A. INTRODUCTION

This chapter examines the potential for extended Phase II construction activities to affect socioeconomic conditions in the area surrounding the project site. The primary goal of the analysis is to determine whether the construction of Phase II of the project under the Extended Build-Out Scenario could lead to changes in property values or neighborhood conditions that, in turn, could result in significant adverse socioeconomic impacts due to disinvestment in the immediately surrounding neighborhoods.

The section includes:

- A preliminary assessment that examines the potential for Phase II construction under the Extended Build-Out Scenario to lead to significant adverse socioeconomic impacts. Consistent with *City Environmental Quality Review* (*CEQR) Technical Manual* guidelines, the preliminary assessment considers whether construction activities could affect the access to, and therefore viability of, businesses within immediate proximity of the project site.
- A description of changes in socioeconomic conditions that have taken place over the course of Project development between 2003 and 2013. Changes are compared for a ¼-mile and ¾-mile study area surrounding the project site to determine whether construction activities to date have led to residential or commercial disinvestment in the immediate vicinity of the project site compared with surrounding neighborhoods.
- A presentation of case studies for locations within New York City that have experienced extended construction activities and/or construction delays. The case studies provide longer-term perspectives of the potential for extended construction periods to affect socioeconomic conditions in surrounding neighborhoods.
- A description of Phase II construction-period benefits, including a comparison of benefits to those estimated in the 2006 Final Environmental Impact Statement (FEIS).

PRINCIPAL CONCLUSIONS

This analysis finds that construction activities of Phase II under the Extended Build-Out Scenario would not result in any significant adverse socioeconomic impacts. Based on *CEQR Technical Manual* criteria, the preliminary assessment does not indicate the potential for significant adverse socioeconomic impacts due to extended construction. Construction would not impede access to businesses surrounding the project site or reduce the visibility of their signage, and curbside deliveries to surrounding businesses are not expected to be significantly affected. It is possible that some limited reduction in pedestrian flow could occur along Vanderbilt Avenue at times during the construction period if some pedestrians choose alternate routes to avoid walking past the Phase II project site. However, any such reduction in pedestrian flow would be countered by the presence of construction workers and by new residential population as the

Phase II buildings are completed, and would not substantially affect the vast majority of businesses or lead to business failures that could in turn affect neighborhood character.

While *CEQR Technical Manual* criteria do not indicate the potential for significant adverse socioeconomic impacts, a more detailed analysis was conducted in response to public concerns raised with respect to the effects of prolonged construction of Phase II of the Project on socioeconomic conditions in the area. This additional analysis of socioeconomic conditions surrounding the Atlantic Yards project site indicates that Project development to date has not led to business or residential disinvestment in the ¼-Mile Study Area. Residential trends in the ¼-Mile Study Area have generally followed trends in the surrounding neighborhoods, with average sales prices and rents increasing. For most property types between 2003 and 2012, increases in average residential sales prices in the ¼-Mile Study Area outpaced trends in the ¾-mile Control Area surrounding the site. Brokers have indicated that there has been uncertainty from some potential buyers regarding units in at least one building (the Newswalk), due to the prospect of prolonged construction on the project site; however, average sales prices and discussions with brokers indicate that these units are still selling, and that prices have not been substantially affected.

Retail corridors closest to the Arena site have experienced increased investment since the announcement of the Project. While retail vacancy has increased, based on discussions with brokers these vacancies are the result of renovation of storefronts for new tenants rather than retail disinvestment. Increases in both retail employment and total employment in the ¼-Mile Study Area outpaced those in the ¾-Mile Control Area over the analysis period. Overall, demographic trends, real estate and employment data, and discussions with brokers in the area indicate that ongoing construction on the project site has not resulted in any substantial negative effect on neighborhood conditions or property values in the ¼-Mile Study Area as compared with the ¾-Mile Control Area.

Findings from case studies of other development sites in New York City that have experienced prolonged construction and/or periods of construction delay, including Riverside South, First Avenue Properties, Battery Park City, and MetroTech, are consistent with findings on the effects of the Atlantic Yards Project to date. The case studies indicate that prolonged construction—in some cases construction that lasted for decades and is still ongoing—has not led to decreased property values or other signs of disinvestment in the ¼-Mile Study Area compared with the ¾-Mile Control Area for each of the case studies. Across all case studies, demographic and housing trends indicate that population and income growth and residential property values in the ¼-Mile Study Area kept pace with or exceeded growth in the ¾-Mile Control Areas over the course of the analysis period. Trends in commercial office and retail rents and sale values also indicate that prolonged construction or periods of delay for case study developments did not have any detrimental effect on commercial property values in the ¼-Mile Study Areas compared with the ¾-Mile Control Areas.

The construction of the Phase II development would generate substantial economic and fiscal benefits for the city and the state. Investment for construction of Phase II of the Project is estimated at approximately $2.43 billion in 2013 dollars, exclusive of financing, insurance, land value, and other costs that are not directly part of the expenditures for construction. Direct employment generated by construction of Phase II is estimated at 9,148 person-years of employment. Total employment, including jobs in business establishments providing goods and services to the contractors and jobs resulting from spending of construction wages, is estimated at

16,765 person-years of employment in New York State, of which 13,909 person-years would be in New York City.

Construction activity would generate an estimated $173.41 million in tax revenues for New York City, the New York Metropolitan Transportation Authority (MTA), and New York State. New York State would receive about $109.54 million, the MTA would receive about $7.26 million, and New York City would receive about $56.61 million in tax revenues from construction of Phase II. In addition, New York City would receive revenue from the mortgage recording fees and real property transfer tax from the condominium units.

B. SUMMARY OF FINDINGS FROM PREVIOUS ENVIRONMENTAL REVIEWS

The 2006 FEIS disclosed that construction activities associated with the Project would, in some instances, temporarily affect socioeconomic conditions in the vicinity of the project site. However, the 2006 FEIS noted that access to businesses near the project site would not be impeded, and most businesses were not expected to be significantly affected by a temporary reduction in the amount of pedestrian foot traffic that could occur as a result of construction activities. Businesses such as eating and drinking establishments could experience a small decline in foot traffic from area residents and permanent workers due to construction, but this decline would be offset by the presence of several hundred construction workers, who would likely patronize local businesses. Overall, the 2006 FEIS concluded that construction of the Project (Phase I and Phase II) would not result in any significant adverse impacts on surrounding businesses.

C. PRELIMINARY ASSESSMENT

Based on *CEQR Technical Manual* guidelines, if a project would entail construction of a long duration that could affect the access to, and therefore viability of, a number of businesses, and the failure of those businesses has the potential to affect neighborhood character, a preliminary assessment for construction impacts on socioeconomic conditions should be conducted. A preliminary assessment focuses on construction conditions affecting access to existing businesses, the potential consequences concerning their continued viability, and the potential effects of their loss on the character of the area.

This preliminary assessment focuses on the potential for Phase II construction under the Extended Build-Out Scenario to impede physical and visual access to existing businesses.

As described in Chapter 3H, "Construction Transportation," temporary curb-lane and sidewalk closures would be required adjacent to each Phase II construction site for varying lengths of time during construction. Maintenance and Protection of Traffic (MPT) plans would be developed for any such temporary closures to adequately accommodate access and circulation of vehicular and pedestrian traffic. Sidewalks and curb-lanes would be reopened adjacent to Phase II buildings as the buildings are completed. To facilitate pedestrian flow through these areas, temporary sidewalks or sidewalk bridges adjoining the project site would be maintained to the extent practicable. Sidewalks and lanes surrounding other adjoining blocks in the area would not be affected. Therefore, construction would not materially impede access to businesses surrounding the project site, or materially reduce the visibility of their signage, since construction activity and sidewalk closures would take place on the Phase II project blocks, while area businesses are

located on the far sides of streets surrounding the Phase II site. MPT plans would ensure that curbside deliveries to surrounding businesses are also not significantly affected.

Bus stops adjacent to the project site on Vanderbilt and Atlantic Avenues may be temporarily relocated to other nearby locations along the bus routes, in concert with temporary curb-lane and sidewalk closures. As described in Chapter 3H, "Construction Transportation," bus service along these routes would not be significantly impacted, and nearby businesses are not expected to be adversely affected by the temporary relocation of bus stops near the project site.

As described in Chapter 3F, "Construction Urban Design and Visual Resources," measures outlined in the MEC would require that protective fencing be maintained around the Phase II site, reducing undesirable views of construction sites, though not of cranes and certain other construction equipment and building superstructures as they rise above the level of the fencing. Barriers would be used to protect the safety of pedestrians and to reduce noise from particularly disruptive activities where practicable. It is not anticipated that pedestrian flows that may be relied on by some businesses surrounding the project site would be substantially reduced for extended periods of time due to Phase II construction noise or undesirable views.

Commercial uses located in the immediate vicinity of the Phase II construction sites are largely concentrated along Vanderbilt Avenue. Properties facing the Phase II site, between Dean Street and Atlantic Avenue on the east side of Vanderbilt Avenue, host a mix of commercial uses including eating and drinking establishments, convenience stores, and a funeral home. South of Dean Street, both sides of Vanderbilt Avenue are lined with a mix of restaurants, neighborhood-oriented retail and service establishments, and a small number of shoppers' goods stores such as clothing and home goods stores. The period of time during which construction would take place in close proximity to businesses on Vanderbilt Avenue, either fronting the Phase II site or south of Dean Street, varies depending on the illustrative construction phasing plan. Under Construction Phasing Plans 1 and 2, construction on Blocks 1121 and 1129 (the Phase II project site blocks fronting Vanderbilt Avenue) is assumed to be completed by early 2032. Under Construction Phasing Plan 3, most construction on Blocks 1121 and 1129 is assumed to be delayed until 2025 and would be complete in 2035, although the westernmost building on Block 1129 (Building 14) would be constructed between 2018 and 2021. However, the distance between Building 14 and Vanderbilt Avenue businesses is substantial.

Commercial uses located along Dean Street and Pacific Street fronting the Phase II site are interspersed with residential uses and include a mix of establishments such as a general contractor, roofing and sheet metal business, a uniform services store, a fabric store, and a small grocery store on the corner of Dean Street and 6th Avenue. The period of time during which construction would take place in close proximity to these businesses varies depending on the illustrative construction phasing plan. For example, for the grocery store on the corner of Dean Street and 6th Avenue, the effects of construction would be most pronounced during the construction of Building 15 which would take place between 2023 and 2025 under Construction Phasing Plan 1, between 2018 and 2021 under Construction Phasing Plan 2, and between 2027 and 2030 under Construction Phasing Plan 3. Businesses along Dean Street farther east would be affected by construction on Block 1129, while businesses on Pacific Street would be affected primarily by construction on Block 1120. In addition, upon completion the Phase I residential buildings fronting the project site along 6th Avenue (Buildings 3 and 4) will contain ground floor retail.

As described above, existing retail uses in the immediate vicinity of the Phase II project site are most concentrated along Vanderbilt Avenue. Based on *CEQR Technical Manual* guidance, a

project may have the potential for a significant adverse impact on retail businesses if it would result in decreased shopper traffic on neighborhood commercial streets that causes increased vacancy that would affect the economic viability of retail business in the study area. As indicated above, under any of the construction phasing plans, access to businesses surrounding the Phase II site, including those along Vanderbilt Avenue, would be maintained throughout construction. It is possible that some limited reduction in pedestrian flow could occur along Vanderbilt Avenue at times during the construction period if some pedestrians choose alternate routes to avoid walking past the Phase II project site. However, any such reduction in pedestrian flow would be countered by the presence of construction workers and by new residential population as the Phase II buildings are completed, and would not substantially affect the vast majority of businesses or lead to business failures that could in turn affect neighborhood character. Most of the commercial uses along Dean Street and Pacific Street are not retail businesses that rely on pedestrian traffic for their customer base. Therefore, based on the *CEQR Technical Manual* criteria outlined above, Phase II construction would not have the potential to result in significant adverse socioeconomic impacts.

D. PROJECT EFFECTS TO DATE AND CASE STUDIES—METHODOLOGY

In response to public concerns raised with respect to the effects of prolonged construction of Phase II of the Project on socioeconomic conditions in the area, the remainder of this chapter examines in greater detail the potential socioeconomic effects of the prolonged construction on both the business and residential community surrounding the Phase II project site. As described below, the analysis is based on a detailed assessment of the effects of the Atlantic Yards Project to date on socioeconomic conditions in surrounding neighborhoods, supplemented by case studies of other locations in New York City that have experienced extended construction activities and/or construction delays. By including this analysis, the SEIS goes beyond the guidance set forth in the *CEQR Technical Manual*.

APPROACH

The following section addresses the concern that prolonged construction under the Extended Build-Out Scenario could create conditions that would lead to substantial residential or business disinvestment in areas surrounding the project site, resulting in significant adverse socioeconomic impacts.

The analysis first considers the effects of the Atlantic Yards Project construction to date on the immediately surrounding area; specifically, whether the construction activities have thus far led to residential or commercial disinvestment in the immediate vicinity compared with the surrounding neighborhoods. Next, the section presents case studies of other locations in New York City that have experienced extended construction activities and/or construction delays in order to determine whether such activities have led to changes in property values or neighborhood conditions that in turn resulted in significant adverse socioeconomic impacts due to disinvestment in the immediately surrounding neighborhoods. The case studies are intended to provide a longer-term (in some cases multi-decade) perspective of the potential for extended construction periods to affect socioeconomic conditions, and inform conclusions about the Extended Build-Out Scenario's potential to result in significant adverse socioeconomic impacts.

The methodologies used to assess the effects of the Project to date and to assess the effects of each case study on its respective surrounding neighborhoods are all similar. Each case study,

including the assessment of the effects of the Project to date, examines a number of indicators of potential disinvestment including demographic and housing indicators, residential and commercial property values, and retail activity. Changes in socioeconomic conditions over the course of the case study construction period are compared between a ¼-mile study area (¼-Mile Study Area) and a ¾-mile study area (Control Area) to determine whether construction activities led to residential or commercial disinvestment in the immediate vicinity of the development site compared with the surrounding neighborhoods.

Study areas, analysis format, and data sources are described below.

CASE STUDY DEVELOPMENT SITES

The case study development sites include Battery Park City, Riverside South, and First Avenue Properties in Manhattan, and MetroTech Center in Brooklyn. These case studies were selected based on a number of factors including the duration of the construction period or construction delay, the vibrancy of the surrounding urban environment as indicated by a critical mass of residential and commercial uses within close proximity to the project site, and the availability of data on residential and commercial indicators. While there are differences between the case study developments and the Project, the case studies and the Project under an assumed prolonged construction schedule are all characterized by prolonged construction of a multiple-building project on a multiple-block development site.

STUDY AREAS

As indicated above, the analysis of Project effects to date and the four case studies each utilize two study areas—an approximate ¼-mile study area (¼-Mile Study Area), and an approximate ¾-mile study area (Control Area). Control Areas are delineated to exclude the ¼-Mile Study Area. The delineation of each study area varies depending on the data point being analyzed. For example, the study areas used for demographic analysis are based on census tracts, while the study areas used for descriptions of rental rates and sale prices may be a radius from the development site, or based on neighborhood definitions utilized in local brokerage firm market reports. Variation in study area boundaries are noted where relevant throughout the case studies.

FORMAT AND DATA SOURCES

The assessment of Project effects to date and the four case studies each examine a number of indicators of potential investment/disinvestment including existing conditions, demographic data, property values, retail activity, and land use characteristics. The studies are structured in parallel format and rely on similar data sources, as outlined below. Dollar values presented in the case studies have not been adjusted for inflation.

INTRODUCTION AND TIMELINE

This section describes the development program, history, and timeline for project construction including current status.

STUDY AREAS

This section presents the ¼-Mile Study Area and Control Area maps and provides an overview of existing conditions in the study areas based on site visits and a review of current land use maps. For cases studies where construction is ongoing—First Avenue Properties and a portion of

Riverside South—the description of existing conditions is more relevant to the analysis of the effects of construction. For case studies where construction has been completed—MetroTech, Battery Park City, and a large portion of Riverside South—the description of existing conditions provides background about the project and its current context, and the effects during the construction period are examined under the "Historic Trends" sections.

DEMOGRAPHIC AND HOUSING INDICATORS

Certain shifts in demographic or housing characteristics may indicate investment or disinvestment in a study area. For example, if the housing vacancy rate increased substantially in a ¼-Mile Study Area over the course of a case study development period but decreased in the Control Area, this may indicate that the ¼-Mile Study Area was becoming less desirable as a residential location, and a potential connection between increasing vacancy and the ongoing construction should be explored.

Each case study presents demographic data for the period of time covering the project development, and compares changes in the ¼-Mile Study Area with changes in the Control Area. Demographic indicators analyzed include: population, household income, poverty, housing rental rates, and housing vacancy rates. The case studies utilize decennial Census data for 1970, 1980, 1990, and 2000, and 2006-2010 American Community Survey (ACS) data. In most cases, the development timeline does not correspond with decennial census years; however, demographic data were collected to be inclusive of the development timeline. Demographic and housing data presented for the ¼-Mile Study Areas are inclusive of the case study development sites. This was necessitated by data limitations associated with Census geographies that are smaller than Census tracts.

All demographic data were obtained from Geolytics, a private data provider that compiles US Census Bureau In its "Neighborhood Change Database (NCDB)." The NCDB was developed in association with The Urban Institute and partially funded by The Rockefeller Foundation. The NCDB contains 1970, 1980, 1990, and 2000 Long Form data and the 2010 Summary File 1 and 2010 American Community Survey (ACS) data.

RESIDENTIAL PROPERTY VALUES

Current and historic residential rental rates and sale values are presented as available for the ¼-Mile Study Area and Control Area. Current and historic New York City Department of Finance Automated City Register Information System (ACRIS) data present the ¼-Mile Study Area excluding the development site, but current and historic data from other sources (such as real estate market reports) could include the development site in the ¼-Mile Study Area, as these sources often aggregate data based on predefined submarkets. This is clarified in each case study. Residential property value data were obtained from a number of sources, depending on the location of the case study development site and the timeframe for which data were needed (i.e., the construction period being analyzed). Current data were generally obtained through online property databases such as Cityrealty.com and Streeteasy.com and through current market reports published by local real estate firms such as CitiHabitats, Douglas Elliman, and The Corcoran Group. Historic property value data were obtained through historic market reports, prior Environmental Impact Statements and related planning or financial studies, historic newspaper articles, and conversations with real estate brokers. Brokerage firms that provided input on current and historic residential property values via phone interview include: DJK Residential, Winick Realty, Miller Samuel Real Estate Appraisers, Ideal Properties Group, HP

Greenfield Real Estate, Fillmore Real Estate, The Corcoran Group, Massey Knakal, and Brown Harris Stevens.

In addition, average sale values for various types of residential property (e.g., condominium units, coop units) were derived from the ACRIS database. The ACRIS database includes sale values for every property sold in New York City, but is limited to sales that occurred between 2003 and 2012. Therefore, while ACRIS data are presented for most case studies, the data in most cases do not cover the entire case study construction period.

As permitted by available data, residential property values for the ¼-Mile Study Area and Control Area are compared across the construction period analyzed for each case study. Where direct comparisons are not possible, case studies rely on anecdotal information from brokers and from newspaper articles.

COMMERCIAL PROPERTY VALUES

Similar to the analysis of residential property values, each case study presents current and historic commercial rental rates and sale values for the ¼-Mile Study Area and Control Area, as available. Current and historic commercial data for the ¼-Mile Study Area could include the development site in the ¼-Mile Study Area, as sources such as real estate market reports often aggregate data based on predefined submarkets. Data sources for commercial property value data are similar to those outlined above under "Residential Property Values," and include online property databases, ACRIS data, prior environmental impact statements and related planning or financial studies, newspaper articles, and input in the form of market reports and phone calls from the local real estate brokerage firms listed above.

RETAIL ACTIVITY

Case studies with retail concentrations located in the ¼-Mile Study Area examine changes in the retail profile of the ¼-Mile Study Area compared with the Control Area over the course of the development period. This portion of the analysis aims to identify changes in retail types, number of storefronts, vacancy rates, and physical condition of properties over time to determine whether the case study project development may have contributed to retail business disinvestment in the ¼-Mile Study Area compared with the Control Area. Sources vary across case studies. The assessment of the Atlantic Yards Project to date draws on the detailed study area retail surveys that were conducted for the 2006 FEIS and in 2013 for this Supplemental EIS (SEIS), as well as conversations with local brokerage firms and articles published in local newspapers and online publications. The assessment of retail activity for all other case studies relies on a variety of sources including conversations with local real estate brokers and Business Improvement Districts (BIDs), newspaper and online articles, and prior environmental review documents that contain descriptions of the retail concentrations surrounding the case study sites.

CONCLUSION

Based on the socioeconomic indicators described above, each case study draws conclusions regarding whether the delayed or prolonged construction appears to have had a discernable adverse effect on socioeconomic conditions in the ¼-Mile Study Area—specifically, whether there appears to have been disinvestment in the ¼-Mile Study Area compared with the Control Area over the course of the case study analysis period.

Findings from the case studies (including the effects of the Atlantic Yards Project to date) are utilized in assessing the potential for the Extended Build-Out Scenario to result in significant adverse socioeconomic impacts from neighborhood disinvestment.

E. SOCIOECONOMIC EFFECT OF ATLANTIC YARDS PROJECT CONSTRUCTION TO DATE

INTRODUCTION

This section examines the effects of the Atlantic Yards Project to date on socioeconomic conditions in the area immediately surrounding the project site, as compared with surrounding neighborhoods. As described in Chapter 1, "Project Description," the project site (Phase I and Phase II) is an approximately 22-acre area, bounded by Flatbush and 4th Avenues to the west, Vanderbilt Avenue to the east, Atlantic Avenue to the north, and Dean and Pacific Streets to the south. Under the Extended Build-Out Scenario, the Phase II development could include up to 4,932 dwelling units and approximately 156,000 square feet of local retail in 11 buildings to be located on blocks 1120, 1121, 1128, and 1129 to the east of 6th Avenue. The local retail space may also house community facility uses, such as the intergenerational community center planned for Phase II of the Project which would include space for a child care facility.

TIMELINE

The Atlantic Yards Project was first announced in December 2003. As described in Chapter 1, "Project Description," Empire State Development (ESD) issued an FEIS, adopted State Environmental Quality Review Act (SEQRA) findings and affirmed a Modified General Project Plan for the Atlantic Yards Arena and Redevelopment project (the Project) in 2006. Site clearance began in 2006, and construction of the Arena, which is now known as Barclays Center, began in 2010. This section considers changes in socioeconomic conditions that have taken place over the course of Project development between 2003 and 2013.

Key areas of construction on the project site to date include: clearance of most of the buildings on the project site; completion and opening of Barclays Center; completion and opening of the new subway entrance on the Arena Block; the re-routing of water, sewer and utility lines around the Arena Block; a new water main on Atlantic Avenue; roadway modifications; work on the new LIRR rail yard and the new Carlton Avenue Bridge spanning the rail yard; construction of a surface parking lot on Block 1129; and commencement of construction of the first residential building (Building 2) on the Arena Block (on which ground was broken in December 2012).

Under the Extended Build-Out Scenario, it is assumed that construction of Phase II (including certain proposed modifications described in Chapter 1, "Project Description") would begin in 2018 and continue until 2035. Phase II construction would occur almost entirely on the eastern end of the project site, on Blocks 1120, 1121, 1128, and 1129. Under the Extended Build-Out Scenario, 11 new buildings and the associated open spaces are assumed to be constructed over a period of approximately 18 years: from 2018 to 2035. There are three illustrative construction phasing plans that are analyzed: Construction Phasing Plan 1—continuous sequential phasing with Block 1129 first; Construction Phasing Plan 2—continuous sequential phasing with Building 15 on Block 1128 first; and Construction Phasing Plan 3—start-and-stop sequential phasing with periods of more intense construction activities.

STUDY AREAS

¼-MILE STUDY AREA

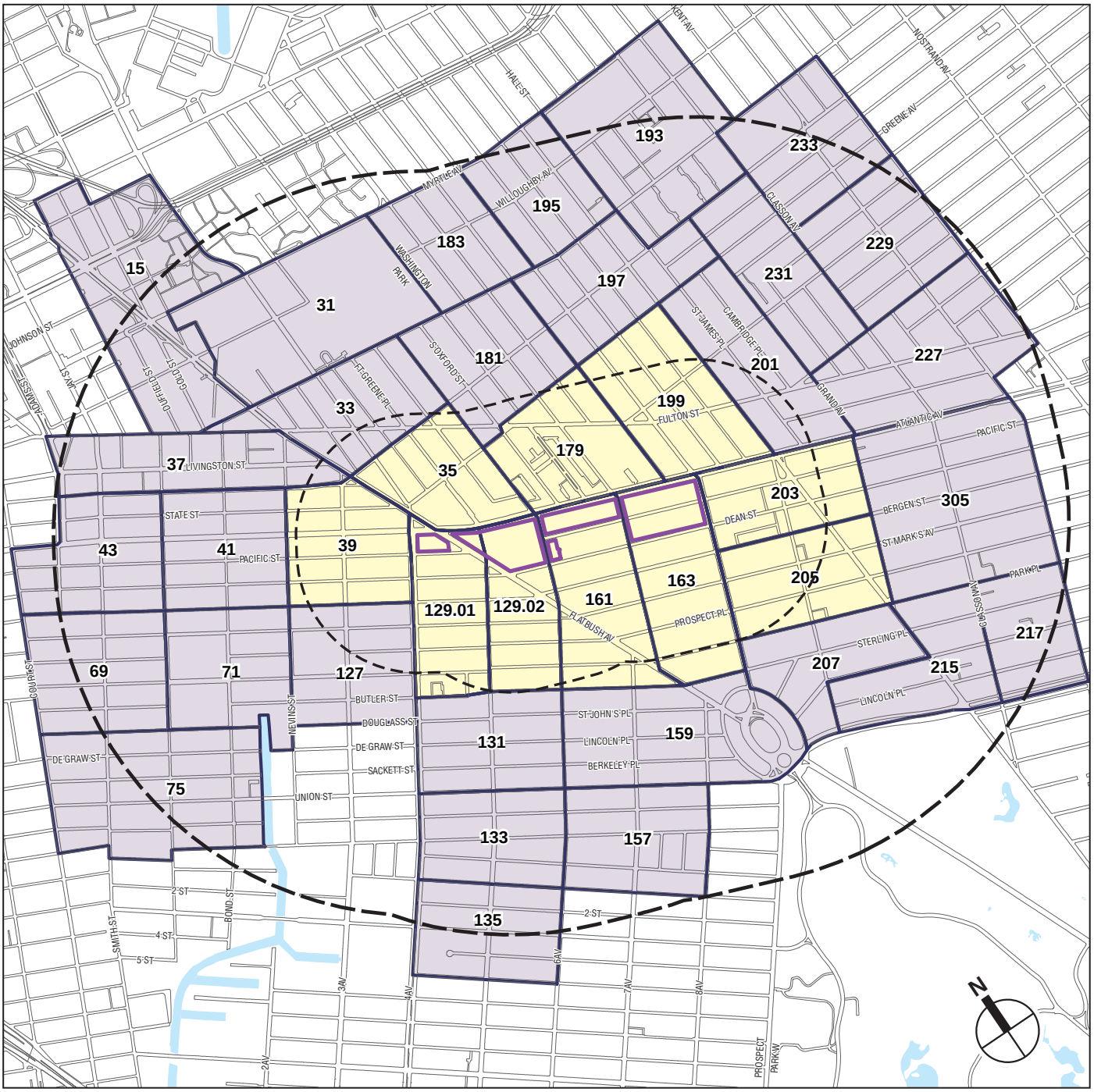
As shown in **Figure 3C-1**, the ¼-Mile Study Area is roughly bounded by Lafayette, Greene, and Gates Avenues to the north; Baltic Street and Park Place to the south; St. James Place and Washington Avenue to the east; and Nevins Street to the west.[1] The ¼-Mile Study Area includes portions of the Brooklyn neighborhoods of Boerum Hill, Clinton Hill, Fort Greene, Park Slope, and Prospect Heights. The ¼-Mile Study Area contains a wide mix of residential, office, retail, industrial, and transportation uses (see **Figure 3C-2**).

The properties immediately adjacent to the project site—facing the site to its north, south, east, and west—are a mix of residential, commercial, and institutional uses. While some of the properties are vacant or show signs of deterioration, most properties appear to be well maintained and most that are vacant show signs of renovation. Properties adjacent to the northern edge of the project site along the north side of Atlantic Avenue include the Atlantic Center and Terminal shopping malls, several residential buildings, a recently-built mixed use building at 212 South Oxford Street, a school, and a large office building (see Photograph 1 on **Figure 3C-3a**). Other than Atlantic Center and Atlantic Terminal, which are enclosed shopping centers, there is little retail along this portion of Atlantic Avenue and little pedestrian foot traffic. Properties along this portion of Atlantic Avenue all appear to be in good condition. Along Flatbush Avenue directly adjacent to the project site are several one-story commercial buildings and a three-story, full-block commercial building (see Photograph 2 on **Figure 3C-3a**). Several of these are vacant; however, these properties are currently being marketed and, based on conversations with local brokers, are expected to turn over to higher paying tenants. This portion of Flatbush Avenue is active in terms of pedestrian traffic due to the density of retail and proximity to the subway. The properties along Pacific Street facing the project site include storage/warehouse space and the Newswalk Building, a former industrial space that was converted into residential lofts. Properties on Dean Street adjacent to the project site are a mix of residential row houses and one- to two-story commercial structures (see Photograph 3 on **Figure 3C-3b**). There is little retail activity along those portions of Pacific Street or Dean Street fronting the project site, and pedestrian activity is relatively low compared to other streets fronting the project site. Properties adjacent to the eastern edge of the project site along Vanderbilt Avenue include a mix of commercial uses including eating and drinking establishments, convenience stores, and a funeral home (see Photograph 4 on **Figure 3C-3b**). There is some vacancy along this portion of Vanderbilt Avenue, and pedestrian foot traffic is moderate, due to proximity to Atlantic Avenue.

Housing stock in the ¼-Mile Study Area includes historic townhouses in Prospect Heights, Boerum Hill, Fort Greene, Park Slope, and Clinton Hill in various states of upkeep and renovation, many of which are preserved by the historic district designations in the ¼-Mile Study Area. In the northeastern portion of the study area, housing stock in Clinton Hill consists of a mix of brownstones in varying condition, and new developments. Housing in Fort Greene is similar in character to that in Clinton Hill, though the brownstone buildings are generally in better condition, and there is more pedestrian traffic throughout the neighborhood. The Fulton

[1] The ¼-Mile Study Area is defined as Brooklyn Census Tracts 35, 39, 129.01, 129.02, 161, 163, 179, 199, 203, and 205.

2.6.14



Source: Department of City Planning, MapPLUTO 13v1/AKRF, Inc. field visits

Project Site

1/4-Mile Study Area Boundary

Control Area Boundary (3/4-Mile Perimeter)

Census Tract Boundary

1/4-Mile Study Area Census Tract

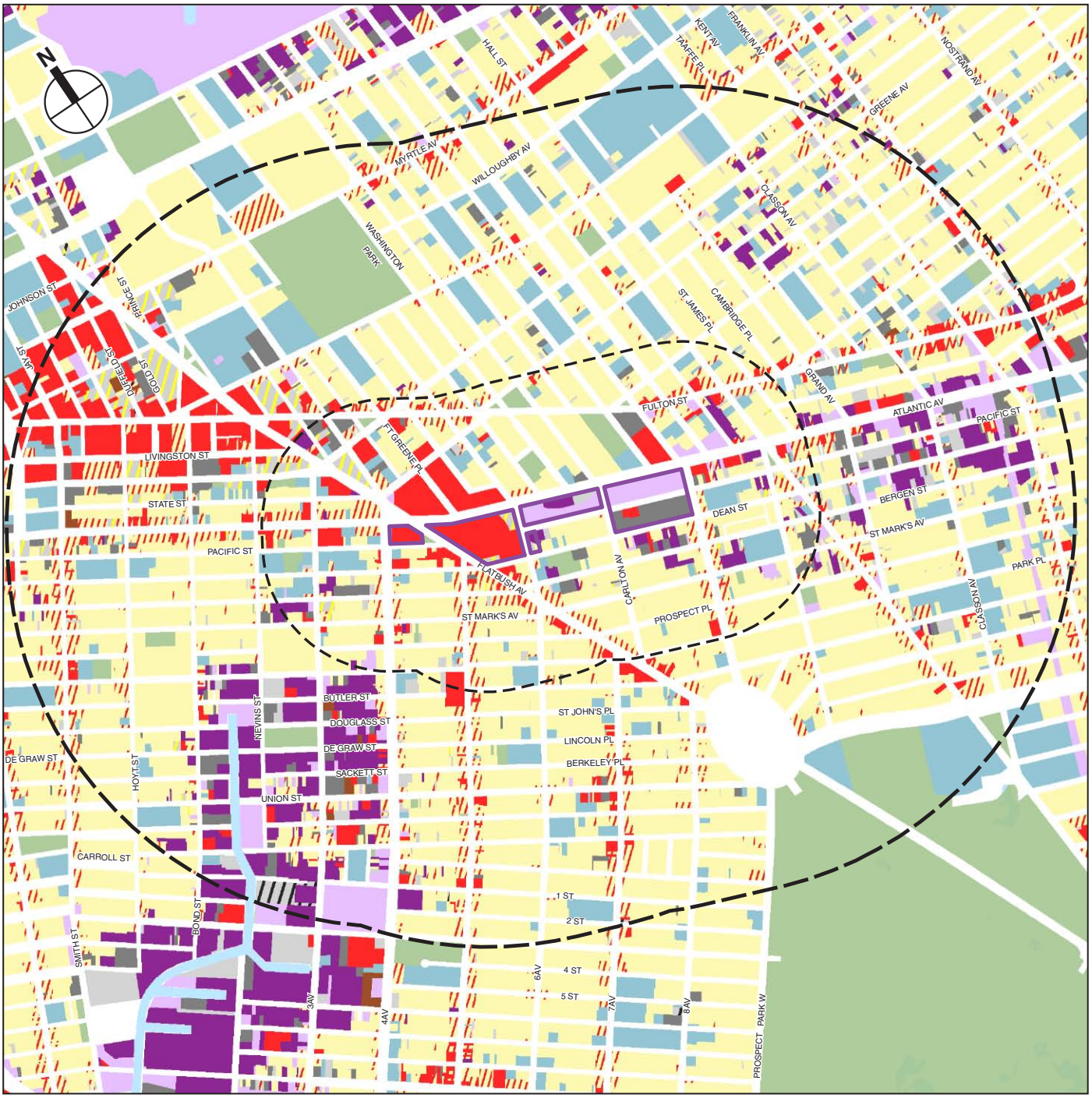
Control Area Census Tract

0 2000 FEET

SCALE

Study Areas

Figure 3C-1



Source: Department of City Planning, MapPLUTO 13v1/AKRF, Inc. field visits

0 2000 FEET
SCALE

- Project Site
- 1/4-Mile Study Area Boundary
- Control Area Boundary (3/4-Mile Perimeter)
- Residential
- Residential with Commercial Below
- Hotels
- Commercial and Office Buildings
- Industrial and Manufacturing
- Transportation and Utility
- Public Facilities and Institutions
- Open Space and Outdoor Recreation
- Parking Facilities
- Vacant Land
- Vacant Building
- Under Construction

Land Use
Figure 3C-2

View northeast along Atlantic Avenue from Barclays Arena **1**

View northwest along Flatbush Avenue from Fifth Avenue **2**

Representative Views Adjacent to Atlantic Yards
Figure 3C-3a

View southwest on Dean Street from Vanderbilt Avenue **3**

View northeast along Vanderbilt Avenue from Dean Street **4**

Representative Views Adjacent to Atlantic Yards
Figure 3C-3b

Street corridor extends from Ashland Place to St. James Place, from Fort Greene in the west to Clinton Hill in the east. Retail and pedestrian activity is concentrated in two portions of Fulton Street in the ¼-Mile Study Area: between Lafayette Avenue and Greene Avenue in Fort Greene, and between Vanderbilt and St. James Place in the east. Retail and neighborhood services along Fulton Street in Fort Greene comprise a mix of bars and restaurants, neighborhood services, and assorted shoppers' goods stores. Retail becomes less dense along Fulton Street in Clinton Hill, and parking and institutional uses are interspersed between ground floor retail.

