Chapter 9: Urban Design and Visual Resources

A. INTRODUCTION

This chapter considers the potential for the proposed project to affect the urban design characteristics and visual resources of the project site and the study area. The project site is located in the Williamsburg section of Brooklyn and comprises a waterfront parcel and an upland parcel. The waterfront parcel is located on the west side of Kent Avenue between Grand Street and South 5th Street, and the upland parcel is located on the east side of Kent Avenue between South 3rd Street and South 4th Street.

The *City Environmental Quality Review (CEQR) Technical Manual* states that urban design components and visual resources determine the "look" of a neighborhood—its physical appearance, including the street pattern, the size and shape of buildings, their arrangement on blocks, streetscape features, natural resources, and noteworthy views that may give an area a distinctive character. Since the proposed project would be notably different in bulk, type, and use from the existing development on the project site, a detailed urban design and visual resources analysis was prepared. The technical analysis presented below follows the guidance of the *CEQR Technical Manual*. The following analysis addresses each of these characteristics for existing conditions, the future without the proposed project (the "No Action" condition), and the future with the proposed project for a 2020 Build year.

PRINCIPAL CONCLUSIONS

URBAN DESIGN

The proposed project would positively affect the urban design of the project site. It would substantially alter the urban design, as it would redevelop a former waterfront industrial site with a mixed-use development with a unified design that is intended to reactivate the East River waterfront (including increasing pedestrian activity), and the proposed site plan is intended to provide visual and physical access to the waterfront including the creation of much-needed publicly accessible open space with connections to an existing park.

The proposed new buildings would be designed with a variety of heights to include shorter buildings on Kent Avenue to transition to the lower-rise neighboring context while stepping up to towers on the waterfront. The applicant has stated the new buildings would be clad primarily in masonry to complement the landmarked Refinery on the site and the majority of the surrounding built context, with glass at the upper levels to add transparency at the taller sections of the buildings. The staggered heights of the buildings and the slender module design are also intended to break up the massing of each block.

The proposed project would also extend the existing street network into the project site and the site plan is intended to connect the surrounding community to the new public open spaces—including a central open space and a new waterfront esplanade—to be created on the project site. The applicant's intention is that the proposed project design maximize the amount of open space on the site and emphasize the historic Refinery. A public park would be provided at the center,

immediately west of the Refinery, and would provide new views to this resource. Along the entire length of the waterfront would be a publicly accessible landscaped esplanade. These open spaces would provide substantial greenery in an area where few such amenities exist. The site design would also create public accessways to the waterfront at each of the four streets that enter the site, an open access to Grand Ferry Park to the north of the site, and access to the waterfront at South 5th Street. The proposed project is intended to activate the streetscape by providing ground-floor retail along Kent Avenue. The ground-floor retail spaces are intended to draw pedestrians to the project site. The new retail uses would extend along the base of the buildings to the western façades. This is intended to draw pedestrians to the waterfront esplanade. The retail spaces would be required to have large amounts of glass onto the streets to maximize transparency and activate the streetscape.

With the proposed project, the Refinery, which is currently vacant, would be renovated for use as a mixed residential, retail, and community facility space. The renovation of the Refinery would include a new three- and four-story glass and steel addition located on top of the western portion of the building. The Domino Sugar sign, currently located on another structure, would be preserved and relocated to the top of the addition. The renovation and re-use of the Refinery, including exterior restoration, would reactivate a significant formerly industrial resource and is intended to improve its appearance.

As described in Chapter 23, "Mitigation," the New York City School Construction Authority (SCA) may locate an approximately 100,000-square-foot public elementary and intermediate school within the community facility space in the Refinery complex. The inclusion of a school within the Refinery would not affect the building location or overall floor area, height, and bulk of the Refinery. Should this school be constructed, a portion of the project's open space may be set aside for school use as a play area and staging area during school hours. This could result in modifications to the project's open space plan to meet requirements related to school play areas and access. These modifications to the open space plan would not substantially affect the design of the project's open space. Therefore, the inclusion of a school within the Refinery would not result in any significant adverse impacts on urban design and visual resources.

An assessment was undertaken to determine whether the project site would experience pedestrian level wind speeds that would potentially result in a significant adverse urban design impact. Although the proposed project would create some elevated pedestrian wind conditions during the winter months, essentially minimized by landscaping features, these conditions would be similar to those at comparable locations in the city. The open space plan balances the potential for elevated pedestrian wind conditions with urban design considerations, including the goals of maintaining view corridors, maximizing views to the East River and East River waterfront, maintaining pedestrian circulation and access, and not impeding or blocking circulation and access for emergency service vehicles. The project's Restrictive Declaration contains provisions defining circumstances under which the final tree planting layout detailed in the construction drawings may be required to undergo wind tunnel analysis to confirm its effectiveness in addressing the potential for elevated pedestrian wind conditions. Therefore, no significant adverse urban design impacts would result from potential pedestrian wind conditions.

VISUAL RESOURCES

The proposed project would not have any significant adverse impacts to visual resources on the project site or in the surrounding area. While the proposed project would demolish the Bin Building—a visual resource on the project site—this would not be a significant adverse impact, as this building will be demolished in the No Action condition. The proposed project would also

retain the most visually significant feature of this resource, the formerly illuminated "Domino Sugar" sign, and relocate it on top of the renovated Refinery. The sign would face the waterfront and is intended to be reminiscent of its former location. The proposed project would have a positive impact on the Refinery, also a visual resource on the project site. It would be restored, and the new open space proposed west of the Refinery would provide new views to this resource, as well as allow for new and expanded views from the East River and Manhattan.

While the proposed project would block some views of visual resources in the study area, including the Williamsburg Bridge and the Manhattan skyline, it would also allow for new and expansive views of these resources. The waterfront esplanade would create new viewing opportunities for these two resources which are currently not available and will not be available under the No Action condition. The new vantage points from the proposed project's esplanade would also allow the Williamsburg Bridge to be viewed in the larger context of the Brooklyn and Manhattan waterfronts. The waterfront esplanade would also enhance views to the Manhattan and Brooklyn Bridges. Finally, the proposed project would provide new and uninterrupted views of the Manhattan skyline from the new waterfront public open space.

B. METHODOLOGY

In accordance with the *CEQR Technical Manual*, this analysis considers the effects of the proposed project on the following elements that collectively form an area's urban design:

- *Block Form and Street Pattern.* This urban design feature refers to the shape and arrangement of blocks and surroundings streets, such as a grid pattern with regularly sized, rectangular blocks. These features set street views, define the flow of activity through an area, and create the basic format on which building arrangements can be organized.
- *Building Arrangement.* This term refers to the way that buildings are placed on zoning lots and blocks. The buildings can have small or large footprints, be attached or detached and separated by open uses, and varied in their site plans. This urban design feature helps to convey a sense of the overall form and design of a block or a larger area. Given the location of the project site along the East River and the size of the proposed buildings, consideration is given to the relationship of building configurations and wind conditions in Section E, "Future With the Proposed Project."
- *Building Bulk, Use, and Type.* Buildings are usually described by these characteristics. A building's bulk is created from an amalgam of characteristics that include its height, length, and width; lot coverage and density; and shape and use of setbacks and other massing elements. The general appearance of a building (e.g., residential, manufacturing, commercial office) gives an impression of its use and helps to understand its visual and urban design character. Building type refers to a distinctive class of buildings and suggests distinguishing features of a particular building. Examples of building type include industrial loft, church, gas station, and walk-up tenement.
- *Streetscape Elements.* Streetscape elements are the distinctive physical features that make up a streetscape, such as street walls, building entrances, parking lots, fences, street trees, street furniture, curb cuts, and parking ribbons. These features help define the immediate visual experience of pedestrians.
- *Street Hierarchy.* Streets may be classified as expressways, arterials, boulevards, collector/distributor streets, or local streets, and they may be defined by their width, type of access, and the presence or absence of at-grade pedestrian crossings. Street hierarchy helps convey a sense of the overall form and activity level of a neighborhood.

- *Topography and Natural Features.* Topographic and natural features help define the overall visual character of an area and may include varied ground elevation, rock outcroppings and steep slopes, vegetation, and aquatic features.

This analysis also considers the effects of the proposed project on the area's visual resources, which the *CEQR Technical Manual* defines as unique or important public view corridors, vistas, or natural or built features. Visual resources can include waterfront views, public parks, landmark structures or districts, or natural features such as a river or geologic formations.

As recommended by the *CEQR Technical Manual*, this analysis evaluates the potential for impacts on two areas—the project site and a surrounding study area (see Figure 9-1[1]). The project site is composed of two parcels: the waterfront parcel and the upland parcel (see Figures 9-1 and 9-2). In consideration of both the scale of the proposed project and the surrounding urban fabric, this chapter analyzes a ½-mile study area which includes an area roughly bounded by North 10th Street to the north, Havemeyer Street to the east, Clymer Street to the south, and the East River to the west. This study area also corresponds to the land use study area, as discussed in Chapter 3, "Land Use, Zoning, and Public Policy." In addition, this analysis considers the effects of the proposed project on views from the Williamsburg Bridge and along the East River, and from Manhattan. Views of the project site and study area are presented in Figures 9-3 to 9-28, while renderings of the future with the proposed project and the No Action condition are presented in Figures 9-29 through 9-43.

C. EXISTING CONDITIONS

PROJECT SITE

URBAN DESIGN

The approximately 11-acre project site is composed of two parcels: the waterfront parcel and the upland parcel (see Figures 9-1 and 9-2).

The waterfront parcel is a large parcel bounded by Grand Street to the north, Kent Avenue to the east, South 5th Street to the south, and the East River to the west (see Figure 9-1). The waterfront parcel is currently developed with an assortment of vacant industrial buildings formerly used for sugar refining, processing, and packaging (see Figure 9-2). The site operated under the name "Domino Sugar" until 2001, when the Domino brand was acquired by American Sugar Refining. American Sugar closed its refining operations on the site in early 2004, with the exception of some limited packaging and warehousing operations, which ceased operating in mid-2004. Since that time, all of the buildings have been vacant. In addition to the buildings on the site there is a large, vacant area between South 1st Street and South 2nd Street. This area has small storage sheds and is covered with overgrown grass (see View 1 of Figure 9-3). There are also large paved areas between the buildings in the locations of former South 2nd and South 3rd Streets, and between the buildings and the river. The area along the river was previously used as a truck loading area along the southern section of the site. The northern section of the site retains two large cranes and the track on which they formerly ran.

The project site buildings were built over the course of many years ranging from the 1880s to the 1960s and in a variety of styles. Most of the buildings are clad in brick and lack exterior

[1] All Urban Design and Visual Resources figures appear at the end of this chapter.

ornament. All of the buildings on the project site are vacant, and the project site has an underutilized appearance.

