and repositioning the Lackawanna Center into a neighborhood focal point to best take advantage of the building's tremendous potential. To create this vision, we engaged in extensive community outreach and consulted with various experts in the two municipal governments, along with various attorneys, planners, and architects. These actions enabled us to create a mission statement for our studio project:

**Transform a former industrial railroad hub into a vibrant, mixed-use community.

To achieve this task we established three broad objectives that will lead to community transformation:

- 1. Bridge two separate municipalities into one integrated community
- 2. Establish a livable community
- 3. Create a neighborhood focal point in the Lackawanna Center by diversifying industry

We formulated the following recommendations for the Study Area and the Lackawanna Center:

- Create a new light rail station and add pedestrian, bicycle, and street improvements that will help create a more livable neighborhood and better connect Jersey City and Hoboken.
- Upzone Hoboken to allow residential development and subdivide tax lots in Jersey City to spur contextual development and create a cohesive community.
- Mandate that developers provide 30 percent affordable units to address the lack of affordable housing in the Study Area and provide a 30 percent FAR bonus in return.
- Improve the lack of open space in the Study Area by building a park at the foot of the Palisades and increasing green space around the Lackawanna Center, which will also help to make the Study Area a destination for both Jersey City and Hoboken residents.
- Implement a Special Improvement District, or SID, in the Study Area dedicated to creating a livable community by overseeing some of our recommendations, like transportation improvements, tax assessments, the Green Building District, and the Observation Deck.



- Mandate green building codes in the Study Area to reduce energy costs and improve occupancy rates and property values.
- Create a neighborhood focal point at the Lackawanna Center, while increasing occupancy and improving value for our client, Emmes Asset Management.
- Physically subdivide the Lackawanna Center with a glass facade into an eastern and western half, adding a pedestrian corridor on the ground floor to reconnect the street grid and create a visual focal point for the neighborhood.
- Subdivide Emmes' eastern lot, which is currently vacant, to permit phased development and to spur smaller scale contextual development to improve the feel of the neighborhood and attract residents.
- Create a Tech Center / Business Incubator to fill approximately half of the Lackawanna Center that will draw from the surrounding educated population to spur start up companies and create jobs needed in the neighborhood.
- Create a Charter School in the Lackawanna Center to meet the need for education as the population in the Study Area increases.
- Build an expansive rooftop and indoor farm that will provide jobs and supply food for the community, as well as support the food production, retail, and restaurant cluster in the Lackawanna Center.
- Establish a vertically-integrated food manufacturing incubator for food business start-ups. Provide for new opportunities for employment as well as low barriers for entrepreneurship.
- Create an Observation Deck which will be open to the public to help address the need for open space in the Study Area.
- Create a rooftop beer garden that will use local resources and create a focal point for the neighborhood to attract people from Jersey City, Hoboken, and beyond.
- Add ground floor and second floor retail space to encourage active street life, a sense of community, and provide amenities for new workers and residents moving into the area.



Emmes Asset Management Company



Client

Emmes Asset Management Company, established in 1992, is an investment advisory firm providing services for institutional clients. The boutique firm currently manages over \$1.3 billion in assets across the U.S. Emmes manages assets in 19 different states. Its diverse portfolio encompasses office, retail, industrial, and multifamily residential holdings (Emmes Asset Management Company).

Emmes' primary expertise is in distressed debt and equity investing, including restructurings, debt originations and workouts, as well as resolving complex foreclosure and bankruptcy issues, real estate owned ("REO") and distressed seller asset sales and recapitalizations. Emmes manages and derives its revenue from its holdings by adjusting risks of distressed assets by repositioning, retaining, and redeveloping properties (Emmes Asset Management Company).

The Lackawanna Center, located at 629 Grove Street, Jersey City, is the firm's only asset in New Jersey and is the focal point of our study.



Purpose



Purpose

The purpose of our studio is to reposition the Lackawanna Center for Emmes Asset Management, and form a comprehensive plan for the surrounding area to create a more livable community. The building is underused and its current use is no longer in step with the economic realities of the neighborhood. In order to successfully reposition the Lackawanna Center, it is necessary to determine the future direction of the surrounding area. The only certainty is that the days of the Lackawanna Center as a rail dependent warehouse are long over.

The future of the Lackawanna Center is tied to the fortunes of the neighborhood; therefore Emmes, through the Lackawanna Center, has a huge stake in seeing a well planned community in the surrounding area. Because of the building's gargantuan size, the reverse is also true: in order for the neighborhood to prosper, it is incumbent upon Emmes to transition the building away from its current uses and orient the property towards the surrounding communities in a way that takes advantage of the building's strengths. Because of this, the Lackawanna Center is the pivot point from which to plan for the future of the entire neighborhood. At present, the dialogue to determine the shape of the surrounding area is still ongoing and a number of possibilities exist, not all of which will benefit Emmes or the surrounding communities. In order to address the challenges of repositioning the Lackawanna Center, Emmes must proactively interact with the planning future of the entire surrounding community in both Jersey City and Hoboken.

The purpose of this studio is to find and recommend the best use of the Lackawanna Center and through it plan for the community surrounding it. The Lackawanna Center has to reflect the emerging neighborhood, and better interact and tie into it, and move with it into the economic realities of the twenty-first century. In doing so, we have used this opportunity to bridge the divide between the Lackawanna Center and the surrounding neighborhood, and between Hoboken and Jersey City; in short our task is to span the edge.



Methodology



Methodology

We used many different research methods to complete an analysis of the Study Area including observations, interviews, photography, historical research, data analysis, comparative site tours, and community outreach. Below are the methods that we used to helped guide our mission statement, objectives, and recommendations:

- **1. Site Visits:** Thirty-two separate site visits, including weekend and weekdays, between the months of February and April
- **2. Photos:** 1,488 pictures were taken and shared within our group to help us analyze the area and formulate our recommendations
- **3.** Expert Advice: Insight was gathered from local architects, local urban planners, local attorneys, staff from the Jersey City Division of City Planning, the Head of Mobility and Planning at City of Hoboken, NJ Transit, The Hudson Transportation Management Association, and an elected official
- **4. Community Outreach:** Interviewed community members within the Study Area in English and Spanish through e-mail and in person, including residents, workers, and local business owners
- **5. Historical Research:** Meetings with reference librarians at the Jersey City and Hoboken Public Libraries
- **6. Comparative Site Tour:** A formal tour and information session at the Brooklyn Navy Yard IceStone factory
- 7. **Community Meetings**: Attended public meetings of the Jersey City-Hoboken Connectivity Study Group with representatives from Hoboken Planning Division, Jersey City Division of City Planning, NJ Transit, and The Hudson County Transportation Management Association
- 8. Data Analysis: Conducted a demographic analysis using data from the US Census, Jersey City Police Department, Hoboken Police Department, the US Economic Census and Survey of Business Owners, and newspaper records
- **9.** Zoning Analysis: Reviewed the Jersey City Master Plan, the Jersey City Redevelopment Plans, the Hoboken Zoning Code, the Hoboken Southwest Area Redevelopment Study, the State of New Jersey Redevelopment Housing Law, and the Tax Lot Parcel Data and GIS files from Jersey City and the State of New Jersey

After completing our background research we conducted two interactive charrettes with architects using large scale aerial maps, and constructed a 3D model to develop a comprehensive vision that informed our recommendations.



1.0 Existing Conditions





1.1 Study Area



1.1 Study Area

Lackawanna Site Location and Description

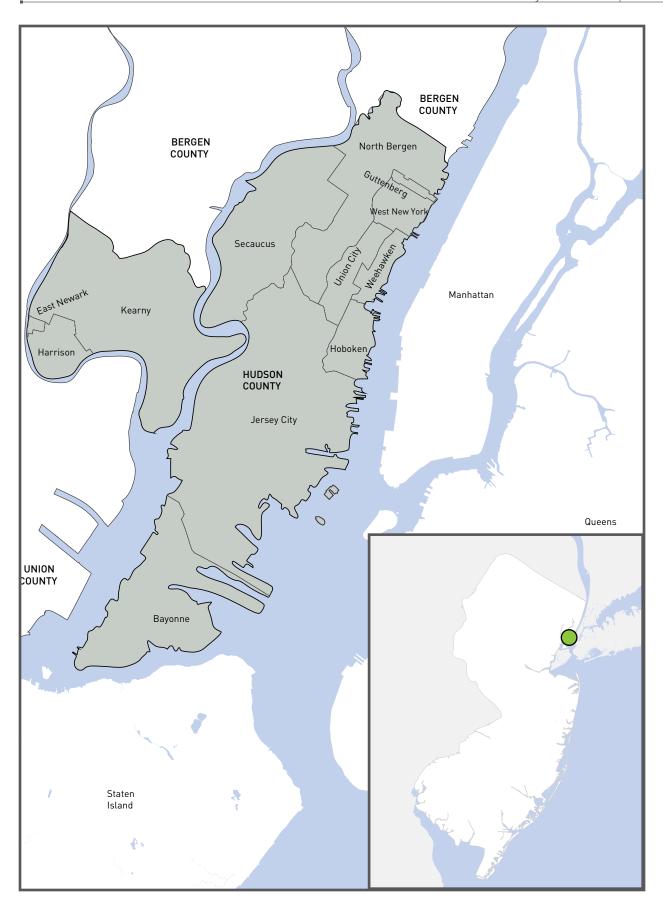
The Lackawanna Center is located at 629 Grove Street, in Jersey City, Hudson County, New Jersey. The parcel is roughly rectangular and located on Block 292.1, Lot 1. The Site is situated on the northeastern border of Jersey City and southwestern border of Hoboken. It is located in the Jersey Avenue Light Rail Redevelopment Plan Area (Jersey City Division of City Planning, A). The dimensions of the lot are 520 feet by 850 feet, and the land area is 438,872 square feet, which is approximately 10 acres (New Jersey Office of Information Technology, Office of GIS). The boundaries of the Site are 18th Street to the north, 16th Street to the south, Grove Street to the east and Jersey Avenue to the west.

An existing 8-story industrial building occupys the Site (hereafter referred to as the "Lackawanna Center" or "Center"), which is currently 50% leased. There are 30 tenants, which include printers, manufacturers, textile makers and, most notably, the "Cake Boss" Carlo's Bakery (Emmes Asset Management Company). The Lackawanna Center is 1.3 million square feet in floor area, and has parking located on site. This site is currently built to 2.93 of the allowable 5.0 FAR pursuant to the existing bulk regulations in the Redevelopment Plan Area. If built to capacity, an additional 894,360 square feet can be built. Primarily due to its large lot size, the land value of the Lackawanna Site is higher than other lots level in the surrounding area. Estimates of the value of the Lackawanna Site range from \$8.5 to \$17.6 million, while surrounding parcels immediately across the street range from \$411,000 to \$1.6 million (New Jersey Office of Information Technology, Office of GIS).

Emmes also owns a vacant parcel directly across the street east of the Lackawanna Center. This parcel, located on Block 225, lots A and 1, is 452 feet by 386 feet in size, approximately 3.9 acres. The potential for buildout of this lot is 849,420 square feet, at a maximum FAR of 5 and a height limit of 110 feet.

Because the Site is located in a Redevelopment Plan Area, the Jersey City Zoning Ordinance states the plan for the Redevelopment Area takes precedence over any provision for the original district in the Zoning Ordinance (Section 345-38 of Jersey City Ordinance).







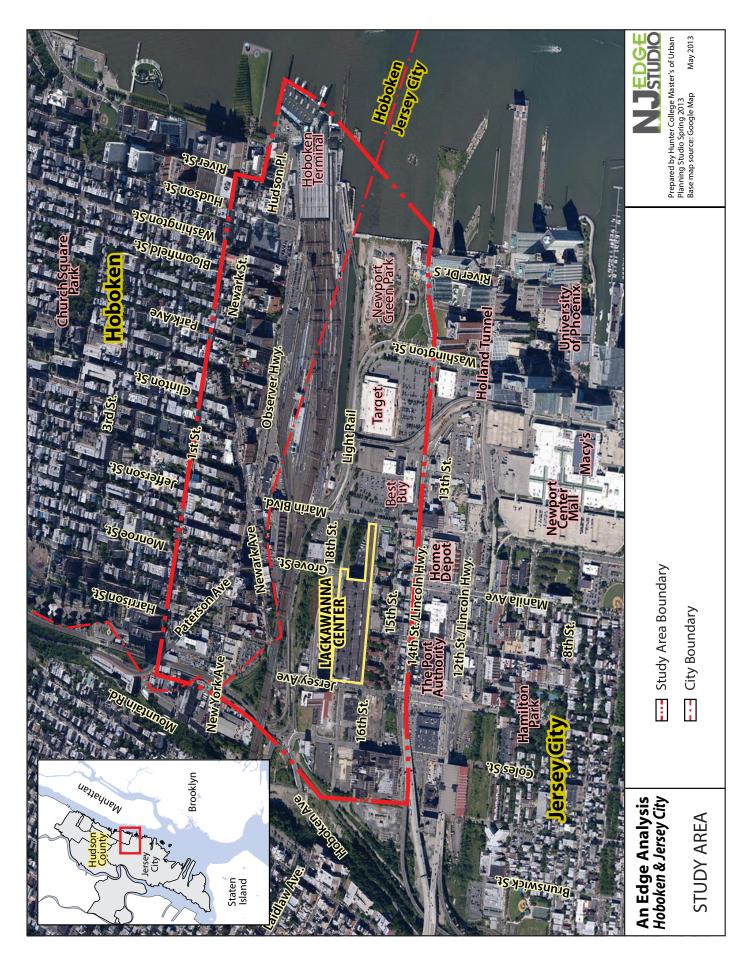
Directly across 18th Street, to the north of the Lackawanna Site, is a large vacant parcel on Block 261, containing a gas station and convenience store with a Dunkin Donuts on the western edge of the lot. Just north of that parcel is the Hudson-Bergen Light Rail track, and a railway that leads east to the Hoboken Terminal near the waterfront. On the east side of the Site, across Grove Street, there is a parking lot, as well as two bridges that connect it to the Lackawanna Site. To the south, across 16th Street, there is a public housing complex along with a number of parking lots. To the west, across Jersey Avenue, there is an industrial building owned by National Retail Transportation Inc. and the Cast Iron Lofts, a new luxury high rise development.

There is another new luxury condominium development by Toll Brothers - 700 Grove - located northeast of the Site just across the railway (Group site visit, Feb. 2, 2013). Two blocks to the east of the site along Marin Boulevard is Newport, a mixed use, 600 acre neighborhood with eight office buildings, 13 apartment towers, two hotels, a retail mall, and parks, most of which is built and some of which is under construction (Bagli, NADC). Two blocks to the south is 14th Street, or the Lincoln Highway, which leads to the Holland Tunnel, the New Jersey Turnpike Extension, and the Pulaski Skyway.

Study Area Description and Boundaries

For the purposes of this project, we established boundaries for a larger Study Area (hereafter referred to as the "Study Area") around the Lackawanna Site. A larger study area will allow for a more robust analysis of the surrounding community, land uses, transportation, and environmental factors that affect the Site. The Study Area boundaries are the Hudson River waterfront to the east, First Street in Hoboken to the north, 14th Street in Jersey City to the south, and a line connecting the northern and southern boundaries to the west at roughly the point where Coles Street turns into Hoboken Avenue (see map).





NJ^{EDGE} STUDIO

1.2 History



1.2 History

Jersey City Historical Overview

Jersey City is the second largest city in the state of New Jersey and one of the earliest European settlements on the continent, with over 350 years of history. Similar to much of the Northeast, the land was acquired from Native Americans and settled by the Dutch in the early 17th century. Like many Dutch settlements during the 17th and 18th centuries, the region's primary industry was initially farming. By the mid 18th century, the discovery of copper and other profitable minerals began to alter the region's rural character (New Jersey Historical Commission).

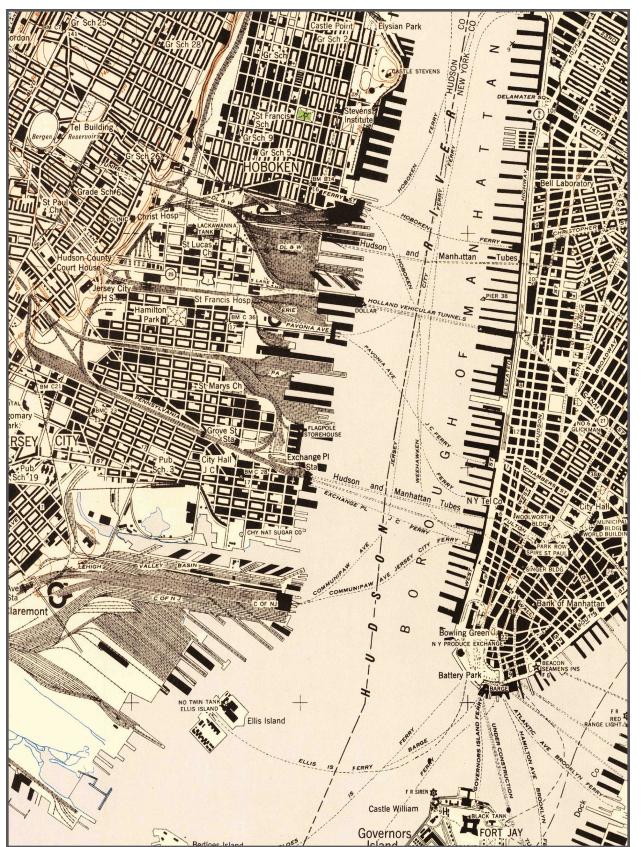
After the Revolutionary War, a number of prominent businessmen and politicians from both New Jersey and New York, including Alexander Hamilton, began to redevelop the area and construct an urban street grid similar to that of lower Manhattan. The street grid is one Jersey's City's defining features (New Jersey Historical Commission).

During the period from 1820 to 1870, Jersey City, North Bergen, and the surrounding areas formed varying configurations of what is today considered Hudson County. In 1870, several municipalities were officially combined to form Jersey City (New Jersey Historical Commission). Today Hudson County is comprised of Hoboken, Jersey City, Secaucus, North Bergen, Guttenberg, West New York, Weehawken, Union City, Bayonne, Harrison, East Newark and Kearny.

From its origin, Jersey City's location near a major waterway, the Hudson River, was its defining feature. The port helped to create avenues for commerce and transport within the manufacturing, farming, and trade industries. By the late 19th and early 20th centuries farming could no longer compete with fast growing transport and manufacturing industries, which had overtaken Jersey City (New Jersey Historical Commission).

Jersey City also became a destination for many European immigrants during this time. Jobs were plentiful due to its flourishing manufacturing and rail industries. Large, well-known companies such as Colgate, Dixon Triconderoga





¹⁹⁴⁷ USGS Topographical Survey Map of the New Jersey & New York Harbor. Image courtesy of USGS Historical File Topographic Division ©1947



History **1.2**

11



Interior of the CRRNJ Terminal. Image courtesy of wikipedia.com ©2013



The multi-track train shed at the CRRNJ Terminal Image courtesy of wikipedia.com ©2013



Ferry dock remnants at the CRRNJ Terminal. Image courtesy of wikipedia.com © 2013



13

Pencil, and Chloro were the sources of many available job opportunities for newly arrived immigrants (New Jersey Historical Commission).

Like New York City during the late 1970's, Jersey City lost a significant percentage of its population as people left the city for suburbs on account of crime, economic hardship, and political corruption. The following decade brought rapid redevelopment along the waterfront; an influx of large financial institutions like Citibank, Goldman Sachs, and Merrill Lynch helped revive the city. While today there are still remnants of the city's past economic hardships, there are nonetheless significant opportunities for redevelopment and growth (New Jersey Historical Commission).

Jersey City Historic Places & Historic Districts Historic Central Railroad of New Jersey Terminal

The Historic Central Railroad of New Jersey (CRRNJ) Terminal was originally chartered in 1838 in Elizabeth, New Jersey. The train line was rerouted to the waterfront in Jersey City in 1860, where a terminal was built in what is today Liberty State Park. CRRNJ, along with the Lehigh Valley Railroad, used the terminal to gain direct access to the Hudson River and to the Atlantic Ocean. As commerce increased, the terminal was redesigned to accommodate more intense industrial production and a growing immigrant population. The use of rail began to decline by the late 1920's, as a result of growth in automobile use and trucking (New Jersey Department of Environmental Protection, C).

The Lehigh Valley Railroad filed for bankruptcy in 1970. CRRNJ succumbed to the same fate and declared bankruptcy in 1976 after more than 100 years in service. In 1975 the CRRNJ building was added to the State and National Register of Historic Places. It was eventually rehabilitated and today serves as a meeting and exhibit space for community events (New Jersey Department of Environmental Protection, C).

Jersey City's Warehouse Historic District

Jersey City's Warehouse Historic District is one of the city's most notable areas as it tells the tale of the many historical and political influences that have shaped the city. Once an area filled with warehouses and a thriving manufacturing



14

district, time and economic shifts converted this area into an underutilized and primarily vacant place. The "Work and Live District Overly" (WALDO) and "Powerhouse Arts District" (PAD) programs started to cultivate an artistic community and revive the area in 2002, as empty landmarked warehouses became artist live/work buildings (Jersey City Landmarks Conservancy).

One prominent property owner changed this by bringing a lawsuit to the designation, ultimately winning and building a large residential tower in place of a warehouse building. Other property owners followed, and the once historic area became an urban downtown lined with skyscrapers (Jersey City Landmarks Conservancy).

The Powerhouse Arts District

The Hudson & Manhattan Railroad Powerhouse is located within the Powerhouse Arts District, on Bay Street between Washington Street and Greene Street. Constructed in 1908, the beaux-arts building is a former subway power station. Originally slated for destruction, local preservation efforts managed to preserve the building. Through state funded grants it is currently being repurposed as a community cultural space (Jersey City Landmarks Conservancy).

Hamilton Park Historic District

Hamilton Park was named after one of the primary planners of Jersey City, Alexander Hamilton. The park is surrounded by many historic homes constructed between 1840 and 1920; together the houses and park constitute the Hamilton Park Historic District. The park is located between 9th and 8th Streets to the north and south and McWilliams Place and West Hamilton Place to the east and west. The area is significant due to its unique Victorian architectural character (Trust for Architectural Easements).

Van Vorst Historic District

Van Vorst Historic District is the largest historic district in Jersey City. The district's name is derived from one of the earliest Dutch settlers in the mid seventeenth century, the Van Vorst family. A late of the family descendant, Cornelius Van Vorst was the twelfth mayor of Jersey City. (History of the County of Hudson, New Jersey: from its earliest settlement to the present time.)





Van Vorst Historic District. Image courtesy of Antiquariannation.com © 2013

The area encompasses a diverse mix of uses with residential, commercial, office spaces, and an urban park. The architecture within the area dates back to the late 19th century and early 20th century. One of the more prominent structures in this district is Dixon Mills, the former Ticonderoga pencil factory that has been converted into residences. The Van Vorst Historic District is located just immediately to the southwest of the Grove Street PATH station (Trust for Architectural Easements).

Hoboken Historical Overview

Much like Jersey City, Hoboken's first European settlers were the Dutch in the 17th century, followed by English settlement soon after. The land was acquired from the Native American Lenape tribe. Unlike Jersey City, its thriving manufacturing neighbor, Hoboken was originally



developed as a waterfront resort town. Affluent urban dwellers migrated to the city to take advantage of the views of New York City across the Hudson River. The Erie Lackawanna Terminal became the original port of entry and the primary dock for ships entering Hoboken. Shortly after the terminal's opening, a subway line linking it to Manhattan was opened facilitating travel between New York City and Hoboken. Today the Erie-Lackawanna Terminal (now known as the Hoboken Terminal) is a registered historic site (Hoboken Historical Museum).

Much of what distinguishes Hoboken is the city's prestigious families and residents who helped shape its colorful history and present character. Colonel John Stevens is arguably the most prominent, an original settler whose descendants funded numerous churches and schools, including Stevens Institute of Technology in 1870. Other prestigious former residents include Stephen Collins Foster, Dorothea Lange, and Hetty Green.

Important historic structures include Castle Point, the former residence of Colonel Stevens; St. Paul's Episcopal Church, established in 1836; Hoboken University Medical Center, established in 1863; The Clam Broth House, established in 1899; and the Keuffel Esser building, established in 1906 (The City of Hoboken, Hoboken's History).

Hoboken Historic District Brownstones. Image courtesy of City-Data.com © 2013





Like Jersey City, Hoboken experienced an urban economic and cultural decline in the mid-to-late 20th century that resulted in many residents relocating to suburban regions in the state. In the 1990's, the area began to see an economic shift as Manhattan residents who were priced out of the city sought more affordable residences still close to their places of employment. In the tradition of its early vibrant and prestigious history, Hoboken continues to be a destination for the wealthy and affluent. It retains much of its 19th century architectural character and is a cultural and recreational hub of northern New Jersey (Hoboken City Master Plan, Historical Overview). Hoboken later took further advantage of its proximity to the water, becoming a transportation center and port like Jersey City. Colonel John Stevens led these efforts through experiments in steam-powered transport. Shortly after his passing, Hoboken was on its way to becoming a transportation hub. The busy port received many ships arriving from Europe; as a result Hoboken experienced a wave of immigration akin to Jersey City and Lower Manhattan (City of Hoboken).

Hoboken Historic Districts

Hoboken Historic Waterfront

The Hoboken Historic Waterfront is historically significant because of its scenic beauty and its early history as a destination for leisure travelers. It also holds significance as a transportation hub for its ferry connections to Manhattan and as a major international port that at one point received ships from Europe (City of Hoboken).

The Central Hoboken Historic District

The Central Hoboken Historic District is bordered by 14th Street to the north, 1st Street to the south, Hudson Street to the east, and Clinton and Willow Streets to the west. It is characterized by Greek Revival row houses and Italianate-style homes constructed between 1840 and 1900 (City of Hoboken).

The Southern Hoboken Historic District

The Southern Hoboken Historic District was originally a commercial area. It encompasses architecturally and historically relevant buildings including Hoboken City Hall and the Erie-Lackawanna Railroad and Ferry Terminal. The



area is bounded by Fourth Street to the north and the Erie-Lackawanna Ferry Terminal to the south and includes parts of Hudson Street, 1st Street, 2nd Street, 3rd Street, Newark Street, River Street, Washington Street, Bloomfield Street, and Observer Highway (City of Hoboken Master Plan, Community Development).

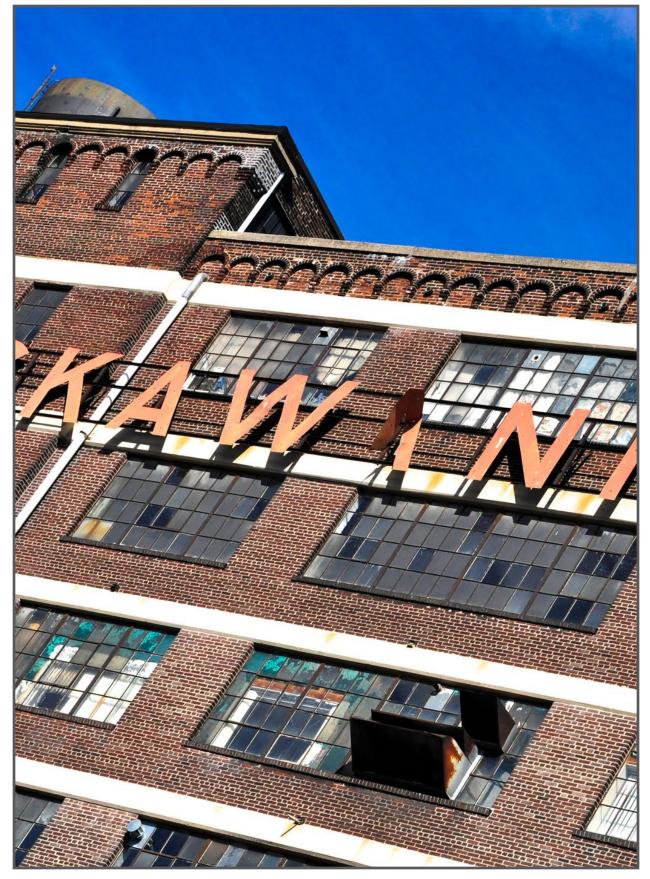
Old DL&W Railroad Historic District

The Old Main Delaware Lackawanna & Western Railroad (DL & W Railroad) Historic District includes an area south of Observer Highway between Henderson Street and the Hudson River, where a railroad was established in 1853. Initially the rail line connected Buffalo, NY, and Hoboken, NJ, and it later expanded to incorporate over 900 miles of rail line. Primarily used to transport iron and coal, the line was extremely successful and profitable during its time. Competition from other rail lines and the rise of the trucking industry inevitably lead to the decline of the DL & W Railroad (The Jersey City Central Chapter of the National Railway Historical Society).

History of the Lackawanna Center

The Lackawanna Center is situated at the northern edge of Jersey City near the border of Hoboken. Its past reflects the prosperity and functionality of the industries that historically dominated both areas. Originally built by the Delaware Lackawanna and Western Railroad Company in 1929, the Lackawanna Center was used as a warehousing and distribution center by the railroad companies. Once surrounded by active railroad lines, the structure was ideally located for its intended use. The building was also used as a Civil Defense Unit during World War II. Today the building is still used for light manufacturing, but also houses a diverse range of tenants in many fields (Emmes Asset Management Company).





Lackawanna Center. Image courtesy of John Namako © 2013





1.3 Political Climate



1.3 Political Climate

The Study Area is composed of two municipalities, Jersey City and Hoboken. It is situated in Hudson County, New Jersey.

Jersey City

Jersey City was dominated by of machine politics in the late nineteenth and twentieth century. Municipal Machines were a way for working class Irish immigrants to amass and exercise political power. At the same time, the dominance of political machines led to corruption in Jersey City. Many officials looked at how to enrich themselves while serving the public good. Frank Hague, who served as Jersey City's mayor for three decades, is a prime example of both power and corruption of the time. On the other hand, there a at least one benefit to machine politics; a strong mayor was able to push many projects forward. The political machine was broken up when in 1960 when Jersey City adopted a Mayor-Council form of government. Corruption and patronage, however, remain a part of Hudson County Politics (Rabinovitz 74)

Currently, Jersey City has a nominally non-partisan system composed of a mayor and nine council members. Of these, six council persons are linked to geographical wards while the other three are elected city wide. In place of parties, council members run on the mayoral candidate's ticket. The mayor and council serve a concurrent four year term. However, the vestiges of the machine era are still crucial to understanding Jersey City. A strong mayoral system, the necessity of political support for any plan, and the ever present threat of corruption remain important realities in Jersey City's political dynamic (City of Jersey City).

On May 14, 2013 incumbent Mayor Tim Healy, who had served for 8.5 years, lost his bid for reelection to Ward E Councilman Steve Fulop. The Lackawanna Site is located in Ward E. Mr. Fulop ran on an anticorruption and education reform platform. He sits on the board of the Learning Community Charter School. Mr. Fulop is characterized as representing the new residents of



Jersey City while Tim Healy represented the more established residents. Strong mayoral control in Jersey City means political support for planning initiatives is crucial (City of Jersey City). The change in administration will mean there is a realignment of planning priorities in Jersey City.

Hoboken

Hoboken is also composed of a nine-member council with three at large members and a mayor. The current mayor of Hoboken is Dawn Zimmer. Mayor Zimmer has a history of advocating for park space and seeks a redevelopment approach in southwest Hoboken which favors "smaller buildings, more park space, traffic controls, restaurants and shops" (City of Hoboken).

The Study Area includes areas of Ward 1 to the east and Ward 4 to the west. Ward 1 is currently represented by Theresa Castellano and Ward 4 is represented by Timothy Occhipinti. Hoboken will also have its Mayoral and City Council elections in November, 2013 (City of Hoboken).

Hudson County

Hudson County is governed by the County Executive, who is charged with appointing department heads and overseeing the activities of all departments. The executive serves a term of four years. The current County Executive, Thomas DeGise, serves "as the Vice Chairman of the Planning Committee and a member of the Executive Committee of the New Jersey Transportation Planning Authority (NJTPA)" (Hudson County). Mr. DeGise's term of office expires at the end of 2015. In addition to the County Executive, planning decisions are made in conjunction with the Hudson County Planning Board. The board is "a semi-autonomous, quasi-judicial body." In practice, it has "jurisdiction over all subdivisions and site plans for development and redevelopment along county roads or affecting county drainage facilities" (Hudson County). Because county highways run through the Study Area, Hudson County is an important additional political entity.



24

Traditionally there has been little or no collaborative planning between Hudson County and the cities of Hoboken and Jersey City, resulting in disjointed and fragmented planning. This is now beginning to change with Hudson County's Jersey City/Hoboken Connectivity Study. Representatives of these jurisdictions, along with NJ Transit, have recently begun regular meetings to develop a more cohesive vision of the Study Area. However, each entity is still politically tied to its own administration and the collaboration is ad hoc. Such a collaboration, however, has potential in the future to greatly benefit both cities, the county, and the region as a whole (Transportation Connectivity Study Meeting, Feb 7 2013).

New Jersey Transit

New Jersey Transit is another important government body that operates within the study area. New Jersey Transit is governed by a seven member board of directors. The board is appointed by the governor of New Jersey. Seats on the board are split between members of the general public and state officials. The governor has the ability override decisions made by the board. The board selects an Executive Director who administers the agency. Two transit advisory committees and a Chief Operating Officer are also key components of the agency. The Hudson Bergen Light Rail, connecting Hoboken and Jersey City, is administered by New Jersey Transit; this renders the entity key in the future development of the Study Area (New Jersey Transit).



1.4 Existing Master Plans



1.4 Existing Master Plans

Below are the Jersey City and Hoboken Master Plans. These plans are living documents that include multiple revisions.

Jersey City

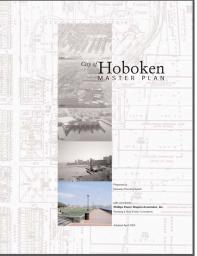
The Jersey City Master Plan was developed in 2000. Amendments to the plan, including the inclusion of a "Circulation Element" that covers transportation issues, have been adopted as recently as 2009. Below are the seven main goals of the Jersey City Master Plan (2000). The goals have been condensed:

- Provide residential areas that have housing choices that attract new residents and serve existing residents;
- Create activity districts that include cultural, entertainment, commercial and institutional activities;
- Increase the amount of community resources including libraries, hospitals, colleges and universities, schools, community parks, day care facilities, and others;
- Better connect residential areas, activity districts and community resources using systems with multiple transportation options (mass transit, personal automobile, bicycle, pedestrian).
 Promote a safer environment for pedestrians;
- Develop economic engines within the city that contribute to economic development objectives;
- Develop a national tourist destination that enhances the City; and
- Sustain a balance between economic growth and quality of life in the City's neighborhoods.



Hoboken

Adopted by the Hoboken Planning Board on April 28, 2004, The Hoboken Master Plan consists of over 200 recommendations on issues such as transportation, parks, housing, economic development, land use, and design. While Hoboken already is a transit oriented and walkable mixed-use city, the Master Plan focuses on preserving and enhancing Hoboken while creating sustainable future improvements.



The Hoboken Master Plan (2004, Goals and Obectives states the following 10 goals and objectives:

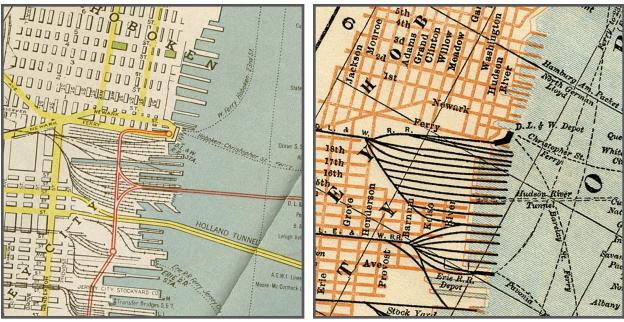
- 1. Amplify Hoboken's sense of community, encompassing its social diversity;
- 2. Enhance Hoboken's unique setting as an urban enclave facing New York Harbor;
- 3. Protect its historic rowhouse fabric;
- 4. Celebrate Washington Street's classic "Main Street" character;
- 5. Improve the appearance of Hoboken's streets;
- 6. Maintain Hoboken's urbane mix of uses;
- 7. Enhance its walkability and pedestrian amenities;
- 8. Contemporize its community facilities;
- 9. Provide additional open space and recreation facilities; and
- 10. Tap into the entrepreneurial and community spirit of Hoboken's residents.





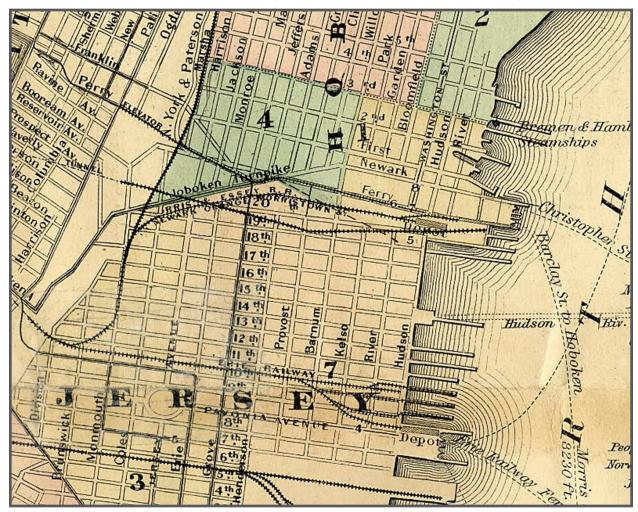
1.5 Land Use





Study Area location from an 1960 © American Map Co.

Study Area location from an 1891 Map by Hunte & Eaton



Study Area location from an 1887 Map by G.W. and C.B. Colton & Co.



1.5 Land Use

Existing Conditions

Similar to other old urban areas in the United States, Hoboken and Jersey City were developed with a variety of residential, commercial, and industrial land use patterns before zoning ordinances were enacted (Hoboken in 1922, Jersey City in 1967) and master plans were implemented (Hoboken in 1957, Jersey City in 1966) (Jersey City Division of City Planning, p. II-1; Hoboken Planning Board, p. 4). However, land use trends changed significantly after the implementation of these master plans.

From the 19th century to the mid-20th century, the Study Area served as a geographical center of manufacturing, transportation, and shipping industries in Hoboken and Jersey City. Although the zoning ordinances and the master plans designated the area as an industrial district, these heavy industries have declined in importance since the 1960's. The Penn Central Railroad, Erie-Lackawanna Railroad and Central Railroad of New Jersey went bankrupt, and service industries have significantly grown in both cities in conjunction with the general shifting of the US economy from manufacturing-based to service-based. Underutilized land throughout Hoboken and Jersey City, such as the Hudson River waterfront, docks, and abandoned railroad facilities, have been redeveloped for retail, entertainment, and the finance, insurance, and real estate ("FIRE") industries (Jersey City Division of Planning).

A significant number of new developments for residential, commercial, and recreational uses have occurred on vacant and underutilized lots that were once occupied by manufacturing buildings (Jersey City Division of City Planning, p. II-1). Industrial and railroad properties have been converted to commercial uses (Jersey City Division of City Planning, p. II-3). Mixed-use redevelopments with high-rise residential and office components have covered underutilized lots along the Hudson River, and many abandoned docks have been transformed into open space for recreation (Jersey City Division of City Planning, p. II-1).

These developments have been mostly concentrated along the waterfront areas and the Study Area continues to be mostly abandoned. While a significant amount of new housing construction has been in-fill development



(Jersey City Division of City Planning, p. II-2), The Study Area has been left behind in these redevelopments. Both Hoboken's and Jersey City's efforts to redevelop and reclaim underutilized and abandoned areas throughout their cities have not benefited the Study Area.

The Study Area is surrounded by well-established residential neighborhoods to its north in Hoboken and to its west in Jersey City, uphill on the Palisades (the Heights). These surrounding residential areas have been well preserved as mixed-use urban communities. To the east, the Study Area is bordered by the Hudson River. Former industrial areas on the waterfront are now parks and open spaces, and a waterfront walkway runs along the coasts of Hoboken and Jersey City and beyond. Boyle Plaza, access to the Holland Tunnel, and highways sit south of the Study Area. This area, once home to warehouses and railroad tracks, today consists of offices, big box retail stores, and auto-related services.

The Study Area still has many underutilized lots, and in recent years residential and commercial development pressure has increased. Moreover, construction is underway at Newport Green Park in the southeast portion of the Study Area; this is the last vacant lot on the waterfront within Hoboken and Jersey City's boundaries (New Jersey Office of Information Technology).

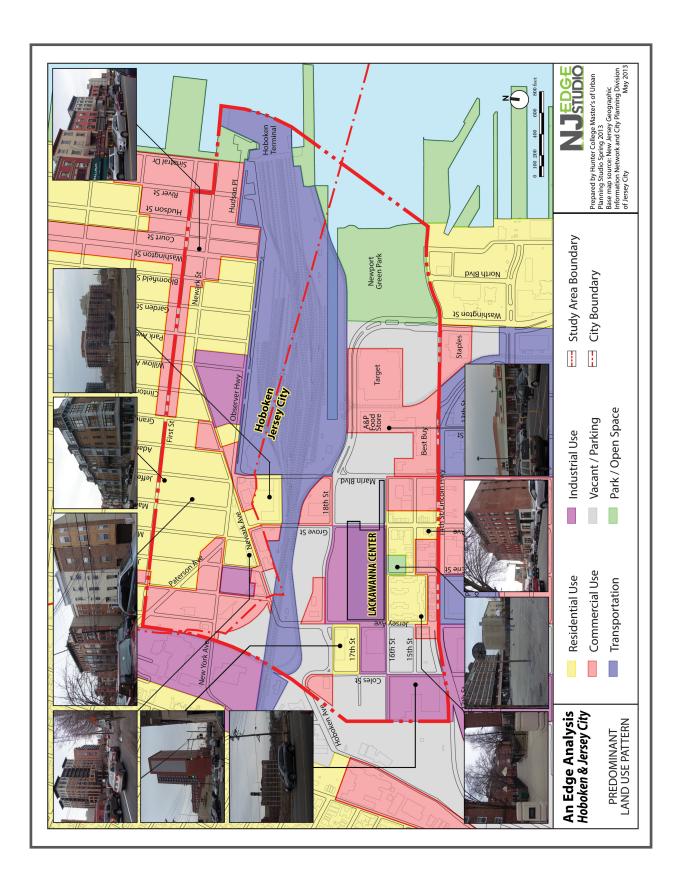
Residential Uses

Most residential buildings in the Study Area are located in its northern section. These buildings are part of an established urban community in Hoboken, with small businesses scattered on ground level (Hoboken Planning Board, p. 24). A luxury condo (the Cast Iron Lofts) is under construction to the west of the Lackawanna Site at 18th Street and Jersey Avenue. A public housing project and several residential buildings are located on the south side of the Study Area with a few auto-related retail stores on the same blocks (Group site visit, Feb. 2, 2013).

Commercial Uses

Convenience stores, bars, small grocery stores, auto-related retail stores, and office buildings are scattered throughout the residential area on the north side of the Study Area. Commercial buildings are densely located near Hoboken Terminal. Washington Street and First Street are lined with small businesses on the ground floor. Medium-sized commercial buildings, which are mostly used by auto-related businesses, are located in the northwest and





NJ_{STUDIO}

southwest portions of the Study Area. Big-box retail stores, including Target and Best Buy, are located in the southeast (Group site visit, Feb. 2, 2013).

Industrial Uses

The southwest portion of the Study Area has large-scale industrial buildings, including the Lackawanna Site. Most vacant lots in the Study Area are located around these industrial buildings and railroad tracks (Jersey City Division of Planning).

Public Uses, Parks, and Open Space

Civic buildings, including a post office, city offices, and a recycling center, are located in the north of the Study Area. A large-scale public park, Newport Green Park, is under construction at the southeast corner of Study Area. A waterfront walkway connects Hoboken Terminal to Newport Green Park along the Hudson River (Jersey City Division of Planning).

Terminal / Railroad Uses

Hoboken Terminal is a major transportation hub and is located in the northeast corner of the Study Area. Railroad tracks pass through the center of the Study Area from the west to Hoboken Terminal, and they make up approximately one-third of the Study Area. NJ Transit owns these railroad tracks (NJ Transit).

Current Zoning

Zoning is a strong legal tool to regulate all activities on zoning lots. It controls the use and bulk of buildings. The New Jersey Municipal Land Use Law (MLUL) requires that municipalities' zoning ordinances be "substantially consistent" with their master plans. There are three categories to regulate the uses of buildings: 1) principal uses, which are the primary uses on zoning lots permitted by the law, 2) accessory uses, which are permitted in conjunction with principal uses, and 3) conditional uses, which are permitted under certain conditions by the law (New Jersey Municipal Land Use Law).

The bulk of buildings are determined by a range of measurements including lot size, lot width, lot depth, lot coverage, building height, and density. Density controls the number of units or total floor area that can be built on a zoning lot.



The following explanations of zoning regulations are brief summaries of the zoning ordinances of the City of Hoboken and the City of Jersey City, as well as the redevelopment plans prepared by the Jersey City Division of City Planning:

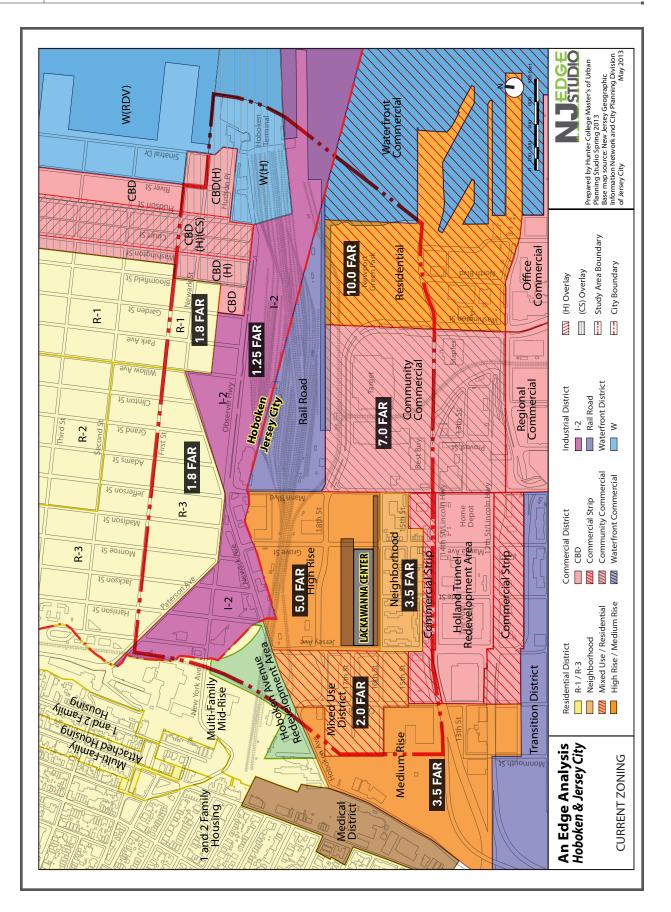
Residential Districts

<u>R-1/R-3</u>

Blocks in the north of the Study Area are designated as R-1 and R-3 Districts under the Zoning Ordinance of the City of Hoboken. Principal permitted uses in the R-1 District are residential buildings, as well as retail businesses and services in accordance with certain regulations. Schools, recreation centers, places of worship, and principal uses permitted in the R-1 District are permitted in the R-3 District. Accessory or conditional uses in these districts are garages, bars, clubs, community centers, clinics, nursing homes, and wireless telecommunications antennas subject to certain regulations. Maximum building height in the R-1 and R-3 Districts is three stories or 40 feet, whichever is less. If ground level parking is provided in the R-3 Districts, maximum building height is four stories. The minimum size of dwelling units is 660 square feet. The maximum number of dwelling units permitted in the districts is site area divided by 660, and according to Hoboken's Master Plan, rounding up is permitted (City of Hoboken, Hoboken Planning Board, p. 28). For example, four 660-square feet dwelling units are permited on a 2,500-square feet lot although the maximum number of permitted dwelling units is 3.79 units.

High Rise / Medium Rise / Mixed Use / Residential

Jersey City's High Rise, Medium Rise, Mixed Use, and Residential Districts are designations to redevelop the south portion of the Study Area. Principal permitted uses in the High Rise and Medium Rise Districts include office buildings, residential, commercial/retail, restaurants, bars, nightclubs, hotels, health clubs, roadways, light rail, mass transit stations, public/semipublic uses, theaters, and light industrial/warehouse uses. Accessory uses in these districts are off-street parking/loading facilities, fences/walls, and guardhouses/employee cafeterias. Maximum building heights are 110 feet in the High Rise District and 70 feet in the Medium Rise District. The maximum floor area ratios are 5.0 in the High Rise District and 3.5 in the Medium Rise District (Jersey City Division of City Planning).





Principal permitted uses in the Mixed Use District are residential, offices, civic/ governmental, open space and parks, and hotels. Accessory uses in the district are retail stores, restaurants, bars, nightclubs, banks, and financial institutions. Maximum building height is 18 stories in the district. Floor area ratios are variable in the mixed-use district. The minimum size of dwelling units is 600 square feet. The maximum number of dwelling units permitted in the districts is 90 dwelling units per gross acre. Every 1,000 square feet of commercial space must replace one dwelling unit (Jersey City Division of City Planning).

Principal permitted uses in the Residential District include residential, hotels, retail sales of goods and services, restaurants, bars, nightclubs, open space, recreational facilities, offices, transit facilities, cultural centers, and helistops. Accessory uses in these districts are parking facilities, bulkheads, and piers. The maximum floor area ratio in the district is 10.0 (Jersey City Division of City Planning).

Neighborhood

Jersey City designated the public housing project and four blocks adjacent to it as a Neighborhood District. Principal permitted uses include residential, parks, public open space, restaurants, offices, and retail. Onand off-street parking/loading facilities, fences/walls, health clubs, and ground floor retail space are additionally permitted as accessory uses in the district. Maximum building heights in the district is 70 feet. The maximum floor area ratio is 3.5 (Jersey City Division of City Planning).

Commercial Districts

CBD, CBD(H), and CBD(H)(CS)

Hoboken designates the area northwest of Hoboken Terminal as the CBD district. This zoning district has two sub districts, which are the Historic and Court Street Sub-districts. Principal permitted uses in these districts include commercial recreation, instructional use, office buildings, hotels and motels, public buildings and uses, residential buildings, restaurants, bars, and retail businesses or service. Accessory or conditional uses in the district are garages, wireless telecommunications antennas that are subject to certain regulations, public parking garages and lots, outdoor restaurants, and sidewalk cafes. Maximum building heights in these districts are 16 stories or 160 feet in the CBD District, and up to five stories in the CBD(H)



and CBD(H)(CS) Districts. The minimum size of dwelling, retail, or office units is 500 square feet. The maximum number of those units permitted in the CBD District is site area divided by 500 (Hoboken Planning Board).

Commercial Strip

Jersey City designates three blocks along Boyle Plaza as a Commercial Strip District. Principal permitted uses in this district are auto-related retail, commercial, restaurants, bars, nightclubs, hotels, motels, health clubs, parks, public open space, and light industrial/warehouse uses. Additional uses permitted as accessory uses are off-street parking and loading facilities, as well as marketers and convenience stores as accessory to automotive service stations. Maximum building heights in the district are 50 feet for hotels, motels, and health clubs; the maximum floor area ratio is 3.75 for these uses (Jersey City Division of City Planning).

Community Commercial/Waterfront Commercial

In Jersey City's Community Commercial District, retail, supermarkets, drugstores, package liquor stores, restaurants, bars, nightclubs, residences, offices, hotels, transit facilities, theaters, satellite earth stations, open space, and automobile services are permitted as principal uses. Parking facilities are additionally permitted as accessory uses in the district. The maximum floor area ratio is 7.0. A minimum of five percent of the district must be developed as improved open space (Jersey City Division of City Planning).

In Jersey City's Waterfront Commercial District, retail stores, restaurants, bars, nightclubs, residences, theaters, commercial recreational facilities, offices, hotels, cultural facilities, transit facilities, helistops, satellite earth stations, and marinarelated retail are permitted as principal uses. Parking facilities, bulkheads, piers, and docks are additionally permitted as accessory uses in the district. The maximum floor area ratio is 4.0 (Jersey City Division of City Planning).