The housing stock in Boerum Hill consists of three- and four-story historic townhouses, and the 529-unit Wyckoff Gardens NYCHA development in the southeastern portion of the subarea. Housing stock in Park Slope is similar to that in Boerum Hill, and consists primarily of well-preserved brownstones. Since the 2006 FEIS, some new development has occurred on and near Fourth Avenue, in the western portion of the subarea. Within the ¼-Mile Study Area, the 4th Avenue retail corridor extends from Pacific Street and Baltic Street, separating Park Slope and Boerum Hill. Fourth Avenue is an auto-oriented retail corridor, with less dense retail and lower pedestrian foot traffic than other areas in the ¼-Mile Study Area. Neighborhood services and eating and drinking establishments are generally concentrated in the northern portion of the corridor. East of 4th Avenue, the 5th Avenue corridor extends from Flatbush Avenue to Sterling Place, through the neighborhood of Park Slope. This retail corridor is dense, and the majority of storefronts are eating and drinking establishments and neighborhood services. Properties along 5th Avenue in the ¼-Mile Study Area are generally in good condition, and foot traffic is heavy.

The Flatbush Avenue retail corridor divides the neighborhoods of Park Slope and Prospect Heights, and extends from the Arena at Dean Street to Park Place in the south. Flatbush Avenue is a wide and busy commercial corridor that serves as a main thoroughfare for buses, trucks, cars and pedestrians. The corridor is dominated by neighborhood services, including nail and hair salons, medical offices, banks, and other professional offices with storefronts that cater to the large residential areas that border it. There are also several eating and drinking establishments. Though there is some vacancy along this corridor, storefronts are generally in good condition. Based on discussions with brokers, demand for retail space is high and commercial rents are increasing along Flatbush Avenue, and therefore vacancy has been temporary and primarily related to the renovation of storefronts. Housing stock in Prospect Heights ranges from historic townhouses, to four- to six-story brick apartment buildings, to newer apartment buildings. Vanderbilt Avenue is the primary retail corridor in Prospect Heights within the ¼-Mile Study Area, and extends from Atlantic Avenue to Park Place. This corridor contains a concentration of eating and drinking establishments, the majority of which are full-service restaurants, as well as neighborhood services, including hair and nail salons, laundry and dry cleaning facilities, real estate and other offices. Vacancy is relatively low along this corridor compared with other retail corridors in the ¼-Mile Study Area, and pedestrian traffic is moderate.

CONTROL AREA

As shown in **Figure 3C-1**, the Control Area is roughly bounded by Tillary Street and Myrtle, Willoughby, and DeKalb Avenues to the north; Third Street and Eastern Parkway to the south; Bedford and Franklin Avenues to the east; and Boerum Place to the west.[1] The Control Area

[1] The Control Area is defined as Brooklyn Census Tracts 15, 31, 33, 37, 41, 43, 69, 71, 75, 127, 131, 133, 135, 157, 159, 181, 183, 193, 195, 197, 201, 207, 215, 217, 227, 229, 231, 233, 305

encompasses additional areas in all of the neighborhoods included in the ¼-Mile Study Area, as well as portions of the neighborhoods of Bedford-Stuyvesant in the eastern portion of the Control Area, and Gowanus in the southwest.

The Control Area contains various housing types, with brownstones in Park Slope, Fort Greene, Clinton Hill, Prospect Heights, and Bedford-Stuyvesant in various states of upkeep and renovation, many of which are protected by historic districts. In addition to rowhouses that typify many of the residential blocks in the Control Area, there are newer residential towers in Downtown Brooklyn and along 4th Avenue, and converted industrial space in Gowanus. In the proximity of Grand Army Plaza (south of Sterling Place and west of Underhill Avenue) are apartment buildings ranging in height from 4 to 15 stories. There are several public housing developments in the Boerum Hill, Gowanus, Fort Greene, and Downtown Brooklyn subareas, and a concentration of Mitchell-Lama housing in the Clinton Hill and Fort Greene subareas. The Control Area includes portions of the 1,840-unit Ingersoll development, the 882-unit Lafayette development, the 529-unit Wyckoff Gardens development, the 200-unit 572 Warren development, and the 1,659-unit Whitman development, as well as the 1,139-unit Gowanus development. Many of these mid-century buildings were built on superblocks in a tower-in-the-park configuration.

Community facilities and institutional uses in the Control Area include schools, libraries, hospitals, police and fire stations, and social services facilities. Long Island University, the Brooklyn Hospital Center, and Brooklyn Technical High School are located in the Control Area.

Industrial uses in the Control Area are concentrated in the Gowanus neighborhood. The largest concentration of commercial use in the Control Area is in Downtown Brooklyn, which includes office and retail space. The Control Area also includes a number of major retail corridors, including portions of 4th Avenue in Gowanus and 5th and 7th Avenues in Park Slope; eastern and western portions of Atlantic Avenue; two blocks along Flatbush Avenue closest to Grand Army Plaza in the south; Franklin Avenue south of Atlantic Avenue; the Fulton Mall area in Downtown Brooklyn; Fulton Street east of St. James Place; Myrtle Avenue; Smith Street; a small portion of Vanderbilt Avenue; and Washington Avenue between Bergen Street and Eastern Parkway.

DEMOGRAPHIC AND HOUSING INDICATORS

POPULATION

As shown in **Table 3C-1**, the population in the ¼-Mile Study Area increased by 8.0 percent between 2000 and 2010. During the same time, the population in the Control Area increased by 3.2 percent.

Table 3C-1
Atlantic Yards, Population: 2000, 2006-2010

Area	2000	2006-2010	Percent Change
¼-Mile Study Area	23,718	25,620	8.0%
Control Area	106,132	109,512	3.2%
Source: Geolytics, Neighborhood Change Database			

INCOME AND POVERTY

As shown in **Table 3C-2**, median household income in 2000 was slightly higher in the ¼-Mile Study Area ($48,148) than in the Control Area ($45,231). Between 2000 and 2006-2010, median household income increased at a slightly faster rate in the Control Area (55.9 percent) than in the ¼-Mile Study Area (41.6 percent), and was slightly higher by 2006-2010.

Table 3C-2
Atlantic Yards, Median Household Income: 1999, 2006-2010[1,2,3]

Area	1999	2006-2010	Percent Change
¼-Mile Study Area	$48,148	$68,162	41.6%
Control Area	$45,231	$70,513	55.9%

Notes: 1. Dollar values have not been adjusted for inflation.
2. The median household income represents a weighted average of the median household incomes of all the census tracts in a given area.
3. The 2006–2010 data are based on ACS, which collects data throughout the period on an on-going, monthly basis and asks for respondents' income over the "past 12 months." The 2006-2010 data therefore reflect incomes over 2006 and 2010. The 1999 data are based on Census 2000 data, which reflect income over the prior calendar year (1999).
Source: Geolytics, Neighborhood Change Database

As shown in **Table 3C-3**, the proportion of the population living in poverty in the ¼-Mile Study Area decreased between 2000 and 2006-2010, from 15.2 percent to 13.1 percent. The proportion of the population in the Control Area living in poverty also decreased during this time (from 18.2 percent to 14.9 percent), but was higher than in the ¼-Mile Study Area in both 2000 and 2006-2010.

Table 3C-3
Atlantic Yards, Population Living in Poverty: 2000, 2006-2010

Area	2000	2006-2010
¼-Mile Study Area	15.2%	13.1%
Control Area	18.2%	14.9%

Source: Geolytics, Neighborhood Change Database

MEDIAN RENT AND VACANCY RATE

As shown in **Table 3C-4**, in 2000 median monthly gross rent was $800 in the ¼-Mile Study Area, which was slightly higher than in the Control Area ($765). Median gross rent was also higher in the ¼-Mile Study Area in 2006-2010 ($1,414 vs. $1,316), and increased at a faster rate during this time than in the Control Area.

Table 3C-4
Atlantic Yards, Median Monthly Gross Rent: 2000, 2006-2010[1,2]

Area	2000	2006-2010	Percent Change
¼-Mile Study Area	$800	$1,414	76.8%
Control Area	$765	$1,316	71.9%

Notes: 1. Dollar values have not been adjusted for inflation.
2. The median monthly gross rent represents a weighted average of the median monthly gross rent of all the census tracts in a given area.
Source: Geolytics, Neighborhood Change Database

As shown in **Table 3C-5**, the vacancy rate was slightly higher in the ¼-Mile Study Area in 2000 (7.0 percent) than the Control Area (6.1 percent). Housing vacancy increased in both the ¼-Mile Study Area and the Control Area between 2000 and 2010, to 10.4 percent and 10.5 percent, respectively.

Table 3C-5
Atlantic Yards, Vacant Housing Units: 2000, 2006-2010

Area	2000	2006-2010
¼-Mile Study Area	7.0%	10.4%
Neighborhood Control Area	6.1%	10.5%

Source: Geolytics, Neighborhood Change Database

As described above, between 2000 and 2006-2010, the population in the ¼-Mile Study Area grew at a slightly faster rate than in the Control Area. These data indicate that residents were moving to the area immediately surrounding the project site despite the prospect of ongoing construction. Median household income in the ¼-Mile Study Area increased substantially between 2000 and 2006-2010, though at a slightly slower pace than in the Control Area. The percentage of the population living in poverty in the ¼-Mile Study Area decreased between 2000 and 2006-2010, and was lower than in the Control Area in both 2000 and 2006-2010. Rents in the ¼-Mile Study Area have been higher than in the Control Area and have increased at a faster rate. Residential vacancy in the ¼-Mile Study Area increased between 2000 and 2006-2010, but the increase was less than in the Control Area. In 2006-2010, the housing vacancy rate in the ¼-Mile Study Area and the Control Area were virtually the same. These data are not indicative of disinvestment in the ¼-Mile Study Area over the course of the Atlantic Yards construction period to date.

RESIDENTIAL PROPERTY VALUES

EXISTING CONDITIONS

¼-Mile Study Area

A survey of current market rate rental units in the ¼-Mile Study Area (excluding the project site) found that the median rental rate in December 2013 was $1,950 per month for studios; $2,375 for one-bedroom units; $3,050 for two-bedroom units; and $3,500 for three-bedroom units (see

Table 3C-6).[1] According to ACRIS data, the average sales prices in 2012 in the ¼-Mile Study Area (excluding the project site) were $1,892,714 for two-family homes, $485,555 for walkup co-ops, $645,288 for walkup condominiums, and $750,068 for elevator condominiums.

Table 3C-6
Atlantic Yards, Current Residential Listing Prices in the ¼-Mile Study Area

Residential Units	Listing Price
Rental Units (Median Monthly Rent)	
Studio	$1,950
1-bedroom	$2,375
2-bedroom	$3,050
3-bedroom	$3,500
Owner-Occupied Units: Average Sales Price[1]	
Two-Family Homes	$1,892,714
Walkup Co-ops	$485,555
Walkup Condos	$645,248
Elevator Condos	$750,068

Note: 1. Averages for 2012
Sources: Streeteasy.com; ACRIS

Control Area

Rents in the Control Area generally are similar to those in the ¼-Mile Study Area. A survey of current market rate rental units in the ¼-Mile Study Area found that the median rental rate in December 2013 was $1,795 per month for studios; $2,490 for one-bedroom units; $3,000 for two-bedroom units; and $3,970 for three-bedroom units (see **Table 3C-7**).[2] In general, average sales prices in the Control Area are slightly lower than in the ¼-Mile Study Area. According to 2012 ACRIS data, the average sales prices in the ¼-Mile Study Area were $968,946 for two-family homes, $560,071 for walkup co-ops, $559,899 for walkup condominiums, and $739,630 for elevator condominiums. Two-family homes sold for almost twice the average sales price in the ¼-Mile Study Area as compared with the Control Area. These high sales prices may be due to sales of properties in Downtown Brooklyn with buildable air rights, as well as luxury, renovated townhouses in neighborhoods like Park Slope.

[1] Rental listings obtained from Streeteasy.com, accessed December 11, 2013.

[2] Rental listings obtained from Streeteasy.com, accessed December 11, 2013.

Table 3C-7
Atlantic Yards, Current Residential Listing Prices in the Control Area

Rental Units (Median Monthly Rent)	Listing Price
Rental Units (median monthly rent)	
Studio	$1,795
1-bedroom	$2,490
2-bedroom	$3,000
3-bedroom	$3,970
Owner-Occupied Units: Average Sales Price[1]	
Two-Family Homes	$968,946
Walkup Co-ops	$560,071
Walkup Condos	$559,899
Elevator Condos	$739,630

Note: 1. Averages for 2012
Sources: Streeteasy.com; ACRIS

HISTORIC TRENDS

Figure 3C-4a and **Table 3C-8** present average annual sale prices for single-, two-, and three-family homes, walkup co-ops, and walkup and elevator condominiums in the ¼-Mile Study Area (excluding the project site) between 2003 and 2012, based on ACRIS data. As shown in **Figure 3C-4a** and **Table 3C-8**, average sales prices for these types of residential units have generally increased in the ¼-Mile Study Area since the announcement of the Project in 2003. Between 2003 and 2012, the increases in average sales prices were most dramatic for walkup condominiums, which increased by approximately 196 percent during this time. Most average sales prices increased between 2003 and 2008, with drops between 2008 and 2009 corresponding with the recession. Steep increases in most average sales prices between 2011 and 2012 are corroborated by discussions with brokers, who say that prices started to rebound from the recession during this time.

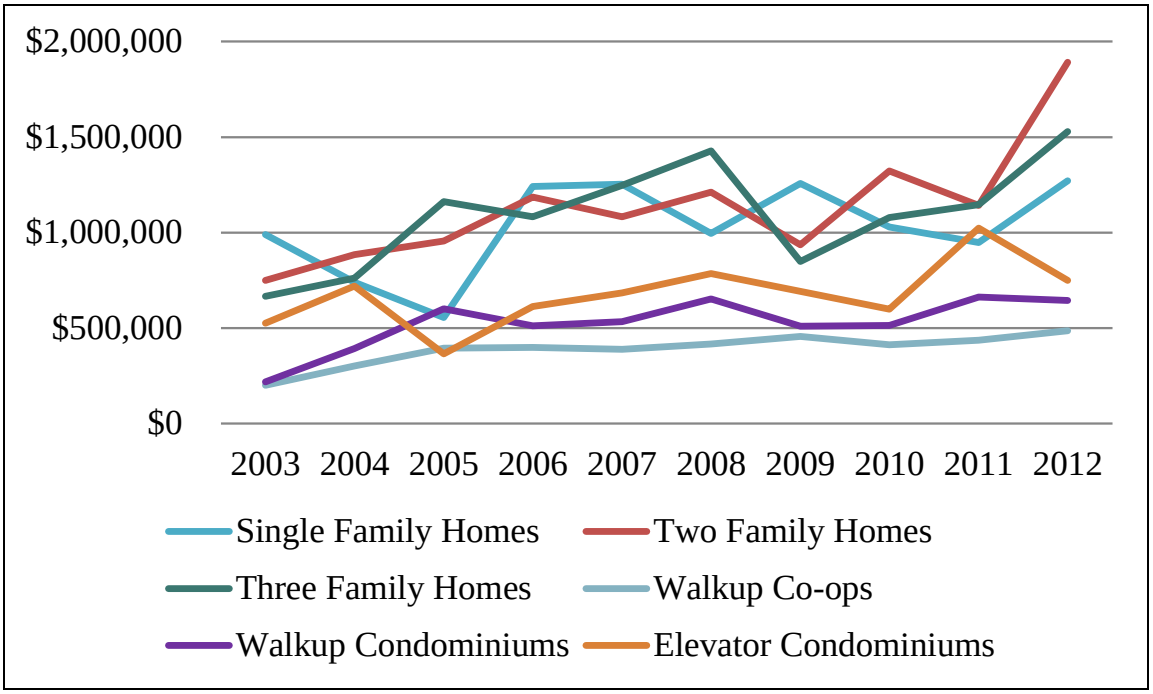
Table 3C-8
Atlantic Yards, Percentage Increase in Average Residential Sales Prices: 2003-2012[1]

Residential Types	1/4-Mile Study Area	Control Area
Single family homes	28.5%	61.8%
Two family homes	152.7%	47.3%
Three family homes	129.3%	42.8%
Walkup Co-ops	143.4%	80.4%
Walkup Condominiums	196.3%	63.4%
Elevator Condominiums	42.6%	81.6%

Note: 1. Represents changes in dollar values that have not been adjusted for inflation.
Source: ACRIS

Figure 3C-4a

Atlantic Yards, Average Residential Sales Prices in the ¼-Mile Study Area: 2003-2012

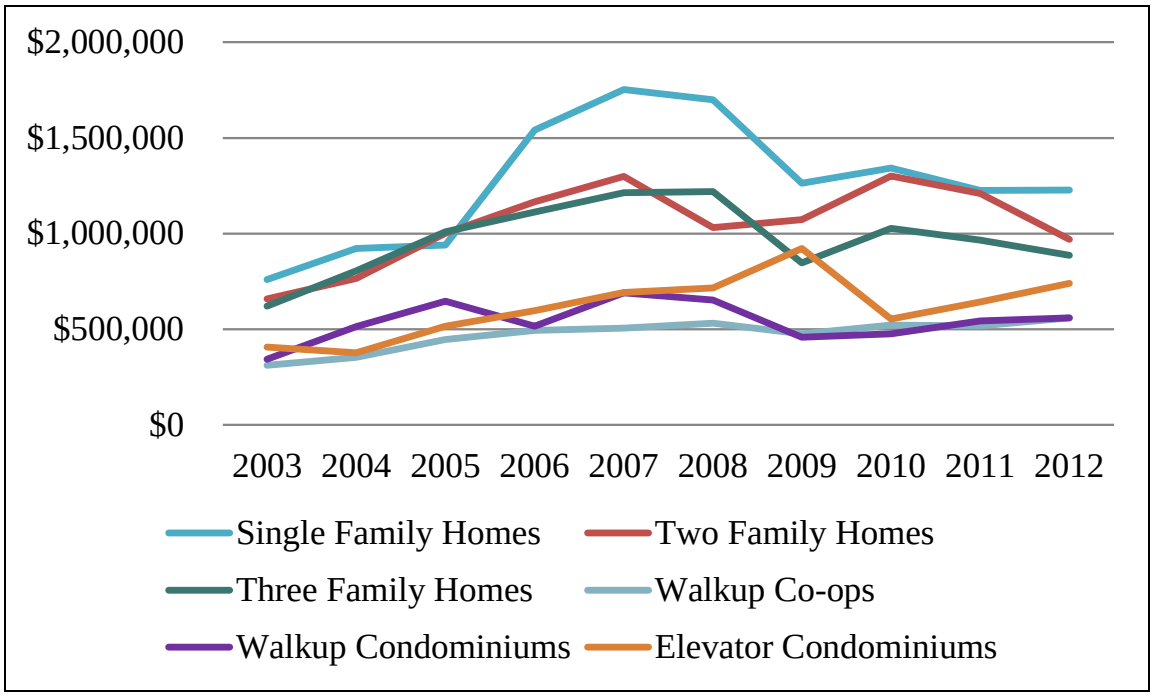


Note: Dollar values have not been adjusted for inflation.
Source: ACRIS

Control Area trends in residential sales between 2003 and 2012 generally align with ¼-Mile Study Area trends, but with less pronounced price increases for most property types. **Figure 3C-4b** and **Table 3C-8** presents average annual sales prices for single-, two-, and three-family homes, walkup co-ops, and walkup and elevator condominiums in the Control Area between 2003 and 2012, as calculated from ACRIS data. Like the ¼-Mile Study Area, average sales prices for these types of residential units have all generally increased in the Control Area. All of the types of residential units in the Control Area—with the exception of single-family homes and elevator condominiums—increased in average sales prices by a lower percentage than in the ¼-Mile Study Area. Like the ¼-Mile Study Area, average sales prices increased until dropping between 2008 and 2009. The Control Area also shows steeper increases in most average sales prices between 2011 and 2012, with the exception of elevator condominiums, which decreased during this time.

According to brokers in the area, the residential market was improving in the neighborhoods surrounding the project site around the time that the Project was announced in 2003. This trend was consistent with the residential market in this portion of Brooklyn leading up to the 2008 housing market crash. Consistent with trends in the general market, prices leveled off in these neighborhoods in 2008, 2009, and 2010, in the wake of the recession. When construction began on the Arena site, and the residential market in the surrounding Brooklyn neighborhoods started recovering from the recession, residential rents and sales prices increased rapidly. While these

Figure 3C-4b
Atlantic Yards, Average Residential Sales Prices in the Neighborhood Control Area: 2003-2012



Note: Dollar values have not been adjusted for inflation.
Source: ACRIS

improvements in the residential market in the area immediately surrounding the project site could be partially attributable to the development of the Arena, the trend is consistent with market trends in the surrounding Brooklyn neighborhoods, where demand is high and inventory is low. Since the Arena has been completed, prices have further increased in the neighborhoods surrounding the Arena site. These trends are not indicative of disinvestment in the ¼-Mile Study Area due to construction on the project site to date.

According to brokers, the upward trends in the residential market have been dominant in the neighborhoods around the project site and, in general, potential buyers have not expressed hesitancy related to the ongoing construction of the Project. Brokers have indicated that there has been uncertainty from some potential buyers regarding the Newswalk building at 535 Dean Street, which is surrounded by the project site on three sides. Even so, according to some brokers, some buyers have decided to buy units in the Newswalk building despite ongoing construction because of the perceived positive effects of the Arena and Phase II of the Project—such as potential increases in home equity and new amenities.[1] In addition, based on ACRIS data, average sales prices for units in the Newswalk building increased since 2007. According to brokers, the neighborhoods around the project site have experienced an increase in larger,

[1] "Brooklyn Properties win big from Barclays' success." *New York Post* October 10, 2013. Accessed November 6, 2012.

family-sized residential units, and an increase in owner-occupancy. This trend is expected to continue during construction of Phase II of the Project, as new retail and services are added to the project site.

COMMERCIAL PROPERTY VALUES AND RETAIL ACTIVITY

EXISTING CONDITIONS

¼-Mile Study Area

As described above, the ¼-Mile Study Area contains several retail concentrations, including Vanderbilt Avenue between Atlantic Avenue and Park Place; Flatbush Avenue between Pacific Street and Park Place; the western portion of Atlantic Avenue between Flatbush Avenue and Nevins Street; 4th Avenue between Pacific Street and Baltic Street; Fulton Street between Ashland Place and St. James Place; 5th Avenue between Flatbush Avenue and Sterling Place; the intersection of Atlantic Avenue east of Vanderbilt Avenue to St. James Place, and Washington Avenue, south of Atlantic Avenue to Bergen Street; and Atlantic Center and Atlantic Terminal.

Within the ¼-Mile Study Area, Vanderbilt Avenue is characterized by a concentration of bars and restaurants and neighborhood services. Vacancy is low relative to other retail concentrations in the ¼-Mile Study Area. Retail along Flatbush Avenue within the ¼-Mile Study Area includes a concentration of neighborhood services and eating and drinking establishments, with relatively high vacancies due to turnover, as discussed in detail below. The western portion of Atlantic Avenue in the ¼-Mile Study Area includes a mix of shoppers' goods, convenience goods, and neighborhood services, and a relatively high number of vacancies. According to brokers, vacancy along this portion of Atlantic Avenue is likely due to turnover of storefronts to retail tenants catering to Arena visitors. Within the ¼-Mile Study Area, 4th Avenue is characterized by a concentration of neighborhood services, though they are less dense along this corridor. The portion of Fulton Street in the ¼-Mile Study Area includes a mix of retail that has been changing due to new development and rising incomes in Fort Greene and Clinton Hill. The portion of 5th Avenue in the ¼-Mile Study Area includes a dense mix of eating and drinking establishments, shoppers' goods, and neighborhood services. The eastern portion of Atlantic Avenue within the ¼-Mile Study (which includes the intersection with Washington Avenue) is characterized by a combination of low-density auto-related businesses, neighborhood services, and vacancies along Atlantic Avenue, and neighborhood services and eating and drinking establishments along Washington Avenue. Atlantic Center and Atlantic Terminal contain primarily shoppers' goods stores, including apparel and accessory establishments and discount department stores, most of which are regional or national chains.

A survey of current retail listings found that within the ¼-Mile Study Area per square foot (psf) rents ranged from $39 to $40 in Clinton Hill and Prospect Heights; $50 to $95 along corridors in Boerum Hill and Park Slope, and over $100 on streets close to the Arena.[1] Rents on Flatbush Avenue were as high as $175 psf near the Arena.[2]

---

[1] Commercial listings collected from Loopnet.com and Costar.com

[2] "How the Barclays Center will transform Brooklyn retail leasing." *The Real Deal* June 14, 2012. Accessed December 8, 2013.

Control Area

As described above, the Control Area contains several retail concentrations, including the southern portions of 4th Avenue and 5th Avenue; 7th Avenue; eastern and western portions of Atlantic Avenue; two blocks along Flatbush Avenue closest to Grand Army Plaza in the south; Franklin Avenue; the Fulton Mall area, Fulton Street east of St. James Place; Myrtle Avenue; Smith Street; a small portion of Vanderbilt Avenue; and Washington Avenue between Bergen Street and Eastern Parkway. These areas vary in terms of retail offerings, from the dense shoppers' goods, restaurants, and convenience goods along 5th and 7th Avenues in Park Slope, to the sparse retail storefronts along the southern portion of 4th Avenue, to the dense mix of small businesses and national retailers along the Fulton Street Mall.

A survey of retail listings indicated that within the Control Area, the per square foot (psf) rental rates for retail space in the Control Area is similar in many neighborhoods, but is much higher in portions of Park Slope and in Prospect Heights, closer to Prospect Park. Currently listed psf rents ranged from $44 to $90 throughout the Control Area, including along Flatbush, Fifth, Washington, Myrtle, and Franklin Avenues, and on Union Street. Along Seventh Avenue in Park Slope, retail rents psf were over $100.

HISTORIC TRENDS

Retail Activity

In general, trends in retail indicate that the market has improved in the area immediately surrounding the project site since the announcement of the Project in 2003. Most retail corridors in the ¼-Mile Study Area have seen an influx of customers to businesses such as bars and restaurants, which are likely to attract Arena patrons. In some cases, the construction of the Arena has led to turnover of retail storefronts to higher-paying tenants. While this may have led to the displacement of a limited number of smaller businesses, this trend indicates that investment has not stalled due to ongoing construction.

According to discussions with brokers, the potential for construction on the project site to influence the retail market has depended on proximity to construction activities on the Arena Site. Retail corridors such as Vanderbilt Avenue and the western portion of Atlantic Avenue are far enough from the Arena site that they have not been influenced by the Arena construction. According to brokers, as a result of the development of the Arena, retail corridors in immediate proximity to the Arena site have experienced increases in retail rents and the influx of new bars and restaurants, as well as national retailers.

As described in Chapter 4A, "Operational Socioeconomic Conditions," retail vacancy rate along Vanderbilt Avenue in the ¼-Mile Study Area has declined since the 2006 FEIS and retail has changed along with the increasing popularity of Prospect Heights as a residential neighborhood for renters priced out of the nearby areas of Park Slope, Carroll Gardens, and Cobble Hill. The number of professional offices has decreased since the 2006 FEIS, from six to two, and the corridor does not contain any discount goods retailers.

Along Flatbush Avenue, convenience goods stores have declined since the 2006 FEIS, and retail vacancy has increased. Based on discussions with brokers, some of these vacancies may be the result of tenants who have left due to increases in rents. Demand for retail space along Flatbush Avenue has increased with the completion of the Arena, and vacant spaces are being renovated for higher-paying tenants. In fact, leading up to the completion of the arena, properties like the former Triangle Sports store building at 182 Flatbush Avenue directly across from the arena saw

an increase in value and interest from investors, and the Triangle Sports building was sold in September 2012 for $4.1 million ($900 per square foot).[1,2]

Since the 2006 FEIS, the western portion of Atlantic Avenue has experienced changes in retail related to demographic trends in Boerum Hill and residential development in Downtown Brooklyn. While vacancy has increased along Atlantic Avenue in general, based on conversations with brokers, retail demand is high near the project site and any vacancy is likely due to the process of renovating spaces for lease to new tenants.

Along the portion of 4th Avenue in the ¼-Mile Study Area, the proportion of neighborhood services and eating and drinking establishments has increased since the 2006 FEIS, and the proportion of vacancies and auto-related uses have decreased. Within the ¼-Mile study area, these changes are likely due to the demand introduced by Arena visitors as well as new residential development resulting from the 2003 Park Slope Rezoning.

Within the ¼-Mile Study Area, the Fulton Street retail corridor has evolved since the 2006 FEIS due to changes in the residential markets in Fort Greene and Clinton Hill. As described in Chapter 4A, "Operational Socioeconomic Conditions," the residential markets in these neighborhoods have been more likely to affect the Fulton Street retail corridor than the Project, which is parallel to Fulton Street and located a full block away. Due to this separation and the influence of the Fort Greene and Clinton Hill markets, retail on Fulton Street is not likely to have been affected by construction on the project site.

Within the ¼-Mile Study Area, the 5th Avenue retail corridor was experiencing turnover to higher end restaurants and boutiques before the Project was announced in 2003. Since the 2006 FEIS, vacancies have decreased along 5th Avenue in the ¼-Mile Study Area, and the number of eating and drinking establishments and neighborhood services have increased. This is likely due to residential trends that were already in place when the Project was announced, as well as the anticipated demand for bars and restaurants generated by Arena patrons.

The eastern portion of Atlantic Avenue in the ¼-Mile Study Area (which includes the intersection with Washington Avenue) has experienced some changes related to the evolution of retail along Washington Avenue. As discussed above, while vacancies may have increased along Atlantic Avenue since the announcement of the Project, according to brokers, Atlantic Avenue has historically experienced low foot traffic near Washington Avenue, which discouraged retailers from locating in the area.

Vacancies have decreased since the 2006 FEIS in Atlantic Center and Atlantic Terminal. Atlantic Center and Atlantic Terminal are established shopping centers with high occupancy rates located close to mass transit. In addition, they are enclosed malls that separate shoppers from the construction activities on the project site across the street. For these reasons, it is not likely that these shopping centers have been negatively affected by construction on the project site.

Retail corridors in the Control Area have also experienced changes, as residential markets in these areas have introduced more affluent households to support new retail and services.

---

[1] "Is this the start of a Barclays Center gold rush?" The Brooklyn Paper, February 9, 2012. Accessed November 6, 2012.

[2] "Triangle Building Sold" Wall Street Journal, September 16, 2012. Accessed February 12, 2014.

Franklin Avenue has experienced a decrease in vacancy and an increase in eating and drinking establishments since the 2006 FEIS. Convenience goods have become more prevalent in the Fulton Mall area as a result of the new residential population in Downtown Brooklyn, as well as an increase in national retailers. Myrtle Avenue has also experienced a decrease in vacancy, with new neighborhood services and convenience goods to meet the demand of new residents in Fort Greene and Clinton Hill. Retail corridors like Smith Street, 5th Avenue, and 7th Avenue have largely retained their mix of restaurants, bars, neighborhood retail and services, as their residential markets were established at the time of the 2006 FEIS. Vanderbilt Avenue has experienced an influx of bars and restaurants since the 2006 FEIS, which has influenced a similar trend along Washington Avenue. These trends indicate that the retail market in the Control Area, like the ¼-Mile Study Area, is healthy and has been evolving based on changes in the residential markets in each neighborhood.