The two most visually prominent buildings on the project site are the Refinery and the Bin Building. The Refinery is a group of three attached buildings located between South 2nd and South 3rd Streets; it is bulky in form and is 9 to 12 stories (approximately 118 to 155 feet) in height (see View 2 of Figure 9-3). The Refinery is clad in red brick and has a fairly consistent window fenestration; windows are located on each floor and are for the most part small and arched, with deeply recessed glass. On the ground floor there are larger arched openings which have been filled in with either brick or metal gates. There is a tall chimney with brick detailing located on the western façade. The Bin Building, 170 feet in height, is located near the waterfront on the south side of South 3rd Street. This reinforced concrete building has a square footprint and is crowned by three stories of blue-green glass. The exterior of the building is mostly featureless, although on the west façade, which faces the East River, there is a large, formerly illuminated sign with the words "DOMINO SUGAR" spelled out in yellow, mimicking the company's logo (see View 3 of Figure 9-4).

The Bin Building and the Refinery are connected by a metal conveyor bridge spanning South 3rd Street (see View 4 of Figure 9-4). A similar bridge also connects the Refinery to a smaller brick building which is attached to the Bin Building.

The remainder of the buildings on the project site range in height from approximately 26 feet to 118 feet; for the most part they are clad in red brick and are plain in appearance. On the parcel between Grand Street and South 2nd Street are two buildings: the former Raw Sugar Warehouse and the Research and Development Lab. These have very large footprints, especially the Raw Sugar Warehouse, which is approximately 510 feet long. Openings on these two buildings are minimal and located in the upper portions of both buildings, creating a solid streetwall along Grand Street and along Kent Avenue between Grand Street and South 1st Street (see View 5 of Figure 9-5).

Facing onto Kent Avenue between South 3rd Street and South 5th Street are two attached buildings. The Packaging House occupies almost the entire parcel between Kent Avenue, South 5th and South 3rd Streets, and the East River. At the southwest corner of Kent Avenue and South 3rd Street is a small doorway and two bands of narrow windows that wrap the corner at South 3rd Street. Otherwise, there are no other openings on this façade, creating a solid, blank wall along Kent Avenue (see View 6 of Figure 9-5). Adant House, located on the corner of Kent Avenue and South 5th Street, is also clad in dark red brick and has a consistent fenestration (see View 7 of Figure 9-6). It rises four stories (approximately 45 feet) above grade. Small, deeply recessed arched windows are located close together. Some of the windows have either been filled in with wood or are covered with metal grates. On the ground floor are larger, arched openings which are filled in with either brick or metal gates. Some of the brick cladding has been replaced and there are large cracks and structural breaches on the south façade. Graffiti has been spray painted onto the ground floor of the Kent Avenue façade, adding to the somewhat degraded appearance of the building.

Along the south side of South 2nd Street, facing the water, there is a group of buildings of a variety of heights and forms. Connected to the west side of the Refinery are four attached buildings ranging in height from 48 feet to 118 feet (see View 8 of Figure 9-6). These buildings have irregular windows, some of which have been either reconfigured or filled in. Metal piping runs along the upper stories and connects the buildings along South 2nd Street. The bulkiest

structure, the Boiler House, faces the water and is topped by a gambrel roof. Large, round, metal pipes run the height of the building and extend past the roofline.

There are a number of other industrial structures on the site. Along the waterfront between Grand Street and South 2nd Street are two large metal cranes, and tracks along which cranes used to run (see View 9 of Figure 9-7). Facing the waterfront on the parcel between South 2nd Street and South 3rd Street is a small, one-story brick and concrete building topped with 15 tall metal silos that were used to store syrup.

The buildings along Kent Avenue are built to the sidewalk line, with the exception of the vacant parcel between South 1st Street and South 2nd Street. The lack of openings at the ground floor creates a desolate streetscape. The sidewalks are narrow and the pavement is cracked and uneven in certain places. Street furniture is limited to tall "cobra-head" lampposts and bus stop signs. There are no trees or landscaping, further adding to the vacant and underutilized appearance of the site.

The configuration of the buildings on the site blocks physical and visual access to the waterfront. The only streets that run through the project site are South 2nd Street and South 3rd Street, which are not mapped streets and are not open to the public. South 1st Street and South 4th Street terminate at Kent Avenue; buildings span across these streets.

The upland parcel, located along Kent Avenue between South 3rd and South 4th Streets, is currently a paved surface, though it is mostly covered with overgrown grass (see View 10 of Figure 9-7). It slopes downward in a westerly direction and is surrounded by a tall chain-link fence. The sidewalks surrounding this parcel are cracked and broken and in generally poor condition.

VISUAL RESOURCES

There are two visual resources on the project site: the Bin Building and the Refinery. As described above, these are two of the tallest and most visually prominent buildings on the site.

The Refinery is visible from parts of the surrounding area and is most prominent in views south along Kent Avenue and southwest from Wythe Avenue, and serves as the visual termination point in views west along South 3rd Street and South 2nd Street. The chimney is the defining feature of these views (see View 11 of Figure 9-8).

The Bin Building is the tallest structure on the project site. The design of the building, including its boxy form, the crown of blue-green windows, and the formerly illuminated "Domino Sugar" sign make it a prominent visual landmark from the river. The formerly illuminated sign is the defining feature of this visual resource and can be seen from views across the East River, and from the north side of the Williamsburg Bridge. The north side of the Williamsburg Bridge carries vehicular traffic into Manhattan and views of the Bin Building are limited for drivers, though passengers on the elevated J/M/Z line have views of this resource as the train moves across the bridge.

There are views from the project site to a number of visual resources, including the East River and Brooklyn and Manhattan waterfronts, and the Williamsburg Bridge; however, none of these views are publicly accessible. The East River is generally not visible from the sidewalks surrounding the project site on Kent Avenue. Breaks in the streetscape occur at South 2nd Street and South 3rd Street; however, a tall metal, chain-link fence extends across these streets and obscures views to the waterfront and across the water to Manhattan.

STUDY AREA

As discussed above, the study area has been defined as the surrounding area within ½ mile of the project site. Topography, natural features, street hierarchy, block shapes, and street pattern and streetscape features are discussed separately and in more detail for three sub-areas. The three sub-areas are the area north of Grand Street (Northside), the area between Grand Street and the Williamsburg Bridge (Southside), and the area south of the Williamsburg Bridge (South Williamsburg). The discussion below focuses first on the area's urban design—its basic layout and structures—and then describes its visual resources. Figure 9-1 shows the location and direction of photographs referenced in the discussion below.

URBAN DESIGN

Topography and Natural Features

Through most of the study area, the topography is relatively flat. There is a gradual slope towards the waterfront along the east-west streets between Wythe Avenue and Kent Avenue.

The East River, a prominent natural feature in the study area, separates Manhattan from Brooklyn and Queens and is approximately 2,000 feet wide at the project site. Within the study area are two parks along the river: Grand Ferry Park and East River State Park. Grand Ferry Park, located directly north of the project site, is 1.8 acres in size and features seating areas, a waterfront walkway, and a lawn area. East River State Park is located between Kent Avenue, the East River, North 7th Street, and North 9th Street. This 7-acre park features a large open lawn with picnic benches, historical remnants like old cobblestone streets, and railroad tracks embedded in concrete.

A waterfront esplanade is also located at the Schaefer Landing development and extends from approximately South 9th Street to South 10th Street. The esplanade features paved walkways and seating areas.

Street Hierarchy, Block Shapes, and Street Pattern

Grand Street and Broadway separate three related street grids in the study area. The area north of Grand Street is laid out in a grid pattern and set at an angle, with the avenues roughly paralleling the curve of the shoreline. This area is laid out with wider avenues running north-south and narrower streets running east-west. This pattern creates mostly regular rectangular-shaped blocks. An exception to this street pattern is Metropolitan Avenue, which runs east-west and is wider than the other east-west streets. It curves to the north east of Bedford Avenue creating smaller, irregularly shaped blocks in the northeast section of the study area.

Between Grand Street and South 5th Street the neighborhood is also laid out in a primarily rectilinear grid. Wythe Avenue and Berry Street are not parallel to each other, creating somewhat irregularly shaped blocks. However, for the most part the blocks in this area are regular, rectangular blocks. An exception is the large superblock at the foot of the Williamsburg Bridge bounded by South 4th Street, Havemeyer Street, South 6th Street, and Driggs Avenue.

South of South 6th Street, Division Avenue and other east-west cross streets run at angles creating irregularly shaped blocks. Broadway intersects South 6th Street at Bedford Avenue and continues east outside the study area. Division Street bends to the southwest of Driggs Avenue; though it is a narrow street, it functions as a major east-west corridor in this section of the study area. South 9th Street and South 10th Street terminate with a superblock bounded by South 8th Street, Wythe Avenue, South 11th Street, and Kent Avenue.

The primary roadways in the study area are Kent Avenue running generally north-south, Metropolitan Avenue running east-west, and Broadway running east-west. Kent Avenue, which bends to conform to the curve of the shoreline, is the primary north-south corridor in the study area. It carries northbound traffic, including heavy truck traffic. Metropolitan Avenue is a major east-west thoroughfare; it carries one lane of vehicular traffic in each direction east from the study area through Brooklyn to Queens. Broadway is a major east-west traffic artery; it carries one lane of traffic in each direction, with parking on either side of the street. There is also significant pedestrian traffic along Broadway due to the commercial businesses that line it and the presence of the elevated J/M/Z subway line, which runs above Broadway on a viaduct starting at Havemeyer Street. There are bicycle lanes along Kent Avenue, Wythe Avenue, Broadway, Berry Street, and Driggs Avenue.

Division Avenue, though narrow, has two lanes of traffic running east-west, with a row of parking on either side of the street. It carries vehicular traffic through the southern section of the study area and east through Brooklyn.

The remaining streets in the study area are generally one-way residential and commercial streets and avenues, many of which are lined with parked cars.

Building Arrangement, Bulk, Use and Type

Northside

Buildings in the Northside area are mainly a mix of older residential buildings, some of which have ground-floor commercial spaces, industrial buildings (some of which have been converted into residential buildings), and mixed light industrial and residential buildings. There is also a substantial amount of new residential construction.

Directly north of the project site, on the blocks bounded by Kent Avenue, Grand Street, North 3rd Street, and the East River, are a number of low-scale industrial buildings with small footprints (see View 12 of Figure 9-8). These buildings are mostly brick and built to the lot line with either large ground-floor openings or smaller, rectangular windows. They are plainly designed, and some are covered in graffiti. On the north side of North 3rd Street between Kent Avenue and the East River is the former Austin, Nichols & Co. Warehouse building. This massive, six-story warehouse building is constructed to the sidewalk line and occupies the entire waterfront site. Exterior details are limited; however, its height and bulk are greater than the surrounding buildings, making it one of the more prominent buildings on the Northside waterfront.

The majority of the new residential construction is located along the waterfront and on the blocks between Kent Avenue and Wythe Avenue. The Northside Piers development, currently under construction, consists of a tower and a lower-scale, bulkier base building (see View 13 of Figure 9-9). The tower portion is clad in a steel-and-glass curtain wall, while the low-rise building is clad in brick with large, fixed windows. The Edge, located on the parcel to the north of the Northside Piers development, is also under construction. This site is surrounded by large construction fencing and construction materials.