Industrial Districts

<u>I-2</u>

Blocks north of the railroad tracks in the Study Area are designated as I-2 Districts by Hoboken. Principal permitted uses in this district are food processing and related storage, manufacturing, and retail businesses or services. Accessory or conditional uses in these districts are bars, wireless



telecommunications antennas that are subject to certain regulations, autorelated service and sales, and railroad-related shipping terminals. The bulk restrictions have ensured that the zone remains low density (City of Hoboken Municipal Code, Chapter 196: Zoning, Article VI, S. 196-18).

These bulk restrictions are:

- Maximum height: two stories / 40 feet
- Maximum FAR: 1.25
- ♦ 5,000 square foot minimum lot size
- ♦ 60% maximum building coverage
- ♦ Minimum front yard: five feet

Rail Road

Hoboken designates the railroad yard next to Hoboken Terminal as a Rail Road District. Land uses in this district must be consistent with Hoboken Terminal's rail functions (Hoboken Planning Board).

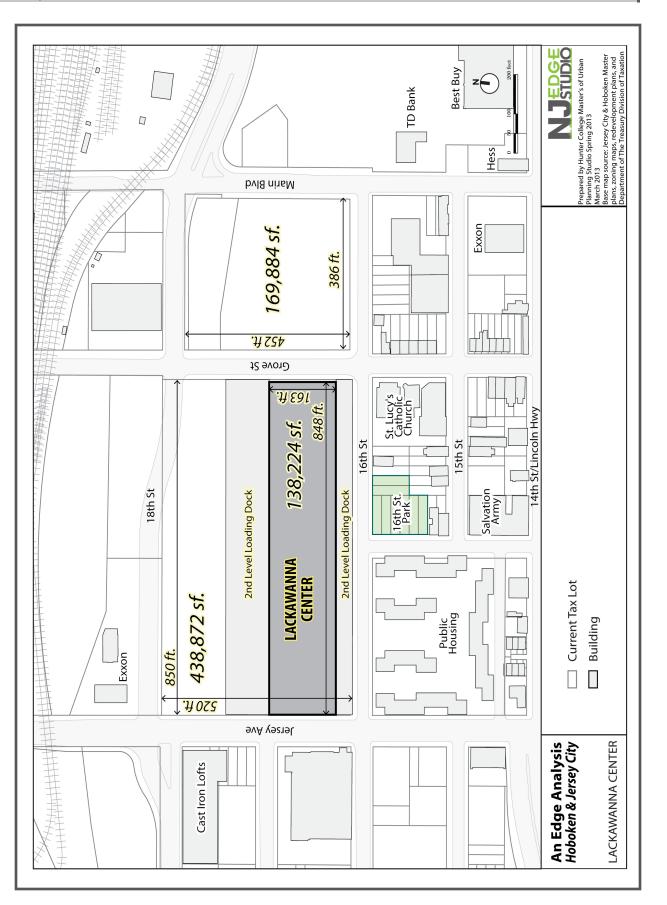
Waterfront District

<u>W(H)</u>

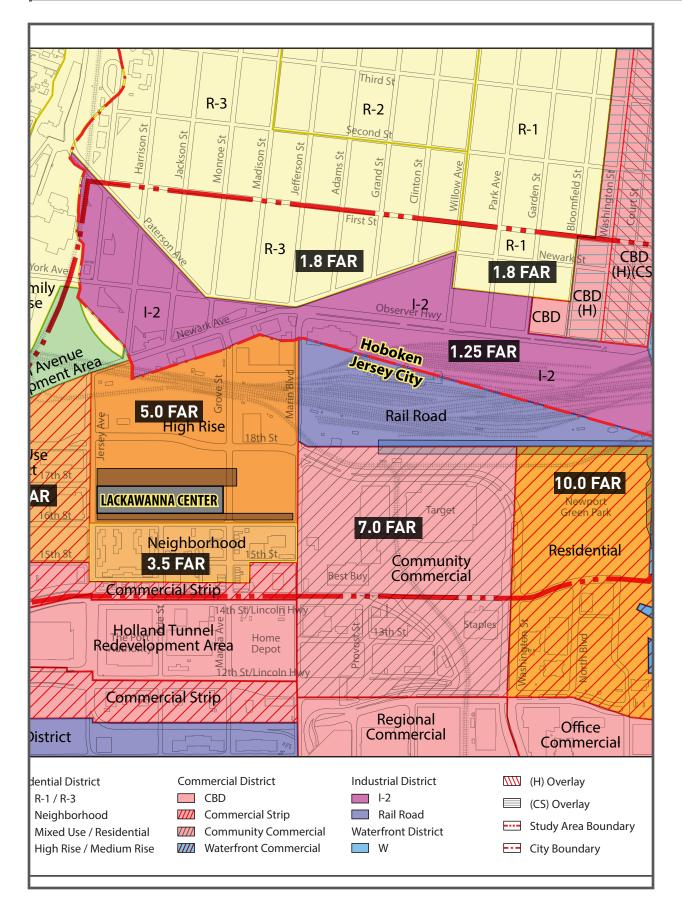
Hoboken designates the area in and around Hoboken Terminal as a W(H) District. Public recreational uses and marina facilities are permitted in this district. Marine shipping terminals and repair facilities are additionally permitted as conditional uses. Maximum building height is two stories but not more than 35 feet (Hoboken Planning Board).

To the east is the Waterfront Planned Development District and to the south is the former WALDO historic district. WALDO was removed as a Land Use designation because many high-rise proposals were made for the district (Applebome 2008). The clash between the desire to preserve the industrial character of this area and the market forces encouraging high-rise development is evident in the removal of WALDO and the general malleability of the Zoning Regulations of Jersey City.











Lackawanna Site Zoning, Bulk, & Land Use

Due to the Lackawanna Site being located in the Light Rail Redevelopment Area, use and bulk provisions deviate from those in the Zoning Ordinance. The 629 Grove Street parcel is located in a "High Rise District," as designated by the 2007 Redevelopment Plan. A wide variety of high bulk uses are permitted as of right in this district, including office, residential, commercial/retail, restaurants/nightclubs, hotels, health clubs, roadways, public uses, theaters, light industrial, parks, public utilities, and mixed uses (Jersey City Division of City Planning 2007).

The High Rise District bulk and design requirements encourage a streetwall design and active ground floor uses. For the majority of uses, the height limitation is 110 feet, with an exception of a 60-foot height limit for warehouses. For most uses, there must be 75% lot coverage, with the exception of 85% for public uses and 90% for warehouse uses. The Floor Area Ratio (FAR) is 5 for most uses, except the FAR is 2.5 for warehouses. The current FAR for the existing building is 2.93# so the Lackawanna Center is currently using only 59% of the maximum FAR allowed in this district; however, since it is a warehouse, it is over capacity and non-compliant. However for other uses, such as residential, there is an additional 894,360 sf potential for buildout in addition to the existing 1.3 million sf of the Lackawanna warehouse to reach the maximum 5 FAR. For the other parcel Emmes owns, which is vacant, there is a potential buildout of 849,420 sf on the 3.9 acre lot, at a maximum FAR of 5 and a height limit of 110 ft.

The front yard minimum is 5 feet for buildings facing north-south streets, and 10 feet for buildings facing east-west streets. The maximum front yard allowance is 15 feet for north-south streets and 20 feet for east-west streets. The side yard requirement is 5 feet and the rear yard requirement is 20 feet.

The parking minimum requirement for the high-rise district is 1 space per 5,000 sf gross floor area for Industrial Uses, 1 space per 1,000 sf for retail, .5 spaces per 1,000 sf for office/commercial uses, and a minimum of 1 parking space per housing unit for Residential development (Jersey City Division of City Planning 2007-2010).



New Jersey State Land Use Policy

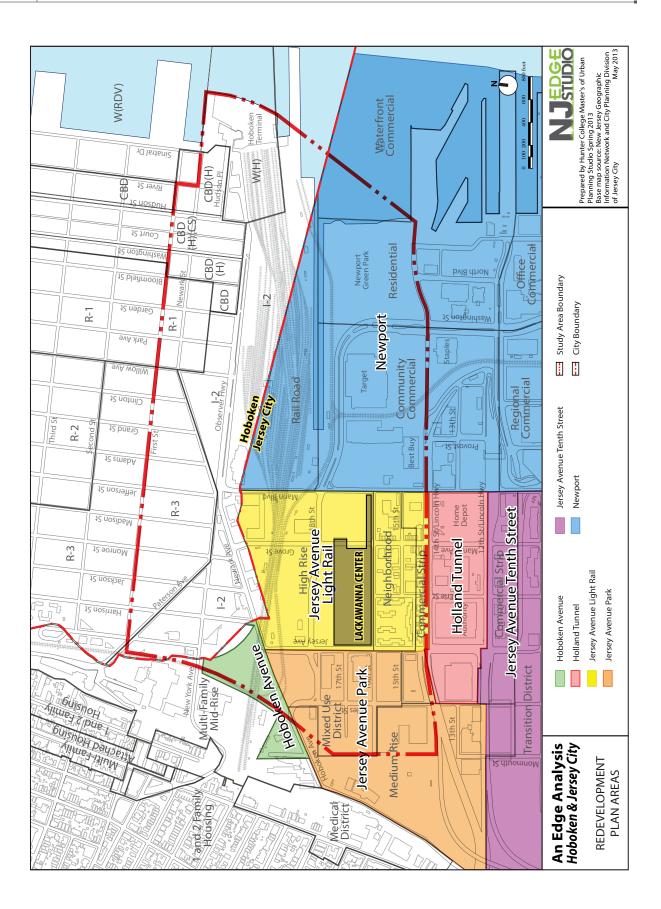
The New Jersey State Planning Act of 1986 established a precedent for redevelopment plans as a policy paradigm in New Jersey, and defines redevelopment for urban core areas. Under this legislation, Hoboken City is within the "Hudson County Urban Complex" as one of many urban centers throughout the state (City of Hoboken 2012). The purpose of the legislation was to encourage economic development in urban cores, in an attempt to revitalize cities after a long period of disinvestment throughout the United States. One of the goals of this plan is to ensure "urban revitalization," which the legislation defines as "revitalizing urban areas by devising a regional metropolitan area strategy that concentrates public resources to attract public and private investment to enhance economic development, housing redevelopment…" (Hoboken: Southwest Area Redevelopment Study from pg. 20 of NJ State Planning Act). This state policy legislation sets a precedent for allowing municipalities to designate areas of redevelopment at a micro-scale level.

The New Jersey Local Redevelopment and Housing Law (LRHL) is the legislation that establishes the criteria for designating areas of redevelopment and areas of rehabilitation of specific neighborhoods within cities. It is important to note, that an Area in Need of Redevelopment is defined as being blighted and in need of clearance, replanning and redevelopment, under the LRHL; in effect this designation provides the State of New Jersey the power of eminant domain. An Area in Need of Rehabilitation is somewhat less extreme, because it designates an area in need of extensive renovation rather than extreme blight (NJ LRHL 1992).

Jersey Avenue Redevelopment Area

The Jersey Avenue Redevelopment Plan Area is a 140-acre area that is comprised of several smaller Redevelopment Areas (Jersey City Division of City Planning 2007). This area was designated as being in need of redevelopment according to the New Jersey Local Redevelopment and Housing Law. This law provides a list of criteria for determining if an area is in need of redevelopment; the criteria include a presence of dilapidated buildings, obsolete structures no longer being utilized to full capacity, and land not being "fully productive," among other characteristics (State of New Jersey).







The Lackawanna Site itself is located in an approximately 10 block Jersey Avenue Light Rail Redevelopment Area. One to two blocks to the south of the site, beginning on Fourteenth Street, is the Holland Tunnel Redevelopment Area. To the east of the site is the Newport Redevelopment Area, which is located on waterfront property. Directly to the west of the site is the Jersey Avenue Park Redevelopment Area. The site is also located near the Jersey Avenue Tenth Street Redevelopment Area (Jersey City Zoning Map). The site is approximately one block south of the Hoboken City border, which is adjacent to the Hoboken Mixed Use Industrial Zone I-2 (Hoboken Zoning Map). For the purposes of the Lackawanna Site, zoning in the Redevelopment Plan Areas is described in the specific plans and supersedes the Jersey City Zoning Ordinance (Section 345-38 of Jersey City Ordinance). In addition, planning staff at the Jersey City Planning Division indicated that altering the zoning for this area is unproblematic and even encouraged by the Planning Department and other Jersey City agencies (Bob Cotter, February 6, 2013).

Provisions of the Jersey Avenue Light Rail Redevelopment Plan stipulate several development goals. First, that no acquisitions of private property occur for redevelopment purposes, and that redevelopment and adaptive re-use is recommended. The plan encourages that obsolete structures and deteriorated structures as well as old industrial buildings are developed in ways consistent with the emerging commercial and residential area. Nonetheless, despite encouraging development, the plan also seeks to conserve structures and retrofit them to new uses, in order to preserve the existing character of communities in the Redevelopment Area (Jersey City Division of City Planning 2007-2010).

New developments must improve the pedestrian and transit traffic flow in the area. Building design is encouraged to be similar to the Hamilton Park Historic District to the south, and East-West view corridors should be maintained, particularly for the upland communities located to the East. Landscaping and lighting are required by all developments. In addition, publicly accessible open space with seating is required for any development project in the Redevelopment Plan area, which should be focused on preserving east-west view corridors of the Palisades and New York City skyline. If the developer agrees to contribute green space located on the property, or make a monetary contribution to the City of Jersey City for open space coffers, an additional bonus density of up



to .68 FAR (30 units per acre) will be provided. The monetary contribution is \$5,500 per each additional residential unit. There is also a provision that at least 10% of any residential projects have a "Developer's Affordable Housing" contribution either on site or within the Plan area. The beautification of the Jersey Avenue Redevelopment Plan Area and surrounding neighborhoods is a main objective of the Plan (Jersey City Division of City Planning 2007-2010).



1.6 Transportation & Infrastructure



1.6 Transportation & Infrastructure

Introduction

The existing transportation network in the Study Area is complex. Positive factors such as a rich regional public transit network and a location within walking distance of downtown Hoboken are offset by complicated, chaotic traffic patterns along with unpleasant and occasionally dangerous conditions for pedestrians and cyclists (Group site visit, Feb. 2, 2013).

Transportation topics that will play an important impact on future development in the Study Area are discussed below as follows:

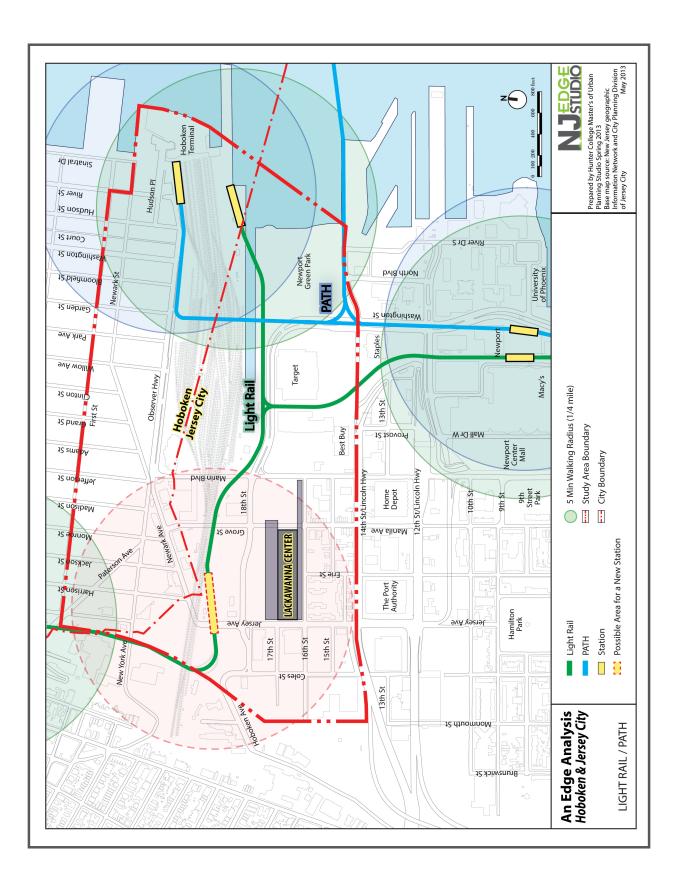
- Public transportation;
- Roadways and traffic conditions;
- Cycling initiatives;
- The pedestrian environment; and,
- Commuting patterns.

Public Transportation

Hudson Bergen Light Rail

Operated by NJ Transit, The Hudson-Bergen Light Rail ("HBLR") consists of 24 stations connecting communities in Bayonne in western New Jersey with Jersey City's Exchange Place, Pavonia-Newport Center and the City of Hoboken (NJ Transit). The nearest light rail stations are about a mile away at the Hoboken Terminal and Newport. Currently there is no light rail station that directly serves the Lackawanna Site, even though light rail tracks traverse the area directly across the street from the Site. The construction of the HBLR was developed in stages and financed through a combination of state and federal funding at an estimated total project cost of \$2.2 billion. However, recent decreases in federal and state spending on transit systems have slowed improvements on the HBLR, resulting in overcrowding on trains. Currently, about 40,000 passengers utilize the HBLR per day (U.S. Department







of Transportation, Federal Transit Administration). Since the opening of the HBLR line in April 2001, major residential developments have taken root along the rail line. The close spacing of the HBLR stations has encouraged infill of residential, commercial and office space (Birch and Fitzsimmons). As of 2010, the expansion of the HBLR had prompted 10,000 new housing units, 18 million square feet of prime office space and the redevelopment of hundreds of acres of abandoned industrial and rail facilities near the waterfront (U.S. Department of Transportation, Federal Transit Administration).

The Jersey City/Hoboken Connectivity Study identified constructing a new light rail station at 18th Street and Jersey Avenue in Jersey City as a longterm recommendation for residential and commercial improvements in the northeastern Jersey City area adjacent to Hoboken (Eng - Wong, Taub & Associates). The construction of a light rail station at this location would likely further housing development and increase employment opportunities in locations near the Lackawanna Site. Housing developers, forecasting an increase of consumers and new residents in the area, are considering the idea of private contributions into the rail line project for further improvements (Hernandez, J).

The approximate cost for an 18th Street light rail station is \$25 million (Bob Cotter, Feb. 6, 2013). In October 2012, the Federal Transportation Administration awarded NJ Transit \$400,000 to further study the need for three possible light rail improvements. One such improvement is the proposed station at 18th Street; the others are installing additional track at Hoboken Terminal to alleviate train congestion at that chokepoint and improvements to alleviate light rail congestion between the Palisades and Hoboken (Menendez Press Office).

Hoboken Terminal and PATH

Hoboken Terminal, located at 1 Hudson Place in the southeast corner of the City of Hoboken, serves the HBLR; the World Trade Center / Hoboken, 33rd Street (Herald Square) / Hoboken, and Journal Square / Hoboken (late nights and weekends only) PATH train lines; nine NJ Transit commuter rail lines that connect to northern and western New Jersey and Metro North trains in Rockland and Orange counties; and NJ Transit buses. There are also connections with NY Waterway ferries to the World Financial Center, Pier 11/Wall Street and West 38th street in Manhattan (Port Authority of NY & NJ).



The PATH (Port Authority Trans-Hudson Corporation) operates an underground heavy rail rapid transit system, in service 24 hours a day, seven days a week. The PATH is the main transit link between Lower and Midtown Manhattan in New York City and Newark-Penn Station, Harrison, Journal Square, Grove Street, Exchange Place, Newport and Hoboken (The Port Authority of NY & NJ). A single ride on the PATH system costs \$2.25 and its payment system is integrated within the Metropolitan Transportation Authority's (MTA) MetroCard system (Port Authority of NY & NJ).

Public Bus Service

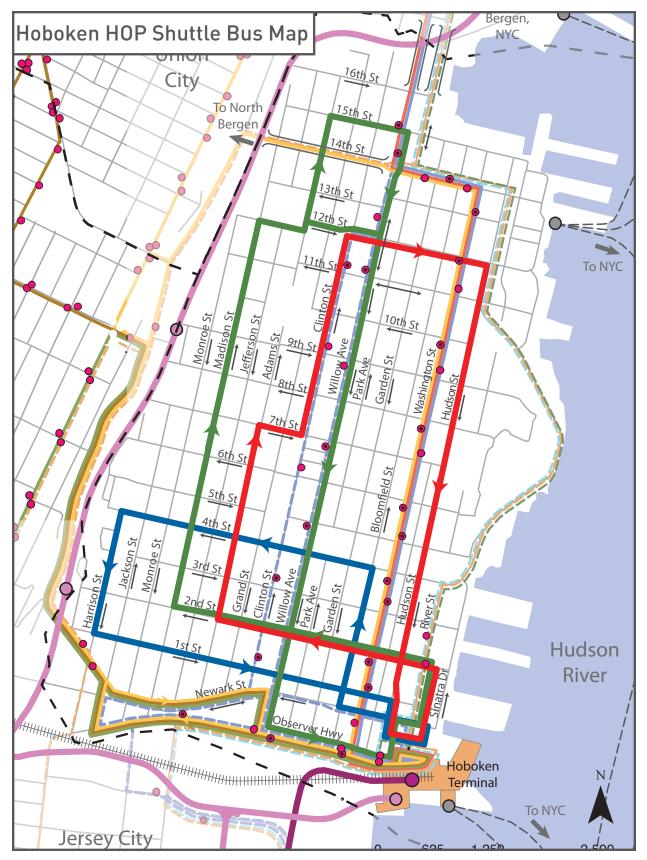
There are two major bus terminals in Jersey City. The terminals at the Journal Square Transportation Center and Exchange Place provide residents and workers the ability to reach Jersey City from many different origins in New Jersey and from New York City. The Journal Square Transportation Center provides intermodal transfers to eleven NJ Transit bus routes and the PATH train. Exchange Place offers intermodal connections to PATH, HBLR, ferry service, and transfers to eight bus routes that serve Newark, Union City, New Brunswick, Weehawken, East Brunswick, Bayonne, and Lakewood (NJ Transit).

At Hoboken Terminal, the Hudson Place Bus Terminal provides connections for NJ Transit bus riders to other transportation services at Hoboken Terminal. Eight bus lines stop here, including Route 87, which links Hoboken with Jersey City, and Route 126, which provides service to New York City's Port Authority Bus Terminal (NJ Transit).

No bus route is currently making stops at or around the Lackawanna Center. NJ Transit bus route 87 is one of few services that connects Jersey City and Hoboken, however it runs along the western edge of Jersey City and does not stop within the Study Area. The bus route connects rail stations in Jersey City to the Hoboken terminal (NJ Transit).

Hoboken has solved some of its neighborhood transportation concerns by implementing the HOP shuttle service. The service allows Hoboken residents, workers and visitors the ability travel within Hoboken easily. The HOP provides better mobility for seniors within Hoboken and commuters accessing Hoboken Terminal from points beyond comfortable walking distance. Currently Hoboken operates three HOP lines, two of which traverse the northern section of the Study Area (City of Hoboken). None of the HOP lines provide service to anywhere beyond Hoboken's municipal boundaries.





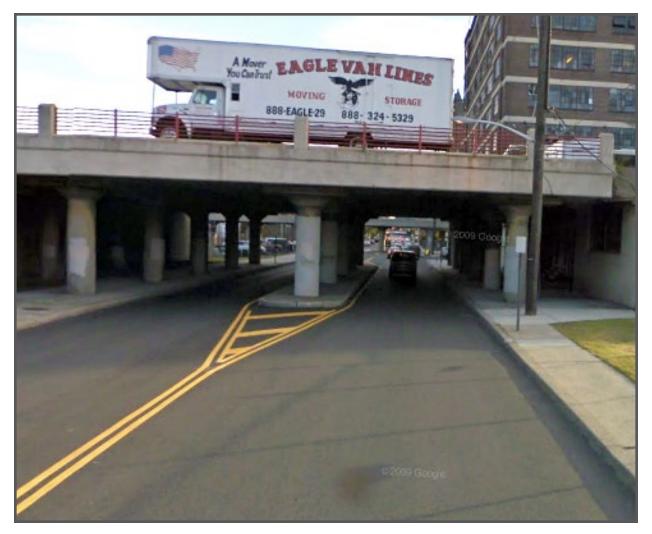
Hoboken HOP Shuttle Bus Map Courtesy of City of Hoboken Department of Transportation



Private Bus Companies and Shuttle Services

Jersey City has several private bus companies, or "Jitneys," that provide informal transportation to and from major destinations in Jersey City and beyond, including service to New York City. Jitneys are often cheaper and provide more frequent service than competing NJ Transit bus service, but the services are only loosely regulated by local government bodies (Nj.com, 2010). At present there are no private jitney routes in the Study Area in Jersey City due to a low residential population density. Hoboken has aggressively worked to ban any jitney service within its boundaries and instead has focused on improving its Hop service (Susan Polikwa, Feb. 20, 2013).

Additionally, some private developments in the Study Area, such as 700 Grove and the Cast Iron Lofts, have started their own shuttle services to Hoboken Terminal to improve transportation options for their residents (Group site visit, Feb. 2, 2013).



Grove Street, looking south at 18th Street. Note the street narrows from two-car widths to one at the underpass. Image Source: Google Maps.



Overlooking Jersey Avenue and 18th Street in Jersey City. Image by John Namako

Roadways and Traffic Conditions

Only three roadways exist to connect Jersey City with Hoboken - they are discussed in turn below:

- 1. Grove Street, on the Lackawanna Site's eastern edge, is a connecting arterial street that provides one of three access points to Hoboken to the north. It is a two-way street with lane striping indicating one lane in each direction, but the street's wide nature encourages motorists to form two lanes in each direction during peak hours, especially when on-street parking is prohibited. However, motorists are forced to merge into one lane to navigate under two overpasses that support roadways (former railway tracks) that are linked to the Site (Group site visit, Feb. 2, 2013). Grove Street continues south from the Study Area (partially as Manila Avenue in the Hamilton Park historic district and reaches the Grove Street PATH station in downtown Jersey City approximately one mile to the south.
- 2. Jersey Avenue, on the Site's western edge, is a major arterial street that supports between 900 and 1,100 vehicles per hour in each direction during peak hour (Jersey City / Hoboken Connectivity Study). A two-way street, Jersey Avenue's right-of-way expands to 75 feet north of 18th Street, supporting four southbound and two northbound lanes of vehicular traffic (Google Earth). South of 18th Street and adjacent to the Site, Jersey Avenue is 55 feet wide and supports a total of five travel lanes (Google Earth). Travelling north on Jersey Avenue, the street curves eastward and becomes Newark Avenue upon entering Hoboken after crossing under





HBLR and NJ Transit railroad tracks. The 75-foot right-of-way narrows significantly during and following the sharp curve, reducing the total number of travel lanes from six to four to three (east of Harrison Street) (Google Earth). These inconsistent roadway alignments contribute a great deal to congestion in the Study Area.

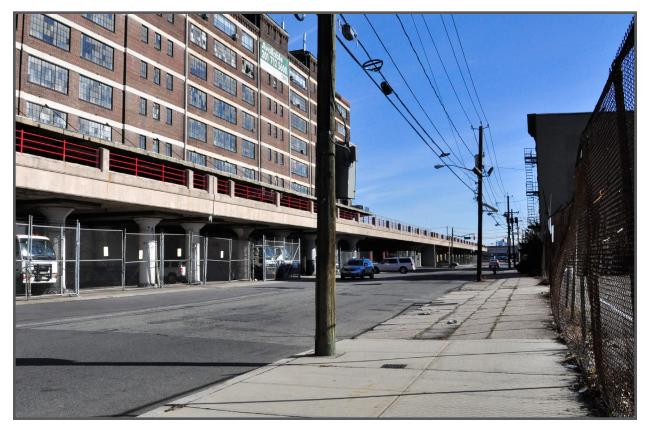
Casual observation of automobile traffic on Jersey Avenue shows rampant speeding as a result of the highway-like nature of such a wide street, and due to its primary use as a connection from Hoboken south to the New Jersey Turnpike Extension (Route I-78), the Pulaski Skyway (Routes 1 and 9), and access to the Holland Tunnel via 12th Street (Group site visit, Feb. 2, 2013).

3. The third and final connection between Jersey City and Hoboken is Marin Boulevard one block east of Grove Street. Connecting with Hoboken at Observer Highway, this street sees traffic volumes during peak hour that exceed Grove Street but fall short of Jersey Avenue's volume of over 1,000 vehicles per hour (Jersey City / Hoboken Connectivity Study). A two-way street, Marin Boulevard's rightof-way varies between 40 and 50 feet within the study area and supports three to four travel lanes (Google Earth). Like the previous two-connector streets mentioned above, Marin Boulevard's poorly lit railroad underpasses between 18th Street and Observer Highway and inadequate lane markings contribute to congestion in the study area. Marin Boulevard continues south from the Study Area and forms the western edge of the large Newport Center mall development.



The Lackawanna Site at 629 Grove Street is bordered by 16th Street to the south and 18th Street to the north. 18th Street is a two-way, minor arterial that runs east-west and links the three major connector streets of Jersey Avenue, Grove Street and Marin Boulevard, from west to east. 18th Street's right-of-way is approximately 45 feet between Jersey Avenue and Marin Boulevard and supports two travel lanes in either direction. The roadway curves slightly south when travelling west to east between Jersey Avenue and Grove Street, a result of utilities underground beneath 18th Street (Bob Cotter, February 6, 2013, meeting). This section of 18th Street is currently under title of the LeFrak Organization, the owner and developer of the Newport Center mall (Bob Cotter, Feb. 6, 2013, meeting). East of Marin Boulevard, 18th Street widens to approximately 85 feet and features three travel lanes in either direction along with a landscaped center median (Google Earth). 18th Street curves southward at Newport Green Park and becomes Washington Boulevard, a major thoroughfare along Jersey City's commercial core around the Exchange Place PATH station.

16th Street is a local residential street that runs along the southern edge of the Site. Loading zones for commercial vehicles accessing the Lackawanna Center face 16th Street.



16th Street between Jersey Avenue and Grove Street, facing Lackawanna warehouse. Image Source: John Namako



The Study Area sits in close proximity to the Holland Tunnel, which provides access to downtown Manhattan and destinations north and east. Destinations further west of the Study Area, such as Newark Airport and the New Jersey Turnpike, are accessible via Lincoln Highway (14th Street), which splits into Routes 1 and 9 - Pulaski Skyway and Route I-78 - New Jersey Turnpike Extension at Jersey Avenue.

Cycling Initiatives

Conditions for cyclists in Jersey City around the Lackawanna Site are poor. A lack of cycling facilities and heavy automobile traffic renders cycling prohibitive for all but the most intrepid users, especially on busy streets such as Jersey Avenue. Poor lighting and changing roadway alignments at railroad underpasses on Jersey Avenue, Grove Street and Marin Boulevard, heavy congestion, motorist speeding, and unclear lane markings all contribute to an unsafe environment for cyclists who wish to connect with Hoboken to the north and Hamilton Park and downtown Jersey City to the south (Jersey City / Hoboken Connectivity Study).

Jersey City released a report by its Bike Infrastructure Working Group in September 2012 that includes a map of proposed bicycle facilities for Jersey City. Two streets in the Study Area are slated for bicycle improvements. The report proposes "sharrows" (markings on the street indicating a lane to be shared by motorists and cyclists) on Grove Street from 14th Street in the south to Newark Avenue in Hoboken to the north. The report also suggests a bicycle lane on Erie Street, a one-way northbound street that terminates at 16th Street on the southern edge of the Lackawanna Site. Plans for cycling infrastructure on Grove Street and Erie Street are both classified as "Priority One," meaning they will be among the first streets in line to receive bicycle lane infrastructure once implementation of the bicycle plan begins (Jersey City Bike Infrastructure Working Group Report). Jersey City submitted a request for New Jersey DOT funding of approximately \$1 million in early 2013 to fund the bicycle plan (Bob Cotter, February 6, 2013). It is notable that the Bike Infrastructure Working Group report does not include any bicycle facilities on 16th or 18th Streets.

Hoboken's cycling program is one of the most progressive of any city in the nation. The city has begun implementation of its bicycle program and has completed approximately half of its goal to build a network of 24 total miles, the equivalent of 75% of Hoboken's entire street network (Susan Polikwa, Feb. 20, 2013 presentation). A significant component of Hoboken's proposed bicycle network is the construction of a fully buffered Class I bicycle lane# along Observer Highway. In conjunction with other traffic calming measures, Hoboken plans to ease safety concerns for pedestrians and cyclists between Marin Boulevard and Hudson Street by converting Observer Highway to "Observer Boulevard" (City of Hoboken). Funding is already guaranteed through a federal grant of \$1.8 million, although the timing of Hoboken's receipt of the funding and thus the implementation of the plan remains uncertain as of early 2013 (Susan Polikwa, Feb. 20, 2013 meeting).

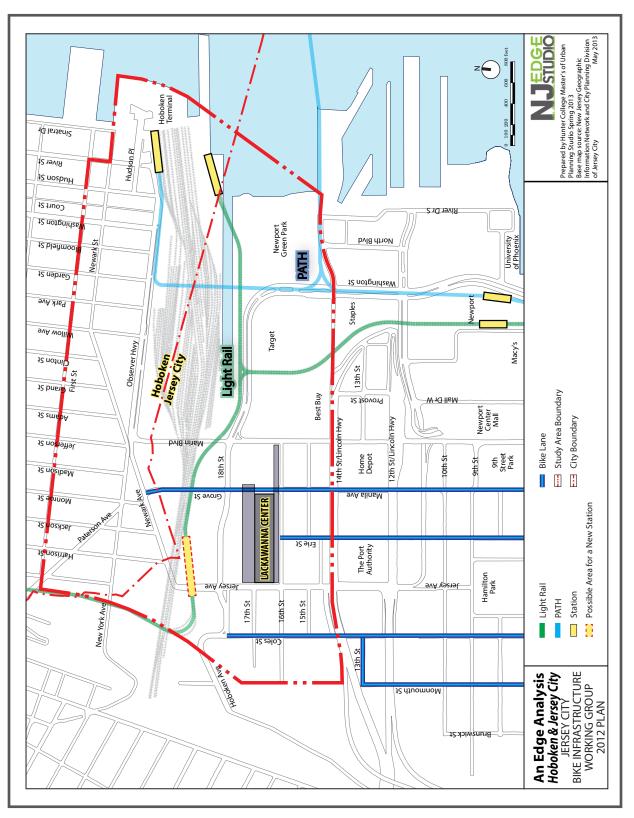
The connection of Observer Boulevard - slated to become Hoboken's "premier bicycle facility," (Susan Polikwa, Feb. 20, 2013 presentation) - to Marin Boulevard is inconsistent with Jersey City's vision of a bicycle facility on Grove Street. These two plans leave a small gap in the proposed cycling network for cyclists travelling from Jersey City into Hoboken. The gap occurs on Newark Avenue between Grove Street and Marin Boulevard, an area of significant traffic congestion in the Study Area.

Hudson County's Transportation Management Association ("Hudson TMA") has begun analysis of a potential bike share program in Hoboken and Jersey City (Susan Polikwa, Feb. 20, 2013 presentation). Such a program may be of particular interest to current and future residents and employees in the Study Area, because a public bike share program that encompasses both cities would improve potential connections within and beyond the Study Area's boundaries into downtown Hoboken, downtown Jersey City, and other attractions in these municipalities such as Liberty State Park and Hoboken's waterfront pathway.

The Pedestrian Environment

The Study Area is characterized by a challenging pedestrian environment due to subpar pedestrian infrastructure and a high volume of vehicular traffic travelling between Jersey City and Hoboken. While most streets in the study area contain sidewalks, many are narrow and filled with signage for motorists that obstruct footpaths (Group site visit, Feb. 2, 2013).





Jersey City Bike Infrastructure Working Group 2012 Plan

Transportation & Infrastructure 1.6



Major intersections along 18th Street at Jersey Avenue, Grove Street, and Marin Boulevard are equipped with pedestrian signals, however crosswalks are often not aligned with curb ramps. Additionally, pedestrians crossing any of these three north-south streets along 18th Street face long wait times as traffic signals are prioritized to move traffic between Hoboken and Jersey City. There are few, if any, street trees on sidewalks in the study area in the immediate vicinity of the Lackawanna Site (Group site visit, Feb. 2, 2013).

Pedestrians travelling between the Lackawanna Site and the Hoboken PATH terminal will see improvements on Observer Highway following its planned conversion into Observer Boulevard with wider sidewalks, landscaping, more visible crosswalks and calmer adjacent vehicular traffic (City of Hoboken).



Grove Street and 18th Street intersection crosswalk does not line up with the curb ramp. Image Soure: Ben Rosenblatt



Commuting Patterns

Residents of Jersey City and Hoboken are more heavily reliant on public transportation for their commuting needs than a vast majority of the American workforce. In 2011, of Jersey City workers aged 16 and over who did not work at home, 32.0% drove alone to work while 50.9% used public transportation. For the United States as a whole, automobile dependence is far higher, with 79.9% of workers driving alone and a mere 5.3% of the working age population using public transportation in 2011 (2011 US Census American Community Survey).

These differences are primarily explained by the relative richness of Jersey City and Hoboken's public transportation networks in comparison with other United States municipalities. Differences in commuting patterns are also reflected in the rates of car ownership. In 2011, 31.1% of working residents in Jersey City reported having no vehicles available for use in their households, and only 17.8% reported access to two or more vehicles. In the United States, these figures were 4.5% and 42.3%, respectively (2011 US Census American Community Survey).

It is notable that certain industries in Jersey City are more likely to have workers who drive to work while others see relatively higher shares of workers commute by public transportation. Manufacturing and wholesale jobs tend to attract single occupancy vehicle drivers; these industries employ 9.2% of Jersey City's working age population but consist of 12.5% of its solo drivers. Finance, insurance, real estate and other professional service employees lean towards public transportation, with this group consisting of 31.7% of workers but 41.6% of public transit commuters in Jersey City (2011 US Census American Community Survey).

Commuting patterns in Hoboken are similar to Jersey City, and in fact Hoboken's public transit mode share for commuters of 56% was the highest of any city in the United States in 2011, including New York City (Vardi).

Infrastructure

Public Service Electric and Gas Company (PSE&G) serves nearly three quarters of New Jersey's population, including New Jersey's six largest cities. The largest provider of gas and electric services for residential and business customers in the Study Area, PSE&G provides services for 1.8 million gas



customers and 2.2 million electric customers in New Jersey (Public Service Electric and Gas Company, PSE&G). Through New Jersey Choice, an initiative from the state of New Jersey, PSE&G allows its customers to choose a third party energy supplier. Regardless, PSE&G is responsible and continues to maintain the existing network of pipes, poles and wires serving its consumers regardless of the consumers' choice of energy supplier (PSE&G).

The Jersey City Municipal Utilities Authority (JCMUA) is responsible for sewerage and water systems in Jersey City, although the JCMUA contracts its water operations out to United Water of Jersey City (JCMUA). In July 2011, the JCMUA reached a settlement with the United States government as a result of violations of the Clean Water Act, wherein the authority failed "to properly operate and maintain its combined sewer system". JCMUA was forced to pay a \$375,000 civil penalty and invest \$52 million to repair and improve the existing system after releasing raw sewage into Jersey City's waterways (United States Department of Justice).

The Jersey City Incinerator Authority (JCIA) provides sanitation services, including curbside recycling, to the city through a contract with Waste Management, Inc. (JCIA Online).



1.7 Housing



1.7 Housing

Housing Goals

Housing within Jersey City, Hoboken and the Study Area varies greatly by several different criteria. In addition to different residential zoning regulations, other factors influence the built environment and overall "feel" of each city. Such factors include the age of housing structures, architectural styles, residential tenures, unit values, building structure sizes, rent levels and types of ownership status.

The Study Area is largely an industrial and manufacturing area and does not posses a large supply of residential housing stock. However, with the proposed addition of a new light rail station and the rapid development of other parts of Jersey City and Hoboken, there is an increasing interest in luxury housing development in the area.

Some of Jersey City's goals in regards to housing are (Jersey City Master Plan):

- Increase transit-oriented developments;
- Preserve / stabilize existing neighborhoods;
- Increase residential developments of all kinds while achieving a diversity of housing types (low to middle income, elderly, assisted living, special needs, and market rate);
- Expand the city's homeownership rates through special financing programs;
- Provide or assist in the finding of financing programs for rehabilitation;
- Discourage gated communities;
- Appropriately place student housing;
- Remove lead paint in older housing stock;
- Revitalize public housing; and,
- Demolish blighted buildings.



Hoboken's housing goals are as follows (Housing A Home For Everyone):

- ♦ Increase the numbers of affordable housing as per the NJ Fair Housing act:
- Protect existing affordable housing;
- Diversify the types of housing;
- Provide incentives for affordable housing developers;
- Rehabilitate downtrodden housing units;
- Update and enforce existing affordable housing and rent control regulations;
- Encourage home ownership;
- Aid in the construction of quality housing;
- Provide special purpose housing;
- Promote an active Affordable Housing Corporation (AHC); and,
- Increase dialogue between multiple city agencies, state agencies, banks, and developers.

Housing Statistics

Housing Basics

According to the 2010 Census, Jersey City has a total of 108,720 dwelling units and a vacancy rate of 10.9 percent. Hoboken has just less than 25 percent of that total, with 26,855 dwelling units and a vacancy rate of 6.8 percent (2010 Census).

Newly Arrived Residents

Jersey City has many new residents; 50.9 percent of its currently occupied housing stock house residents that moved in after 2005. Hoboken's share of recent arrivals is even higher, 66 percent of residents moved in after 2005 (2007-2011 American Community Survey). This area of Hudson County has a slightly higher housing turnover rate than the rest of the county and state, due to the transient nature of its population (Jersey City Master Plan).



Dwelling Unit Ownership/Rental Rates

According to the 2000 Census, owner occupancy rates in Hoboken was 23.1 percent and Jersey City however had a higher occupancy rate of 28.2 percent. The 2010 Census revealed that both Hoboken and Jersey City have seen a rise in owner occupancy rates. Jersey City's 32.8 percent ownership rate is slightly higher than Hoboken's 31.8 percent rate. Both cities are below the MSA home ownership average of 52.6 percent in 2011 and 53 percent in 2000. The Study Area had an ownership rate of 23.31 percent in 2011, 20.16 percent in 2000 and 23.8 percent in 1990. There are drastic differences in ownership/rental rates within the Study Area as the the Jersey City Cenus tracts have had increasing rental rates since 1990; Hoboken has seen an increase in condos over the same period. Since 1990, the Census tracts in Jersey City have seen a decrease of ownership rate of 20.59 percent in 1990, 14.62 percent in 2000 and 12.12 percent in 2011. However, in the same time frame the Hoboken Census Tracts have seen its ownership levels grow. Tract 192 went from an ownership rate of 37.07 percent to 36.5 percent in 2000 to 53.5 percent in 2011. Tract 193 went from an ownership rate of 24.82 percent in 1990 to 28.9 percent in 2000 to 26.2 percent in 2011.

Units in Structure

20 Plus Units

Buildings of 20 or more units represent the largest share of building type in Hoboken and Jersey City. This building type accounts for 43.6 percent of all units in Hoboken, while Jersey City's comparative statistic is 29.3 percent (2007-2011 American Community Survey). As of 2011, the Jersey City Census tracts had 98.85 percent of their dwelling units in buildings that contain 20 or more units. In 2011, the Hoboken Census tracts had 49.44 percent of their dwelling units in buildings that contain 20 or more units. In 1990, the Jersey City Census tracts were at 72.4 percent and the Hoboken Census tracts were at 34.53 percent. The Study Area contains several large lots capable of holding well over 20 units (Group Site Visit, Feb 2, 2013).

5 to 9 Units

In Hoboken, 20.7 percent of all dwelling units are located in 5 to 9 family structures. In comparison, 10 percent of all dwelling units are located in 5 to 9 family structures. (2007-2011 American Community Survey). Within the Study Area, the Census tracts In Jersey City were 2.31 percent of their



dwelling units in 5 to 9 family structures. The vast majority of these structures were within tract 78. The Hoboken tracts had 11.82 percent of their dwelling units in 5 to 9 family structures. In 2000, Jersey City had 10 percent of their dwelling units in 5 to 9 family structures while Hoboken had 20.7 percent. In 1990, the Study Area had 5.13 percent of this type of housing in the Jersey City Census tracts and 65.86 percent in the Hoboken Cenus tracts. This category of housing is growing but not at the pace of buildings with 20 or more units.

Single Family and Duplexes

Jersey City has a significant amount of single-family and duplex structures compared to Hoboken. In 2011, Jersey City's single-family structures comprised 15.9 percent of the housing stock and duplexes accounted for 23.9 percent of all dwelling units. Single-family homes in Hoboken comprised only 6.1 percent of all dwelling units, while duplexes accounted for 4.6 percent. In our Study Area, single family and duplex structures are virtually non-existent. According to the American Community Survey, the Jersey City Census tracts had in 2011 less than 1 percent in both single family and duplex structures. Hoboken was in the 1 percent range for both single family and duplex structures. In 1990, the number of single family and duplex housing was at 9.46 percent for the Jersey City Census tracts and at 7.29 percent for the Hoboken Census tracts. In 2000, 41.2 percent of all housing in Jersey City was either single family or duplex housing. Housing in Hoboken was 10.6 percent for the same category.

Household Size, Bedrooms, and Occupants per Room

Hoboken proportionally has more one and two bedroom dwelling units than Jersey City. Hoboken also has a smaller average household size for both renters and owners. One and two bedroom units in the study area were over 70 percent, Jersey City 64,2 percent and Hoboken 80 percent. Household size in Jersey City is 2.85 for owned units and 2.42 for rented units, compared to 2.05 for owned units and 1.98 for rentals in Hoboken. Household size for all units in Jersey City is 2.56 and 2 in Hoboken. The number of people per room is higher in Jersey City than in Hoboken; 6.4 percent of occupied dwelling units have more than 1 person per room in Jersey City compared to only 2.2 percent of occupied housing units in Hoboken (2007-2011 American Community Survey).



Household by Type

In 2011, Jersey City was comprised of 94,599 households, 23,555 in Hoboken and 8,526 in the Study Area. 60.2 percent of the households in Jersey City were family households while the remaining 39.8 percent were non-family households. In comparison, 39.8 percent of all households in Hoboken were family households and the remaining 60.1 percent were in non-family households. In the Study Area, 40.7 percent of the households were family households.

30.5 percent of Jersey City households were single occupants compared to 40.7 percent in Hoboken. Single occupants comprised of 37.52 percent of all households in the Study Area. Households with one or more people over the age of 65, comprised of 17.7 percent of all households in Jersey City and 10.9 percent in Hoboken. The MSA has a higher percentage of these older households with a rate of 25.8 percent. The Study Area had only 8.82 percent of these older households.

Households with one or more people under the age of 18 comprised 31.6 percent of the households in Jersey City and 17.8 percent in Hoboken. These younger households were more common in the rest of the MSA, comprising 34.3 percent of all households. The Study Area had 17.64 percent of these younger households in 2011. Our Study Area more closely reflects Hoboken households than Jersey City households. (American Community Survey 2007 to 2011).

Housing History

Both Jersey City and Hoboken have a significant amount of pre-World War II housing stock. 41 percent of Jersey City's and 45.3 percent of Hoboken's housing was built prior to 1940. The two cities experienced significant housing construction during the 1950's. During the 1960's to the end of the 1980's new construction was steady, but accounting for demolitions, actual housing supply decreased. Jersey City in the 1970's experienced a 4 percent loss of dwelling units (Jersey City Master Plan).

The 1990's experienced modest gains in residential construction for both cities, yet it was not until the past decade that Jersey City and Hoboken experienced a new housing boom. In Jersey City, between 2000 and 2004, there were almost as many newly constructed dwelling units as were built in the preceding decade,



7,050 in the early 2000's vs. 7,765 in the entire 1990's. In Hoboken, the boom was even more significant, with the number of newly constructed units from 2000 to 2004 exceeding the amount in the previous two decades The 2008 financial crisis slowed down new construction, but the two cities nonetheless posted numbers in the latter half of the 2000's that were roughly equal to any decade between the 1960's and the 1980's (2007-2011 American Community Survey).

Housing Values, Costs and Expenses

In Hoboken, 44.1 percent of all owner occupied units are valued in the \$500,000 to \$1,000,000 range. In Jersey City only 19.6 percent of owner occupied units are in this value range. Jersey City has a sizable stock of owner occupied units in the \$200,000 to \$299,999 range, at 21.7 percent of the total units. In Hoboken only 5.1 percent of housing stock is in the \$200,000 to \$299,999 range. Hoboken has a comparatively large share of expensive housing while Jersey City's share of inexpensive housing is high. Hoboken only has 1 percent of owner occupied housing valued under \$200,000, but has 15.1 percent of units valued at \$1,000,000 or more. Jersey City, on the other hand, has 2 percent of owner occupied housing valued over \$1,000,000, but has 13.4 percent of its units valued under \$200,000 (2007-2011 American Community Survey).

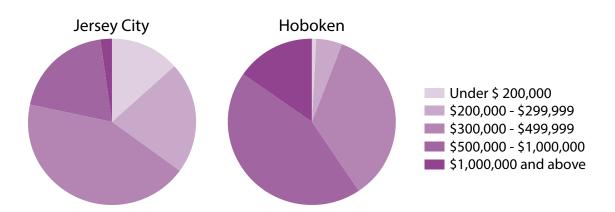
Jersey City homeowners with mortgages have lower monthly expenses than their Hoboken neighbors. In Hoboken 89.3 percent of owners pay expenses at or above \$2,000 per month compared to 74.6 percent in Jersey City. Owner's median expenses are \$3,222 in Hoboken and \$2,683 in Jersey City. Rents in Jersey City are also lower than in Hoboken. In Jersey City, 52.1 percent of renters pay between \$750 and \$1,499 and the median rent charged is \$1,127. In Hoboken, 59.9 percent of renters pay \$1,500 or above and the median rent charged is \$1,714 (2007-2011 American Community Survey).

While average Jersey City residents may have lower monthly rent payments when compared to their counterparts in Hoboken, they also have a higher chance of being rent burdened. A rent burdened household is one where more than 30 percent of income is spent on rent (nccp.org). In Jersey City, 46 percent of households are rent burdened; in Hoboken this figure is only 31.9 percent (2007-2011 American Community Survey).



Housing Values, Costs, Rents, and Expenses – Year 2000

In 2000, Jersey City had most of its owner occupied housing valued at or under \$149,999. This made up 70.7 percent of all these dwelling units. An additional 20.3 percent of the dwelling units were valued between \$150,000 to \$199,999. Hoboken was still more expensive as 70.2 percent of their owner occupied housing was valued between \$300,000 and \$999,999. Only 3.7 percent of the Hoboken owner occupied housing stock was valued under \$149,999, plus another 13 percent were valued between \$150,000 and \$199,999. Median value in Jersey City was \$125,000 in 2000, while in neighboring Hoboken this was at \$428,900. The MSA median value in 2000 was at \$203,100. Median owner expenses for owners with a mortgage was at \$1,475 in Jersey City, \$2,622 in Hoboken and \$1,679 in the MSA.



Housing In and Around the Study Area

Downtown Housing and Historic Areas

Much of Jersey City's brownstone stock is featured in downtown neighborhoods such as Hamilton Park, Van Vorst Park, and Paulus Hook. These neighborhoods have over 17,000 dwelling units. The downtown area also has many of Jersey City's historic buildings and districts. One of the downtown area's latest developments is the Liberty Harbor North development, with 650 units (Jersey City Economic Development Corporation).

Waterfront Development

The development that initiated the revitalization of the waterfront in the 1980's was the Newport community, with 3,900 residential units. Newport also has commercial and retail uses. Today, most of the waterfront housing



consists of mid-to-high rise developments. The waterfront now has over 20 luxury buildings (Jersey City Economic Development Corporation).

Public Housing

Jersey City has 3,753 units of public housing on 15 different sites. The largest is the A. Harry Moore complex with 664 units. This complex, along with two other sites, comprise 48 percent of the total public housing stock. The demand for these dwelling units is very strong. The waiting list contains over 8,000 people, with an actual wait time ranging from 2 to 10 years (Jersey City Master Plan).

Section 8 housing has roughly the same number of people waiting for vouchers, with a wait time of 7 to 11 years. However, the Section 8 program only has 2,037 households receiving vouchers. 37 percent of these Section 8 vouchers go to elderly households (Jersey City Master Plan). Jersey City has plans to expand the availability of affordable housing for low-to-middle income residents and the elderly through the help of special financing programs that are sponsored by the state of New Jersey and not-for-profit developers (New Jersey Housing and Mortgage Finance Agency).