Office Space

According to brokers, the commercial office market in the area immediately surrounding the project site is not large enough to determine any potential effect of prolonged construction. Most office space in the area is found outside of the ¼-Mile Study Area, in neighborhoods like Downtown Brooklyn, extending south along Court Street. Downtown Brooklyn—New York City's third largest central business district—is an established office district that is more affected by office market trends in other business districts in Manhattan and New Jersey, as well as the ongoing development resulting from the 2003 Park Slope Rezoning. Similarly, the Atlantic Terminal office building is an established building with HSBC and The Bank of New York as anchor tenants, located above the Atlantic Avenue LIRR and MTA stations and the Atlantic Center and Atlantic Terminal retail space. This building is not likely to be affected by construction on the project site. Directly across from the project site, the building at 470 Vanderbilt Avenue was vacant until 2007, when it was converted to office space. The building is currently over 90 percent leased. The ground-floor retail space in the building was sold in 2013, indicating interest in investing in office and retail despite the proximity to the Phase II site.[1]

EMPLOYMENT

In general, trends in employment also indicate that the market has improved in the ¼-Mile Study Area since the announcement of the project in 2003. As shown in **Table 3C-9**, between 2000 and 2006-2010, total employment in the ¼-Mile Study Area increased by a larger percentage than in the Control Area (61.6 percent vs. 43.3 percent, respectively). In the ¼-Mile Study Area, employment increased in all industry sectors except for wholesale trade and transportation, warehousing, utilities, and the armed forces. In the Control Area, employment increased in all industry sectors except for Agriculture, forestry, fishing and hunting and mining, manufacturing, and public administration. Employment in the retail sector increased by 87.4 percent in the ¼-Mile Study Area during this time, compared with an increase of 37.5 percent in the Control Area. These data indicate that employment in general and retail employment in particular increased at a higher rate in the ¼-Mile Study Area as compared with the Control Area, despite construction activities on the project site.

[1] "Big Chicago landlord lands in odd spot." *Crain's New York Business* July 26, 2013. Accessed December 8, 2013.

Table 3C-9
Atlantic Yards, Employment: 2000, 2006-2010

Industrial Sector	1/4-Mile Study Area[1]			Control Area		
	2000	2006-2010	Percent Change	2000	2006-2010	Percent Change
Agriculture, forestry, fishing and hunting and mining	0	50	N/A	39	0	-100.0%
Construction	650	1,070	64.6%	1,744	2,450	40.5%
Manufacturing	373	670	79.6%	1,516	1,285	-15.2%
Wholesale trade	244	220	-9.8%	703	735	4.6%
Retail trade	1,150	2,155	87.4%	4,274	5,875	37.5%
Transportation and warehousing and utilities	930	770	-17.2%	4,588	9,520	107.5%
Information	285	585	105.3%	1,564	2,240	43.2%
Finance, insurance, real estate and rental and leasing	965	2,500	159.1%	2,773	4,075	47.0%
Professional, scientific, management, administrative, and waste management services	580	1,280	120.7%	3,379	5,170	53.0%
Educational, health and social services	3,220	5,065	57.3%	15,340	21,755	41.8%
Arts, entertainment, recreation, accommodation and food services	1,035	1,550	49.8%	2,889	5,270	82.4%
Other services (except public administration)	885	985	11.3%	1,994	3,235	62.2%
Public administration	1,160	1,690	45.7%	5,834	5,200	-10.9%
Armed forces	50	20	-60.0%	0	0	N/A
Total[2]	**11,525**	**18,620**	**61.6%**	**46,630**	**66,815**	**43.3%**

Notes: 1. Data for the ¼-Mile Study Area include employment estimates for the project site in 2000 and 2006-2010. As the Arena was not opened until 2012, these data would not include employment added by Phase I of the project.

2. Due to rounding, total employment may not match the sum of employment for each major industry sector.

Sources: Census Transportation Planning Package 2000 and 2006-2010.

CONCLUSIONS – EFFECTS OF ATLANTIC YARDS PROJECT TO DATE

Residential trends in the ¼-Mile Study Area have generally followed trends in the surrounding neighborhoods, with average sales prices and rents increasing. For most property types between 2003 and 2012, increases in average residential sales prices in the ¼-Mile Study Area outpaced trends in the Control Area. Brokers have indicated that there has been uncertainty from some potential buyers regarding at least one building (the Newswalk), due to the prospect of prolonged construction on the project site; however, average sales prices and discussions with brokers indicate that these units are still selling, and that prices have not been substantially affected. These trends indicate that the construction activities on the project site have not led to disinvestment in the residential market, or any substantial hesitation on the part of potential buyers or renters.

In terms of retail, the impact of construction on the site has depended on proximity. Retail corridors in the ¼-Mile Study Area that are separated from the site—like Fulton Street—have

experienced turnover related to trends separate from the Arena, and are less likely to have experienced any negative effects of construction. Even retail corridors closest to the Arena site have experienced increased investment in retail space since the announcement of the project. While vacancy has increased, based on discussions with brokers, these vacancies are the result of renovation of storefronts for new tenants. As described above, the office market is small and well-established and bears no discernable effects from construction on the project site. Increases in retail employment and employment overall in the ¼-Mile Study Area outpaced those in the Control Area between 2000 and 2006-2010. Demographics trends, real estate and employment data, and discussions with brokers in the area indicate that ongoing construction on the project site has not resulted in any substantial negative effect on neighborhood conditions or property values in the ¼-Mile Study Area as compared with the Control Area.

F. CASE STUDY ANALYSIS

This section of the chapter presents case studies for locations within New York City that have experienced extended construction activities and/or construction delays. The case studies provide longer-term perspective on the potential for extended construction periods to affect socioeconomic conditions in surrounding neighborhoods.

RIVERSIDE SOUTH

INTRODUCTION

Riverside South is a 77-acre development located on in the Upper West Side of Manhattan between West 59th and West 72nd Streets. The site, located between West End Avenue and the Hudson River, was a rail yard that became inactive in 1983. Although development projects had been proposed for the site as early as 1962, the project was not approved until 1992, when a general large-scale development (GLSD) plan for the site was approved by the City Council. The GLSD plan divided the site into 15 parcels (Parcels A through O) to be divided among several developers, as well as a 22-acre open space parcel located along the Hudson River to be developed into a park (an extension of Riverside Park). The original GLSD plan envisioned a total development of approximately 7.9 million zoning square feet (zsf) consisting of a mix of residential, community facility, office, cinema, public parking, retail, and studio uses; subsequent changes to the plan reduced much of the commercial space (including the entire cinema and studio uses), leaving the residential and local retail uses as the predominant uses on the site.

TIMELINE

Development on the Riverside South site began in the late 1990s and generally followed a north-to-south development pattern, with the sites located between West 72nd Street and West 66th Street constructed first. With the rolling construction process, including ongoing construction of portions of the project not yet completed, construction activities on the site cover a period of over 20 years. This section considers changes in socioeconomic conditions that have taken place over the course of the development of Riverside South between the approval of the project in 1992 and 2013.

The first site, Parcel D, was completed in 1998. To date the majority of the project has been completed except for the southernmost portions located between West 62nd Street and West 59th Street: Parcel K (40 Riverside Boulevard) and Parcels L, M, and N (also known as

Riverside Center) are currently under construction and are expected to be complete by 2014 and 2018, respectively.

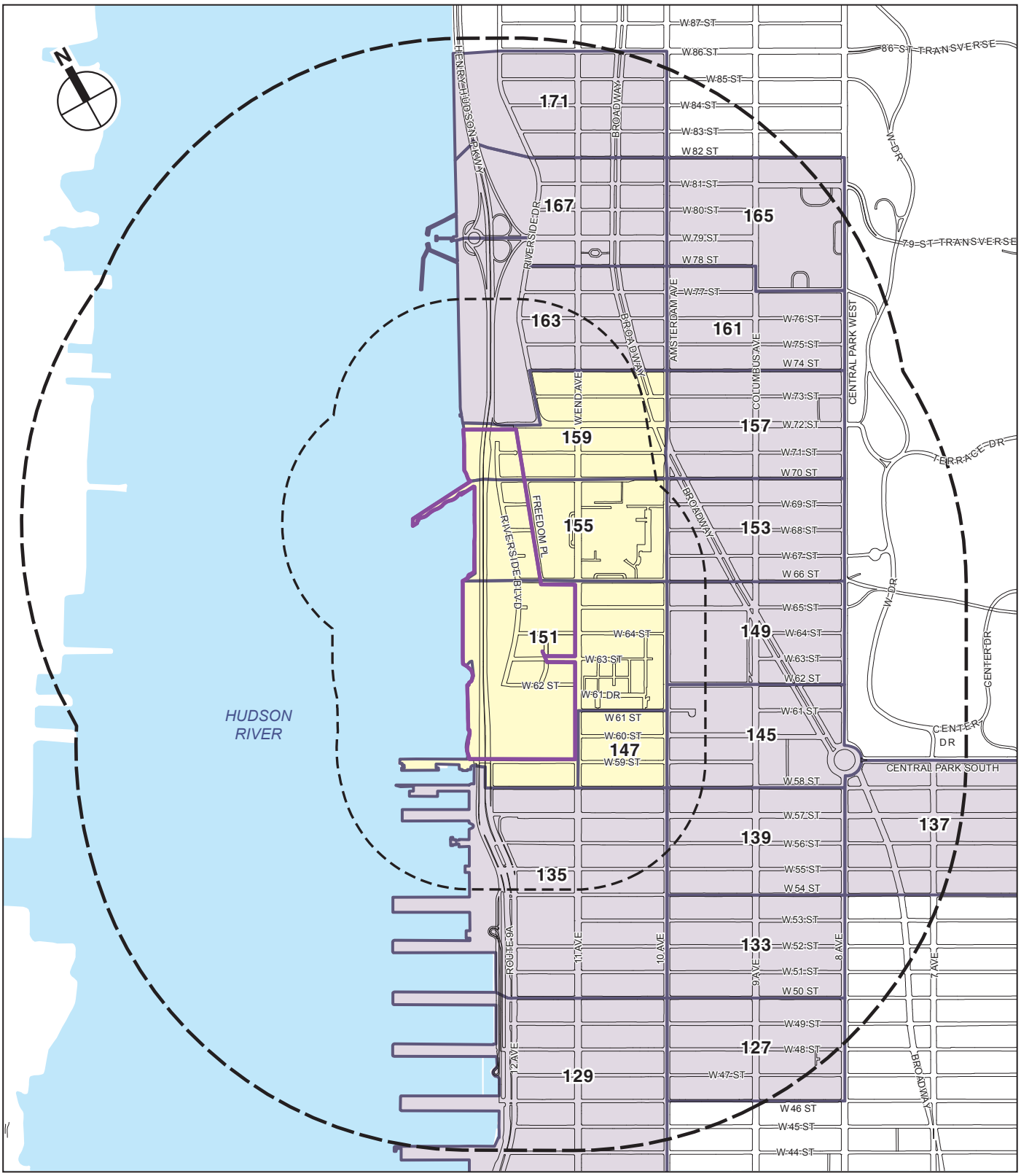
STUDY AREAS

¼-Mile Study Area

As shown on **Figure 3C-5**, the Riverside South ¼-Mile Study Area includes the blocks roughly bounded by West 77th Street to the north, Amsterdam/Tenth Avenue to the east, West 54th Street to the south, and Route 9A (the West Side Highway) to the west. The area includes portions of two neighborhoods: the Upper West Side, generally located north of West 59th Street; and Clinton, south of West 59th Street. As shown on **Figure 3C-6**, the Upper West Side portion of the ¼-Mile Study Area is predominantly residential, with retail corridors located along Amsterdam Avenue and Broadway. The Clinton portion of the ¼-Mile Study Area, historically an active manufacturing district, is predominantly commercial but, as described below, has a growing residential component as the result of recent redevelopment efforts.

The area immediately surrounding the Riverside South site, along West End Avenue between West 59th Street and West 66th Street and along Freedom Place between West 66th Street and West 72nd Street, is predominantly large apartment towers. This includes two larger residential complexes built during a period of urban renewal between the 1940s and 1960s: the Amsterdam Houses, a public housing project located between West 61st Street and West 64th Street, and the Lincoln Tower Apartments, located between West 66th Street and West 70th Street. The Lincoln Tower Apartments are located on two superblocks situated on either side of West End Avenue; the western superblock, located adjacent to the Riverside South site across Freedom Place, contains three towers fronting on West 66th Street, West End Avenue, and West 72nd Street, and a private open space fronting on Freedom Place. The Amsterdam Houses are located on the eastern side of West End Avenue adjacent to the Riverside South site. Both complexes are oriented away from the street separating them from the Riverside South site (Freedom Place) with building entrances located in the middle of the campuses or along other street frontages, and in some locations separated from Freedom Place by a wall or fencing (see Photograph 1 on **Figure 3C-7a**). These designs are remnants of the previous use of the Riverside South site as a rail yard at the time of the projects' construction and served to physically separate the two complexes, which make up a large portion of the area immediately adjacent to the Riverside South site. Pedestrian activity along Freedom Place and West End Avenue adjacent to the development site is low. This is due to a combination of factors including the orientation of Lincoln Tower Apartments and Amsterdam Houses, the limited ground floor retail in those two housing complexes (main retail corridors in the area are located to the east, along Broadway and Amsterdam Avenue, and to the north along West 72nd Street), and the distance from the subway stations along Broadway. However, aside from general aging, the buildings in both complexes are in good condition, and there is no indication that long-term construction on the Riverside South site has adversely affected the properties.

North of West 70th Street, the ¼-Mile Study Area contains two blocks west of West End Avenue (West 71st Street and West 72nd Street) that end at the Riverside South site, resulting in buildings directly abutting Riverside South buildings (see Photograph 2 on **Figure 3C-7a**). These blocks contain a housing stock that is typical of the Upper West Side, consisting of pre-war single-family townhouses and walk-up apartment buildings in the midblock areas with taller apartment buildings along the avenues. In general these blocks are in good condition, creating a cohesive residential area combining historic residential buildings and newer Riverside South



Source: Department of City Planning, MapPLUTO 13v1/AKRF, Inc. field visits

2.20.14

Case Study Project Site

1/4-Mile Study Area Boundary

Control Area Boundary (3/4-Mile Perimeter)

Census Tract Boundary

1/4-Mile Study Area Census Tract

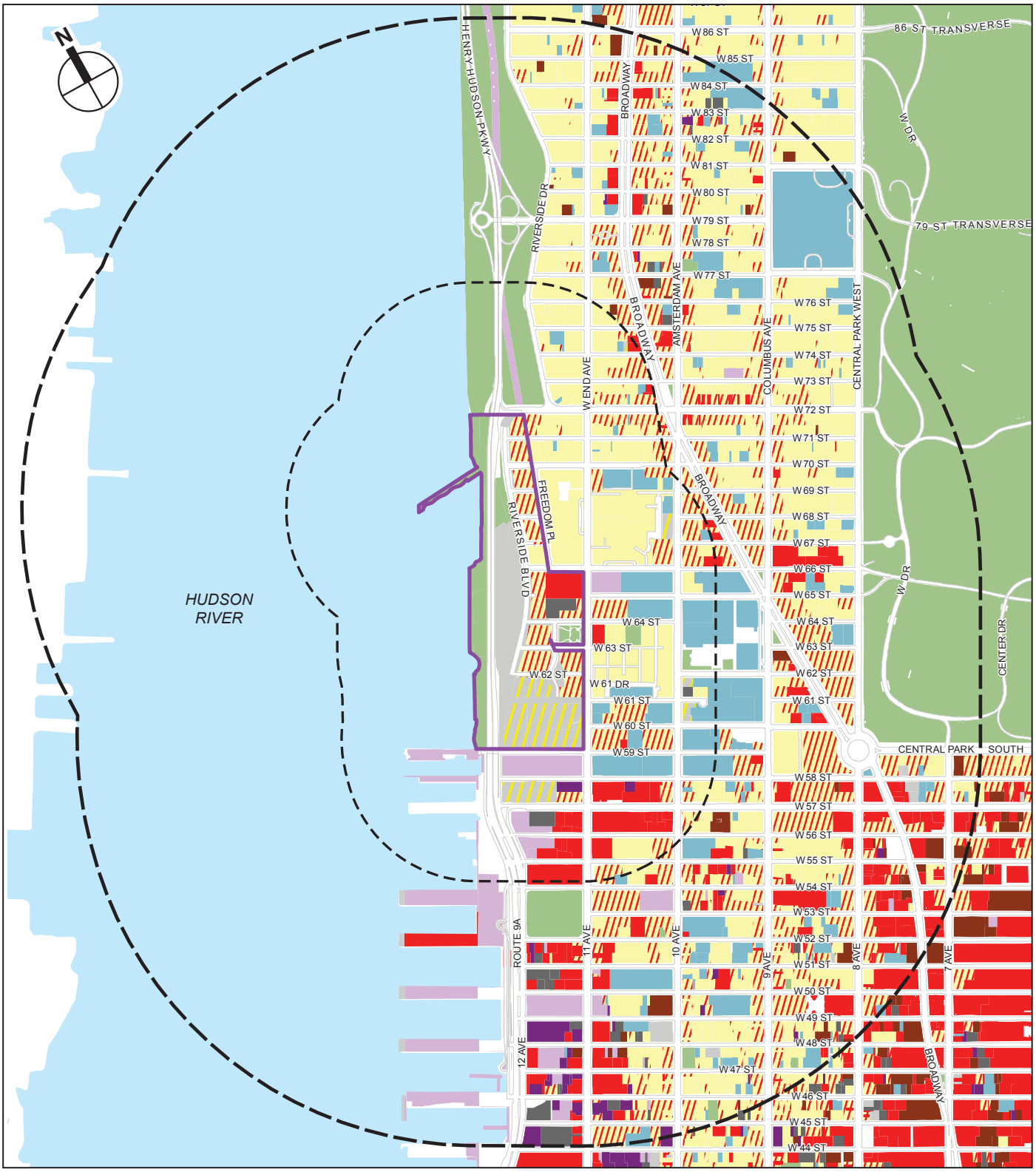
Control Area Census Tract

0 2000 FEET

SCALE

Study Areas

Figure 3C-5



Land Use

Figure 3C-6

View south along Freedom Place from West 69th Street **1**

View southwest along West 71st Street **2**

Representative Views Adjacent to Riverside South
Figure 3C-7a

high-rises. For example, West 71st Street to the west of West End Avenue contains a row of historic townhouses and small apartment buildings and ends at two Riverside South high-rises (220 and 240 Riverside Boulevard). These older buildings along West 71st Street are generally well-maintained and, along with a streetscape containing street trees and planters, present an attractive residential environment. The historic townhouses in particular show signs of recent restoration. This area generally contains a more active pedestrian environment than the area to the south, due to its proximity to the subway station and retail corridor along West 72nd Street. Retail conditions along West 72nd Street are generally healthy, with a clean, well-maintained streetscape and few vacant storefronts.

The area immediately adjacent to the Riverside South site to the south of the Amsterdam Houses (the blocks fronting on West End Avenue between West 59th Street and West 61st Street) is a less well-established residential area. However, as a result of recent redevelopment this area has become a more residential neighborhood. These blocks contain four large-scale apartment towers built in the last decade (10 West End Avenue, 555 West 59th Street, 243 West 60th Street, and the Hudson Condominium at 225 West 60th Street) as well as an extension of the Abraham Joshua Heschel School at 246 West 61st Street. These buildings are all built in a contemporary architectural style similar to the Riverside South buildings (see Photograph 3 on **Figure 3C-7b**). The streetscape surrounding these new buildings is generally well maintained, with recently restored sidewalks and plantings. The block immediately to the south of the Riverside South site contains the Con Edison Power House, a landmarked generating plant dating from 1904.

Outside of the area immediately adjacent to the Riverside South site, the ¼-Mile Study Area features a similar development pattern, with an established residential area north of West 59th Street and a more commercial area with a growing residential component south of West 59th Street. North of West 72nd Street, West End Avenue and Riverside Drive are major residential corridors containing large apartment buildings The area along Amsterdam Avenue contains the eastern portion of the Lincoln Tower Apartments and Amsterdam Houses campuses as well the western portions of two major institutional campuses (Fordham University Law School and the Lincoln Center for the Performing Arts) and other major community facilities (such as Roosevelt Hospital). Due to these institutions and the retail corridors along Amsterdam Avenue and Broadway, as well as nearby subway stops, this area features particularly strong pedestrian activity.

In the Clinton area south of West 59th Street and the Con Edison Power House that is immediately adjacent to the Riverside South site, commercial uses are more prominent, including a television production studio and several car dealerships. However, this area has undergone substantial redevelopment that has introduced more residential and community facility uses. This includes the Helena Condominium at 601 West 57th Street and an extension of the John Jay College of Criminal Justice on the east side of West End Avenue (known as 11th Avenue south of West 59th Street) between West 58th Street and West 59th Street. Additional redevelopment is expected to occur on the blocks west of West End Avenue/11th Avenue between West 56th Street and West 58th Street: one project, 625 West 57th Street, is currently under construction, and a second project, 606 West 57th Street, is undergoing public review. Both projects would introduce new high-rise apartment buildings with ground level retail.

While the main residential component of the Upper West Side is centered to the north and east closer to the subway, the neighborhood has generally been extended to the west of Amsterdam Avenue, both as a result of Riverside South and independent redevelopment projects. Several of

View northeast along West End Avenue from West 59th Street **3**

Representative Views Adjacent to Riverside South
Figure 3C-7b

these projects, such as those located along West End Avenue between West 59th Street and West 61st Street, are immediately adjacent to the Riverside South site, suggesting that the Riverside South project has not adversely affected these areas but have rather improved conditions and spurred additional development. The area is not fully developed—in particular, several of the retail facilities located in the newer buildings remain untenanted—and pedestrian activity is generally low, but reflects a high level of recent investment.

Control Area

The ¾-mile Control Area includes a large portion of the Upper West Side and Clinton neighborhoods (extending from West 86th Street to West 44th Street), with a portion located within the northern Midtown area generally located east of Eighth Avenue below Central Park. The Upper West Side portion of the Control Area is similar to the ¼-Mile Study Area, containing predominantly residential uses, with smaller walk-up buildings located in the midblock areas and high-rise apartment buildings located along the avenues, mostly dating from the pre-war construction boom. This includes the luxury high-rises along Central Park West, one of the most expensive and desirable residential areas in the city. The area near Columbus Circle (generally between West 58th Street and West 66th Street) also contains a high concentration of more recently built high-rise apartment buildings dating from the urban renewal era that introduced the major institutional campuses to the area (Lincoln Center for the Performing Arts and Fordham Law School) and a later construction boom in the 1980s and 1990s. The most recent major project within this portion of the Control Area is the Time Warner Center, an approximately 2.8 million gsf building consisting of two towers with a multi-story atrium base and containing a multi-level shopping center, office space, hotels, and residential condominiums. Time Warner Center was built on the site of the former New York Coliseum on the western side of Columbus Circle between West 58th Street and West 59th Street. As in the ¼-Mile Study Area, commercial uses are limited in the Upper West Side portion of the Control Area, and are predominantly local retail facilities located along the avenues and West 72nd Street, with several larger national retail chains located along Broadway in the area of Columbus Circle.

The Clinton portion of the Control Area contains a mix of uses reflecting the shifting development patterns that have occurred in the area in the 20th Century. Between Eighth Avenue and Tenth Avenue, the area is predominantly residential with both walk-up buildings and larger apartment buildings dating from the pre-war period, a reflection of the original Clinton neighborhood (also known as Hell's Kitchen) that developed around the Hudson River docks and manufacturing uses located farther to the west. The area west of Tenth Avenue contains a higher concentration of commercial uses, particularly office buildings, television production studios, and auto-related businesses located along Eleventh Avenue. However, the area has undergone considerable redevelopment with high-rise residential buildings in the last decade, particularly in the area near DeWitt Clinton Park (between West 52nd Street and West 54th Street), including luxury developments such as the Mercedes House. This area also contains the Control Area's only public housing development—Harborview Terrace, a 377-unit complex built in 1977.

The portion of the Control Area located east of Eighth Avenue extends into a portion of the Midtown central business district and contains a higher concentration of commercial uses, particularly office buildings. The northern portion of this area, near Central Park South, is similar to Central Park West, with predominantly luxury apartment buildings. Several other larger apartment buildings similar to the buildings located near Columbus Circle are located

along Eighth Avenue. The remainder of this portion of the Control Area is predominately commercial, particularly office buildings and large hotels.

Because the ¼-Mile Study Area and a large portion of the Control Area are predominantly residential, this assessment focuses on the potential impact of Riverside South construction activities on the residential market (rental prices and sale prices of condominium units and co-op units). The main retail corridors, particularly those located along Amsterdam Avenue and Broadway, are several blocks to the east of the Riverside South site and are outside of the area that has been affected by construction activities. Construction at the Riverside South site would not have affected pedestrian circulation or the streetscape environment along these corridors.

DEMOGRAPHIC AND HOUSING INDICATORS

Population

As discussed above, portions of both the ¼-Mile Study Area and Control Area have undergone significant redevelopment with residential uses since 1990, particularly high-rise apartment buildings. This has resulted in both population growth and the introduction of more affluent residents to the area. As shown in **Table 3C-10**, population in the ¼-mile Study Area increased by 32 percent between 1990 and 2006-2010, from 21,615 in 1990 to 28,590 in 2006-2010. While a large proportion of this population growth is attributable to the Riverside South project itself, population growth on blocks immediately surrounding Riverside South was also substantial. For example, population in Census Tract 147, which does not contain any of the Riverside South development, increased by 1,179 people (171 percent) between 1990 and 2006-2010.

Table 3C-10
Riverside South, Population Growth

Area	Population			Percent Change (1990 to 2006-2010)
	1990	2000	2006-2010	
¼-Mile Study Area	21,615	24,840	28,590	32%
Control Area	97,291	97,264	100,436	3%

Note: The Riverside South development site is included in the ¼-Mile Study Area.
Source: Geolytics, Neighborhood Change Database

As shown in **Table 3C-10**, population growth in the Control Area was lower than in the ¼-Mile Study Area, in both absolute and relative terms.[1] This is consistent with residential development patterns in the area—a general extension of residential uses from the more established residential neighborhoods in the east towards the west. The Control Area was already an established residential neighborhood before 1990, particularly north of West 59th Street, and saw relatively little new development between 1990 and 2006-2010. The highest level of residential redevelopment in the Control Area has occurred on the far west side of the Clinton neighborhood along Eleventh Avenue; however, this redevelopment has been relatively recent, with several large residential buildings opening since 2005, therefore it is likely that this residential population is not fully captured by 2006-2010 Census data.

[1] The ¾-mile control area includes 14 Census Tracts (129, 133, 135, 137, 139, 145, 149, 153, 157, 161, 163, 165, 167, and 171).

Housing Vacancy

Throughout the ¼-Mile Study Area, housing vacancies were steady between 1990 and 2000, while, as shown in **Table 3C-11**, the Control Area had a higher vacancy rate in 1990 and subsequently a greater drop between 1990 and 2000. By 2000, vacancy rates were comparable in the ¼-Mile Study Area and the Control Area. Between 2000 and 2006-2010, vacancy rates in both the ¼-Mile Study Area and Control Area increased sharply, likely the result of the depressed housing market caused by the recent recession. By 2006-2010, the vacancy rate in the ¼-Mile Study Area was slightly lower (approximately one percentage point) than the vacancy rate in the Control Area.

Table 3C-11
Riverside South, Housing Vacancy

Area	Vacancy Rate		
	1990	2000	2006-2010
¼-Mile Study Area	9.5%	9.4%	15.7%
Control Area	11.6%	9.0%	16.8%

Note: Census Tract 147 had only 399 housing units in 1990, all of which were occupied. The Riverside South development site is included in the ¼-Mile Study Area.
Source: Geolytics, Neighborhood Change Database

Median Gross Rent

Median gross rent in the ¼-Mile Study Area almost doubled between 1990 and 2006-2010. This increase was due in part to the introduction of luxury rental units within the Riverside South development. However, it is notable that the largest relative increase in median gross rent (281 percent) occurred in Census Tract 147 (bounded by West 61st Street, Amsterdam Avenue, West 58th Street, and West End Avenue), which does not include any portion of the Riverside South development site. This indicates that as Riverside South was being developed, areas immediately surrounding the development site were also being solidified as desirable places to live. As shown in **Table 3C-12**, the Control Area consistently had higher median gross rents than the ¼-Mile Study Area, likely the result of the Control Area containing more established upscale residential areas such as Central Park West. However, the Control Area saw a slower rate of growth in median gross rents likely due to lower intensity of residential development between 1990 and 2006-2010. As a result of these differing rates of growth, by 2006-2010 median gross rents in the ¼-Mile Study Area were closer to the median gross rent of the Control Area (75 percent of the Control Area's median gross rent in 1990 compared with 93 percent in 2006-2010). This suggests that, between 1990 and 2006-2010, the ¼-Mile Study Area developed into a more desirable residential area commanding higher rents approaching levels found in more established residential areas located in the Control Area.

Table 3C-12
Riverside South, Median Gross Rent

Area	Median Gross Rent[1,2]			Percent Change (1990 to 2006-2010)
	1990	2000	2006-2010[4]	
¼-Mile Study Area[3]	$543	$978	$1,602	195%
Control Area	$722	$1,237	$1,727	139%

Notes: 1. Dollar values have not been adjusted for inflation.
2. The median monthly gross rent represents a weighted average of the median monthly gross rent of all the census tracts in a given area.
3. The Riverside South development site is included in the ¼-Mile Study Area.
4. One census tract in the ¼-Mile Study Area and three census tracts in the Control Area exceed the upper limit for median monthly gross rent in the cited databases, and are therefore rounded down to $2,001. These adjustments would not be expected to substantially alter the overall median monthly gross rent in the ¼-Mile Study Area or Control Area.

Source: Geolytics, Neighborhood Change Database

Median Household Income

As shown in **Table 3C-13**, the median household income in the ¼-Mile Study Area increased by 143 percent between 1990 and 2006-2010. In comparison, the median household income in the Control Area increased by 129 percent between 1990 and 2000.

Table 3C-13
Riverside South, Median Household Income

Area	Median Household Income[1,2]			Percent Change (1990 to 2006-2010)
	1990	2000	2006-2010	
¼-Mile Study Area[3,4]	$39,488	$65,026	$95,824	143%
Control Area[3]	$45,415	$75,437	$104,033	129%

Notes: 1. Dollar values have not been adjusted for inflation.
2. The 2006–2010 data are based on ACS, which collects data throughout the period on an on-going, monthly basis and asks for respondents' income over the "past 12 months." The 2006-2010 data therefore reflect incomes over 2006 and 2010. The 1999 data are based on Census 2000 data, which reflect income over the prior calendar year (1999).
3. The median household income represents a weighted average of the median household incomes of all the census tracts in a given area.
4. The Riverside South development site is included in the ¼-Mile Study Area.

Source: Geolytics, Neighborhood Change Database

Over the course of the Riverside South construction period, the ¼-Mile Study Area generally experienced greater increases in population, median gross rent, and household income than the Control Area, and as of 2006-2010, the housing vacancy rate was lower in the ¼-Mile Study Area compared with the Control Area. These data are not indicative of disinvestment in the ¼-Mile Study Area over the course of the Riverside South construction period.

RESIDENTIAL PROPERTY VALUES

Existing Conditions

Rental Rates

Based on current online listings annual residential rents within the ¼-Mile Study Area (median value of $62.65 per square foot) are slightly below annual rents within the Control Area (median value of $64.54 per square foot).[1] Listed rents in the ¼-Mile Study Area include a number of units within Riverside South buildings, which are predominantly rental buildings. These units are newer than the general housing stock within the remainder of the ¼-Mile Study Area and generally feature a higher level of residential amenities, including waterfront views that command higher rents. Currently listed Riverside South units have median annual rents of $64.41 per square foot; current listings for residential units in the ¼-Mile Study Area but outside of Riverside South indicated a median annual rent of $59.48 per square foot. Nonetheless, the median annual rent within the study is high compared with the wider residential area. As of 2011 average annual rents within the Upper West Side ranged from $47.08 per square foot to $55.01 per square foot (depending on unit size), and average annual rents within the Midtown West area ranged from $48.50 per square foot to $56.02 per square foot.[2]

Sales Prices

Based on recent listed sales, sale prices for condominium units within the ¼-Mile Study Area are roughly comparable to sale prices within the Control Area (see **Table 3C-14**). The median sale price for condominium units sold in the ¼-Mile Study Area between December 2012 and December 2013 was $1,382 per square foot, compared with a median sale price of $1,319 per square foot in the Control Area.[3] In general, the recent sale prices for condominium units in the ¼-Mile Study Area are in line with 2012 market rates for the wider Upper West Side[4] and Clinton[5] neighborhoods, according to data compiled by Douglas Elliman, a major residential real estate brokerage. In the Upper West Side, the average sale price for a condominium unit was $1,497 per square foot, while the average sale price for the Clinton area was slightly lower ($1,262 per square foot). As shown in **Table 3C-14**, average sale prices for both the ¼-Mile Study Area and Control Area were toward the higher end of the range of sale prices within between these neighborhoods.

---

[1] Based on online listings on Streeteasy.com. Accessed December 2013.

[2] CitiHabitats, "The Black & White Report, Year-End 2011." The Upper West Side is defined as the area from West 59th Street to West 110th Street between Central & Riverside Parks.

[3] Based on online listings on Cityrealty.com. Accessed December 2013.

[4] Defined as the area bounded by West 116th Street, Central Park West, West 57th Street, and the Hudson River.

[5] Defined as the area bounded by West 57th Street, Avenue of the Americas, West 34th Street, and the Hudson River.