Residential buildings in the area are a mix of older, attached residences and newer, modern structures. In the northern section of the study area, the east-west streets are primarily lined with three- and four-story attached buildings (see View 14 of Figure 9-9). These buildings are clad in a variety of materials including brick, shingles, and vinyl siding. There are also a number of new, modern residential buildings, including a new building on the southwest corner of Berry Street and North 7th Street. This three- and four-story building has large, fixed windows, and

recessed bays which extend above the roofline. It is clad in dark brick with metal accents (see View 15 of Figure 9-10).

The majority of the commercial uses in this area are located on the ground floor of residential buildings and in former industrial spaces. North 6th Street is lined with buildings with ground-floor commercial spaces; most of the businesses are small and tend to be cafes, restaurants, bars, small shops, and gallery spaces (see View 16 of Figure 9-10). Bedford Avenue is another major commercial street in the area. It is mostly lined with three- and four-story buildings with small ground-floor shops and restaurants (see View 17 of 9-11).

The north-south streets are mostly lined with a mix of residential and industrial buildings. Industrial uses are concentrated mostly on Wythe Avenue between North 4th Street and North 7th Street (see View 18 of Figure 9-11). These industrial buildings tend to be low-scale, boxy buildings, clad in brick and generally built to the lot line. Most have large openings on the ground floors. Berry Street is primarily lined with residential buildings, three and four stories in height, and clad in either brick or modern, synthetic materials.

There are also a number of institutional buildings in the Northside area including four churches, a college, and a public school. These include St. Vincent de Paul's Roman Catholic Church, Ukrainian Catholic Church of the Holy Christ, Our Lady of Consolation Roman Catholic Church, and St. Ann's Church. St. Vincent de Paul's Roman Catholic Church is located on the north side of North 6th Street between Bedford Avenue and Driggs Avenue. This three- and four-story church is built to the lot line and is clad in dark red brick with a tall, square tower on the eastern bay and large, pointed windows and entryways. The tower is taller than many of the surrounding buildings. Located on the north side of North 5th Street between Bedford Avenue and Driggs Avenue is the Ukrainian Catholic Church of the Holy Christ, which includes a large church building and related parish building. The church building is set back from the lot line by a high staircase. The church is clad in light brick and has large, square towers on either end. The central bay is topped with a dome and a cross.

Our Lady of Consolation Roman Catholic Church, located on Metropolitan Avenue between Berry Street and Bedford Avenue, includes a church building, a rectory, and a school. All three buildings are designed in the same style, with dark brick cladding. They are all constructed to the lot line and are three stories in height. St. Ann's Church is located on North 6th Street between Bedford Avenue and Driggs Avenue (see View 19 of Figure 9-12). This Gothic church has a large, pointed, arched window on the uppermost portion of the middle bay and smaller arched windows on the other façades. The easternmost bay is a large, square tower with projecting buttresses and arched windows on each story. The tower is topped by four intersecting gables and a tall cross.

The Boricua College building, located on the south side of North 6th Street between Bedford Avenue and Driggs Avenue, is four stories in height, with the middle bay projecting slightly. The building is clad in dark red brick with stone details (see View 20 of Figure 9-12). Public School (PS) 17, located on North 5th Street and Roebling Street, is five stories in height, with a large footprint, and is clad in red brick, with stone details around the windows and doorways.

There is also a New York City Department of Parks and Recreation facility, The Metropolitan Pool and Fitness Center, located on the southeast corner of Bedford Avenue and Metropolitan Avenue. This two-story building is clad in brick with tall, narrow columns on the main façade, and a large, arched doorway.

Southside

The Southside area is primarily developed with a variety of residential buildings, although there are also industrial buildings, commercial buildings, two schools, and numerous churches. The majority of the residential buildings are either attached buildings that are two or three stories in height; apartment buildings, or former industrial buildings which have been converted to residential use.

Close to the project site, mainly along the east-west streets between Kent Avenue and Wythe Avenue, there are a number of low-scale, industrial buildings (see Figure 9-13). Industrial uses in this area tend to vary but are mostly light industrial uses. These industrial buildings are primarily clad in brick and are one or two stories in height, with large vehicular openings and minimal exterior details.

The majority of the residential buildings in the western section of the Southside area are three and four stories in height, and are attached buildings with either high stoops or ground-floor entrances (see View 23 of Figure 9-14). This area is developed with a mix of older brick buildings, some of which have been reclad in modern materials including synthetic siding and stucco. Exterior details on these buildings tend to be minimal. The eastern part of the Southside area is developed with taller apartment buildings. The majority of the apartment buildings are bulky in form and six stories in height, with more ornate terra cotta and stone exterior details (see View 24 of Figure 9-14).

Throughout the Southside area there are a number of former industrial buildings that have been converted into residential buildings. These include the six-story, bulky red brick building on the southwest corner of South 4th Street and Wythe Avenue (see View 25 of Figure 9-15) and an eight-story (143- to 156-foot) concrete building at the southwest corner of South 1st Street and Wythe Avenue. Additionally, some buildings in this area are a mix of industrial uses and residential uses. These buildings are primarily located along South 5th Street, opposite the Williamsburg Bridge, and are bulky, five- to seven-story loft style buildings. Smaller, one- and two-story industrial buildings are interspersed between these mixed-use buildings (see View 26 of Figure 9-15).

Commercial uses in the Southside area tend to be located on the ground floor of residential buildings along Bedford Avenue and Havemeyer Street. These typically consist of small delis or stores that occupy the full frontages of the buildings on the first, and sometimes second, floors (see View 27 of Figure 9-16).

Institutional uses in the area include PS 84, Junior High School (JHS) 50, McCaddin Memorial Hall, Saints Peter and Paul Roman Catholic Church, and Ukrainian Orthodox Holy Trinity Church. PS 84 has a large footprint and occupies the entire block bounded by Grand Street, Wythe Street, South 1st Street, and Berry Street. The school is located on the eastern side of the block. It is "C-shaped" in form and three stories in height, clad in concrete with large, multi-window lights with recessed towers on the corners. JHS 50 is located on the north side of South 3rd Street between Driggs Avenue and Roebling Street. This five-story building is clad in red brick with stone details and large, multi-light windows. An extension to the building wraps around Roebling Street; it is five stories in height, clad in concrete, and has large, square windows.

Religious buildings in the area include Saints Peter and Paul Roman Catholic Church and the Holy Trinity Church of Ukrainian Autocephalous Orthodox Church in Exile. McCaddin Memorial Hall is located on the west side of Berry Street between South 2nd Street and South

3rd Street. This three-story building is faced in light-colored brick, with arched and square windows. The Holy Trinity Church of Ukrainian Autocephalous Orthodox Church in Exile is located on South 5th Street and South 5th Place. It is classically designed, clad in stone, and has four large columns supporting a Greek Revival pediment on the South 5th Street and the South 5th Place façades. The building is crowned with a large, low dome topped with a cross.

South Williamsburg

The area south of the Williamsburg Bridge is primarily residential, with commercial uses clustered on Broadway and Division Avenue. Residential buildings in the area include small, attached houses, taller brick apartment buildings, and tall, bulky towers. There are also a number of residential buildings which are either recently built or currently under construction along the waterfront.

The east-west streets in the area south of the Williamsburg Bridge are lined with attached, three- and four-story residential buildings that are designed in a variety of styles (see View 28 of Figure 9-16). Many are clad in brick with exterior stone or terra cotta ornament, including window surrounds and projecting cornices. Other residential buildings in the area include larger attached four- and six-story apartment buildings with recessed entryways, balconies and exterior fire escapes (see View 29 of Figure 9-17).

In some parts of this area there are newer developments which occupy entire blocks with similarly designed buildings. On South 10th Street on either side of Berry Street, and on South 9th Street west of Berry Street, are rows of bulky three-story, red brick buildings with projecting doorways and minimal exterior details (see View 30 of Figure 9-17).

In the area south of the Williamsburg Bridge, there are also taller, bulkier residential buildings. On the two blocks bounded by Broadway, Marcy Avenue, Division Avenue, and Roebling Street are the Jonathan Williams Houses—a group of five high-rise apartment buildings, including three 21-story buildings which are square in form, and two 10-story buildings which are rectangular in form. The two rectangular buildings are close to Division Avenue; the three square buildings are located in the center of the block.

In addition, on a large block bounded by Bedford Avenue, Clymer Street, Wythe Avenue, and Division Avenue, there are two 25-story, solid dark red-brick towers (see View 31 of Figure 9-18). The two towers are square in form. Also on this large block and facing onto Division Avenue are two 14-story, rectangular-shaped residential buildings; they are clad in dark brick and have no exterior decorations (see View 32 of Figure 9-18). These buildings all lack exterior details.

Along the waterfront between South 8th Street and South 10th Street is the Schaefer Landing development, which includes one 24-story rectangular tower and one 15-story rectangular tower (see View 33 of Figure 9-19). The buildings are modern in design, with glass curtain walls and metal and concrete accents. Ground-floor commercial spaces occupy the first floors of both buildings.

Commercial uses are primarily located on the ground floor of the residential buildings along Broadway and Division Avenue (see View 34 of Figure 9-19). The retail businesses generally cater to local residents and include restaurants and specialty food stores.

There are also a number of churches and synagogues in the area, including the Roman Catholic Church of the Epiphany located on South 9th Street between Berry Street and Bedford Avenue (see View 35 of Figure 9-20). This Romanesque church is three bays wide and clad in

brownstone, with a prominent pediment at the roof and large arched stained-glass windows on each of the bays. High stoops on the outer bays lead to entrances located beneath projecting pediment door surrounds.

Streetscape

Northside

The streetscape of the Northside area is under transition as former industrial buildings are being converted to residential buildings and as new residential buildings are constructed. However, the northern section of the study area retains its mixed residential and industrial feel.

The streetscape of the Northside area is broken up by large parcels that have been cleared for new development, and by vacant parcels. Many of the parcels that have been cleared for development are surrounded by tall plywood construction fences which encroach on the sidewalk, or sidewalk bridges that extend over the sidewalk (see View 36 of Figure 9-20). Other construction sites are surrounded by sidewalk bridges that cast the sidewalks in shadow or obstruct pedestrians. The areas around these large parcels lack streetscape amenities such as trees and street furniture, creating a more desolate streetscape.

The industrial streets in the Northside area are developed with continuous streetwalls created by long, mid-scale industrial buildings (see View 37 of Figure 9-21). Most of the buildings have few street-level openings. Those that exist are primarily large vehicular openings covered in metal roll-down gates. This area also has wide concrete sidewalks, some of which are in poor condition, with multiple curb cuts. Street furniture is minimal along these streets and is mainly limited to "cobrahead" lamps and street signs.

North of the project site, the large block bounded by North 1st Street, River Street, Grand Street, and the East River is industrial in use, housing a gas turbine power generating facility for power generation run by the New York Power Authority (NYPA) and a Con Edison fuel transfer station. This large site is surrounded by a high fence. Other blocks in this area are developed with low-scale, solid, industrial buildings. While new residential buildings have been constructed in this area, many of the streets still retain an industrial feel with little or no pedestrian activity, trees, or ground-floor commercial uses that would enliven the area (see View 38 of Figure 9-21).