Directly south of the Lackawanna Site across 16th Street is the Holland Gardens housing project, which extend south to the entrance to the Holland Tunnel. The development is primarily low income. Five buildings containing walk-up apartments have a total of 189 dwelling units (Jersey City Housing Authority).

New Developments

Just west of the Lackawanna Site across Jersey Avenue, the Cast Iron Lofts are a significant new addition to the area. This development, along with Toll Brothers' 700 Grove, are the first luxury developments in northeastern Jersey City. Although technically located in Jersey City, the 700 Grove development is mostly tied into existing Hoboken infrastructure. The Cast Iron Lofts are significant because they are first to be built in the more undeveloped section of Jersey City immediately surrounding the Lackawanna Site (Group Site Visit, Feb. 2 2013).

Mount Laurel Decision

A significant cloud hanging over the area is the fate of the Mount Laurel decision. In the late 1960's, African American residents sued Mount Laurel



Township, New Jersey, over alleged exclusionary zoning practices. In effect, the Court ruled that all communities in New Jersey must plan for not only luxury and middle class development, but also for development to accommodate poor and working class residents. In 1983, the principle was again affirmed. It has proven highly successful in reducing sprawl by suppressing the need for communities to compete for and select the most lucrative developments. It has also improved educational outcomes for students and has been responsible for 60,000 new units of affordable housing in New Jersey. In 2009 Governor Chris Christie campaigned against the doctrine. He proposed collapsing the independent agency Council on Affordable Housing (COAH) into the executive branch and attempted to use its assets to fill the budget gap in New Jersey. The move was judicially suspended and the case will soon be reviewed by the U.S. Supreme Court (New York Times). The result could potentially impact what type of development is pursued in the Study Area.



1.8 Open Space



1.8 Jersey City Open Space

Like many urbanized areas that suffer from lack of space and funding, Jersey City has difficulty meeting prescribed open space standards in the state's Green Acres program. The State of New Jersey Department of Environmental Protection Green Acres program recommends 8 acres of parks and open space per 1,000 population which translates into a minimum of 1,828 acres of parks and open space for Jersey City. (New Jersey DEP Green Acres Program).The City is well below this recommended standard, resulting in a deficit". According to the Jersey City Master Plan, to date, the city has only 1554 acres of park and open space. (The City of Jersey City). Detailed list of Jersey City parks compiled by The Division of City Planning- Jersey City, included in appendix.

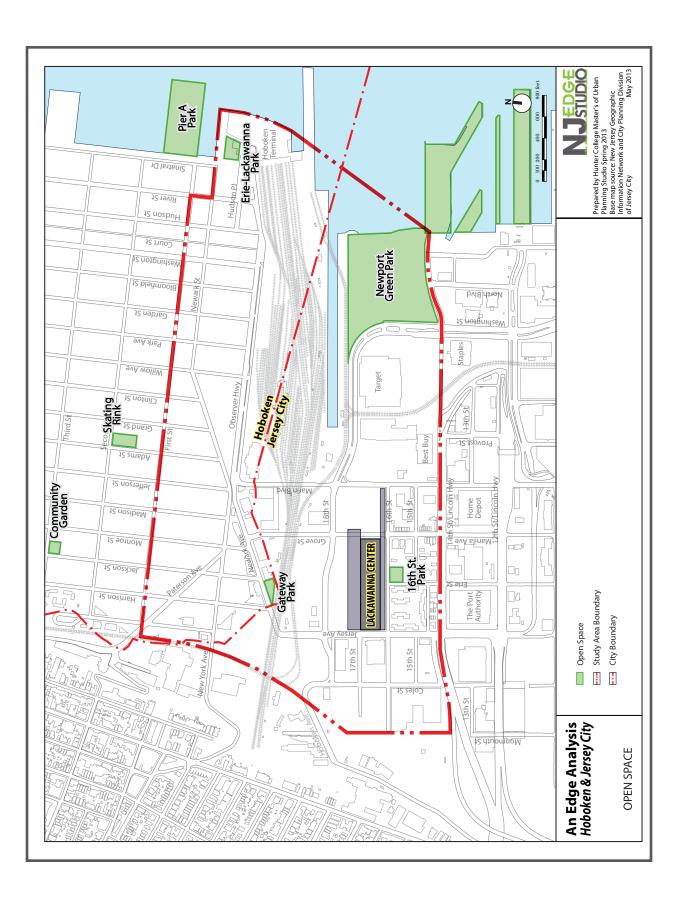
Noteworthy Open Spaces in Jersey City Liberty State Park

Liberty State Park is one of Jersey City's most valuable assets. The park is over 1,200 acres and provides residents many active uses, such as biking, walking, running, sports and fishing. The park also has passive uses such as sightseeing along the Hudson River Walkway, picnic areas on grass and outdoor seating during warm weather months. Liberty State Park is also home to some of the region's most critical wetlands. It provides a year round sanctuary for a wide variety of wildlife, fish, and birds, and during the winter months provides a nesting site for the snowy white owl (New Jersey Department of Environmental Protection).

Jersey City Reservoir #3

Another important open space resource in Jersey City is Jersey City Reservoir # 3. The reservoir was constructed in 1871 to provide potable water to Jersey City. The site encompasses 13 acres of vital wetland. Ultimately the reservoir was abandoned and fell into neglect, becoming a dumping ground for construction material. In 2001, the Jersey City Landmarks Conservancy declared the reservoir a "landmark at risk." This designation initiated a campaign to preserve and remediate the once neglected site. In 2007, Mayor Jerramiah Healy announced that the reservoir would be preserved as passive open space. The Conservancy now works with an alliance





NJ<u>EDGE</u> STUDIO of interested parties and government officials to promote the space and ensure its preservation and care (Jersey City Landmarks Conservancy).

Hoboken Open Space

As noted above regarding Jersey City, the city of Hoboken also strives to be in compliance with the state of New Jersey's Green Acres Program. Funding and available space are also challenges for Hoboken. Hoboken has embarked on an aggressive open and green space plan to increase the quantity and quality of open spaces within the city. Much like Jersey City, Hoboken's open space ratio per 1,000 residents is well below the New Jersey state and even neighboring New York City's standards (The City of Hoboken New Jersey, Master Plan, Open Space).

The Hoboken Master Plan details the primary objectives of the open space. The plan lists the objectives as follows:

- Green Connections: reclaim the waterfront and gritty properties to create a circuit of parks and recreational amenities that will attract users from throughout the City.
- Green Plazas: create (and enhance existing) multiuse, multi-generational plazas and playgrounds serving population within a short walking distance.
- Green Design: make lots, roofs, and streets more environmentally friendly (Hoboken Master Plan Open Space, Recreation, and Conservation: Greening the City).

Currently Hoboken has approximately 30 acres of public open and over 10 areas of planned new open space. See figure below:

Noteworthy Open Spaces in Hoboken

1600 Park and Hoboken Cove Parks

This proposed park is planned on land deeded to the city by Toll Brothers and city owned land. In 2010, the city completed environmental remediation on the site using grants funded by the state of New Jersey. Design efforts for the project were a collaboration between Hoboken, the local community and many other stakeholders (The City of Hoboken, 1600 Park and Hoboken Cove Parks.)



Sinatra Field

Sinatra Field is an existing open recreational space in the process of undergoing a redevelopment. The waterfront park will be upgraded and repaired with funding provided through the state of New Jersey's Department of Environmental Protection Green Acres Program. As previously noted, the program fosters the preservation and growth of New Jersey's open and green spaces (The City of Hoboken, Sinatra Place).

Open Spaces in the Study Area

Within the Study Area, there are sizable portions of underutilized and undeveloped open space. Newport Green is the only formally developed green/open space within the Study Area.

Adjacent to the project site, Emmes owns a lot measuring approximately three acres. This lot is currently vacant. In addition, on the ten acre lot occupied by the Lackawanna Center, 3.1 acres of land is currently being used for parking. A portion of this space can potentially be redeveloped for other uses. Surrounding the property, there are under utilized pieces of land currently owned and/or occupied by New Jersey Transit (NJT), Hoboken Motorcycle Club, Jersey City and various private developers.





1.9 Environment & Natural Resources



1.9 Environment & Natural Resources

Pipeline

The major New York and New Jersey Pipeline expansion is spearheaded by Spectra Energy ("Spectra"), a natural gas infrastructure company. Spectra Energy constructs and maintains natural gas pipelines throughout the U.S. (Yes Gas Pipeline NJ NY).

For the project, Spectra is responsible for maintaining, replacing and building approximately 20 miles of gas pipeline in New York, New Jersey and Connecticut. According to the Environmental Impact Statement (EIS), prepared by the Federal Energy Regulatory Commission ("FERC"), energy suppliers Texas Eastern and Algonquin plan on expanding and updating their existing natural gas lines. Along with below grade work on the pipeline, the project encompasses building temporary and permanent above grade sites to facilitate construction and dispense gas. It also includes the construction of permanent and temporary roads in surrounding areas. The EIS states that the primary impacts of the project may include:

- Increased traffic in construction areas;
- Potential Soil contamination in the project area;
- Potential groundwater contamination;
- Temporary impacts on existing wetland resources;
- > Potential emissions from fossil fuel construction equipment; and
- Construction related noise impacts.

- (Federal Energy Regulatory Commission)

The EIS notes that Spectra intends to take all possible measures in accordance with federal environmental guidelines to avoid and, if necessary, to mitigate all potential impacts.

The proposed pipeline enters Jersey City at an approximate 17-mile point along its 20-mile route and traverses underneath 18th Street, just north of



the Lackawanna Center. It is located within close proximity to the Jersey Avenue Light Rail Redevelopment area (NJ.com). At this stage it is unclear how the pipeline will impact future development in the Study Area and/or affect neighborhood character and transportation. According to the EIS, the anticipated impacts would largely take place during the construction.

As noted in the EIS, Jersey City challenged the project based on the fact that it is in direct conflict with the city's existing ordinance, recently enacted in 2010, prohibiting the construction of new gas pipelines within "redevelopment areas." The EIS addresses this opposition directly by noting that the effects of the pipeline on the redevelopment area would be minimal and mitigation of any real or potential risks is achievable. To date, Jersey City's opposition has not had any significant effects on the development of the pipeline (Federal Energy Regulatory Commission).

Flooding

With minimal topographic variation and close proximity to the Hudson River, the Study Area is particularly vulnerable to coastal storm surge flooding. According to the US Geological Survey's ("USGS") National Elevation Dataset, the majority of the Study Area is at, or just a few feet above, sea level, with few isolated locations rising above ten feet in elevation (US Geological Survey). The unfortunate characteristic of low elevation, waterfront proximity, and the projected increase in storm frequency and intensity is a predisposition to widespread flooding. Witnessed recently during Hurricane Sandy, the combination of weather-related events, the geographic characteristics of New York harbor, and the tidally influenced Hudson River, can result in multi-billion dollars in damages as well as potential loss of life. As an area anticipated for future development, planners and developers are presented with increasingly restrictive regulatory oversight, as policy makers focus on reducing flood-imposed damages while protecting infrastructure and investments (Carter).

Advisory Base Flood Elevation Map Changes

Historically categorized as a flood zone by the Federal Emergency Management Agency ("FEMA") and the National Flood Insurance Program ("NFIP"), the flooding caused by Hurricane Sandy required a reevaluation of the flood boundaries. The current Flood Insurance Rate Maps ("FIRMs"), which existed prior to Hurricane Sandy, inaccurately document areas vulnerable to flooding (FEMA, B). In response to the widespread flooding throughout the Northeast, FEMA released the Advisory Base Flood Elevation ("ABFE") maps in January 2013. According to FEMA, these maps were created to document the flood risks for communities affected by Sandy, and are more accurate than the previous FIRMs (FEMA, B). Following the



redesignation of flood areas there will be more stringent building standards that will result in "80 percent less damage than structures not built to these standards," according to FEMA (Department of Homeland Security).

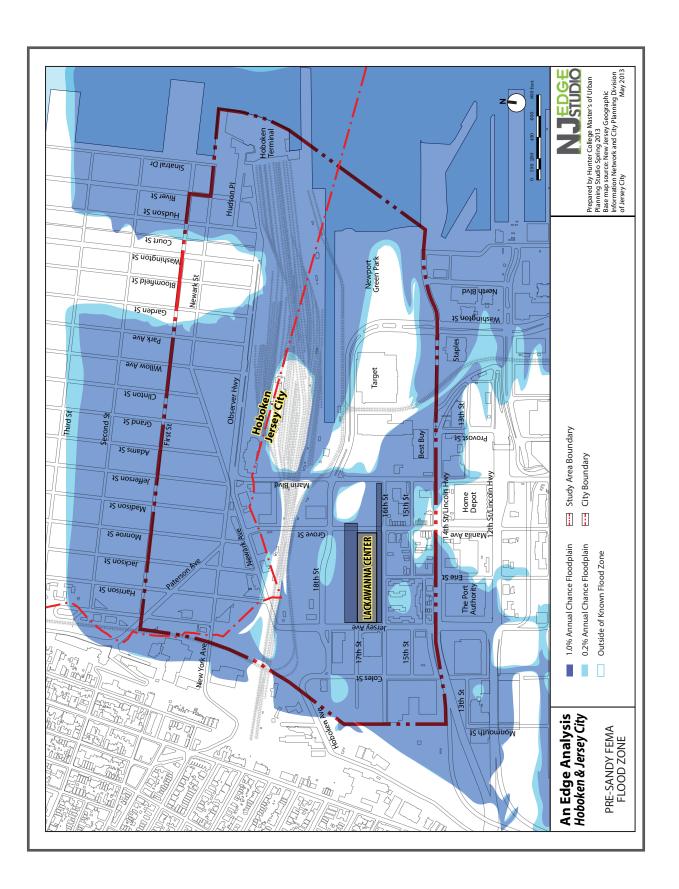
Flood Zone Categories

According to FEMA's ABFE Maps, the Study Area is located within one of three flood categories: Advisory Flood Hazard Zone V, Area of Moderate Wave Action, and Advisory Flood Coastal Zone A. The zone responsible for the greatest potential damage is Advisory Flood Hazard Zone V, characterized with "high velocity wave action greater than three feet" (FEMA, C). Within the Study Area, the location exhibiting the greatest vulnerability to the effects of most flooding - Zone V - includes the area directly adjacent to the waterfront, including the Hoboken Terminal. The majority of the Study Area, including the Lackawanna Center, is now categorized as within the Area of Moderate Wave Action, with flood wave height between one and a half and three feet above the floodwater (FEMA, C). Remaining sections of the Study Area are characterized with having little threat of wave action, but are still considered "high risk" flood areas, or Advisory Flood Coastal Zone A (FEMA, C). The major impacts resulting from the expansion and recategorization of FEMA's flood zones will be visible in NFIP availability and mandates, as well as local building development and construction. According to FEMA, the construction of residences within these areas should comply with their Coastal Construction Manuals (FEMA, A).

Stormwater Management

Minimizing local flooding incidents resulting from rainfall is accomplished through stormwater management. The Study Area is located in a multijurisdictional watershed area that includes USGS Hydrologic Unit Code ("HUC") 02030101170, the Hudson River Watershed, and the New Jersey Department of Environmental Protection's ("NJ DEP") Watershed Management Area 5, for the Hackensack, Hudson, and Pascack watershed (City of Jersey City). Complying with regulatory mandates, both municipalities within the Study Area have Stormwater Management Plans that address best practices for stormwater management. As an area of potential new development or redevelopment, the Jersey City Municipal Utilities Authority ("JCMUA") requires the submission and approval of a Stormwater Control Plan or Stormwater Mitigation Plan (Jersey City Municipal Utilities Authority). Additionally, these





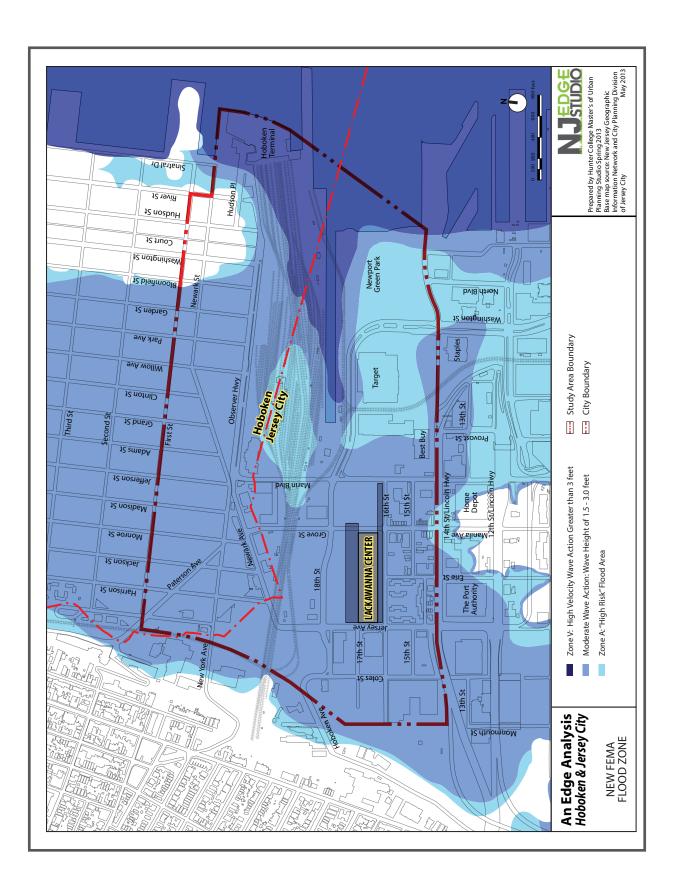


requirements are set forth by the New Jersey State Stormwater Management rules, New Jersey Administrative Code 7:8 (New Jersey Department of Environmental Protection, B). Minimal information was available describing the current infrastructure and stormwater capacities within the Study Area.

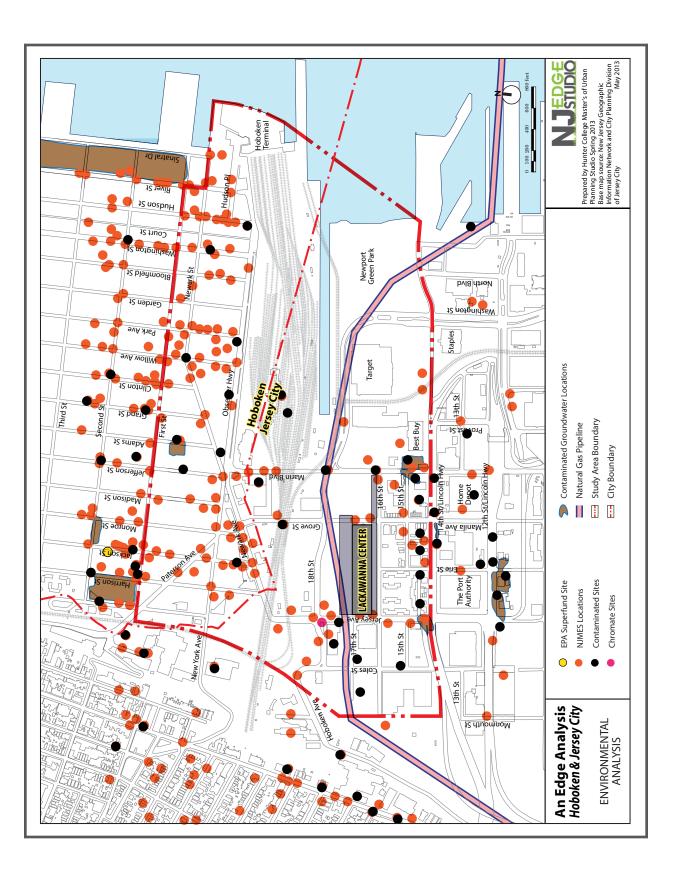
Hazardous Waste Sites & Brownfields

The Study Area contains pollution, contamination and chemical remnants due to the area's industrial past. There are multiple sites in the Study Area that could qualify as brownfield and require federal oversight from the Environmental Protection Agency ("EPA") under parameters set by the Resource Conservation and Recovery Act ("RCRA"), Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"), and the Superfund Amendment and Reauthorization Act ("SARA") (Environmental Protection Agency). However, the majority of the EPA sites are documented as having oversight by the NJ Department of Environmental Protection (New Jersey Department of Environmental Protection, A). Divided into three sections, the DEP sites include "Known Contaminated Sites", "Chromate Sites", and "NJ Environmental Management System" ("NJEMS"). Admittedly, the DEP professes that not all potentially hazardous locations are known or have been identified (New Jersey Department of Environmental Protection, A). For the documented locations, the "Known Contaminated Sites" are defined as "sites and properties...where contamination of soil or groundwater has been identified or where there has been, or there is suspected to have been, a discharge of contamination" (New Jersey Department of Environmental Protection, A). The "Chromate Sites" are areas where chromate has been confirmed as a soil or groundwater contaminant and is limited to one documented location within the area. Throughout the Study Area numerous NJMES locations are reported, which, according to the DEP, include a multitude of locations that are of interest to, or are regulated by, the DEP (New Jersey Department of Environmental Protection, A). No further information was available providing the specifications of the reported locations.











1.10 Community Facilities & Services



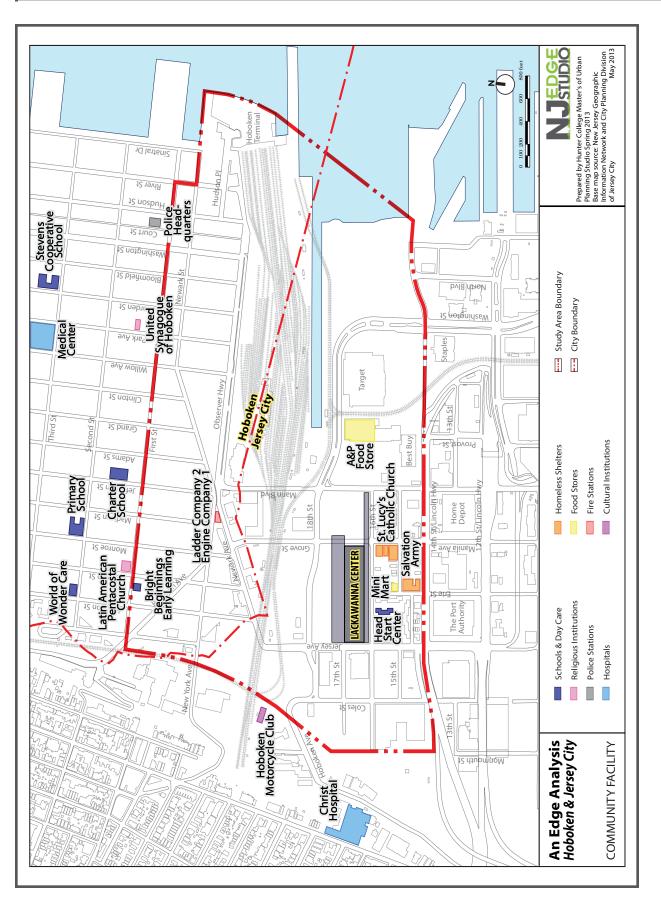
1.10 Community Facilities & Services

Schools

Jersey City has 31 schools for children from kindergarten through eighth grade and six high schools (City of Jersey City). The closest Jersey City elementary school to the Study Area is the Rafael De J. Cordero (PS 37) elementary school at 158 Erie Street, half a mile south of the Lackawanna Center beyond the southern border of the Study Area. The closest public high school in Jersey City is McNair Academic High School at 123 Coles Street, less than one mile south of the Lackawanna Center (Jersey City Public Schools). Jersey City has dozens of private schools, none of which are in the Study Area. The closest private school is Hamilton Park Montessori School, located half a mile south of the Lackawanna Center at 1 McWilliams Place, serving pre kindergarten through third grade. The closest private high school is St. Anthony High School at 175 Eighth Street, half a mile south of the Lackawanna Center (Saint Anthony High School). The closet day care center to the Study Area is the Holland Gardens Head Start located in the Holland Gardens housing project at 241 16th Street, immediately across the street on the south side of the Lackawanna Center (ChildcareCenter.us).

Hoboken has five public schools, including one primary school, three elementary schools (grades K - 8) and one high school. There are no Hoboken public schools that lie within the Study Area; the closest Hoboken public school to the Study Area is the Thomas G. Connors Primary School on Monroe Street and Second Street, half a mile north of the Lackawanna Center (Hoboken Board of Education). There are also three public charter schools in Hoboken. The closest charter school to the Study Area is Hola Hoboken Dual Language Charter School at 123 Jefferson Street, half a mile north of the Lackawanna Center (Hoboken Family Alliance). Hoboken has five private elementary schools, two private middle schools, and one private high school. None of these schools lie within the Study Area; the closest private school to the Study Area is Stevens Cooperative School, located approximately one mile northeast of the Lackawanna Center at 301 Garden Street, serving pre-kindergarten through eighth grade (Stevens Cooperative School). There are two daycare centers located in the Study Area in Hoboken. The first is the Bright Beginnings Early Learning Center located half a mile north of the Lackawanna Center at 659 First Street (Adventures in Learning)







and the second is the World of Wonder Day Care located just over a half mile north of the Lackawanna Center at 201 Harrison Street in Hoboken (Care.com).

Hospitals

Christ Hospital, located at 176 Palisade Avenue in Jersey City, is the closest medical facility to the Study Area. Christ Hospital has 381 beds and over 500 physicians. The hospital is located approximately one mile west of the Lackawanna Center, on top of the hill in the Palisades. The hospital offers extensive cardiology and maternity services, and specializes in neurological and spinal surgery. Inpatient units include pediatrics, oncology, obstetrics, psychiatric and critical care. Outpatient care includes physical, occupational, and speech therapy, cardiology, radiation, counseling, outpatient surgery, a sleep disorders lab, and emergency medicine (Christ Hospital).

The closest Hoboken hospital to the Study Area is the Hoboken University Medical Center located at 308 Willow Avenue. Hoboken University Medical Center is located approximately one mile north of the Lackawanna Center and offers a variety of services including emergency care, diabetes care, mother and child care, behavioral health, oncology, cardio-pulmonary, pain management, family health, mental health, pediatrics, radiation, women's health, surgery, podiatry, and rehabilitation (Hoboken University Medical Center).

Homeless Services

The Salvation Army ARC is located within the Study Area at 248 Erie Street, Jersey City, less than one quarter mile south of the Lackawanna Center. The center provides an in-resident drug rehabilitation program providing drug counseling, clothes, shelter, food, work therapy, good work and spiritual direction. Guests can stay for six months free of charge. Guests must be willing to participate in the Christian recovery process (Choose Help).

The Hope House is located at 246 2nd Street in Jersey City, approximately one mile south of the Lackawanna Center between Erie Street and Marin Avenue. It provides shelter for women and their children. Seventeen families



live in the facility. Families receive case management, assessment, clothing, food, housing, and education (Catholic Charities: Hope House NJ).

St Lucy's Church at 615 Grove Street lies immediately south of the Lackawanna Site across 16th Street and houses an emergency shelter operated by Catholic Charities. The shelter provides employment services and various treatment services, among other programs (Catholic Charities of the Archdiocese of Newark).

The Hoboken Shelter is located at 300 Bloomfield Street, approximately one mile northeast of the Lackawanna Center in Hoboken. The shelter holds 50 adult residents and provides on-site budget counseling, drug and alcohol counseling, medication counseling, and emergency clothes. Each guest receives three meals a day. There is an additional 7:30 PM meal for drop-in residents from the community (Hoboken Shelter).

Emergency Services

Jersey City has five fire companies located at 17 stations. The fire department has 550 uniformed members and 28 pieces of front line fire equipment. The nearest location to the study area is the Jersey City Fire Department headquarters located at 465 Marin Boulevard, half a mile south of the Lackawanna Center (City of Jersey City). The Jersey City Police Department is split into four districts covering different areas of the city. The four districts are the East District, the North District, the South District, and the West District. The headquarters office is at Journal Square. The closest police station to the Study Area is the East District office located at 207 7th Street approximately half a mile south of the Lackawanna Center (Jersey City Police Department).

Hoboken has three fire stations and a fire department headquarters office. The closest fire stations to the Study Area are the headquarters at 201 Jefferson Street, half a mile north of the Lackawanna Center, and Ladder Company 2 / Engine Company 1 at 43 Madison Street, just over a quarter mile north of the Lackawanna Center (Hoboken Fire Department). The Hoboken Police Department has 150 civil and sworn personnel and its headquarters is located just outside the Study Area at 106 Hudson Street, approximately one mile northeast of the Lackawanna Center (City of Hoboken).



Religious Facilities

St Michael's Church is located on Ninth Street in the Hamilton Park, Jersey City, neighborhood one half mile south of the Lackawanna Center. The church has an ethnically diverse population, as it offers mass and other services in English and Vietnamese (Parish of the Resurrection).

St Joseph's and Our Lady of Grace is located approximately one mile north of the Lackawanna Center at 400 Willow Avenue, Hoboken. The church congregation offers traditional Sunday service in addition to supplemental religious education for children and recreational events for seniors. St Joseph's Church is a nationally registered landmark (Church of Our Lady Grace and St. Joseph). The United Synagogue of Hoboken at 115 Park Avenue, just over a half mile northeast of the Lackawanna Center, is the only synagogue in Hoboken. The United Synagogue of Hoboken provides religious services throughout the week along with educational workshops. The Synagogue operates an early childhood education program, a preschool offering Jewish and secular curriculums, and a learning center that provides classes for school-aged children (United Synagogue of Hoboken).

Cultural Resources

The Jersey City Museum is the closest museum to the Study Area in Jersey City, located at 350 Montgomery Street approximately one and one half miles south of the Lackawanna Center. This museum presents and collects American art (Jersey City Museum).

The Hoboken Motorcycle Club is located at 50 Hoboken Avenue, one quarter mile west of the Lackawanna Center at the foot of the Palisades. It is a biker club that originated in 1974. It is located on the western side of Study Area, one block north of the Cast Iron Lofts development. The club hosts fundraising parties for the community and participates in charitable activities such as Toys for Tots (Hoboken Motorcycle Club).

Food Access

Jaquez Mini Market, located one block south of the Lackawanna Center at 264 Erie Street, Jersey City, is the closest food outlet to the Lackawanna Site. It is



a small grocery providing deli, beverages, and other convenience-store goods. A&P Food Store, located one quarter mile east of the Lackawanna Center at 125 18th Street, is a more complete grocery store east of Marin Boulevard in the Newport Plaza Shopping Center. It provides the widest range of groceries in the area (Simon.com). Sobsey's Produce, located at 92 Bloomfield Street in Hoboken, north of Newark St and less than a mile from the Lackawanna Center, is a boutique grocery store offering fresh produce, meats, and wine. Morton Williams, located just south of Newport Green Park and less then one mile from the Lackawanna Center at 105 River Drive in Jersey City, provides a high-end supply of groceries, meats, and beverages (Google Plus, B).





1.11 Economic Development



1.11 Economic Development

Employment Sectors

Jersey City Employment Sectors

Throughout its history, Jersey City enjoyed a thriving economic base of manufacturing and wholesale businesses and served as terminus for many successful independent railroads. Deindustrialization has taken its toll on these economic sectors, however, and Jersey City has reoriented its economy toward a more modern, financial services-based economy. Jersey City has seen significant private sector job growth since 1980, specifically in the "financial services cluster" of finance, insurance, and real estate (or "FIRE" industries), countering statewide trends of declining jobs and employment rate (Jersey City Economic Development Corporation).

The FIRE industries are now the city's primary economic engine. This sector's boom in employment has occurred mainly due to the relocation of firms from Manhattan to Jersey City's waterfront, now dubbed "Wall Street West". Also significant in the Jersey City economy is the public sector, which includes education and government jobs (Hudson County Comprehensive Economic Development Strategy).

Hoboken Employment Sectors

Hoboken, like Jersey City, has a natural strategic advantage of being located across the Hudson River from New York City. As a result Hoboken emerged as a rail and shipping transportation center. Its port was the point of departure for American troops during World War I (Hoboken Historical Museum). And much like Jersey City, Hoboken's former primary industries declined as part of broader economic trends, forcing Hoboken to reinvent its economic base. Hoboken has witnessed a rise in financial services, information technology, and other high-skill employment industries due to New Jersey's business-friendly incentives, cheap office space, and proximity to Manhattan. Hoboken has sought to develop its hospitality sector, as the city increasingly becomes a desirable area to visit (Hudson County Comprehensive Economic Development Strategy). For example, the waterfront W Hotel provides luxury accommodation with views of New York City.



97



Economic Development Programs

New Jersey offers many different incentives and programs to promote business and economic development in the state. These programs focus on facilitating business and economic growth in sectors that are important to the statewide economy, which include: retail; arts, culture, and tourism; women and minority owned businesses; technology and life science businesses; manufacturing; financial services; and logistics (warehousing, distribution, and port operations). The New Jersey Economic Development Authority ("NJEDA"), offers programs such as low interest financing, taxable and tax exempt bonds, and tax credit and grant programs (New Jersey Economic Development Authority, A).

NJEDA Financing Initiatives

Qualifying businesses in the state of New Jersey can receive low interest financing through bonds, loan guarantees, loan participations, and variable or fixed rate direct loans from NJEDA. Many of the loans are issued to help New Jersey businesses purchase or renovate buildings or machinery or equipment, to cover operating expenses, to grow businesses in urban municipalities, and to make whole-building energy improvements (New Jersey Economic Development Authority, A).

NJEDA also offers specific loan programs geared towards small businesses. To qualify for these loans, the business must be minority or women-owned and in business for at least one year in the state of New Jersey; non-profits must be in business for at least three years to qualify. Qualifying small businesses can receive loans from the NJEDA of up to \$300,000 to be used for fixed assets and working capital. In addition to financing, the NJEDA will guarantee up to 50% of bank loans for qualifying businesses (New Jersey Economic Development Authority, B).



The NJEDA also issues both taxable and tax-exempt bonds for qualifying businesses. Tax-exempt bonds can be issued to nonprofits to service debt or to fund projects like real estate acquisitions, building construction and renovations, and equipment or machinery purchases (New Jersey Economic Development Authority, C).

NJEDA Tax Credit and Grant Programs

In addition to providing low interest financing and tax-exempt bonds, the NJEDA offers many other economic development products, such as grants and tax credits, designed to promote business and employment growth in the state of New Jersey. These programs include the Edison Innovation Fund, the Clean Energy Solutions Program, the Business Employment Incentive Program ("BEIP"), the Economic Redevelopment and Growth Program ("ERG"), urban redevelopment programs, brownfield remediation programs, Urban Economic Zones, and the Urban Transit Hub Tax Credit Program (New Jersey Economic Development Authority, D).

The Edison Innovation Fund was established to attract, develop, and grow technology and life sciences businesses that provide steady and well paying jobs in New Jersey. Special financing is offered through this fund to companies that qualify under one of the following categories: green growth, angel growth, venture capital growth, innovation, and clean energy manufacturing. Additionally, the fund has helped to establish designated Edison Innovation Zones in Camden, Newark, and New Camden that have state of the art technology facilities. These zones are designed to encourage academic and research institutions to partner with local companies to develop and market new services and products (New Jersey Economic Development Authority, E).

The NJEDA has established a Clean Energy Solutions program to attract green business in New Jersey. Interest free loans and grants are available to commercial, industrial, and institutional businesses that implement green solutions and technology to reduce their carbon footprint. Businesses can apply for interest free loans or grants for qualifying projects, which include whole-building energy improvements, a combined heat and power facility installation or upgrade, purchases of fixed assets needed to go green, and for site improvements, construction, or to purchase equipment for a green manufacturing site (New Jersey Economic Development Authority, F).



The Business Employment Incentive Program ("BEIP"), is offered by the NJEDA to companies expanding or relocating to New Jersey. This program allows companies to secure annual incentive grants of 50% to 80% of the amount of new employees' state income taxes withheld by the company each calendar year. Companies can take advantage of the BEIP program for 10 years and can be awarded a maximum of \$50,000 per employee. In order to qualify for BEIP, businesses must create at least 25 new jobs in New Jersey within two years (or 10 new jobs for biotech and technology companies) and these companies must show that the BEIP grant is important in the decision to move jobs to or expand in New Jersey. Approved businesses receive annual cash grants for every new job created in the state up to certain levels (New Jersey Economic Development Authority, G).

In addition to BEIP, the NJEDA also issues smaller grants to promote employment in New Jersey. The Business Retention and Relocation Assistance Grant ("BRRAG") program provides qualified businesses \$2,250 in an annual tax credit per employee, up to \$10 million. Additionally, the state allows unused tax credits from the BRRAG program to be sold to other New Jersey businesses for up to 80% of their value as a source of private funding (New Jersey Economic Development Authority, H).

Through the Economic Redevelopment and Growth Program the NJEDA issues incentive grants of up to 75% of annual incremental state and/or local tax revenue to qualifying businesses. To qualify businesses must be participating in redevelopment projects in designated redevelopment and grant incentive areas. They must also have a financing gap and it must be shown that the assistance provided through the program will result in a benefit to the municipality as a whole. If the grant is approved for a residential project, 20% of the housing in that project must be built for occupancy by low to middle income residents (New Jersey Economic Development Authority, I).

The NJEDA offers special incentives for businesses that help to redevelop urban areas. The agency can act as a business partner and provide low cost financing, tax-exempt bonds, and grants to developers, municipalities, community groups, and businesses who wish to engage in projects in urban areas. Qualifying projects include demolition, brownfield remediation, streetscapes and signage, landscaping, restoration, and utility and infrastructure development (New Jersey Economic Development Authority, J). Developers who remediate brownfields can recover up to 75% of costs associated with the cleanup. The NJEDA also offers loans and grants to businesses looking to clean sites that are contaminated and underutilized (New Jersey Economic Development Authority, K).

The Urban Transit Hub Tax Credit Program offers tax credits to qualifying developers, owners, and tenants who make capital investments in an Urban Transit Hub. There are nine designated cities, including Jersey City and Hoboken, with Urban Transit Hubs around the state. These hubs are located within one-half mile of New Jersey Transit, PATCO, PATH, or light rail stations. To qualify, businesses must make at least a \$50 million capital investment and have 250 employees working in a designated hub. Qualified participants can receive tax credits of up to 100% of capital investments made in the designated hubs over an eight-year period. Up to 10% of the tax credit can be allocated towards the corporate business tax, gross income tax liability, or the insurance premium tax. This program also allows the tax credits to be sold. Qualifying residential projects in the zones can receive tax credits up to 35% of project costs. Total tax credits under this program are capped at \$1.75 billion (New Jersey Economic Development Authority, L).

UEZs and SIDs

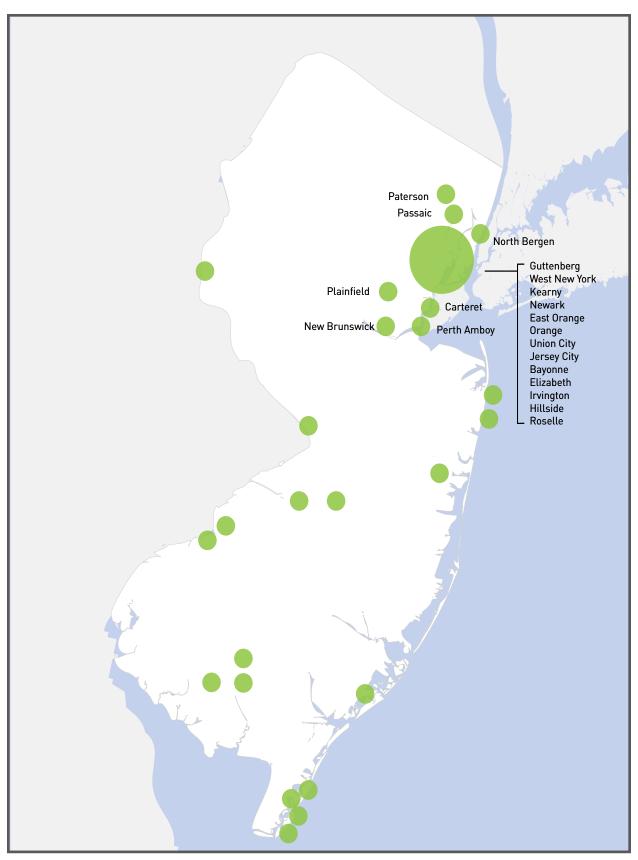
Urban Enterprise Zones ("UEZ's") have been established around the state of New Jersey to promote business growth. Businesses within those zones can qualify for reduced sales tax, tax free purchases, energy sales tax exemption, special financial assistance from the NJEDA, subsidized unemployment insurance, and one of the following tax credits: up to 8% of corporate business tax on investments or a \$1,500 tax credit for each full time employee hired. The Study Area is located in a designated UEZ (NJ Department of Community Affairs).

The state of New Jersey also encourages municipalities to designate their own Special Improvement Districts ("SID's"). Businesses within SID's can organize to form a single entity that works to raise funds and collect special assessments from member businesses. These funds are managed by District Management Corporations and used to help improve and expand municipal services in the SID. The state provides assistance and support to SID's as needed (NJ Department of Community Affairs).

Jersey City began designating SID's in 1992 and currently has four districts in place: the Central Avenue SID, the Historic Downtown SID, the Journal Square







New Jersey Urban Economic Zone Map



Restoration Corporation, and the McGinley Square Partnership SID. The Jersey City Economic Development UEZ program assists the districts in many of their business operations and matches special assessments collected by member businesses to assist with street cleaning, special events, security, and physical improvements in the districts (Jersey City Economic Development Corporation).

Local Existing Businesses

The following businesses are located within the Study Area (Simon.com and Google Plus, B):

- Shops at Newport Plaza
- ♦ A&P Supermarket
- Popeye's Chicken
- Laundry Factory
- Best Buy
- ♦ Pier 1 Imports
- Papa John's Pizza
- Sally Beauty Supply
- TD Bank
- ▶ 14th St Garden Center
- Salvation Army Thrift Store
- Super Buy Rite Liquors
- Exxon Gas Station
- Dunkin Donuts
- Businesses within Lackawanna Site
- Insert Carlos Bakery Logo



Next are the businesses within the Lackawanna Site, listed by type of business. Next to each business is the expiration date of its lease. If information was available via internet search, a brief description of the business is listed. This information on current leases was provided by Emmes in a document titled "Lackawanna Center Stacking Plan, 8/23/12 (Emmes Asset Management Company)."

Printing

RW Graphics

Langendorff ♦ Exp. 7/2016 - (cortera.com). **Textiles** ▶ Exp. 6/2017 - (http://www. langendorffcorp.com/) Baum ADDS Company Exp. 7/2016 - Color Printing (http://www.manta.com) Lucerne Print Facility manufacturing (Reply Inc.) ♦ Exp. 11/2020 - Headquarters Marcus Brothers for www.Printfacility.com NY Sample Card ♦ Exp. 7/2017 - Specialize in printing, swatching and preparing materials for business needs Datex (http://www.nysample.com/).

Medico

♦ Exp. 3/2014 - (Aka Almar Graphics) Printing Company (http:// www.almargraphics.com/).

Log On

Provides direct mailing and marketing of materials (http://www.log-on.org/).

- ♦ Exp. 8/2012 Wholesaler of fabrics and knits. (baumtextile.com/).
- 2 units rented, Exp. 10/2014 Textile
- Exp. 11/2012 Textile converters of fabric. Retail location in midtown Manhattan (marcusbrothers.com/).
- ▶ Exp. 10/2016 (http://www. manta.com/c/mtcsf0c/datex).

Moving, Storage and Rental

IC Hansen

Exp. 7/2015 - Company has been in existence since 1915. They provide rental dance floors, drapes, curtains, photography backdrops and more (Joseph C Hansen).



Rent Quest

Exp. 3/2012 - Provides rental, custom-made furniture, fixtures and props. Marketed toward events. Retail space located in Manhattan. (rentquestnyc.com).

Alpha

 Exp. 3/2015 - Moving and Storage company. (alphamoving.com/)

Big Sam

Exp. 8/2013 - Moving and storage company (http://bigsammovers.com/).

Fishs Eddy

Exp. 9/2012 - Purveyors of glassware, flatware and cooking ware. Retail stores in Manhattan and Staten Island (http://www.fishseddy.com/).

Miscellaneous

Carlos Bakery

Exp. 10/2020 - Famous bakery, another location in Hoboken. (http://www.carlosbakery.com/).

Cobra

Exp. 7/2012 - Fencing club (http:// www.cobrafencing.com/).

Brisk

 Exp. 2/2013 - Waterproofing company (www.businessfinder.nj.com).

HMS Monaco

Exp. 3/2013 - Importers and Manufactures of distinctive custom jewelry and unique novelties (http://www.hmsmonaco.com/).

Bello

Exp. 10/2015 - Manufacturer of stamping die cutters for scrapbooking (Google Plus, A).

London Trends

♦ Exp. 7/2016

Graphic Art

♦ No lease expiration date listed

Apache

♦ Exp. 10/2015

Polleck

♦ Exp. 3/2016

Chelsea

No information

Month – to – Month

Downtown

♦ Exp. 1/2019



2.0 Research & Analysis





2.1 Population



2.1 Population

Statistics

The Lackawanna Site is located in today's Census Tract 78. With a residential population of less than 1,400 people, Census Tract 78 is the smallest statistical area in this analysis. The relatively small census tract is racially diverse with no group representing more than 35 percent of the population (U.S. Census Bureau).

It is noteworthy that Census Tract 78 has nearly 20 percent of its population over the age of 65. This is an especially high proportion of seniors. Within the adjacent census tracts seniors represent between six and ten percent of the population. The only exceptions to this rule are Census Tracts 77 and 192, where seniors represent 2.2 percent and 1.1 percent of the population, respectively. The proportion of young people under 18, meanwhile, exhibits a contradictory pattern. Compared to Hudson County, New Jersey and the NYC MSA at large, the population of persons under 18 in Census Tract 78 is relatively low (U.S Census Bureau). This trend should be examined further to decide whether or not to provide resources specifically catered to this group in the next phase of analysis.

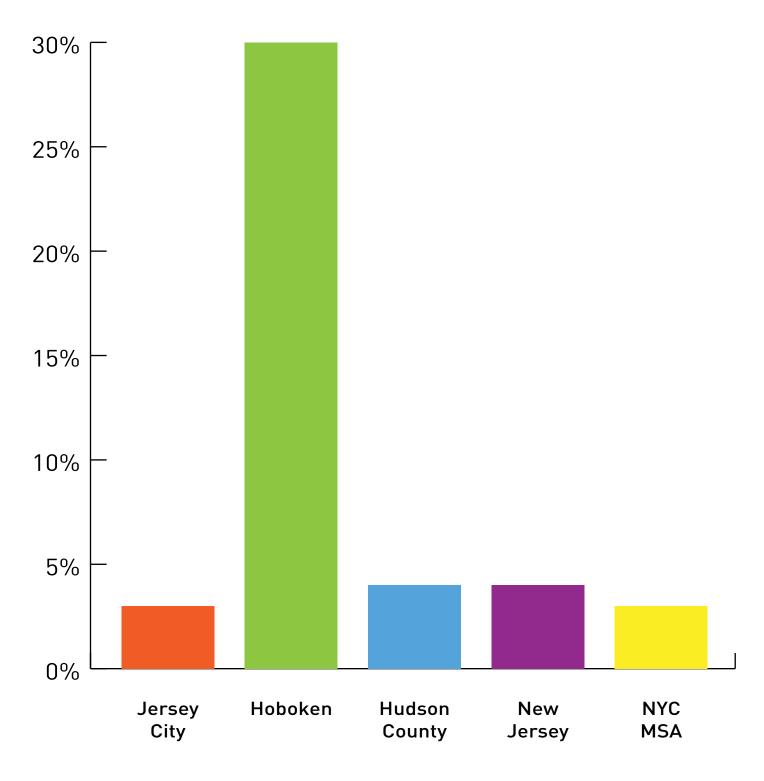
Based on the reported census data, Hoboken is and has been a fairly racially homogenous city for the past 20 years. Hoboken reported a population more than 80 percent white in 2000 and 2010. Hispanics are the second largest group. They represent 15% of Hoboken's current population. It is important to note that Hoboken is the only area under study that has experienced growth in its white population. Most other areas reported growth in their Hispanic populations between 2000 and 2010, while Hoboken reported a slight decline. Hoboken's population on a whole is relatively young, with only about six percent reporting over the age of 65. The city has seen an approximately 30 percent increase in its population between 2000 and 2010. This is an extremely high rate of growth in comparison to surrounding cities and the region as a whole (U.S Census Bureau).

Census Tract 77 is also another racially homogenous area with approximately 70 percent of its population reporting as Asian. In all other respects, the tract is similar to surrounding areas. Census Tract 192 and Census Tract 193 are generally comparable to Hoboken (U.S Census Bureau).





POPULATION GROWTH TRENDS



NJ<u>EDGE</u> STUDIO

Soucres: The Brookings Institution United States Census Bureau Jersey City is a racially diverse city with whites representing 33 percent of the population, Asians representing 28 percent, and Hispanics representing 24 percent. Over the past twenty years, Jersey City's population grew by three percent. This figure is in line with statewide and regional growth rates of three to four percent (U.S Census Bureau).

The racial diversity within Jersey City is unique for region. In the Metropolitan Statistical Area, New Jersey as a whole, Hudson County and Hoboken More than half of the population reports as white and the second and third largest race groups are Hispanics and Asians, respectively, in Jersey City and Hoboken. In all the areas examined except Hoboken, the Hispanic population has grown over the past twenty years. Native Americans, Native Hawaiians, and Alaskans represent the smallest of race groups; in most cases they represent less than one percent of the population. The largest age group is 18 to 64 and the second largest group is persons under five. In all cases women represent roughly half of the population (U.S Census Bureau).

The NYC MSA is the largest metropolitan area in the United States. With a population over 18 million, the area encompasses those who live and work within the regional economy whose center is New York City. The NYC MSA reports a similar racial distribution to the state of New Jersey, with the exception of blacks / African Americans. This group makes up 17.5 percent of the NYC MSA's population, a significantly larger proportion than other areas under study (U.S Census Bureau & The Brookings Institution).

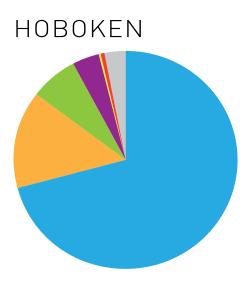
Summary

Further research should examine the needs of the population within and surrounding the study area. Hoboken's rapid growth and homogeneity is notable, as it appears to be the exception to surrounding population trends. The rather high proportion of elderly people living within Census Tract 78 is also of concern. These figures are very much out of proportion with the trends of the NYC MSA at large. The large Asian population within Census Tract 77 is also worth further examination. This group may have needs and concerns that may differ from the surrounding community (U.S Census Bureau).