Table 3C-14
Riverside South, Median and Average Condominium Sale Prices

Area	Median Sale Price (per sf)	Average Sale Price (per sf)
¼-Mile Study Area	$1,382	$1,417
Control Area	$1,319	$1,436
Upper West Side	—	$1,497
Midtown West/Clinton	—	$1,262

Sources: Cityrealty.com; Elliman Report, Manhattan Decade 2003-2012

Based on recent listed sales, co-op units within the ¼-Mile Study Area have slightly lower sale prices than co-op units within the Control Area, with a median sale price of $766 per square foot, compared with a median sale price of $900 per square foot in the Control Area.[1] The median sale price in the Control Area is influenced by a number of larger units that feature particularly high sale prices. Similarly, the Control Area contains a luxury building (200 Central Park South) that featured a number of very high-priced unit sales, including sales worth $2,000 per square foot and $2,417 per square foot. While sales in 200 Central Park South represents only 5 percent of overall co-op unit sales in the Control Area (nine sales out of 177 total), it represents over a quarter of the sales worth $1,200 per square foot or more (seven sales out of 27 total). Therefore, the difference in median sale prices does not necessarily reflect a strong difference in market value for co-op units within the ¼-Mile Study Area as compared with the Control Area, where sale prices are inflated by outlier luxury buildings. As indicated in **Table 3C-15**, the recent co-op sales within the ¼-Mile Study Area are generally in line with sales for the Riverside Drive/West End Avenue corridor,[2] with the difference largely driven by the for the lack of larger units (three or more bedrooms) recently sold in the ¼-Mile Study Area.

Table 3C-15
Riverside South, Recent Co-op Sales

Unit Size	¼-Mile Study Area Median Sale Price (per sf)	¼-Mile Study Area Average Sale Price (per sf)	Riverside Drive/West End Avenue Corridor Average Sale Price (per sf)
Studio	$727	$725	$730
1 Bedroom	$765	$786	$812
2 Bedroom	$980	$1,023	$965
3 Bedroom	N/A	N/A	$1,142
4+ Bedroom	N/A	N/A	$1,522
All	$766	$826	$931

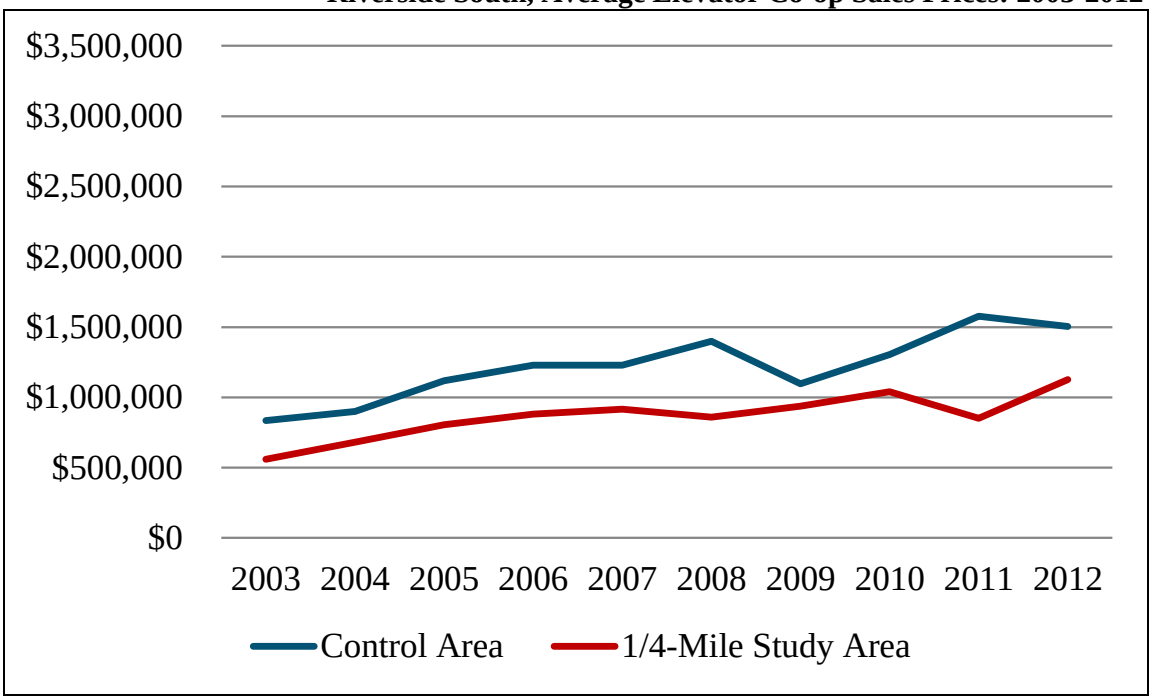
Sources: Cityrealty.com; Elliman Report, Manhattan Decade 2003-2012

[1] Based on online listings on Cityrealty.com. Accessed December 2013.

[2] Defined as the area bounded by West 116th Street, West End Avenue, West 57th Street, and Riverside Drive.

As shown in **Figure 3C-8**, co-op sale prices within the ¼-Mile Study Area are generally lower than co-op sale prices within the Control Area; average sale prices in the ¼-Mile Study Area between 2003 and 2012 ranged from approximately $560,000 to $1.1 million, while average sale prices in the Control Area ranged from approximately $830,000 to $1.5 million. This is likely a reflection of the predominant housing stocks found in the respective locations. The Control Area contains a concentration of older buildings in prime locations that have been converted to coops and command high sale prices, including clusters of older co-op buildings along the particularly desirable Riverside Drive and Central Park West corridors. The ¼-Mile Study Area contains a smaller proportion of co-op buildings, which are generally located in a less established residential area (the area north of West 66th Street and west of Amsterdam Avenue).

Figure 3C-8
Riverside South, Average Elevator Co-op Sales Prices: 2003-2012



Note: Dollar values have not been adjusted for inflation.

Source: ACRIS

Historic Trends

Although a large portion of the ¼-Mile Study Area contains rental buildings in close proximity to Riverside South construction, there is no indication based on available data that the project has resulted in depressed rental rates in the surrounding area. According to one broker familiar with the area, Riverside South has had a generally positive effect by "shoring up" the area as a desirable residential neighborhood. The broker cited the Rushmore condominium (80 Riverside Boulevard) as one particularly notable example, as the building included a new public open space resource located between West 63rd Street and West 64th Street that serves as an amenity to other nearby residential buildings. The broker also cited the recently announced construction of a new facility for the Collegiate School on a portion of the remaining undeveloped Riverside

South land, located between West 61st Street and West 62nd Street, as another example of a public amenity introduced through the project that will likely have a positive influence on the surrounding area's desirability.

The broker identified one building in the area surrounding the Riverside South site where complaints of disruptions during construction were common: 10 West End Avenue, a recently built residential building located on the east side of West End Avenue between West 59th Street and West 60th Street, opposite the ongoing construction of the last Riverside South parcel. However, these reports of disruptions (such as vibrations from construction activities or the expected loss of waterfront views), do not appear to have suppressed rental rates in the building. Currently listed rental units in 10 West End Avenue range from $3,350 per month for a one-bedroom unit to $22,950 per month for a four-bedroom unit. These rents are higher than rents in the building listed in 2008, prior to the beginning of major construction activities on the adjacent Riverside South parcel. Based on the *Riverside Center Final Supplemental Environmental Impact Statement (FSEIS)*, 2008 rents for units in 10 West End Avenue ranged from $3,000 per month to $18,000 per month.[1] Furthermore, the median annual rental value of the currently listed units in 10 West End Avenue is $61.30 per square foot, which is generally in line the remainder of the ¼-Mile Study Area (excluding Riverside South units). Therefore, there is no indication that issues of disruption relating to Riverside South have led to depressed rents.

Available data from the ACRIS database confirms that recent construction on the Riverside South site has not resulted in depressed sale values in condominium buildings in close proximity to the site.

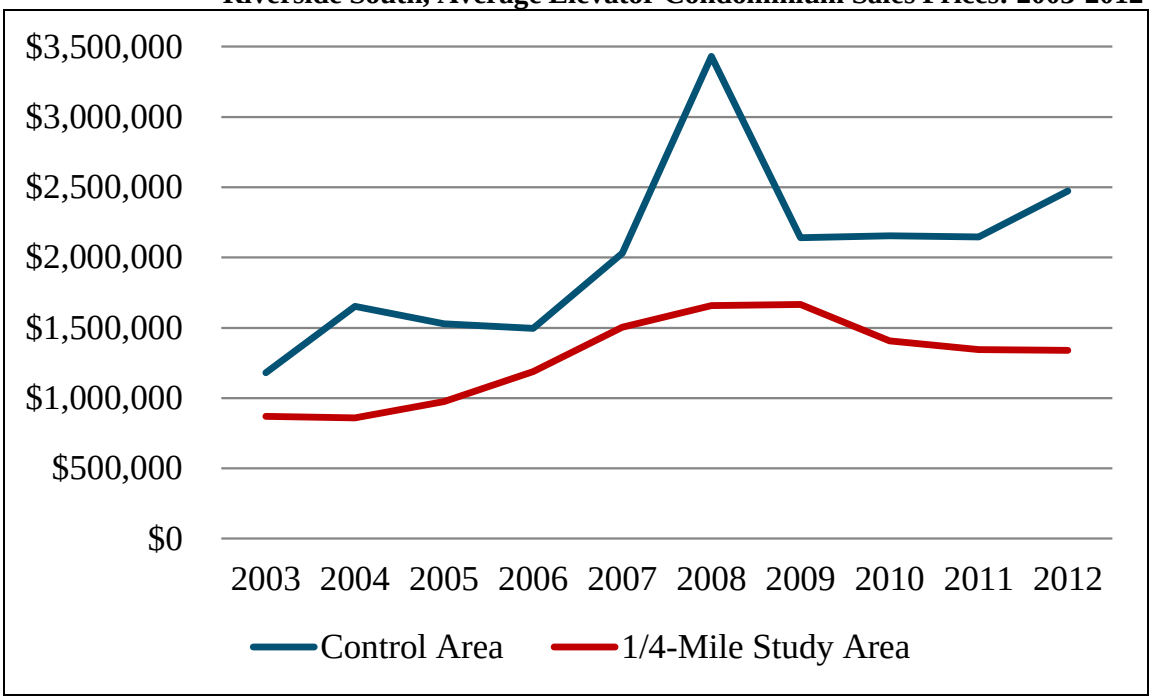
As shown in **Figure 3C-9**, condominium sale prices were higher in the Control Area than in the ¼-Mile Study Area during the previous decade, and beginning in 2007 the Control Area experienced a price spike that resulted in an even greater difference in overall average prices. Since 2007, sale prices have remained relatively flat within the ¼-Mile Study Area. The recent price spike within the Control Area can be largely attributed to the influence of a number of particularly high-end condominium buildings that have opened within the Control Area during this period. In particular the Time Warner Center condominium (25 Columbus Circle) featured a large number of high-priced sales beginning in 2008, including a $24 million sale in 2008 and $37 million sale in 2009. While sale prices within the ¼-Mile Study Area did not keep pace with sales prices within the Control Area, the general trend, including a decline followed by a period of relatively flat prices as result of the recent recession, is similar. This suggests that sale prices within the ¼-Mile Study Area have predominantly been driven by real estate trends rather than unique local conditions.

The potential effect of Riverside South construction on local condominium sale prices can also be assessed by examining sale trends for individual buildings adjacent to the project site. For example, the Adagio condominium (239-243 West 60th Street) featured recent sales of between $1,150,000 and $1,575,000[2]; this was similar to the range of sale prices in the building (between $895,000 and $2,900,000) as of 2008 as reported in the *Riverside Center FSEIS.* Recent sales of

[1] "Socioeconomic Conditions," *Riverside Center FSEIS*, 3-15.

[2]Cityrealty.com. Accessed December 2013.

Figure 3C-9
Riverside South, Average Elevator Condominium Sales Prices: 2003-2012



Note: Dollar values have not been adjusted for inflation.

Source: ACRIS

condominium units at 10 West End Avenue (between $1,500,000 and $3,700,000) are also similar to 2008 prices (between $750,000 and $5,000,000). A broker familiar with the area cited another recently built condominium building, the Element condominium at 555 West 59th Street, that has had a high volume of recent sales: current listings include units valued at $1,175,000 and $3,495,000, which is generally in line with recent sales in other nearby buildings. Therefore, there is no indication that construction on the Riverside South site, either in the northern portions of the site that were developed earlier or the southern portion where construction is ongoing, has had a negative impact on condominium sale prices in the surrounding area.

Although there is a difference in sale prices between the ¼-Mile Study Area and the Control Area, **Figure 3C-8** also suggests that co-op sales within the ¼-Mile Study Area since 2003 have generally followed the same pattern as co-op sales within the Control Area, with a gradual growth interrupted by the recent recession.

Data are not available for pre-2003 sale prices, which would reflect the period where Riverside South contruction activities would most likely have an effect on co-op sales (as described above, co-op buildings within the ¼-Mile Study Area are generally located above West 66th Street, where the majority of Riverside South construction occurred before 2003). Market reports for the Riverside Drive/West End Avenue corridor, a reasonable indicator of market conditions within the ¼-Mile Study Area as shown by the more recent market comparison, show a steady

growth in sale prices for the pre-2003 period (from an average of $287 per square foot in 1997 to an average of $629 per square foot in 2002).[1] Furthermore, a broker familiar with the area suggested that the overall effect of construction within Riverside South has been consistent throughout the construction period, and that construction-related disruptions were no more frequent or noticeable in the pre-2003 period when co-op prices would have experienced the most significant effect than during more recent construction activities. Therefore, there is little evidence that suggests that co-op sale prices within the ¼-Mile Study Area deviated from the pattern of overall growth seen in the rental and condominium sales markets, and no indication that Riverside South construction had a substantial negative effect on co-op sale prices.

The construction period of the Riverside South project coincided with a period of substantial redevelopment within the ¼-Mile Study Area including the construction of high-density residential buildings. The character of the neighborhood changed during this time as the established residential portion of the Upper West Side began to expand to the area west of Amsterdam Avenue, resulting in new residential buildings such as 10 West End Avenue and 555 West 59th Street. The 2001 *West 57th Street Rezoning Project FEIS* noted that "development that was once concentrated along Broadway near Lincoln Center moved west." The 2001 *West 57th Street Rezoning Project FEIS* also suggested that the residential redevelopment had resulted in a higher level of pedestrian activity in the area along West End Avenue. The 2009 *Fordham University Lincoln Center Master Plan FEIS* noted that the trend of high-density residential redevelopment had expanded to the Clinton area: "In recent years, the mix of uses in Clinton has become more heavily residential, as some manufacturing and smaller commercial uses have been replaced with market-rate residential development." These changes indicate that during Riverside South's construction period, the ¼-Mile Study Area saw a high level of investment with new construction, reflecting the area's growing attractiveness as a residential neighborhood. These trends are not indicative of residential disinvestment in the ¼-Mile Study Area over the course of the Riverside South construction period.

CONCLUSION – RIVERSIDE SOUTH CASE STUDY

Based on the above review of demographic and residential market data for the Riverside South ¼-Mile Study Area and Control Area, there is no evidence of disinvestment in the ¼-Mile Study Area. The overall trend for the construction period, which began in the late 1990s and is ongoing with the last project parcels currently undergoing development, was one of greater residential growth within the ¼-Mile Study Area, partly the direct result of Riverside South's introduction of new housing (particularly luxury housing) and partly the result of the area's overall increasing desirability as a residential neighborhood.

This residential growth was accompanied by the introduction of a residential population with higher household incomes and a corresponding rise in rents within the ¼-Mile Study Area. In most cases, this growth was greater than the residential growth in the Control Area, which is a generally more established residential area that experienced less residential redevelopment in recent decades. These demographic indicators suggest that the ¼-Mile Study Area became a more desirable residential destination that followed the development pattern established in the Upper West Side in previous decades.

---

[1] Elliman Report, Manhattan Decade 1994-2003.

While the residential market in the Control Area leads to a higher price level than the ¼-Mile Study Area, this can generally be attributed to established desirable residential areas (particularly Central Park West) that have a particular influence on the Control Area's overall market rates. Based on the available evidence, including rents and sale prices in buildings located adjacent to portions of the Riverside South site that are currently under construction, conditions within the ¼-Mile Study Area appear to have been influenced primarily by local real estate market trends, with no evidence of a market decline specific in the area that could be attributed to construction disturbances. Furthermore, discussions with brokers familiar with the area indicated that, on a qualitative level, Riverside South has had a largely positive effect on the real estate market in the area by redeveloping an underutilized industrial space and "shoring up" the residential element of the neighborhood. Therefore, the available evidence suggests that the extended construction period on the Riverside South development site has not led to disinvestment in the areas surrounding the development site.

BATTERY PARK CITY

INTRODUCTION

The Battery Park City Authority (BPCA) was established in 1968 under the Rockefeller administration. The 92-acre site would replace underutilized and deteriorating piers along the Hudson River, from Battery Place in the south to just beyond Chambers Street in the north, and would be built from fill excavated during construction of the World Trade Center and dredged from the harbor. After several attempts at planning and the 1973 recession, a master plan was developed in 1979 that envisioned the neighborhood as an extension of the Manhattan street grid, with residential development surrounding a commercial hub, with ample public open space. By this time, the City had transferred the title for the land to BPCA, which leased parcels to private developers and reviewed development plans for consistency with design guidelines based on the Master Plan.[1] The plan included approximately 35 acres of parkland and open space, approximately 10.2 million square feet of office space, a 500,000-square-foot commodities trading facility, retail space, a marina, two hotels, a multiplex cinema, museums, three public schools, a community center, a public library, four condominiums and approximately 8,600 residential units.[2]

TIMELINE

Plans for the development of Battery Park City were first announced in 1966. The initial landfill efforts for what would become Battery Park City were begun in the mid-1960s with the creation of a 25-acre landfill area using fill from the excavation of the World Trade Center. Expansion of this 25-acre landfill area to the full 92-acre area that would become Battery Park City began in 1972 with the demolition of the old piers and the continuation of landfill construction. The landfill construction was complete by 1976, and additional construction did not commence until 1980, with ground breaking for Gateway Plaza, a 1,712-unit residential building. Overall, construction of Battery Park City was ongoing—on one parcel or another—from 1980 until 2011.

---

[1] Battery Park City Authority website. Accessed September 12, 2013.

[2] Battery Park City Authority Annual Reviews 2010, 2011. Accessed September 12, 2013.

The World Financial Center (WFC) began construction in 1981. Twenty buildings were completed in the 1980s, including the WFC in 1985, Gateway Plaza in 1983, and much of the "Rector Park" residential neighborhood directly south of WFC. By the end of the 1980s, much of Battery Park City from Vesey Street to West Thames Street was complete. Ten additional buildings were completed in the 1990s, and 12 have been completed since 2000. In addition to the WFC, the New York Mercantile Exchange (NYMEX) trading facility and office building complex was completed in 1997, the Goldman Sachs headquarters was completed in 2009, and two hotels were completed in 2000 and 2002. In addition to Gateway Plaza, 18 residential buildings, including 3,785 residential units have been constructed in the southern portion of BPC, and 11 buildings containing 2,986 residential units have been constructed in the northern portion.[1]

The major construction of Battery Park City was completed in 2011, with the completion of development on the last two empty parcels.[2] This section considers changes in socioeconomic conditions that took place over the course of the development of Battery Park City between 1972 and 2011.[3]

STUDY AREAS

This section describes existing conditions in the ¼-Mile Study Area and the Control Area. As construction was completed on Battery Park City in 2011, the description of existing conditions provides background about the project and its current context. Effects during the construction period are examined under "Historic Trends."

¼-Mile Study Area

As shown in **Figure 3C-10**, the ¼-Mile Study Area around Battery Park City is roughly bounded by Whitehall Street, Broadway, Church Street, and Hudson Street to the east, Laight Street to the north, Route 9A/West Street to the west, and Battery Park to the south. The ¼-Mile Study Area includes portions of the Financial District and Tribeca neighborhoods of Lower Manhattan, and contains a wide mix of office, retail, residential, educational, open space, and transportation uses (see **Figure 3C-11**). The neighborhood of Tribeca is generally north of Vesey Street and the Financial District is generally south of Vesey Street.

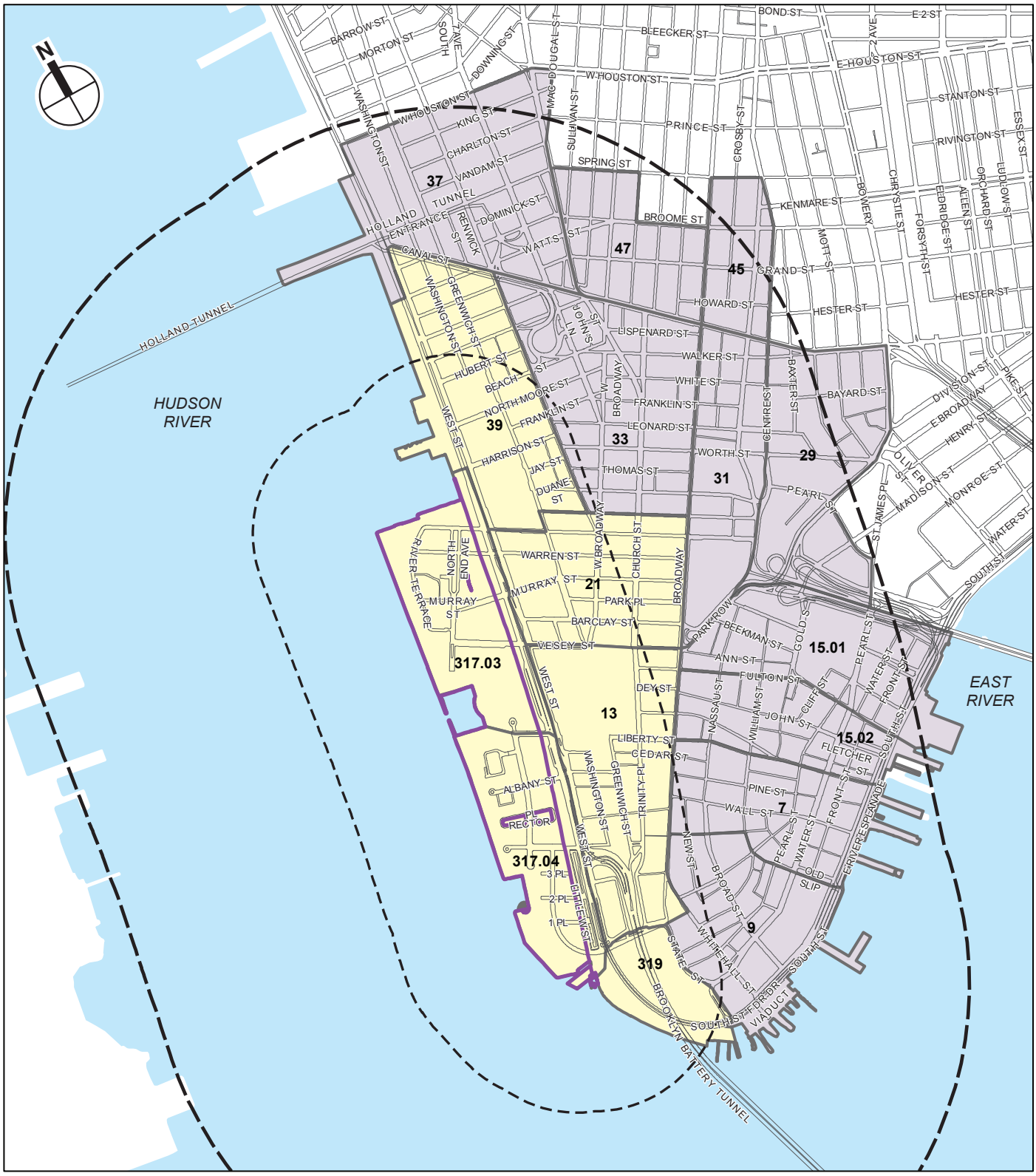
Directly adjacent to the Battery Park City site, on the east side of Route 9A/West Street is a mix of residential, office, commercial, educational, and transportation uses. As shown in the **Figure 3C-12a and Figure 3C-12b** photographs, building facades and sidewalk areas along Route 9A/West Street fronting Battery Park City are well-maintained. The building stock includes a mix of older, pre-war, buildings and recent developments. Retail vacancies in the adjacent area are few, with only one vacant storefront located at the corner of Rector Street and Route

[1] Ibid.

[2] There is currently construction activity at the World Financial Center as part of Brookfield's ongoing renovation of the retail and public space and reconfiguration of the Route 9A/West Street entrance to provide a better connection to new Lower Manhattan transportation hubs. This construction is not related to the initial build out of the BPC master plan.

[3] While demographic and housing data were collected for 1970, real estate sales data were generally available starting in the 1990s.

3.13.14



Source: Department of City Planning, MapPLUTO 13v1/AKRF, Inc. field visits

Case Study Project Site

1/4-Mile Study Area Boundary

Control Area Boundary (3/4-Mile Perimeter)

Census Tract Boundary

1/4-Mile Study Area Census Tract

Control Area Census Tract

0 2000 FEET

SCALE

SEIS • ATLANTIC YARDS ARENA AND REDEVELOPMENT PROJECT | BATTERY PARK CITY CASE STUDY

Study Areas

Figure 3C-10

3.13.14

Source: Department of City Planning, MapPLUTO 13v1/AKRF, Inc. field visits

- Case Study Project Site
- 1/4-Mile Study Area Boundary
- Control Area Boundary (3/4-Mile Perimeter)
- Residential
- Residential with Commercial Below
- Hotels
- Commercial and Office Buildings
- Industrial and Manufacturing
- Transportation and Utility
- Public Facilities and Institutions
- Open Space and Outdoor Recreation
- Parking Facilities
- Vacant Land
- Vacant Building
- Under Construction

0 1000 FEET
SCALE

SEIS • ATLANTIC YARDS ARENA AND REDEVELOPMENT PROJECT | BATTERY PARK CITY CASE STUDY

Land Use
Figure 3C-11

View northeast along West Street from 1st Place **1**

View southeast along West Street from Chambers Street **2**

Representative Views Adjacent to Battery Park City
Figure 3C-12a

View northeast along West Street from West Thames Street **3**

View southeast along West Street from Murray Street **4**

Representative Views Adjacent to Battery Park City
Figure 3C-12b

9A/West Street. New and proposed developments are also located along this adjacent strip, including the World Trade Center (WTC) site, a proposed mixed-use development at 50 West Street, the 200 Chambers Street mixed-use development, and the 99-101 Warren Street mixed-use development. These new developments are a sign of ongoing investment in the area directly adjacent to the Battery Park City site. Overall, there is no indication that long-term construction on the Battery Park City development site has adversely impacted land uses or neighborhood character in immediately adjacent areas.

As indicated above, the broader ¼-Mile Study Area contains a wide mix of office, retail, residential, educational, open space, and transportation uses. South of Vesey Street, the WTC site dominates the portion of the ¼-Mile Study Area within the Financial District neighborhood, and contains a large concentration of new and under construction office space, the National September 11th Memorial, and the WTC PATH station. South of the WTC site below Albany Street, the ¼-Mile Study Area contains the approach lanes to the Hugh L. Carey Tunnel (formerly known as the Brooklyn-Battery Tunnel), several large commercial office buildings, and former office buildings that have been converted to residential uses. For example, the former office building at 90 Washington Street, which extends to Route 9A/West Street, was converted into a luxury residential apartment building in 2003. Primary retail concentrations in the Financial District are located along Broadway and Greenwich Street south of the WTC site with a mix of national chain retailers, neighborhood services, and restaurants. These retail corridors are generally healthy and attract high amounts of pedestrian activity. Battery Park, which is at the southern tip of the Financial District, is a popular open space and tourist attraction that also generates high volumes of pedestrian activity.

North of Vesey Street, the blocks between Murray, Church, and Barclay Streets and Route 9A contain several large educational and office uses, such as the Irving Trust Operations Building at 101 Barclay Street. The buildings range from pre-war to new developments. At 245 Greenwich Street is a new 14-story Borough of Manhattan Community College (BMCC) building, which was completed in 2010. Overall, this area has a mix of modern and older buildings, all generally well-maintained.

A greater mix of uses characterizes the area north of these commercial buildings, as the commercial nature of the Financial District gives way to the more mixed use character of the Tribeca neighborhood. The blocks north of Murray Street contain a mix of residential, office, retail, and educational uses. Educational uses include the main BMCC, a seven-story structure stretching along Route 9A from Chambers Street to North Moore Street. Independence Plaza, a high-rise residential development, is located adjacent to BMCC along Greenwich Street. Other residential uses in this area include several recently-constructed residential buildings such as 275 Greenwich Street, 200 Chambers Street, and 99-101 Warren Street, which contains residences as well as several national chain retailers on the ground floor. These ground floor national chain retail uses create a well-maintained streetscape with few vacant storefronts.

The area east of Greenwich Street and north of Murray Street is characterized by residential buildings and smaller commercial buildings, some of which have been converted to high-end residential use with a variety of neighborhood service ground-floor retail including banks, restaurants, dry cleaners, and convenience goods stores. For example, 355 Greenwich Street is a former commercial building that was converted to lofts with a restaurant on the ground floor. The streets are generally well-maintained and few vacant storefronts exist in this area. Hudson and Greenwich Streets are the primary retail corridors in the Tribeca neighborhood.

Overall, the streets within the ¼-Mile Study Area are clean and lively, and create a welcoming environment for pedestrians. Pedestrian activity is high in many portions of the ¼-Mile Study Area, especially the areas surrounding points of interest and memorial sites located within and just outside of the ¼-Mile Study Area. These include Battery Park, the WTC site and National September 11th Memorial, and Century 21, a popular retail attraction. Access to ferries, like the Staten Island Ferry as well as those that go to the Statue of Liberty, are also located within and just outside of the ¼-Mile Study Area. Several subway lines, including the 1, 2, 3, R, E and PATH train provide service within the ¼-Mile Study Area, and bus lines, including the M5, M9, M20, and M22, also run through the area. Overall, the densely-woven mix of uses, visual conditions, signs of new development activity, and levels of pedestrian activity indicate that the ¼-Mile Study Area, including the properties directly adjacent to the Battery Park City development site, is a vibrant area frequented by a mix of residents, workers, and tourists.

Control Area

As shown in **Figure 3C-10**, the Control Area is roughly bounded by King and Prince Streets to the north; Mulberry and Pearl Streets and the East River to the east; Whitehall Street to the south; and Broadway, Church Street, Hudson Street, and Route 9A/West Street to the west. The Control Area includes portions of the Financial District, Tribeca, Chinatown, SoHo, and Hudson Square neighborhoods. Housing stock in the area varies widely and includes mid- to high-rise apartment buildings, tenement buildings, rowhouses, and commercial and industrial buildings that have been converted to residential use. The Control Area does not contain any public housing. Commercial office and retail uses are located throughout the Control Area, with a large concentration of commercial office uses in the Financial District, and prominent retail concentrations located along Broadway and Canal Street. The neighborhood Control Area also contains a large concentration of public facilities and government land uses near City Hall at Broadway and Chambers Street. Compared with the ¼-Mile Study Area, the Control Area contains a wider mix of land uses and lower-scale buildings.

DEMOGRAPHIC AND HOUSING INDICATORS

Population

As shown in **Table 3C-16**, the population of the ¼-Mile Study Area increased dramatically from 1970 to 2006-2010 as the area transitioned from predominantly commercial and manufacturing uses to a more mixed-use neighborhood. As of the 2006-2010 American Community Survey, the ¼-Mile Study Area [1] had a population of 24,535 people, compared with only 446 residents in 1970. As shown in **Table 3C-17**, the ¼-Mile Study Area experienced population growth of 942 percent, 158 percent, 37 percent, and 50 percent in each decade, respectively, from 1970 to 2006-2010. Population growth was particularly dramatic from 1970 to 1980, due in part to the completion of the Independence Plaza residential development in 1974, and from 1980 to 1990, due in part to completion of the first residential buildings in Battery Park City and the continued transition of Tribeca to a mixed-use neighborhood with residences.

[1] The ¼-Mile Study Area is comprised of census tracts 13, 21, 39, 317.03, 317.04, and 319.

Table 3C-16
Battery Park City, Total Population, 1970 to 2006-2010

Study Area	1970	1980	1990	2000	2006-2010
1/4-Mile Study Area	446	4,647	11,975	16,404	24,535
Control Area	14,532	17,775	20,945	28,904	37,957

Sources: Geolytics, Neighborhood Change Database; US Census Bureau, 1970 Census of Population and Housing
Note: The Battery Park City development site is included in the ¼-Mile Study Area.

Table 3C-17
Battery Park City, Percent Change in Population, 1970 to 2006-2010

Study Area	1970 to 1980	1980 to 1990	1990 to 2000	2000 to 2006-2010
1/4-Mile Study Area[1]	942%	158%	37%	50%
Control Area	22%	18%	38%	31%

Note: 1. The Battery Park City development site is included in the ¼-Mile Study Area.
Sources: Geolytics, Neighborhood Change Database; US Census Bureau, 1970 Census of Population and Housing

Similar to the ¼-Mile Study Area, the Control Area[1] also became more mixed use from 1970 to 2010. The population of the Control Area increased steadily each decade, increasing from 14,352 people in 1970 to 37,957 people in 2006-2010.

Overall, the increasing residential population from 1970 to 2006-2010 in both the ¼-Mile Study Area and the Control Area indicate that both study areas are experiencing long-term trends toward increased residential investment.

Income and Poverty

As shown in **Table 3C-18**, average household incomes increased in both the ¼-Mile Study Area and the Control Area from 1980 to 2006-2010.[2] Although incomes increased substantially in both study areas, income growth in the ¼-Mile Study Area outpaced that in the Control Area from 1980 to 2006-2010. Average household income in the ¼-Mile Study Area was $220,090 in 2006-2010, compared with $17,827 in 1980. The most dramatic increases in average household income occurred between 1980 and 1990 when the average household income increased by 441 percent in the ¼-Mile Study Area and by 180 percent in the Control Area (see **Table 3C-19**). Both study areas now contain affluent populations when compared with Manhattan and New York City overall, which had average incomes of $122,620 and $77,897, respectively, as of the 2006-2010 American Community Survey.