The residential streets in this area, including sections of North 7th, North 8th, and North 9th Streets, have a consistent streetscape consisting of buildings built to the sidewalk and of similar height and bulk (see View 39 of Figure 9-22). The streetwall is occasionally broken up by either lower-scale industrial buildings or vacant lots (see View 40 of Figure 9-22). The residential streets have wide sidewalks without curb cuts. Some trees, as well as signage and "cobrahead" lights, line these streets.

North 6th Street and Bedford Avenue are lined with ground-floor commercial spaces, including numerous restaurants and cafes. Both of these streets have solid streetwalls, with buildings constructed to the sidewalk, and large display windows on the ground floor. Signs and awnings project over the sidewalk. Other streetscape elements include street trees, small benches, and menu boards.

Southside

The streets closest to the project site, between Kent and Wythe Avenues, have industrial streetscapes with low-scale, industrial buildings with vehicular entrances, wide sidewalks with multiple curb cuts, and a lack of streetscape elements such as trees. The sidewalks are in poor

condition with broken concrete, rubble, weeds, and garbage. Many of the buildings are used for storage and shipping; wood pallets stored on the sidewalks add to the industrial feel of the area.

Most of the balance of the Southside area has a residential streetscape with buildings of similar height and bulk built to the sidewalk line, street trees, small ground-floor retail spaces, and pedestrian activity (see View 41 of Figure 9-23). In some areas newer buildings are mixed in with older buildings; while these buildings are of similar height to the other buildings, they are set back a distance from the sidewalk, creating a varied streetscape. Gardens or paved areas used for parking are located between the sidewalks and the buildings (see View 42 of Figure 9-23 and View 43 of Figure 9-24). Other variations to the streetscape occur on blocks which have buildings with high stoops.

The block bounded by Grand Street, Berry Street, South 1st Street, and Wythe Avenue is developed with PS 84 and the William Sheridan Playground. Constructed to the sidewalk line, PS 84 creates solid streetwalls along the eastern half of the block. The western half of the block is occupied by the William Sheridan Playground, a large paved playground surrounded by a tall, metal chain link fence with a comfort station, a basketball court, and a handball court. This playground creates a large break in the streetscape of the surrounding area.

Additional breaks in the streetscape occur mostly with small community gardens, such as the one located on South Second Street between Driggs Avenue and Roebling Street. It is surrounded by a tall fence and features plantings, small gardens, and seating areas. An occasional vacant lot also breaks up the streetscape.

The streetscape of South 5th Street is dominated by the approach for the Williamsburg Bridge (see View 44 of Figure 9-24). Starting at Driggs Avenue, the bridge approach rises over the blocks between South 5th Street and South 6th Street and casts the street in shadow. The bridge is supported on large concrete piers located on paved surfaces surrounded by tall, chain link fencing. At the base of the bridge is the former Williamsburg Trust Company Bank, now the Holy Trinity Church of Ukrainian Autocephalous Orthodox Church in Exile, and the Continental Army Plaza (see View 45 of Figure 9-25). The Holy Trinity Church of Ukrainian Autocephalous Orthodox Church in Exile is a classically designed stone building with a low, wide dome and a large portico entry on both South 5th Street and South 5th Place. The Continental Army Plaza is a large paved plaza with trees, benches, reproduction lampposts, and a statue of George Washington at Valley Forge. To the east of the plaza, on a triangular lot bounded by Roebling Street, South 4th Street, and the elevated Williamsburg Bridge approach span, is the LaGuardia West Playground, a paved area which features trees, benches, play equipment, and a comfort station. South of the approach span is the LaGuardia South Playground, which has basketball and handball courts.

South Williamsburg

The area south of the Williamsburg Bridge is physically separated from the rest of the study area by the Williamsburg Bridge approach. Due to the variety of residential buildings, the streetwalls of the area are mixed. The majority of the residential buildings are constructed to the sidewalk; however, they are of different sizes, exterior materials, and bulk, creating a varied streetscape (see View 46 of Figure 9-25).

The streetscape along South 8th, South 9th, and South 10th Streets is residential, with attached buildings built to the sidewalk, street trees, and pedestrian activity. There are breaks in the South 9th Street streetwall with two public parks: Epiphany Playground and Berry Playground. Epiphany Playground is located on the southeast corner of Bedford Avenue and South 9th Street

and has trees, play equipment, paved walkways, and seating areas. On the southeast corner of South 9th Street and Bedford Avenue is Bedford Playground, a large playground surrounded by trees which includes play equipment, two basketball courts, and a small comfort station.

Broadway and Division Avenue are the two commercial streets in the area south of the Williamsburg Bridge. Buildings along Broadway range in height and materials, are built to the sidewalk line, and have large ground-floor retail spaces with display windows and a mix of awnings and advertising signs. Streetscape elements along Broadway include tall trees, lampposts, and bus shelters. The streetwall along Broadway is broken up by vacant lots, most of which are surrounded by metal chain link fences or wood construction fences. On the northwest corner of Broadway and Driggs Avenue is the former Williamsburgh Savings Bank, which is set back a short distance from the street with a large recessed area and a large columned portico.

Division Avenue is lined with ground-floor commercial spaces that serve local residents including shops, restaurants, and small food stores. The retail spaces have large windows and a variety of awnings and advertising signs that provide visual interest at the street level and encourage pedestrian activity.

The streetscape between Kent Avenue and Wythe Avenue south of South 6th Street is mixed due to the presence of both a large residential development and lower-scale, vacant industrial buildings. Schaefer Landing, located on the west side of Kent Avenue between South 9th Street and South 10th Street, currently has a vacant ground-floor retail space and few trees or other streetscape elements. The streetscape for the remainder of Kent Avenue is mixed, with low-scale industrial buildings, some of which are set back a significant distance from the sidewalk to allow for truck loading areas; vacant properties surrounded by metal chain link fences, and a large masonry power plant. Pedestrian traffic and streetscape elements are limited in these areas, adding to the underutilized feel.

VISUAL RESOURCES

There are a number of visual resources in the study area, including the Williamsburg Bridge, the East River and its waterfronts, the Manhattan skyline, and numerous architecturally distinguished ecclesiastical buildings.

The Williamsburg Bridge is the most prominent visual resource in the area. This long truss bridge connects Delancey Street in Manhattan to the Brooklyn-Queens Expressway (BQE) in Brooklyn. It has two tall steel support towers and a steel roadway span. The support towers are most visible in long views south along Kent Avenue (see View 47 of Figure 9-26). The tops of the towers can also be seen further east from the bridge over low-scale buildings and vacant lots (see View 48 of Figure 9-26). Due to the taller buildings along Broadway and the relatively narrow streets in the neighborhood, the Williamsburg Bridge is not highly visible from the area south of the Bridge except for views north on Kent Avenue north of Broadway and west along South 6th Street.

The East River is primarily visible from the waterfront parks, including Grand Ferry Park and East River State Park. Views across the river are wide and expansive and include the Manhattan and Brooklyn waterfronts, as well as the Williamsburg Bridge. Further in the distance, the Brooklyn, Manhattan, and Queensboro Bridges are also visible (see View 49 of Figure 9-27).

The Manhattan skyline is also visible from the waterfront parks. Important buildings that can be seen from the Brooklyn waterfront and in views west at openings between the buildings on Kent Avenue include the Empire State Building, the Chrysler Building, the Citicorp Building, and

those that make up the Lower Manhattan skyline. These buildings are also visible in views northwest from South 4th Street, across the upland parcel of the project site (see View 50 of Figure 9-27). From locations farther from the waterfront, such as along Berry Street and Bedford Avenue, these resources are only faintly visible in the distance.

There are a number of ecclesiastical and institutional buildings in the study area which are also visual resources, including the Holy Trinity Church of Ukrainian Autocephalous Orthodox Church in Exile, St. Ann's Church, McCaddin Memorial Hall for Saints Michael and Thomas, and the Boricua College building. The Holy Trinity Church of Ukrainian Autocephalous Orthodox Church in Exile is visible from the Brooklyn end of the Williamsburg Bridge and Continental Army Plaza. These architecturally distinguished buildings add visual interest to the streetscape; however, these resources are generally surrounded by fully developed lots and are only visible from the immediately surrounding streets.

Along Broadway, the former Williamsburgh Savings Bank, located at Broadway and Driggs Avenue, is visible in the long view east. This tall building is topped with a large dome structure with a pinnacle and creates a visual termination point for the long view east along Broadway (see View 51 of Figure 9-28).

D. THE FUTURE WITHOUT THE PROPOSED PROJECT

PROJECT SITE

Absent the proposed project, it is expected that the project site will be developed with uses permitted under the existing M3-1 zoning. As shown on Figure 9-29, all of buildings on the site—except for the Refinery and the Boiler House, which is attached to the west (waterfront) façade of the Refinery—will be demolished and replaced with industrial buildings. The Refinery and the Boiler House will remain vacant, and the Boiler House will continue to obscure views of the west façade of the Refinery. Development in the No Action condition will include the construction of a storage facility on the waterfront parcel between South 3rd and South 5th Streets, a building material storage yard, and a new distribution facility along the waterfront immediately south of Grand Ferry Park. The distribution facility would include a long loading dock along Kent Avenue just south of Grand Street. On the upland portion of the site, a new two-story building will be constructed, with ground-floor parking and a catering hall on the upper story.

It is expected that the new buildings will be industrial in design and modest in appearance. Absent the proposed project, no waterfront esplanade will be constructed, and the waterfront will remain visually and physically separated from the surrounding area.

STUDY AREA

As described more fully in Chapter 2, "Analytical Framework," there are several large residential projects planned or under construction in the study area. Many of these new developments are a result of the Greenpoint-Williamsburg rezoning that was adopted in 2005 to allow for the construction of tall, mixed-use residential buildings along the waterfront. These new developments are part of a general trend toward new residential development in the area. The Greenpoint-Williamsburg rezoning also aimed to create open spaces along the waterfront in order to create more publicly accessible open spaces and connect the surrounding community to the waterfront.

The Northside Piers residential development along the waterfront between North 4th and North 5th Streets is under construction. Just north of that, between North 5th and North 7th Streets, another large residential development known as The Edge is also under construction. Towers on these sites are anticipated to rise up to 400 feet. To the south of the project site, also along the waterfront, is the Kedem Winery site and the Rose Plaza on the River site. All of these sites will be developed with tall, modern, mixed-use buildings. These new developments will change the urban design of the study area from a low-scale, mixed industrial and residential area to an area including modern, tower-style, mixed-use developments.

On the blocks between Kent and Wythe Avenues there are additional residential buildings under construction. On the east side of Kent Avenue between North 3rd and North 4th Streets, and extending for the entire blockfront between Kent and Wythe Avenues, a new residential building is under construction. Another new residential building is under construction on a large site on the block bounded by Metropolitan Avenue, Wythe Avenue, North 1st Street, and Kent Avenue. A residential building is under construction across the street from the project site on the block bounded by Kent and Wythe Avenues and South 2nd and South 3rd Streets.