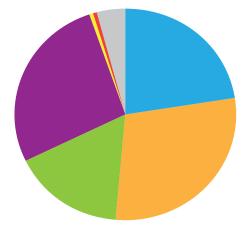




DEMOGRAPHICS BY RACE



JERSEY CITY



White

Hispanic

Black

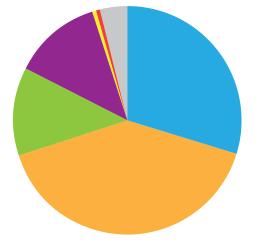
Asian

Native American Pacific Islander

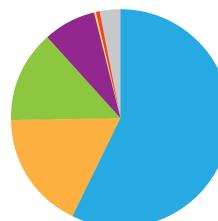
Alaskan

Persons reporting two or more races

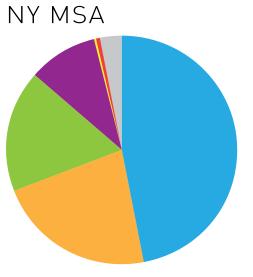
HUDSON COUNTY



NEW JERSEY

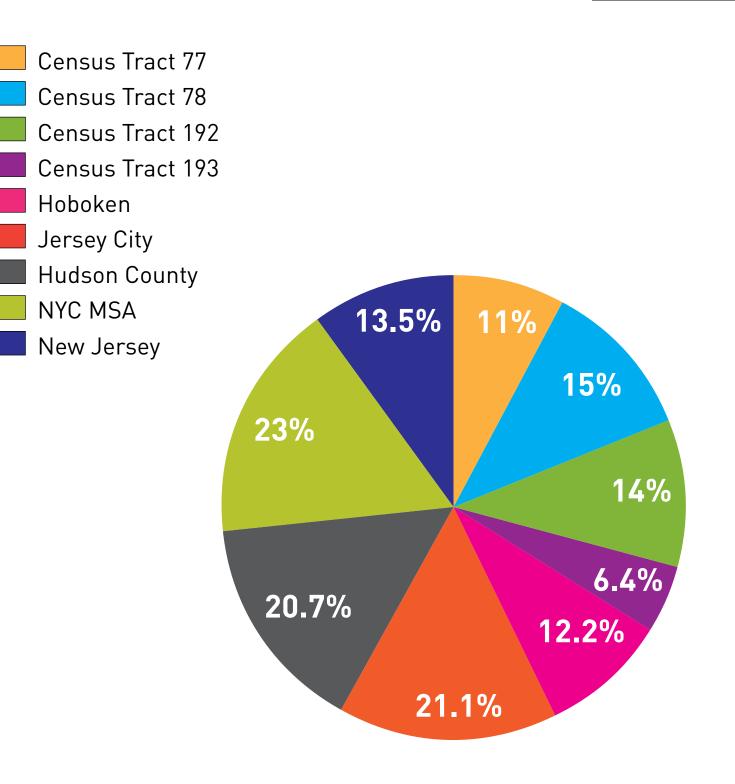


Source: U.S. Census Bureau





PERSONS 18 AND UNDER



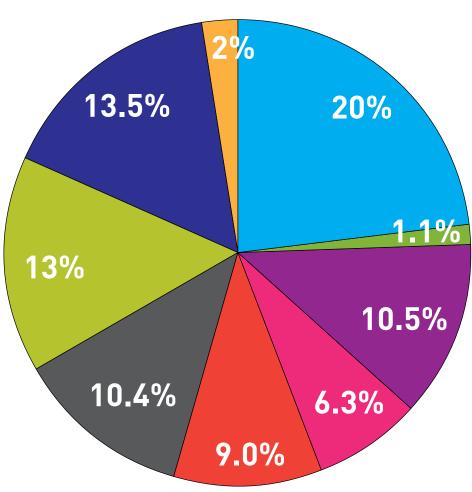
Source: U.S. Census Bureau





PERSONS 65 AND OVER

Census Tract 77
Census Tract 78
Census Tract 192
Census Tract 193
Hoboken
Jersey City
Hudson County
NYC MSA
New Jersey







2.2 Income & Poverty



2.2 Income and Poverty

Income

Census data indicates that the state of New Jersey as well as Hudson County, Hoboken, Jersey City, and the NYC MSA have all become wealthier in the past twenty years.

Household Median Income Change Over Time

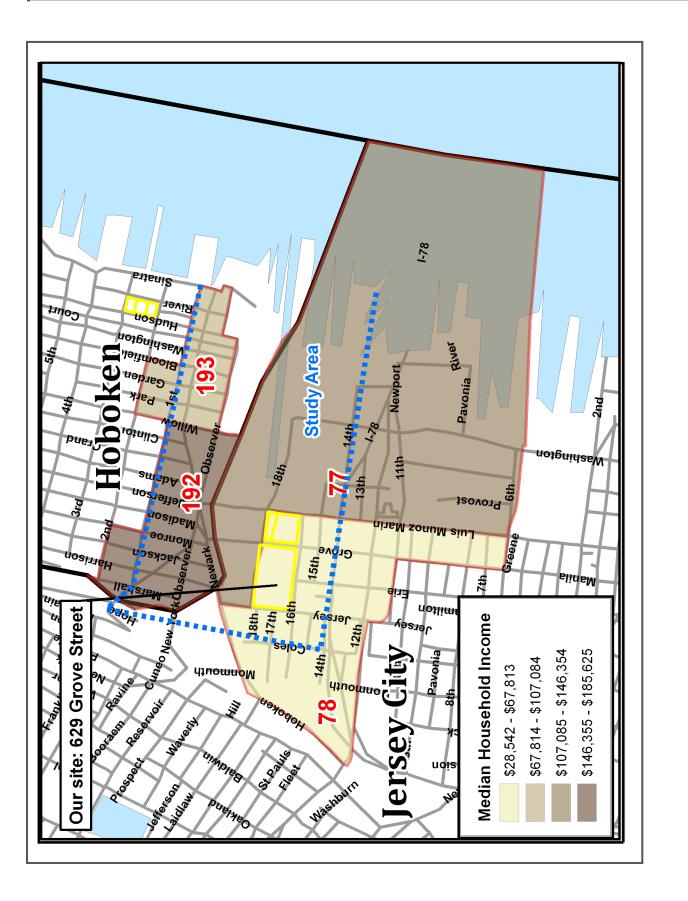
Median household income at the macro-geographic scale has increased at varying degrees since 1990 in these areas. Hoboken exhibits the most dramatic increase, with median household income growing threefold from \$34,873 in 1990 to \$104,789 today (U.S. Census Bureau, 2007-2011 American Community Survey). Hoboken's median household income is currently 82 percent higher than Jersey City's level of \$57,520 (2007-2011 American Community Survey), illustrating the large gap in wealth between these two municipalities. Jersey City's median household income is on par with other parts of the region, while Hoboken stands out as a particularly wealthy enclave.

	Hoboken	Jersey City	Hudson Co.	NYC MSA	New Jersey
1990*	\$34,873	\$29,054	\$41,429	\$31,659	\$54,842
2000	\$62,550	\$37,862	\$40,293	\$50,795	\$55,146
ACS 2007-2011	\$104,789	\$57,520	\$57,660	\$62,322	\$71,180

*Adjusted for inflation to 1999 value

Median household income in the census tracts in the Study Area have all increased over time, except for Census Tract 78, where the Lackawanna Center is located. While Hoboken Census Tracts 192 and 193 and Jersey City Census Tract 77 all reach or surpass the exceptionally high median household income of Hoboken, Census Tract 78's median household income has decreased by 25 percent since 1990, to a low of \$28,542 (1990 Census, 2007-2011 American Community Survey). In contrast, the median household income of adjacent Jersey City Census Tract 77 has increased by 153 percent from \$53,600 in 1990 to \$135,546 in 2011. The majority of that increase occurred in the past ten years, with income increasing from \$55,090 in 2000 to today's high of \$135,536 (1990 Census, 2007-2011 American Community Survey).





NJ^{EDGE} STUDIO With the exception of Census Tract 78, the other three census tracts in the Study Area are wealthier than Hoboken and Jersey City as a whole. Census Tracts 77, 192, and 193 have a combined median income that is \$138,744, which is 32 percent higher than Hoboken's median household income of \$104,789, and 141 percent higher than Jersey City's current median household income of \$57,520 (2007-2011 American Community Survey). By contrast, Census Tract 78, where the Lackawanna Site is located, is significantly poorer than the adjacent Census Tracts (77, 192, and 193), as well as Hoboken and Jersey City.

Poverty

The poverty rate decreased slightly over the past twenty years for Hoboken, Jersey City, and the NYC MSA, while it slightly increased for Hudson County and New Jersey as a whole.

The poverty rate for Hoboken decreased by 6 percent since 1990, to a current rate of 10.0 percent (U.S. Census Bureau, 2007-2011 American Community Survey). This is lower than Jersey City's current poverty rate of 16.4 percent (2007-2011 American Community Survey).

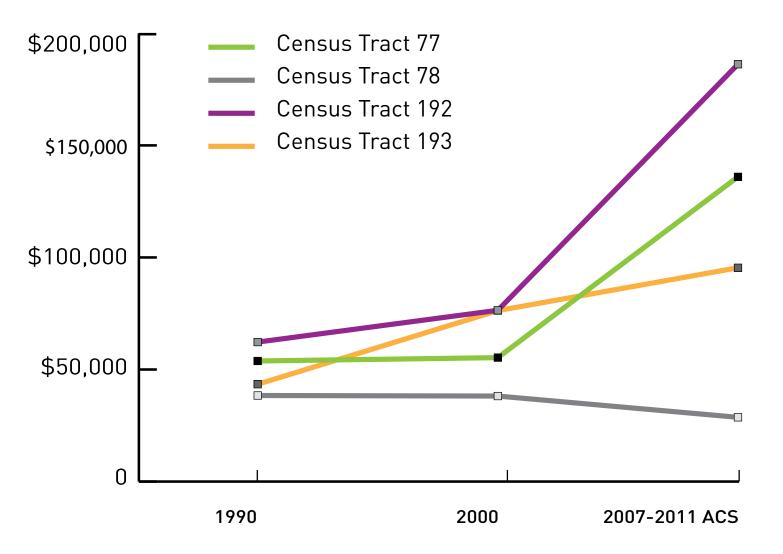
Poverty is most severe in Census Tract 78, which also has the lowest median household income as described above. The poverty rate for Census Tract 78 is currently 28.2 percent, compared to only 10.9 percent, 0.9 percent, and 12.8 percent for adjacent Census Tracts 77, 192, and 193, respectively (2007-2011 American Community Survey). Census Tract 78 also has a high poverty rate compared to Hoboken as a whole (10.0 percent), and Jersey City (16.4 percent) (2007-2011 American Community Survey). Census Tract 78's high poverty rate has mostly remained steady from its 1990 rate of 28.6 percent, with a slight decrease in 2000 to 24.4 percent before increasing again to the current rate of 28.2 percent. The poverty rate has decreased for Census Tracts 192 and 193 since 1990, but has increased for Census Tract 77 during the same period. Poverty in Census Tract 77 increased from 3.1 percent in 1990 to 3.9 percent in 2000 to 10.9 percent currently (1990 Census, 2007-2011 American Community Survey).

Interestingly, although the overall poverty rate for Census Tract 78 remained steady and high at 28.2 percent, the poverty rate for children under 18 decreased dramatically, from 38.1 percent in 1990 to 17.9 percent today. Poverty rates





HOUSEHOLD MEDIAN INCOME CENSUS TRACT COMPARISON



Source: US Census Bureau



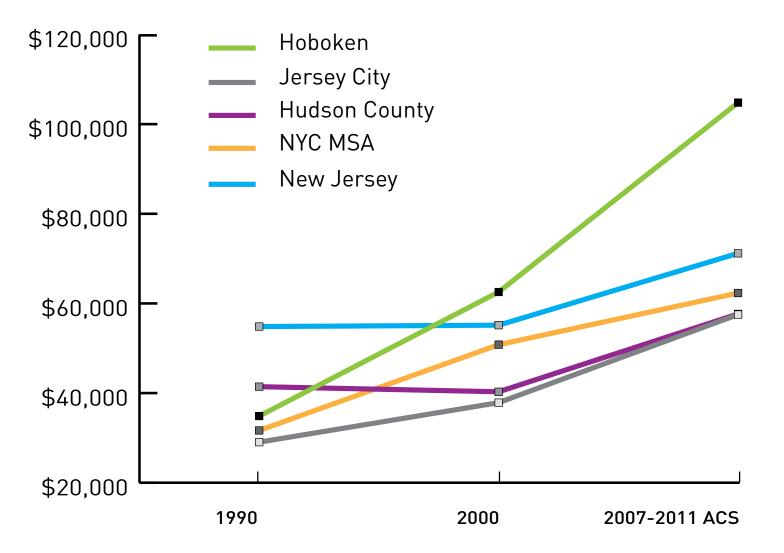
for children in Census Tracts 192 and 193 have also dramatically decreased, from 43.0 percent and 38.0 percent in 1990, respectively, to 0.0 percent for both tracts today (1990 Census, 2007-2011 American Community Survey). Census Tract 77 has a low, relatively steady child poverty rate of 5.9 percent (2007-2011 American Community Survey). The decrease in the child poverty rate for the census tracts in the Study Area matches the trend of a general decrease in child poverty rates at all levels of analysis, except for the NYC MSA and New Jersey, which have seen slight increases in child poverty rates since 2000. The NYC MSA had a child poverty rate of 17.5 percent in 2000, and the rate has increased almost 2 percent to a current rate of 19.1 percent (U.S. Census Bureau, 2007-2011 American Community Survey). Meanwhile, Jersey City's child poverty rate has decreased to a current rate of 25.3 percent from 29.7 percent in 1990. Hoboken's child poverty rate has declined even more sharply, by almost half from the 1990 rate of 34.2 percent to the current child poverty rate of 17.4 percent (U.S. Census Bureau, 2007-2011 American Community Survey).

The poverty rate for most races is highest in census tract 78, compared with the study area as a whole, as well as Jersey City and Hoboken. Census Tract 78 has a white poverty rate of 23.6 percent, while the surrounding census tracts have poverty rates for whites of 1.7 percent, 1.1 percent and 11.8 percent in Tracts 77, 192, and 193, respectively (2007-2011 American Community Survey). In fact, the white poverty rate in Census Tract 78 is 174 percent higher than in Hoboken and 61 percent higher than in Jersey City. The black poverty rate of 49.4 percent for Census Tract 78 is also significantly higher than the black poverty rate in Jersey City and Hoboken, which are currently 26.1 percent and 21.0 percent, respectively. On the other hand, Census Tracts 77, 192, and 193 have much lower than average poverty rates for their black populations. For example, Census Tract 77 has a low 4.2 percent poverty rate, yet Hoboken and Jersey City have significantly higher rates at 26.1 percent and 21.0 percent, respectively. The Asian poverty rate is slightly higher in Census Tract 78 than the surrounding region. The Hispanic poverty rate, while high at 36.6 percent in Census Tract 78, is relatively low for the Study Area overall compared with the surrounding region. The Hispanic poverty rate is an average of 13.9 percent in Census Tracts 77, 192 and 193, while it sits at 30.6 percent in Hoboken and 21.9 percent in Jersey City (2007-2011 American Community Survey).





HOUSEHOLD MEDIAN INCOME CHANGE OVER TIME



Source: U.S. Census Bureau

NJSTUDIO

Summary

A review of census data shows that the Lackawanna Site is located in a very poor census tract (Tract 78) that has high levels of poverty compared to Hoboken and Jersey City, as well as in comparison with adjacent census tracts in the Study Area. While the adjacent Study Area census tracts have enjoyed increasing wealth, exemplified by an increase in median income and a decrease in poverty rates, Census Tract 78 has seen a decrease in median income and a steady, relatively high poverty rate over time.

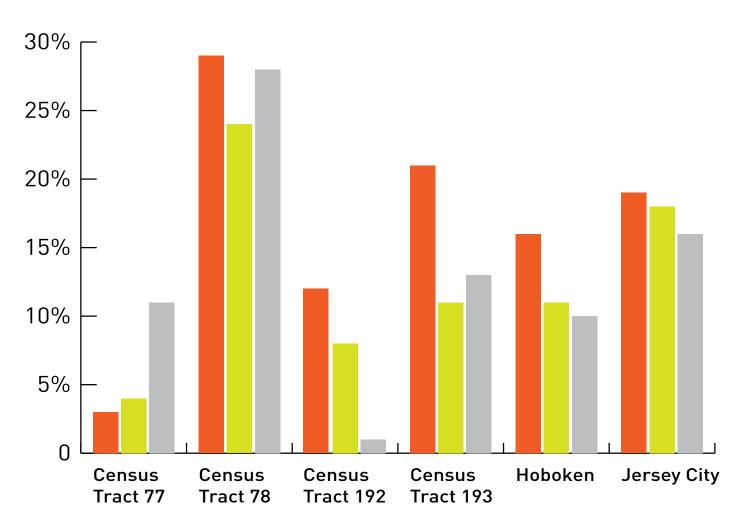
Several new luxury condominium developments in the past decade have likely contributed to the soaring increase in median incomes and decreases in poverty rates since 1990. Overall, median income has increased for Hoboken, Jersey City, the NYC MSA, New Jersey, and the majority of the census tracts in the Study Area. However, the small pocket of low income residents within close proximity to the Lackawanna Center in Census Tract 78 should be taken into consideration in any recommendations for the Site and the Study Area. In addition, the changing population within the Study Area should also be considered in developing a proposal that fits the needs of all residents.





POVERTY RATE FOR ALL AGES COMPARING CENSUS TRACTS

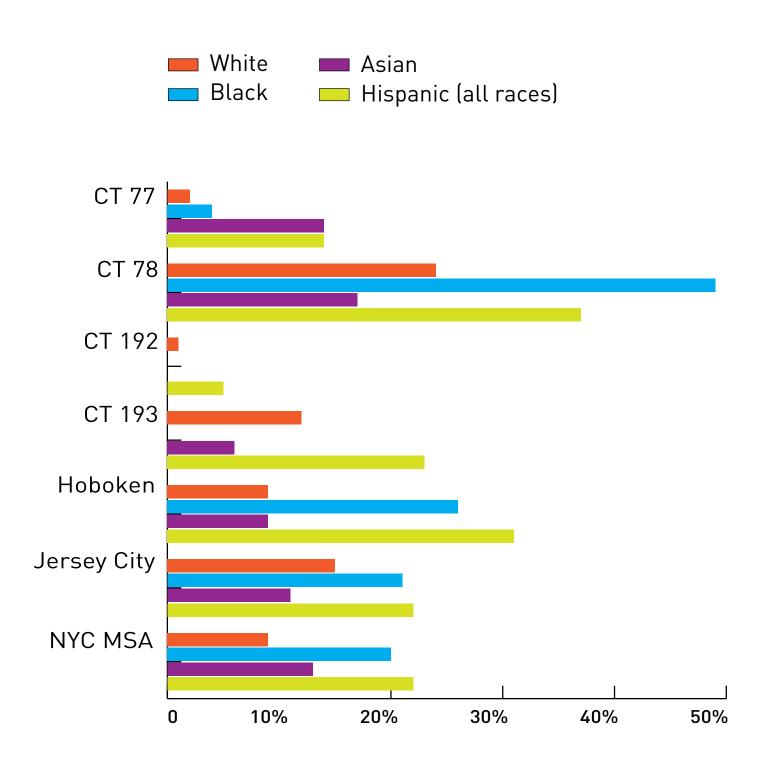




Source: US Census Bureau



POVERTY RATE BY RACE



Source: US Census Bureau



2.3 Labor Force



2.3 Labor Force

Statistics

The unemployment rate varies across census tracts around the Study Area. Census Tract 192 has the lowest unemployment rate at 1.0 percent, while Census Tract 78 has the highest unemployment rate at 6.3 percent. All census tracts around the Study Area have lower unemployment rates than Jersey City, Hudson County, the NYC MSA, and New Jersey; rates in those areas all range between 8.5 percent and 10.3 percent. The unemployment rates in the four census tracts under study most closely reflect the Hoboken unemployment rate, which is 4.2 percent (2007-2011 American Community Survey).

Census Tract 78 has an unemployment rate that is marginally higher than Census Tract 77 and Census Tract 193, but the data is misleading. There are 570 people in the labor force out of 1,110 people ages 16 or over in Census Tract 78, resulting in a ratio of 51% of the population 16 and older in the labor force. This ratio for Census Tract 77 is 82%, for Census Tract 192 is 92%, and for Census 193 is 73%, meaning the percentage of the population in the labor force in Census Tract 78 is much lower than the surrounding tracts (2007 - 2011 American Community Survey). This could be a result of lack of employment options in the immediate area or discouraged workers who have stopped looking for work and dropped out of the labor force.

Census Tracts 77, 192, and 193 have a skewed distribution of employment by industry compared to Hudson County, the NYC MSA, and New Jersey, where employment is more evenly distributed across sectors. These census tracts have a large percentage of employees concentrated in the "Finance, Insurance, and Real Estate" industries ("FIRE Industries") and the "Professional, scientific, and management, and administrative and waste management services" industries. Employment by industry in Census Tract 78 is slightly more evenly distributed, and similar to Hudson County, the NYC MSA, and New Jersey as a



whole. Census Tract 78 has a larger concentration of employees working in the "Educational services, and health care and social assistance" industries when compared to the other nearby census tracts. The Lackawanna Center (with its manufacturing use) is located in Census Tract 78 and borders Census Tract 77, so it is interesting to note that these tracts have a marginally lower percentage of employees working in the manufacturing industry when compared to Hudson County, the NYC MSA, and New Jersey (2007-2011 American Community Survey).

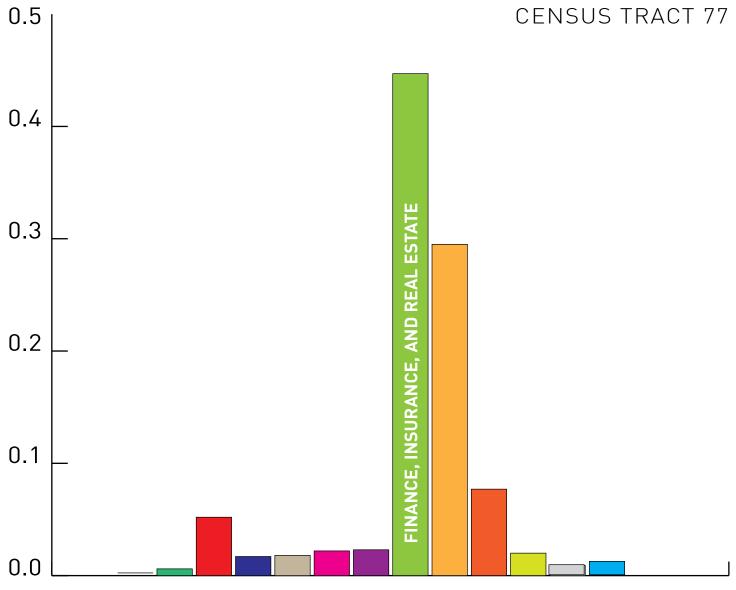
Summary

Census Tract 78 has the highest unemployment rate of the tracts under study, at 6.3 percent. It also has the lowest ratio of people ages 16 and over in the labor force at 51%. This tract also has a lower percentage of people working in the FIRE Industries and the "Professional, scientific, and management, and administrative and waste management services" industries than the surrounding tracts. The highest concentration of workers are in the "Educational services, and health care and social assistance" industries in Census Tract 78 (2007-2011 American Community Survey). The difference in industries likely results in lower paying jobs in Census Tract 78 (refer to income statistics previously described).

The tracts surrounding the Study Area do not have a diverse mix of industries, with most employment in FIRE and other professional management sectors (2007-2011 American Community Survey). Markets are cyclical and relying on this limited concentration of employment sectors may be risky in creating a long-term sustainable plan for the Study Area.





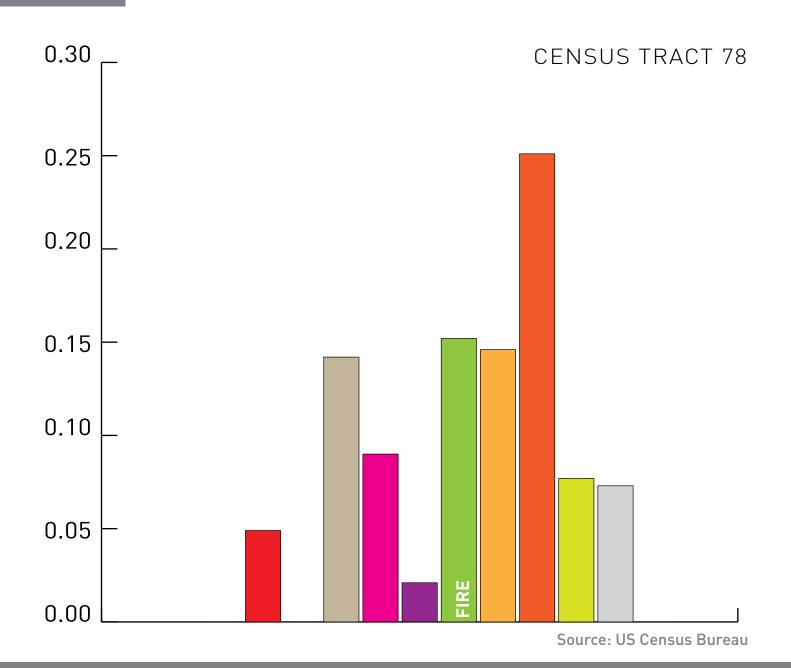


Source: US Census Bureau

- Agriculture, forestry, fishing and hunting, and mining
- Construction
- 💻 Manufacturing
- 🔲 Wholesale
- Retail
- Transportation, Warehousing, and UtilitiesInformation
- Finance, Insurance, and Real Estate

- Professional, scientific, and management, and administrative and waste management services
- Educational services, and health care and social assistance
- Arts, entertainment, and recreation, and accommodation and food services
- Other services
- Public Administration



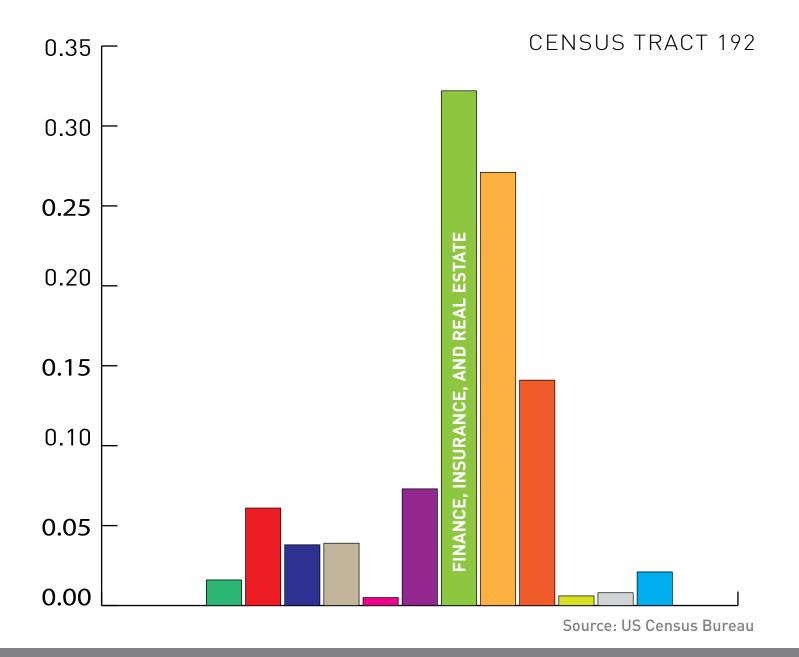


Agriculture, forestry, fishing and hunting, and mining

- Construction
- 💻 Manufacturing
- 🔲 Wholesale
- Retail
 - Transportation, Warehousing, and Utilities
- Information
 - Finance, Insurance, and Real Estate

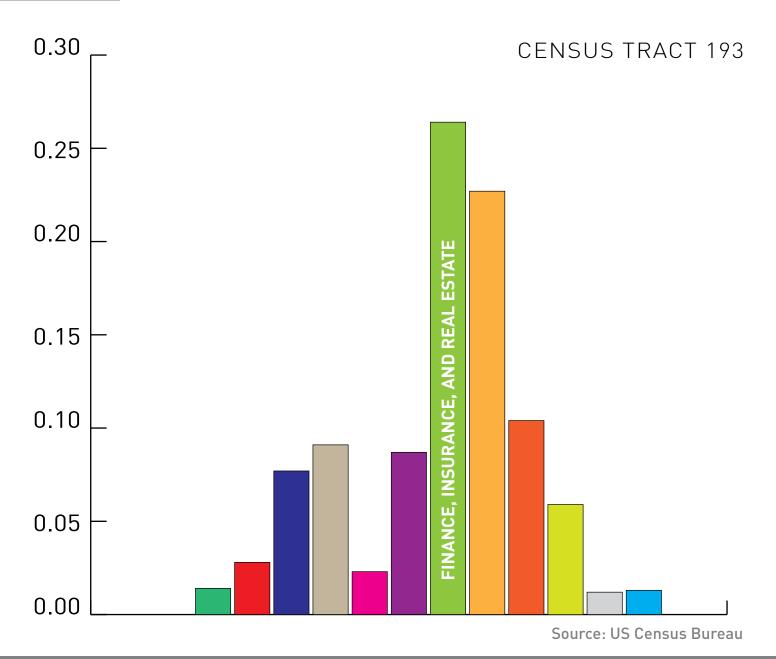
- Professional, scientific, and management, and administrative and waste management services
- Educational services, and health care and social assistance
- Arts, entertainment, and recreation, and accommodation and food services
 - Other services
 - Public Administration





Agriculture, forestry, fishing and hunting, Professional, scientific, and management, and mining and administrative and waste Construction management services Educational services, and health care and Manufacturing Wholesale social assistance Arts, entertainment, and recreation, and Retail accommodation and food services Transportation, Warehousing, and Utilities Other services Information **Public Administration** Finance, Insurance, and Real Estate



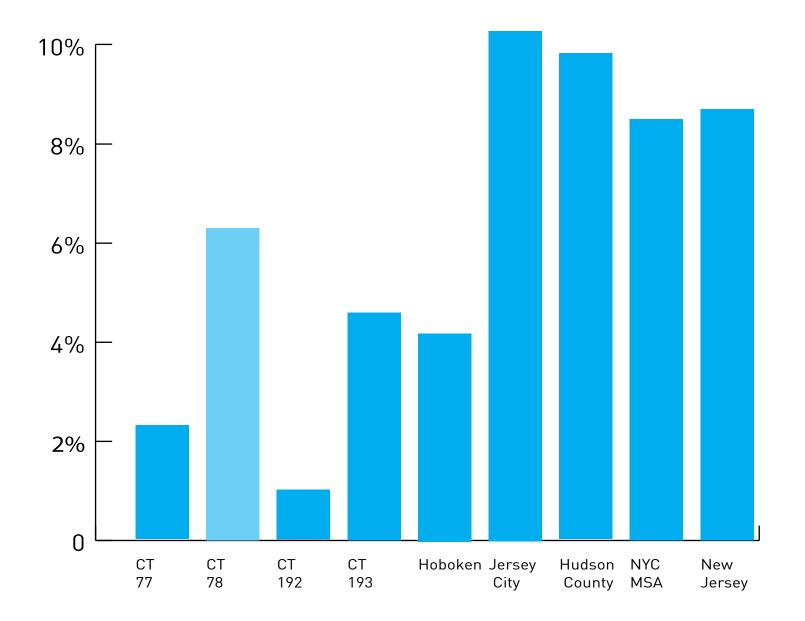


- Agriculture, forestry, fishing and hunting, and mining
- Construction
- Manufacturing
- Wholesale
- Retail
 - Transportation, Warehousing, and Utilities
- Information
- Finance, Insurance, and Real Estate

- Professional, scientific, and management, and administrative and waste management services
- Educational services, and health care and social assistance
- Arts, entertainment, and recreation, and accommodation and food services
 - Other services
 - Public Administration

UNEMPLOYMENT RATE 16 AND OVER 2007-2011





6.3%

UNEMPLOYMENT CENSUS TRACT 78

Rate does not include discouraged workers who have dropped out of the labor force; as previously discussed the unemployment level in Cenus Tract 78 is actually much higher.

2.4 Employers



2.4 Employers

Jersey City and Hoboken represent an important part of the economy of Hudson County and have experienced significant changes to prominent economic sectors and their vitality. The decline of the manufacturing and warehousing sectors in Hudson County and the state of New Jersey is indicative of the shift to a services-based economy nationwide. Within Hudson County, the number of manufacturing firms has declined significantly by 72 percent since 1992; wholesale firms have declined by 29 percent in the same time frame (US Census Bureau).

The availability of jobs within the manufacturing, warehousing, and wholesale sectors is increasingly scarce. Manufacturing jobs within Hudson County have declined 27 percent since 2006, and the transportation and warehousing sector has suffered a 14 percent job loss in that period (US Census Bureau). These sectors provide stable, low-skilled employment and diversify the local economy and providing new types of employment beyond the FIRE sector. This sector has formed a new regional economic cluster in Jersey City as firms from Manhattan have relocated across the Hudson River to New Jersey. This sector did suffer during the recent recession, but nevertheless has posted net job gains of 10 percent since 2006 and today provides more jobs than the manufacturing and warehousing sectors combined in Hudson County (Bureau of Labor Statistics).

It is notable that Hudson County has a consistently higher percentage of minority-owned businesses when compared to New Jersey. In 2007, Hispanic-owned businesses comprised 25.5 percent of all businesses in Hudson County, compared to 8.7 percent statewide. Hispanics constituted 42.2 percent of Hudson County's total population and 17.7 percent of the total New Jersey population. African American businesses follow similar patterns with 11.8 percent of all businesses in Hudson County and 7.7 percent of businesses statewide. African Americans make up 13.2 percent of the population of Hudson County and 13.7 percent of the population of New Jersey (US Census Bureau). While it is unclear whether programs of entrepreneurship training and business education can account for this share of minority-owned businesses in Hudson County, it is important to extend these types of assistance in a culturally competent manner. Cultural competence in this context, would refer to tailoring the provision of entreprenurial assistance and business mentoring in a manner that takes into consideration the obstacles that are inherent to English Language Learners, first-time business owners, as well as socially and politically disadvantaged goups. Programs such as Rising Tide Capital, in partnership with the Jersey City Economic Development Corporation, provide underfunded entrepreneurs in distressed communities with training and networking assistance to start businesses (Hudson County).



2.5 Educational Attainment



2.5 Educational Attainment

Statistics

The educational attainment for the population in the Study Area is strikingly high. Census Tracts 77, 192, and 193 have rates of bachelor's degree for persons over 25 years of age of 89.9 percent, 94.7 percent, and 64.3 percent, respectively. These tracts outpace Hudson County at 35.3 percent, the NYC MSA at 35.9 percent, and the state of New Jersey at 35.0 percent. Similarly, both the cities of Hoboken at 72.4 percent and Jersey City at 40.6 percent have higher rates of college-educated adults than Hudson County, the NYC MSA, and the state of New Jersey. Hoboken displays an especially high degree of educational attainment. The rate of college degrees is also higher for people aged 25 to 34 than people aged 34 to 45, meaning the workforce continues to become better educated.

Like the previous topical analysis, however, the exception again is Census Tract 78, where the Lackawanna Site is located. Census Tract 78's percentage of the population 25 or older with a bachelor's degree is 31.5 percent, slightly below the levels found in the county, region, and state. The patterns for high school graduates are similar but not as severe (2007-2011 American Community Survey).

These high rates of education also translate into higher incomes for much of the population. Hoboken, in particular, shows how higher education standards correlate with higher incomes. The median income for residents of Hoboken is higher than Jersey City, the county, region, and state. Interestingly, with the exception of those with less than a high school degree, the residents of Hoboken at all levels of education, from high school through graduate degrees, earn more than their counterparts in the region. Taken together, the data clearly shows that there is a highly educated workforce and wealthy consumer base available within a short distance of the Site (2007-2011 American Community Survey).



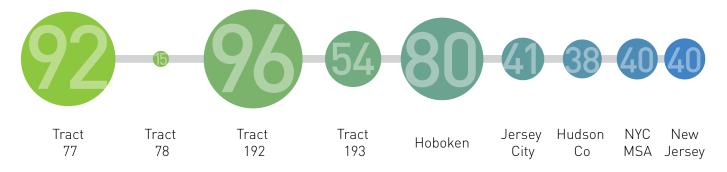


EDUCATIONAL ATTAINMENT AGES 25–34 AND 35–44

Percentage of Population 25 to 34 years Bachelor's degree or higher



Percentage of Population 35 to 44 Bachelor's degree or higher





POPULATION WITH BACHELORS DEGREE OR HIGHER



2.6 Transportation



2.6 Transportation

Commute Times – City, Region, and State

The average travel times for commuters in Jersey City, Hoboken, the NYC MSA, and New Jersey are as follows:

US Census Defined Place	Mean Commute Time (Minutes)
Jersey City	34.6
Hoboken	37.4
NYC MSA	34.7
New Jersey	30.1

(Source: 2007-2011 American Community Survey)

Residents of the two cities in the Study Area face longer average commutes than the average New Jersey resident; the high density and congestion of the New York City metropolitan area relative to other suburban and rural areas of New Jersey contributes to this difference. A distribution of commute times in these areas is illustrated below:

Jersey City's share of short commutes (less than 30 minutes) and long commutes (greater than 60 minutes) exceeds Hoboken's, while Hoboken has a relatively higher share of commutes between 30 and 60 minutes. Both cities, however, have lower shares of both short and long commutes than the NYC MSA.

Nevertheless, the differences in commute times among Hoboken, Jersey City, and the NYC MSA are marginal. New Jersey's commute time distribution is weighed more heavily toward shorter commutes than the others:

US Census Defined Place	Commutes Exceeding 30 Minutes (%)
Jersey City	60.1
Hoboken	75.2
NYC MSA	55.0
New Jersey	44.4

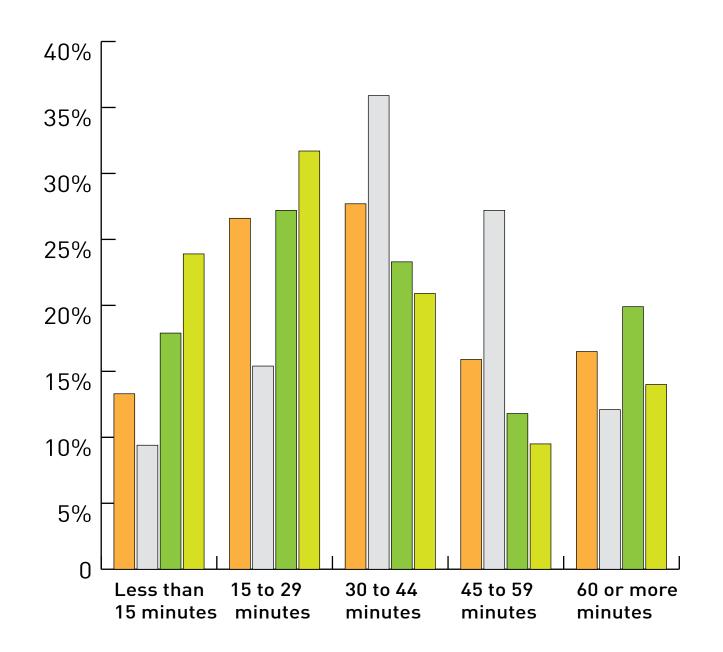




COMMUTE TIMES BY CITY, REGION, AND STATE



New Jersey



PERCENTAGE OF TOTAL COMMUTES



Modal Split - City, Region, and State

The travel modes that residents of Jersey City, Hoboken, the NYC MSA, and New Jersey use as a means of travel to work (or the "modal split") are illustrated in the graph on the following page:

The distribution illustrates the strong degree to which Jersey City and Hoboken are more similar to the New York City metropolitan area than the rest of New Jersey in terms of commuting patterns. The use of public transportation in commuting to work is especially high in the region. The NYC MSA area reported 30.6 percent of commuters using public transportation in their commutes to work; Jersey City and Hoboken's public transit shares are even higher, at 46.2 percent and 56.0 percent, respectively. Conversely, New Jersey as a whole has a public transit mode share that is much lower, at 10.7 percent.

Heavier reliance on public transportation leads to less reliance on single occupancy vehicle driving. Jersey City and Hoboken have lower modal shares of driving to work alone than not only New Jersey but the NYC MSA, as well.

Residents of these cities also are far more likely to walk to work than their NYC MSA counterparts. Rates of bicycling to work are relatively low in all areas (2007-2011 American Community Survey).

Automobile Ownership – City, Region, and State

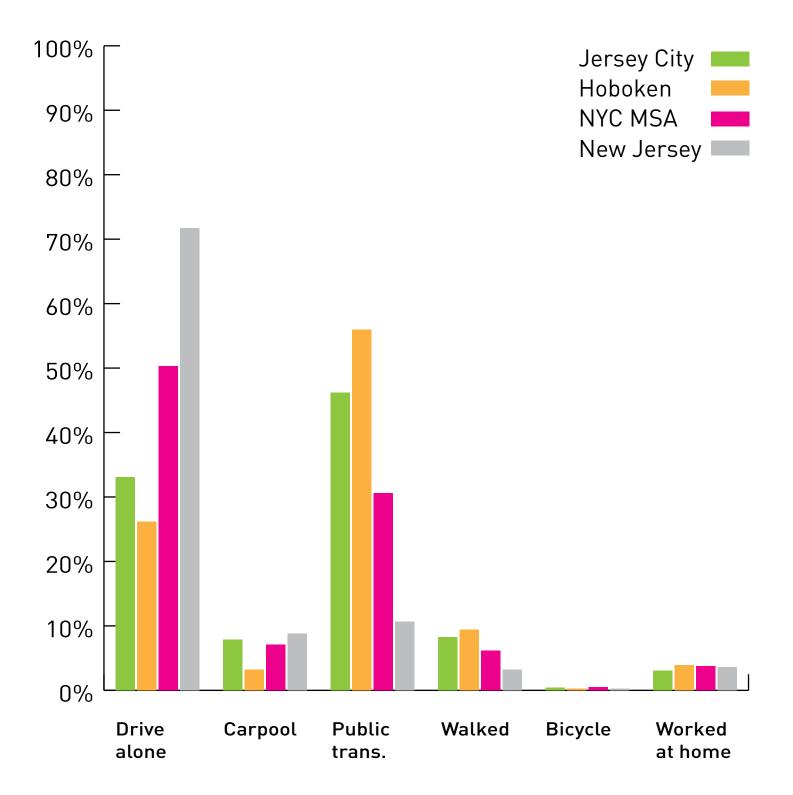
Given the differences in commute times and modes of transportation, it is not surprising that Jersey City and Hoboken are less auto-dependent than the NYC MSA as a whole. Meanwhile, New Jersey's high level of auto dependence is not at all reflective of auto ownership levels in the Study Area:

In Jersey City, over 70 percent of households have either zero or one vehicle; in Hoboken this figure exceeds 80 percent. Meanwhile, in New Jersey this trend is entirely reversed, as over 70 percent of households have access to two or more vehicles (2007-2011 American Community Survey).





MEANS OF TRANSPORTATION TO WORK BY CITY, REGION, AND STATE



Source: U.S. Census Bureau, 2007 - 2011 American Community Survey, Community Characteristics



Commute Times – Study Area Census Tracts

The average travel times for commuters in census tracts within the Study Area are as follows:

US Census Tract	Mean Commute Time (minutes)
Census Tract 77	37.0
Census Tract 78	33.7
Census Tract 192	36.7
Census Tract 193	32.6

[Source: 2007-2011 American Community Survey]

The relatively shorter average commute time in Jersey City in Census Tract 77 compared with Census Tract 78 is likely due to the high percentage of workers who drive shorter distances to industrial jobs within Census Tract 78. The shorter commute for Hoboken Census Tract 193 compared with Census Tract 192 is likely associated with this tract's closer proximity to Hoboken Terminal. A distribution of commute times in these census tracts is illustrated below:

Census Tract 78 sees a significantly higher percentage of short commutes (less than 30 minutes) than any of the other census tracts in the area. However, this census tract also holds the highest percentage of long commutes (greater than 60 minutes); these commutes account for 11.6 percent of all commutes in the census tract.

Nevertheless, the share of commutes that exceed 30 minutes is far lower in Census Tract 78 than in the other three census tracts under analysis:

US Census Tract	Percentage of Commutes Exceeding 30 Minutes
Census Tract 77	76.9
Census Tract 78	39.8
Census Tract 192	79.0
Census Tract 193	73.0

[Source: 2007-2011 American Community Survey]

Modal Split – Study Area Census Tracts

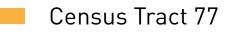
The modal splits for the four census tracts in the Study Area are illustrated in the graph "Means of Transportation to Work by Census Tract" on the following pages:

The area around the Lackawanna Site (Census Tract 78) is the outlier when compared with the modal splits of the other three census tracts. Because of the industrial uses in Census Tract 78, a high "drive alone" share of 38.4 percent is reported here, as workers in manufacturing facilities are more likely to require a car for hauling goods to and from workplaces. Additionally,

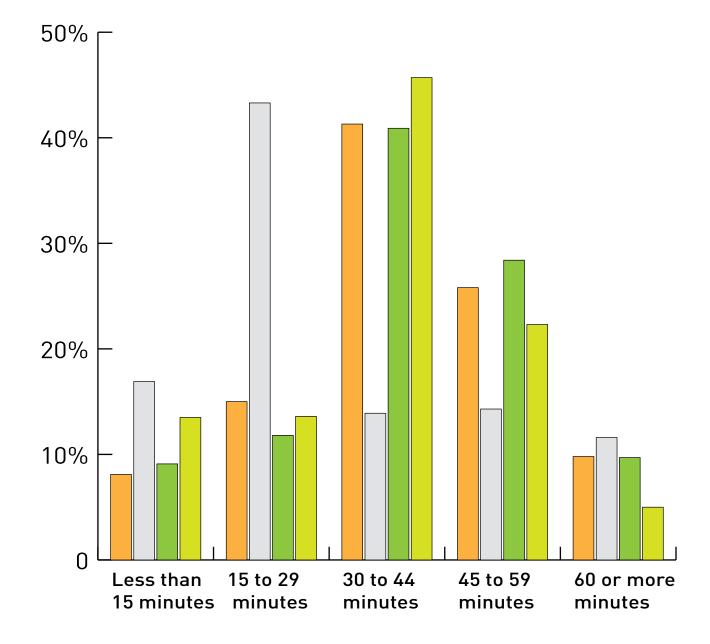




COMMUTE TIMES BY CENSUS TRACT



- Census Tract 78
- Census Tract 192
- Census Tract 193



PERCENTAGE OF TOTAL COMMUTES



Census Tract 78 is the least served by public transit. The Hudson Bergen Light Rail ("HBLR") has stops along the Jersey City and Hoboken waterfront and also continues north on the western border of Hoboken into Census Tract 192, with a station at 2nd Street. The lack of an HBLR stop within Census Tract 78 likely decreases the public transit mode share in this area.

Availability of public transportation clearly influences its use. On the Jersey City waterfront, which is well served by HBLR, PATH, ferries to New York City, and local buses, the public transit mode share exceeds 75 percent. As a result, the rate of single occupancy driving is low, at only 8.6 percent (2007-2011 American Community Survey).

Automobile Ownership – Study Area Census Tracts

Automobile ownership in the census tracts under study follows a predictable pattern given the commute time and modal split data presented above. Census Tracts 77 and 193, which include waterfront areas near public transportation hubs at Newport and Hoboken Terminal, have fewer cars in their households than in Census Tracts 78 and 192, which are farther from public transportation.

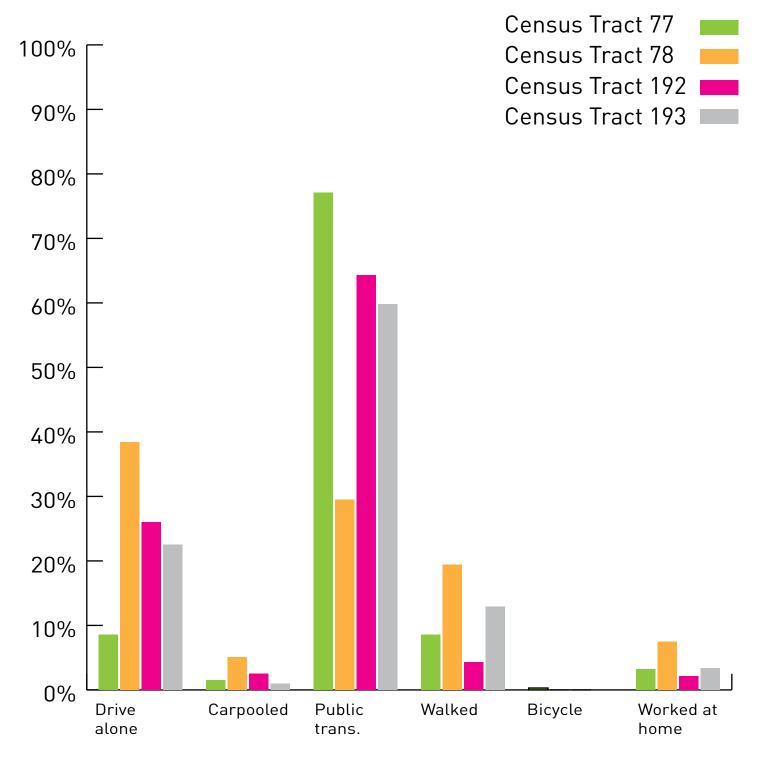
Census Tract 78, which includes the Lackawanna Site, has the highest level of car ownership due to its relative isolation from public transit. This is notable given the lower incomes in Census Tract 78 compared with the others (refer to Income section of this report). Car ownership in these census tracts appears to be correlated with need rather than want - although residents of the waterfront areas are far wealthier, they still elect to purchase fewer cars because of their locations near an abundance of public transit options.

Nevertheless, none of the car ownership statistics in these census tracts approach the level of New Jersey's overall vehicle ownership rates. All four census tracts, regardless of their relative locations within Jersey City and Hoboken, are part of the greater New York City metropolitan area, where the likelihood of having two or more cars per household is low. Thus, households with more than one working adult will likely rely on some form of public transportation to reach their destinations (2007-2011 American Community Survey).





MEANS OF TRANSPORTATION TO WORK BY CENSUS TRACT



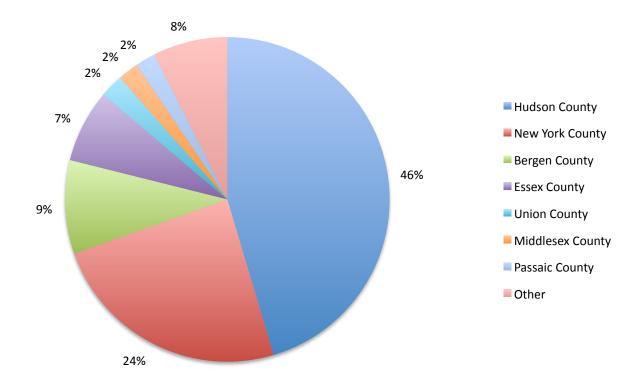
Source: U.S. Census Bureau, 2007 - 2011 American Community Survey, Community Characteristics



County-to-County Travel Analysis

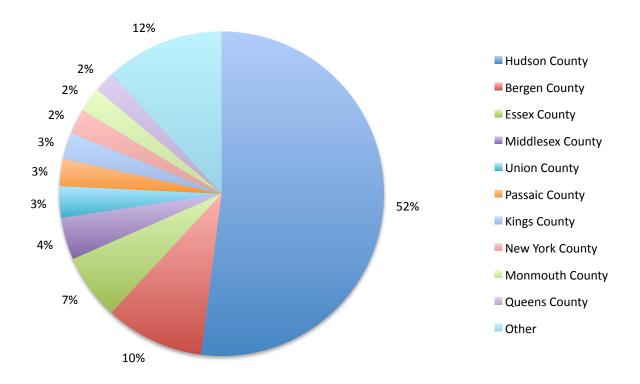
As would be expected, residents of Hudson County most likely work within the county. However, almost one of every four workers commutes from Hudson County to a job in Manhattan:

Workplace Destinations of Hudson County Residents





The flow of commuters travelling to a job in Hudson County from Manhattan is far less significant. The majority of workers in Hudson County also live there, while five neighboring New Jersey counties provide the next highest levels of Hudson County's workforce:



Residence Origin of Hudson County Workforce

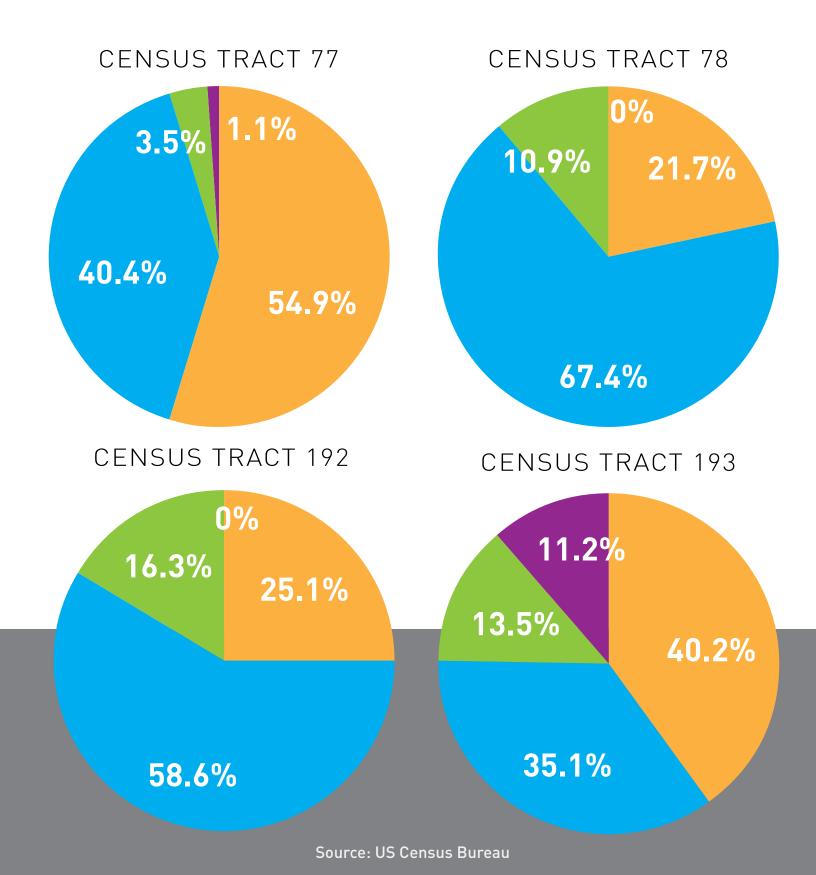




VEHICLES AVAILABLE:

No vehicles available 1 vehicle available 2 vehicles available 3 or more vehicles available





2.7 Housing Statistics



2.7 Housing Statistics

Dwelling Unit Growth and Vacancy Rates

The Study Area has suffered from real estate speculation over the past decade as growth rates and vacancy rates have increased. Developers are still constructing new buildings but are unable to fill the units as they could in the 1990's. Hoboken and Jersey City have also increased their production of residential units and seen increases in their vacancy rates.