[1] The Control Area is comprised of census tracts 7, 9, 15.01, 15.02, 29, 31, 33, 37, 45, and 47. In 1970 Census, census tracts 51 and 53 replace tract 37.

[2] Average household income is presented in this case study because median household income was not available for 1980.

Table 3C-18
Battery Park City, Average Household Income, 1980 to 2006-2010[1,2]

Study Area	1980	1990	2000	2006-2010
¼-Mile Study Area[3]	$17,827	$96,431	$145,286	$220,090
Control Area	$19,350	$54,234	$103,100	$162,383

Notes: 1. Dollar values have not been adjusted for inflation.
2. The average household income represents a weighted average of the average household incomes of all the census tracts in a given area.
2. The Battery Park City development site is included in the ¼-Mile Study Area.
Source: Geolytics, Neighborhood Change Database

Table 3C-19
Battery Park City, Change in Average Household Income, 1980 to 2006-2010

Study Area	1980 to 1990	1990 to 2000	2000 to 2006-2010
¼-Mile Study Area[1]	441%	51%	51%
Control Area	180%	90%	58%

Note: 1. The Battery Park City development site is included in the ¼-Mile Study Area.
Source: Geolytics, Neighborhood Change Database

Current data on median household income confirm the continued concentration of affluent households within both study areas, the ¼-mile study area in particular. As of the 2006-2010 American Community Survey, median household income in the ¼-Mile Study Area ranged from $73,150 to $203,849, compared with a range of $30,962 to $161,328 in the ¾-mile neighborhood control area. In comparison, the median household income in Manhattan and New York City in the 2006-2010 American Community Survey was $64,971 and $50,285, respectively.

As household incomes increased, poverty rates in both the ¼-Mile Study Area and the Control Area have decreased. As shown in **Table 3C-20**, the poverty rate in the ¼-Mile Study Area has decreased from 13.6 percent in 1980 to 5.8 percent in 2006-2010. In the Control Area, the poverty rate decreased from 13.7 percent in 1980 to 10.4 percent in 2006-2010.

Table 3C-20
Battery Park City, Percent of Population Below Poverty Rate, 1980 to 2006-2010

Study Area	1980	1990	2000	2006-2010
¼-Mile Study Area[1]	13.6%	6.8%	6.6%	5.8%
Control Area	13.7%	13.5%	12.2%	10.4%

Note: 1. The Battery Park City development site is included in the ¼-Mile Study Area.
Source: Geolytics, Neighborhood Change Database

Overall, the data on average and median household incomes indicate that both study areas attracted increasingly affluent populations from 1980 to 2006-2010. As of 2006-2010, the average household income was higher in the ¼-Mile Study Area compared with the Control Area, and the poverty rate was lower.

Median Rent and Vacancy Rate

Table 3C-21 presents the range of median monthly gross rents for the census tracts within each study area from 1970 to 2006-2010. Median monthly gross rents have increased steadily from 1970 to 2006-2010, with both study areas now containing census tracts with median rents over $2000 (the highest amount recorded in census data). As shown in **Table 3C-21**, the range of rents in both study areas was comparable in 1970 and 1980. However, from 1990 to 2006-2010 the range of rents in the ¼-Mile Study Area was generally higher than those in the Control Area.

Table 3C-21
Battery Park City, Median Monthly Gross Rent, 1970 to 2006-2010[1]

Study Area	1970	1980	1990	2000	2006-2010
¼-Mile Study Area[2]	$47-$87	$174 - $346	$513 - $1,000+	$801 - $2,000+	$1,298 - $2,000+
Control Area	$39 - $233	$157 - $501	$311 - $1,000+	$477 - $2,000+	$719 - $2,000+

Notes: 1. Dollar values have not been adjusted for inflation.
2. The Battery Park City development site is included in the ¼-Mile Study Area.
Source: Geolytics, Neighborhood Change Database

As shown in **Table 3C-22**, vacancy rates have increased in both study areas from 1980 through 2006-2010. In general, the vacancy rates in the ¼-Mile Study Area reflect the emerging housing market in Battery Park City, the Financial District, and Tribeca since 1980, where new units have been built at a rapid pace and may not have been occupied at the time of each census. For example, the increase in vacancy rate in the ¼-Mile Study Area from 1980 to 1990 reflects the completion of large numbers of residential units in Battery Park City during the 1980s that were not fully occupied at the time of the 1990 census. In both study areas, the high vacancy rates in the 2006-2010 period likely reflect the effects of the recession in 2008, when many units either did not sell quickly or were converted to rentals.

Table 3C-22
Battery Park City, Vacancy Rate, 1980 to 2006-2010

Study Area	1980	1990	2000	2006-2010
¼-Mile Study Area[1]	6.6%	13.0%	14.1%	16.2%
Control Area	6.8%	7.2%	8.3%	14.4%

Note: 1. The Battery Park City development site is included in the ¼-Mile Study Area.
Sources: Geolytics, Neighborhood Change Database

Overall, the increase in median rents throughout the ¼-Mile Study Area indicate a strong demand for rental housing in the area, consistent with conditions in the Control Area. Although vacancy rates increased in the ¼-Mile Study Area from 1980 to 2006-2010, this increase reflects the emerging housing market in the area and is consistent with overall trends in the Control Area, which also experienced increasing vacancy rates.

As shown above, both the ¼-Mile Study Area and the Control Area have experienced long-term trends of attracting large residential populations with increasing incomes and corresponding decreases in poverty rates. Median monthly rents have increased steadily in both the ¼-Mile Study Area and the Control Area since 1970, indicating a high demand for rental apartments. These data are not indicative of disinvestment in the ¼-Mile Study Area over the course of the Battery Park City construction period.

RESIDENTIAL PROPERTY VALUES

Existing Conditions

As shown in **Table 3C-23**, rental rates are consistently high throughout Battery Park City, the ¼-Mile Study Area, and the Control Area.[1] In general, the highest rental rates are in the ¼-Mile Study Area and the SoHo/Tribeca submarket of the Control Area, which includes portions of the ¼-Mile Study Area.[2]

Table 3C-23
Battery Park City, Study Area Rental Rates[1]

Unit Type	Battery Park City (BPC) (Average Rents)[2]	¼-Mile Study Area (Rental Range)[3]	Control Area (Average Rents)[4]	
			Financial District/BPC[5]	*SoHo/Tribeca*[5]
Studio	$2,776	$2,200 - $4,400	$2,347	$2,448
1 Bedroom	$3,465	$2,500 - $9,000	$3,331	$3,783
2 Bedroom	$5,850	$3,600 - $14,500	$4,743	$6,149
3+ Bedroom	NA[6]	$5,900 - $25,000	$5,610	$8,657

Notes:
1. Dollar values have not been adjusted for inflation.
2. Data for Battery Park City are average rental rates for doorman buildings as of April 2013.
3. Data for ¼-Mile Study Area are based on active listings in December 2013.
4. Data for Control Area are 2012 average rents.
5. Data for the Financial District/BPC and SoHo/Tribeca submarkets of the Control Area include Battery Park City and the ¼-Mile Study Area.
6. NA = Not available

Sources: Data source for Battery Park City is CBRE "Real Estate Consultant's Report" provided in Battery Park City Authority Official Statement for 2013 Bond Offering Series A and B. Data source for ¼-Mile Study Area is Streeteasy.com online listings accessed 12/17/2013. Data source for Control Area is Citi-Habitats Five-Year Residential Rental Market Report 2008-2012.

Table 3C-24 presents sales data for condominiums in Battery Park City, the ¼-Mile Study Area, and the Financial District and SoHo/Tribeca submarkets of the Control Area.[3] As with rental rates, sales prices are consistently high across all study areas. The ¼-Mile Study Area and the SoHo/Tribeca submarkets of the Control Area have the highest median sales prices and prices

[1] The Control Area is made up of several distinct residential markets. Data are presented for the Financial District/BPC and SoHo/Tribeca submarkets, which most closely align with the boundaries of the Control Area.

[2] Citi-Habitats defines the SoHo/Tribeca submarket as the area bounded by West Houston Street to the north, the Hudson River to the west, Park Place and City Hall to the south, and Lafayette Street to the east. Citi-Habitats defines the Financial District/BPC submarket as the area bounded by South Street to Chambers Street between the Hudson River and the East River.

[3] This analysis relies on condominium sales data because these units comprise the majority of transactions within the study areas. Douglas Elliman/Miller Samuel defines the Financial District submarket as the area bounded by Vesey Street, Broadway, and the Brooklyn Bridge to the north; Battery Park to the south; the East River to the east; and Route 9A/West Street to the west. Douglas Elliman/Miller Samuel defines the SoHo/Tribeca submarket as the area bounded by Houston Street to the north, Vesey Street to the south, Broadway to the east, and the Hudson River to the west.

per square foot. These areas contain prime residential neighborhoods of SoHo and Tribeca, and prices are driven up by the presence of new luxury condominium buildings with unique features, amenities, or design as well as by proximity to amenities such as Hudson River Park and views of the Hudson River.

Table 3C-24
Battery Park City, Study Area Condominium Sale Prices[1,2]

Statistic	Battery Park City (BPC)[3]	¼-Mile Study Area[4]	Control Area[3,5,6]	
			Financial District	*SoHo/Tribeca*
Median Sales Price	$870,000	$1,728,480	$852,353	$2,463,000
Average Price/SF	$1,025	$1,645	$1,005	$1,443
No. of Transactions	157	278	269	359

Notes:
1. Data are for condominium sales only.
2. Dollar values have not been adjusted for inflation
3. Data for Battery Park City and Control Area are for 2012.
4. Data for ¼-Mile Study Area are based on properties sold from December 2012 through December 2013 with sales prices listed on CityRealty.com.
5. Data for Control Area are 2012 average rents.
6. Data for the Financial District/BPC and SoHo/Tribeca submarkets of the Control Area include Battery Park City and the ¼-Mile Study Area.

Sources: Data source for Battery Park City and Control Area is from *The Elliman Report: 2003-2012 Manhattan Decade*, Douglas Elliman and Miller Samuel Inc. Data for ¼-Mile Study Area is based on properties sold from December 2012 through December 2013 with sales prices listed on CityRealty.com, accessed December 12, 2013.

The lower prices in Battery Park City and the Financial District submarket reflect the fact that these areas do not have the same cachet as the prime neighborhoods of SoHo and Tribeca as well as certain disadvantages inherent in each. For example, Battery Park City is far from transit and is separated from the rest of Lower Manhattan by Route 9A/West Street, and the Financial District contains a still-emerging residential neighborhood with a large number of residential units converted from office uses, which are often less desirable than new construction.

Historic Trends

Tables 3C-25 and 3C-26 below provide historic data on median sales prices, average price per square foot and number of transactions for Battery Park City and the Financial District and SoHo/Tribeca submarkets of the Control Area. Median sales prices and average price per square foot increased dramatically in all three areas from 1993 to 2012. In addition, the number of transactions increased substantially in each area, as more active residential markets emerged over time. The most substantial increase in the number of transactions occurred in the Financial District, which had insufficient data to report on in 1993 and by 2012 had more transactions than Battery Park City. These data, along with comments provided by brokers active in the Battery Park City and Financial District markets, indicate that the residential market in the ¼-Mile Study Area lagged development within Battery Park City. According to one broker, the residential market immediately east of Route 9A did not emerge until Battery Park City was approximately half completed, and in particular, after 9/11 with the availability of Liberty Bonds.

Table 3C-25
Battery Park City
Historic Condominium Sales Price Data, 1993-2012[1,2]

Statistic	1993	2003	2012	Percent Change 1993-2003	Percent Change 2003-2012
Median Sales Price	$200,000	$330,000	$870,000	65%	164%
Avg Price/SF	$265	$558	$1,025	111%	84%
No. of Transactions	49	58	157	18%	171%

Notes: 1. Data are for condominium sales only.
2. Dollar values have not been adjusted for inflation.

Sources: *The Elliman Report: 2003-2012 Manhattan Decade* and *The Elliman Report: 1993-2002 Manhattan Decade*, Douglas Elliman and Miller Samuel Inc.

Table 3C-26
Battery Park City
Control Area: Financial District and SoHo/Tribeca
Historic Condominium Sales Price Data, 1993-2012[1,2,3]

	Financial District[4]					SoHo/Tribeca				
				Percent Change					Percent Change	
	1993	2003	2012	1993-2003	2003-2012	1993	2003	2012	1993-2003	2003-2012
Median Sales Price	NA	$490,000	$852,353	NA	74%	$257,500	$1,550,000	$2,463,000	502%	59%
Average Price/SF	NA	$622	$1,005	NA	62%	$243	$740	$1,443	205%	95%
No. of Transactions	NA	10	269	NA	2590%	52	210	359	304%	71%

Notes: 1. Data are for condominium sales only.
2. Dollar values have not been adjusted for inflation.
3. NA = Not available.
4. Data were not presented for the Financial District in 1993.

Sources: *The Elliman Report: 2003-2012 Manhattan Decade* and *The Elliman Report: 1993-2002 Manhattan Decade*, Douglas Elliman and Miller Samuel Inc.

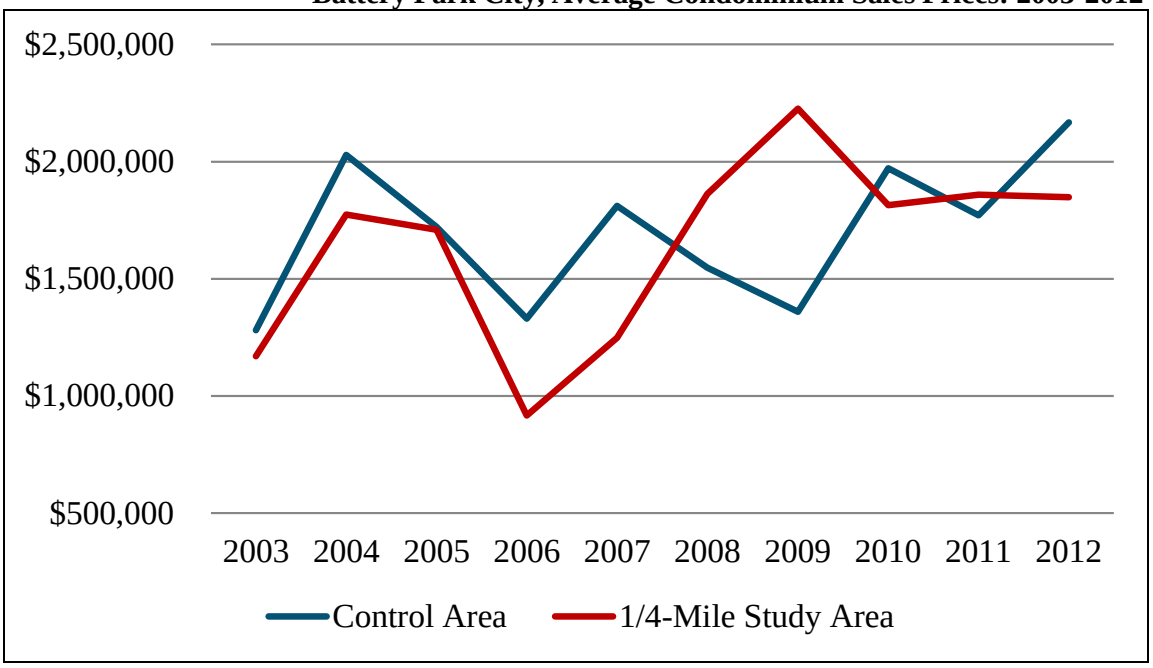
Battery Park City is situated as a self-contained neighborhood separated from the remainder of the ¼-Mile Study Area and Lower Manhattan by the physical boundary of Route 9A/West Street. Thus, it is likely that the effects of the construction of Battery Park City, as well as its broader effects on the surrounding residential property market, were buffered from the rest of Lower Manhattan by the physical separation of Route 9A/West Street. Within Battery Park City, during the construction period, unbuilt sites were usually fenced off and used for construction staging, materials storage, parking, or, occasionally, for interim recreational uses. The presence of these construction-related activities and interim uses alongside residential development did not act as a substantial impediment to investment in the area. *The New York Times* reported in 1993 that Battery Park City, although still under development, was "reminiscent of the Riverside Drive area of the Upper West Side."[1] According to the 2000 Battery Park City Fifth Supplemental EIS, "narrow streets and abundant plantings evoke a pleasant, urban character even in the midst of the area's undeveloped lots and construction staging" and the surrounding

[1] "If You're Thinking of Living In Battery Park City." *The New York Times* website. December 26, 1993. Accessed February 27, 2014.

study area (which included nearby areas of the Financial District) was characterized as a vibrant mix of uses and activities. Therefore, although Battery Park City was under construction for an extended period of time, the ongoing construction activities did not create a climate of disinvestment within Battery Park City or the surrounding area.

Figure 3C-13 below graphs the average sales price of residential condominium transactions in the ¼-Mile Study Area (excluding Battery Park City) and the Control Area from 2003 to 2012, the timeframe for which detailed property sales data are available from the ACRIS database. As shown in the figure, prices have followed similar trends in both study areas. Both study areas experienced an increase in prices from 2003 to 2004, followed by a decrease in average sales prices as the market softened in 2005 and 2006. From 2006 through 2009, prices were mixed in the Control Area, while the ¼-Mile Study Area experienced a steady increase in average sales prices. The increase in sales prices in the ¼-Mile Study Area during this time was due to sales in several new luxury condominium buildings. For example, the increase in average sales prices in 2009 in the ¼-Mile Study Area was due to a large number of sales in 101 Warren Street and 157 Chambers Street (aka 143 Reade Street, Artisan Lofts). From 2010 to 2012, average prices have held steady at around $2 million in both study areas.

Figure 3C-13
Battery Park City, Average Condominium Sales Prices: 2003-2012



Notes: Includes all classes of condominium apartments as recorded in ACRIS data. Dollar values have not been adjusted for inflation.
Source: ACRIS

Overall, the data indicate that the ¼-Mile Study Area and the Control Area experienced similar long-term trends toward increased sales prices over the last 10 to 20 years. As discussed above, residential real estate markets have emerged and matured to various degrees in Battery Park City, the Financial District, SoHo, and Tribeca since 1970, and today the ¼-Mile Study Area contains some of the most expensive residential real estate within the study areas.

COMMERCIAL PROPERTY VALUES

Table 3C-27 presents the rent per square foot for office space in Battery Park City (i.e., the WFC), the ¼-Mile Study Area, and the Control Area.[1] As shown in **Table 3C-27**, the WFC is a prime office location in Lower Manhattan and commands the highest rents per square foot of any of the study areas. The WFC contains a large portion of Lower Manhattan's post-1980 office space, and is able to command high rents because of its high-quality design; large, efficient floorplates; and waterfront location. In fact, according to the CBRE "Real Estate Consultant's Report" provided in the Battery Park City Authority Official Statements for the 2013 Bond Offering Series A and B, WFC has occupied a position at the top of the Downtown office market since its completion. Since completion of WFC, much of Battery Park City has been constructed around it, and it is apparent that this construction did not adversely affect its market position.

Table 3C-27
Battery Park City, Study Area Commercial Office Average Asking Rent Per Square Foot

Study Area	Rent/SF 2003	Rent/SF 2013
Battery Park City / World Financial Center[1]	$41.33	$59.72
1/4-Mile Study Area	$35.62	$46.30
Control Area		
City Hall Submarket	$32.92[2]	$37.01
Financial District Submarket		$41.77
Hudson Square/Tribeca Submarket	NA[3]	$56.45

Notes: 1. Battery Park City data are represented by the World Financial Center Submarket as presented in CBRE data and includes 7 buildings: 1, 2, 3, and 4 World Financial Center, the New York Mercantile Exchange (NYMEX), 200 West Street, and 7 World Trade Center. 7 World Trade Center is located outside of Battery Park City.
2. 2003 data not available for the City Hall and Financial District Submarkets individually. Data presented are for the entire Downtown Submarket, which includes all of Manhattan south of approximately Chambers and Worth Streets and is roughly approximate to the City Hall and Financial District Submarkets combined.
3. NA = Not available
Data for Battery Park City and Control Area are average asking rents as of Q2 2013. 2013 data for ¼-Mile Study Area are base rents of select closed leases from Q1 2012 to Q3 2013. 2003 data for ¼-Mile Study Area are base rents of select closed leases from Q2 2002 to Q3 2003. Dollar values have not been adjusted for inflation.

Sources: CBRE "Real Estate Consultant's Report" and office market comparables provided in Battery Park City Authority Official Statements for 2003 and 2013 Bond Offering Series A and B.

[1] The Control Area is made up of several distinct office markets. Data for the City Hall, Financial District, and Hudson Square/Tribeca submarkets are presented here. CBRE defines the City Hall submarket as the area roughly bounded by Chambers Street, Canal Street, and the Brooklyn Bridge to the north; Route 9A/West Street to the west; Vesey and John Streets to the south; and the East River to the east. CBRE defines the Financial District submarket as the area roughly south of the World Trade Center site, Vesey Street, and John Street. CBRE defines the Hudson Square/Tribeca submarket as the area bounded by Chambers Street to the south; West Broadway, Church Street, and Sixth Avenue to the east; Morton Street to the north; and the Hudson River to the west.

From 2003 to 2013, all three study areas experienced increases in office rents, with the largest increase in the Battery Park City/WFC rents. As with the residential market, these data indicate that the ¼-Mile Study Area and Control Area experienced similar trends with respect to commercial office market rents over the last 10 years.

RETAIL ACTIVITY

As part of Lower Manhattan's Financial District, retail activity in the ¼-Mile Study Area was historically service-oriented retail targeted to office workers, such as delis, restaurants, and banks. However, in recent years the growth of the Financial District and Battery Park City's residential population, increase in tourist volume and the number of hotel rooms, and the continued presence of a large number of office workers have combined to attract new retail activity to the area. In particular, new upscale retailers such as Hermes, Tiffany and Co., Thomas Pink, and Canali have rented space in the Financial District. National chain retailers have also established a presence in the ¼-Mile Study Area, particularly in the retail space at 99-101 Warren Street where Whole Foods, Bed, Bath, and Beyond, and Barnes and Noble have located. Retail rents have increased along Broadway from Battery Place to Chambers Street, the primary retail corridor in the area. Specifically, rents increased from approximately $160 per square foot in 2006[1] to $257 per square foot as of fall 2013.[2] Substantial new retail development is expected within the ¼-Mile Study Area in the next few years including 450,000 square feet of new retail in the World Trade Center and 250,000 square feet of redeveloped retail space in the World Financial Center.[3]

According to brokers active in the Lower Manhattan market, the location and character of retail in the ¼-Mile Study Area has changed as Battery Park City has developed and the Financial District has transformed into a more mixed-use neighborhood. Retail has spread west through Lower Manhattan with the build out of Battery Park City and there is now a greater density of retail uses near Route 9A/West Street. Furthermore, the character of retail has shifted from serving primarily a young professional crowd to providing a broader mix of goods and services reflecting the larger residential population in the area.

SEPTEMBER 11, 2001

Property values and land use conditions within Battery Park City and the surrounding area were greatly affected by the events of 9/11. The World Trade Center (WTC), which was adjacent to Battery Park City, was completely destroyed by the terrorist attacks on 9/11. The Lower Manhattan office market lost approximately 13.3 million square feet of commercial office space, including over 10 million square feet on the WTC site itself. A significant number of residents and businesses were displaced by the attacks, including all the occupants of the blocks immediately to the north, south, and east of the WTC site. Within Battery Park City, the Winter Garden, the WFC, and Gateway Plaza were severely damaged. The events resulted in the loss, reduction, or relocation of hundreds of corporations and small businesses, and large amounts of retail and office space became vacant. In spite of all of this, Lower Manhattan continued to

[1] NY Observer, "Another Report, Another Rise in Manhattan Retail Rents," November 7, 2006.

[2] Real Estate Board of New York, "Retail Report, Fall 2013."

[3] Cushman and Wakefield, "Retail Revival: The Rebirth of Retail in Lower Manhattan," December 2013.

function as an important center of business, learning, culture, and residential living. The recovery of Lower Manhattan was supported by tremendous physical and financial efforts on the part of the city, state, and nation. Early recovery efforts focused on the stabilization and revitalization of the area and eliminating the blighting effect of an essentially empty, excavated space in the heart of Lower Manhattan. Government programs aimed at providing assistance to individuals affected by the events of 9/11 were established in the months following. Of particular note was the Liberty Bond Program, which consisted of approximately $1.6 billion in tax-exempt financing for multi-family rental projects within the Liberty Zone area (the area south of Canal Street, East Broadway, and Grand Street). These bonds were intended to revitalize Lower Manhattan and contributed to the development of several thousand rental apartments.[1]

Although property values and land use conditions within Battery Park City, the ¼-Mile Study Area, and Control Area were supported by the 9/11 recovery efforts, there were established positive trends existing prior to 9/11. As the data above show, there were long-term trends from 1970 through 2000 supporting the emergence of Lower Manhattan as an increasingly mixed-use neighborhood with a strong and growing residential population in Battery Park City, Tribeca, and the Financial District and steadily increasing property values.

CONCLUSIONS – BATTERY PARK CITY CASE STUDY

Overall, based on the data presented above, it does not appear that the ongoing construction of Battery Park City has had any substantial negative effect on neighborhood conditions or property values in the ¼-Mile Study Area. Since 1970, both the ¼-Mile Study Area and the Control Area have experienced long-term trends of attracting large, residential populations with high median household incomes, and have seen decreases in poverty rates. The increasing residential populations in both areas indicate an ongoing trend toward residential investment in the area. Furthermore, these data indicate a high demand for rental residences as demonstrated by the consistent growth in median monthly rent since 1970 and the consistently high rents throughout both study areas today. Both the ¼-Mile Study Area and the Control Area have experienced similar long-term trends toward increased residential condominium sales prices over the last 10 to 20 years and the ¼-Mile Study Area contains some of the most expensive residential real estate within the study areas. With respect to the commercial office market, both study areas have experienced increases in rental rates and the ¼-Mile Study Area contains the WFC, which is a prime downtown office location.

It is likely that the effects of the construction of Battery Park City were buffered from the rest of Lower Manhattan by Route 9A/West Street. However, anecdotal information supports that the development of Battery Park City has had long-term positive effects on Lower Manhattan. Battery Park City has successfully attracted a large residential population to the area and, as noted above, contributed to the emergence of a residential market along the east side of Route 9A/West Street. The large residential population in Battery Park City has also supported the more diverse retail character now emerging in the Financial District.

---

[1] "Liberty Bonds Yield: A New Downtown." *The New York Times* website. May 30, 2004. Accessed February 28, 2014.

FIRST AVENUE PROPERTIES

INTRODUCTION

The First Avenue Properties development includes four development parcels along First Avenue between East 35th and East 41st Streets in Midtown Manhattan that were sold by Con Edison to a private developer in 2004 (see **Figure 3C-14**). The development parcels, which include 616 First Avenue, 685 First Avenue, 700 First Avenue, and 708 First Avenue, had been owned by Con Edison and hosted power generating and related facilities. The 616 First Avenue parcel, which is on the east side of First Avenue between East 35th and East 36th Streets, contained the Kips Bay Steam Generating Station and fuel oil storage facility, which was demolished. The 685 First Avenue parcel, which is on the west side of First Avenue between East 39th and East 40th Streets, is a 32,365-square foot site that is part of a larger 80,677-square foot zoning lot that hosts a Con Edison substation. The 700 First Avenue parcel, which is on the east side of First Avenue between East 38th and East 40th Streets, is currently vacant, but formerly contained power generating facilities. The 708 First Avenue parcel, which is on the east side of First Avenue between East 40th and East 41st Streets, is currently vacant but formerly hosted a ten-story office building used by Con Edison. Although the property disposition to a private developer was approved in 2004 and the rezoning of the parcels to permit higher-density residential and commercial mixed-use development was approved in 2008, development has only occurred on the southernmost parcel (616 First Avenue). No development has occurred at 700 First Avenue, 708 First Avenue, or 685 First Avenue.

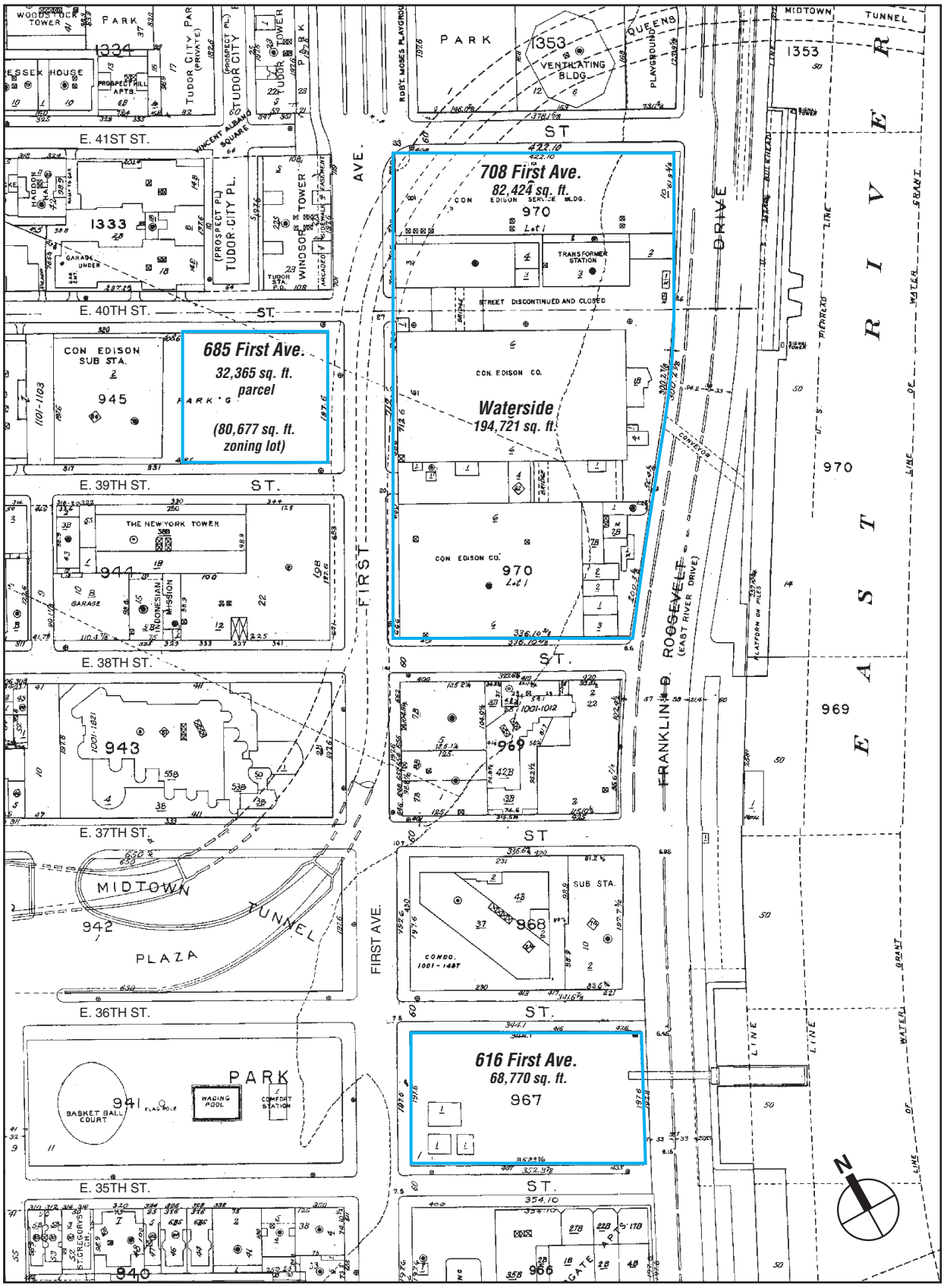
This case study evaluates whether the extended period of time during which construction has been suspended at the First Avenue Properties site has led to substantial residential or business disinvestment in the areas surrounding the development site.

TIMELINE

The property disposition of these parcels from Con Edison to a private developer was approved in 2004, and the rezoning to permit higher-density residential and commercial mixed-use development was approved in 2008. This section considers changes in socioeconomic conditions that have taken place over the course of the development of the First Avenue Properties between 2004 and 2013.

Since 2008, development has occurred only on the southernmost site (616 First Avenue). P.S. 281, The River School, is a six-story school that opened in the fall of 2013 with pre-kindergarten and kindergarten classes and will add a grade each year until it serves grades K-5. The remainder of the 616 First Avenue parcel was sold to JDS Development Group. JDS broke ground on this site in July 2013 and will build a 40-story tower and a 47-story tower that will include 800 luxury rental units. These towers are expected to be completed in 2016. As of December 2013, this site was an active construction site and was surrounded by a wood fence. The sidewalks along First Avenue and FDR Drive were passable; however, the sidewalks north and south of the development site were closed (see Photograph 1 on **Figure 3C-15**).

The remaining sites, 685, 700, and 708 First Avenue remain vacant. The 685 First Avenue parcel is a clear site, covered with gravel and surrounded by a fence. The site is sometimes used as a parking lot and there is a small one-story shed for parking attendants on the site. The underutilized site appeared generally in good condition with the exception of limited debris and trash that accumulated near the fence and graffiti on the eastern façade of the parking shed (see Photograph 2 on **Figure 3C-15**). The sidewalks around 685 First Avenue are passable.



Development Parcels

Site Locations
Figure 3C-14

Sidewalk north of 616 First Avenue **1**

685 First Avenue **2**

700 and 708 First Avenue **3**

Selected Views of Development Site
First Avenue Properties
Figure 3C-15

The 700 and 708 First Avenue parcels are one combined vacant site that is surrounded by a fence. Bounded by First Avenue, the FDR Drive, and East 38th and 42st Streets, the development parcels consist of three former city blocks and two demapped streets. The parcel is currently vacant and the ground surface of the site below street level and overgrown with grass, and weeds (see Photograph 3 on **Figure 3C-15**). A wire mesh fence surrounds the site on the east, west, and south sides of the site, but a wood fence surrounds the north side of the site. The wire mesh fence was in good condition; however, there were two instances of graffiti on the eastern end of the wood fence. The site is underutilized and is a barrier between First Avenue and the waterfront. All sidewalks around the 700 and 708 First Avenue parcels are passable except for the sidewalk along FDR Drive. However, there is minimal foot traffic on this side of the site.