In addition, a number of existing formerly industrial buildings are being converted into residential uses. The former Austin, Nichols & Co. Warehouse, located between the East River and Kent Avenue between North 3rd and North 4th Streets, is currently being converted into a residential building. As part of the conversion, a new addition will be constructed on the roof. The Mill Building, located on the north side of North 3rd Street between Wythe Avenue and Berry Street, has recently been converted, and a former industrial building located north of this building on North 4th Street is currently being converted to residential uses. It is anticipated that these buildings will also have ground-floor commercial spaces.

E. THE FUTURE WITH THE PROPOSED PROJECT

PROJECT SITE

The proposed project would substantially alter the appearance of the project site by demolishing all of the vacant industrial buildings on the waterfront parcel, except for the Refinery. However, unlike development in the No Action condition, which would result in utilitarian light industrial buildings, the proposed project is intended to improve the appearance of the project site by constructing a group of new, mixed-use buildings of a unified design on both the waterfront parcel and on the upland parcel (see Figure 9-30). Further, with the proposed project, the Refinery would be preserved and adaptively re-used for residential, commercial, and community facility uses. Unlike the No Action condition, the proposed project would open up the project site to the public by creating new open spaces, including a large open space between the Refinery and the waterfront, and a waterfront esplanade that would extend the entire length of the site and connect the site to Grand Ferry Park. Connection to the open spaces and waterfront would be provided by extending and opening all the east-west streets running from Grand Street to South 5th Street into the project site. The proposed project would also introduce new uses to the site, including residential buildings on Kent Avenue with ground-floor retail spaces.

URBAN DESIGN

Project Design

The proposed new buildings consist of individual components that are designed to allow the buildings to meet the neighboring context at Kent Avenue while stepping up to the towers on the waterfront (see Figure 9-31). The applicant's intention is that the proposed project design

maximize open space on the site, and emphasize the Refinery complex through the public park at the center of the site on the waterfront. Additionally, as described below, the site design creates public accessways to the waterfront at each of the four streets that enter the site and creates open access to Grand Ferry Park to the north of the site and to South 5th Street at the site's southern edge.

With the proposed project, the waterfront parcel would be developed as five separate blocks (see Figure 9-30). The lower-scale portions of the new buildings would be located along Kent Avenue, where heights would range from 60 feet to 110 feet (see Figures 9-32 and 9-33). Building heights along Kent Avenue would be staggered on each block; however, the tallest buildings on Kent Avenue would be located close to the Refinery, where they would be comparable in height to this building (see Figure 9-33).

The proposed project would result in building heights that would step up across the site towards the water. With the proposed project each block would have a mix of building heights that would distribute the bulk across the project site parcels and create a varied skyline. The tallest sections would be located closest to the waterfront, where tower heights would reach up to 300 and 400 feet (see Figure 9-34 and 9-35).

The upland parcel would be developed with buildings that would range between 58 and 148 feet in height (see Figure 9-36). The buildings on this parcel would be similar to the waterfront buildings in bulk, massing, and materials, and are intended to visually link the upland parcel with the waterfront parcel. The tallest portions of the buildings proposed on the upland parcel would be located on the eastern edge of the site, away from Kent Avenue. Along Kent Avenue and South 3rd Street, the streetwall would range between 58 and 78 feet in height.

The applicant has stated the proposed buildings would be modern in design and clad in masonry and glass. The lower stories would be primarily clad in masonry, while the upper stories would be primarily glass. Unlike the No Action condition, that will develop light industrial uses along Kent Avenue, including a loading dock for trucks, the proposed project would develop ground-floor retail spaces along Kent Avenue. The ground-floor retail spaces would activate the streetscape by providing transparency at the street level.

The heights of the waterfront towers would be consistent with the heights of the new buildings constructed and planned along the waterfront to the north in the area rezoned under the 2005 Greenpoint-Williamsburg rezoning. These include Northside Piers and The Edge, which, like the proposed project, are planned to include towers up to 400 feet. The proposed project's towers would include market-rate units that are necessary to cross-subsidize the proposed 660 affordable units.

The proposed project would also extend the east-west streets of the surrounding street grid into the project site and add landscaping. These new streets would allow vehicular and pedestrian access to the project site and provide cul de sacs for vehicular transportation. Retail spaces would be located on the ground-floor spaces along Kent Avenue, along the new upland connections, and at the western edges of the waterfront buildings along the esplanade. The new retail spaces are intended to increase pedestrian activity to the project site, and draw people into the site and toward the waterfront, unlike the No Action condition. Further, the proposed project would create new sidewalks with street trees and provide additional pedestrian amenities, including street lights, pedestrian crossings, and benches.

Site design and control requirements such as transparency, ground floor retail, and building materials will be required to be as shown on the ULURP drawings.

Open Space

The proposed project would result in approximately four acres of new open space, including a central open space and a waterfront esplanade (see Figure 9-37). The waterfront esplanade would connect to Grand Ferry Park to the north and South 5th Street at the southern end of the site. The esplanade would include pedestrian pathways that would extend the length of the site and connect larger gathering spaces and recreational uses. An approximately one-acre lawn in front of the Refinery would gently slope toward the waterfront, accentuating views of the East River and Manhattan, and showcasing the restored historic complex. Adjacent to the Refinery lawn, at the water's edge, the pathway would be straight and would feature a series of benches. Along the waterfront to the north and south of the lawn, the pathway would become serpentine. Trees and plantings would be located along the pathway in planters at grade. Shade structures would be provided at the northernmost and southernmost edges of the esplanade. Several active recreation areas would be located along the esplanade, including tot lots, playgrounds, and an active play lawn with a water feature that could function as an ice rink in winter. It is anticipated that industrial artifacts salvaged from the existing buildings on the site would be used within the open space as design elements to retain a sense of the site's industrial history. Throughout the project site the applicant's stated intention is that the open space connect the neighborhood to the esplanade and enhance the views of the Manhattan skyline, the harbor, and three landmarked bridges. Renderings of the proposed open space are shown in Figure 1-11 in Chapter 1, "Project Description."

Connections from the waterfront to Kent Avenue would be provided at Grand, South 1st, South 2nd, South 3rd, South 4th, and South 5th Streets to facilitate public visual and physical access to the waterfront. Along the upland connections at South 1st and South 4th Streets, a series of steps, seating areas, and ramps would bridge the grade change between Kent Avenue and the waterfront esplanade, creating an entrance to the waterfront while also providing gathering spaces from which people could view the water from elevations higher than the esplanade. The esplanade would also create a new connection to Grand Ferry Park at the northern end of the project site and improvements to South 5th Street at the southern end of the project site. Bicycle racks would be provided at each entrance to the project site.

Refinery

The proposed project would adaptively re-use the Refinery for commercial, residential, and community facility uses. A new three- and four-story addition would be constructed atop the western portion of the building (see Figure 9-38). The addition would be constructed of glass and steel and would be set back behind the Refinery's smokestack. The Domino Sugar sign, presently located on the Bin Building, would be relocated to the top of the addition, facing the waterfront. The exterior brick would be repaired, and the windows replaced with new historically appropriate windows designed to match the historic window profiles. The buildings attached to the west and north façades would be removed, and these façades of the Refinery would be repaired and exposed. A one-story basement and terrace addition, 27 feet wide, would be constructed along the full length of the riverfront façade of the building. This addition would house a parking access ramp down to the basement parking level and a covered loading dock, and would provide a terrace for the retail space overlooking the riverfront open space. It would be clad in brick, with a stone coping to match the masonry of the Refinery, and is intended to provide a buffer and transition between the Refinery and the public open space facing the river. It would also allow vehicles to enter the basement of the Refinery through large openings without creating new large openings in the Refinery. The ground-floor openings at all four

façades would be converted into retail storefronts and entrances, with masonry openings extended to sidewalk level and filled with historically appropriate storefronts. The metal conveyor bridges located over South 3rd Street would be removed and replaced with projecting metal balconies that would reference these features.

Wind

Large buildings have the potential to intercept the flow of wind at high elevations along the building façade and redirect wind down to ground level. Such a "downwashing flow" can cause accelerated wind speeds at the pedestrian level, which typically occur at the corners of tall buildings where the downwashed wind passes around the edges of the building. When two or more buildings are situated side by side, winds tend to accelerate through the gap between the buildings, known as a "channeling effect." If these conditions occur for prevailing winds, and especially for strong winds, there is an increased potential for the accelerated winds to create wind safety issues for pedestrians.

Since the proposed project would result in the construction of multiple large buildings close to one another on the project site, there is the potential for downwash and channeling effects, and consequent elevated pedestrian-level wind conditions. In light of this potential, a wind tunnel assessment was undertaken to better understand wind conditions at the project site and whether the proposed project might result in ground-level wind speeds that could create pedestrian wind safety issues. This testing was conducted using a scale model of the proposed buildings and project landscape elements. Those landscaping features are designed to minimize the potential for elevated pedestrian wind conditions.

Existing wind conditions at the project site were evaluated based on wind conditions monitored at the United States National Weather Service meteorological stations at John F. Kennedy, Newark, and LaGuardia Airports for the period 1948 through 2005. Wind conditions were analyzed for the May through October "summer" period and November through April "winter" period. A review of these data indicated that winds during the summer period were predominantly from the south and southwest, while winds during the winter period were predominantly from the west and northwest, with winds exceeding 20 mph approximately 5 percent of the time during the summer period and 15 percent of the time during the winter period. The prevailing winds and wind conditions at the project site are similar to those at comparable locations in Brooklyn and Manhattan along the East River.

The results of the wind tunnel analysis indicate that during the summer months (May through October) there is no potential for elevated pedestrian wind conditions. During the winter months (November through April), the analysis indicates that through the incorporation of the extensive landscape features in the project's open space plan, the potential for elevated pedestrian wind conditions at on- and off-site locations would be reduced and the resulting conditions would be similar to those at comparable locations in the city. The landscaping features would include coniferous trees with foliage that extends to ground level (e.g., evergreens) and marcesant tree species (deciduous trees that retain their leaves in the winter) to deflect and disperse wind gusts. The open space plan balances the potential for elevated pedestrian wind conditions with urban design considerations, including the goals of maintaining view corridors, maximizing views to the East River and East River waterfront, maintaining pedestrian circulation and access, and not impeding or blocking circulation and access for emergency service vehicles. The project's Restrictive Declaration contains provisions defining circumstances under which the final tree planting layout detailed in the construction drawings may be required to undergo wind tunnel analysis to confirm its effectiveness in addressing the potential for elevated pedestrian wind

conditions. Therefore, no significant adverse urban design impacts would result from potential pedestrian wind conditions.