According to the 2007 - 2011 American Community Survey, Jersey City has a total of 108,750 dwelling units, with a vacancy rate of 13.0 percent. Hoboken has just less than a quarter of that total, with 25,705 dwelling units and a vacancy rate of 8.4 percent. Since 2000, the number of dwelling units in Jersey City has grown by 16.1 percent, rising from 2000's total of 93,648 dwelling units. However, the vacancy rate in 2000 was lower, at 5.4 percent. Hoboken has increased its dwelling units by 29.1 percent since 2000, when it had 19,915 dwelling units (2000 Census). Hoboken's vacancy rate was also lower in 2000, at 2.5 percent (2007-2011 American Community Survey).

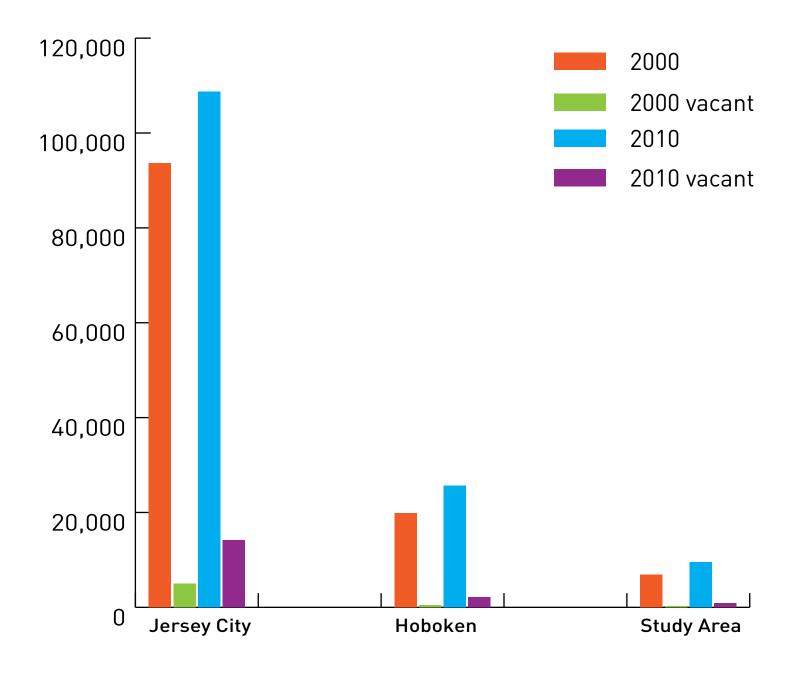
The 1990's saw modest gains in residential construction for both Jersey City and Hoboken, yet it was not until the past decade that these cities experienced a housing boom. For example, between 2000 and 2004, almost as many new dwelling units appeared in Jersey City as were built in the preceding decade (7,050 from 2000 to 2004 and 7,765 from 1990 to 1999). In Hoboken, the boom was even more significant, with the number of newly constructed units from 2000 to 2004 exceeding the amount in the previous two decades combined. The 2008 financial crisis slowed down new construction, but the two cities nonetheless constructed housing in the latter half of the 2000's at a volume roughly equal to any decade between the 1960's and the 1980's (2007-2011 American Community Survey).

The Study Area, consisting of Census Tracts 77, 78, 192, and 193, has a total of 9,578 dwelling units with a vacancy rate of 9.1 percent, as of 2011. Three of the four census tracts had a vacancy rate between 7.0 percent and 13.4 percent, but Census Tract 78, which contains the Lackawanna Site, had a vacancy rate of only 2.5 percent. There are a total of 674 dwelling units in this tract, which





DWELLING UNIT AND VACANCY RATE



Source: US Census Bureau



represents the least number of dwelling units of any census tract in the Study Area (2007-2011 American Community Survey). The vacancy rate in the Study Area is likely to change as the newly constructed Cast Iron Lofts development has just begun leasing its 155 dwelling units (Group site visit, Feb. 2, 2013).

The Study Area experienced an even faster pace in new construction relative to Jersey City and Hoboken as a whole. Between 2000 and 2011, total dwelling units in the Study Area increased by 39.7 percent, from 6,857 units to 9,578 units; this followed a 31.7 percent increase in dwelling units in the decade prior (2007-2011 American Community Survey, 2000 Census). Vacancy rates in the Study Area decreased significantly between 1990 and 2000 from 19.0 percent to 3.9 percent (2000 Census, 1990 Census) but rose to 9.1 percent in 2011; this is consistent with overall trends in vacancies in the NYC MSA during the same time period (2007-2011 American Community Survey). Thus, the Study Area has seen significant growth in housing during the past twenty years, but it seems that in the previous decade there was a fair amount of speculation. Developers have continued to build even though they have been unable to fill new dwelling units as fast as they did in the 1990's.

Housing Costs and Rent Burdened Households

As a result of growth in the Study Area, housing costs have generally increased over recent years. However, due to the wealth of new residents moving into the area, the overall rent burden in the Study Area is still less than the NYC MSA as a whole.

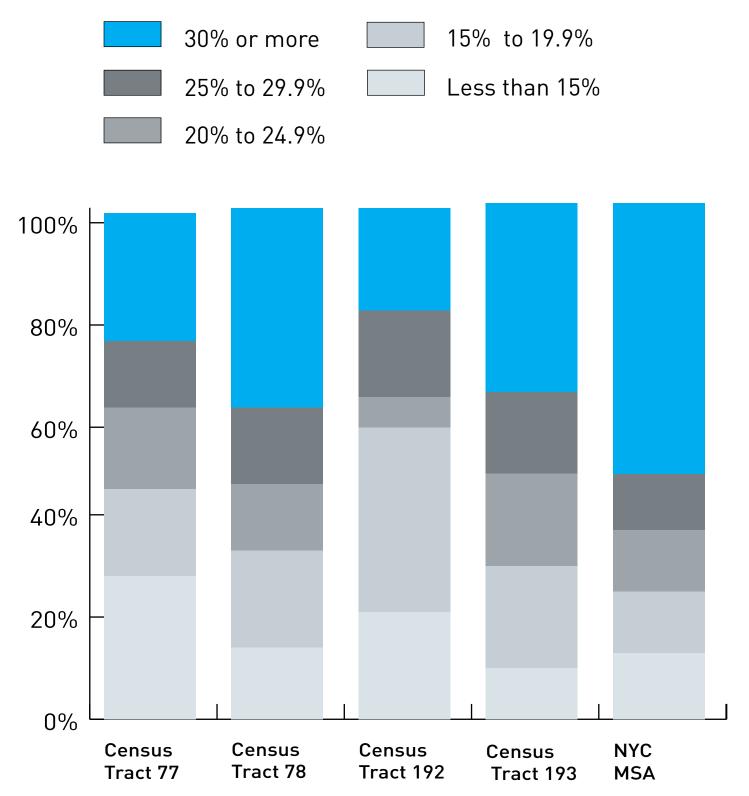
A household's rent burden is a function of both housing costs and income level. In terms of costs, Jersey City homeowners with mortgages have lower monthly expenses than their fellow Hoboken homeowner neighbors, but their expenses are just slightly more than the rest of the NYC MSA. In Hoboken, 89.3 percent of owners pay expenses at or above \$2,000 per month; in Jersey City 74.6 percent do so. In the NYC MSA, this figure is 74.2 percent. Median homeowners' expenses are \$3,222 in Hoboken, \$2,683 in Jersey City, and \$2,719 in the NYC MSA (2007-2011 American Community Survey).

Similarly, rents in Jersey City are generally lower than in Hoboken. In Jersey City, a majority of renters (52.1 percent) pay between \$750 and \$1,499, and the



7

GROSS RENT AS A PERCENTAGE OF HOUSEHOLD INCOME



Source: U.S. Census Bureau



median rent charged is \$1,127. In Hoboken, meanwhile, the majority of renters (59.9 percent) pay \$1,500 or more and the median rent charged is \$1,714 (2007-2011 American Community Survey). Rents in Jersey City are more similar to NYC MSA averages than Hoboken. The median rent charged in the NYC MSA is \$1,157, and 52.2 percent of renters pay between \$750 and \$1,499 per month. Rents in the four census tracts in the Study Area vary considerably. While Census Tracts 77 and 192 exceed \$2,000 and Census Tract 192 has a median rent of \$1,689, the median rent in Census Tract 78, which includes the Lackawanna Site, is only \$716 (2007-2011 American Community Survey).

Although the average Jersey City resident has lower monthly rental payments when compared to a Hoboken counterpart, that resident will also have a greater chance of living in a rent-burdened household. A rent-burdened household is one where more than 30 percent of income is spent on rent (Nccp. org). In Jersey City, 46.0 percent of households are rent burdened; in Hoboken this figure is only 31.9 percent (2007-2011 American Community Survey).

Within all but one of the Study Area census tracts, renters are less likely to be rent burdened when compared to their overall cities. In Jersey City Census Tract 77, 25.4 percent of households are rent burdened; in Census Tract 78 this rate is 39.2 percent. In Hoboken, Census Tract 192 has 19.7 percent of its households rent burdened, while in Census Tract 193 37.3 percent of renters pay more than 30 percent of income towards rent. Regardless of the disparity in the rent burden statistics in these census tracts, the NYC MSA has a higher rate of rent-burdened households than Jersey City, Hoboken, and the four census tracts under study. 52.5 percent of renters in the NYC MSA are classified as rent burdened (2007-2011 American Community Survey). The issue of expensive housing costs in relation to household income is a pressing one over the entire region, and should be considered when developing recommendations for the Lackawanna Site and Study Area.



2.8 Land Use



2.8 Land Use

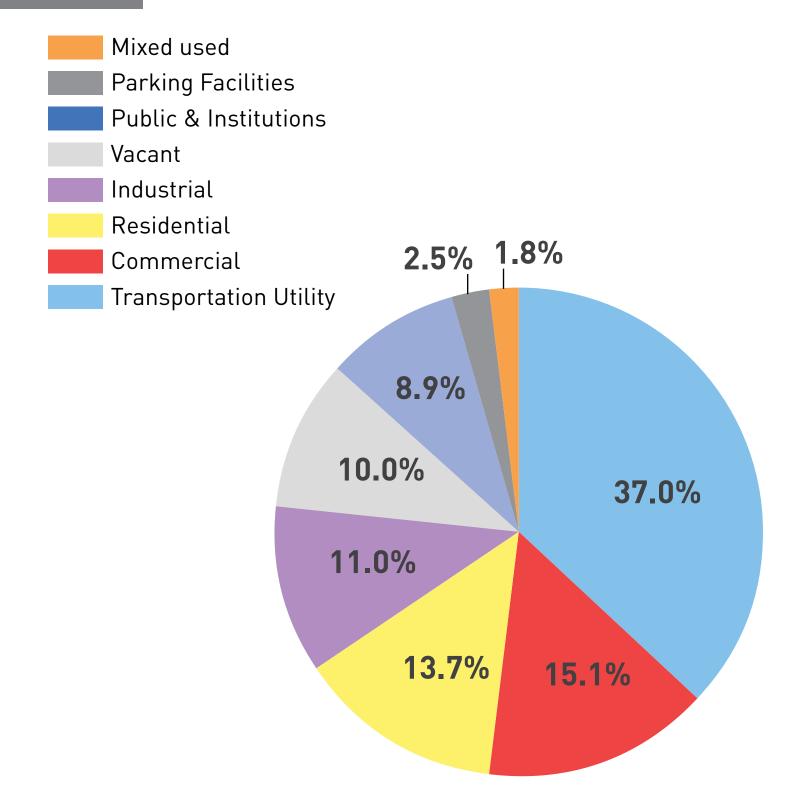
Land Use Analysis

The Study Area contains a total of 775 lots, consists of 12,468,460 square feet (286.24 acres), and these lots have buildings of various uses (refer to Map 1). The sizes of the lots vary from 704 square feet to 1,405,500 square feet (32.27 acres) (refer to Map 2). Of total area, 37.0 percent is transportation utility. Lots for transportation facilities are very large in size. Transportation-related structures, such as railroad tracks and stations, occupy the majority portion of total area in the Study Area, and the broad line of the transportation-related structures divide Hoboken and Jersey City (refer to Map 1). 11.0 percent of total area is industrial use, and 10.0 percent is vacant. Industrial facilities and many large-size vacant lots occupied by transportation utilities and industrial facilities are located near the Lackawanna Site. The owners of the vacant lots also vary from private companies to individuals (refer to Map 3). 15.1 percent of total area is commercial use. Commercial/office buildings in the residential and commercial areas are located on small lots; however, big box stores occupy the larger lots between the Lackawanna Site and the waterfront, and these big box stores make up approximately 70 percent of total commercial area in the Study Area. Residential dwelling units are commonly located on small lots, and residential use makes up 13.7 percent of total area in the Study Area. Of the residential use, only 20 percent is south of the railroad structures, and 80 percent of the residential use is located above the structures.

The Study Area also contains many underbuilt lots under the current zoning (refer to Map 4). Underbuilt lots are lots that have available Floor Area Ratios ("FAR") under current zoning. These underbuilt lots with over 50 percent allowable FARs (red-colored lots) are concentrated in the southern portion of the Study Area occupied by transportation utilities and industrial facilities. Jersey City designated these blocks as redevelopment areas in 2007, and these blocks became redefined as Neighborhood, High Rise, and Mixed Use Districts. As a result residential FAR on the lots increased. Allowable FARs under current zoning in these areas are 3.5 in the Neighborhood District and up to 5.0 in the High Rise District (Refer to Current Zoning Map in chapter 1.5 Land Use). Of these underbuilt lots, the larger-sized lots are mostly used



LAND USE DISTRIBUTION BY AREAS





as parking and industrial spaces. Residential and commercial buildings are located on the smaller underbuilt lots on the south side of the Lackawanna Site.

Soft Site Analysis

Under current zoning, the study area has 20,013,605 square feet (459.45 acres) available floor area to build out on the soft sites. A soft site is a lot where development is likely. Soft lots are determined based on available FAR on each lot. The following are criteria to determine soft sites in the Study Area.

- Vacant lots
- Lots that have 50 percent or more available FAR
- Privately-owned lots

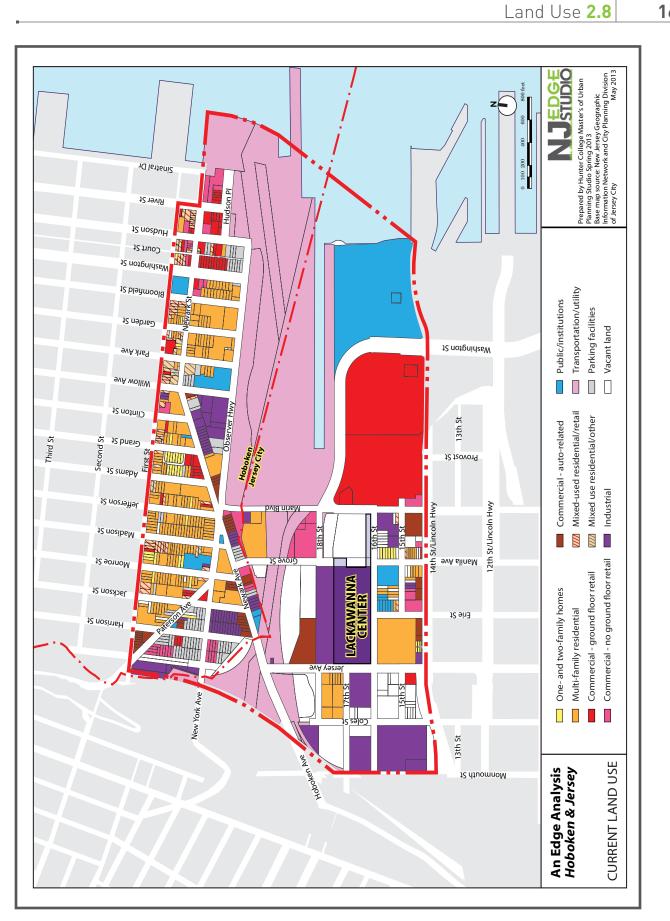
All lots will be evaluated based on the soft site criteria. Map 6 shows the soft sites in the Study Area. The lots with dashed lines are vacant. The red-colored lots are those with over 50 percent available FARs. All of these lots are identified as privately-owned lots and are determined as soft sites. These blue-colored lots have 20 to 50 percent available FARs, and these gray-colored lots have less than 20 percent available FARs.

Population Projection on Soft Sites

By means of the Dwelling Units method, the population increase on the soft sites can be calculated as the number of occupied new dwelling units on the soft sites times the average number of household size, plus population in group quarters facilities, such as college dormitories. Since the Study Area does not have any group quarters facilities, new housing units, occupancy rate, and average number of person per household are three components to calculate population increase in the Study Area.

If the soft sites are fully developed as residential use, the projected population increase will be 50,940. The following are assumptions to project population increase in the Study Area.





Map 1: Land Use

NJ<u>EDGE</u> STUDIO



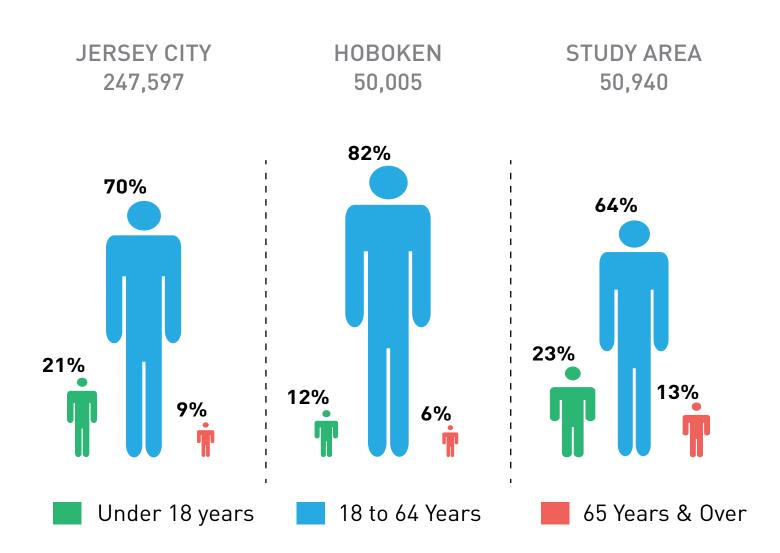
- The soft sites are fully developed as residential use.
- The average size of dwelling units is 1,000 square feet.
- The future demographic trends in the study area follow those of the New York-Newark-Jersey City, New York-New Jersey-Pennsylvania Metropolitan Statistical Area (NYC MSA) in 2010.

To calculate maximum number of new dwelling units, the average size of dwelling units (1,000 square feet) is applied to divide the total floor area of soft sites (20,013,605 square feet, 459.45 acres). The occupancy rate in NYC MSA is 90.0 percent, and the mean household size is 2.8 persons. 20,014 dwelling units can be built on the soft sites. With this maximum number of new dwelling units, 18,193 dwelling units will be occupied. Thus, 50,940 people will move to the new dwelling units on the soft sites. With the total population increases, 8,558 school-age children, 32,601 workers, and 6,622 senior population will live in the new dwelling units.





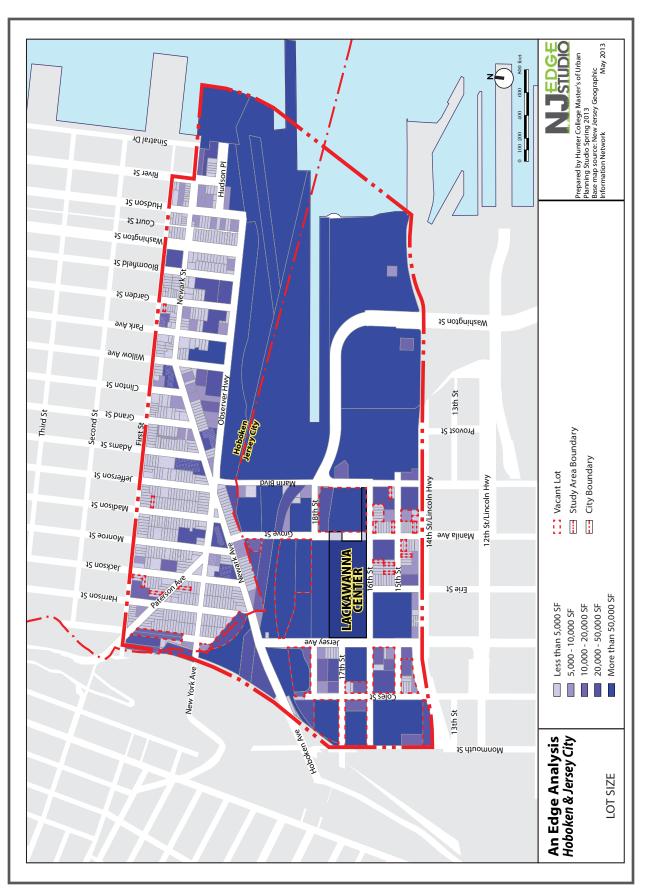
PROJECTED POPULATION



Source: U.S. Census Bureau

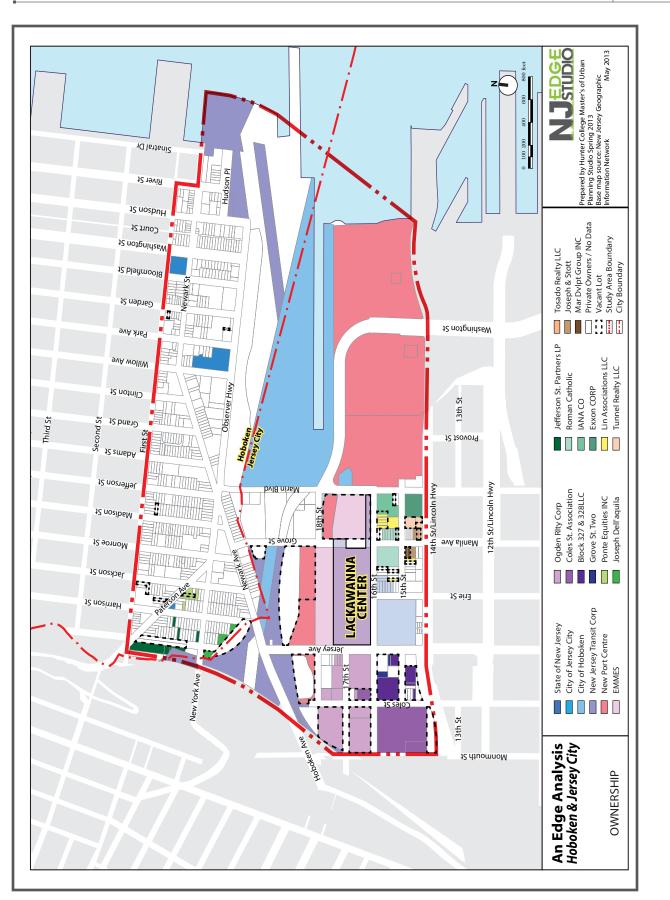






Map 2: Lot Size

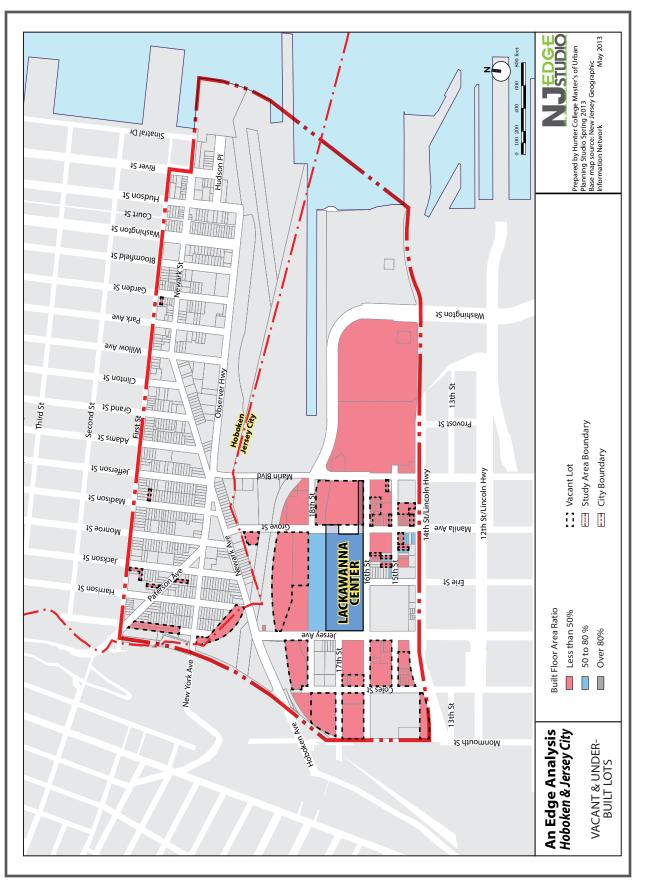




Map 3: Ownership

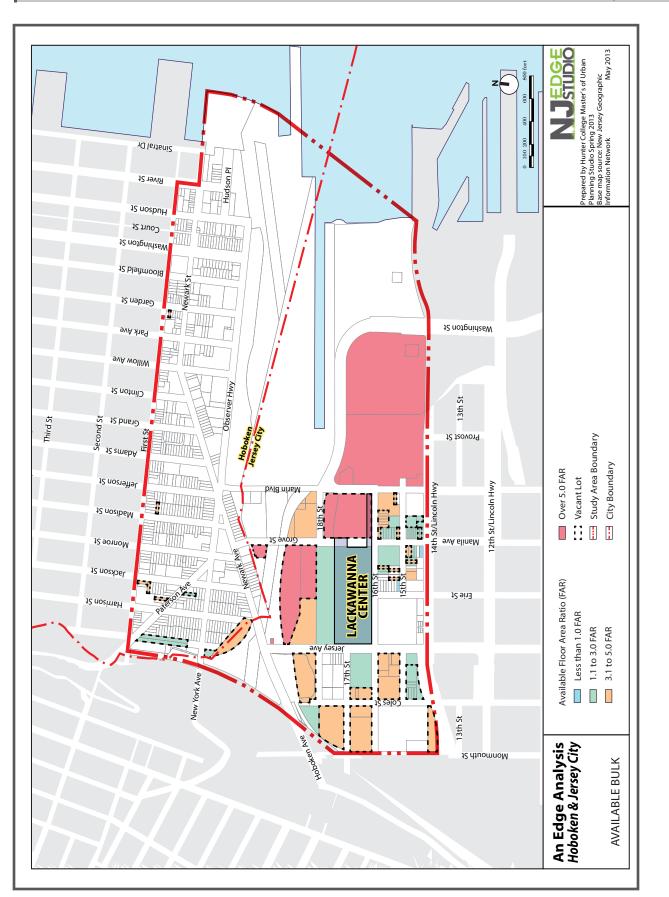
NJ^{EDGE}

Land Use 2.8



Map 4: Vacant and Underbuilt Lots

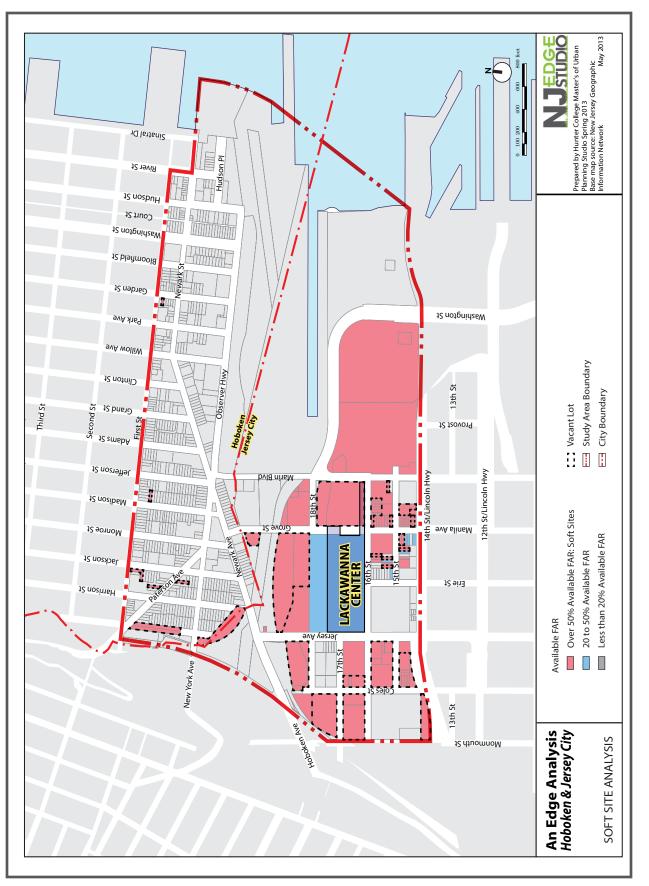




Map 5: Available Bulk of Vacant and Underbuilt Lots

Land Use 2.8





Map 6: Soft Site Analysis



2.9 Crime



2.9 Crime

Larceny and theft are a concern for the Study Area, especially if foot traffic and bicycle usage is to increase. Violent crime is less of a concern, as it has significantly decreased in Hoboken since 1985. In 2010, there were 131 counts of violent crime compared to 232 in 1985 even though population in Hoboken significantly increased during this time (Hobokenpd.com). Jersey City had 1,851 instances of violent crime in 2010, a slight increase from 1,637 in 2006. Jersey City had a lower violent crime rate than other large cities in the state; Jersey City had 7.8 violent crimes per 1,000 people and Newark City has 12.1 violent crimes per 1,000 people in 2011 (njsp.org).

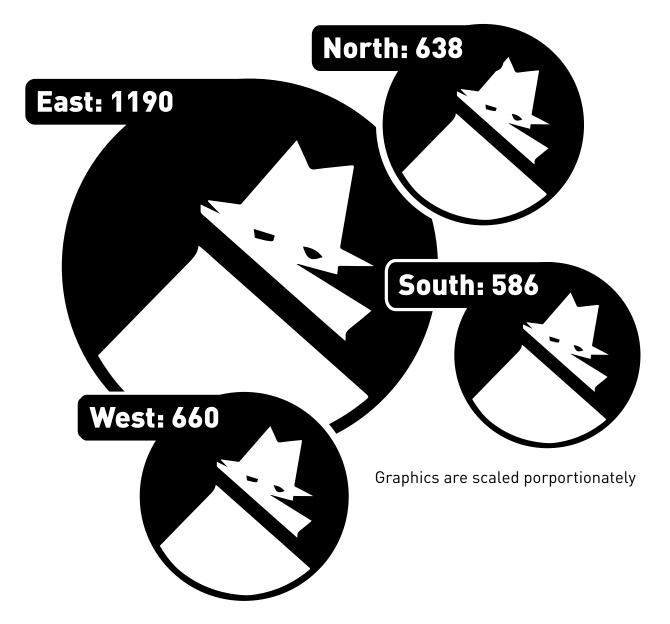
The biggest crime concern in Hoboken is larceny and theft, with 65 counts in August 2012 alone. This monthly count has been relatively steady since January 2008, with the lowest monthly count at 35 and highest at 115 (Hobokenpd.com). In 2010 Hoboken had 13.4 thefts or larceny crimes per 1,000 people (hobokenpd.com). Susan Polikwa, Division Head of Mobility and Planning in Hoboken, stated that the Hoboken police are spearheading an effort to stop bicycle theft in particular (Susan Polikwa, Feb. 20, 2013). As theft is a concern, and plans for the Study Area will likely increase bicycle use, any efforts to curb theft in the area would be welcome.

Theft is also a concern in Jersey City. The graph below shows that the East Precinct, where the Lackawanna Site is located, suffers more from theft and larceny than any other precinct in Jersey City. In 2012, the East precinct had 19.9 thefts or larceny crimes per 1,000 people, the North and South had 10.6 counts per 1,000 people, and the West precinct had 13.2 counts of larceny or theft per 1,000 people. As a whole, Jersey City had 13.9 thefts or larceny per 1,000 people in 2012; this compares to 19.5 thefts or larceny per year in 2000 (Njjcpd.org). The East and North precincts have about 60,000 residents, while the South and West have between 50,000 and 55,000 people (Njjcpd.org). One explanation may be that the Newport Mall is located in this area, along with other shopping centers, providing more opportunities for theft. Regardless, it is a clear concern for the area. Any plan to increase commercial and retail space at the Lackawanna Site must consider the theft rate in the area as a possible concern for the Jersey City Police Department.





Count of Larceny and Theft, by Precinct, in Jersey City, 2012



Numbers are the reported incidents of theft and larceny within each Jersey City Police District

Area with the least amount of crime:





3.0 Recommendations





3.1 Summary of Recommendations

Our recommendations include descriptions and actionable next steps that various municipalities, agencies, and entities can take to improve the Study Area. The first set of recommendations applies to the entire Study Area and should be implemented by Hoboken and Jersey City, or associated agencies such as New Jersey Transit. In most cases, coordinated efforts between the two municipalities or stewardship by a proposed Special Improvement District in the Study Area will be necessary.

The second set of recommendations includes a number of initiatives specific to the Lackawanna Center to be implemented by Emmes. Many of these recommendations are geared towards increasing occupancy in the Lackawanna Center, and should be used as a guide to find viable and long-term tenants. Emmes should not be expected to operate the businesses we suggest; rather the list can be used as a point of reference for Emmes in searching for tenants that will revitalize the Center in a way that takes advantage of the building's industrial footprint. We have carefully chosen tenant recommendations that turn the Lackawanna Center into a community focal point and fill needs in the Study Area.

We formulated the following recommendations for the Study Area and the Lackawanna Center:

- Create a new light rail station and add pedestrian, bicycle, and street improvements that will help create a more livable neighborhood and better connect Jersey City and Hoboken.
- Upzone Hoboken to allow residential development and subdivide tax lots in Jersey City to spur contextual development and create a cohesive community.
- Mandate that developers provide 30 percent affordable units to address the lack of affordable housing in the Study Area and provide a 30 percent FAR bonus in return.
- Improve the lack of open space in the Study Area by building a park at the foot of the Palisades and increasing green space around the Lackawanna Center, which will also help to make the Study Area a destination for both Jersey City and Hoboken residents.
- Implement a Special Improvement District, or SID, in the Study Area dedicated to creating a livable community by overseeing some of our recommendations, like transportation improvements, tax assessments, the Green Building District, and the Observation Deck.



- Mandate green building codes in the Study Area to reduce energy costs and improve occupancy rates and property values.
- Create a neighborhood focal point at the Lackawanna Center, while increasing occupancy and improving value for our client, Emmes Asset Management.
- Physically subdivide the Lackawanna Center with a glass facade into an eastern and western half, adding a pedestrian corridor on the ground floor to reconnect the street grid and create a visual focal point for the neighborhood.
- Subdivide Emmes' eastern lot, which is currently vacant, to permit phased development and to spur smaller scale contextual development to improve the feel of the neighborhood and attract residents.
- Create a Tech Center / Business Incubator to fill approximately half of the Lackawanna Center that will draw from the surrounding educated population to spur start up companies and create jobs needed in the neighborhood.
- Create a Charter School in the Lackawanna Center to meet the need for education as the population in the Study Area increases.
- Build an expansive rooftop and indoor farm that will provide jobs and supply food for the community, as well as support the food production, retail, and restaurant cluster in the Lackawanna Center.
- Establish a vertically-integrated food manufacturing incubator for food business start-ups. Provide for new opportunities for employment as well as low barriers for entrepreneurship.
- Create an Observation Deck which will be open to the public to help address the need for open space in the Study Area.
- Create a rooftop beer garden that will use local resources and create a focal point for the neighborhood to attract people from Jersey City, Hoboken, and beyond.
- Add ground floor and second floor retail space to encourage active street life, a sense of community, and provide amenities for new workers and residents moving into the area.



3.2 Study Area Recommendations



3.2 Study Area Recommendations

The following section contains various recommendations for the Study Area, all of which will serve to bridge the two municipalities of Jersey City and Hoboken into one connected, livable community. Many of these recommendations will also improve the neighborhood surrounding the Lackawanna Center, setting the stage for the proposed building specific improvements that we outline in the following section. Therefore, Emmes would be well served in communicating and working directly with Jersey City, Hoboken, Hudson County, New Jersey Transit, and other applicable entities to see these recommendations through to implementation.

We propose improvements to transportation, an expansion of open space, land use regulation changes, the creation of a special improvement district, and an acknowledgement of environmental issues in the Study Area in the following sections.



A proposed Complete Street redesign for Observer Highway in Hoboken



Transportation Improvements

Design and Construction of Complete Streets

Background

A "Complete Street" is a street that takes into account the transportation needs of all users – including pedestrians, cyclists, public transit riders, and the disabled – in addition to single-family motor vehicle occupants (State of New Jersey). In New Jersey, municipalities are certified for being Complete Streets adherents by the state government as part of a larger sustainability program; Hoboken and Jersey City were both certified as compliant in Complete Streets in October 2011. Therefore, all municipally owned roadways must be designed and constructed as Complete Streets whenever any public funds are spent on their repair, maintenance, or upgrade in these cities (Sustainable Jersey). Hudson County adopted a similar policy for all county road projects in May 2012 (Hudson County).

Complete Streets Recommendations

Many of the recommendations in the following sections (pedestrian, bicycle, and transit improvements) include elements of Complete Streets design. Additionally, we propose narrowing the width of motor vehicle travel lanes to 10 feet (preferred) or 11 feet where possible along Jersey Avenue, Grove Street, Marin Boulevard, and 18th Street to discourage speeding and reckless driving. By narrowing motor vehicle travel lanes, the reclaimed street space can be used to construct proposed bicycle facilities, widen sidewalks, build pedestrian medians and/or provide buffers between vehicular traffic and pedestrians/cyclists. These streets should be redesigned to adhere to Jersey City's, Hoboken's, and Hudson County's Complete Streets requirements.

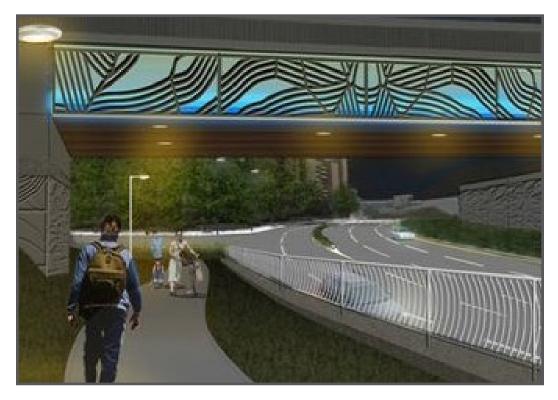


Pedestrian Improvements

Improving pedestrian safety and encouraging walking by creating a pedestrian friendly environment should be one of the first step towards revitalization of the Study Area. During field visits to the Lackawanna Center and Study Area, we observed declining sidewalk infrastructure, long and dangerous crosswalks, a lack of lighting beneath underpasses, reckless driving and speeding, and other significant problems that detract from the pedestrian environment. All of these issues discourage pedestrians at the hubs of Newport, downtown Jersey City, and downtown Hoboken from walking towards the Lackawanna Center.

To improve the pedestrian environment in the Study Area we recommend the following short-term improvements:

 Install pedestrian-scale lighting beneath railroad underpasses at Jersey Avenue, Grove Street, and Marin Boulevard, and underneath the Lackawanna Center's two railroad loading overpasses on Grove Street, north of 16th Street



Example of a properly lit underpass in Arlington, VA





Crosswalk with high visibility thermoplastic markings

- Install clearly marked crosswalks with highly visible, cost effective thermoplastic material in the Study Area. Construct raised crosswalks – which allow drivers better views of pedestrians when approaching an intersection – at high-volume intersections at 18th and 16th Streets in Jersey City.
- 3. Re-paint stop lines at major intersections so they are set further back from crosswalks to allow greater day-lighting at intersections and increase driver awareness of pedestrian activity.
- 4. Adjust signal timings at high-volume intersections on 18th and 16th Streets in Jersey City to provide leading pedestrian intervals, which provide head starts for pedestrians to cross before any vehicles are provided with green lights.
- 5. Install pedestrian medians on Jersey Avenue and Marin Boulevard to reduce wide crosswalks and to reduce traffic speed.
- 6. Plant street trees and install planters along roadways to create a buffer between pedestrians and traffic. Vegetation will also beautify the area and provide for better stormwater runoff containment.
- 7. Install public seating on sidewalks for pedestrians to sit and rest. Along with other beautification treatments, public seating will encourage residents and visitors to the Study Area to congregate in public space rather than avoid it.





Pedestrian medians shorten crossing distances and provide refuge between travel lanes.

- 8. Install signage-alerting motorists to watch for and yield to pedestrians at intersections.
- 9. Create and install wayfinding signage to aid pedestrians traveling to and from the Lackawanna Center. Signage should be posted at PATH stations at Hoboken, Newport, and Grove Street as well as at Light Rail stations at Hoboken and Newport. Integration of this signage with Jersey City's existing Destination: Jersey City program is advisable; Jersey City installed over 500 wayfinding signs in the city that serve as guides for local and visiting pedestrians throughout the city (Merjedesign). Digital wayfinding programming for the Lackawanna Center through internet pages and smartphone apps should be created as well.

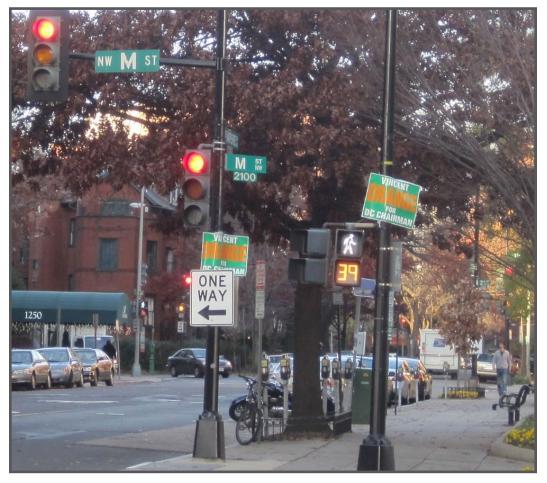


"NYC DOT wayfinding" with caption - Wayfinding signage in New York City.



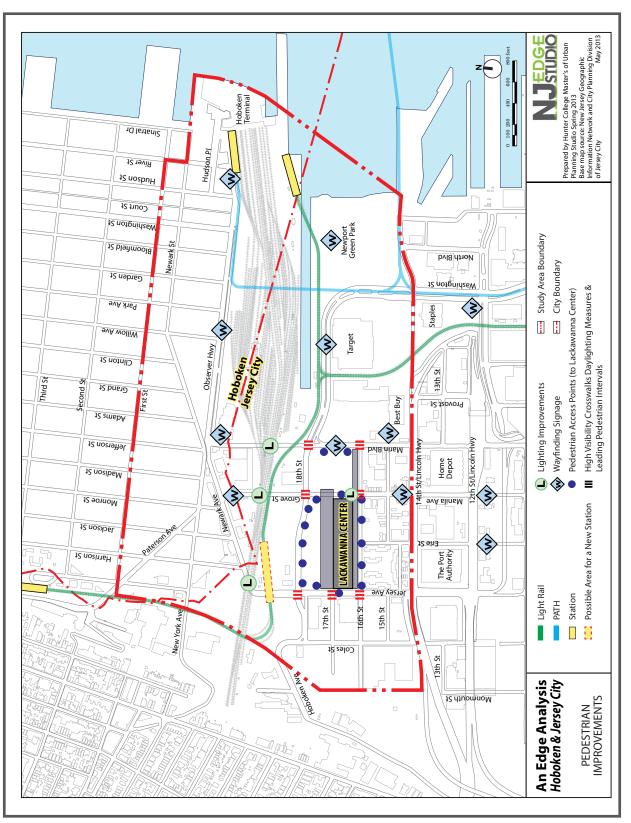


Advance stop lines provide better visibility of crossing pedestrians



Pedestrians are provided with a leading interval on M Street, Washington D.C.





Pedestrian Improvements Map



Study Area Bicycle Plan

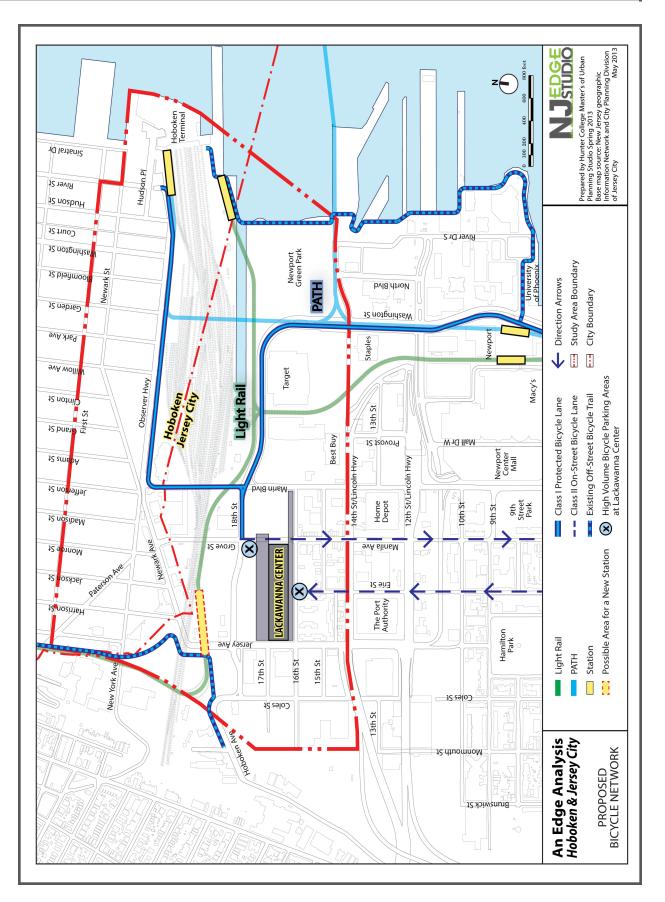
Hoboken's planned Observer Boulevard redesign will reach the intersection of Observer Boulevard and Marin Boulevard – therefore, our bicycle plan considers the linkage to this planned infrastructure as a starting point of analysis. The proposed bicycle network is shown in the map on the following page, and specific recommendations follow:

Construct two-way, concrete barrier-protected bicycle lanes along the east side of Marin Boulevard from 18th Street in the south to Observer Boulevard in the north. Integrate lane with sidewalk where needed at railroad underpasses due to relatively narrow street widths and wider sidewalks at these locations. This proposed facility would connect directly to Hoboken's planned Observer Boulevard Complete Street conversion, providing cyclists safe access to Hoboken Terminal.



Hoboken's Observer Boulevard Complete Street conversion includes a protected bicycle lane







NJ<u>EDGE</u>

187

Construct two protected bicycle lanes on each side of 18th Street, from Grove Street in the west to the terminus of 18th Street in the east, and continuing south along Washington Boulevard to Newport. This facility would provide cyclists safe access between the Lackawanna Center and the Newport PATH station and ferry terminals along the Jersey City waterfront.

Construct a pair of on-street bicycle lanes along Erie Street (running north) and Grove Street (running south) from the Lackawanna Center to the Grove Street PATH station. The proposed Grove Street lane would connect directly to Jersey City's only existing bike lanes, on Grove Street just south of Christopher Columbus Drive near City Hall.



Bus Service Improvements

Shuttle Bus Service

As discussed earlier in this report, there is currently no public transit service in the immediate area around the Lackawanna Site, and overall there is a need for bus service improvements in the Study Area. As a short-term recommendation we suggest launching a local shuttle bus service to serve the immediate area to connect users to PATH and HBLR stations at



New Jersey Transit bus service

Hoboken Terminal and Newport. The operations of the shuttle bus could be modeled after the City of Hoboken's HOP service, which provides its riders with low-cost transportation to areas beyond easy walking distance (City of Hoboken, NJ). A shuttle bus would be particularly useful as a short-term solution around the Lackawanna Center due to the total absence of public transportation and the anticipated time that may pass before a light rail station at 18th Street is built (refer to the following section on a potential light rail station).

We recommend the service itself be administered by private real estate owners in the Study Area, including Emmes. The Cast Iron Lofts development already operates a private shuttle bus service to and from the Hoboken Terminal (Cast Iron Lofts). We suggest the Lackawanna Center partner with the Cast Iron Lofts and other new developments in the Study Area and run a joint shuttle, with service to both Hoboken and Newport. A shuttle



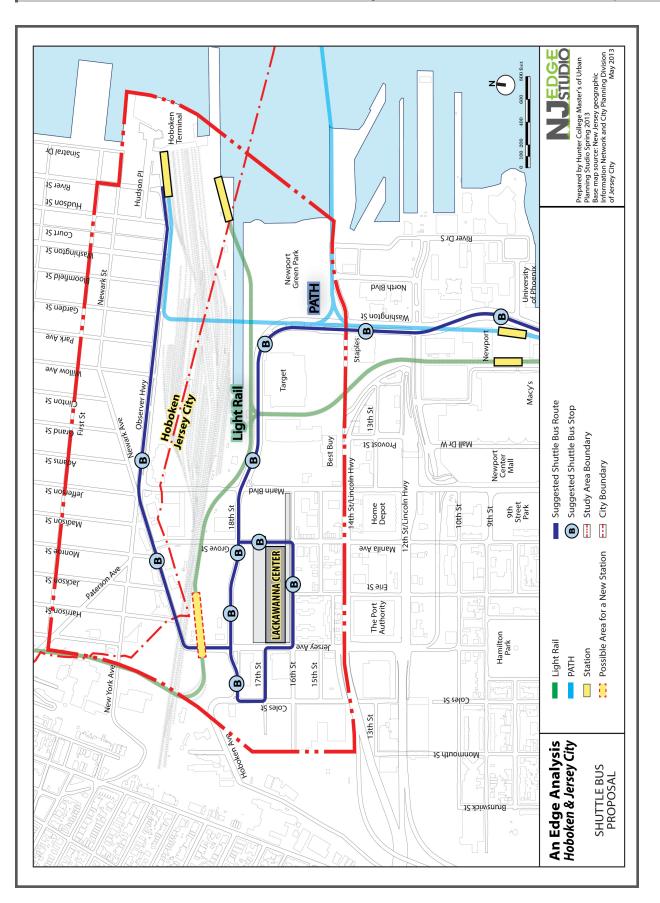
partnership could be administered by and funded through fees paid into the proposed Special Improvement District by various property owners (for further details on the Special Improvement District, refer to that section of this report).

A map showing proposed shuttle bus routes and stops is presented on the following page:

Hoboken's HOP shuttle bus service
Public Bus Service

As the Study Area grows in population and demand for public transportation increases, we suggest the creation of a new bus line or an alternate route of NJ Transit Bus Line 87 to make stops in the Study Area and at the Lackawanna Center. High demand could certainly incentivize NJ Transit to generate funding for improved services in the Study Area. Historically, however, public transit agencies are unlikely to establish new bus service unless sufficient demand is conclusive and potential ridership is guaranteed.





189



The HBLR currently parallels the north side of 18th Street in Jersey City but does not stop.

Light Rail Station

We propose building a Hudson Bergen Light Rail ("HBLR") station at 18th Street and Jersey Avenue. The station would provide direct access to the Lackawanna Site and improve transportation options for current and future residents living in close vicinity.

As mentioned earlier in this report, numerous residential developments have located near HBLR stations since the system's opening in April 2001. A station at 18th Street would likely encourage residential and commercial development in the area surrounding the Lackawanna Center.

The station will cost approximately \$25 million, and is unlikely to be built within the next five years (Cotter, Bob). To generate construction funding, NJ Transit should consider the following funding sources, among others:

Federal Funds and Grants

The federal Department of Transportation's TIGER (Transportation Investment Generating Economic Recovery) grant program awards funding to transportation projects on a highly competitive basis. \$474 million in TIGER funding is available during fiscal year 2013. The program was originally implemented through the American Recovery and Reinvestment Act of 2009 (US Department of Transportation).