STUDY AREAS

¼-Mile Study Area

The ¼-Mile Study Area is roughly bounded by East 48th Street to the north, the East River to the east, East 30th Street to the south, and Third Avenue to the west (see **Figure 3C-16**). The proposed development parcels are immediately surrounded by a high-density residential district with major institutional and office uses. Prominent developments in the ¼-Mile Study Area include the United Nations complex, Tudor City, Kips Bay Plaza, NYU Medical Center, the FDR Drive, the ramps and entrances to the Queens Midtown Tunnel, and the East River waterfront.

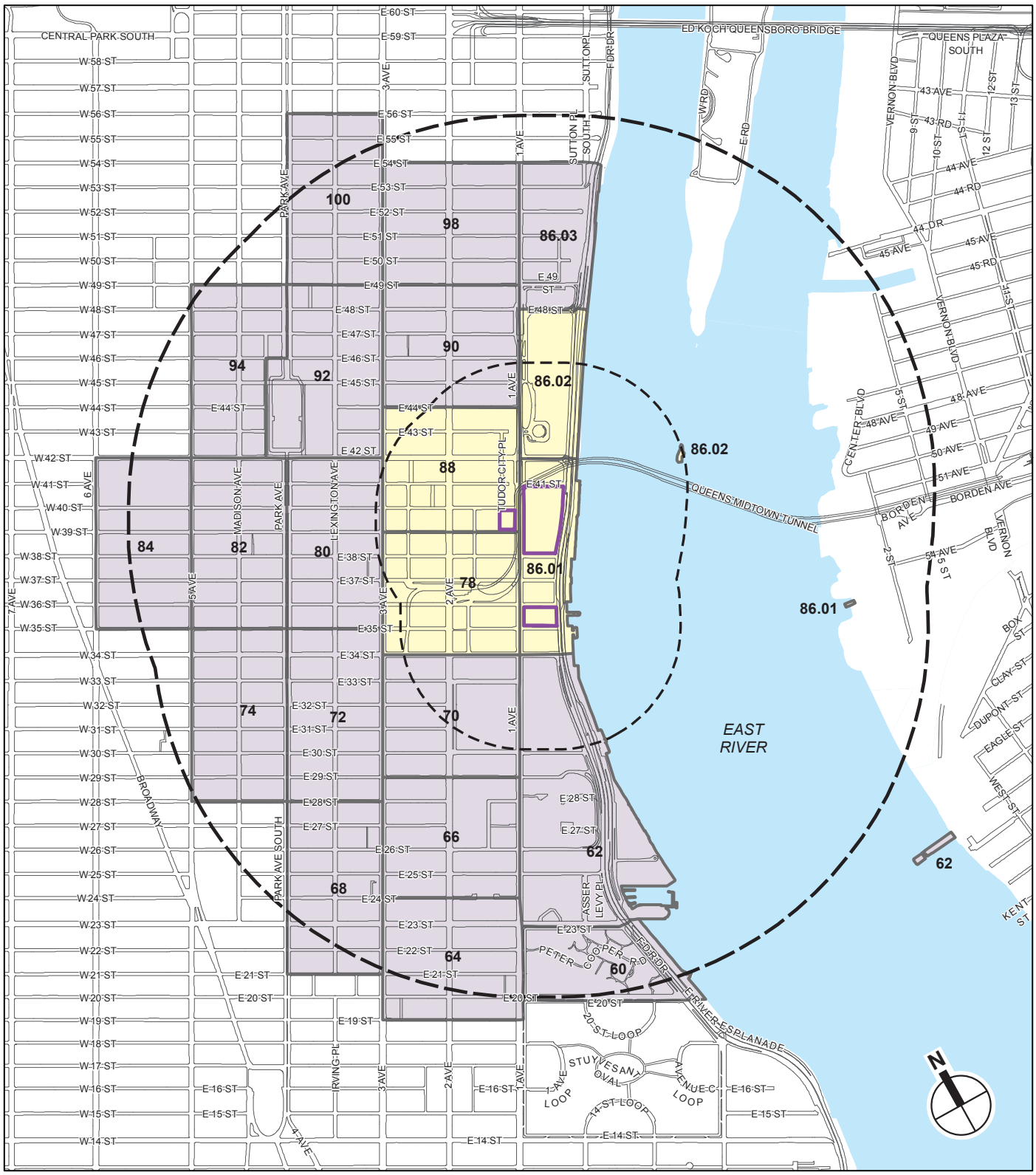
The ¼-Mile Study Area is mixed-use with primarily high-density residential, institutional, and office uses (see **Figure 3C-17**). Properties immediately adjacent to the First Avenue development sites are a mix of open space, residential, commercial, and industrial uses.

Directly north of the 685 First Avenue site is the Tudor City residential complex. This area is built at a higher elevation than the development site and is isolated from the surrounding area. While the Tudor City buildings appear well maintained, they are accessed primarily from the interior streets and there is minimal pedestrian connectivity with First Avenue or 39th Street (see Photograph 1 on **Figure 3C-18a**). South of the 685 First Avenue parcel are commercial and residential buildings that are well maintained. The 38-story New York Tower at 330 East 39th Street is a residential building that is fronted by attractive landscaping. The commercial building (671 First Avenue) also appears well maintained, but the pedestrian entrance for this building is on 38th Street (see Photograph 2 on **Figure 3C-18a**).

Directly north of the 708 First Avenue parcel is Robert Moses Playground and the approximately 100-foot-tall, windowless Queens-Midtown Tunnel ventilation structure. The western portion of this park is the location for the UN Consolidation Building, a proposed 36-story tower that will include office space for approximately 2,700 UN employees, cafeteria and related support space, and space for building support and mechanical space. Pending Uniform Land Use Review Procedure (ULURP) approval, it is expected that construction will start in 2015 and end in 2018.[1] The proposed building indicates a greater level of investment in the area adjacent to the First Avenue Properties development sites. Buildings south of the 700 First

[1] Draft Scope of Work for the Preparation of an EIS for the United Nations Consolidation Project, dated August 29, 2013.

3.13.14



Source: Department of City Planning, MapPLUTO 13v1/AKRF, Inc. field visits

Case Study Project Site

1/4-Mile Study Area Boundary

Control Area Boundary (3/4-Mile Perimeter)

Census Tract Boundary

1/4-Mile Study Area Census Tract

Control Area Census Tract

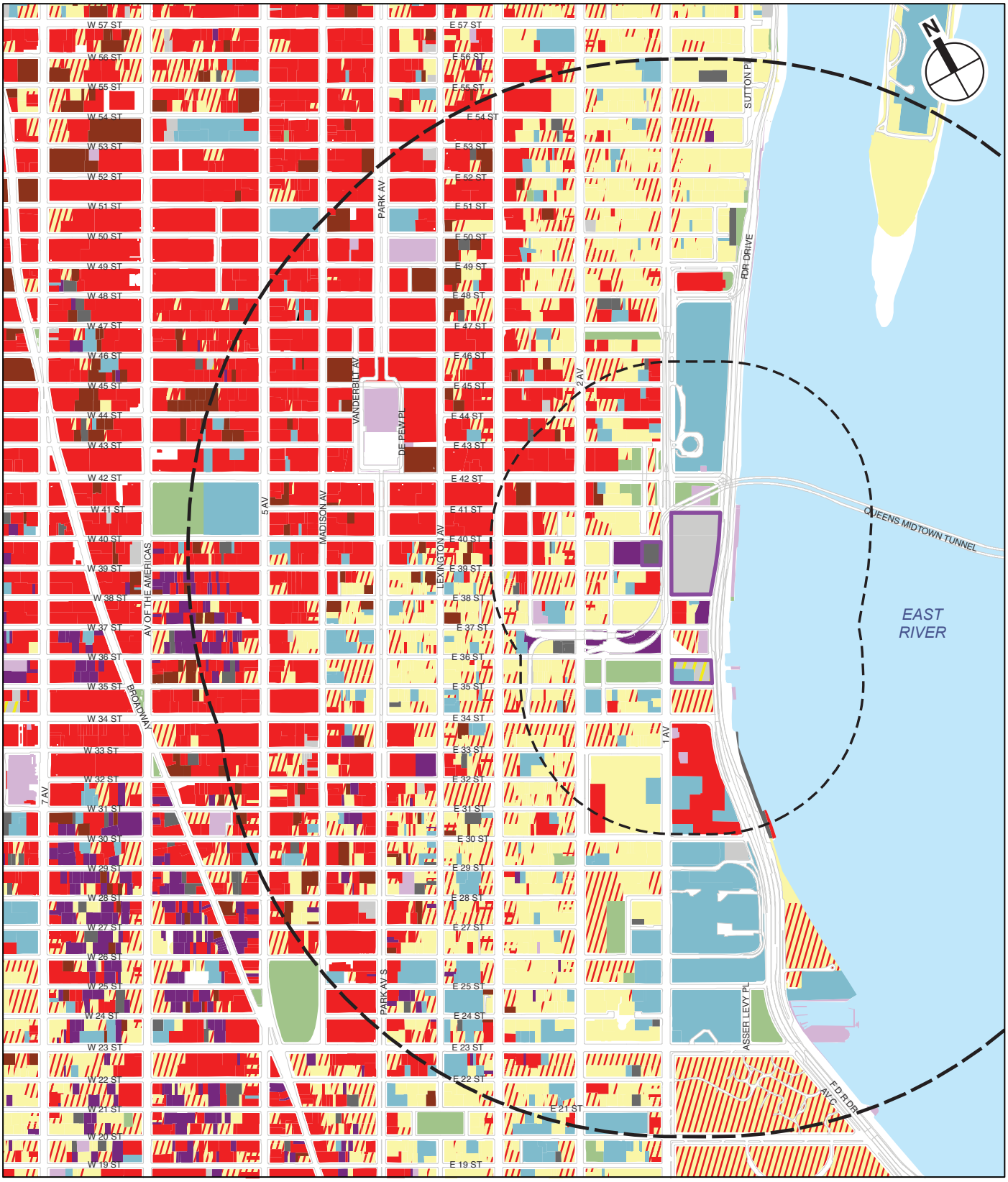
0 2000 FEET

SCALE

SEIS • ATLANTIC YARDS ARENA AND REDEVELOPMENT PROJECT | **FIRST AVENUE PROPERTIES CASE STUDY**

Study Areas

Figure 3C-16



Source: Department of City Planning, MapPLUTO 13v1/AKRF, Inc. field visits

Case Study Project Site
1/4-Mile Study Area Boundary
Control Area Boundary (3/4-Mile Perimeter)

Residential
Residential with Commercial Below
Commercial and Office Buildings
Hotels
Industrial and Manufacturing
Public Facilities and Institutions

Open Space and Outdoor Recreation
Parking Facilities
Transportation and Utility
Vacant Land
Vacant Building
Under Construction

0 2000 FEET
SCALE

Land Use
Figure 3C-17

North of the 685 First Avenue site on 40th Street **1**

South of the 685 First Avenue site on 39th Street **2**

Representative Views Adjacent to
First Avenue Properties
Figure 3C-18a

Avenue parcel are an office building, a pet welfare facility, and a building occupied by the New York City Department of Environmental Protection (see Photograph 3 on **Figure 3C-18b**).

A new school was recently constructed at the southwest corner of the 616 First Avenue site. North of the 616 First Avenue parcel is Manhattan Place Condominiums, a 37-story residential building that is fronted by a plaza (see Photograph 4 on **Figure 3C-18b**). Also north of this site is a transportation/utility building that is occupied by Con Edison. South of this site is a 35-story residential building at 606 First Avenue that is fronted by a plaza. West of the 616 First Avenue site is St. Vartan's Park, the largest park in the study area.

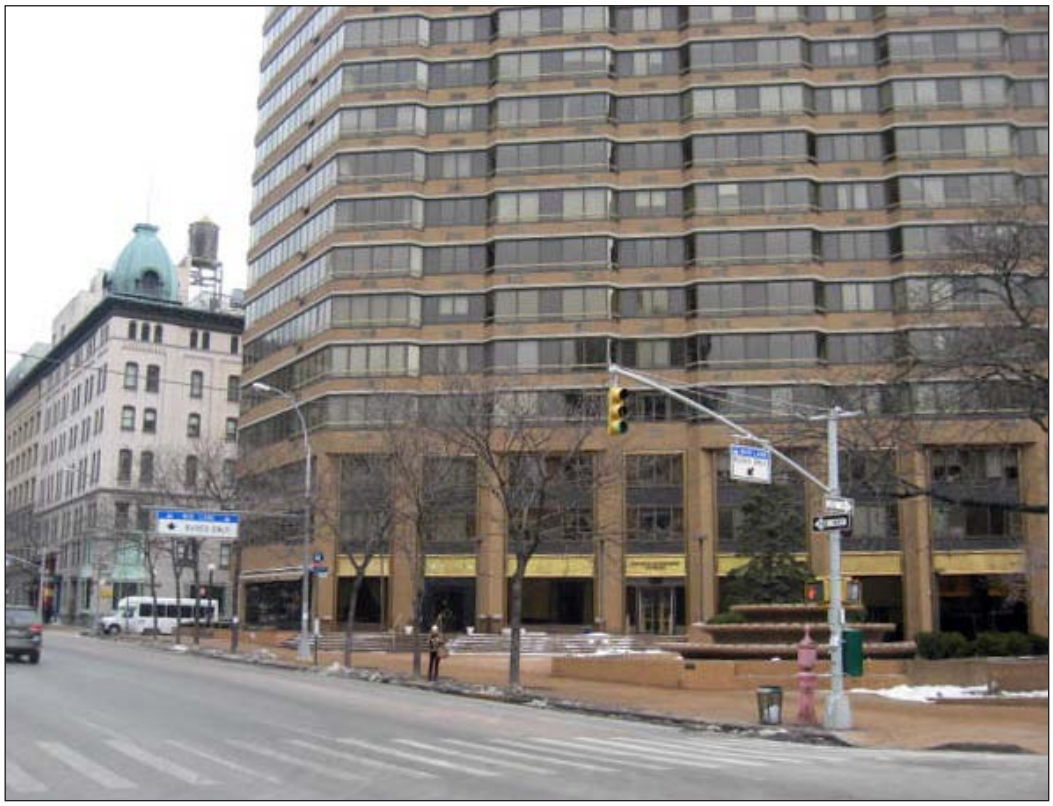
Overall, the uses that surround the First Avenue sites appeared generally well maintained, and there is no indication that the long term construction (and the period of construction inactivity subsequent to demolition of the previously existing buildings) have adversely impacted land uses or neighborhood character in directly adjacent areas or in the broader ¼-Mile Study Area. However, it is noted that pedestrian activity east of First Avenue is generally low.

While the housing stock immediately adjacent to the First Avenue parcels are high rise buildings, the housing stock in the broader ¼-Mile Study Area includes both high-rise buildings and smaller apartment buildings. High-rise apartment buildings are present along First Avenue, Second Avenue, East 34th Street, and Third Avenue (south of East 39th Street). Many of these towers were constructed in the 1980s and took advantage of the plaza bonus provisions of the City's Zoning Resolution, which allows for the construction of a larger building when a publicly accessible plaza is provided on site. Smaller apartment buildings and row houses line the ¼-Mile Study Area's mid-blocks and are interspersed along Second Avenue. In addition to Tudor City, another major residential complex in the ¼-Mile Study Area is Kips Bay Plaza. The ¼-Mile Study Area does not contain any public housing.

The area north of East 39th Street and west of Second Avenue, which is the southeastern portion of the Midtown Central Business District (CBD), is dominated by tall office towers, many of which range in height from 20 to 50 stories. West of Second Avenue, East 42nd Street is principally developed with office towers over ground-floor retail. With the exception of this corner of Midtown and the area around the United Nations, commercial uses in the ¼-Mile Study Area tend to be neighborhood-oriented stores on the ground floors of residential buildings along the avenues and East 34th Street. This trend is less pronounced, however, along the First Avenue corridor, which includes a 7-story office building and an 8-story office building between East 37th and East 38th Streets, and an 11-story office building and parking garage between East 38th and East 39th Streets. The ¼-Mile Study Area also includes several hotels, including the Hampton Inn which opened in February 2013 at 231 East 43rd Street.

The largest institutional uses in the ¼-Mile Study Area are the NYU Medical Center complex, just south of the development sites and the headquarters of the United Nations and its associated missions and diplomatic offices to the north and west. Many of the buildings associated with the United Nations are office buildings that provide space for administrative functions. The United Nations campus is largely isolated and separated from the surrounding area. In spite of its physical isolation, the U.N. influences surrounding neighborhoods because many nations choose to locate their consulates, diplomatic offices, and missions in close proximity to the campus. Just west of the campus are a number of commercial and residential buildings between First and Second Avenues that house missions and diplomatic residences. Significant pedestrian activity is common in this area.

South of 701-708 First Avenue site on 38th Street **3**



East side of First Avenue north of 36th Street **4**

Representative Views Adjacent to
First Avenue Properties
Figure 3C-18b

Smaller institutional uses include churches, schools, libraries, and fire stations. There are several publicly accessible open spaces, including Robert Moses Playground, a stretch of the East River Esplanade (Glick Park), St. Vartan's Park, Tudor City's open spaces, and public plazas associated with residential buildings in the area. The study area also includes the East River waterfront. This stretch of waterfront is largely separated from the neighborhoods to its west by the FDR Drive, which parallels the waterfront for its entire length, and a series of superblocks between First Avenue and the FDR Drive. East of the FDR Drive, along the waterfront, there are a variety of uses, including: a heliport at East 34th Street, and waterfront esplanades between East 30th and East 34th Streets and East 36th and East 38th Streets. The FDR Drive, which is elevated from the study area's southern border to approximately 42nd Street, reinforces this visual barrier to the waterfront through much of the study area. Planning is currently underway for the East Midtown Waterfront Project, which will improve the waterfront between East 38th and East 60th Streets. As part of this Project, the pier adjacent to the site from East 38th to East 41st Streets will be developed with open space and construction is anticipated to begin in 2014 and end in 2015. Once the open space on the pier is complete, there will likely be increased foot traffic in this area.

Control Area

The Control Area extends to East 56th Street to the north, the East River to the east, East 20th Street to the south, and Avenue of the Americas to the west (see **Figure 3C-16**). A portion of the Control Area overlaps with the Midtown central business district (CBD). The remainder of the Control Area is largely residential and institutional. Major developments in the Control Area include Grand Central Terminal and the Bellevue Hospital complex.

The residential portions of the Control Area are similar in character to the residential areas in the ¼-Mile Study Area, with a mixture of high-rise towers, smaller buildings, and ground-floor retail uses primarily along the avenues. Recent residential construction includes the 60-story building at 400 Fifth Avenue that was built in 2010 and includes 173 residential units and 214 hotel rooms. The southern portion of the Control Area contains two public housing complexes: Nathan Straus, a 267-unit building completed in 1965 and 344 East 28th Street, a 225-unit building completed in 1971. Commercial uses in these residential areas are limited to ground-floor retail and neighborhood services. Several hotels are present in the Control Area. New hotels in the area include the Gansevoort Park Avenue hotel at 420 Park Avenue South that opened in 2010, Hyatt Place at 206 East 52nd Street that opened in 2013, and Hampton Inn at 231-233 East 43rd Street that opened in February 2013.

A portion of the Control Area overlaps the Midtown CBD, which includes a concentration of office towers and mid-rise office buildings. Most of the avenues and side streets in this area are lined with restaurants, banks, and retail uses.

The major institutional uses in the Control Area are Bellevue Hospital and the Pierpont Morgan Library. A number of schools are located throughout the area. There are many publicly accessible open spaces, including a mix of plazas associated with tower development and small city parks.

DEMOGRAPHIC AND HOUSING INDICATORS

Population

The ¼-Mile Study Area had 16,418 residents in 2006-2010, a 7.5 percent decrease from the population in 2000 (see **Table 3C-28**). In contrast, the Control Area experienced a 7.5 percent increase in population during this time period.[1]

Table 3C-28
First Avenue Properties, Population: 2000, 2006-2010

	2000	2006-2010	Percent Change 2000 to 2006-2010
1/4-Mile Study Area	17,745	16,418	-7.5%
Control Area	83,723	89,978	7.5%

Source: Geolytics, Neighborhood Change Database

Median Household Income

As shown in **Table 3C-29**, the median household income in 2006-2010 in the ¼-Mile Study Area was $98,071, which was comparable and slightly higher than the median household income in the Control Area ($97,543). Between 1999 and 2006-2010, the median household income in the Control Area grew by approximately 46 percent, a slightly faster growth rate compared with the 41 percent growth rate in the ¼-Mile Study Area.

Table 3C-29
First Avenue Properties, Median Household Income: 1999, 2006-2010[1,2,3]

Area	1999	2006-2010	Percent Change 1999 to 2006-2010
1/4-Mile Study Area	$69,649	$98,071	40.8%
Control Area	$66,868	$97,543	45.9%

Notes: 1. Dollar values have not been adjusted for inflation.
2. The 2006–2010 data are based on ACS, which collects data throughout the period on an on-going, monthly basis and asks for respondents' income over the "past 12 months." The 2006-2010 data therefore reflect incomes over 2006 and 2010. The 1999 data are based on Census 2000 data, which reflect income over the prior calendar year (1999).
3. The median household income represents a weighted average of the median household incomes of all the census tracts in a given area.

Source: Geolytics, Neighborhood Change Database

Median Gross Rent

Between 2000 and 2006-2010, the median gross rent increased in all census tracts in the ¼-Mile Study Area. The median gross rent in for the area that includes three of the four development sites and is bounded by East 34th Street, First Avenue, East 42nd Street, and FDR Drive

[1] The ¼-Mile Study Area includes the following Census Tracts: 78, 86.01, and 88. The Control Area includes the following Census Tracts: 60, 62, 64, 66, 68, 70, 72, 74, 80, 82, 84, 86.03, 90, 92, 94, 98, and 100.

increased from $1,754 in 2000 to above $2,000 in 2006-2010. The median gross rent for the area bounded East 39th Street, Third Avenue, East 44th Street, and First Avenue increased by 46.4 percent from $1,240 in 2000 to $1,815 in 2006-2010. The median gross rent for the area bounded by East 34th Street, Third Avenue, East 39th Street, and First Avenue increased from $1,424 in 2000 to above $2,000 in 2006-2010.

In 2006-2010, census tracts in the Control Area had median gross rents between $595 and more than $2,000 (see **Table 3C-30**). The census tract with the median gross rent of $595 was Census Tract 94, which had only 18 renter-occupied housing units, representing 0.1 percent of the renter-occupied housing units in the Control Area. Most census tracts immediately adjacent to the ¼-Mile Study Area had median gross rents above $2,000. Similar to the ¼-Mile Study Area, the median gross rents in all census tracts in the Control Area increased between 2000 and 2006-2010.

Table 3C-30
First Avenue Properties, Range of Census Tracts' Median Monthly Gross Rents: 2000, 2006-2010[1,2]

Area	2000	2006-2010
1/4-Mile Study Area	$1,240-$1,754	$1,815-$2,000 or more
Control Area	$515-$1,917	$595-$2,000 or more

Note: 1. Dollar values have not been adjusted for inflation.
2. The highest median gross rent reported in the 2006-2010 ACS is "$2,000+." Since actual values are not reported, it is not possible to calculate an average for the study area. Therefore, the ranges of median gross rents for census tracts within the study areas are presented.
Source: Geolytics, Neighborhood Change Database

Median Housing Value

In 2006-2010, the median housing value in the ¼-Mile Study Area was $612,855, which was 17.5 percent lower than the median housing value in the Control Area ($742,685). The higher housing value in the Control Area likely reflects the premium residents pay to live closer to the subway.

Poverty Status

In both 2000 and 2006-2010, the ¼-Mile Study Area had a lower poverty rate compared with the Control Area. As shown in **Table 3C-31**, in 2006-2010, 5.2 percent of the ¼-Mile Study Area population was below the poverty level, compared with 8.4 percent in the Control Area.

Table 3C-31
First Avenue Properties, Population Living in Poverty: 2000, 2006-2010

Area	2000	2006-2010
1/4-Mile Study Area	7.6%	5.2%
Control Area	9.4%	8.4%

Source: Geolytics, Neighborhood Change Database

Vacancy Status

Over 19 percent of housing units in the ¼-Mile Study Area were vacant in 2006-2010 (see **Table 3C-32**). This was an increase from the 8.2 percent vacancy rate in 2000. The vacancy rate in the Control Area also increased from 8.7 percent in 2000 to 15.4 percent in 2006-2010. The increased vacancy rates in both the ¼-Mile Study Area and Control Area likely reflect the city-wide depressed housing trends caused by the recession.

Table 3C-32
First Avenue Properties, Vacant Housing Units: 2000, 2006-2010

Area	2000	2006-2010
1/4-Mile Study Area	8.2%	19.4%
Control Area	8.7%	15.4%
Source: Geolytics, Neighborhood Change Database		

Overall, demographic indicators suggest that there has not been disinvestment in the ¼-Mile Study Area with the extended period of construction delay associated with the First Avenue Properties development. Although three of the four development sites have remained vacant since the project was approved in 2004, household incomes in the ¼-Mile Study Area have grown and are slightly higher than those in the Control Area, indicating continue desirability of the area as a residential location. In addition, the population in the ¼-Mile Study Area living below the poverty level was 5.2 percent in 2006-2010, which was lower than the Control Area (8.4 percent).

In 2006-2010, approximately 19.4 percent of the housing units in the ¼-Mile Study Area were vacant compared with 15.4 percent in the Control Area. Consistent with the Control Area, the vacancy rate in the ¼-Mile Study Area increased between 2000 and 2006-2010. As the vacancy rate increased in both the ¼-Mile Study Area and the Control Area, it is likely that this was attributable to the recent recession that affected the housing market throughout the city. Although the vacancy rate has increased, the median monthly rent increased in all census tracts in the ¼-Mile Study Area, suggesting that the stalled development site has not hampered demand for rental units in the ¼-Mile Study Area. Overall, these data are not indicative of disinvestment in the ¼-Mile Study Area over the course of the extended period of construction delay associated with the First Avenue Properties development.

RESIDENTIAL PROPERTY VALUES

Existing Conditions

Rental Rates

Based on current listings collected from StreetEasy.com in December 2013, the overall median rental rate in the Control Area is higher than the median rental rate in the ¼-Mile Study Area. As shown in **Table 3C-33**, the median monthly rent in the Control Area is $4,425, which is 13.5 percent higher than the median monthly rent in the ¼-Mile Study Area ($3,900). This appears to be largely driven by the two- and three-bedroom units, which have a median rent 32.8 percent higher the median monthly rent in the ¼-Mile Study Area. The trend of higher rents in the Control Area was present in 2000 when nine of 17 census tracts in the Control Area had median gross rents above $2,000, whereas the median gross rents for census tracts in the ¼-Mile Study

Area were between $1,240 and $1,754. Therefore, lower rental rates in the ¼-Mile Study Area compared with the Control Area is a continuation of a trend that has existed in 2000.

Table 3C-33
First Avenue Properties, Current Rental Rates in the ¼-Mile Study Area and Control Area

	¼-Mile Study Area			Control Area		
Unit Type	Median Monthly Rent	Average Annual psf	Count	Median	Average Annual psf	Count
Studio	$2,800	$65	31	$2,473	$62	40
1BR	$4,010	$59	31	$4,050	$66	67
2BR and 3 BR	$4,895	$52	35	$6,500	$62	83
Total Study Area	**$3,900**	**$58**	**97**	**$4,425**	**$63**	**190**
Source: StreetEasy.com, accessed December 2013						

Residential real estate brokers in the area commented that rents have continued to increase around the First Avenue Properties development sites. However, one broker stated that surrounding neighborhoods experienced higher increases in rents. He stated that the lower increase in the ¼-Mile Study Area could be due to the distance from the subway. Also, he mentioned there are fewer restaurants and retail on First Avenue in the ¼-Mile Study Area—which was the condition when the Con Edison facility was located there. Therefore, the lower monthly rent in the ¼-Mile Study Area compared with the Control Area appears to be a long-term trend due to the distance from the subway and fewer retail and restaurants along First Avenue in the ¼-Mile Study Area.

Sales Prices

The overall median sales prices for condos and co-ops are also higher in the Control Area than the ¼-Mile Study Area (see **Table 3C-34**).[1] The median sales price for condos in the Control Area was $1.23 million, which was 48.2 percent higher than the median sales price for condos in the ¼-Mile Study Area. The median sales price for co-ops was $585,000 in the Neighborhood Control Area, which was 39.3 percent higher than the median sales price for co-ops in the ¼-Mile Study Area. Most notably, the median sales price for two-bedroom condos in the Control Area was $2.10 million, which was 80.7 percent higher than the ¼-Mile Study Area.

Historic Trends

Real estate brokers stated that the stalled construction did not have a negative effect on residential property values in the immediate vicinity of the development sites. One broker stated that the stalled construction has had no effect on residential property values and that the residential market in the area has been strong. He stated that potential buyers and renters have not expressed concern about the stalled construction activity. Similar to the rental rates presented above, condos and co-ops in the Control Area have likely commanded higher sales prices than the ¼-Mile Study Area because of the desirability of residents to live closer to the subway.

[1] Based on data collected from Cityrealty.com for residential sales between December 2012 and December 2013.

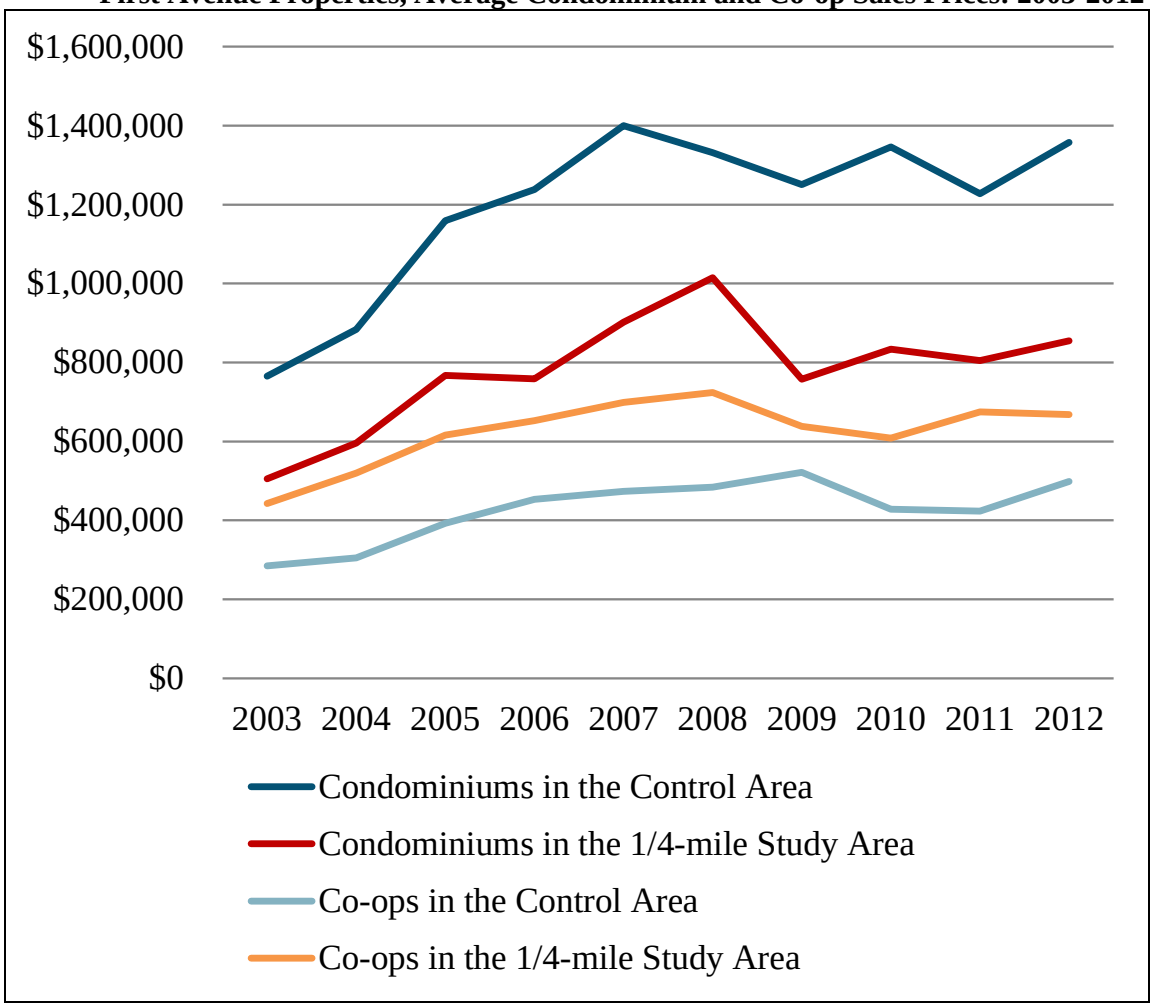
Table 3C-34
First Avenue Properties, Current Residential Sales Prices in the ¼-Mile Study Area and Control Area

Bedrooms	¼-Mile Study Area			Control Area		
	Median Sales Price	Median Price Per SF	Count	Median Sales Price	Median Price Per SF	Count
Condos						
Studio	$505,000	$1,121	19	$545,000	$1,119	26
1 BR	$782,000	$1,021	92	$950,000	$1,142	84
2 BR	$1,162,500	$1,107	46	$2,100,000	$1,536	62
3 BR	$1,751,000	$1,082	4[1]	$2,630,000	$1,507	23
Total	$830,000	$1,029	161	$1,230,000	$1,237	195
Co-ops						
Studio	$270,500	$760	36	$364,500	$718	18
1 BR	$460,000	$771	41	$565,000	$731	78
2 BR	$765,000	759	15	$955,000	$852	29
3 BR	$1,419,575	917	4[1]	$1,075,000	$672	1*
Total	$420,000	$771	96	$585,000	$750	125

Note: 1. There was a limited number of condo and co-op sales in the ¼-Mile Study Area; however, for comparison purposes, median values are presented. **Source:** Cityrealty.com, accessed December 2013. Data collected for December 2012 to December 2013.