Overall, the proposed project would improve the urban design character of the project site. Compared to the No Action condition, which will result in low-scale structures for light industrial uses on the waterfront parcel and a two-story catering hall on the upland parcel, the proposed project would result in new buildings of a unified design, constructed of masonry and glass, and new publicly accessible open spaces that would provide a substantial amount of new greenery in an area where few such amenities are present. With the No Action condition, the project site will remain closed to the public. The proposed project is intended to open up the waterfront to the surrounding community by creating new access points and new public open spaces, and by activating the streetscape with new retail spaces. The proposed project would further improve the appearance of the project site by restoring the exterior of the Refinery and adaptively reusing the building.

VISUAL RESOURCES

As with the No Action condition, the proposed project would result in the demolition of the Bin Building, a visual resource on the project site. Views of the primary façade of the Bin Building are from the north side of the Williamsburg Bridge and from the East River and East River Park in Manhattan. From the Williamsburg Bridge, drivers, riders on the J/M/Z subway line, and pedestrians have views of the buildings on the project site. However, views from the Williamsburg Bridge are obscured by metal safety grates and by the bridge structure itself. The west façade of the Bin Building is most visible in views east from East River Park in Manhattan across the East River, a distance of approximately 2,000 feet. This section of the park is mostly active space and includes tennis courts and baseball fields. However, unlike the No Action condition, the most prominent feature of this resource, the Domino Sugar sign, would be retained with the proposed project and would be placed on top of the Refinery addition. The placement of the sign on top of the addition facing the waterfront would be reminiscent of its current location. Therefore, while the demolition of the Bin Building would be an adverse impact of the proposed project, it would not be a significant adverse impact.

While the No Action condition will retain the Refinery in its current vacant and unimproved condition, the proposed project would adaptively re-use the Refinery and would include cleaning, repairing, and repointing the exterior walls, which would greatly improve its appearance. The proposed project would also remove the Boiler House, the Turbine House, the Pump House, and the Power House, exposing views to the west and north façades of the Refinery. Therefore, the proposed project, unlike the No Action condition, would have a beneficial impact on this visual resource.

The proposed project would create an open space between the Refinery and the East River. This open space would provide additional views to the restored Refinery, the Williamsburg Bridge, the Manhattan and Brooklyn Bridges, the East River, and the Manhattan skyline. The waterfront esplanade would also provide new views to the surrounding visual resources. Unlike the No Action condition, which will not provide public access to the waterfront, the proposed project would create new publicly accessible locations to view these visual resources.

PUBLIC SCHOOL OPTION

As described in Chapter 23, "Mitigation," the applicant will enter into an agreement with SCA to provide an option to locate an approximately 100,000-square-foot public elementary and intermediate school within the community facility space in the Refinery complex. The inclusion

of a school within the Refinery would not affect the building location or overall floor area, height, and bulk of the Refinery. Should this school be constructed, a portion of the project's open space may be set aside for school use as a play area and staging area during school hours. This could result in modifications to the project's open space plan to meet requirements related to school play areas and access. These modifications to the open space plan would not substantially affect the design of the project's open space. Therefore, the inclusion of a school within the Refinery would not result in any significant adverse impacts to urban design and visual resources.

STUDY AREA

URBAN DESIGN

Topography and Natural Features

As described above, the proposed project would include construction of a new waterfront esplanade and a central open space in front of the Refinery, as well as connections through the project site that are intended to link the waterfront to the upland neighborhood. The new open space is intended to provide new physical and visual access to the East River, thereby increasing access to, and the enjoyment of, this natural resource. Further, the proposed project would add new street trees along Kent Avenue, providing this amenity in an area where few exist. The proposed project would therefore have a positive impact on natural resources in the study area.

Street Hierarchy, Block Shapes, and Street Pattern

The proposed project would be built along existing streets and, as such, would not adversely affect the street hierarchy of the surrounding area. While pedestrian activity would increase along Kent Avenue with the proposed project, it would remain a major traffic artery in the area.

The proposed project would not adversely affect block shapes and street patterns in the study area. The proposed project would extend the current upland street network into the waterfront parcel of the project site by opening the portions of South 2nd and South 3rd Streets that currently cross the site and by constructing vehicular roadways and pedestrian corridors at South 1st and South 4th Streets. By extending the existing street network into the project site, it is the applicant's intention to integrate the project site into the surrounding area and help connect the surrounding area to the project site and to the East River waterfront. Further, the new blocks that would be created with the proposed project would be located within the framework of the existing street grid, with shapes consistent with existing blocks in the study area.

Building Arrangements and Bulk, Use, and Type

Northside

The buildings would be in keeping with the existing residential and commercial uses in the area and consistent with the general trend of residential redevelopment of waterfront parcels in the Northside area, such as Northside Piers and The Edge developments. Though taller and more dense than most of the existing residential and industrial buildings in the area, the new buildings would be consistent with other new developments in terms of massing and use. The conversion of the Refinery into residential, commercial, and community facility uses would be in keeping with the overall trend in the Northside area of converting former industrial buildings in the upland area into residential buildings. Therefore, there would be no adverse impacts to these urban design features with the proposed project.

Southside

The new buildings would be in keeping with the general residential nature of the Southside area. While some of the buildings would be substantially taller than the buildings in the Southside area, the tallest buildings would be located towards the waterfront, at a greater distance from the surrounding neighborhood. The buildings along Kent Avenue would be lower in scale and provide a transition between the taller project site buildings and the general context of the Southside area. Therefore, there would be no adverse impacts to these urban design features with the proposed project.

South Williamsburg

The residential buildings would be in keeping with the general residential nature of the area south of the Williamsburg Bridge. As described above, this area is currently developed with a number of tall, residential developments including the Jonathan Williams Houses. Further, the project would be in keeping with the general bulk and scale of the recently constructed Schaefer Landing residential buildings along Kent Avenue, which are also tall, modern buildings. Overall, the proposed project would not have any adverse impacts to the building arrangement, bulk, uses, and types found in the study area.

Streetscape

Northside

The proposed project would not adversely impact the streetscape of the Northside neighborhood. The new commercial spaces along Kent Avenue would improve the appearance of the project site and would be in keeping with the new retail spaces in Northside Piers and The Edge and with the existing ground-floor spaces along Grand Avenue and North 6th Street. Similar to the waterfront developments north of the project site, the proposed project would also increase pedestrian activity along Kent Avenue and enliven the streetscape.

Southside

The proposed project would create the greatest change to the streetscape in the Southside area. The new ground-floor retail spaces, residential uses, and open spaces would enliven the area by increasing pedestrian traffic to the area. The new commercial spaces would replace the solid, blank streetwalls with new, lively spaces. The ground-floor spaces would have large display windows to increase transparency at the street level and provide visual interest. Further, the proposed project would improve the appearance of the streets with new sidewalks, landscaping, and other streetscape elements such as street lights.

On the upland parcel, the proposed project would replace a desolate vacant parcel with new residential and retail uses. The proposed project would remove the chain link fencing, replace the existing sidewalk, and provide street trees and street lights around the new building, thereby improving the surrounding Southside streetscape.

Overall, the proposed project would have a beneficial impact on the streetscape of the Southside area.

South Williamsburg

The proposed project would have no adverse impacts on the streetscape of the area south of the Williamsburg Bridge. The area is physically separated from the project site by the Williamsburg Bridge. However, improvements to the streetscape at the project site would be consistent with this portion of the study area, which includes streetscape elements similar to those of the proposed project.

VISUAL RESOURCES

Construction of the proposed project would block some views to the Williamsburg Bridge, mostly in the views south along Kent Avenue and southwest across the upland parcel. In views north along Kent Avenue from Broadway, the bridge would remain a prominent feature though the proposed buildings would be visible behind the bridge (see Figure 9-39). The primary views of the bridge from Wythe Avenue occur south and west across the upland parcel, an atypical vacant parcel, instead of along a prominent street corridor. Any development on this parcel, including the two-story restaurant/catering hall that would be developed absent the proposed project, would block views to the bridge from the street level. Therefore, development on this parcel would not result in any significant adverse visual impacts to the Williamsburg Bridge.

The proposed project would create a new waterfront esplanade that would extend from South 5th Street to Grand Ferry Park. This new public esplanade would provide new, unobstructed, publicly accessible views of the Williamsburg Bridge, the East River, and the Brooklyn and Manhattan skylines. Views of the bridge from the esplanade would include both support towers of the bridge structure. Therefore, while the proposed project would block some existing views of the Williamsburg Bridge from the surrounding area, it would also provide new and expansive views to this resource. These expansive views of the Williamsburg Bridge and the surrounding context will not be available in the No Action condition. Therefore, the proposed project would not have a significant adverse visual impact on the Williamsburg Bridge.

The proposed project would also block some views of the Manhattan skyline north from Wythe Avenue. However, the waterfront esplanade would allow for public unobstructed views of the Manhattan skyline, including the Chrysler Building and the Lower Manhattan skyline.

The proposed project's buildings would be visible from the surrounding areas, including areas farther away from the project site. However, they would not block any significant view corridors (see Figure 9-40). In views south from East River State Park, a large open space along the Williamsburg waterfront between North 7th and North 9th Streets with views of surrounding visual resources, the proposed project's buildings would not be visible, as views of the site are blocked by intervening buildings along the waterfront (see Figure 9-41).

The proposed buildings would also be visible from East River Park in Manhattan. From this view, at a distance of almost 2,000 feet, the taller buildings would be more prominent (see Figure 9-42). However, at this distance they also would be viewed in the context of the restored Refinery and other tall, modern residential developments in the study area such as Northside Piers and The Edge. Also, they would not block any views to the Williamsburg Bridge. Further, the proposed project would replace the former industrial buildings with a new, uniformly designed development with a varied skyline, which could also become a focal point of interest.

The project site buildings and open spaces would also be visible from the Williamsburg Bridge (see View 9-43). While the proposed project would be clearly visible in these views, it would not block any views along significant view corridors or block views to any visual resources. Further, the open spaces and greenery on the project site would be an attractive visual amenity.