The Federal Transit Administration's ("FTA") Small Starts program includes a "Very Small Starts" component whose criteria mostly fit with the prospect of an 18th Street HBLR station. Awards cover most capital costs of building a new station provided



191

the local operating entity provides a suitable application and can cover future operating expenses. Grants are awarded on a highly competitive basis, and more information is available through the FTA (Federal Transit Administration).

The Federal Highway Administration's TIFIA (Transportation Infrastructure Finance and Innovation Act) program "provides credit assistance for qualified projects of regional and national significance" (Federal Highway Administration). Subsidized loans and increased access to federal capital allows infrastructure projects to move forward when private

capital markets deem them too large or risky for market rate financing. Rail projects fit under the criteria of the TIFIA program.





Numerous other programs are included

in the FTA's MAP-21 Transportation Authorization bill. We advise Emmes, NJ Transit, and other interested parties to work together in finding other federal grant or financing options that may be available for an 18th Street station project.

State and Local Funding

The HBLR was originally funded through a combination of FTA New Starts grants and funds contributed by the state of New Jersey (NJ Transit). It is likely that federal funds for a station at 18th Street would not cover the entire cost of the project. Therefore, NJ Transit will need to work with the New Jersey state government in securing additional funding. If state funding proves difficult to obtain, the local municipalities of Jersey City and Hoboken should consider special municipal tax strategies to fund the difference if its citizens are found to support the project.

Value Capture Financing

Absent direct federal, state, or local funding, it is possible for the private sector to become involved in paying for the proposed station. Various strategies exist that allow the public sector to capture some of the increases in private property values that often follow public infrastructure investment projects such as new transit stations. Such tools can provide a unique solution to difficulties in obtaining government funding while at the same time providing benefits to the participating private sector partners.

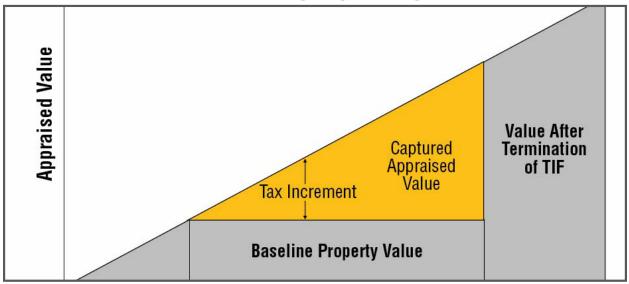


Municipal bonds may be issued up front to fund a project (often by a special purpose vehicle or public authority expressly set up for such a purpose), and portions (or all of) the debt service repayments on these bonds are "captured" through the increased property values that the station's construction usually bring to the immediate area. Real estate owners in the station's catchment area can be levied with special assessment taxes based on values of their properties; in other cases the municipality may earmark any increased incremental property taxes (which result from higher real estate assessment values) exclusively for debt service.

In any value capture strategy, the higher the value of a property, the higher the special assessment fee or tax contribution made to the public sector. As a result, new large residential and commercial developments that are valued much higher than existing single-family homes in an assessment area inherently become the primary funding source for the project. These property owners might choose to pass on portions or all of these fees or taxes through special fees bundled into tenants' rents or condo owners' periodic common charge fees.

Examples of value capture financing include the New York MTA's 7 subway line extension, which employs Tax Increment Financing (NY1.com), and Fairfax County, VA's establishment of two special assessment districts to fund an extension of Washington Metro's Silver Line (Earley, David and Mitchell, Jennifer).

We recommend Emmes review the many value capture tools available along with more specific local issues to determine the best method or methods of financing an 18th Street HBLR station. Additionally, as mentioned earlier in this report, NJ Transit is currently conducting a feasibility study regarding a potential station and we recommend a review of that report upon its completion.



The basics behind a Tax Increment Financing (TIF) scheme. Source: bettercities.net



Open Space

The Study Area has an overwhelming need for higher quality and larger amounts of open space. In Hoboken, the issue of a lack of parkland is a contentious political issue. Within their respective master plans, both municipalities advocate for the development and rehabilitation of open/green spaces. However, funding and planning are not forthcoming.

Our goals for improving open space in the Study Area include the following:

- Create pedestrian friendly zones
- Create permeable spaces on the project site to collect stormwater runoff
- Develop green/open spaces on land currently owned by Emmes
- Acquire or contribute funds to the acquisition of land for the development of open space
- Work with Hoboken, Jersey City, interested stakeholders, and private sector developers to create a phased long-term plan for open space development

Within the Lackawanna Site there are a number of vacant and under developed areas. We propose taking advantage of this land and developing much needed open and green spaces around the Lackawanna Site and in the Study Area.

Proposed Parkland

There is a sizable portion of undeveloped land located northwest of the Lackawanna Site. The 6.5-acre site is comprised of two lots. The area is bounded by Hoboken Avenue on the south and east, the New Jersey Transit rail line on its northernmost end, and the Palisades on the west. The Palisades have an important, even unique geological history. They are a remnant of where the continents of Africa and Europe split. They are a much older rock formation than the glaciated boulders that make up Manhattan and Long Island (Stoffer and Messina). Monmouth Avenue runs between the two vacant lots in question. The Hoboken Motorcycle Club and New Jersey Transit currently occupy this underutilized land, and we believe that it could better serve the community as parkland. We are proposing the development of a privately funded city park to serve all neighborhood residents. By keeping this area as permeable open space, it can serve as a valuable asset in future flood mitigation efforts. Impact fees levied on future residential development could be used to keep the area vital and livable for all.



Greening the Edge

Adjacent to the Lackawanna Center is a three-acre lot, also owned by Emmes. While we initially explored developing parkland on the site, we found other uses to be more suitable for the primary function of the space (refer to Eastern Lot section). However, we recommend incorporating landscape design wherever possible in order to plant and beautify the site and create permeable ground surfaces.

On the ten-acre lot occupied by the Lackawanna Center, 3.1 acres of land is currently being used for parking. We recommend developing half of this area, or approximately 1.5 acres, into planted green space. This serves a number of functions: it creates a permeable surface to collect stormwater runoff, creates a pedestrian friendly and inviting entrance to the Center itself, and also improves the environmental condition of the area by replacing an auto-dominated surface with a sizable, sustainably landscaped space.

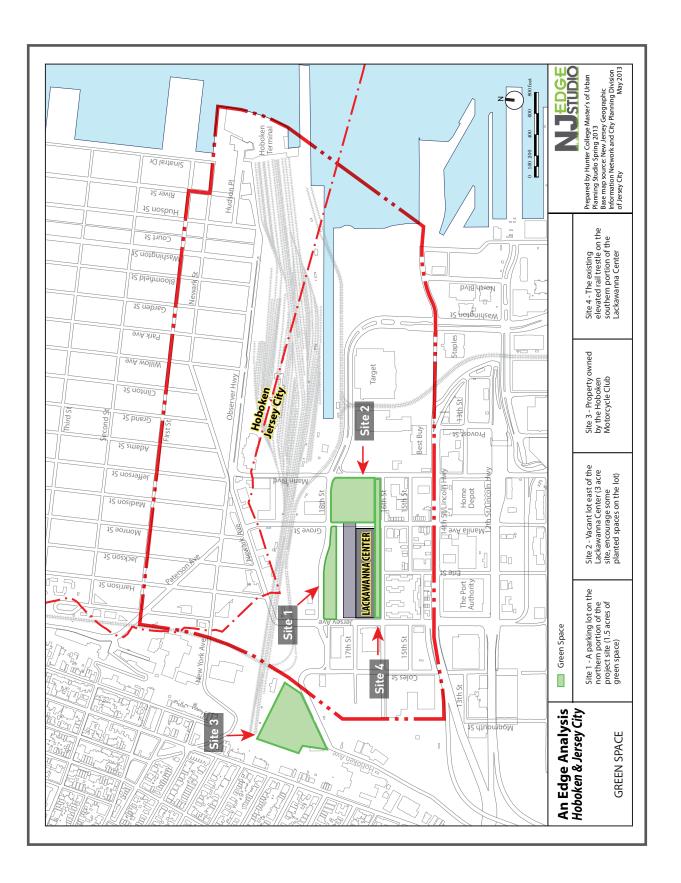
The elevated rail trestle on the southern portion of Emmes' property is our fourth point of interest. Currently, developing or demolishing the rail infrastructure would not be financially feasible. We recommend revisiting the notion of demolishing a portion of the structure and/or developing some green space at a later date. Presumably, more development and new private sector developers can contribute to funding.

Potential open space development sites, map located on the following page:

- Site 1 A parking lot on the northern portion of the project site (1.5 acres of green space)
- Site 2 A currently vacant lot owned by Emmes, located east of the project site (3 acre site, encourage some planted spaces on the lot)
- Site 3 Property owned by the Hoboken Motorcycle Club (Acquire 6.5acre property; develop green space for passive and active uses)
- Site 4 The existing elevated rail trestle on the southern portion of the project site should be part of a long-term phase development plan; it is recommended that open/green space is a part of any proposed redevelopment plan for the unused rail infrastructure.

We recommend the funding of any proposed new or redeveloped open space within the area to be primarily provided by private sector developers, all local stakeholders and interested parties. Costs should be factored into a strategic long-term development plan for the site and the surrounding area.





NJ<u>EDGE</u> STUDIO

Land Use

We propose several recommendations related to land uses in the Study Area; some will require changes to existing regulations in Jerery City and Hoboken, while others are suggestions that can be accomplished "as-of-right" in order to facilitate phased development and create a more livable community.

Subdivision of Tax Lots

We recommend the option of allowing soft site property owners to subdivide their lots in order to allow for phased development. The Study Area has 20,013,605 square feet (459.45 acres) of soft sites as of 2013. The division of single parcels of land into two or more parcels may increase flexibility for developers during a time of economic stagnation. Subdivision will also act as a catalyst for all kinds of developments. Thus, soft site owners will be able to develop or sell their land in phases, should they find it preferable. This way, potential developers including soft site owners will have more options to invest capital that will act as a catalyst for the revitalization and growth of the Study Area. Minimum lot sizes for subdivisions can be found within the various redevelopment plans that cover the Study Area.

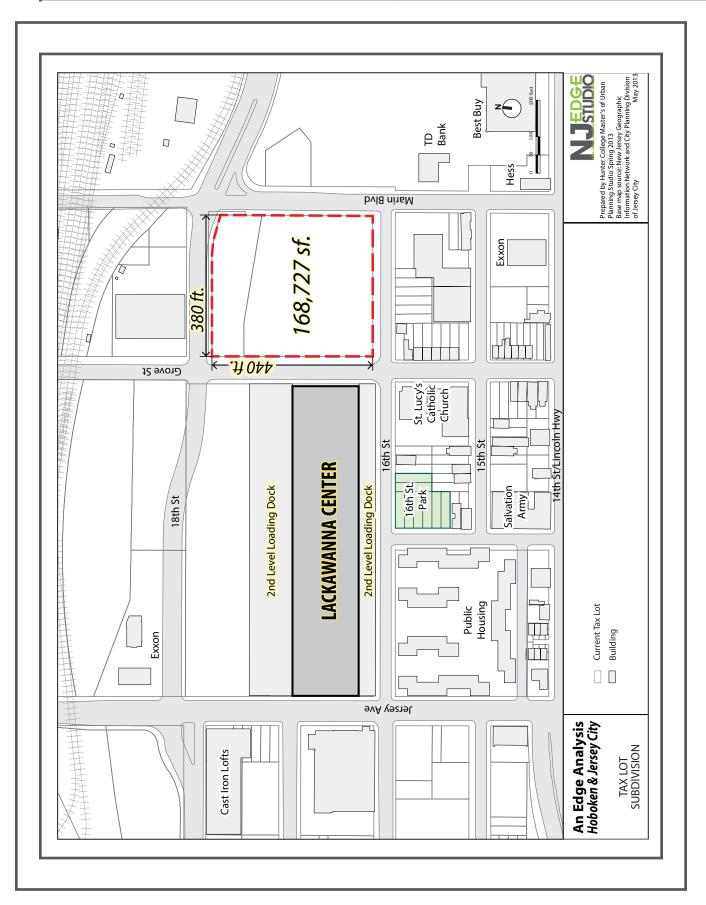
Subdividing tax lots will fulfill a land use objective of the Jersey City Master Plan, which encourages landowners to develop land as a means of promoting community development. The Jersey City Master Plan encourages mixed use residential and commercial developments, as well as brownfield redevelopments (Jersey City Division of City Planning, pp. I-3-5). This subdivision recommendation will introduce the idea that the current owners of the soft sites can sell their properties to other developers who have experience in the field of housing and commercial developments of various sizes. With this recommendation, owners can reduce the amount of risk that they take when they develop their property at a scale with which they are familiar.

Emmes Eastern Lot Recommendation

For the Emmes owned eastern lot, which is currently vacant, we propose that Emmes consider subdividing the area to facilitate phased development. Instead of one large-scale residential building, several buildings can be developed gradually. This would aid absorption rates in the neighborhood, as development can be phased in as determined by local market demands.

Whether Emmes sells or develops the lot itself, a subdivision will provide additional options that would involve taking on less risk within a weak economic climate. It could also provide an initial example of suitable means of local development on the Soft Sites in the Study Area.





Hoboken Study Area Zoning

We recommend a rezoning and up-zoning of Hoboken's I-2 Industrial District, which is part of the Southwest Hoboken area whose redevelopment prospects have been the subject of debate in recent years. A description of the recent history of this area is below, followed by our specific recommendations for zoning changes.

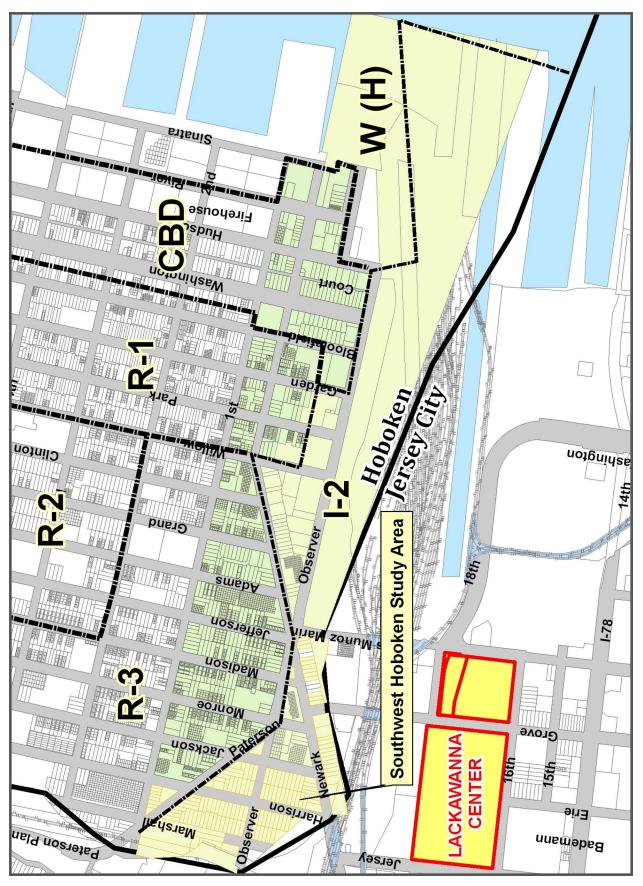
Southwest Hoboken Background

In 2004, Hoboken revised its Master Plan, and recommended that Southwest Hoboken be designated a "transitional" district, to allow redevelopment and transition from a primarily industrial district to residential uses and higher density. This plan was eventually scrapped. In June of 2006, after a planning board investigation, the Hoboken City Council designated the Study Area as an "area in need of redevelopment." Because the city was accused of violating procedures, no recommendation was made until 2010. At that time, a new Master Plan for the City of Hoboken recommended maintaining the existing I-2 zone designation, and creating a large park along Paterson Avenue.

Hoboken hired a consultant in 2012 to perform a zoning analysis to determine if the area was in need of Redevelopment. The findings recommended that 35 properties in the Southwest Hoboken Study Area be designated as "in Need of Redevelopment." This was disputed because there is no relationship between the existing Study Area physical conditions and the alleged negative safety or social conditions that would form the basis for certain properties being designated as in need of rehabilitation (Bass 2012).

The main response to the Southwest Study Plan indicates that 70 percent of the 35 properties identified in the study do not meet criteria for redevelopment, and yet are included in the designation. In addition, only three properties had building code or fire code violations, and the building with the most violations was not included. The consultant failed to prove that the existing buildings in the Study Area were blighted or dangerous, and property values and tax valuations were not taken into consideration. In addition, one criteria for redevelopment is if the age of existing buildings and infrastructure is over 50 years of age; this requirement would effectively place the entire city of Hoboken (as well as many other cities) under the redevelopment designation (Bass 2012).





Hoboken Zoning Map



Zoning Recommendations for Southwest Hoboken

Our recommendation conforms with that of the respondents to the Southwest Area Study. Our recommendations, however, pertain to the entire I-2 zoning district bordering the site. We believe that attracting private investment is crucial to revitalizing this area, just as the New Jersey State Planning Act of 1986 describes. Altering the zoning and allowing mixed uses and a higher density should attract private investment and bring more small businesses into the area. Although the area is not blighted, a zoning change can provide the economic stimulus to create a thriving community.

We recommend the following changes to Southwest Hoboken's I-2 district:

- ♦ Maintain a smaller lot size of 5,000 square feet;
- Rezone to allow residential / mixed use development;
- Require ground floor retail for any new residential development;
- Require urban design standards that maintain a contextual street wall design;
- Increase height limits to at least 75 feet, in order to facilitate development consistent with anticipated development in neighboring Jersey City to the south;
- Increase FAR to a maximum of 3.5; and
- Require 30 percent of new units in buildings with over 20 units to be affordable, and provide 30% FAR bonuses as a reward (see affordable housing requirements section below for additional details).

We analyzed the existing buildout on Hoboken's I-2 district, and we find that these recommended zoning changes provide:

- Potential for build out at new 3.5 FAR: 10,595,525 square feet
- ♦ 10,595 units
- This would create an additional 2,119,105 square feet of residential development
- This would create an additional 2,119 units in the I-2 zone, which would make a total of potential 12,714 units



201

Benefits of Proposed Rezoning in Southwest Hoboken

By allowing residential development in the Hoboken I-2 zone, a bridge between northern Jersey City to the south can be fostered. Allowing residential development will attract population into the area to support local businesses already there, creating a livable community and enhancing street life. Requiring ground floor retail for any new residential building will ensure amenities for the existing community and nurture new businesses to serve a growing population. In addition, requiring a uniform street wall design promotes a pedestrian-friendly environment and maintains the generally dense urban character of larger Hoboken. Well designed, open street walls also promote small businesses by providing visibility and easy access to establishments.

By increasing the height limit to 75 feet, the Hoboken I-2 zone will match the Jersey Avenue Park Plan's area height limits to the south, creating continuity of building form and bulk in the immediate area. In addition, increasing the FAR to 3.5 will allow up to 10,595,525 square feet of new residential development in the district, translating into 10,595 residential units (New Jersey Geographic Information Network parcel data). The majority of apartment units in Hoboken are in multifamily buildings, with 43.6% of all units belonging to buildings with 20 units or more (2007-2011 American Community Survey). This pattern of residential development throughout the city suggests multi-family residential development in southern Hoboken as well.

These proposed zoning changes also include a requirement of 30 percent affordable units for buildings with more than 20 units, which will result in an FAR bonus of 30 percent. Hoboken's median income increased 200 percent since the 2000 level of \$62,550 to its current median income of \$104,789 (ACS 2007-2011). This is likely due to an influx of new residents, since 66 percent of current Hoboken residents moved to the city after 2005 (2007-2011 American Community Survey). In addition, the median rent for Hoboken is \$1,714, which is higher than the median rent of \$1,127 for Jersey City (2007-2011 American Community Survey). To avoid displacing lower income residents and in order to promote integrated, mixed income communities, an affordable housing requirement is essential.

This proposal promotes economic development in the I-2 district, and Hoboken should work to maintain the existing small business clusters to the greatest extent possible. By bringing in a residential population, a



mixed-use community will promote livability in the area, and help bridge Hoboken to the Lackawanna Center and northern Jersey City.

Implementation of Proposed Zoning Changes

The city should revisit its original 2004 Master Plan designation of this area as an Industrial Transition zone, and reconsider its reversal of this designation in the 2010 Master Plan Revision. Property owners and potential developers in the I-2 zone could petition the Hudson County Planning Board to begin a public hearing process to amend the Master Plan for Hoboken to facilitate a Zoning Ordinance change (State of New Jersey Laws Title 40:55D-13; 40:55D-15). In order for a Zoning Ordinance change to be adopted, the Master Plan of Hoboken must first be modified. It would be prudent for the interested parties to hire a consulting team to examine the area and produce a counter-study challenging the City's Southwest Area Redevelopment Study. Although modifying the Master Plan and Zoning Ordinance can be a lengthy and contentious process, these proposed changes can create a modern, revitalized, mixed-use urban environment.



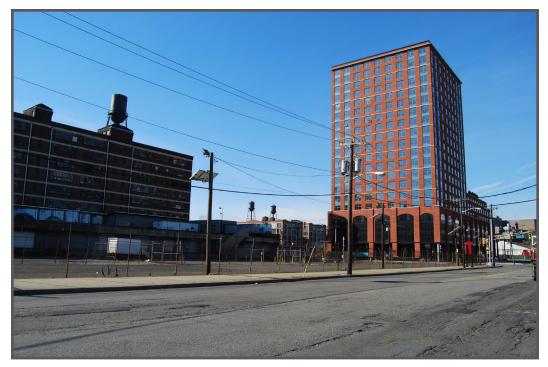
Affordable Housing Requirements

Lack of Affordable Housing

Mandating affordable housing units will alleviate rent-burdened households. According to the 2007-2011 American Community Survey, 28 percent of households in and around the Study Area are rent burdened, or spending over 30 percent of household income on rent (Nccp.org). The median rent per year in Census Tract 78, which includes the Lackawanna Site, is \$8,592 (\$716 per month), whereas the median household income per year is \$28,542 (refer to Map 00-Census Tract Map). However, new residential developments in the Study Area, such as Cast Iron Lofts, 700 Grove, and the Hoboken Grande, do not provide any affordable housing units for those rent burdened households. Under the current zoning regulations, the provision of affordable housing units is voluntary, and the criteria for affordable housing is not clearly defined. Thus, accommodating a range of rents is also a crucial part of this affordable housing recommendation.

Recommendations for Provision of Affordable Housing

In order to provide affordable housing for rent burdened households, existing zoning regulations should be amended to require that new residential developments provide at least 30 percent affordable housing units. This requirement will be imposed on residential developments with more than



The Cast Iron Lofts- 837 Jersey Avenue. Photo by John Namako





700 Grove & The Skyline. Photo by Chang Sung.

The Hoboken Grande. Photo by Chang Sung.

20 dwelling units. The income ceiling for the affordable component should be based on the median income of Hudson County, which was \$57,660 in 2011. Developers will be entitled to receive a FAR bonus as a reward based on how many affordable housing units they provide.

This affordable housing recommendation is consistent with each municipality's master plan. It complies with the housing objective of the Jersey City Master Plan, which states: "Acknowledge the need for a balance of housing options in the City, including affordable housing for low and moderate income households. Encourage the continued development of a variety of housing ranging from affordable to middle income and market rate units" (Jersey City Division of City Planning, p. I-7).

The recommendation also complies with the housing objective of the Hoboken Master Plan, which states: "Protect and increase the City's existing affordable housing stock. Update and enforce existing affordable housing regulations in the Zoning Ordinance. Provide additional affordable units in new residential developments" (Hoboken Planning Board, p. 114).

Mandating affordable units in residential developments will ease the burden on the high percentages of rent-burdened households in the Study Area. It will also reverse the current trend of pervasive luxury development with no affordable housing components.



Green Building District

Description

We have the opportunity to create one of the few green building districts in the country, in part due to the numerous soft sites in the Study Area. California, for example, created the CalGreen label to ensure that buildings construction reduces carbon emissions. Critics, however, say that the rating system adds confusion to the green building landscape, and would prefer that the LEED rating systems be used (LA Times). Creating a green building district will not only benefit those living in the area, but also property owners because of the buzz and desirability that will be generated by the designation.

Developers that build or renovate LEED certified buildings benefit both environmentally and monetarily. According to the United States Green Building Council (USGBC), property owners who implement LEED new construction guidelines see occupancy increases of 6.4 percent and rent increases of 6.1 percent. Property owners that have retrofitted existing buildings see occupancy increases of 2.5 percent and rent increases of 1.0 percent. (USGBC)

The City of Boston became the first city in the nation to require a green building standard through municipal zoning requirements. By amending Article 37 of the municipal zoning code, Boston requires that all largescale projects meet the U.S. Green Building Council's LEED certification standards (Boston City Planning). According to the City of Boston, retrofitted buildings see energy consumption drop by over 72 percent in some cases. Mandatory green standards have been successful in Boston and we believe they could similarly benefit the Study Area as it grows in population.

Next Steps

The two municipalities should amend their respective zoning resolutions to include mandatory LEED compliance in the Study Area.

Special Improvement District *Description*

To help improve, manage, and oversee the Study Area, we propose the creation of a Special Improvement District (SID). A SID is a local management association that uses funds from area commercial property owners and local merchants. Normally, residential properties are exempt, but we propose to include a residential contribution requirement. Area businesses and property owners pay an assessment to fund the yearly operating budget for the SID (jcdowntown.org). The Jersey City Economic Development Corporation Urban Enterprise Zone (UEZ) oversees the SID. The UEZ will match the SID funds to assist in sidewalk and street cleaning, additional security, major physical improvements, and special events. As described in greater detail earlier in this paper, the Lackawanna Center is located in a UEZ district and offers the area many benefits including: reduced sales taxes, tax free purchases, energy sales tax exemptions, special financial assistance from the NJEDA, subsidized unemployment insurance, and one of the following tax credits: up to 8% of corporate business tax on investments or a \$1,500 tax credit for each full time employee hired (NJ Department of Community Affairs).

The proposed Lackawanna SID will help promote commercial activity in the area, add supplemental services, increase programming and manage area initiatives that we recommend. The first initiative will be managing the shuttle bus service that will operate within the Study Area to connect residents and workers to neighboring transit hubs (see Transportation Recommendations for further details). Second, the SID will promote, program, and operate the Observation Deck on the Lackawanna Center's rooftop (see Observation Deck section for further details).

Next Steps

The Lackawanna SID is a short-term recommendation that should be implemented within the next five years. Due to the lack of development in the surrounding area, the Lackawanna Center will need to provide the majority of the funds for the first phase (1-5 years). As area development increases, new properties will contribute to the SID fund. The SID should start the shuttle bus service as soon as practicable to attract people to the area and improve transportation.

Jersey City's existing Special Improvement Districts are overseen by the Jersey City Economic Development Corporation. The proposed Lackawanna SID will require cooperation between Hoboken and Jersey City. Emmes should contact the Jersey City Economic Development Corporation and the City of Hoboken Economic Development department to begin the SID process.



Environment

As discussed earlier in this report, numerous environmental threats exist in the Study Area. Recommendations that address the threats of flooding and the Spectra gas pipeline are discussed below.

Flooding

In response to the widespread devastation resulting from Hurricane Sandy, regulatory authorities have reevaluated and redesignated categorical flood zones within the Study Area (refer to the maps on the following pages). As a result, construction and future development may be impacted by new building codes are regulations as they are developed. Further understanding of construction and development within coastal flood zones can be acquired within the following FEMA publications: *Coastal Construction Manual I & II (2011), Local Officials Guide for Coastal Construction: Design Considerations, Regulatory Guidance, and Best Practices for Coastal Communities (2009), Engineering Principles and Practices for Retrofitting Flood-Prone Residential Structures (2012),* and *Final Report: New York/New Jersey Coastal Advisory Flood Hazard Information Development (2013).*

Pipeline

Spectra Energy's New York and New Jersey Pipeline expansion is another environmental issue to which further consideration should be given. As stated previously, based on findings documented in the environmental impact statement (EIS), the primary impacts of the project would include:

- Increased traffic in construction areas;
- Potential soil contamination in the project area;
- Potential groundwater contamination;
- > Temporary impacts on existing wetland resources;
- > Potential emissions from fossil fuel construction equipment; and
- Construction related noise impacts (Federal Energy Regulatory Commission).

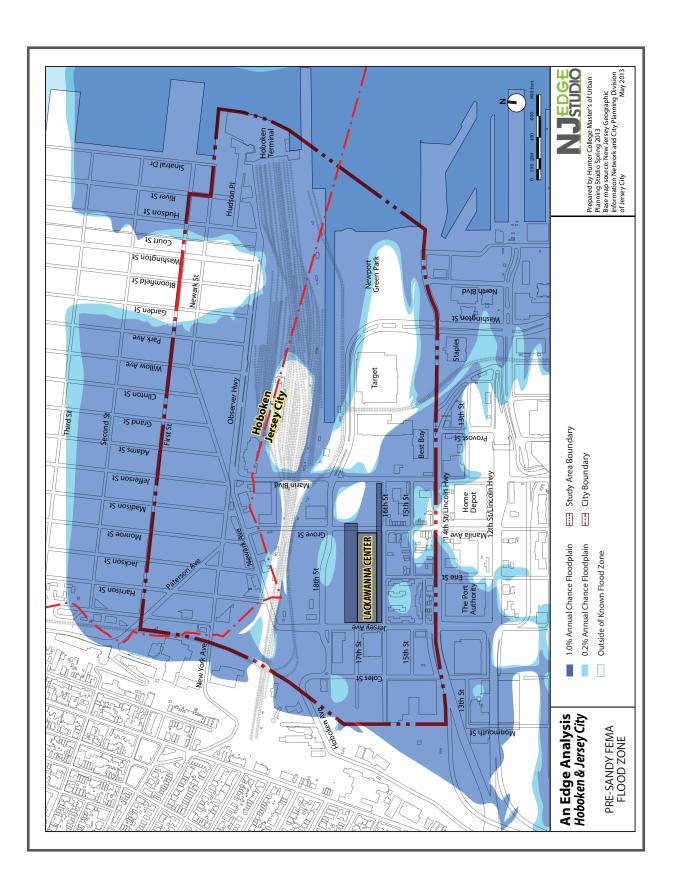
These impacts may potentially bring about quality of life issues for local residents and visitors. They may deter pedestrian activity, harm neighborhood character



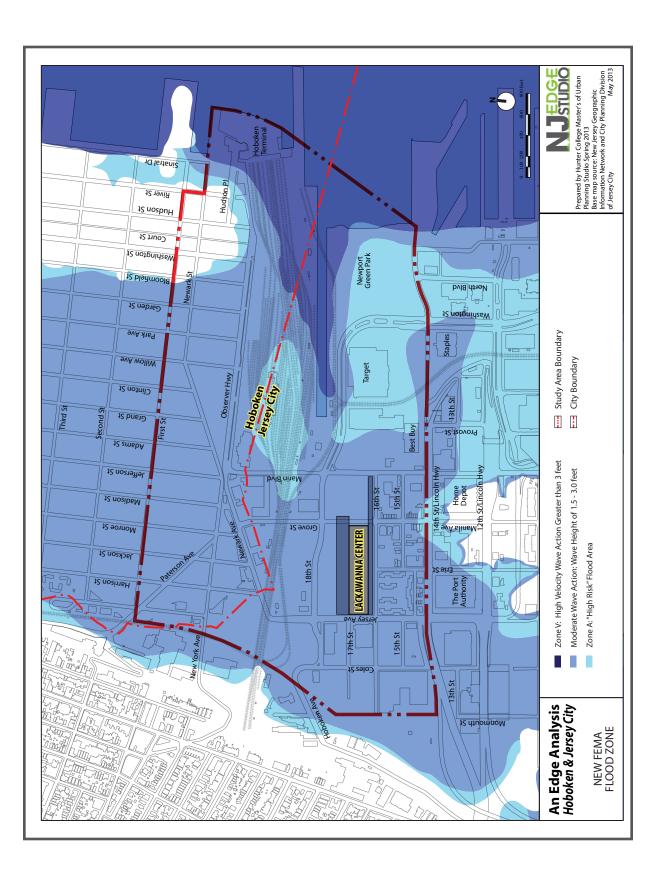
and negatively impact transportation. According to the EIS, the anticipated impacts would largely take place during the construction phase of the project.

The EIS notes that Spectra Energy intends to take all possible measures in accordance with federal environmental guidelines to avoid and, if necessary, to mitigate all potential impacts. A separate report prepared by Spectra Energy detailing a plan for mitigation and remediation, if necessary, should be prepared. We recommend that all environmental issues should be documented in a report as they arise. Spectra should notify local residents, property, and business owners of plans that may impact them, and these parties should be allowed access to reporting agencies who will be able to address their immediate concerns.





NJ<u>EDGE</u> STUDIO





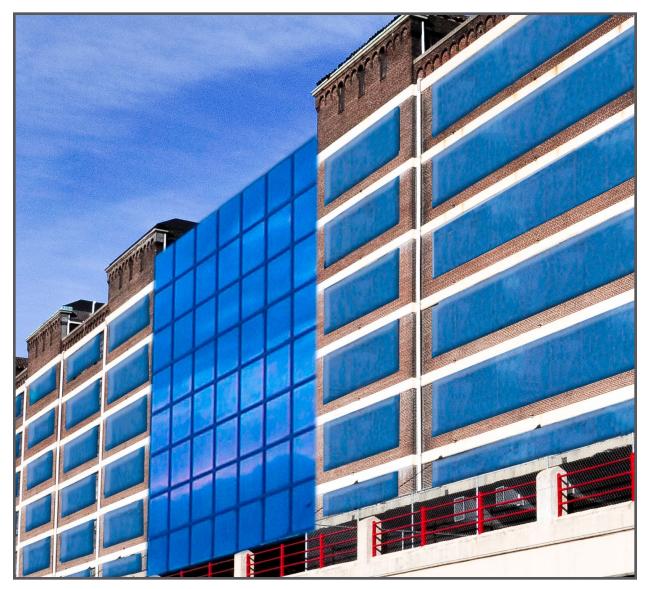
3.3

Lackawanna Center Recommendations



3.3 Lackawanna Center Recommendations

The following section outlines a comprehensive plan for the Lackawanna Center itself, which is currently over 50 percent vacant. Following the description of the various suggested uses for the building, we present a proposed stacking plan that Emmes can use as a reference point and visual guide for the numerous recommendations.



The building subdivision will increase points of access into and through the Lackawanna Center



Structural Recommendations

Building Subdivision

Description

The Lackawanna Center stands as a mammoth structure amid the vacant and underdeveloped lots surrounding it. Its scale is consistent with the large, industrial-oriented parcels in the area, but it is not conducive to a mixed-use neighborhood. The Lackawanna Center stretches from Grove Street to Jersey Avenue, or almost 850 feet, creating a super block. This restricts pedestrian movement and connectivity between 16th Street and 18th Street, north and south of the Site. The Center's large size represents the incompatibility of past industries with envisioned future uses in the area.

To emphasize our objective to bridge the two municipalities and create a more multi-modal transportation network, we propose subdividing the building at the Erie Street and 16th Street intersection through to the north side of the building, creating a publicly accessible corridor from 16th Street to 18th Street. The division will be accentuated by a glass facade, providing an architecturally significant focal point for the Center and the neighborhood in general. This will re-establish the grid by providing a point of access at Erie Street along the ground floor, past proposed retail and restaurants, towards the site of the proposed 18th Street Hudson-Bergen Light Rail station. In physical terms, this proposal increases the number of access points in and through the building. Symbolically, it represents the connectivity we seek to achieve between the municipalities of Jersey City and Hoboken.

Next steps

It will be necessary to assess the structural constraints of the Lackawanna Center and determine renovation costs for the subdivision. Design guidelines should be established to ensure accessibility and building code compliance, in addition to other requirements, and Emmes should issue a request for proposals for architects to undertake the project.



Lackawanna Center Transportation Infrastructure

Parking Plan

Parking Requirement

According to the Jersey Avenue Light Rail Redevelopment Plan, the current minimum requirements for parking at the Lackawanna Site is 0.5 spaces per 1,000 square feet for office/commercial uses, 1 space per 1,000 square feet for retail/restaurant uses, and 0.20 spaces per 1,000 square feet for industrial uses. Our proposed plan for the Lackawanna Center includes a mix of uses. We propose a revised parking requirement of a maximum of 0.25 spaces per 1,000 square feet, or 1 space per 4,000 square feet.

We reviewed progressive "smart" parking policies and form-based parking regulations in Arlington, VA, and Sacramento, CA to determine an appropriate parking calculation for the Lackawanna Center. Arlington's regulations, enacted in 2006, link areas close to public transit with lower minimum parking requirements of 1.0 spaces per 1,000 square feet (Environmental Protection Agency). Arlington's goal is part of a transportation demand management program that attempts to shift auto trips to transit trips in order to alleviate congestion and improve environmental outcomes. Arlington has similarities with Jersey City and Hoboken – they are cities that border other larger cities, are separated by a body of water, and share a common transit system (PATH in the Study Area, the Metrorail system in Washington, DC).

In Sacramento, a 2009 zoning code update was designed to better facilitate urban infill development and created a new minimum requirement of 0.5 spaces per 1,000 square feet, far lower than the old requirement of 4 spaces per 1,000 square feet (Canepa et al). Sacramento believes that when restoring an historic building for an adaptive re-use project, it is critical for developers to not face an outdated, high parking requirement, otherwise they may lose the financial incentive to develop. Additionally, the antiquated parking requirements completely fail to recognize surrounding land uses and availability of transit, which have a significant impact on travelers' mode choices (Canepa et al).

We recognize several factors at the Lackawanna Site that suggest a requirement of 0.25 spaces per 1,000 square feet as appropriate given the context:



- Relative richness of the public transit network in the Study Area and New York City metropolitan area when compared to Arlington/Washington DC and Sacramento;
- Recognition that a large portion of space in the Lackawanna Center will be dedicated to low intensity uses in proportion to space requirements (i.e. rooftop farming, hydroponic farming), especially when compared to Arlington or Sacramento's definition of traditional office or retail space. In fact, the proposed parking requirement is actually slightly greater than the existing minimum of 0.20 spaces per 1,000 square feet for industrial uses in the redevelopment plan area;
- A reduced minimum parking requirement for Lackawanna directly works to achieve the goal of creating a more livable community by encouraging walking, cycling, and the use of public transportation to access the Lackawanna Site.

Calculation of the Parking Requirement

The number of required parking spaces can be estimated by dividing the total building square footage by the parking requirement:

▶ 1,100,000 square feet / 4,000 square feet per space = 275 spaces

We estimate each parking space requires 300 square feet of surface area. This allotment includes an allowance for aisles, entrances, and exits. The estimate is based on a range of 250 to 350 square feet per space for surface parking at ground level (American Society of Planning Officials).

 300 square feet per space * 275 spaces = 82,500 square feet required for parking

Location of Parking

We propose all parking to be sited on ground level in the interior of the building, hidden from street view. The ground floor of the Center includes approximately 137,000 square feet of space; thus the entire parking area can be contained within the interior of the building. Retail uses will surround the parking area and face the street where possible. Entrances and exits to the parking area should be sited on Jersey Avenue and Grove



Hoboken's car share system could expand to include spaces in the Lackawanna Center with a partnership with Hertz.

Street, away from the main pedestrian and bicycle entrances to the Lackawanna Center (see Pedestrian Improvements Map in Study Area Transportation Recommendations section). Placing a large amount of parking at ground level will also provide a benefit during potential flood events, because the parking area represents space in the Center that is not dedicated to more permanent uses that could be subject to extensive damage.

Car Share

We propose that some portion of the parking area (up to 20% of spaces) be dedicated to car sharing spaces. Car sharing represents a more sustainable avenue toward automobile usage and by providing car share spaces at Lackawanna, visitors who may not own cars but require them occasionally (to haul home large amounts of food from the Center's farming and food retail services, for example) will benefit. A car sharing operator such as Zipcar or Hertz (which operates Hoboken's Corner Cars program) could provide this service.



Bicycle Parking

In order to actively encourage alternative travel modes and support our bicycle plan for the Study Area, we propose that an equivalent number of bicycle parking spaces are provided at various convenient points in and around the Lackawanna Center: 275 bicycle parking spaces, estimated to take up one-tenth the space of vehicle parking spaces, would require approximately 8,250 square feet of space on the ground floor of the Center. Bicycle parking should be sited with a particular focus on two areas: 1) at 16th Street and Erie Street, where cyclists approaching from the south will arrive at the building's "cut-through" via the proposed Erie Street bicycle lane; and 2) at 18th Street and Grove Street, where cyclists approaching from Hoboken (via Observer Boulevard and Marin Boulevard) and Newport (via Washington Boulevard and 18th Street) will arrive at the Lackawanna Site (see Proposed Bicycle Network Map in Study Area Transportation Recommendations section). Bicycle parking should be highly visible and close to entrances to encourage use, and we encourage programs that incentivize retail tenants to provide discounts to users arriving at the Center by bicycle.

Pedestrian Access

We propose creating sixteen, clearly marked entrances to the Lackawanna Center. Because the Lackawanna Center is almost 900 feet wide, it is critical that visitors are not forced to walk alongside the building for more than 200 feet at any point to reach an entrance (see Pedestrian Improvements Map in Study Area Transportation Recommendations section for pedestrian access point locations).



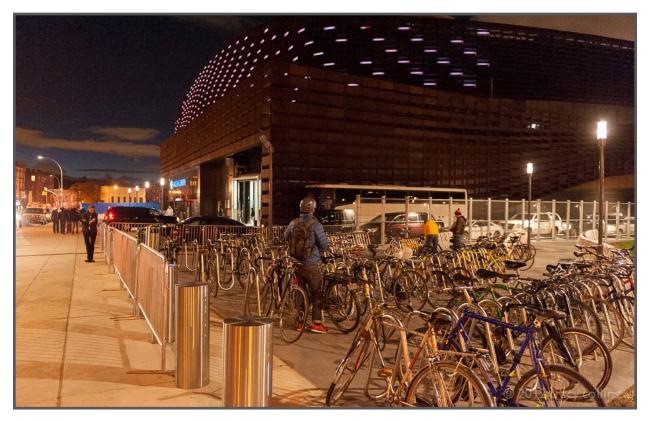
Bike share systems with smart lock technology require no physical docking stations.



We also propose an iconic staircase leading to the second floor retail level be installed on the 18th Street side of the building. This staircase should be a draw for visitors approaching from 18th Street and Hoboken, along with visitors at the Lackawanna Center who may use it as a public gathering and relaxation space.

Bike Share

In conjunction with the proposed bicycle plan for the Study Area and the recommendations for bicycle parking within the Lackawanna Center, we propose a "Lackawanna Bicycle Share" system with stations at the Lackawanna Site and nearby residential buildings such as the Cast Iron Lofts, along with stations at Hoboken Terminal, Newport, and Grove Street PATH stations. This system would be an ideal extension of Hoboken's proposed "hybrid" bike share system (Tri-State Transportation Campaign), but if coordination across municipal boundaries proves difficult, a system that is centrally operated out of the Lackawanna Site would provide similar benefits. Like Hoboken's system, we recommend a low-cost "hybrid" approach, which combines a bike share system that might be used by employees or frequent visitors with a traditional bike rental operation run by a retail bicycle store that would more likely cater to tourists and occasional cyclists. Such a system would improve bicycle access to and from the Center until a more comprehensive Jersey City / Hoboken bicycle share program is implemented.



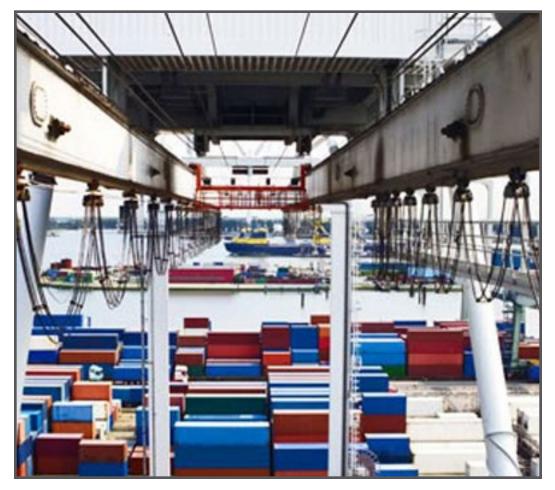
Bicycle parking outside Barclays Center in Brooklyn accommodates a high volume of bicycles in limited space.



Freight Access

The Lackawanna Center is well situated for commercial truck access to New York City via the Holland Tunnel and to points west and south via the New Jersey Turnpike. It is also less than 15 miles from both the Port of Newark Container Terminal and Newark International Airport, which will provide retailers and wholesalers in the Lackawanna Center with easy access to international shipping opportunities.

We recommend freight access at the Lackawanna Center be limited to select ground level areas underneath the north and south overhangs. Existing freight loading areas on the second floor will be converted to more active uses including retail and open space.



Freight terminal operations at Port Newark



LEED Certification

With environmental issues becoming increasingly relevant, we propose that the Lackawanna Center achieve LEED certification during retrofit. "LEED (Leadership in Energy and Environmental Design) is a voluntary, consensus-based, market-driven program that provides third-party verification of green buildings, for individual buildings and homes, to entire neighborhoods and communities" (USGBC). Taking into account the various rating systems offered under LEED, we recommend that the Lackawanna Center attempt to achieve LEED ND (Neighborhood Development). LEED for Neighborhood Development integrates the principles of smart growth, urbanism and green building into the first national system for neighborhood design (USGBC).

We are making this recommendation and choosing this particular rating system because we believe that it is the best fit and represents the core principles behind the programming of the new Lackawanna Center. Emmes will benefit through marketing the repositioned building to potential tenants that are environmentally conscious.

Emmes may also benefit from LEED certification on its bottom line. According to the USGBC, developers that choose to implement LEED in new construction see occupancy increases of 6.4 percent and rent increases of 6.1 percent. For retrofitting existing buildings, property owners can see occupancy increases of 2.5 percent and rent increases of 1.0 percent. Through this recommendation, Emmes may begin to attract attention from the growing number of buyers and tenants who prefer lower operating costs and healthier indoor environments.



Built in 1892, the Mills Building in San Franciso, is LEED Gold certified. Image courtesy of news.theregistrysf.com





Cornell University Roosevelt Island Tech Center. Image courtesy of columbiaspectator.com

Recommendations for Potential Tenants

Tech Center

Description

We propose a Tech Center for approximately 500,000 square feet in the Lackawanna Center. The Tech Center should be modeled after New York City's new Tech Centers, Cornell NYC Tech on Roosevelt Island, and the NYU Center for Urban Science and Progress in Downtown Brooklyn. These new facilities will increase the diversification of the economy and create twenty-first century jobs (NYCEDC).

The Tech Center should provide masters and doctoral programs related to technology. It should also include a business incubation component, similar to the centers being built in New York City, with a fund to help finance start up businesses. Combining higher education and a business incubator to create start up businesses in the Lackawanna Center will help diversify the local economy in Jersey City away from FIRE industries and will provide jobs in the Study Area.

A Tech Center / Business Incubator will provide a steady, long-term tenant for Emmes and will fill a large portion of the vacant space in the building. The Tech Center would create jobs and should be required to hire a portion of its employees locally and provide living wages. The Cornell Tech Center on Roosevelt Island is expected to create 20,000



construction jobs and eventually employ 300 faculty members serving 2,500 students. The school is expected to create as many as 600 tech businesses, 30,000 jobs, and \$1.4 billion in tax revenue (NY Times).

There are many other recently established Tech Centers / Business Incubators around the United States. These include the Business Development Incubator at New Jersey City University, Rutgers Camden Business Incubator, the Louisiana State University Innovation Park, the Youngstown Business Incubator, the University of Central Florida Business Incubation Program, and the University of Idaho Food Technology Center / Caldwell Business and Technology Incubator, among others.

Emmes should partner with Jersey City to attract a university to develop a Tech Center and Business Incubator in the Lackawanna Center. New York City pledged infrastructure updates for the new center planned for Roosevelt Island (NYCEDC). Jersey City could pledge similar infrastructure updates, and in return the Tech Center will provide much needed tax revenue and jobs for Jersey City.

In addition to providing tax revenue and jobs, the Tech Center can provide other community benefits. One of these benefits should be a requirement for the Tech Center to partner with a proposed charter school, also located in the Lackawanna Center (see Charter School section below). The Tech Center should provide technology and entrepreneurial education to students in the charter school. The Tech Center should also provide continuing education opportunities for adults, especially those who are underprivileged in the immediate area.

The Business Incubator will attract technology businesses that have a multiplier effect, spawning many jobs beyond those directly created by the businesses themselves. As many as five jobs are thought to be created in the long run for each technology based job that is created (Muro, Mark). These could include physicians, lawyers, service workers, food workers, etc., and would greatly increase the number of jobs overall in the Study Area.

The students, faculty, staff, and employees in the Tech Center / Business Incubator will be served by the retail, restaurants, food stores, and beer garden, also recommended for the Lackawanna Center. This combination of recommendations will result in a well-rounded and livable community for the Study Area's employees and residents.



The second phase of a proposed Tech Center should include the construction of additional academic buildings and housing for students and employees. The existing parking lot directly north of the Lackawanna Center and owned by Emmes could be used for expansion of the Tech Center.

Next Steps

Emmes should partner with Jersey City to issue a Request for Proposal ("RFP") for a Tech Center and Business Incubator at the Lackawanna Center. 27 universities originally showed interest in New York City's Roosevelt Island RFP and seven submitted applications, so clearly there is a high level of interest in developing these centers (NYCEDC). Jersey City should consider offering incentives in the form of infrastructure updates or tax breaks to help attract a world-class university. The state of New Jersey should also explore the use of the Edison Innovation Fund which was established to attract, develop, and grow technology and life sciences businesses that provide steady and well paying jobs in New Jersey. This program has funded other business incubators in the state in the past (New Jersey Economic Development Authority, E).

Short term goals include attracting a university to locate in the Lackawanna Center and retrofitting the building to house a Tech Center and Business Incubator. In the long term, Emmes can pursue an expansion of the Tech Center, in the form of additional academic buildings and housing, in the parking lot directly north of the Lackawanna Center.



Charter School

Description

The forecasted residential development within the Study Area will place pressures on the creation of adequate educational facilities. The refashioning of a former railroad hub into a livable community must take into account the human infrastructure upgrades required to meet the needs of a larger residential population. We project an increase of 8,558 school-age children who could arrive in the Study Area if it is built out to current zoning standards. The need for schools must be met in a way that enhances local civic life and leads to equitable educational outcomes. We believe that the establishment of a K-12 charter school in the Lackawanna Center can successfully meet these community needs.

Through our interviews with community members and experts, a common theme arose regarding a lack of faith in the public school systems in Hoboken and Jersey City. In fact, the New Jersey Department of Education (NJDOE) took over the operations of the Jersey City School District in 1989 for lack of financial discipline; it was the first district to be placed under state control (NJ.com). Gov. Chris Christie has used the increasing number of charter schools approved during his administration as a primary tool for addressing educational needs and failing schools (State of New Jersey). For example, in 2012 in Jersey City, the BelovED school was approved in 2012, and the Jersey City Global Charter School is currently in the approval process for 2013 (New Jersey Department of Education). The application process to establish a charter school in New Jersey can take over two years as prospective schools establish their intent, formulate a plan for financing, and create an academic curriculum plan. The NJDOE conducts a "preparedness review" to evaluate and monitor charter schools to ensure they meet the necessary requirements regarding financial viability, academic success, student equity, and organizational soundness (New Jersey Department of Education)

We propose the establishment of a 45,000 square foot charter school within the Lackawanna Center that would serve over 500 students (Hayes, Cheryl, et al.). The implementation of a charter school in the Study Area would meet the needs of the community, giving residents a local high-performing K-12 school option that will provide a desirable local asset, strengthen neighborhood identity, and improve participation in community affairs by current and future residents. Furthermore, the school's catchment area



should include parts of both Jersey City and Hoboken, providing better opportunities to bridge relationships across municipal boundaries.

Retrofitting an existing space provides the opportunity to allocate funds toward specialized spaces such as computer labs, science labs, and libraries. The proximity of the proposed Tech Center will afford the opportunity to integrate the academic curriculum with technology businesses, providing opportunities for specialized learning and mentorship and access to high levels of human creative capital that should exist at the Tech Center. Highperforming schools are considered desirable assets by existing and potential residents, and the new charter school will enhance the livability and identity of the Study Area as it re-emerges as a mixed use neighborhood.