Between 2003 and 2012, the average sales price for condos and co-ops increased significantly in both the ¼-Mile Study Area and Control Area (see **Figure 3C-19**). Between 2003 and 2012, the average sales price for condos increased by 69.4 percent in the ¼-Mile Study Area and by 77.3 percent in the Control Area. The average sales price for co-ops increased by 75.1 percent in the ¼-Mile Study Area and by 50.7 percent in the Control Area. The increased condo and co-op sales prices indicate continued demand to live in the ¼-Mile Study Area. However, the proximity to the subway commands a premium, causing sale prices in the Control Area to be higher than the ¼-Mile Study Area.

Figure 3C-19
First Avenue Properties, Average Condominium and Co-op Sales Prices: 2003-2012



Note: Dollar values have not been adjusted for inflation.
Source: ACRIS

COMMERCIAL PROPERTY VALUES

Existing Conditions

The median asking rent for Class A office listings in the Control Area as of December 2013 was $62 psf, which is 12.7 percent higher than the $55 psf rental rate for Class A office listings in the ¼-Mile Study Area (see **Table 3C-35**). However, both the ¼-Mile Study Area and the Control Area had an asking rent of $50 psf for office listings of any type. The high rental rate for Class A office space in the Control Area reflects the premium to be closer to the subway and Grand Central Terminal.

The median rental rate for current retail listings in the Control Area as of December 2013 was $104, which was 15.6 percent higher than the median retail rental rate in the ¼-Mile Study Area. Retail space in the Control Area commands higher rents than the ¼-Mile Study Area.

Table 3C-35
First Avenue Properties, Current Commercial Asking Rent in the ¼-Mile Study Area and Control Area

Type of Commercial Space	¼-Mile Study Area			Control Area		
	Average Rental Rate (psf/year)	Median Rental Rate (psf/year)	Count	Average Rental Rate (psf/year)	Median Rental Rate (psf/year)	Count
Office						
All Office Listings	$61	$50	23	$50	$50	53
Class A only	$66	$55	19	$63	$62	19
Retail						
Retail	$92	$90	7	$122	$104	14

Source: Loopnet.com and Showcase.com, accessed December 2013.

Historic Trends

According to a commercial real estate broker, although the commercial office market in the area around the development sites has been strong, the retail landscape along First Avenue near the development sites has continued to be limited. He stated that when the Con Edison facility was located at the development sites, there was low foot traffic along First Avenue in the ¼-Mile Study Area. This continued trend of low foot traffic resulted in limited demand for retail and restaurants on First Avenue. As the sites have remained vacant, there continues to be limited retail and restaurants on this stretch of First Avenue.

Table 3C-36 presents the Class A average office rental rates in 2001 and Q3 2013 for submarkets that overlap with the ¼-Mile Study Area and the Control Area. The Murray Hill submarket and the United Nations submarket overlap with the ¼-Mile Study Area; the Grand Central submarket overlaps with both the ¼-Mile Study Area and the Control Area.[1]

The average office rental rates have increased in all three areas between 2001 and Q3 2013. The United Nations submarket experienced the most dramatic increases in rent, increasing by 29.6 percent from $43.67 per square foot in 2001 to $56.59 per square foot in Q3 2013. Average office rental rates also increased in the Murray Hill submarket and the Grand Central submarket by 13.3 percent and 11.2 percent, respectively.

[1] Cushman & Wakefield defines the Murray Hill submarket as the area bounded by East 30th Street, Fifth Avenue, East 38th Street, and the East River. The United Nations submarket is the area bounded by East 38th Street, Second Avenue, Mitchell Place, and the East River. The Grand Central market is the area bounded by East 38th Street, Second Avenue, East 47th Street, and Fifth Avenue.

Table 3C-36
First Avenue Properties, Commercial Office Trends

Submarket	Year-End 2001			Q3 2013		
	Inventory	Overall Vacancy Rate	Direct Weighted Average Class A Rental Rate	Inventory	Overall Vacancy Rate	Direct Weighted Average Class A Gross Rental Rate
Murray Hill	13,447,336	8.9%	$50.76	14,366,499	10.0%	$57.51
United Nations	2,862,048	3.8%	$43.67	2,669,648	0.4%	$56.59
Grand Central	42,712,725	8.6%	$54.26	43,970,528	13.7%	$60.35

Note: Dollar values have not been adjusted for inflation.
Sources: Cushman & Wakefield, *Marketbeat Office Snapshot for Manhattan*, Q32013. Cushman & Wakefield, *Marketbeat Series for Manhattan,* Year-End 2001.

Vacancy rates in the areas that overlap with the ¼-Mile Study Area and Neighborhood Control Area ranged between 0.4 percent and 13.7 percent in Q3 2013. The vacancy rates in the Murray Hill and Grand Central submarkets increased between 2001 and Q3 2013. However, there was a decrease in the vacancy rate in the United Nations submarket from 3.8 percent in 2001 to 0.4 percent in Q3 2013.The vacancy rate in the United Nations submarket was the lowest vacancy rate for any submarket in Manhattan, according to the Cushman and Wakefield report.

The trends in average rental rates indicate that the office market has not been affected by the extended period of construction delay associated with the First Avenue Properties development. As discussed above, there has been a high demand for medical office space as tenants want to be located near NYU Medical Center. In addition, in both 2001 and 2013, the United Nations market had the lowest vacancy rate of all Manhattan markets, suggesting that the United Nations complex also attracts tenants to the ¼-Mile Study Area.

CONCLUSIONS – FIRST AVENUE PROPERTIES CASE STUDY

Based on data presented above, it does not appear that the extended period of construction delay associated with the First Avenue Properties development has had any substantial effect on neighborhood conditions in the ¼-Mile Study Area. While there was a decrease in population in the ¼-Mile Study Area between 2000 and 2006-2010, household incomes in the ¼-Mile Study Area have remained slightly higher than those in the Control Area, indicating continued desirability as a residential location. Residential sales and rents in the ¼-Mile Study Area have increased, suggesting continued demand to live in the area. For example, based on ACRIS data, between 2003 and 2012, the average sales prices for condos and co-ops in the ¼-Mile Study Area increased by 69 percent and 75 percent, respectively. While the 2006-2010 vacancy rate in the ¼-Mile Study Area was 19.4 percent and was higher than the vacancy rate in the Control Area (15.4 percent), residential real estate brokers commented that the rents in the ¼-Mile Study Area continue to increase and that the residential market is strong.

With respect to the commercial office market, office rental rates have increased in the ¼-Mile Study Area (see **Table 3C-36**). As noted above, medical office tenants continued to be attracted to this neighborhood to be near NYU Medical Center. Also, there has been high demand for office space near the United Nations complex, as demonstrated by the 3.8 percent vacancy rate in 2001 and the 0.4 percent vacancy rate in Q3 2013. Therefore, based on available demographic data and commercial/residential market trends, the delay in construction of the First Avenue Properties project has not led to disinvestment in areas surrounding the development sites.

METROTECH

INTRODUCTION

MetroTech Center ("MetroTech") is a 16-acre commercial office, retail, governmental, and academic complex in Downtown Brooklyn containing 11 buildings with over 5 million square feet of commercial and municipal office and retail space, as well as a 3.3-acre public plaza (known as MetroTech Commons). MetroTech was created in accordance with the MetroTech Urban Renewal Plan (MetroTech URP), which established the MetroTech Urban Renewal Area (MetroTech URA). While the MetroTech campus includes buildings that were developed on lots outside of the URA, this section considers the MetroTech URA to be the "MetroTech site." The MetroTech URA is located on the blocks roughly bounded by Johnson Street/Tech Plaza and Tillary Street to the north, Willoughby Street to the south, Flatbush Avenue Extension to the east, and Jay Street to the west (see **Figure 3C-20**). Most of the streets are demapped within the MetroTech campus, with Duffield Street and Myrtle Avenue providing access to parking in the 3 and 4 MetroTech Center buildings. The MetroTech URP established goals for the area, including strengthening the commercial office and retail core of Downtown Brooklyn and enhancing the City's corporate retention programs by supporting commercial and institutional development; developing job-intensive office, research, scientific, and educational activities; and improving the area's traffic circulation system. Forest City Ratner Companies (FCRC) was the master developer for MetroTech, and Polytechnic University (now the Polytechnic Institute of New York University, or NYU-Poly) was co-developer and the founding tenant. The campus was ultimately designed to provide back-office operations for firms operating out of Manhattan.[1] Major tenants include JP Morgan Chase, Empire Blue Cross Blue Shield, National Grid, and New York City agencies like the New York Police Department and the Department of Information Technology and Telecommunications.[2]

TIMELINE

The MetroTech URP was created in 1986, and established the URA as the area roughly bounded by Johnson Street/Tech Plaza and Tillary Street to the north, Willoughby Street to the south, Flatbush Avenue Extension to the east, and Jay Street to the west. Construction of MetroTech began in the mid-1980s. Three existing buildings in the northwestern portion of the MetroTech URA were part of the NYU-Poly campus. These buildings were renovated as part of the MetroTech URP. Seven office buildings were built within the remainder of the URA, with buildings south of Myrtle Avenue constructed first in the early 1990s, and buildings north of Myrtle constructed in the mid to late 1990s. This section considers changes in socioeconomic conditions that took place over the course of the development of MetroTech between 1980 and 2004.

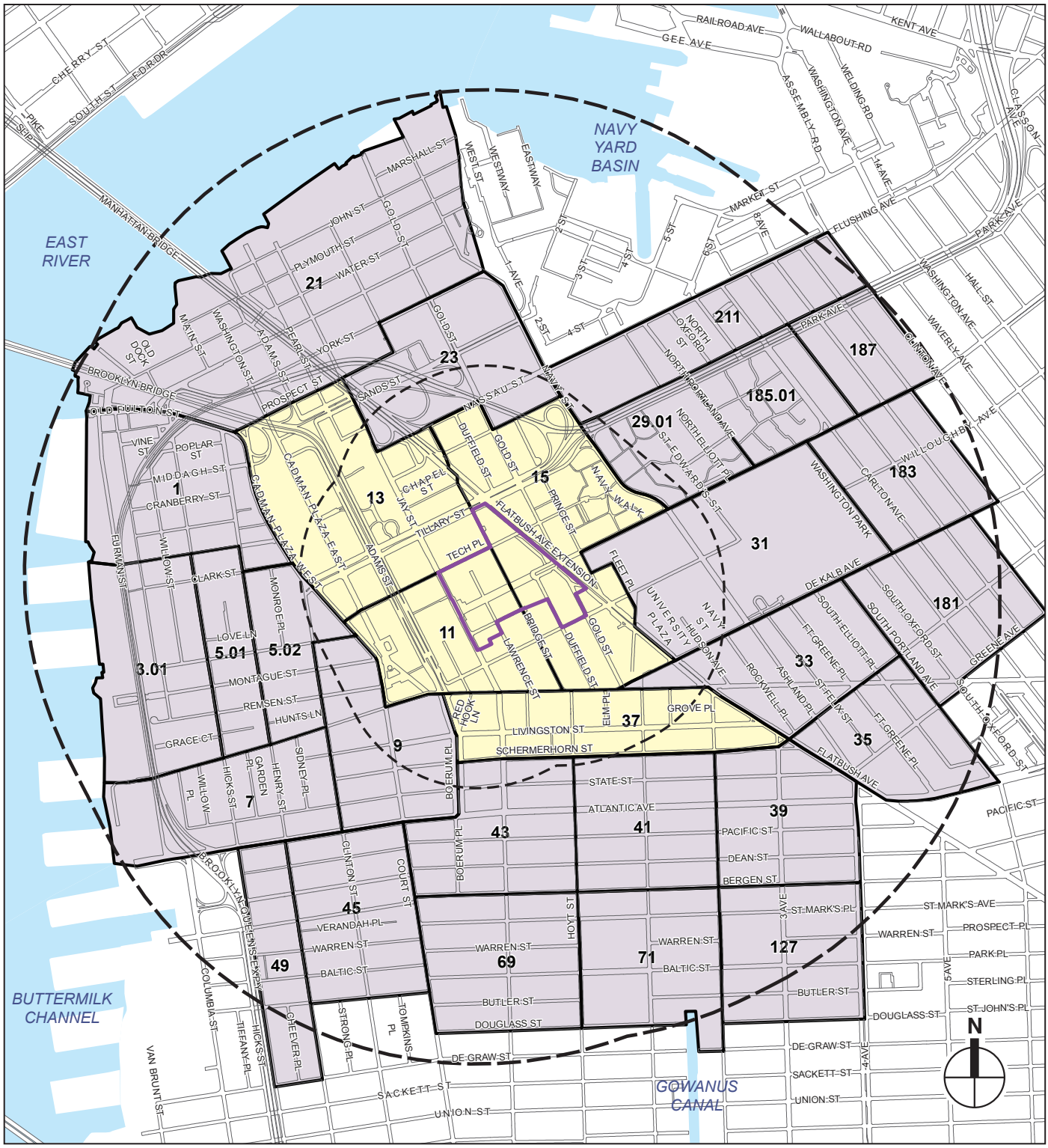
The first office building—Two MetroTech Center—was completed in 1990. One MetroTech Center was completed in 1991. Three and Four MetroTech Center (also known as "Chase MetroTech") were completed in 1992 and 1993. Eleven MetroTech Center, in the northern

---

[1] Brooklyn: Economic Development And the State of Its Economy. New York State Office of the State Comptroller Alan G. Hevesi/ February 2004.

[2] Forestcity.net

3.13.14



Case Study Project Site

1/4-Mile Study Area Boundary

Control Area Boundary (3/4-Mile Perimeter)

Census Tract Boundary

1/4-Mile Study Area Census Tract

Control Area Census Tract

Study Areas
Figure 3C-20

portion of the URA, was completed in 1995, and Nine MetroTech Center was completed in 1997, just south of Eleven MetroTech Center. The last office building in the URA—15 MetroTech Center—was completed in 2003, directly south of Nine MetroTech Center. Therefore, this analysis considers the time between the project's announcement—roughly in 1980—and its final completion in 2003.

STUDY AREAS

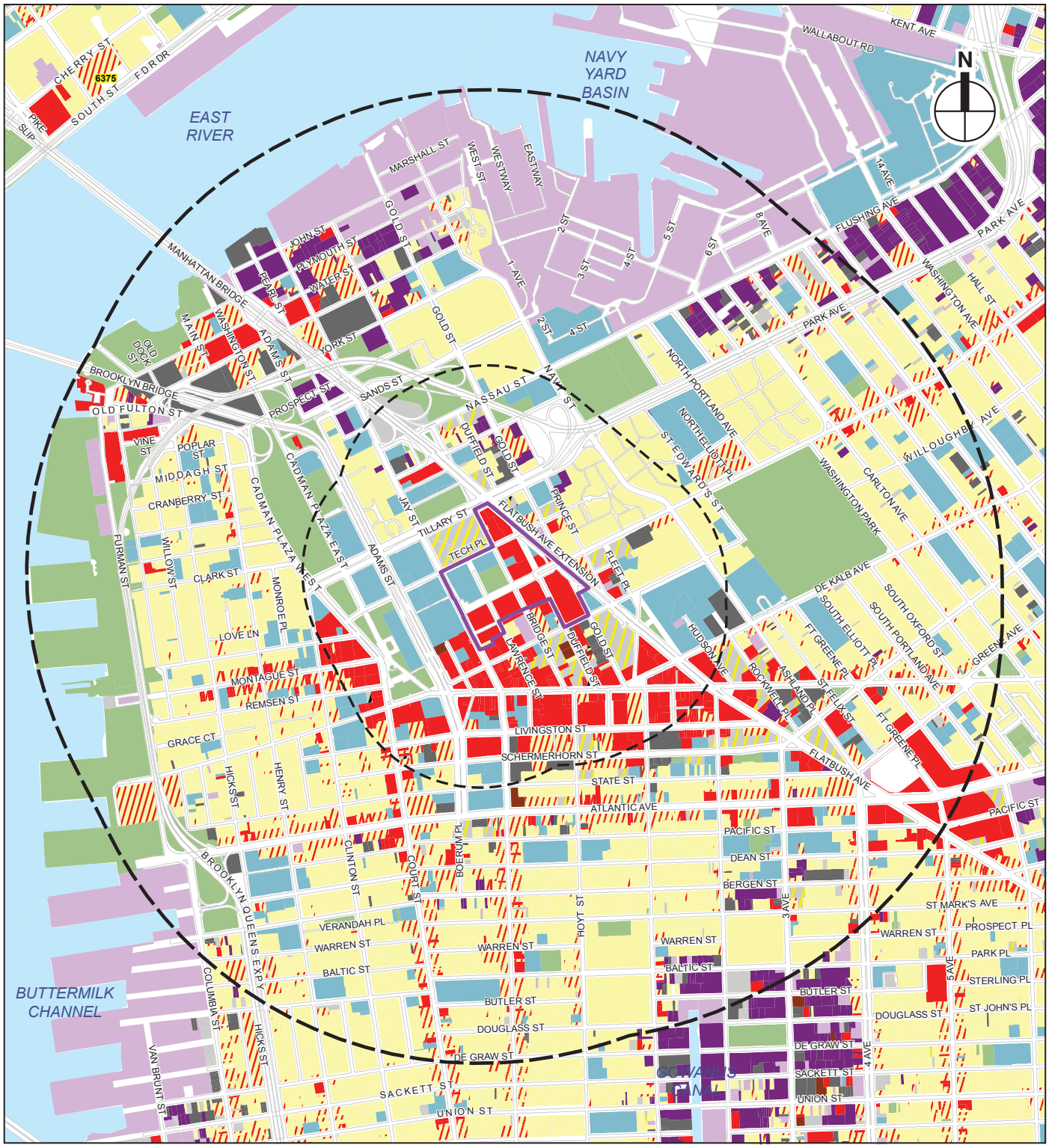
This section describes existing conditions in the ¼-Mile Study Area and the Control Area. As construction was completed on MetroTech in 2003, the description of existing conditions provides background about the project and its current context. Effects during the construction period are examined under "Historic Trends."

¼-Mile Study Area

As shown in **Figure 3C-20**, the ¼-Mile Study Area is roughly bounded by Sands and Nassau Streets to the north; State Street to the south; St. Edwards Street and Ashland Place to the east; and Clinton Street and Cadman Plaza East to the west. The ¼-Mile Study Area includes most of Downtown Brooklyn as well as portions of the Fort Greene neighborhood east of Flatbush Avenue. The Study Area contains concentrations of institutional and commercial uses, with residential uses concentrated north of Tillary Street, east of Flatbush Avenue, and scattered throughout the southern portion of the Study Area (see **Figure 3C-21**). The western and southern portions of the ¼-Mile Study Area are established commercial and institutional office districts, with most street activity occurring during the workday. To the east and north, the ¼-Mile Study Area contains residential neighborhoods.

The properties immediately surrounding the MetroTech site are a mix of residential, commercial, and institutional uses, and several sites that are under construction. Directly adjacent properties along Flatbush Avenue are a mix of recently built residential towers with ground floor retail, and auto-related uses in low-scale, older buildings (see Photograph 1 on **Figure 3C-22a**). Flatbush Avenue is a wide, busy, street with a landscaped median that provides access to the Manhattan Bridge. The properties on the eastern side of Flatbush Avenue are separated from the MetroTech site by the street and the orientation of MetroTech buildings inwards, away from Flatbush Avenue. Directly adjacent properties along Willoughby Street to the south include a mix of 3- and 4-story commercial and mixed use buildings and several larger commercial, residential, and institutional buildings (see Photograph 2 on **Figure 3C-22a**). This portion of Willoughby Street also contains several parking lots, as well as several sites under construction, such as the City Point mixed use development. Foot traffic is moderate along this retail corridor. The properties along Jay Street facing the MetroTech site include the Kings County Supreme and Family Court Buildings built in 2002, the Marriott Hotel and office building built in 1997, and the former Metropolitan Transit Authority (MTA) office building at 370 Jay Street, which is undergoing renovation to house the New York University Center for Urban Science and Progress (NYU-CUSP) (see Photograph 3 on **Figure 3C-22b**). Pedestrian traffic is heavy along Jay Street, as many workers move between the buildings on the western side of the street and the MetroTech site. Along the northern boundary of MetroTech, Johnson Street/Tech Place contains two buildings that are part of the New York City College of Technology (City-Tech) campus and are under construction (see Photograph 4 on **Figure 3C-22b**). Pedestrian traffic is low in this area, as there is no storefront retail space and the street is closed to vehicular and pedestrian traffic east of Lawrence Street.

3.13.14



Source: Department of City Planning, MapPLUTO 13v1/AKRF, Inc. field visits

0 2000 FEET
SCALE

- Case Study Project Site
- 1/4-Mile Study Area Boundary
- Control Area Boundary (3/4-Mile Perimeter)
- Residential
- Residential with Commercial Below
- Hotels
- Commercial and Office Buildings
- Industrial and Manufacturing
- Transportation and Utility
- Public Facilities and Institutions
- Open Space and Outdoor Recreation
- Parking Facilities
- Vacant Land
- Vacant Building
- Under Construction

Land Use
Figure 3C-21

View southeast along Flatbush Avenue from Tillary Street **1**

View northwest along Willoughby from Duffield Street **2**

Representative Views Adjacent to Metro Tech
Figure 3C-22a

View northwest along Jay Street from between Willoughby and Myrtle Avenues **3**

View northeast along Johnson Street from Jay Street **4**

Representative Views Adjacent to Metro Tech
Figure 3C-22b

Housing stock varies throughout the ¼-Mile Study Area. Downtown Brooklyn and portions of Fort Greene just east of Flatbush Avenue are characterized by recently constructed residential towers. These towers are generally built to the same scale as the MetroTech buildings, ranging from 37 to 51 stories. They are built in modern style and most contain ground-floor retail. Older, low-scale residential and mixed use buildings are scattered throughout Downtown Brooklyn. East of the new residential towers near Flatbush Avenue, the ¼-Mile Study Area includes over half of the 1,840-unit Ingersoll NYCHA development, which was also built in the tower-in-the-park style. Directly south of the Ingersoll development is the University Towers development, which consists of three 15-story buildings. Tillary Street, a wide, busy street that provides access to the Brooklyn-Queens Expressway and the Manhattan Bridge, and separates the MetroTech site and the residential community to the north. North of Tillary Street, the ¼-Mile Study Area is characterized by a mix of older townhouses and the seven-building, 1,022-unit tower-in-the-park Concord Village development. North of Nassau Street, the ¼-Mile Study Area also contains a portion of the 1,390-unit Farragut NYCHA development. This area also contains a concentration of 3- and 4-story townhouses along Duffield and Concord Streets, and the 13-story, 133-unit Bklyn Gold development at 235 Gold Street. Tillary Street experiences low pedestrian traffic and there are several lots under construction.

In addition to NYU-Poly, which occupies a mix of older and newer buildings on and around the MetroTech site, the ¼-Mile Study Area also includes the campuses of Long Island University, St. Francis College, Brooklyn Law School, and City-Tech. Within the ¼-Mile Study Area, City-Tech occupies buildings north of MetroTech between Lawrence Street and Jay Street, and includes several buildings and sites that are under construction. Long Island University is located on the eastern side of Flatbush Avenue between DeKalb Avenue and Willoughby Street. St. Francis College is located in the western portion of the ¼-Mile Study Area, on Remsen Street. Brooklyn Law School is located on the southwestern corner of Jay Street and Joralemon Street. Other than the Court buildings described above, the ¼-Mile Study Area also contains Brooklyn Borough Hall, the U.S. Eastern District Court, and several other government office buildings.

Retail concentrations are located in the southern portion of the ¼-Mile Study Area. The Willoughby Street retail corridor is located directly south of MetroTech and extends from Adams Street in the west to Flatbush Avenue in the east. There is little retail on Willoughby Street east of Bridge Street, which contains parking lots, a site under construction, and some institutional uses. Retail density and pedestrian foot traffic increase west of Bridge Street to Jay Street, and vacancy is lower along this portion.

The ¼-Mile Study Area includes the entire Fulton Street Mall, which extends along Fulton Street between Boerum Place and Flatbush Avenue. The Fulton Street mall contains a dense mix of national and independent retailers, including apparel and accessory stores, electronics stores, and a Macy's Department Store. This portion of Fulton Street is one-way westbound and open to bus traffic only. Sidewalks are wide, accommodating a high volume of foot traffic as well as street vendors. Storefronts along the portion of Adams Street just north of the Fulton Street Mall have recently been occupied, and the sidewalk was widened and connected to the pedestrian plaza on Willoughby Street.

The Court Street retail corridor in the ¼-Mile Study Area extends from Schermerhorn to Montague Streets. This portion of Court Street contains a concentration of neighborhood retail, including banks and hardware stores, and limited service restaurants that cater to the office workers in the area. The portion of Livingston Street between Boerum Place and Bond Street

contains lower scale office buildings, some of which contain ground floor retail including neighborhood services, discount goods, and eating and drinking establishments.

While MetroTech represents the largest concentration of office space in the ¼-Mile Study Area, there are other clusters of office space in the institutional buildings north of MetroTech, in buildings along Cadman Plaza West, and along Fulton, Livingston, and Schermerhorn Streets, and Flatbush Avenue. The larger office buildings in the ¼-Mile Study Area include One Pierrepont Plaza, a 19-story office building built in 1987, 111 Livingston Street, a 22-story office building built in 1969. In addition to the Marriott Hotel, there are three recently-built hotels in the ¼-Mile Study Area concentrated south of MetroTech: the Sheraton at 228 Duffield Street, Hotel Indigo at 229 Duffield Street, and Aloft at 216 Duffield Street.

Control Area

As shown in **Figure 3C-20**, the Control Area is roughly bounded by Nassau Street and the East River to the north; Degraw Street to the south; Clinton Avenue to the east; and Columbia Street and the East River to the west. The Control Area contains the neighborhoods of DUMBO and Brooklyn Heights, and Boerum Hill, and portions of Cobble Hill, Fort Greene, and Gowanus. Housing stock in the Control Area varies from 19th century rowhouses in Fort Greene, Boerum Hill, Cobble Hill, and Brooklyn Heights, to luxury loft conversions in DUMBO, with newer residential developments scattered throughout. The Control Area also contains the 1,659-unit Whitman development, the 1,139-unit Gowanus development, the 529-unit Wyckoff Gardens development, and the 200-unit 572 Warren development, as well as portions of the 1,840-unit Ingersoll development and the 1,390-unit Farragut development—all NYCHA housing developments. Compared with the ¼-Mile Study Area, the Control Area is more residential in nature, with commercial use concentrated closer to Downtown Brooklyn and the ¼-Mile Study Area, as well as in several retail concentrations throughout the neighborhoods. Retail concentrations in the Control Area include Montague Street, Court Street, Smith Street, Atlantic Avenue, Atlantic Center and Terminal, Fulton Street east of Flatbush Avenue, DeKalb Avenue, and Myrtle Avenue. Within the Control Area, there are concentrations of office space along Montague Street, Court Street, Atlantic Avenue, Flatbush Avenue, and throughout DUMBO.

DEMOGRAPHIC AND HOUSING INDICATORS

Population

As shown in **Table 3C-37**, the population in the ¼-Mile Study Area decreased by approximately 22.5 percent between 1980 and 1990.[1] As residential vacancy rates decreased during this time (as discussed below), it is likely that this population decrease indicates that the Downtown Brooklyn neighborhood was transitioning into more of a commercial district. The population in the Control Area remained stable during the same time, increasing by approximately 0.5 percent. During the second decade of the construction of MetroTech (1990 to 2000), the population in the ¼-Mile Study Area increased by 36 percent, to above 1980 levels. During the same decade, the population in the Control Area remained stable, increasing by approximately 1.6 percent.

[1] For the purposes of demographic analysis, the ¼-mile Study Area is defined as Brooklyn Census Tracts 11, 13, 15, and 37, and the Control Area is defined as Brooklyn Census Tracts 1, 3.01, 5.01, 5.02, 7, 9, 21, 23, 29.01, 31, 33, 35, 39, 41, 43, 45, 49, 69, 71, 127, 181, 183, 185.01, 187, and 211.

Table 3C-37
MetroTech, Population, 1980 to 2006-2010

Area	1980	1990	Percent Change 1980-1990	2000	Percent Change 1990-2000	2006-2010	Percent Change 2000 to 2006-2010
1/4-Mile Study Area	5,268	4,085	-22.5%	5,554	36.0%	4,860	-12.5%
Neighborhood Control Area	76,953	77,340	0.5%	78,541	1.6%	79,256	0.9%

Note: The MetroTech development site is included in the ¼-Mile Study Area.
Source: Geolytics, Neighborhood Change Database

Income and Poverty

Average household income in the ¼-Mile Study Area increased from $15,228 in 1980 to $36,799 in 1990, an increase of 141.7 percent (see **Table 3C-38**).[1] At the same time, average household income in the Control Area increased by 179.2 percent, from $18,110 to $50,567. Overall, the average household income increased at a faster rate in the Control Area than in the ¼-Mile Study Area between 1980 and 2006-2010; however, both areas experienced substantial increases during this time. The average household income in the ¼-Mile Study Area increased at a faster rate than in the Control Area only between 2000 and 2006-2010.

Table 3C-38
MetroTech, Average Household Income, 1979 to 2006-2010[1,2,3]

Area	1979	1989	Percent Change 1979-1989	1999	Percent Change 1989-1999	2006-2010	Percent Change 1999 to 2006-2010
1/4-Mile Study Area[4]	$15,228	$36,799	141.7%	$50,935	38.4%	$85,060	67.0%
Neighborhood Control Area	$18,110	$50,567	179.2%	$78,753	55.7%	$125,334	59.1%

Notes:
1. Dollar values have not been adjusted for inflation.
2. The average household income represents a weighted average of the average household incomes of all the census tracts in a given area.
3. The 1999 data are based on Census 2000 data, and the 2006-2010 data are based on 2006-2010 5-year estimates. The ACS collects data throughout the period on an on-going, monthly basis and asks for respondents' income over the "past 12 months." The 2006–2010 data therefore reflect incomes over 2006 and 2010, while Census 2000 data reflect income over the prior calendar year (1999).
4. The MetroTech development site is included in the ¼-Mile Study Area.

Source: Geolytics, Neighborhood Change Database

For each decade between 1980 and 2006-2010, the poverty rate has been higher in the ¼-Mile Study Area than in the Control Area. However, with the exception of the decade between 1990 and 2000, the poverty rate decreased in both areas during this time, though to a lesser degree in

[1] Average household income is used for this case because median household income was not available for 1980.

the ¼-Mile Study Area, decreased during this time. In the ¼-Mile Study Area, the poverty rate decreased from 33.0 percent in 1980 to 30.0 percent in 2006-2010. During the same time, the poverty rate in the Control Area decreased from 27.4 percent to 15.9 percent (see **Table 3C-39**). The higher poverty rate and lower average household income in the ¼-Mile Study Area are likely due to the Ingersoll Housing Development, approximately half of which is located in the ¼-Mile study area. While the Control Area has a substantially higher total population living in NYCHA housing developments, the ¼-Mile Study Area has a substantially higher percentage of population living in NYCHA housing, due to the lower overall population in the ¼-Mile Study Area. The population living in NYCHA housing represents approximately 41 percent of the population in the ¼-Mile Study Area, compared with 17 percent in the Control Area.

Table 3C-39
MetroTech, Population Living in Poverty, 1980 to 2006-2010

Area	1980	1990	2000	2006-2010
1/4-Mile Study Area	33.0%	28.9%	31.9%	30.0%
Neighborhood Control Area	27.4%	20.5%	22.5%	15.9%

Note: The MetroTech development site is included in the ¼-Mile Study Area.
Source: Geolytics, Neighborhood Change Database

Median Rent and Vacancy Rate

As shown in **Table 3C-40**, median monthly gross rent was lower in the ¼-Mile Study Area than in the Control Area for each decade between 1980 and 2006-2010. In the ¼-Mile Study Area, median monthly gross rent increased by the highest percentage between 2000 and 2006-2010, by 117 percent.

Table 3C-40
MetroTech, Median Monthly Gross Rent, 1980 to 2006-2010[1,2]

Area	1980	1990	Percent Change 1980-1990	2000	Percent Change 1990-2000	2006-2010	Percent Change 2000 to 2006-2010
1/4-Mile Study Area[4]	$229	$323	41.1%	$517	60.0%	$1,121	116.6%
Neighborhood Control Area	$232	$501	115.8%	$734	46.7%	$1,262[3]	71.8%

Notes: 1. Dollar values have not been adjusted for inflation.
2. The median monthly gross rent represents a weighted average of the median monthly gross rent of all the census tracts in a given area.
3. There is one census tract in the Control Area that exceeds the upper limit for median monthly gross rent, and is therefore rounded down to $2,001. This one value would not be expected to substantially alter the overall median monthly gross rent in the Control Area.
4. The MetroTech development site is included in the ¼-Mile Study Area
Sources: Geolytics, Neighborhood Change Database

There were not enough owner-occupied housing units in the ¼-Mile Study Area to calculate an accurate average housing value between 1980 and 2006-2010.[1] As discussed in detail below, the ¼-Mile Study Area has historically been a commercial district, with residential growth occurring primarily after the 2004 Downtown Brooklyn rezoning.