Overall, the proposed project would not have any significant adverse impacts on visual resources in the study area. ✷

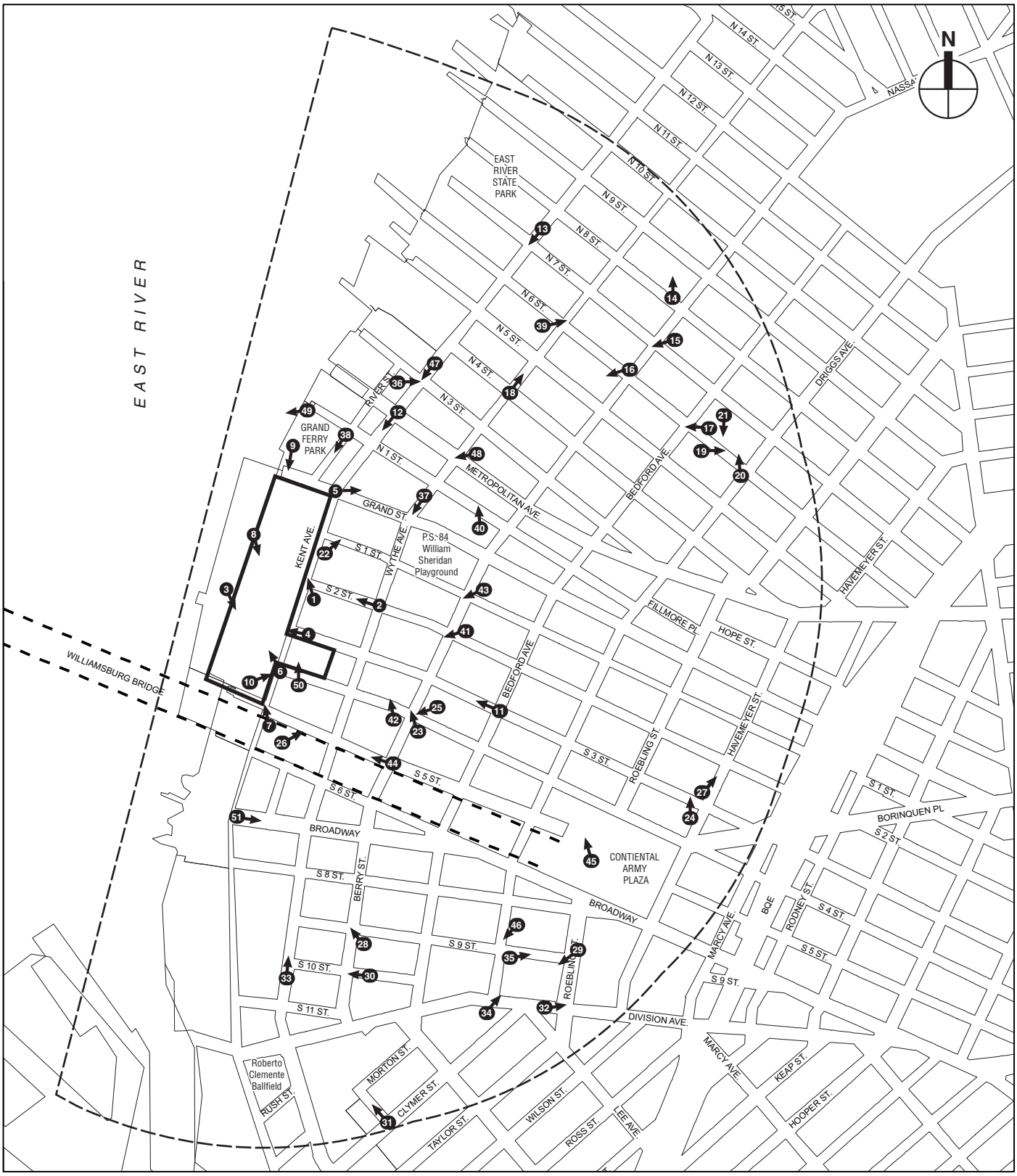
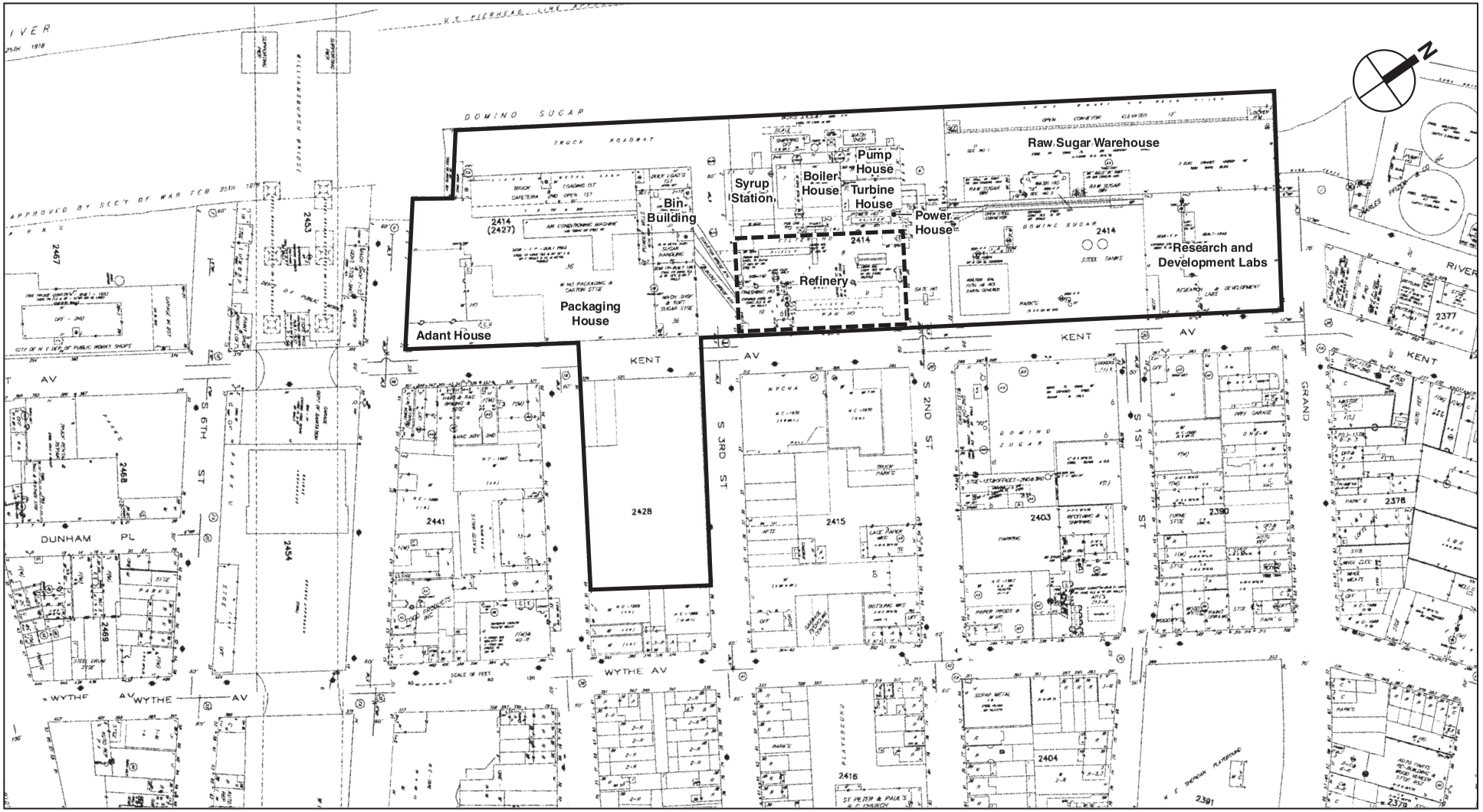


Photo Key of Urban Design and Visual Resources

Figure 9-1

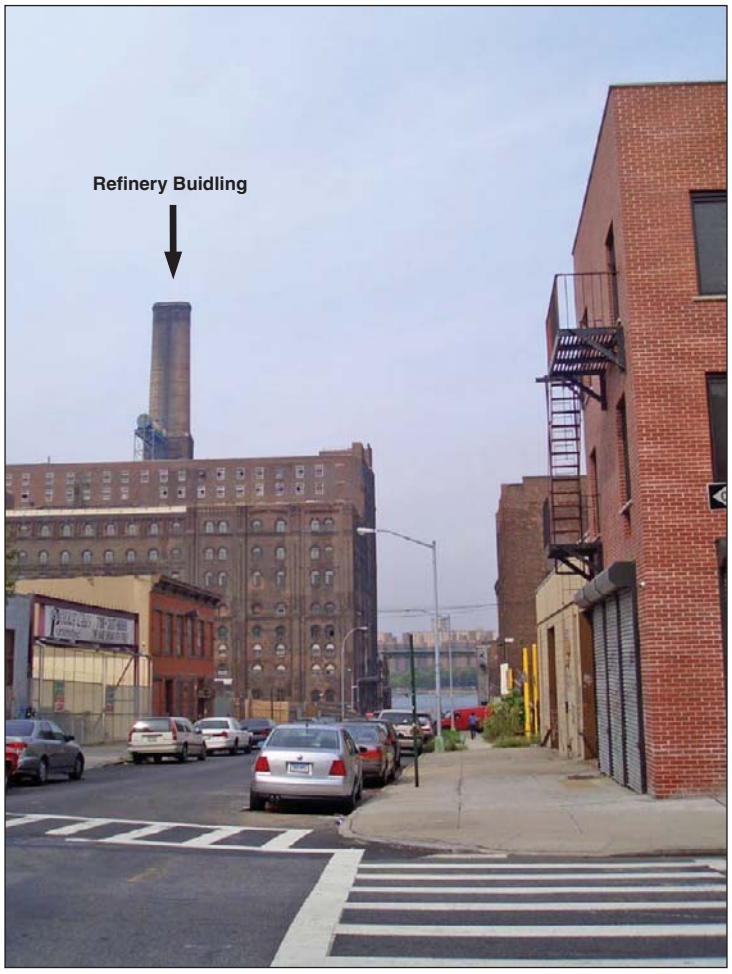
8.5.08



DOMINO SUGAR

Existing Site Plan
Figure 9-2

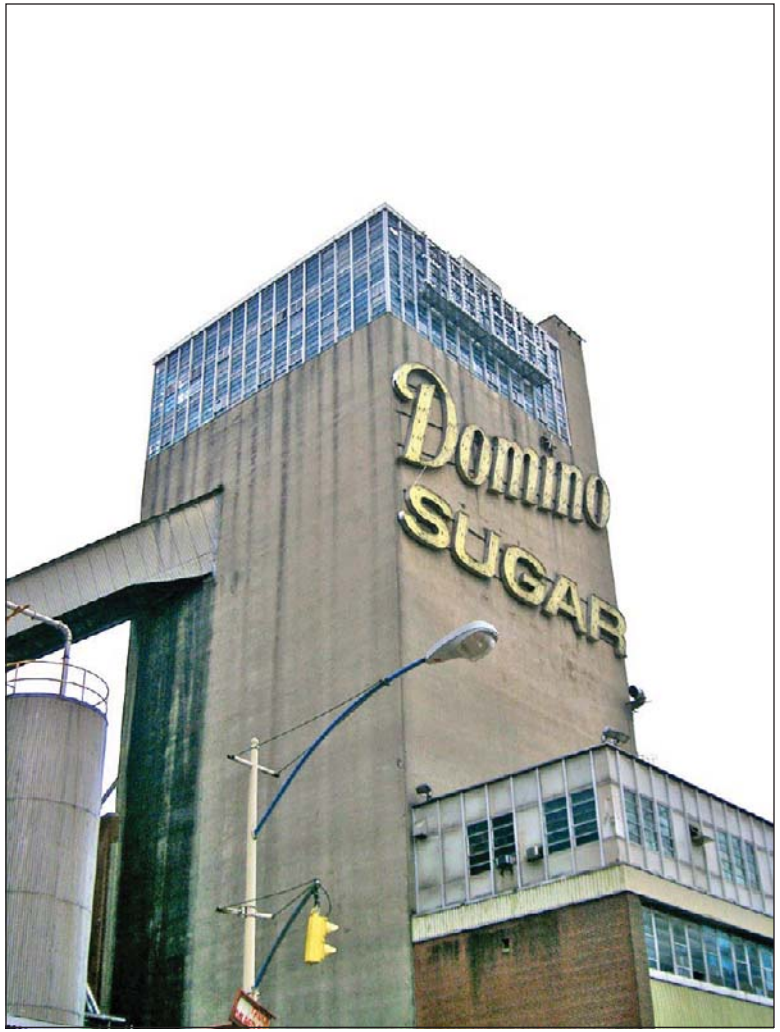
View northwest from Kent Avenue and South 2nd Street **1**