Next Steps

Establish a Lackawanna Charter School Action Committee – ideally with a large contingent of local residents and parents – to start the application process to establish the school, access state and federal funding sources, develop curriculum and enrollment criteria, and hire staff and faculty. An assessment of specialized renovation plans and floor plans must be undertaken. The school should develop partnerships with the proposed Tech Center as well as other local organizations to enable mentorship and specialized educational opportunities.



Observation Deck



Rooftop observation deck on a Long Island City, NYC roof. Image courtesy of 27on27th.com
Description

We propose a 10,000 square foot observation deck for the eastern side of the rooftop at the Lackawanna Center. The deck should include shrubbery, picnic tables, guided walkways and information guides. From the rooftop, observers can see the Manhattan, Jersey City, and Hoboken skylines. This public observation deck will serve as an attraction for area residents, visitors, and workers. The area lacks public open space and this observation deck will help fill that need.

In early 2009, Poughkeepsie, New York, opened a walkway over the Hudson River, on the Poughkeepsie Bridge that provides great views from the north and south banks of the river (walkway.org). The restoration of this bridge provided a pedestrian "Walkway Over the Hudson" that helped drive economic development by bringing people to the area and supported local businesses around the bridge. The non-profit that operates the bridge sponsors programming to attract people to the bridge.

Next Steps

The observation deck should be included in the initial five years from launch of the proposed comprehensive plan for the Lackawanna Center. The Lackawanna SID should implement and manage the observation deck, and take responsibility for its maintenance, operation, and programming. The SID should look at the "Walkway Over the Hudson" for best practices in improving and managing the space.



227

Vertically Integrated Food Cluster

Food is big business in the New York City metro area. New York is famous for its restaurants and food culture. It is home to posh eateries with celebrity chefs. The region is also home to a significant number of food manufacturing firms. Goya is an example of an immigrant business that became a multimillion dollar food manufacturing company. In 2012, Goya broke ground on a new 615,000 square foot headquarters and distribution center in Jersey City (Morley). Chobani and Fresh Direct, among others, point to the importance of food in regional economy. A 2007 study found, "The annual output of New York City's food manufacturing industry is \$5 billion and adds approximately \$1.3 billion to the Gross City Product" (New York Industrial Retention Network and Fiscal Policy Institute executive summary).

There is also a significant amount of venture capital interested in investing in the next generation of food production. Venture capital firms from Silicon Valley invested about \$350 million into food projects last year, up from less than \$50 million in 2008 (Worthham and Miller). The New York Metro Area is also home to countless small restaurants started by entrepreneurs from more modest backgrounds. Restaurants are an accessible small business model because they do not require an advanced degree or multimillion dollar equipment. Restaurants, catering, and food manufacturing are important segments of the regional economy and an outlet for entrepreneurship in the Study Area.

Our plan recommends creating a vertically integrated food manufacturing entrepreneurship cluster in the Lackawanna Center. We detail a plan for the cultivation of food production on site through all phases, from a rooftop and indoor farm, food manufacturing space, restaurant and manufacturing incubator space, programming to help share resources and knowledge, and finally distribution space through retail outlets and a rooftop beer garden. There is a history of ethnic food culture in Hoboken and Jersey City, with many small mom-and-pop shops that have operated for decades. This proposal seeks to take advantage of the expertise already available in Jersey City and Hoboken.

Rooftop Farm and Indoor Farming



Brooklyn Grange operates a growing number of rooftop farms in New York City. Image courtesy of © Cyrus Dowlatshah

Description

We propose an outdoor rooftop farm coupled with an indoor aquaponic farm. The rooftop farm should take up approximately 100,000 square feet and the indoor farm is allotted a total of 210,000 square feet on three floors in our proposal for the Lackawanna Center. Locally sourced foods will not only benefit the surrounding communities but also supply ingredients sought by the food-based businesses we recommend locating in the Lackawanna Center. The farm will also attract visitors to the Lackawanna Center, especially if programming such as gardening workshops and farm facility tours are included in the proposal.

The indoor component would be a combination of a fish farm (aquaculture) and a hydroponic/ aeroponic food farm. Hydroponics is a method to grow plants using a mineral rich water solution without requiring soil; aeroponics is similar but utilizes a constant nutrient rich mist to keep the roots of the plant perpetually moist. The combination of aquaculture and hydroand aeroponics is termed aquaponics and results in a very sustainable agricultural operation. Aquaponics uses unfiltered water waste from the fish to provide the nutrients needed to fertilize



the plants on the hydroponic/aeroponic side of the farm. Therefore, pesticides and herbicides are not required and roughly 97 percent of the farm's water is reused.

This proposal would create the nation's largest indoor farm, surpassing Chicago's FarmedHere project (Farmedhere.com). FarmedHere is expected to support a staff of 200 people and recently opened in a former industrial building that is similar to the Lackawanna Center. It employs local citizens and provides local foods, which cuts down on shipping traffic. FarmedHere received a \$100,000 loan from Whole Foods to set up its operations (Farmedhere.com); we recommend a similar partnership could be useful in attracting a farming tenant to the Lackawanna Center.

The proposed rooftop farm would ideally be wholly owned and operated by whomever runs the indoor farm; alternatively, the rooftop area could be run by a local community based not-for-profit group. Rooftop agriculture can be accomplished through an aquaponics model (similar to the indoor farm) or through the introduction of soil, as practiced by rooftop farms such as Long Island City's Brooklyn Grange or Chicago's City Hall. However the rooftop is laid out, it is sure to attract visitors, provide local jobs, and prove useful for local food manufacturers in the Lackawanna Center and surrounding areas in New Jersey.

Next Steps

The Lackawanna's Center's farming components should be implemented as soon as possible. However, the entire allotted space can be filled incrementally and need not be initially farmed or gardened all at once. Instead we recommend that operations are phased in at a pace that best matches current market demands and the sophistication and experience of potential tenant(s). A single entity, such as a not-for-profit program, which can also be integrated with the Lackawanna Center's Kitchen Incubator and Food Manufacturing initiatives might be best in allowing the farms and gardens to succeed. Alternatively, several different tenants may also be able to work within the large confines of the Lackawanna Center if sufficient interest in farming and gardening arises among various groups.

Kitchen Incubator / Food Manufacturing

Description

Low cost space and mentorship opportunities are an important need for new small businesses of all types, and cheap space is in abundance at the Lackawanna Center (Saad and Henry). Recently both New York City and Jersey City paid enormous sums to keep Goya and Fresh Direct, respectively, in their cities. Based out of the Lackawanna Center, a much smaller investment in a food business incubator could help grow the next generation of entrepreneurs in the Study Area.

Affordable commercial kitchen space is one of the primary impediments to nascent food producers (Foggin). Women's Housing and Economic Development Corporation (WHEDCO), a Bronx New York based non-profit, currently offers an affordable, fully licensed shared commercial kitchen space to food production entrepreneurs. It could serve as a model for the Lackawanna Center. The shared kitchen space allows small businesses to expand without the capital outlay of investing in their own space or equipment, and is already in compliance with health department regulations. A shared commercial kitchen space in Sunset Park, Brooklyn, spawned successful startups (Oremus). The proximity to the Holland Tunnel means businesses will have easy access to the enormous New York City market, particularly Downtown and Midtown Manhattan for catering. Making an affordable production space available through a non-profit kitchen incubator represents a low cost, low risk way to improve economic development in the area, and grow future tenants for the building.

Our plan would continue to devote a considerable portion of the Lackawanna Center to food manufacturing. A nationally known anchor tenant, Carlo's Bake Shop, is already in place and plans to use this location to manufacture for future satellite locations. Clustering food production in the Lackawanna Center, would benefit both established businesses and emerging firms. Programming to take advantage of this clustering is critical to the success of the effort. Jersey City and other government economic development entities should collaborate with the Lackawanna Center to coordinate a pooling of resources in terms of marketing, and promoting national and international distribution. The Lackawanna Center may even wish to partner with various government entities that aim to increase food manufacturing and exporting by centralizing disparate programs at the local, state, and federal level.



Additionally, economic development authorities at the state and local level should work to leverage Jersey City and Hoboken's cultural history to create a brand identity rooted in their immigrant food culture. These efforts would encourage specialty, high value added products, which are well suited to the available resources and market (New York Industrial Retention Network and Fiscal Policy Institute). By combining resources and coordinating shipping and distribution, with a central food production cluster at the Lackawanna Center, local entrepreneurs could increase their scale and reach.

A recurring need obtained from interviews with residents and business owners was the need for amenities, specifically restaurants. The increase in housing in the area will only compound the problem. With the promise of significant future residential development, there will be a growing market for dining and entertainment options. This type of amenity is the type of draw important for attracting and retaining the highly educated workers necessary for the Tech Center. A restaurant and food retail space on the current second level loading dock has the potential to be a community focal point and destination for the entire neighborhood.

A pedestrian accessible community space will facilitate the independence of residents without access to motor vehicles, especially older residents and the young. Furthermore, the Lackawanna Center will be one of the few remaining historic buildings in the area. Most critically, the retail space is directly across the street from the proposed light rail station. It makes sense to take advantage of the historical importance and visibility of the building coupled with its proximity to transit to create a sense of place in the neighborhood.

The plan creates a vertically integrated food production cluster where related businesses create markets for each other's products. Besides the inherent environmental benefits of a green roof, the rooftop garden and indoor farm will guarantee that restaurants and food-manufacturing businesses have access to fresh produce. The proposal also cuts down on transportation costs; it will allow "farm to table" dining within the Lackawanna Center itself. Ground level retail will create a market for goods within the neighborhood, while marketing and distribution partnerships and easy access to transit and shipping means firms located in the Lackawanna Center will easily be able to export nationally and internationally. Combined with small business programming, and existing know-how, the Center has the ability to create new businesses and help existing businesses expand.

Next Steps

A preliminary step would be to begin to raise awareness of the Lackawanna Center within the surrounding neighborhood. Several interviewees claimed not to know where the Lackawanna Center was.



In the short term, hosting area food trucks in the parking lot on weeknights would be one way to take advantage of currently underutilized space and start to build associations for the Lackawanna Center as a food destination. The Lackawanna Center could also explore a partnership with farmers markets in Hoboken and Jersey City. Using the Lackawanna Center parking lot for a farmer's market on weekends could raise the center's profile as a food destination. Cooperation with Carlo's Bake Shop to offer tours of his facility and a retail outlet on the premises could be significant draw. Cal's Hot Dog stand already has significant credibility within the community due to its ability to draw on the local butchering and culinary traditions of Hoboken and its use of quality local ingredients. However, these businesses suffer from a lack of foot traffic in the area. Additionally, our interviews suggest residents of the new luxury developments are looking elsewhere for their dining options. By branding the Lackawanna Center as a food destination through programming it could bridge the gap between new and existing residents.

Emmes should reach out and find a non-profit partner partner to run a kitchen incubator space on a currently vacant floor. Ideally, Emmes would subdivide the floor plate to make larger space available as the space needs of the kitchen incubators' businesses increase.



Beer Garden and Brewery



La Birreria @ Eataly rooftop beer garden-NYC. Image courtesy of bistroonesix.com

Description

We propose the Lackawanna Center include a 30,000 square foot rooftop brewery and beer garden that will serve as a destination for Jersey City and Hoboken residents. A local draw is needed to attract people to the Study Area, providing activities and amenities to spur development. A beer garden provides a great opportunity to achieve these needs. Breweries and beer gardens are opening throughout the country and are experiencing a resurgence in popularity. For example, Cleveland successfully opened its first brewery, the "Market Garden," in 2011, (marketgardenbrewery.com). In New York, the 50,000 square foot Eataly rooftop beer garden, Birreria, has been highly successful since its opening two years ago (Flaherty 2011). Beer gardens are becoming so ubiquitous that even the mass food retailer Whole Foods is planning on opening a new 5,600 square foot beer garden in conjunction with a 27,291 square foot supermarket in San Jose (Donato-Weinstein 2013).

Drawing upon Hoboken's and Jersey City's heritage as an immigrant hub will pique the interests of old and new residents and promote local history. Beer gardens became popular in the United States upon the arrival of German immigrants, who set up recreational venues for families within local brewing establishments. Germans were among the first immigrant groups to arrive in Hoboken in the late 19th Century. By World War I, one quarter of the population



of Hoboken was German; the city was even nicknamed "Little Bremen" (Skontra 2011). Hoboken was also once home to Castle Point, the first brewery in the United States (Luizi 2013). In addition, Hoboken has a well established Italian heritage and over 20 Italian restaurants, reflecting this rich history.

The proposed beer garden would fill the void in amenities and recreation space in the Study Area, which we identified as a need through local community interviews. Recreational space is vital in every community, and offering a beer garden with spectacular views of lower Manhattan will provide a popular amenity to the area. In addition, the high-tech industry is well known for providing amenities and recreation space for its workers and students in order to enhance worker morale and create a more desirable working environment (Garber 2011). The beer garden would offer a respite for the students in the proposed Tech Center, as well as a destination attraction for residents of Hoboken, Jersey City, and surrounding areas.

The San Francisco Southern Pacific Brewery, a 10,000 square foot warehouse that was retrofitted into a brewery and beer garden, provides a best practice model for this proposal. The brewery is an excellent example of adaptive reuse of an obsolete industrial building, and the design elements of the space incorporate the history of the area. The name of the brewery even stems from a now defunct rail line, much like the Lackawanna Center.

The proposed brewery and beer garden should incorporate the history of the railroad warehouse in its design, much like the San Francisco Pacific Brewing company. The menu might draw upon Hoboken's Italian-American heritage and the Italian food corridor that currently exists in Hoboken. The New Jersey Beer Company, which opened in 2010, (Surach 2010) and the nearby Hoboken Beer and Soda Company represent potential tenants for this venture.

The beer garden will occupy the rooftop of the Lackawanna Center and serve a capacity of 600 people, using 20,000 square feet of roof space. The remaining 10,000 square feet set aside for this project will comprise the brewery. Much like the San Francisco Pacific Brewing Company, it can capitalize on using recycled materials from nearby industrial buildings in the Redevelopment Plan area for the creation of the bars, stools, and other furniture. A potential tenant might consider installing a retractable roof, much like Birreria (Flaherty 2011), that could be used during inclement weather.



Next Steps

Emmes should reach out to local businesses such as the New Jersey Beer Company and Hoboken Beer and Soda Company to determine if they have an interest in expanding operations within the Lackawanna Center or possibly creating a partnership to develop the brewery/beer garden. Other craft breweries or brewers looking for an iconic location with spectacular rooftop views to expand their operations might also be interested in such a venture.

Retail Space

Description

To complement the vertically integrated food cluster that includes agriculture, food manufacturing, a kitchen incubation space, and a rooftop brewery, we recommend the inclusion of food-focused retail space on two levels in the Lackawanna Center. Retail space will benefit the current and future residents of this community, especially since there is currently such a dire lack of amenities in the Study Area. Retail uses within the building will also encourage street life and foster a walkable urban environment, enhancing the neighborhood and increasing its livability.

We propose 46,250 square feet of retail space on the ground floor, and 70,000 square feet of food retail space on the second floor. Because of the flood risk in the area reflected in the most recent FEMA maps, the ground floor should house flexible or temporary retail space such as farmers' markets. These would be a local draw and help the food incubator businesses in the building, in addition to being easily movable and thus less susceptible to damage during possible hurricane events, or even heavy rainfall.

Emmes should encourage small businesses and restaurants to locate in the Lackawanna Center and build upon the popularity of the "Cake Boss." It should encourage him to open a retail outlet in the Lackawanna Center, in addition to his existing and perpetually crowded retail storefront location in Hoboken. This can provide an impetus for other food oriented small businesses to locate in the Center as well. The New York City metropolitan area is famous for its world class restaurants and food options. In addition, today there is a broad, national trend that favors locally sourced foods and crafts. Artisanal food and other small, local enterprises in micro-scale manufacturing operations are becoming increasingly popular in New York City, and around the country. These products serve the increasing demand for custom-made, non-mass-produced goods. While this demand is high in the upper classes, it is extending into the middle class and mainstream as well (Oremus 2012).

These businesses are thriving in older industrial areas with cheap space, a local example being Greenpoint and Williamsburg, Brooklyn. Such enterprises are now referred to as the "new face(s) of American manufacturing" (Oremus 2012). Dedicating a significant portion of the building to food retail will help foster these types of artisanal businesses at the Lackawanna Center, which

will likely attract residents in nearby luxury developments such as the Cast Iron Lofts and 700 Grove. At the same time, retail stores create employment opportunities, and we recommend these businesses commit to local hiring. This can ensure that area low income residents are fully integrated in this plan.

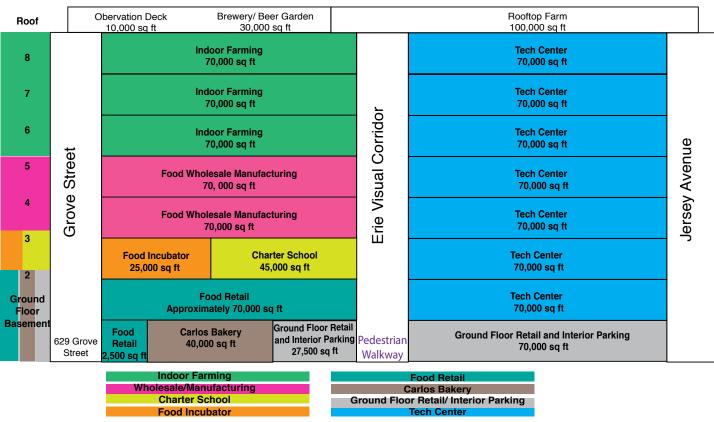
Next Steps

Local businesses should connect with the New Jersey Economic Development Authority (NJEDA), which provides programs and low interest financing through bonds, loan guarantees, and fixed rate loans. These programs help cover operating expenses of small businesses and are meant to encourage businesses in urban municipalities. In addition, there is special emphasis placed on the specific loan programs for minority and women owned small businesses (NJ Economic Development Authority, K).

Stacking Plan

A proposed stacking plan based on the recommendations described in the previous sections is presented below.:

LACKAWANNA WAREHOUSE PROPOSED STACKING PLAN



Eastside; Food, Farming, Retail and School

Westside; Tech Center and Retail



4.0 Conclusion



Conclusion

The Lackawanna Center once stood as a symbol of rail industry in the region, and a site of employment for local workers. The building and the area around it remain largely vacant, underutilized, and unprofitable. The relevant municipal authorities and private players do not have a cohesive plan to redevelop and revitalize the neighborhood. Through its proximity to a number of hard "edges" from the natural rock formations of the Palisades to the municipal border between Hoboken and Jersey City that is difficult to navigate, the neighborhood has been neglected.

The Studio proposes a set of recommendations to address the needs of both the Lackawanna Center and the surrounding area:

We formulated the following recommendations for the Study Area and the Lackawanna Center:

- Create a new light rail station and add pedestrian, bicycle, and street improvements that will help create a more livable neighborhood and better connect Jersey City and Hoboken.
- Upzone Hoboken to allow residential development and subdivide tax lots in Jersey City to spur contextual development and create a cohesive community.
- Mandate that developers provide 30 percent affordable units to address the lack of affordable housing in the Study Area and provide a 30 percent FAR bonus in return.
- Improve the lack of open space in the Study Area by building a park at the foot of the Palisades and increasing green space around the Lackawanna Center, which will also help to make the Study Area a destination for both Jersey City and Hoboken residents.
- Implement a Special Improvement District, or SID, in the Study Area dedicated to creating a livable community by overseeing some of our recommendations, like transportation improvements, tax assessments, the Green Building District, and the Observation Deck.
- Mandate green building codes in the Study Area to reduce energy costs and improve occupancy rates and property values.
- Create a neighborhood focal point at the Lackawanna Center, while increasing occupancy and improving value for our client, Emmes Asset Management.



- Physically subdivide the Lackawanna Center with a glass facade into an eastern and western half, adding a pedestrian corridor on the ground floor to reconnect the street grid and create a visual focal point for the neighborhood.
- Subdivide Emmes' eastern lot, which is currently vacant, to permit phased development and to spur smaller scale contextual development to improve the feel of the neighborhood and attract residents.
- Create a Tech Center / Business Incubator to fill approximately half of the Lackawanna Center that will draw from the surrounding educated population to spur start up companies and create jobs needed in the neighborhood.
- Create a Charter School in the Lackawanna Center to meet the need for education as the population in the Study Area increases.
- Build an expansive rooftop and indoor farm that will provide jobs and supply food for the community, as well as support the food production, retail, and restaurant cluster in the Lackawanna Center.
- Establish a vertically-integrated food manufacturing incubator for food business start-ups. Provide for new opportunities for employment as well as low barriers for entrepreneurship.
- Create an Observation Deck which will be open to the public to help address the need for open space in the Study Area.
- Create a rooftop beer garden that will use local resources and create a focal point for the neighborhood to attract people from Jersey City, Hoboken, and beyond.
- Add ground floor and second floor retail space to encourage active street life, a sense of community, and provide amenities for new workers and residents moving into the area.

The NJ Edge Studio formulated a set of recommendations that work to achieve the goal of repositioning the Lackawanna Center as a neighborhood focal point and employment hub. The proposals for the Study Area provide a framework for the revitalization of the neighborhood, from the improvements in human infrastructure to the provision for affordable housing. Thus, we address the neighborhood on two fronts, providing a mutually reinforcing relationship of a high yielding property and a revitalized community.





A.1 Appendix: Jersey City Open Space



Ke <u>v:</u> Lights (Sports Field) a. Synthetic Turf b. Outdoor Swimming Pool	5. Terriago Playground	4. Lt. R. B. Grover Memorial Park	3. La Pointe Park	2. Hackensack River Greenway	1. Boyd McGuiness Park	
		^				Adut Baseball Fields
						Youth/Little League Baseball Fields
						Softball Fields
						Basketball Courts
						Bocce/Shuffleboard Courts
						Exercise/Cross-co un try Trail
						Football Fields
						H an db all Courts
						Open Play Fields
						Running Tracks
						Soccer Fields
						Tennis Courts
						Volleyball Courts
						Boat Launches
						Fishing Piers/Jetties
			×			Spray/Wad in g Pools
						Swimming Bath houses (Dressing
						Rooms) Swimming Pools
				×		Natural Areas/Wildlife Refuge
			×			Picnic Areas - Single Family
			^			Picnic Areas - Group
						Bicycle/Running Trails
						Amphitheaters / Stages
						Botanical Gardens
						Historic Structures
			×			Children's Playgrounds
						Senior Citizens & Community Center
						Skateboard Park
						Roller Hockey Courts
		×	×		×	Park Walkways
						Park Shelter Buildings
						Park Restroom Buildings
						Concession Stands
		×			×	Monuments
					×	D rink in g Fountains
			×		×	Lighting
		×	×			Landscaping
	×	×	×		×	
	×					Sitting Areas



NJ<u>EDGE</u> STUDIO

<u>Key:</u> Lights (Sports Field) a. Synthetic Turf b. Outdoor Swimming Pool c. Indoor Swimming Pool		8. Tumulty Park	7. Sgt. Anthony Park	6. Reservoir No. 3	5. Pershing Field	4 . Pavonia Marion Park	3. Janet Moore Park	2. Brett Triangle	1. Apple Tree House	
d)					1*					Adut Baseball Fields
					1*					Youth /Little League Baseball Fields
						1*				Softball Fields
			1*		2*	2*				Basketball Courts
					1	1				Bocce/Shuffleboard Courts
										Exercise/Cross-country Trail
										Football Fields
										H an db all Courts
										Open Play Fields
	-				1					Running Tracks
	-									Soccer Fields
	_				4					Tennis Courts
	_									Volleyball Courts
	-									Boat Launches
	-									Fishing Piers/Jetties
	-				щ					Spray/Wad in g Pools
	_				щ	4				Swimming Bath ho uses (Dressing
	_					-				Rooms) Swimming Pools
	_	×		×	1c	1b				Natural Areas/Wildlife Refuge
	-									Picnic Areas - Single Family
	-									Picnic Areas - Group
	-									Bicycle/Running Trails
	_									
	-									Amphitheaters / Stages
	-									Botanical Gardens
	_								×	Historic Structures
	_		×		×	×	×			Children's Playgrounds
	_									Senior Citizens & Community Cente
	-									Skateboard Park
	_									Roller Hockey Courts
	_				щ					Park Walkways
	_		×		×	×	×	×		Park Shelter Buildings
Sur										Park Restroom Buildings
nmar					×					Concession Stands
Summary of Existing Park Facilities City of Jersey City Ward										Monuments
Existi					×					D rink ing Fountains
sting Park Facilities City of Jersey City	-		×		×					Lighting
ark F			×		×	×				Landscaping
acilit ⁻ acilit ey Ci			×		×		×	×		Sitting Areas
acilities vy City Ward C	-		×							Parking
	_				×				×	Adut Baseball Fields

Key: Lights a. Synthetic Turf	4 . Terrace Ave. (Undeveloped)	3. Riverview - Captain Fisk Park	2. Leonard Gordon Park	1. Edward Crincoli Park	
					Adut Baseball Fields
					Youth/Little League Baseball Fields
					Softball Fields
		2*	*		Basketball Courts
		4			Bocce/Shuffleboard Courts
					Exercise/Cross-country Trail
					Football Fields
					H an db all Courts
		-			Open Play Fields
					Running Tracks
			\mathbf{p}^{I}		Soccer Fields
			2*	*	Tennis Courts
					Volleyball Courts
					Boat Launches
					Fishing Piers/Jetties
				×	Spray/Wad in g Pools
					Swimming Bath ho uses (Dressing Rooms)
					Swimming Pools
	×				Natural Areas/Wildlife Refuge
					Picnic Areas - Single Family
		х			Picnic Areas - Group
					Bicycle/Running Trails
					Amphitheaters / Stages
		×			Botanical Gardens
					Historic Structures
			×	×	Children's Playgrounds
					Senior Citizens & Community Cente
					Skateboard Park
					Roller Hockey Courts
		x	×		Park Walkways
		×			Park Shelter Buildings
					Park Restroom Buildings
					Concession Stands
		×	×	×	Monuments
			×		D rink in g Fountains
		×	×		Lighting
		×	×	х	Landscaping
		X		×	Sitting Areas
					Parking



Lights (Sports Field) a. Synthetic Turf b. Outdoor Swimming Pool c. In do or Swimmin g Pool 9. J. Owen Grundy Park б. . . 3. City Hall Park 2. Angel Ramos Park .**∺** Complex 15. V an Vorst Park 13. Roberto Clemente Park 8. Hamilton Park 18.16th Street Park 17. York Street Park 12. Paulus Hook Park 1 1. Mary Benson Park 10. Laurel Court Park 14. Roberto Clemente Sports Key: . Gateway Park Complex . Fitzgerald - Holota Park . Dr. Rizal Park First Street Park Alexander F. Santora Park Adult Baseball Fields <u>۱</u>* Youth/Little League Baseball Fields **1*** 1* ¥ щ Softball Fields 1<u>+</u> 1/2 Basketball Courts Ν * <u>۱</u>* Ľ* щ \times Bocce/Shuffleboard Courts Exercise/Cross-co un try Trail Football Fields 1a* H an db all Courts Open Play Fields Running Tracks Soccer Fields 1a* Tennis Courts N * Volleyball Courts Boat Launches × Fishing Piers/Jetties Spray/Wad in g Pools Swimming Bath houses (Dressing Rooms) Swimming Pools Natural Areas/Wildlife Refune Picnic Areas - Single Family \times Picnic Areas - Group Bicycle/Running Trails \times Amphitheaters / Stages Botanical Gardens Historic Structures × × × × × Children's Playgrounds × × Senior Citizens & Community Center Skateboard Park **1*** Roller Hockey Courts × × × × × × Park Walkways × Park Shelter Buildings \times \times Summary of Existing Park Facilities Park Restroom Buildings × × \times Concession Stands × Monuments × \times \times City of Jersey City Drink in g Fountains × × \times \times \times \times \times \times × Lighting × × × \times × × Landscaping Ward E × \times × × × × \times \times × \times Sitting Areas × × Parking

NJ<u>EDGE</u>

a. Synthetic Turf b. Outdoor Swimming Pool c. Indoor Swimming Pool	<u>Key:</u> Lights	18. Virginia Avenue Park	17. Terry De Here Park	16. Summit Cornelison Park	15. Skinner Memorial Park	14. Rev. Ercel F. Webb Park	13. Pope Triangle	12. Oak Street Park	Monticello Park C (Emory St.)	Montice lo Park B (Reed St.)	Monticello Park A (Storm Ave.)	11. Monticello Avenue Park	10. McGinley Square Park	9. Isetta McDuffy Park	8. Harmon Street Pool	7. Fulton Avenue Park	6. Fairmount Triangle	5. Dr. Lena Edwards Park	4. Dr. Edith Bland Phillips Park	3. Comelius Parker Park	2. Arthur Ashe Park	1. Arlington Park	
																							Adut Baseball Fields
																							Youth/Little League Baseball Fields
																							Softball Fields
		1/2	*								2							2*	4		4	1*	Basketball Courts
																							Bocce/Shuffleboard Courts
																							Exercise/Cross-co un try Trail
																							Football Fields
																							H an db all Courts
						×																	Open Play Fields
																							Running Tracks
																							Soccer Fields
																							Tennis Courts
																							Volleyball Courts
																							Boat Launches
																							Fishing Piers/Jetties
28															4				4				Spray/Wading Pools
×															1b								Swimming Bath ho uses (Dressing Rooms) Swimming Pools
																				×			Natural Areas/Wildlife Refuge
																							Picnic Areas - Single Family
						×																	Picnic Areas - Group
																							Bicycle/Running Trails
																							Amphitheaters / Stages
																							Botanical Gardens
																							Historic Structures
		×				×						×						×	×			×	Children's Playgrounds
																							Senior Citizens & Community Centers
																							Skateboard Park
																							Roller Hockey Courts
		×			×				×	×		×			×				×	×			Park Walkways
	Sur														×							×	Park Shelter Buildings
	nmar																						Park Restroom Buildings
	y of E					×																	Concession Stands
Ω	Summary of Existing Park Facilities					×													×				Monuments
City of Jersey City Ward	ng Pa					×																	Drink ing Fountains
Jerse	irk Fa					×	×					×			×	×		×		×		×	Lighting
y City Ward F	cilitie		×	×		×		×	×	×		×	×	×			×	×				×	Landscaping
Ξ	S								×				×							×			Sitting Areas



Appendix: Demographics



	A	В	С	۵	ш	ш	ს	г	Ι	ſ	×	_	Δ	z	0
1	Category	Year	Census Data	Census Tract 77	Census Tract 16.01	Census Tract 16.02	Census Tract 78	Census Tract 15	Census Tract 192	Census Tract 193	Hoboken	Jersey City	Hudson County	NYC MSA	New Jersey
2	Population	2010	Population	9,618			1,360		3,982	2,813	50,005	247,597	634,266	18,897,109	8,791,894
m	Population	2000-2010	2000-2010 Population percent change	%0.0			0.0%		112.2%	17.0%	29.6%	3.1%	4.1%		4.5%
4	Population	2000	Population		81	6,661		1,713	1,876	2,404	38,577	240,055	608,975	U/A	8,414,350
ഹ	Population	1990	Population		57	4,081		1,634	1,192	1,921	33,397	228,537	553,099	N/A	7,730,188
9	Population	1980	Population		N/A	U/A		N/A	N/A	N/A	42,460	223,532	556,972	N/A	7,364,823
2	Population	2010	Under 5 years (%)	7.7%			6.0%		11.0%	4.3%	6.8%	7.1%	6.7%	6.2%	6.2%
8	Population	2010	Under 18 years (%)	10.6%			15.1%		14.0%	6.4%	12.2%	21.1%	20.7%	23.0%	13.5%
6	Population	2010	65 years & over (%)	2.2%			19.8%		1.1%	10.5%	6.3%	9.0%	10.4%	13.0%	13.5%
10	Population	2010	Female persons (%)	47.8%			49.2%		48.0%	51.7%	49.5%	50.6%	51.0%	51.8%	51.3%
11	Population	2000	Female persons (%)		55.5%	46.1%		51.6%	41.8%	48.8%	49.1%	51.2%	50.9%	U/A	51.5%
12	Population	2010	White persons (%)	23.0%			34.2%		81.5%	84.9%	82.0%	32.7%	54.0%	59.8%	68.6%
13	Population	2000	White persons (%)		38.3%	44.6%		50.4%	83.5%	86.8%	80.8%	34.0%	55.5%	U/A	72.6%
14	Population	2010	Black persons (%)	4.0%			24.0%		1.4%	1.7%	4.0%	25.8%	13.2%	17.5%	13.7%
15	Population	2000			11.1%	7.0%		26.5%	1.9%	1.8%	4.3%	28.3%	13.4%	U/A	13.6%
16	Population	2010	American Indian & Alaskan Native (%)	%0.0			0.0%		0.1%	0.2%	0.1%	0.5%	0.0%	0.0%	0.2%
17	Population	2000	American Indian & Alaska Native (%)		0.0%	0.1%		0.4%	0.1%	0.2%	%0.0	1.0%	0.4%	N/A	0.2%
18	Population	2010	Asian persons (%)	69.5%			24.2%		13.1%	%6.9	7.0%	23.7%	13.4%	9.9%	8.3%
19	Population	2000	Asian persons (%)		28.4%	42.0%		3.3%	5.5%	3.6%	4.3%	16.2%	9.4%	U/A	5.7%
20	Population	2010	Native Hawaiian & Other Pacific Islander (%)	0.0%			0.0%		0.0%	0.1%	0.0%	0.1%	0.1%	0.0%	0.0%
21	Population	2000			0.0%	0.1%		0.0%	0.1%	0.0%	0.1%	0.3%	0.1%	N/A	0.0%
22	Population	2010		1.9%			5.5%		2.7%	2.0%	3.0%	4.4%	4.4%	3.2%	2.7%
23	Population	2000	Two or more races (%)		6.2%	3.3%		5.1%	2.3%	2.2%	2.0%	5.8%	5.6%	U/A	2.5%
24	Population	2010	Hispanic or Latino origin (%)	4.2%			28.0%		6.8%	17.0%	15.0%	27.6%	42.2%	22.9%	17.7%
25	Population	2000			21.0%	8.3%		31.8%	14.0%	20.4%	20.2%	28.3%	39.8%	U/A	13.3%
26	Population	2010	White not Hispanic (%)	20.6%			23.1%		76.3%	73.2%	73.2%	21.5%	30.8%	49.3%	59.3%
27	Population	2000	White not Hispanic (%)		35.8%	39.6%		36.3%	77.0%	73.4%	70.5%	23.6%	35.3%	N/A	66.0%
29	Edu. Attain.	2007-2011	Population 25+ & over	7,582			974		2,946	2,407	37,037	168,719	434,268	12,726,176	5,926,262
30	Edu. Attain.	2007-2011	High school gradua	98.8%			76.1%		99.5%	86.0%	92.0%	84.0%	81.1%	84.4%	87.6%
31	Edu. Attain.	2007-2011		89.9%			31.5%		94.7%	64.3%	72.4%	40.6%	35.3%	35.9%	35.0%
32	Edu. Attain.	2007-2011		4,688			306		1,918	1,175	19,060	55,187	129,686	2,669,827	1,104,737
ЭЗ	Edu. Attain.	2007-2011		95.3%			74.5%		98.8%	94.1%	88.2%	58.4%	52.5%	44.3%	40.5%
34	Edu. Attain.	2007-2011	Population 35 to 44 years	1,795			198		675	386	8,003	36,570	96,117	2,708,192	1,266,069
35	Edu. Attain.	2007-2011	Population 35 to 44 years Bachelor's degree or higher	92.3%			15.7%		96.6%		80.7%	41.6%	38.0%	40.1%	40.1%
36	Edu. Attain.	2007-2011	Median Earnings in Past 12 Mo. (2011 Infl	\$91,060			\$56,211		\$101,864		\$76,629	\$41,398	\$40,756	\$42,555	\$44,976
37	Edu. Attain.	2007-2011	- Less than high school graduate	U/A			\$20,268		\$0		\$21,207	\$21,848	\$21,658	\$20,690	\$22,271
88 38	Edu. Attain.	2007-2011	Median Earnings High school graduate	\$41,080			\$56,800		\$103,926		\$40,579	\$28,249	\$29,174	\$31,423	\$33,088
39	Edu. Attain.	2007-2011	 Some college or associate's degree 	\$47,163			\$53,534		\$45,769		\$50,711		\$36,449	\$40,314	\$41,378
40	Edu. Attain.	2007-2011	2007-2011 Median Earnings- Bachelor's degree	\$86,684			\$73,529		\$94,049	\$72,727	\$78,973	\$54,464	\$56,452	\$57,405	\$60,200



NJ<u>EDGE</u>

0	New Jersey	\$82,979	6.8%	22.7%	41.3%	29.1%	11.3%	12.6%	12.9%	13.2%	5.6%	13.5%	7.4%	9.5%	14.0%	30.1	71.7%	17.7%	10.7%	3.2%	0.3%	1.6%	3.6%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	V/ W
	, , , , , , , , , , , , , , , , , , ,						_																														
z	NYC MSA	\$77,552	22.8%	26.4%	30.5%	20.3%	8.1%	9.8%	10.6%	11.8%	4.8%	15.1%	8.2%	11.8%	19.9%	34.7	50.3%	14.2%	30.6%	6.2%	0.5%	1.6%	3.8%	6,818,735	4,531,517	2,114,101	3,156,458	1,459,390	338,498	127,686	1,036,561	527,025	2,287,218	1,904,568	684,780	2,336,159	1 762 331
Σ	Hudson County	\$75,873	25.9%	40.8%	24.0%	9.3%	6.8%	9.0%	10.3%	12.3%	4.1%	17.8%	9.4%	15.0%	15.3%	33.2	39.3%	17.2%	39.2%	8.9%	0.3%	1.1%	2.6%	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Jersey City	\$76,748	38.5%	42.6%	15.3%	3.5%	5.1%	8.2%	10.3%	12.2%	4.1%	17.8%	%6.6	15.9%	16.5%	34.6	33.1%	15.8%	46.2%	8.3%	0.4%	1.0%	3.1%	94,599	56,950	25,872	33,725	14,463	5,730	2,302	17,495	9,107	37,649	28,878	6,459	29,914	16.784
\mathbf{x}	Hoboken	\$95,436	35.6%	51.2%	11.4%	1.8%	4.4%	5.0%	4.4%	%2'9	4.3%	17.2%	18.7%	27.2%	12.1%	37.4	26.2%	6.4%	56.0%	9.4%	%£.0	%6.0	3.9%	23,555	9,392	4,084	7,123	2,930	548	173	1,721	981	14,163	9,587	1,398	4,196	2.572
-	Census Tract 193	\$94,712	40.2%	35.1%	13.5%	11.2%	11.6%	1.9%	0.8%	9.9%	6.9%	23.3%	22.4%	22.3%	5.0%	32.6	22.5%	2.0%	59.8%	12.9%	0.0%	0.4%	3.4%	1,583	528	91	353	53	06	0	85	38	1,055	740	151	151	331
п	Census Tract 192	\$113,000	25.1%	58.6%	16.3%	%0:0	2.0%	7.1%	3.1%	3.9%	4.8%	18.2%	22.7%	28.4%	9.7%	36.7	26.0%	2.0%	64.3%	4.3%	%0.0	0.8%	2.1%	1,756	658	411	607	378	16	16	35	17	1,098	538	11	411	31
т	Census Tract 15																																				
U	Census Tract 78	\$34,213	21.7%	67.4%	10.9%	0.0%	0.2%	16.7%	12.0%	21.4%	9.9%	4.3%	9.6%	14.3%	11.6%	33.7	38.4%	10.2%	29.5%	19.4%	0.0%	0.0%	7.5%	657	270	96	169	49	15	0	86	47	387	365	209	109	247
ш	Census Tract 16.02																																				
ш	Census Tract 16.01																																				
	Census Tract 77	\$95,612	54.9%	40.4%	3.5%	1.1%	2.9%	5.2%	4.5%	7.3%	3.2%	24.2%	17.1%	25.8%	9.8%	37.0	8.6%	2.0%	77.1%	8.6%	0.3%	0.7%	3.2%	4,530	2,014	827	1,761	735	117	36	136	56	2,516	1,556	92	833	143
С	Census Data	2007-2011 Median Earnings-Graduate or professional degree	No Vehicles	1 Vehicles	2 Vehicles	3 or more Vehicles		Commutes 10 to 14 mins.			Commutes 25 to 29 mins.	2007-2011 Commutes 30 to 34 mins.	Commutes 35 to 44 mins.	Commutes 45 to 59 mins.			Mode of Trans. to V	Mode of Trans. to V	Mode of Trans. to Work 16+ Public Trans. (excluding taxi)	Mode of Trans. to 1	Mode of Trans. to V		Mode of Trans. to Work 16+ Worked at home	Total households	Family households (families)	With own children under 18 years	Marrie	With own children under 18 years	Male h	With own children under 18 years	Fema		Nonfa	Householder living alone	65 years &	2007-2011 Households with one or more people under 18 years	2007-2011 Households with one or more people 65 years & over
В	Year	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011
A	Category	Edu. Attain.	Trans.	Trans.	Trans.	Trans.	Trans.	Trans.	Trans.	Trans.	Trans.	Trans.	Trans.	Trans.	Trans.	Trans.	Trans.	Trans.	Trans.	Trans.	Trans.	Trans.	Trans.	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing
		41	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	65	99	67	68	69	70	71	72	73	74	75	76	1	78

0	New Jersey	A/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
					_			_		_																		-	_	_		_	_			_	Ĺ			
z	NYC MSA	7,501,002	2,740,046	489,875	836,531	597,613	411,629	387,831	2,003,068	30,921	3,488	182,236	300,479	431,058	560,216	739,090	1,040,501	1,283,621	765,664	2,198,137	376,939	1,624,640	2,046,207	2,059,787	1,014,417	379,012	6,818,735	94.2%	3.6%	2.2%	3,585,805	1.6%	1.6%	2.3%	3.7%	12.7%	39.3%	31.9%	6.9%	\$440,400
Σ	Hudson County	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Г	Jersey City	108,750	8,503	8,815	25,976	14,898	10,869	7,631	31,906	99	98	6,238	7,050	7,765	6,681	6,029	9,135	11,312	9,935	44,605	5,678	30,061	39,836	24,816	4,966	3,393	94,599	%2.69	4.3%	2.1%	30,057	0.8%	1.8%	3.1%	7.7%	21.7%	43.2%	19.6%	2.0%	\$353,000
Х	Hoboken	25,705	355	1,210	1,181	3,570	5,314	2,830	11,203		42	1,810	3,848	1,813	1,396	1,051	1,386	2,005	761	11,635	1,069	10,076	10,475	3,251	719	115	23,555	97.8%	1.7%	0.5%	7,728	0.1%	0.4%	0.2%	0.3%	5.1%	34.8%	44.1%	15.2%	\$567,700
ſ	Census Tract 193	1,702	24	11	92	266	287	234	788	0	0	16	120	227	213	149	10	107	54	806	68	851	556	216	11	0	1,583	99.5%	0.0%	0.5%	415	0.0%	5.1%	0.0%	0.0%	4.8%	39.0%	39.8%	11.3%	\$580,900 \$507,400
	Census Tract 192	1,969	30	59	154	142	354	203	1,027	0	0	147	875	193	301	19	83	24	0	327	65	536	1,065	248	55	0	1,756	99.4%	0.0%	0.6%	939	%0.0	%0.0	%0.0	1.1%	4.6%	28.1%	59.6%	6.6%	\$580,900
н	Census Tract 15																																							
IJ	Census Tract 78	674	0	7	÷	22	107	128	399	0	0	69	76	0	27	208	99	131	29	68	103	376	147	37	11	0	657	100.0%	%0.0	%0.0	33	%0.0	%0.0	%0:0	%0.0	%0.0	100.0%	0.0%	%0:0	U/A
ш	Census Tract 16.02																																							
ш	Census Tract 16.01																																							
٥	Census Tract 77	5,233	17	÷	9	÷	30	0	5,145	13	0	620	741	1,891	1,710	124	22	53	0	72	684	1,969	2,013	517	21	29	4,530	96.8%	2.6%	%9.0	601	%0.0	1.0%	%0.0	%0.0	5.0%	20.8%	70.9%	2.3%	\$591,300
С	Census Data	Total housing units	1-unit, detached	1-unit, attach	2 units	3 or 4 units	5 to 9 units	10 to 19 units		Mobile home	Boat, RV, van, etc.		Built 2000 to 2004			Built 1970 to 1979								3 bedrooms		5 or more b	Occup			1.51 or more Occupants Per Room	Owner-occupied	Value, Owner	Value, Owner		Value, Owner Occupied Units: \$150,000-\$199,999	Value, Owner Occupied Units: \$200,000-\$299,999		Value, Owner	Value, Owner	Value, Owner Occupied Units: Median Value (\$)
В	Year	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011
А	Category	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing
	1	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	66	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118



0	Now loroou	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ľ	New Jersey		Ź	Ż	Ż	Ź	Ż	Ż	Ń	Ń	Ż	Ń	Ń	Ż	Ż	Ż		Ż	Ż	Ź	Ń	Ż	ź		Ż	Ż	Ż	Ż	Ń	Ż	Ź	Ż	Ż		Ż	Ż		Ń	Ż
z	NYC MSA	3,232,930	682,267	1.9%	4.8%	0.682	0.318	2445887	0.1%	0.4%	1.0%	2.7%	8.1%	13.5%	74.2%	\$2,719	2436572	0.251	0.135	0.123	0.097	0.394	9,315	3,139,895	0.015	0.04	0.052	0.096	0.168	0.354	0.275	1157	93035	3074256	13.00%	11.60%	11.90%	11.00%	9.10%
Σ	Hudson County	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
_	Jersey City	64,542	14,151	6.1%	9.1%	74.9%	25.1%	22520	%0'0	0.1%	0.4%	1.4%	7.6%	15.8%	74.6%	\$2,683	22,421	18.9%	15.1%	11.9%	%6'6	44.3%	66	63,348	1.6%	3.1%	4.1%	11.0%	20.3%	31.8%	28.1%	\$1,127	\$1,194	61,507	15.3%	14.0%	14.5%	10.2%	8.6%
\mathbf{x}	Hoboken	15,827	2,150	4.0%	4.2%	85.0%	15.0%	9959	%0'0	0.2%	%0'0	0.2%	2.5%	%8°.L	89.3%	\$3,222	6,566	42.7%	13.4%	14.0%	6.4%	23.5%	0	15,569	3.2%	5.0%	3.5%	6.1%	6.4%	12.8%	%6.63	\$1,714	\$258	15,476	18.9%	19.8%	16.4%	12.9%	9.7%
	Census Tract 193	1,168	119	4.2%	2.7%	79.8%	20.2%	331	%0.0	0.0%	%0.0	%0.0	9.7%	10.6%	79.8%	\$3,063	331	40.5%	9.7%	11.8%	%0.0	38.1%	0	1,157	6.5%	4.6%	9.1%	%L'L	8.2%	4.0%	%0.09	\$1,689	\$11	1,138	9.5%	19.9%	17.6%	15.7%	14.8%
Ι	Census Tract 192	817	213	3.8%	7.5%	97.6%	2.4%	916	%0'0	0.0%	%0'0	%0'0	0.8%	4.7%	94.5%	\$3,500	916	49.3%	11.6%	9.0%	2.7%	24.5%	0	817	%0.0	%0.0	%0.0	%0.0	%0'0	8.8%	91.2%	\$2,000+	\$0	817	20.9%	36.2%	6.1%	17.0%	7.1%
т	Census Tract 15																																						
ს	Census Tract 78	624	17	%0.0	2.7%	100.0%	%0.0	33	%0'0	0.0%	%0'0	%0'0	0.0%	%0'0	100.0%	\$3,125	33	0.0%	66.7%	%0.0	33.3%	%0.0	0	586	10.9%	17.2%	13.3%	11.8%	16.9%	8.2%	21.7%	\$716	\$38	580	14.1%	18.6%	12.9%	15.2%	12.6%
ш	Census Tract 16.02																																						
ш	Census Tract 16.01																																						
۵	Census Tract 77	3,929	703	5.7%	7.0%	90.2%	9.8%	542	%0'0	%0.0	%0'0	%0'0	1.1%	2.4%	96.5%	\$3,737	542	36.7%	19.9%	13.3%	%6'9	24.2%	0	3,929	0.6%	%0.0	0.0%	%9'0	%5.0	7.8%	%9.06	\$2,000+	\$0	3,625	28.0%	17.3%	16.3%	13.0%	6.2%
С	Census Data	Renter-occupied	Vacant housing units	Homeowner vacancy rate	Rental vacancy rate	Housing units with a mortgage	Housing units without a mortgage	Housing units with a mortgage		Housing Monthly Costs: \$300 to \$499	Housing Monthly Costs: \$500 to \$699		Housing Monthly Costs: \$1,000 to \$1,499	Housing Monthly Costs:	Housing Monthly Costs: \$2,000 or more	Housing Monthly Costs: Median (dollars)	Housir					Households Paying 35%+ of Inc. on Housing		Occupied units paying rent			\$300 to \$499		\$750 to \$999	\$1,000 to \$1,499	\$1,500 or more	Median (dollars)	Housing Units: No rent paid	Occupied units paying rent (excl. units GRAPI not computed)	Households Paying Less than 15% of Inc. on Rent				Households Paying 30%-34.9% of Inc. on Rent
В	Year	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2012	2007-2013	2007-2014	2007-2015	2007-2016	2007-2017	2007-2018	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011
A	Category	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing	Housing
	H	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156