As shown in **Table 3C-41**, housing vacancy decreased in the ¼-Mile Study Area between 1980 and 1990, from 9.7 percent to 3.7 percent. The vacancy rate in the Control Area increased slightly during the same time, from 7.4 percent to 8.2 percent. Between 1990 and 2000, the vacancy rate increased slightly in the ¼-Mile Study Area and decreased in the Control Area, resulting in a 4.6 percent vacancy rate in both areas. Vacancy increased dramatically in both areas between 2000 and 2010, to 28.3 percent in the ¼-Mile Study Area, and 10.9 percent in the Control Area. These data reflect the fluctuating housing market in Downtown Brooklyn, where new units have been built at a rapid pace, and many that were for sale were converted to rental units after the crash of the housing market 2008. A large number of housing units in Downtown Brooklyn were vacant and for rent or sale in 2010, and many were classified as "other vacant," which includes new units not yet occupied as vacant housing units, if construction has reached a point where all exterior windows and doors are installed and final usable floors are in place.

Table 3C-41
MetroTech, Vacant Housing Units, 1980 to 2006-2010

Area	1980	1990	2000	2006-2010
1/4-Mile Study Area	9.7%	3.7%	4.6%	28.3%
Neighborhood Control Area	7.4%	8.2%	4.6%	10.9%

Note: The MetroTech development site is included in the ¼-Mile Study Area.
Source: Geolytics, Neighborhood Change Database

As described above, the population in the ¼-Mile Study Area has fluctuated since 1980, when MetroTech was first announced. The large percent changes in population are partly due to the low density residential nature of the ¼-Mile Study Area, which means that modest changes in absolute terms can show as substantial changes in relative terms. Between 1990 and 2000, when the majority of the MetroTech buildings were constructed, the population in the ¼-Mile Study Area increased by 36 percent, compared with a 1.6 percent increase in the Control Area. These data indicate that residents were moving to the area immediately surrounding the MetroTech site despite the ongoing construction. Average household income in the ¼-Mile Study Area has increased, though at a slower pace than in the Control Area, and while the population in the ¼-Mile Study Area living in poverty increased slightly between 1990 and 2000, this reflected a similar trend in the Control Area. Rents in the ¼-Mile Study Area were lower than in the Control Area throughout the MetroTech construction period, but they increased at a faster rate between 1990 and 2006-2010. Compared with the Control Area, residential vacancy increased in the ¼-Mile Study Area between 1980 and 1990, and the two areas had the same vacancy rates in 2000. While vacancy increased more dramatically in the ¼-Mile Study Area between 2000 and 2010 than in the Control Area, this was likely due to new housing stock not yet occupied that was

[1] Average housing value is used for this case because median housing value data were not available for 1980.

built after the 2004 Downtown Brooklyn rezoning. These demographic trends do not indicate disinvestment in the ¼-Mile Study Area during the construction of MetroTech.

RESIDENTIAL PROPERTY VALUES

Existing Conditions

Development Site

Within the MetroTech URA and campus, the only residential use is the affordable apartment building at 365 Jay Street, an historic former fire headquarters that was renovated for tenants who were relocated from the MetroTech site prior to the construction of MetroTech.

¼-Mile Study Area

A survey of current market rate rental units in the ¼-Mile Study Area found that the median rental rate was $2,200 per month for studios; $2,670 for one-bedroom units; $3,350 for two-bedroom units; and $4,650 for three-bedroom units (see **Table 3C-42**).[1] According to a survey of residential sales between December 2012 and December 2013, the median price per square foot for condominiums in the ¼-Mile Study Area was $739, and the median price per square foot for co-ops was $477.

Table 3C-42
MetroTech, Current Residential Listing Prices in the ¼-Mile Study Area

Residential Units	Listing Price
Rental Units (median monthly rent)	
Studio	$2,200
1-bedroom	$2,670
2-bedroom	$3,350
3-bedroom	$4,650
Owner-Occupied Units (median price per square foot)	
Condominiums	$739
Co-ops	$477
Sources: Streeteasy.com; Cityrealty.com.	

Control Area

In general, current rental rates in the Control Area are comparable to the ¼-Mile Study Area. Studios and one-bedroom units rent for slightly lower median rates than in the ¼-Mile Study Area while two- and three-bedroom units rent for slightly higher median rates. This is likely due to the fact that larger units in the Control Area are generally found in higher-value brownstone buildings. As shown in **Table 3C-43**, a survey of current market rate rentals in the Control Area found that the median rental rate was $2,100 per month for studios; $2,480 for one-bedroom units; $4,000 for two-bedroom units; and $5,950 for three-bedroom units.[2] As described above, studios and one-bedroom units were slightly more expensive in the ¼-Mile Study Area ($2,200 and $2,670, respectively), and two- and three-bedroom units were slightly less expensive

[1] Rental listings obtained from Streeteasy.com, accessed December 11, 2013.

[2] Rental listings obtained from Streeteasy.com, accessed December 11, 2013.

($3,350 and $4,650, respectively). According to a survey of residential sales between December 2012 and December 2013, the median price per square foot for condominiums in the Control Area was $929, and the median price per square foot for co-ops was $783. Co-ops and condos were less expensive in the ¼-Mile Study Area ($739 and $477 psf, respectively).

Table 3C-43
MetroTech, Current Residential Listing Prices in the Neighborhood Control Area

Residential Units	Listing Price
Rental Units (median monthly rent)	
Studio	$2,100
1-bedroom	$2,480
2-bedroom	$4,000
3-bedroom	$5,950
Owner-Occupied Units (median price per square foot)	
Condominiums	$929
Co-ops	$783
Sources: Streeteasy.com; Cityrealty.com.	

Historic Trends

¼-Mile Study Area

Historically, the ¼-Mile Study Area was characterized as a commercial district, with a small residential population. After the 2004 Downtown Brooklyn Rezoning, which aimed in part to foster residential communities integrated with Downtown, the area experienced a residential development boom. During the construction and before the rezoning, most residential areas were separated from MetroTech by other commercial and institutional uses, as well as major roads. The Concord Village development was located north of the MetroTech site across Tillary Street. The University Towers and Kingsview Homes developments were separated from the MetroTech site by Flatbush Avenue and the MetroTech buildings were oriented inwards, with the main building entrances facing away from Flatbush Avenue. Based on discussions with brokers, for these reasons, although existing residents in the ¼-Mile Study Area would have been aware of construction activities on the MetroTech site, the influence of market forces in DUMBO to the north and Fort Greene to the east were likely stronger than construction activities on the MetroTech site.

Control Area

The Control Area is made up of the distinct residential neighborhoods of DUMBO, Brooklyn Heights, Cobble Hill, Boerum Hill, and Fort Greene. With the exception of DUMBO, all of these neighborhoods had established residential neighborhoods before and during the construction of MetroTech, as compared with the ¼-Mile Study Area. Until the early 1990s, many of the neighborhoods surrounding Downtown Brooklyn had low housing costs and few amenities, with the exception of Brooklyn Heights.[1] In the 1980s, DUMBO was an industrial area with a concentration of residents living in converted loft spaces and growing interest in redevelopment. Cobble Hill, Boerum Hill, and Fort Greene are all characterized by brownstone architecture and had established historic districts by the 1980s. At this time the residential

[1] Downtown Brooklyn Development Final Environmental Impact Statement. April 2004.

market in Cobble Hill was on the rise as professionals began to move in who were priced out of nearby Brooklyn Heights. These residents mixed with the older Middle Eastern and Italian immigrant population.[1] Boerum Hill—the closest of these neighborhoods to the MetroTech site—had lower property values than Cobble Hill, but was becoming attractive to more affluent households.[2] Fort Greene was also beginning to attract more residents from Manhattan and more expensive areas in Brooklyn, but was still the most affordable of these brownstone neighborhoods in the 1980s.[3]

In DUMBO, the first luxury apartments were introduced in 1998, with the conversion of the industrial building at 1 Main Street. By 2004, rental rates for loft spaces in DUMBO ranged from $4,500 to $12,000 per month. By 2002, the average monthly rent in Brooklyn Heights was $1,250 for a studio, $1,900 for a one-bedroom, $2,650 for a two-bedroom, and $3,850 for a three-bedroom unit. Around 1993, the markets in Cobble Hill, Boerum Hill, and Fort Greene began to change in these areas as the economy surged, and the brownstone architecture in these neighborhoods became more desirable.[4] By the 2000s, residential prices in Cobble Hill were approaching those in Brooklyn Heights.[5] Boerum Hill and Fort Greene were still more affordable than those neighborhoods, but sales prices were increasing. By the end of the construction of MetroTech (the first half of 2004), the average sales prices for townhouses were $2.47 million in Brooklyn Heights, $1.51 million in Cobble Hill, $870,000 in Boerum Hill, and $621,000 in Fort Greene.[6] In 2004, loft spaced in DUMBO cost between $600,000 and $2.7 million.

COMMERCIAL PROPERTY VALUES AND RETAIL ACTIVITY

Existing Conditions

¼-Mile Study Area

The ¼-Mile Study Area—which mostly includes the neighborhood of Downtown Brooklyn—is New York City's third largest central business district, after Midtown and Downtown Manhattan.[7] As described above, retail concentrations in the ¼-Mile Study Area include

---

[1] "If You're Thinking of Living in Cobble Hill." *The New York Times* website. October 2, 1983. Accessed December 12, 2013.

[2] "If You're Thinking of Living in Boerum Hill." *The New York Times* website. March 25, 1984. Accessed December 12, 2013.

[3] "If You're Thinking of Living in Fort Greene." *The New York Times* website. May 16, 1984. Accessed December 12, 2013.

[4] Downtown Brooklyn Development Final Environmental Impact Statement. April 2004.

[5] "If You're Thinking of Living in/Cobble Hill; New Settlers Alter an Old Ethnic Mix." *The New York Times* website. July 10, 1994. Accessed December 12, 2013.

"If You're Thinking of Living in/Cobble Hill; A Landmark Area with a Family Bent." *The New York Times* website. May 6, 2001. Accessed December 12, 2013.

[6] Halstead Property Brooklyn Townhouse Sales Report First Half 2005. Data not available for DUMBO.

[7] HVS Market Intelligence Report: Downtown Brooklyn, New York. http://www.hvs.com/article/5671/hvs-market-intelligence-report-downtown-brooklyn-new-york/, accessed January 3, 2014.

Willoughby Street, directly south of MetroTech and extending from Adams Street in the west to Flatbush Avenue in the east; the Fulton Street Mall, the portion of Fulton Street between Boerum Place and Flatbush Avenue; Court Street between Schermerhorn and Montague Streets; Jay Street between Fulton and Tillary Streets; and Livingston Street between Boerum Place and Bond Street. A survey of retail listings found that within the ¼-Mile Study Area, the per square foot (psf) rental rates for retail space ¼-MileStudy Area ranges from $25 to $40 for older storefronts on Fulton Street and new retail north of Tillary Street. Storefront space on retail corridors such as Livingston Street, Willoughby Street, and on nearby side streets like Lawrence Street range from $52 to $75 psf. Storefronts on Fulton Street on corners and closest to Borough Hall range from $250 to $289 psf.

The Fulton Street Mall, which consists of over 150 retail businesses and attracts more than 100,000 shoppers daily, has the highest rent psf for retail space in the ¼-Mile Study Area. Fulton Street includes national and independent retailers, including apparel and accessory stores, electronics stores, and a Macy's Department Store. According to a retail survey conducted in July 2013, the greater Fulton Mall retail area—including the Fulton Street Mall and extending to Willoughby Street to the north, Livingston Street and Schermerhorn Street to the south, Flatbush Avenue to the east and Boerum Place/Adams Street to the west—contains a total of 388 storefronts. Stores are densely packed in this area, and there are many large stores, particularly discount stores. Most of the retail stores are local chains, including Conway, Pretty Girl, and Jimmy Jazz. National chains include Modell's, Express, Raymour and Flanigan, Jennifer Living Room, Aeropostale, Payless Shoe Source, Wendy's, Subway, and Dunkin Donuts. Along with the shoppers' goods along the Fulton Street Mall, there is also a concentration of convenience goods stores and neighborhood services in the area as well, serving the growing residential population in Downtown Brooklyn. According to the survey, 13 percent of storefronts in this area were vacant. Willoughby Street has recently experienced trends of vacancy on historically popular corner sites and the proliferation of short-term retail leases.1

As discussed above, the ¼-Mile Study Area contains clusters of office space in the institutional buildings north of MetroTech, in buildings along Cadman Plaza West, and along Fulton, Livingston, and Schermerhorn Streets, and Flatbush Avenue. A survey of listings for office space in the ¼-Mile Study Area (not including MetroTech) found that the rent psf ranges from $25 to $75.[2] The average asking rent in Downtown Brooklyn was $34.89 psf in the third quarter of 2013, and the overall office vacancy rate was 4.1 percent.[3]

Control Area

Retail concentrations in the Control Area include Montague Street, Court Street, Smith Street, Atlantic Avenue, Atlantic Center and Terminal, Fulton Street east of Flatbush Avenue, DeKalb Avenue, and Myrtle Avenue.

Within the Control Area, there are concentrations of office space along Montague Street, Court Street, Atlantic Avenue, Flatbush Avenue, and throughout DUMBO. A survey of listings for office space in the Control Area found that the rent psf ranges from $17 to $75. Rent psf for

---

[1] MetroTech Business Improvement District Annual Report to NYC Department of Small Business Services Fiscal Year 2012.

[2] Commercial listings collected from Loopnet.com and Costar.com

[3] Newmark Grubb Knight Frank. Downtown Brooklyn Office Market Report 3Q13.

office space in the Control Area is the least expensive along the periphery of Downtown Brooklyn and most expensive in DUMBO.

Historic Trends

When construction of MetroTech was first announced in the 1980s, retail rents on the Fulton Street Mall increased to a high of $150 psf, according to a former Fulton Mall Improvement Association executive.[1] As the MetroTech site was acquired through eminent domain, there was vacancy throughout the project site prior to the start of construction. According to the 1987 *MetroTech FEIS*, there was a considerable amount of vacant land on the project site and throughout the study area at that time. Based on field surveys in 1981 and the blight study prepared for the URP, building conditions on the MetroTech site and in the surrounding area varied, but most were "poorly maintained" and "the overall level of building maintenance was considerable below that found in most of the other commercial and residential districts within the study area."

Based on discussions with brokers and former area business improvement district (BID) employees, the initial vacancy on the MetroTech site, combined with the historic lack of interest in the adjacent area, led to some uncertainty and hesitation on the part of investors in regards to adjacent properties. However, once construction began, the market was strengthened by the prospect of the new office space. By 1992, according to a former Fulton Mall Improvement Association executive, retail rents on the Fulton Street Mall had leveled off to $50 to $75 psf, but were still three times the rents at a typical regional mall. Property owners anticipated that the construction of MetroTech and the office workers that it generated in the area would lead to increased interest in the Fulton Street Mall from national retailers. [2] However, these relatively high rents, combined with the complications of multiple property owners interspersed along the dense street, discouraged national chains from locating along the Fulton Street Mall. At the same time, the Fulton Street Mall was separated enough from the MetroTech site that the construction did not have a substantial negative effect, if any, on retail activity on this corridor. Instead, even while construction was ongoing in the early 1990s, MetroTech was cited as a major factor in the revitalization of downtown Brooklyn. Specifically, the development was cited as encouraging the introduction of the first national retailer in 15 years to the former Albee Square Mall.[3]

Based on a *New York Times* article from 1989, in general, some small business owners felt that the construction would detract from their business; at the same time, some landlords in the area sought to increase retail rents with the influx of office workers in the area. As a result, smaller businesses who could not realize the sales volume needed to keep up with rent increases were forced to relocate.[4] While this displacement was more the result of the anticipated new worker

---

[1] "Commercial Property: Downtown Brooklyn; Planning Strategies for a New Retail Environment." *The New York Times* website, June 14, 1992. Accessed December 13, 2013.

[2] "Strictly Business: Thriving Mall Seeks Image to Match." *The New York Times* website, August 16, 1993. Accessed November 6, 2013.

[3] "Neighborhood Report: Williamsburg/Downtown; Toys 'R' Us Creates Burst of Optimism." The New York Times website, November 28, 1983. Accessed November 6, 2012.

[4] "Transforming Downtown Brooklyn." *The New York Times* website, January 22, 1989. Accessed December 13, 2013.

population, it is possible that lagging sales may have been exacerbated by the construction of the project. *The New York Times* reported in 1992 that while some residents expressed concerns that the project would put pressure on rents, the streets around the MetroTech site were cleaner, and the new workers from the project site extended activity on the street into the evening. The 84th Precinct reported a 23 percent decline in felonies between 1989 and 1991, attributing it to the increase in people. In addition, since the beginning of construction, several new businesses had opened along Willoughby Street and the Fulton Street Mall, and others renovated or updated their storefronts.[1] According to discussions with a former area BID executive, as part of the phased construction process of MetroTech, future development sites received temporary improvements before construction began, lessening the negative aesthetic effects of construction.

According to brokers in the area, the extent of the effect of construction on retail depended on the proximity of retail to the MetroTech site. One business that was negatively impacted during construction was Sid's Hardware, a small business that was relocated from the MetroTech site prior to construction and moved to a retail space within the MetroTech campus. According to *The Brooklyn Paper*, the business saw a dramatic decline in sales during the construction of MetroTech. However, the business remained on the site until 2010, when it decided to move, citing increases in rent and lack of parking.[2] The decline in retail sales was likely due more to the area's general transition to an office district than any effects during the construction period. Willoughby Street—the closest retail concentration to the project site—may also have been negatively impacted by the construction of MetroTech. According to discussions with former area BID executives, however, Willoughby Street had experienced problems of vacancy prior to the MetroTech project. Retail vacancy was a problem on Willoughby Street until recently, when the 2004 Downtown Brooklyn rezoning increased investor interest increased along this corridor. By 2002, when most of the construction of MetroTech was complete, the Renaissance Plaza Expansion EAS described high volumes of pedestrian traffic on Adams, Jay and Joralemon Streets, and heavy pedestrian traffic on the Fulton Street Mall.

While MetroTech was still under construction, construction began on Renaissance Plaza, a hotel and office development which was the first new hotel in Brooklyn in 50 years at the time. Planning for the hotel project began in the early 1980s, but construction did not start until 1997 due to problems financing the project and finding a hotel operator.[3] Based on discussions with a broker who worked in the area at the time, the construction of MetroTech was largely seen as key to attracting and financing a hotel in Downtown Brooklyn. Once some of the MetroTech buildings were completed and leased, the developer was able to find a hotel operator for the project. The development of the hotel was a positive result of the development on the MetroTech site, and was not negatively affected by the ongoing construction.

According to discussions with former area BID executives, before MetroTech, most existing office space in the ¼-Mile Study Area was concentrated on Court Street, which functioned as a

---

[1] "The Prime of 'Wall Street East;' A Renaissance May End Downtown Brooklyn's Dark Ages." The New York Times website May 15, 1992. Accessed January 5, 2014.

[2] "Sid's bids adieu to Downtown." *The Brooklyn Paper* February 26, 2010. Accessed January 7, 2014.

[3] "A Dream Grows in Brooklyn." The New York Times website, January 22, 1989. Accessed September 12, 2013.

separate market. The construction of MetroTech did not adversely affect this office market, although there may have been some negative effects during construction on a few nonprofit organizations with office space on Willoughby Street. MetroTech is largely seen as spurring investment throughout Downtown Brooklyn, including Livingston Plaza and Renaissance Plaza.[1] From the beginning of construction, MetroTech was perceived as creating a "critical mass" needed to attract additional office tenants.[2] By 1992, 95 percent of MetroTech was leased, as compared to vacancy rates in midtown Manhattan of between 15 and 20 percent.[3] As buildings were completed and tenanted throughout the phased construction period, MetroTech's early success encouraged investors in an area that was long seen as a natural location for a large-scale commercial district.

CONCLUSIONS – METROTECH CASE STUDY

Because the ¼-Mile Study Area was primarily a commercial district prior to the 2004 Downtown Brooklyn rezoning and during the construction of MetroTech, the prolonged construction on the development site had little effect, if any, on residential trends in the area. The project was designed as part of an urban renewal plan to reinvigorate the office market in Downtown Brooklyn. According to brokers and former area BID executives, there was little existing office space in Downtown Brooklyn during the construction of MetroTech, and the development was perceived as spurring office projects like Livingston Plaza and Renaissance Plaza. While the initial clearing of the site for development may have created some temporary uncertainty in the retail market in the ¼-Mile Study Area, the start of construction increased confidence, and the phasing of the office buildings maintained this momentum during construction. Because of the insulated nature of the project site, the impacts of construction were largely contained, and any negative effects were limited to retailers immediately adjacent to the construction. The Willoughby Street retail corridor may have been negatively affected by ongoing construction on the MetroTech site, but this corridor had historically lagged in activity. Demographics trends, real estate data, and discussions with brokers and former BID executives in the area indicate that the prolonged construction of MetroTech did not result in significant disinvestment in the ¼-Mile Study Area; on the contrary, there was a substantial amount of new investment in the ¼-Mile Study Area during the construction of MetroTech. Overall, the prolonged construction of MetroTech did not have any substantial negative effects on neighborhood conditions or property values in the ¼-Mile Study Area as compared with the Control Area.

CASE STUDY CONCLUSIONS

Findings from the four case studies of other development sites in New York City that have experienced prolonged construction and/or periods of construction delay are consistent with findings on the effects of the Atlantic Yards Project to date. The case studies indicate that

---

[1] "The Prime of 'Wall Street East;' A Renaissance May End Downtown Brooklyn's Dark Ages." The New York Times website May 15, 1992. Accessed January 5, 2014.

[2] "Perspectives: Downtown Brooklyn; Creating a Critical Mass at MetroTech." The New York Times website January 14, 1990. Accessed November 6, 2012.

[3] "The Prime of 'Wall Street East;' A Renaissance May End Downtown Brooklyn's Dark Ages." The New York Times website May 15, 1992. Accessed January 5, 2014.

prolonged construction—in some cases construction that lasted for decades and is still ongoing—has not led to decreased property values or other signs of disinvestment in the ¼-Mile Study Area compared with the Control Area. Likewise, the extended delay in construction of the First Avenue Properties has not resulted in disinvestment in the surrounding area. Across all case studies, demographic and housing trends indicate that population and income growth and residential property values in the ¼-Mile Study Area kept pace with or exceeded growth in the Control Areas over the course of the analysis period. Trends in commercial office and retail rents and sale values also indicate that prolonged construction or periods of delay for case study developments did not have any detrimental effect on commercial property values in the ¼-Mile Study Areas compared with the Control Areas.

For certain case study development sites, such as MetroTech, anecdotal information from real estate brokers and newspaper articles indicates that initial phases of project development may have caused some temporary uncertainty in the retail market in areas closest to construction activities, but that the start of construction increased confidence, and the introduction of new worker population on the project site maintained and increased the retail customer base. Other case studies also revealed increased residential and retail investment in the ¼-Mile Study Area as a result of development on the case study development site. For example, over the course of the development of Battery Park City, a new residential market emerged along the east side of Route 9A/West Street, and the Financial District has seen an expansion and diversification of its retail market. And broker input on Riverside South indicates that the project has had a positive effect on the real estate market in the area by redeveloping an underutilized industrial space and "shoring up" the residential element of the neighborhood.

Overall, research into the effects of case study development sites on surrounding neighborhoods indicates that the prolonged construction assumed under the Extended Build-Out Scenario would not lead to substantial adverse changes in property values or neighborhood conditions that in turn would result in significant adverse socioeconomic impacts due to disinvestment in neighborhoods surrounding the Phase II site. As described in the 2006 FEIS, construction of Phase II would continue the transformation of the project site from industrial and rail yard uses into an active mixed-use residential community with a sizable open space amenity. Based on the case studies, this transformation, even spanning many years under the Extended Build-Out Scenario, would not have a detrimental effect on socioeconomic conditions in the ¼-Mile Study Area.

G. ECONOMIC AND FISCAL BENEFITS OF PHASE II CONSTRUCTION: NON-MODULAR[1]

INTRODUCTION

The construction of the Phase II development would generate substantial economic and fiscal benefits for the city and the state. This section of the chapter estimates construction-period

[1] The estimates presented in this chapter are for conventional (non-modular) construction and do not include the possible reductions in economic and fiscal benefits that might result from modular construction. Estimates of the effects of constructing the Phase II development using modular construction are presented in Chapter 3M, "Modular Construction."

benefits from the Phase II development, including jobs, wages and salary, economic output, and taxes.

METHODOLOGY

As was the case for the 2006 FEIS, the principal model used to estimate the effects on the City's economy of constructing the projected development program is the Regional Input-Output Modeling System (RIMS II), developed by the U.S. Department of Commerce, Bureau of Economic Analysis. The model contains data for New York City on more than 400 economic sectors, showing how each sector affects every other sector as a result of a change in the quantity of its product or service. A similar RIMS II model for New York State, also developed by the U.S. Department of Commerce, has been used to trace the effects on the State economy. The models have been adjusted to reflect the most recent changes in the New York metropolitan area price level. Using these models and the specific characteristics of the project, the total effect has been projected for New York City and State.

The dollar values in this section are in constant 2013 dollars. Employment is expressed in person-years; a person-year is the equivalent of one person working full time for a year. When presented in constant dollars and person-years, the estimates for the three phasing plans analyzed in this SEIS would be essentially identical. Phasing does not affect the real dollar value of the economic benefits or the amount of employment, although it is generally more desirable to have the benefits and employment sooner rather than later.

The estimates in this section are for conventional (non-modular) construction. Estimates of the effects of constructing the Phase II development using modular construction are presented in Chapter 3M, "Modular Construction".

VALUE OF CONSTRUCTION

The development of the projected Phase II development program would be undertaken by the private and public investment of funds in the area. Based on the current development program and preliminary estimates of costs per square foot, the investment for construction of the Phase II of the Project is estimated for the purpose of this analysis to equal about $2.43 billion ($2,426.52 million) in 2013 dollars. This amount includes the construction of the residential and retail development, the platform, and the infrastructure and open space. The above figure includes site preparation and hard costs (actual construction), and design, legal, and related costs. The total estimated amount of $2.43 billion reflects the cost of physical improvements to the site, and therefore excludes other values (such as financing, insurance, the value of the development rights and the land, marketing, etc.) not directly a part of the expenditures for construction. The total cost—including financing, the value of the land, real estate payments, management, initial marketing expenditures, and similar expenditures—would be substantially more. The construction costs enumerated above serve as the primary input to the RIMS II model, i.e., economic impacts such as number of construction jobs are derived from the total construction cost using the RIMS II model.

ECONOMIC AND FISCAL ANALYSIS

An analysis of the economic and fiscal impacts associated with the construction expenditures for each of the uses in the projected development program has been conducted using the RIMS II models for New York City and New York State. The projected employment and economic benefits from construction of the Phase II development are presented in **Table 3C-44**.

Table 3C-44
Employment and Economic Benefits from Construction of the Phase II Development: Conventional Construction

	Portion in New York City	Total New York City and State
Total Employment (Person-Years)*		
Direct (Construction)	9,148	9,148
Indirect (Secondary and Induced)	4,761	7,618
Total	13,909	16,765
Total Wages and Salaries (Millions of 2013 dollars)		
Direct (Construction)	$737.95	$737.95
Indirect (Secondary and Induced)	$315.48	$514.87
Total	$1,053.43	$1,252.82
Total Economic Output or Demand** (Millions of 2013 dollars)		
Direct (Construction)	$2,426.52	$2,426.52
Indirect (Secondary and Induced)	$1,154.05	$2,251.09
Total	$3,580.57	$4,677.61
	Fiscal	
Total Tax Revenues, Exclusive of Real Estate*** (Constant 2013 dollars)		
New York City Taxes	$56,610,600	
MTA Taxes	$7,257,700	
New York State Taxes	$109,538,000	
Total	$173,406,300	

Notes: The above estimates are for conventional (non-modular) construction and do not include the possible reductions in benefits which might result from modular construction. Estimates of the effects of constructing the Phase II development using modular construction are presented in Chapter 3M, Modular Construction."

* A person-year is the equivalent of one person working full-time for a year.

** The economic output or total effect on the local economy derived from the direct construction spending.

*** Includes personal income taxes, corporate and business taxes, sales tax on indirect activities, and numerous other taxes on construction and secondary expenditures.

Source: The characteristics and construction cost of the proposed development; the Regional Input-Output Modeling System (RIMS II), U.S. Department of Commerce, Bureau of Economic Analysis; the U.S. Census Bureau, *Economic Census, Construction, New York*; and the tax rates by applicable jurisdiction.

EMPLOYMENT

The $2.43 billion represents the direct expenditures during the Phase II construction period. As a result of the direct expenditures, the direct employment for constructing the entire Phase II development program is estimated at about 9,148 person-years of employment. In addition to direct employment, total employment resulting from construction expenditures would include jobs in business establishments providing goods and services to the contractors and resulting indirect employment. Based on the model's economic multipliers for New York City industrial sectors, the construction of the entire development program would generate an additional 4,761 person-years

of employment within New York City, bringing the total direct and generated jobs from the construction of the program to 13,909 person-years (see **Table 3C-44**). In the larger New York State economy, the model estimates that the projected development would generate 7,618 person-years of indirect employment, bringing the total direct and generated jobs from construction of the projected development to 16,765 person-years of employment.

The direct wages and salaries during the Phase II construction period are estimated at $737.95 million, in 2013 dollars (see **Table 3C-44**). Total direct and generated wages and salaries resulting in New York City from construction of the entire Phase II development program are estimated at $1.05 billion ($1,053.43 million. In the broader New York State economy, total direct and generated wages and salaries from construction of the entire Phase I development program are estimated at more than $1.25 billion ($1,252.82 million).

FISCAL IMPACTS

The construction activity would also generate tax revenues for New York City, the MTA, and New York State. As indicated above, the total cost for constructing the entire Phase II development program (excluding financing and similar costs) is estimated at approximately $2.43 billion. Based on the U.S. Bureau of Economic Analysis' RIMS II model for New York City and State, the total economic activity, including indirect expenditures (those generated by the direct expenditures), that would result from construction of the entire projected development program is estimated at $4.68 billion ($4,677.61 million) in New York State, of which $3.58 billion ($3,580.57 million) would occur in New York City (see **Table 3C-44**).

In total, the construction of the entire projected Phase II development is estimated to generate approximately $173.41 million in tax revenues for New York City, MTA, and New York State, in 2013 dollars (see **Table 3C-44**). Of these tax revenues, the largest portion would come from personal income taxes, corporate and business taxes, sales tax on indirect activities, and related taxes on direct and generated economic activity. New York State would receive about $109.54 million, the MTA would receive about $7.26 million, and New York City would receive about $56.61 million of these tax revenues from construction of the entire Phase II development.

In addition, New York City would receive revenue from the mortgage recording fees and real property transfer tax from the condominium units, which would be additional.

H. COMPARISON WITH 2006 FEIS FINDINGS

Consistent with the 2006 FEIS, this SEIS concludes that construction of Phase II of the project under the Extended Build-Out Scenario would not materially impede access to businesses near the project site, and that most businesses would not be expected to be significantly affected by any limited, temporary reduction in the amount of pedestrian foot traffic that could occur as a result of construction activities. Therefore, based on *CEQR Technical Manual* criteria for analyzing the potential for construction to result in significant adverse socioeconomic impacts, both the 2006 FEIS and this SEIS conclude that the project would not result in significant adverse impacts on surrounding businesses. In response to public concerns raised with respect to the effects of prolonged effects of construction of Phase II of the Project on socioeconomic conditions in the area, this SEIS goes beyond the 2006 FEIS analysis, utilizing case studies to examine in greater detail the potential socioeconomic effects of the prolonged construction on both the business and residential community surrounding the Phase II project site. Conclusions

from these SEIS case studies also are consistent with the 2006 FEIS findings of no significant adverse socioeconomic impacts from Project construction.

The estimated economic and fiscal impacts of Phase II of the Project have increased since the 2006 FEIS. The value of construction (construction cost) utilized in this SEIS is approximately 29 percent higher in constant dollar terms than the value of construction assumed in the 2006 FEIS. In the 2006 FEIS, the value of construction for the residential mixed-use variation of Phase II of the Project was estimated at $1.61 billion. Adjusted for inflation, this equates to approximately $1.88 billion in 2013 dollars, compared with $2.43 billion currently estimated and utilized as the basis of the SEIS economic benefits analysis. The difference between the value of Phase II construction utilized for the 2006 FEIS and the SEIS is due to a number of factors including rising costs of construction, particularly with respect to the infrastructure of the Project including the platforms and foundations of the buildings, and the additional approximately 208,000 gross square feet of residential area analyzed in Phase II (4,486,000 gsf in the SEIS compared with 4,278,000 in the 2006 FEIS).

Direct employment generated by the construction of Phase II (residential mixed-use variation) was estimated at 7,889 person-years in the 2006 FEIS, compared with 9,148 person-years in the SEIS. Total employment in New York City and State were estimated at 11,909 and 14,859, respectively in the 2006 FEIS. In comparison, total employment estimates presented in this SEIS are approximately 17 percent higher for New York City and 14 percent higher for New York State.

Differences between 2006 FEIS and SEIS wages and salary and economic output are greater in relative terms than differences in employment. Direct wages and salary presented in this SEIS ($737.95 million) are approximately 34 percent higher in constant dollar terms than those presented in the 2006 FEIS ($489.44 million in 2006 dollars), and total wages and salary in the SEIS are in constant dollar terms approximately 31 percent higher for New York City and 36 higher for New York State compared with the 2006 FEIS. In terms of total economic output, the values estimated in this SEIS ($3.6 billion for New York City and $4.7 billion for New York State) are approximately 40 percent higher in constant dollar terms than in the 2006 FEIS ($2.3 billion for New York City and $3.0 billion in New York State, in 2006 dollars). The higher values for wages and salary and economic output in the SEIS compared with the 2006 FEIS are primarily due to the higher estimated value of construction.

Total estimated tax revenue for New York City, the MTA, and New York State is approximately 39 percent higher in the SEIS compared with the 2006 FEIS (in constant dollar terms). ✷