0	New Jersey	N/A	N/A	\$27,006	\$25,077	\$71,180	\$55,146	\$54,842	9.4%	8.4%	7.6%	13.1%	11.1%	11.3%	6.8%	18.3%	16.8%	6.8%	13.3%	20.8%	18.1%	8.7%	0.4%	5.9%	9.2%	3.7%	11.1%	5.7%	3.1%	9.1%	12.3%	22.6%	7.9%	4.4%	4.6%	781,622	7.7%	0.4%
z	NYC MSA	43.40%	158,674	\$20,604	\$17,397	\$62,322	\$50,795	\$31,659	13.7%	12.9%	17.5%	19.1%	17.5%	U/A	8.8%	19.6%	21.0%	13.0%	18.9%	25.8%	22.4%	8.5%	0.2%	5.8%	6.5%	3.1%	10.4%	5.8%	3.6%	9.9%	12.4%	24.8%	8.3%	5.1%	4.2%	U/A	U/A	U/A
Σ	Hudson County	N/A	N/A	\$21,154	\$19,403	\$57,660	\$40,293	\$41,429	15.1%	15.5%	14.8%	22.4%	22.4%	23.9%	13.7%	20.8%	12.0%	11.2%	31.6%	19.1%	19.0%	9.8%	0.1%	5.1%	7.7%	4.4%	10.2%	7.7%	3.6%	12.3%	13.8%	18.7%	7.9%	5.0%	3.5%	55,520	11.8%	U/A
L	Jersey City	37.4%	3,035	\$19,410	\$13,060	\$57,520	\$37,862	\$29,054	16.4%	17.6%	18.9%	25.3%	27.4%	29.7%	14.6%	21.0%	15.6%	11.3%	%0.0	21.8%	21.9%	10.3%	0.1%	2.8%	6.4%	3.4%	10.2%	7.6%	4.0%	14.5%	15.5%	19.9%	7.4%	4.6%	3.8%	U/A	U/A	U/A
х	Hoboken	22.2%	351	\$43,195	\$20,020	\$104,789	\$62,550	\$34,873	10.0%	10.9%	16.4%	17.4%	23.9%	34.2%	8.6%	26.1%	0.0%	8.8%	U/A	29.7%	30.6%	4.2%	0.0%	2.6%	6.3%	4.5%	6.4%	2.7%	8.0%	24.1%	20.4%	15.3%	4.6%	2.0%	3.0%	U/A	U/A	U/A
ſ	Census Tract 193	22.5%	30	\$51,193	\$28,057	\$95,072	\$76,012	\$43,257	12.8%	10.5%	20.9%	0.0%	28.1%	38.0%	11.8%	0.0%	0.0%	5.5%	0.0%	48.1%	23.1%	4.6%	0.0%	1.4%	2.8%	7.7%	9.1%	2.3%	8.7%	26.4%	22.7%	10.4%	5.9%	1.2%	1.3%	U/A	U/A	U/A
Ι	Census Tract 192	12.6%	0	\$54,707	\$33,401	\$185,625	\$76,161	\$62,015	0.9%	8.2%	12.4%	0.0%	39.7%	43.0%	1.1%	%0.0	0.0%	%0.0	%0.0	%0.0	4.5%	1.0%	0.0%	1.6%	6.1%	3.8%	3.9%	0.5%	7.3%	32.2%	27.1%	14.1%	0.6%	0.8%	2.1%	N/A	ΝA	U/A
н	Census Tract 15			\$16,599	\$20,794		\$38,000	\$38,246		24.4%	28.6%		30.7%	38.1%																								
ŋ	Census Tract 78	26.6%	44			\$28,542			28.2%			17.9%			23.6%	49.4%	0.0%	17.1%	0.0%	33.6%	36.6%	6.3%	0.0%	0.0%	4.9%	0.0%	14.2%	9.0%	2.1%	15.2%	14.6%	25.1%	7.7%	7.3%	0.0%	N/A	N/A	U/A
ш	Census Tract 16.02			\$59,837	\$40,879		\$83,441	\$63,650		7.8%	6.4%		2.8%	8.7%																								
ш	Census Tract 16.01			\$20,376	\$8,238		\$26,739	\$43,550		0.0%	0.0%		0.0%	0.0%																								
D	Census Tract 77	19.2%	304			\$135,536			10.9%			5.9%			1.7%	4.2%	0.0%	14.1%	%0.0	57.0%	14.3%	2.3%	0.0%	0.6%	5.2%	1.7%	1.8%	2.2%	2.3%	44.7%	29.5%	7.7%	2.0%	%6.0	1.2%	N/A	U/A	U/A
С	Census Data		Not computed	Per capita Inc.	Per capita Inc.	2007-2011 Median household Inc.	Median household Inc.	Median Household Inc.	2007-2011 People of all ages in poverty (%)	All ages Poverty	All ages Poverty	18 & Under in Poverty	18 & Under in Poverty	18 & Under in Poverty	Poverty by Race White		Poverty by Race American Indian & Alaska Native	Poverty by Race Asian		Poverty by Race Some other race	Inc. & Poverty 2007-2011 Poverty by Race Hispanic Any Race	Unemployment Rate, 16 & over	2007-2011 Occup. by Industry: Agri., forestry, fishing & hunting, & minin	Occup. by Industry: Construction	Occup. by Industry: Manufacturing	Occup. by Industry: Wholesale	Occup. by Industry:	Occup. by Industry:	Occup. by Industry: Information	2007-2011 Occup. by Industry: Finance, Insurance, & Real Estate	Occup. by Industry:	Occup. by Industry: Edu. services, & health care & social assi	Occup. by Industry:		2007-2011 Occup. by Industry: Public Administration	Total number of firms	Black-owned firms, %	American Indian- & Alaska Native-owned firms, %
В	Year	2007-2011	2007-2011	2000	1990		2000	1990	2007-2011		1990	2007-2011	2000	1990	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007-2011	2007	2007	2007
A	Category	Housing	Housing	Inc. & Poverty	Inc. & Poverty	Inc. & Poverty	Inc. & Poverty	Inc. & Poverty	Inc. & Poverty	Inc. & Poverty	Inc. & Poverty	Inc. & Poverty	Inc. & Poverty	Inc. & Poverty	Inc. & Poverty 2007-2011	Inc. & Poverty 2007-2011	Inc. & Poverty 2007-2011	Inc. & Poverty 2007-2011	Inc. & Poverty 2007-2011	Inc. & Poverty 2007-2011	Inc. & Poverty	Labor Force		Labor Force	Labor Force	Labor Force	Labor Force	Labor Force	Labor Force	Labor Force	Labor Force	Labor Force	Labor Force	Labor Force	Labor Force	Employers	Employers	Employers
	н	157	158	160	161			164		166	167	168		170	171	172	173	174	175	176		179	180	181	182	183	184	185	186	187	188	189	190	191	192	194	195	196



	A	В	С	٥	ш	ш	U	т	I	ſ	¥		Σ	z	0
Н	Category	Year	Census Data	Census Tract 77	Census Tract 16.01	Census Tract 16.02	Census Tract 78	Census Tract 15	Census Tract 192	Census Tract 193	Hoboken	Jersey City	Hudson County	NYC MSA	New Jersey
236	Employers	1997	Total number of firms	N/A			U/A		ΝA	U/A	U/A	U/A	38,831	U/A	654,227
237	Employers	1997	Black-owned firms, %	N/A			N/A		NA	U/A	U/A	U/A	6.0%	U/A	4.1%
238	Employers	1997	American Indian- & Alaska Native-owned firms, %	N/A			N/A		NA	U/A	U/A	U/A	0.4%	U/A	0.4%
239	Employers	1997	Asian-owned firms, %	N/A			N/A		U/A	N/A	U/A	N/A	12.0%	N/A	6.3%
240	Employers	1997	Native Hawaiian & Other Pacific Islander-owned firms, %	U/A			U/A		U/A	U/A	U/A	U/A	U/A	U/A	0.1%
241	Employers	1997	Hispanic-owned firms, %	U/A			U/A		U/A	U/A	U/A	U/A	23.1%	U/A	5.5%
242	Employers	1997	Women-owned firms, %	U/A			U/A		N/A	N/A	U/A	U/A	20.5%	U/A	2.4%
243	Employers	1997	wholesale sales (\$1000)	N/A			N/A		U/A	N/A	U/A	- N/A	11,271,459	U/A	227,309,002
244	Employers	1997		N/A			U/A		N/A	N/A	U/A	U/A	3,842,879	U/A	79,914,892
245	Employers	1997	Finance/Insurance sales (\$1000)	U/A			U/A		U/A	U/A	U/A	U/A	U/A	U/A	U/A
246	Employers	1997	Accom. & food services sales (\$1000)	U/A			U/A		U/A	U/A	U/A		466,491	U/A	13,416,088
247	Employers	1997	Manufacturers sales (\$1000)	N/A			U/A		NA	U/A	U/A		2,063,415	U/A	97,060,800
248	Employers	1997	Real Estate, Rental/ Leasing sales (\$1000)	U/A			U/A		U/A	U/A	U/A	U/A	628,099	U/A	8,881,943
249	Employers	1997	Trans./Warehousing sales (\$1000)	U/A			U/A		U/A	U/A	U/A	U/A	U/A	U/A	14,404,673
250	Employers	1997	# of wholesale firms	N/A			U/A		N/A	N/A	U/A	U/A	1,065	U/A	17,812
251	Employers	1997	# of retail firms	U/A			N/A		NA	U/A	U/A	N/A	2,327	U/A	34,837
252		1997	# of Finance/ Insurance firms	N/A			N/A		N/A	N/A	U/A	N/A	N/A	N/A	10,567
253	Employers	1997	# of Accom & food services firms	U/A			U/A		U/A	U/A	U/A	U/A	1,127	U/A	16,975
254	Employers	1997	# of manufacturing firms	U/A			U/A		U/A	U/A	U/A	U/A	979	U/A	11,812
255	Employers	1997	# of Real Estate/ Leasing firms	U/A			U/A		U/A	U/A	U/A	U/A	542	U/A	8,292
256	Employers	1997	# of Trans./ Warehousing firms	N/A			N/A		N/A	N/A	N/A	N/A	N/A	N/A	6,632
257	Employers	1992	Total number of firms	N/A			U/A		U/A	U/A	U/A	U/A	26,867	U/A	517,204
258	Employers	1992	Black-owned firms (%)	N/A			U/A		ΝA	N/A	U/A	U/A	4.4%	U/A	3.9%
259	Employers	1992	American Indian- & Alaska Native-owned firms (%)	N/A			U/A		N/A	N/A	U/A	U/A	N/A	U/A	U/A
260	Employers	1992	Asian, Native Hawaiian, & Other Pacific Islander-owned firms	U/A			U/A		U/A	U/A	U/A	U/A	9.2%	U/A	4.5%
261	Employers	1992	Hispanic-owned firms (%)	U/A			U/A		U/A	U/A	U/A	U/A	19.6%	U/A	4.3%
262	Employers	1992	Women-owned firms (%)	N/A			U/A		NA	U/A	U/A		30.6%	U/A	31.8%
263	Employers	1992	Wholesale sales (\$1000)	U/A			N/A		ΝA	U/A	U/A	-	11,016,000	U/A	176,022,000
264	Employers	1992	Retail sales (\$1000)	U/A			U/A		ΝA	U/A	U/A	U/A	3,334,000	U/A	63,109,000
265	Employers	1992	Finance/Insurance sales (\$1 000)	N/A			N/A		NA	N/A	U/A	N/A	NA	U/A	59,482,000
266	Employers	1992	Accom. & food services sales (\$1000)	U/A			U/A		U/A	U/A	U/A	U/A	U/A	U/A	U/A
267	Employers	1992	Manufacturers sales (\$1 000)	U/A			U/A		U/A	U/A	U/A	U/A	5,098,000	U/A	86,775,000
268	Employers	1992	Real Estate, Rental/ Leasing sales (\$1000)	U/A			U/A		U/A	U/A	U/A	N/A	U/A	U/A	5,355,000
269	Employers	1992	Trans./Warehousing sales (\$1000)	U/A			U/A		N/A	U/A	U/A	U/A	U/A	U/A	U/A
270	Employers	1992	# of wholesale firms	U/A			U/A		N/A	U/A	U/A	U/A	1,163	U/A	18,444
271	Employers	1992	# of retail firms	U/A			U/A		U/A	U/A	U/A	U/A	3,586	U/A	48,648
272	Employers	1992	# of Finance/ Insurance firms	U/A			U/A		U/A	U/A	U/A	U/A	U/A	U/A	9,998
273	Employers	1992	# of Accommadation & food services firms	N/A			U/A		U/A	U/A	N/A	U/A	N/A	U/A	N/A
274	Employers	1992	# of manu. firms	N/A			NA		U/A	U/A	U/A	U/A	1,252	U/A	13,277



		_						-
0	New Jersey	7,422	U/A				ttainment /	
N	NYC MSA	N/A	N/A				<pre>d) / Attain: A</pre>	
Σ	Hudson County	U/A	U/A				Education(a	
	Jersey City	N/A	N/A				iths / Edu:	
¥	Hoboken	N/A	N/A				/ Mo: Mor	
ſ	Census Tract 193	Π	N/A				Agriculture	
Ι	Census Tract 192	U/A	U/A		92 - 2007		p. / Agri: A	
т	Census Tract 15				wners 199		cup: Occul	
U	Census Tract 78	U/A	N/A		usiness 0		lation / Oci	
ш	Census Tract 16.02				Irvey of B		: Accomod	
ш	Census Tract 16.01				07 BLS SI		g / Accom	
۵	Census Tract 77	N/A	N/A		1992 - 20		nufacturing	
C	Census Data	1992 # of Real Estate/ Leasing firms	1992 # of Trans./Warehousing firms		278 Sources: American Community Survey (ACS) United States Census Economic Census 1992 - 2007 BLS Survey of Business Owners 1992 - 2007		U/A: Unavailable / Trans: Trans. / #: Number / Mins: Minutes / Manu: Manufacturing / Accom: Accomodation / Occup: Occup. / Agri: Agriculture / Mo: Months / Edu: Education(a) / Attain: Attai	
В	Year	1992			ican Comm	ey:	U/A: Unava	Inc: Inc.
A	Category	275 Employers	276 Employers		Sources: Amen	ADDreviation K		
	H	275	276	7/7	278	2/7		280





B.1 References



- 1990 Census. United States Census Bureau. Data Obtained via Social Explorer Demographic Reports. Web. 5 March 2013. http://www.socialexplorer.com/pub/ReportData/home.aspx>.
- 1990 Census of Population & Housing Paper Listings (CPH-L). United States Census Bureau. 5 March 2013. https://www.census.gov/hhes/www/income/data/1990census/index.html.
- 2000 Census. United States Census Bureau. Data Obtained via Social Explorer Demographic Reports. Web. 5 March 2013. http://www.socialexplorer.com/pub/ ReportData/home.aspx.>.
- 2010 Census. United States Census Bureau. Web. 18 Feb. 2013. <factfinder2.census.gov>.
- 2007 -2011 American Community Survey. United States Census Bureau. Web. 18 Feb. 2013. <factfinder2.census.gov>.
- Adventures in Learning. "Bright Beginnings Early Learning Center. Adventuresinlearningnj.com. N.p., 2010. Web. 15 Feb. 2013. http://www.adventuresinlearningnj.com/.
- Alpha Moving Co.N.p. Web. Feb 18 2013 < http://www.alphamoving.com>.
- Almar Graphics. " N.p, 2009. Web. 19 Feb. 2013. < http://www.almargraphics.com>.
- American Planning Association . "Great Places in America." Web. 7 Feb. 2013. https://www.planning.org/greatplaces/streets/2010/?print=true.
- American Society of Planning Officials. "Site Design, Parking and Zoning for Shopping Centers." January 1954. Web. 30 April 2013. http://www.planning.org/pas/at60/ report59.htm>
- Antiquariannation.com, "Van Vorst Historic District." Antiquarianation. Web. 17 Feb. 2013. http://www.antiquarianation.com/2011_09_01_archive.html.
- Applebome, Peter. "Adjusting Vision of Waterfront Arts District to Include High Rises" New York Times. May 15, 2008. Print.
- Bagli, Charles. "Jersey City Development, Begun in '86, Enters its Final Phase" New York Times. April 30, 2012. Print.
- Bass, Richard. "Response to the Southwest Area Redevelopment Study." February 29, 2012. Print.

Baumtextile.com, "Baum Textile Mills." Baum Textile Mills, Inc. 2007. Web. 19 Feb. 2013. BigSamMovers. "Big Sam." Cytnet, 2013. Web. 21 Feb. 2013. http://bigsammovers.com.

- Birch, Whitney, & Fitzsimmons, Neal. "Transportation Research Circular E-C058 9th National Light Rail Transit Conference: Hudson-Bergen Light Rail System and Economic Development on the Waterfront." N.d. 205 - 214. Web. Feb. 19, 2013. http://www.reconnectingamerica.org/assets/Uploads/bestpractice097.pdf>.
- The Brookings Institution. "The State of Metropolitan America 2010." Web. 8 March 2013. http://www.brookings.edu.



Bureau of Labor Statistics. "2006-2011 Quarterly Census of Employment and Wages: Hudson County Annual Summary Report," Web. 2013. http://www.bls.gov/cew/>.

Canepa, Greg; Smith, Mott; Sandlund, Greg; and Pace, Thomas. "Form-Based Approach to Parking." April 15, 2013. American Planning Association 2013 Annual Conference Presentation.

Cast Iron Lofts. N.p., n.d. Web. 27 April 2013. < http://www.castironlofts.com>

- Cotter, Bob. "Jersey City Planning Presentation." Hunter College MUP Studio. 6 Feb 2013. Lecture
- Care.com. "World of Wonder Day Care." Care.com. N.p., 2013. Web. 15 Feb. 2013. http://www.care.com/world-of-wonder-day-care-hoboken-p1373-q22486302.html.

Carlo's Bakery 2012. Web. 19 Feb. 2013. <www.carlosbakery.com>.

- Carter, N.T. Federal Involvement in Flood Response and Flood Infrastructure Repair: Storm Sandy Recovery (CRS Report No. R42803). October, 2012. Retrieved from Congressional Research Service
- Catholic Charities of the Archdiocese of Newark. "Catholic Charities St. Lucy's Shelter Emergency Shelters.". N.p.. Web. 25 Feb 2013. http://www.ccannj.com/st_Lucy.php>.
- Catholic Charities Hope House. "The Hope House." N.p, N.d. Web. 19 Feb. 2013. http://www.ccannj.com/hope_house.php>.
- Childcarecenter.us "Holland Gardens HeadStart.. N.p., 2010. Web. 15 Feb. 2013. http://childcarecenter.us/provider_detail/holland_gardens_headstart_jersey_city_nj.
- Christ Hospital. "Christ Hospital." Christ Hospital. Hudson Hospital Opco, LLC, 2013. Web. 15 Feb. 2013. http://www.christhospital.org/>.
- Choose Help. "Salvation Army ARC New Jersey." 2013. Web. 19 Feb. 2013. http://www.choosehelp.com/indiana/free-or-affordable-drug-alcohol-rehabs/salvation-army-arc>.
- Church of Our Lady of Grace and St. Joseph. "Church of Our Lady of Grace and St. Joseph: Religious Education." N.p.. Web. 22 Feb 2013.
- City-Data.com. Hoboken Inner City Brownstone Picture. Web. 01 March 2013. < http:// www.city-data.com/forum/attachments/new-jersey/39840d1239736887-hobokeninner-city-slum-photo-tour-vvp-brownstones.jpg>
- City of Hoboken "Observer Highway: Complete Streets Redesign". 2012. N.P. http://www.hobokennj.org/docs/transportation/Observer-Highway-Boards-5-30-12.pdf>.
- City of Hoboken. "Sinatra Field & Castle Point Park." 2013. NP. http://www.hobokennj. org/departments/community-development/open-space-acquisition-and-development/sinatra-field/>.
- City of Hoboken. "City of Hoboken Master Plan: Community Development " Hoboken Planning Board. N.p., April, 2004. Web. 12 Feb. 2013. http://hobokennj.org/docs/communitydev/HobokenFinalMasterlist.pdf>.



City of Hoboken. "City of Hoboken Master Plan: Introduction" Hoboken Planning Board. Page 7, April 2004. Web. 12 Feb. 2013.

<http://hobokennj.org/docs/communitydev/HobokenFinalMasterlist.pdf>.

- City of Hoboken. "Hoboken City Master Plan, Open Space." The City of Hoboken. N.p. N.d. Web. Feb. 2013 < http://www.hobokennj.org/pdf/mplan/FINAL/III.OpenSpace. pdf>.
- City of Hoboken. "Hoboken City Master Plan, Historical Overview" The City of Hoboken. N.p. April, 2004. Web. 9 Feb. 2013.

<http://hobokennj.org/docs/communitydev/HobokenFinalMasterlist.pdf>.

- City of Hoboken. "Council." City of Hoboken. N.p., n.d. Web. 18 Feb. 2013. http://www.hobokennj.org/council/>.
- City of Hoboken. "Hoboken Awarded \$900,000 To Repair Waterfront Parks." City of Hoboken NJ RSS. N.p., n.d. Web. 8 Feb. 2013. http://www.hobokennj.org/2011/04/ hoboken-awarded-900000-to-repair-waterfront-parks/>.
- City of Hoboken, "Hoboken's History." City of Hoboken NJ RSS. N.p., n.d. Web. 8 Feb. 2013. http://www.hobokennj.org/visit/history/.
- City of Hoboken. "Mayor Dawn Zimmer." City of Hoboken. N.p., n.d. Web. 18 Feb. 2013. http://www.hobokennj.org/mayor/>.
- City of Hoboken. Municipal Code. Chapter 196: Zoning, Article III, V, VI. http://ecode360.com/15237147#15237147
- City of Hoboken. "Public Safety." City of Hoboken. N.p., n.d. Web. 15 Feb. 2013. http://www.hobokennj.org/departments/public-safety/.
- City of Hoboken, NJ. The Hop. N.p., n.d. Web. 27 April 2013. http://www.hobokennj.org/departments/transportation-parking/the-hop/
- City of Hoboken. "Zoning Map City of Hoboken." Hoboken City Planning Board. 13 Sep. 2003. Web. 2013. http://www.hobokennj.org/docs/communitydev/Zoning-Map.pdf>.
- City of Hoboken. "Observer Highway: Complete Streets Redesign." 2012. N.P. http://www.hobokennj.org/docs/transportation/Observer-Highway-Boards-5-30-12.pdf>.
- City of Hoboken Planning Board. "City of Hoboken: Southwest Area Redevelopment Study." January 5, 2012. Print.
- United Synagogue of Hoboken. "United Synagogue of Hoboken- Education." N.p.. Web. 25 Feb 2013. http://www.hobokensynagogue.org/education.php>.
- Jersey City, Division of City Planning. "Jersey City Master Plan", 2000. Print.
- City of Jersey City, "City Council." City of Jersey City. 2007. Web. 18 Feb. 2013. http://www.cityofjerseycity.com/citycouncil.aspx>.
- City of Jersey City. "City of Jersey City Zoning Map." Jersey City Division of City Planning. N.p., n.d. Web. 2013. http://www.cityofjerseycity.com/uploadedFiles/ Public_Notices/RFP/ZoningMap28Jan09.pdf>.



- City of Jersey City. "Department of Fire and Emergency Services." City of Jersey City. N.p., 2007. Web. 12 Feb. 2013. http://www.cityofjerseycity.com/emergency. aspx?id=868>.
- City of Jersey City. "Jersey City Public Schools." City of Jersey City. N.p., 2007. Web. 12 Feb. 2013. http://www.cityofjerseycity.com/resident.aspx?id=982>.
- City of Jersey City. "Jersey City Stormwater Management Plan." 2008. Web. http://www.jcmua.com/PDF's/Stormwater%20Management%20Plan%20August%202008.pdf>.
- City of Jersey City. "Jersey City Municipal Code. Chapter 345: Land Development Ordinance. Articles 1-VIII." N.p., n.d., Web. 2013. http://library.municode.com/index.aspx?clientID=16093&stateID=30&statename=New%20Jersey.
- City of Jersey City. "Housing, Economic Development and Commerce." N.p., n.d. Web. 7 Feb. 2013. http://jerseycitynj.gov/hedc.aspx?id=1170>.
- City of Jersey City. "Recreation and Open Space Master Plan." 1 April 2008. Web. Feb. 2013 <http://www.jerseycitynj.gov/uploadedFiles/City_Government/Department_ of_Business_Administration/Jersey%20City%20Recreation%20Master%20Plan%20 (Web)%20_4-2008%20REDUCED.pdf>.
- Cobra Fencing Club, "Cobra Fencing." 2012. Web. 19 Feb. 2013. http://www.cobrafencing.com.
- Cortera.com. "RW Graphics Inc." Cortera Inc., 2013. Web. 20 Feb. 2013. http://start.cortera.com/company/research/k5s7jys1p/rw-graphics-inc/.
- Department of Homeland Security. Federal Emergency Management Agency National Flood Insurance Fund (Congressional Justification, Fiscal Year 2013). 2013. Retrieved from: http://www.fema.gov/library
- Dinkel, Sarah. "RE: Hunter College Studio Questions?" Message to the author. 22 Feb. 2013. E-mail.
- Donato-Weinstein, Nathan. "Your New Whole Foods Has a Rooftop Beer Garden." Silicon Valley Business Journal. February 19, 2013. Web. 12 April. 2013. http://www.bizjournals.com/sanjose/news/2013/02/15/your-new-whole-foods-has-a-rooftop.html
- Earley, David and Mitchell, Jennifer. "Northern Virginia Leads the way in Value Capture for Transport Infrastructure." Valuecapture.org. April 26, 2013. Web. 30 April 2013. ">http://valuecapture.org/2013/04/26/northern-virginia-leads-the-way-in-valuecapture-for-transport-infrastructure/>">http://valuecapture.org/2013/04/26/northern-virginia-leads-the-way-in-value-
- Emmes Asset Management Company. "Emmes Asset Management Company." N.p., n.d. Web. 05 Feb. 2013. http://www.emmesco.com>.
- Emmes Asset Management Company. "Lackawanna Center Stacking Plan." 23 Aug 2012. Print.
- Eng-Wong, Taub & Associates. "Jersey City/Hoboken Connectivity Study" June 2011. Print.



- Environmental Protection Agency. EPA's Environmental Dataset Gateway (EDG). 2013. Clip N Ship Application: Retrieved from: https://edg.epa.gov.
- Environmental Protection Agency. "Parking Spaces / Community Places: Finding the Balance through Smart Growth Solutions." January 2006. Web. 30 April 2013. http://www.epa.gov/smartgrowth/pdf/EPAParkingSpaces06.pdf
- Every Stock Photo. Jersey City: The Powerhouse. 2007. http://www.everystockphoto.com/ photo.php?imageId=680729>.

Farmed Here: Sustainable Indoor Farming. <Farmedhere.com>.

- Federal Energy Regulatory Commission. "FERC: New Jersey New Jersey New York Expansion Project FEIS." FERC: New Jersey - New Jersey - New York Expansion Project FEIS. N.p., n.d. Web. 15 Feb. 2013. http://www.ferc.gov/industries/gas/enviro/eis/2012/03-16-12-eis.asp>.
- Federal Highway Administration. "TIFIA." Web. 30 April. 2013 http://www.fhwa.dot.gov/ipd/tifia/index.htm
- Federal Transit Administration. "Small Starts." Web. 30 April. 2013. http://www.fta.dot. gov/12304_222.html>
- FEMA. "Coastal Construction Manuals I & II: Principles and Practices of Planning, Siting, Designing, Constructing, and Maintaining Residential Buildings in Coastal Areas." Aug. 2011 Retrieved from: http://www.fema.gov/library>. A.
- FEMA. "Hurricane Sandy Advisory Base Flood Elevations (ABFEs)." Nov. 2012. Retrieved from: http://www.region2coastal.com/sandy/abfe/community_officials. B.
- FEMA. "FEMA's Risk Mapping, Assessment, and Planning (Risk MAP) Fiscal Year 2012 Report to Congress." Feb. 2012. C.
- Fishs Eddy. Dinnerware, Glassware, Flatware, Serveware.< http://www.fishseddy. com>. N.p, Nd. Web. 21 Feb. 2013.
- Flaherty, David. "Brewery in the Sky: Birreria, Eataly's Rooftop Beer Garden." New York Cork Report, August 17, 2011. Web. 11 April. 2013. http://lennthompson.typepad.com/lenndevours/2011/08/brewery-in-the-sky-birreria-eatalys-rooftop-beer-garden.html
- Foggin, Mark. "Recipe for Growth." Center for an Urban Future. June 2008. Web. 6 May 2013.
- Garber, Megan. "Perks and Recreation: In Silicon Valley, a new wave of tech companies tries to enforce fun." The Atlantic. November 28, 2012. Web. 27 April. 2013. http://www.theatlantic.com/magazine/archive/2012/12/perks-and-recreation/309175/

Google Earth. 2013. Web. < http://www.google.com/earth/index.html>.

Google Plus, "Bello's Stamping Die Cutter." 2013. Web. 19 Feb. 2013. https://plus.google.com/103227824677786985953/about?gl=us&hl=en>. A.



Google Plus. "Grocery stores near 638 Grove St, Jersey City, NJ." N.p. Web 22 Feb 2013. <https://plus.google.com/local/638%20Grove%20St,%20Jersey%20City,%20NJ,%20 USA/s/grocery%20stores?hl=en>. B.

Group Site Visit, Feb 2, 2013. Led by Richard Bass.

- Hayes, Cheryl D., and Eric Keller. "A Cost Estimation Tool for Charter Schools." National Resource Center on Charter School Finance and Government. N.p., n.d. Web. 2 Apr 2013.
- Hernandez, Joe. "Housing Developers Among Biggest Backers of Light Rail Expansion." NJ Spotlight.. 26 Nov, 2012. Web. Feb 2013. http://www.njspotlight.com/stories/12/11/25/housing-developers-among-biggest-backers-of-light-rail-expansion/>.
- HMS Monaco. "HMS Monaco, Wholesale Distributors." 2009. Web. 19 Feb. 2013.<www.hmsmonaco.com>.
- Hoboken Board of Education. "School Directory." 2012. Web. 10 Feb. 2013. http://www.hoboken.k12.nj.us/hoboken/Schools/>.
- Hoboken Family Alliance.. "Hoboken Schools." N.p., 2013. Web. 12 Feb. 2013. http://hobokenfamily.com/?page_id=787>.
- Hoboken Fire Department. "Hoboken Fire Department." N.p., 2013. Web. 15 Feb. 2013. http://www.hobokenfire.org/>.
- Hoboken Shelter. "The Hoboken Shelter." N.p, N.d. Web. 19 Feb. 2013. <www. hobokenshelter.org>.
- Hoboken Historical Museum. "Short History of Hoboken." N.p., n.d. Web. 7 Feb. 2013. http://www.hobokenmuseum.org/history/historical-resources/short-history-of-hoboken.
- Hoboken University Medical Center. "Hoboken University Medical Center." N.p., 2013. Web. 15 Feb. 2013. http://www.hobokenumc.com/>.
- Hoboken Motorcycle Club. "Hoboken Motorcycle Club." 2012. Web. 19 Feb. 2013. <www. Hobokenmotorcycleclub.com>.
- Hobokenpd.com. "Hoboken New Jersey Police Department," 2012. Web. 10 Mar. 2013. http://www.hobokenpd.com/>.
- Hudson County. "Establishing and Adopting a Hudson County Complete Streets Policy." May 24, 2012. Web. 30 April. 2013 http://njbikeped.org/wp-content/uploads/2013/02/Hudson-County-Complete-Streets-Resolution.pdf
- Hudson County." Hudson County Comprehensive Economic Development Strategy". 2011.
- Hudson County, NJ. "Hudson County Executive." N.p., 13 Jan. 2012. Web. 18 Feb. 2013. http://www.hudsoncountynj.org/hudson-county-executive.aspx.
- Hudson County, NJ. "Sign In Hudson County." N.p., n.d. Web. 16 Feb. 2013. http://www.hudsoncountynj.org/SharedFiles/Download.aspx?pageid=18>.



- The Jersey Central Chapter of the National Railway Historical Society. "The DL&W Railroad." N.p., n.d. Web. 10 Feb. 2013. http://www.jcrhs.org/dlw.html.
- Jersey City Bike Infrastructure Working Group. "Jersey City Bike Infrastructure Working Group Report." 2012. Print.
- Jersey City Board of Education. "Jersey City Public Schools." N.p., 2013. Web. 12 Feb. 2013. http://www.jcboe.org/boe2013/>.
- Jersey City, Division of City Planning. "Jersey City Master Plan", 2000. Print.
- Jersey City Division of City Planning. "Jersey Avenue Light Rail Redevelopment Plan." Sept. 12, 2012. A
- Jersey City Division of City Planning. "Jersey Avenue Park Redevelopment Plan." Sept. 27, 2012. B
- Jersey City Division of City Planning. "Newport Redevelopment Plan." June 27, 2012.
- Jersey City Division of City Planning. "Jersey Avenue Light Rail Redevelopment Plan. Ordinance No. 07-037." Published 2007, Amended 2010. Print
- Jersey City Economic Development Corporation. "Jersey City Neighborhoods." N.p., 2013. Web. 25 Feb. 2013. http://www.jcedc.org/Pages/01-24neighborhoods.pdf>.
- Jersey City Economic Development Corporation. "Special Improvement Districts (S.I.D.'s)." N.p., 2013. Web. 25 Feb. 2013. http://www.jcedc.org/Pages/uezsids.html>.
- Jersey City History. "History of Jersey City." N.p., n.d. Web. 14 Feb. 2013. http://www.jcdowntown.org/home/jersey-city-history>.
- Jersey City Housing Authority. "AMP 5 Holland Gardens." N.p., n.d. Web. 20 Feb. 2013. http://www.jcha-gov.us/Sites/HollandGardens.aspx>.
- Jersey City Incinerator Authority. N.p., N.d. Web 21 Feb., 2013. < http://jciaonline.org/>.
- Jersey City Landmarks Conservancy. "Campaign to Protect Reservoir." No. 3. N.p., n.d. Web. 16 Feb. 2013. http://jclandmarks.org/campaign-reservoir3.shtml.
- Jersey City Landmarks Conservancy. "Campaign to Protect the Warehouse Historic District." N.p., n.d. Web. 13 Feb. 2013. http://jclandmarks.org/campaign-warehousedistrict.shtml.
- Jersey City Municipal Utilities Authority. "Jersey City Municipal Utilities Authority: Rules and Regulations Governing the Operation of the Jersey City Sewer System." 2011. Retrieved from: http://www.jcmua.com/PDF's/SewerRulesRegs_2011.pdf
- Jersey City Police Department. "Jersey City Police Department." N.p., 2012. Web. 15 Feb. 2013. http://www.njjcpd.org/>.
- Jersey City Museum, "Jersey City Museum." 2007. Web. 19 Feb. 2013. <jerseycitymuseum. org>.
- Jersey City Economic Development Corporation. Urban Enterprise Zone Strategic Plan 2010. 2010.



- Joseph C. Hansen Company. "JCH." N.p, N.d. Web. 21 Feb. 2013. <jchansen.com>.King, Shelden S. The Route of Phoebe Snow: A Story of the Delaware, Lackawanna, and Western Railroad. Flanders, N.J.: Railroad Avenue Enterprises, 1991.
- Langendorffcorp.com, "The Langendorff Corporation." Powered by Register.com, n.d. 19 Feb. 2013.
- Log-On Computer and Mailing Services. "Why Log On?" 2011. Web. 20 Feb. 2013. <Log-On.org>.
- Los Angeles Times. "First in the nation: California adopts mandatory green building code, Margot Roosevelt, January 14, 2010 http://www.usgbc.org/leed/rating-systems>
- Luizzi, Leonard A. "A Short History of Hoboken." Web. 27 April. 2013. http://www.troop146.org/HistHistory1609-1784.htm
- Manta. "ADDS Company Inc." Company Profile Page. 8/2012. Web. 21 Feb. 2013. http://www.manta.com/c/mmz1wfj/adds-co-usa-inc..
- Manta. "Datex." Company Profile Page. n.d. Web. 19 Feb. 2013. http://www.manta.com/c/mtcsf0c/datex.

Marcusbrothers.com, "Marcus Fabrics." N.p, N.d. Web. 20 Feb. 2013.

- MarketGardenBrewery.com "Cleveland's First American Beer Garden." Web. 12 April. 2013. http://marketgardenbrewery.com/>
- McCabe, Wayne T.; Gordon, Kate. "A Penny A View—An Album of Postcard Views— Building the Lackawanna Cut-off in Sussex and Warren Counties, N.J." Newton, N.J.: Historic Preservation Alternatives, 2003.
- Menendez Press Office. "Menendez, Lautenberg Visit Hudson-Bergen Light Rail to Announce New Federal Funding." 25 Oct 2012. Web. 18 Feb 2013. http://www.menendez.senate.gov/newsroom/press/menendez-lautenberg-visit-hudson-bergen-light-rail-to-announce-new-federal-funding.
- Merjedesing. Places_Jersey City. N.p., n.d. Web. 27 April 2013. http://www.merjedesign.com/places_jerseycity.html
- Morley, Hugh. "Goya Foods Breaks Ground on new N.J. headquarters." NorthJersey.com. 5 Sept. 2012. Web. 6 May. 2012.
- Muro, Mark. New Republic. "Multiplier Effects: Connecting the Innovation and Opportunity Agends." 23 Aug 2012. Web. 1 May 2013. http://www.newrepublic. opportunity-agendas#>
- NADC. "Newport Community." 2011. Web. 2013. http://www.newportnj.com/>.
- National Center for Children in Poverty. "Rent Burden, Housing Subsidies and the Wellbeing of Children and Youth" Web. 18 Feb. 2013.
- Nccp.org. "National Center for Children in Poverty," 2012. Web. 2013. < http://nccp.org/>.



- New Jersey Department of Environmental Protection. "i-MapNJ DEP: NJDEP's Geographic Information System (GIS) environmental data". 2013. http://www.state.nj.us/dep/gis/newmapping.htm. A.
- New Jersey Department of Environmental Protection. "NJ Stormwater Best Management Practices." 2010. http://www.njstormwater.org/bmp_manual2.htm>. B.
- New Jersey Department of Environmental Protection. "Liberty State Park: CRRNJ" N.p., n.d. Web. 16 Feb. 2013. http://www.state.nj.us/dep/parksandforests/parks/liberty_state_park/liberty_crrnj.html. C
- New Jersey Economic Development Authority. "Financing and Incentives." N.p., n.d. Web. 15 Feb. 2013. http://www.njeda.com/web/Aspx_pg/Templates/Pic_Text.aspx?Doc_Id=91>. A.
- New Jersey Economic Development Authority. "Financing Programs Small Business Fund.". N.p., n.d. Web. 15 Feb. 2013. http://www.njeda.com/web/Aspx_pg/Templates/Npic_Text.aspx?Doc_Id=400&menuid=1193&topid=718&levelid=6&midid=1175>. B.
- New Jersey Economic Development Authority. "Financing Programs Bond Financing." N.p., n.d. Web. 15 Feb. 2013. http://www.njeda.com/web/Aspx_pg/Templates/Npic_Text.aspx?Doc_Id=300&menuid=1185&topid=718&levelid=6&midid=1175. C.
- New Jersey Economic Development Authority. "Financing Programs Edison Innovation Fund.". N.p., n.d. Web. 15 Feb. 2013. http://www.njeda.com/web/Aspx_pg/Templates/ Pic_Text.aspx?Doc_Id=799&menuid=1188&topid=718&levelid=5&midid=1175>. D.
- New Jersey Economic Development Authority. "EDA Products Product Listing." N.p., n.d. Web. 15 Feb. 2013. http://www.njeda.com/web/Aspx_pg/Templates/Pic_Text. aspx?Doc_Id=802&menuid=1214&topid=718&levelid=5&midid=730>. E.
- New Jersey Economic Development Authority. "Clean Energy Solutions." N.p., n.d. Web. 15 Feb. 2013. http://www.njeda.com/web/Aspx_pg/Templates/Pic_Text.aspx?Doc_Id=1080&midid=1351&menuid=1351&topid=718>. F.
- New Jersey Economic Development Authority. "Incentive Programs Business Employment Incentive Program - BEIP." N.p., n.d. Web. 15 Feb. 2013. <http://www.njeda.com/web/Aspx_pg/Templates/Npic_Text.aspx?Doc_ Id=310&menuid=1187&topid=718&levelid=6&midid=1175>. G.
- New Jersey Economic Development Authority. "Incentive Programs Business Retention and Relocation Assistance Grant (BRRAG)." N.p., n.d. Web. 15 Feb. 2013. http://www.njeda.com/web/Aspx_pg/Templates/Npic_Text.aspx?Doc_Id=870&menuid=1252&topid=718&levelid=6&midid=1175>. H.
- New Jersey Economic Development Authority. "Incentive Programs Economic Redevelopment and Growth (ERG) Program." N.p., n.d. Web. 15 Feb. 2013. <http://www.njeda.com/web/Aspx_pg/Templates/Npic_Text.aspx?Doc_ Id=1186&menuid=1424&topid=718&levelid=6&midid=1175>. I.



New Jersey Economic Development Authority. "Financing Incentives

- Urban Redevelopment." N.p., n.d. Web. 15 Feb. 2013. http://www.njeda.com/web/Aspx_pg/Templates/Pic_Text.aspx?Doc_Id=97&menuid=1364&topid=718&levelid=5&midid=734. J.
- New Jersey Economic Development Authority. "Incentive Programs Brownfields and Contaminated Sites Remediation Program." N.p., n.d. Web. 15 Feb. 2013. http://www.njeda.com/web/Aspx_pg/Templates/Npic_Text.aspx?Doc_ Id=876&menuid=1258&topid=718&levelid=6&midid=1175>. K.

New Jersey Economic Development Authority. "Incentive Programs - Urban Transit Hub Tax Credit Program." N.p., n.d. Web. 15 Feb. 2013. http://www.njeda.com/web/Aspx_pg/Templates/Npic_Text.aspx?Doc_Id=888&menuid=1295&topid=718&levelid=6&midid=1175>. L.

- New Jersey Geographic Information Network. https://njgin.state.nj.us/NJ_NJGINExplorer/index.jsp
- New Jersey Historical Commission. "Jersey City Past And Present Home Page.". N.p., n.d. Web. 15 Feb. 2013. http://www.njcu.edu/programs/jchistory/home2.htm>.
- New Jersey Housing and Mortgage Finance Agency, "Low Income Housing Tax Credit Program Summary." TCAP Summary Oversight Committee. Web. 18 Feb. 2013. http://www.njhousing.gov/dca/hmfa/media/download/tax/tcap/tc_tcap_summary_oversightcommittee.pdf>.
- New Jersey Office of Information Technology, Office of GIS. "New Jersey Geographic Information Network." N.p., nd. 2013. https://njgin.state.nj.us/NJ_NJGINExplorer/IW.jsp.
- New Jersey Transit. "Home Page." N.p., n.d. Web. 20 Feb. 2013. http://www.njtransit.com/hp/hp_servlet.srv?hdnPageAction=HomePageTo>.
- New Jersey Transit. "About Us." N.p., n.d. Web. 20 Feb. 2013. http://www.njtransit.com/tm/tm_servlet.srv?hdnPageAction=CorpInfoTo>.
- New York Industrial Retention Network and Fiscal Policy Institute. "More than a Link in the Food Chain. Feb. 2007. Web. 6 May 2013
- Newyork.cbslocal.com, "Jersey City Unveils 3-Story High 'Eye In The Sky' Surveillance Tower To Fight Crime." CBS New York. 11 December 2012. Web. 10 Mar. 2013. http://newyork.cbslocal.com/2012/12/11/jersey-city-unveils-3-story-high-eye-in-the-sky-surveillance-tower-to-fight-crime/.
- NJ.com, "Brisk Waterproofing." Business Finder. New Jersey On-line LLC, 2013. Web. 19 Feb. 2013. http://businessfinder.nj.com/12148217/Brisk-Waterproofing-Jersey-City-NJ>.
- NJ.com, "Cerf Calls Camden Schools 'Human Catastrophe' as State Seizes Control." N.p., n.d. Web. 26 Mar. 2013. http://blog.nj.com/ledgerupdates_impact/print.html?entry=/2013/03/nj_to_take_control_of_camden_s.html



- Nj.com, "Jersey City activists accuse city council of not facing crime problem." The Jersey Journal. N.p., 9 February 2012. Web. 10 Mar. 2013. http://www.nj.com/jjournal-news/index.ssf/2012/02/jersey_city_activists_accuse.htm.
- Nj.com, "Jitney Minibuses Offer a Cheaper Option for N.J. Passengers, but Ride can be Risky." Newark Star-Ledger. N.p, 11 July 2010. Wen. 20 Feb. 2013. http://www.nj.com/news/index.ssf/2010/07/jitney_minibuses_provide_a_che.html.
- Nj.com, "New Jersey." The Jersey Journal. N.p., n.d. Web. 10 Feb. 2013. http://www.nj.com/hudson/index.ssf/2010/11/jersey_city_approves_zoning_ch.html>.
- NJDEP Green Acres Program. "NJDEP Green Acres Program." N.p., n.d. Web. 8 Feb. 2013. http://www.nj.gov/dep/greenacres/>.
- NJ Department of Community Affairs. "Improvement Districts (ID) Programs." N.p., 2013. Web. 15 Feb. 2013. http://www.state.nj.us/dca/divisions/dhcr/offices/idp.html.
- NJ Department of Community Affairs. "Urban Enterprise Zone Program." N.p., 2013. Web. 15 Feb. 2013. http://www.state.nj.us/dca/affiliates/uez/index.shtml.
- Njjcpd.org, "COMPSTAT." Jersey City Police Department, 2012. Web. 10 Mar. 2013. http://www.njjcpd.org/node/5>.
- NJ Transit. "Hudson Bergen Light Rail." Web. 30 April 2013. http://www.njtransit.com/tm/tm_servlet.srv?hdnPageAction=Project001To
- New York Times. "Cornell Alumnus Is Behind \$350 Million Gift to Build Science School in City." 19 Dec 2011. Web. 1 May 2013. http://www.nytimes.com/2011/12/20/nyregion/cornell-and-technion-israel-chosen-to-build-science-school-in-new-york-city.html
- New York Times. "The Mount Laurel Doctrine." Editorial. 28 Jan. 2013, Web. 27 Feb. 2013 <nytimes.com>.
- Ny1.com. "City Raises \$2 Billion in Bonds for No. 7 Line Extension." Dec. 7, 2006. Web. 30 April 2013. http://www.ny1.com/content/top_stories/64913/city-raises--2-billion-in-bonds-for-no--7-line-extension
- NYCEDC. "Applied Sciences NYC." 1 May 2013. Web. http://www.nycedc.com/project/applied-sciences-nyc
- NYSample.com. "New York Sample Card Company." N.p., N.d. Web. 21 Feb. 2013.
- Oremus, Will. "Industrial Devolution: Could a Bunch of hipsters really represent the new face of American manufacturing?" Slate.com. September 25, 2012. Web. 30 April. 2013.
- Packel, Dan. "A Brief History of Beer Gardens." Drink Nation. March 12, 2012. Web. 26 April. 2013. http://thedrinknation.com/articles/read/7000-A-Brief-History-of-Beer-Gardens/
- The Port Authority of NY & NJ. "Hoboken Station." N.p., N.d.. Web. 21 Feb 2013. http://www.panynj.gov/path/hoboken-station.html>.



- Parish of the Resurrection . "Parish of the Resurrection." N.p.. Web. 22 Feb 2013. http://www.resurrectionparishjc.com/churches.html.
- Polikwa, Susan. "Presentation to Hunter Studio class." Hoboken's Department of Transportation and Parking. 20 Feb. 2013. Lecture.
- Printfacility.com, "Print Facility." 2010. Web. 21 Feb. 2013. https://www.printfacility.com/ RetailSite.asp>.
- PSE&G, Public Service Electric and Gas Company. "About PSE&G", Web. 18 Feb., 2013. http://www.pseg.com/family/pseandg/index.jsp.
- PSE&G, Public Service Electric and Gas Company."Business Customers New Jersey Energy Choice" Web. 18 Feb., 2013. http://pseg.com/business/energy_choice/index.jsp.

Rabinovitz, Francine. City Politics and Planning. New York: Atherton Press, 1969.

- Rentquest. "Rentquest." 2012. Web. 21 Feb. 2013. < http://www.rentquestnyc.com/>.
- Reply, Inc. "Lucerne Textiles." 2013. Web. 21 Feb. 2013

<a>http://www.merchantcircle.com/business/Lucerne.Textiles.Inc.201-420-400>.

- Rutgers University Cartography. "The Changing Landscape of Hudson County." Web. 17 Feb. 2013. http://mapmaker.rutgers.edu/HUDSON_COUNTY/oldHudson.html.
- Saad, Lyna and Henry, David. "Small Business Formation in New York's Middle Eastern Immigrant Communities" The Urban Review, Hunter College Department of Affairs and Planning. 10.1 (2012): 24-27. December 2012. Print.
- Saint Anthony High School. "Saint Anthony High School." N.p., n.d. Web. 12 Feb. 2013. http://www.stanthonyhighschool.org/>.
- Simon.com "Stores at Newport Plaza." N.p.. Web. 22 Feb 2013. http://www.simon.com/mall/newport-plaza/stores>.
- Skontra, Alan S. "A History of Hoboken's Immigrants." Hoboken Patch. July 18, 2011. Web. 26 April. 2013. http://hoboken.patch.com/articles/a-history-of-hobokens-immigrants>
- State of New Jersey. "Complete Streets Program." February 2012. Web. 30 April. 2013. http://www.state.nj.us/health/fhs/shapingnj/work/publications/Complete%20 Streets%20Tool%20Kit%20from%20Sustainable%20Jersey.pdf>
- State of New Jersey. "Local Redevelopment and Housing Law." 1992. Web. 2013. http://www.state.nj.us/dca/divisions/dlgs/programs/au_docs/40a_12a_1.pdf>.
- State of New Jersey, Dept. of Education. "Department of Education Approves 9 Charter Schools to Open in September." Press Release. 2011 http://www.nj.gov/education/news/2012/0716chart.htm
- State of New Jersey. Office of the Governor. "Christie Administration Demonstrates Commitment to Improving Access to Quality Education With Record Number of New Charter School Approvals." Press Release, 2011. Print.



- Stevens Cooperative School. "Stevens Cooperative School." N.p., 2013. Web. 12 Feb. 2013. http://www.stevenscoop.org/>.
- Stoffer, Phil and Messina, Paula. "Newark Basin and Connecticut River Basin." Sept. 1996. Web. 8 May 2013. http://www.geo.hunter.cuny.edu/bight/newark.html.
- Surach, Melissa. "Hudson County Gets a Brewer: NJ Beer Company Launches" Jersey City Independent, May 21, 2010. Web. 11 April. 2013. http://www.jerseycityindependent.com/2010/05/21/hudson-county-gets-a-brewer-new-jersey-beer-company-launches/>
- SurlyBrewing.com. "Architecture/Engineering Request for Qualifications." March 12, 2012. Web. 11 April. 2013. http://www.surlybrewing.com/brewersblog/>
- Sustainable Jersey. "Participating Communities." Web. 30 April. 2013. http://www.sustainablejersey.com/certification/participating-communities/
- Train Web, The Railroad Community. "New Jersey Central Rail Line." Web. 17 Feb. 2013. http://members.trainweb.com/bedt/indloco/crrnjbxt.html.
- Transportation Connectivity Study Meeting. Jersey City Division of City Planning, Hoboken Department of Transportation and Parking, Hudson County Transportation Management Association and NJ Transit. Jersey City Division of City Planning. Jersey City, NJ. 07 Feb. 2013.
- Tri-State Transportation Campaign. "Hoboken Announces Unprecedented 'Hybrid' Bike Share Model." April 23, 2013. Web. 30 April 2013. http://blog.tstc.org/2013/04/23/ hoboken-announces-unprecedented-hybrid-bike-share-model>
- Trust for Architectural Easements. "Hamilton Park Historic District" Web. 09 Feb. 2013 <http://www.architecturaltrust.org/new-jersey/jersey-city/hamilton-park>.
- Trust for Architectural Easements. "Van Vorst Park Historic District" Web. 09 Feb. 2013 <http://www.architecturaltrust.org/new-jersey/jersey-city/hamilton-park>.
- US Census Bureau. "American FactFinder," Web. 2013.
- <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>.
- US Census Bureau. "List of Census Historical Poverty Tables," Web. 2013. http://www.census.gov/hhes/www/poverty/data/census/1960/list.html.
- US Census Bureau. "Profile of General Population and Housing Characteristics: 1990 Demographic Profile Data," Web. 8 Mar. 2013. http://www.census.gov>.
- US Census Bureau. "Profile of General Population and Housing Characteristics: 2000 Demographic Profile Data," Web. 8 Mar. 2013. http://www.census.gov>.
- US Census Bureau. "Profile of General Population and Housing Characteristics: 2010 Demographic Profile Data," Web. 8 Mar. 2013. http://www.census.gov>.
- US Census Bureau. "2007 Economic Census," Web. 2013. http://www.census.gov/econ/census07/.



- US Census Bureau. "2007-1992 Survey of Business Owners," Web. 2013. http://www.census.gov/econ/sbo/historical.html.
- US Department of Transportation. "TIGER Grants." Web. 30 April. 2013. http://www.dot.gov/tiger>
- U.S. Department of Transportation, Federal Transit Administration. "Livable and Sustainable Communities, Regional Case Studies-Region II, Summer 2010." N.p., N.d. Web. 21 Feb 2013. http://www.fta.dot.gov/documents/Region2_HudsonBergen.pdf>.
- U.S. Geological Survey. Jersey City Quadrangle: New Jersey-New York 7.5-Minute Series. 2011.
- US Green Building Council. http://www.usgbc.org/leed/rating-systems
- United States Department of Justice. "Jersey City, N.J. to Upgrade and Repair Sewer System to Resolve Clean Water Act Violations", July 19, 2011. Web. http://www.justice.gov/opa/pr/2011/July/11-enrd-940.html.
- Vardi, Nathan. "America's Top Public Transportation Cities," August 1, 2011. Web. February 18, 2013:

<http://www.forbes.com/sites/nathanvardi/2011/08/01/americas-top-publictransportation-cities/>.

- Walkway Over the Hudson. "Walkway Over the Hudson." Web. 23 May, 2013. http://www.walkway.org/>.
- Wikipedia.com. Central Railroad Terminal of New Jersey Images. < http://en.wikipedia. org/wiki/Central_Railroad_of_New_Jersey_Terminal>
- Wortham, Jenna and Miller, Claire. "Venture Capitalists are Making Bigger Bets on Food Start-Ups" New York Times. April 28, 2013. Web. May 1, 2013.
- Yes Gas Pipeline NJ NY. "About Spectra Energy." N.p., n.d. Web. 10 Feb. 2013. http://www.yesgaspipeline.org/about-spectra/.

ZeppelinHall.com. Web. 12 April. 2013. < http://www.zeppelinhall.com/>