View west from South 2nd Street and Wythe Avenue **2**

Study Area Views

Figure 9-3



Bin Building, north and west facade, view from Project Site **3**

Metal conveyor bridges, view west from South 3rd Street near Kent Avenue **4**

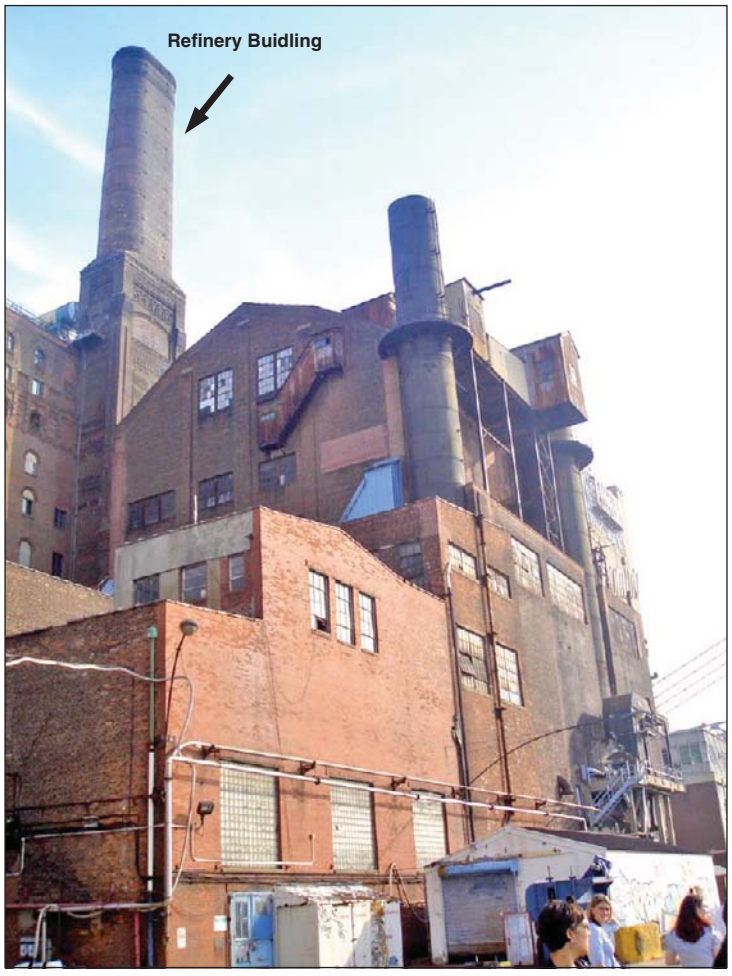
Project Site
Figure 9-4

Project Site, view southwest from Kent Avenue and Grand Street **5**

Project Site, view northwest from Kent Avenue and South 4th Street **6**

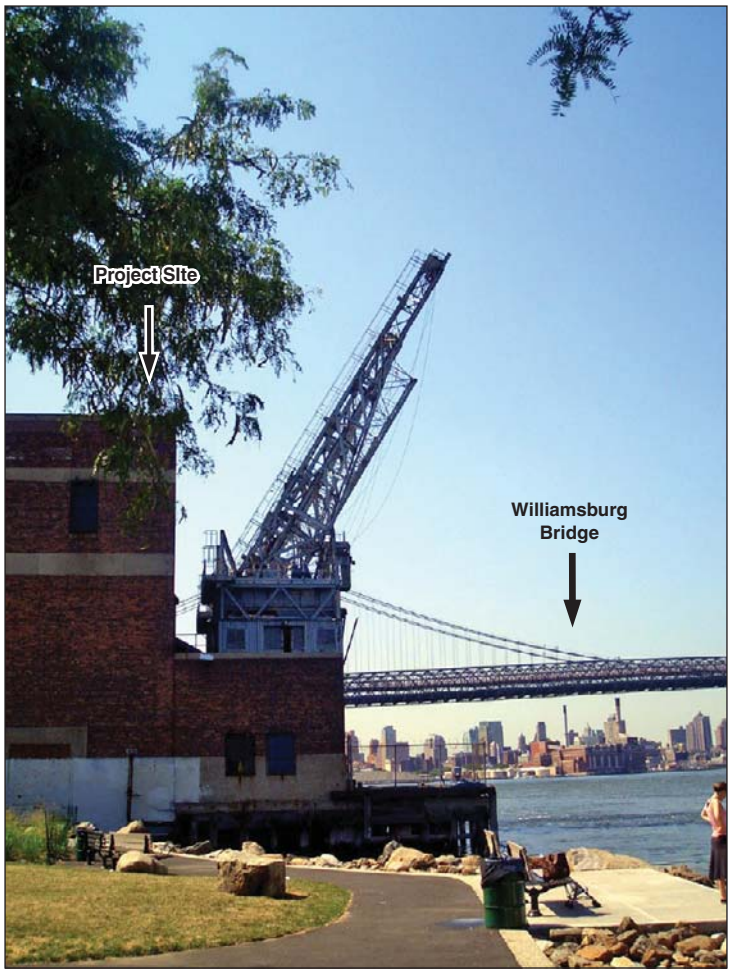
Project Site Views
Figure 9-5

Project Site, view northwest from Kent Avenue and South 5th Street **7**

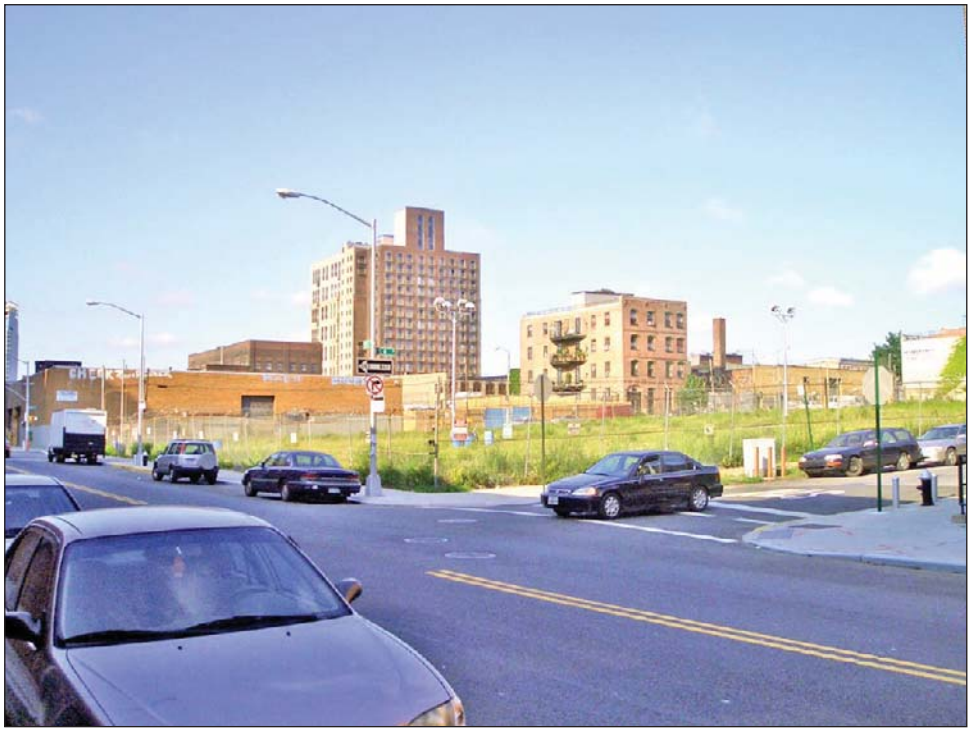


Older buildings on Project Site, view from project site waterfront **8**

Study Area Views
Figure 9-6



View south from Grand Ferry Park **9**

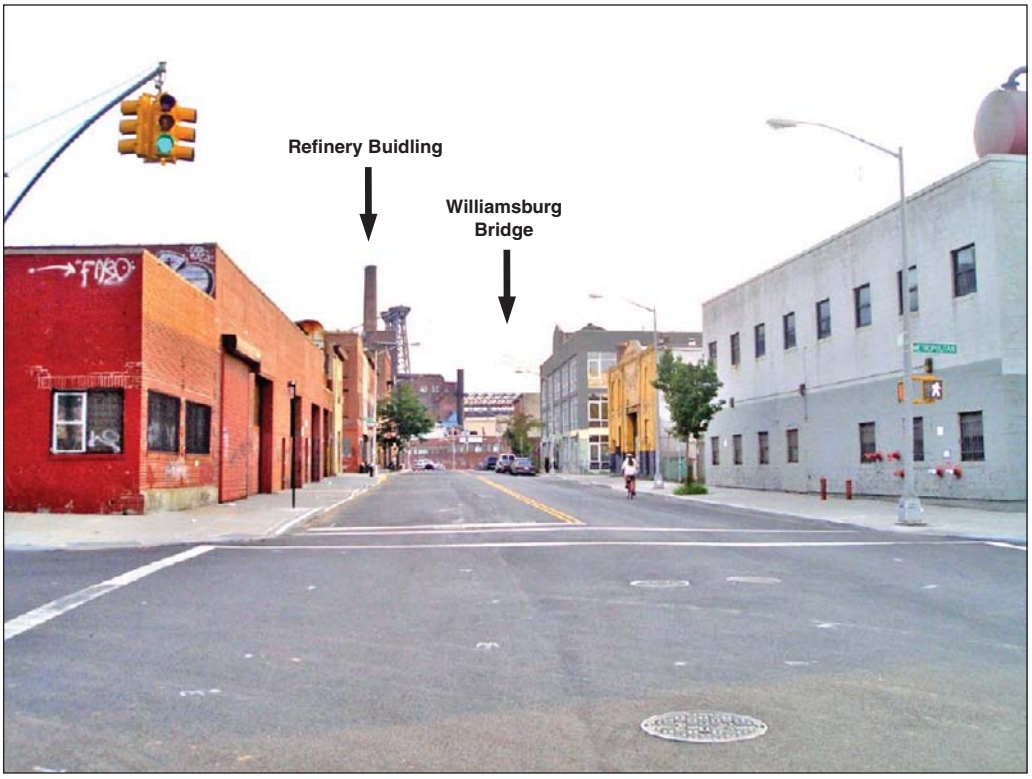


Upland Parcel, view northeast from South 4th Street and Kent Avenue **10**

Project Site Views

Figure 9-7

View west from Bedford Avenue and South 3rd Street **11**



View south along Kent Avenue from Metropolitan Avenue **12**

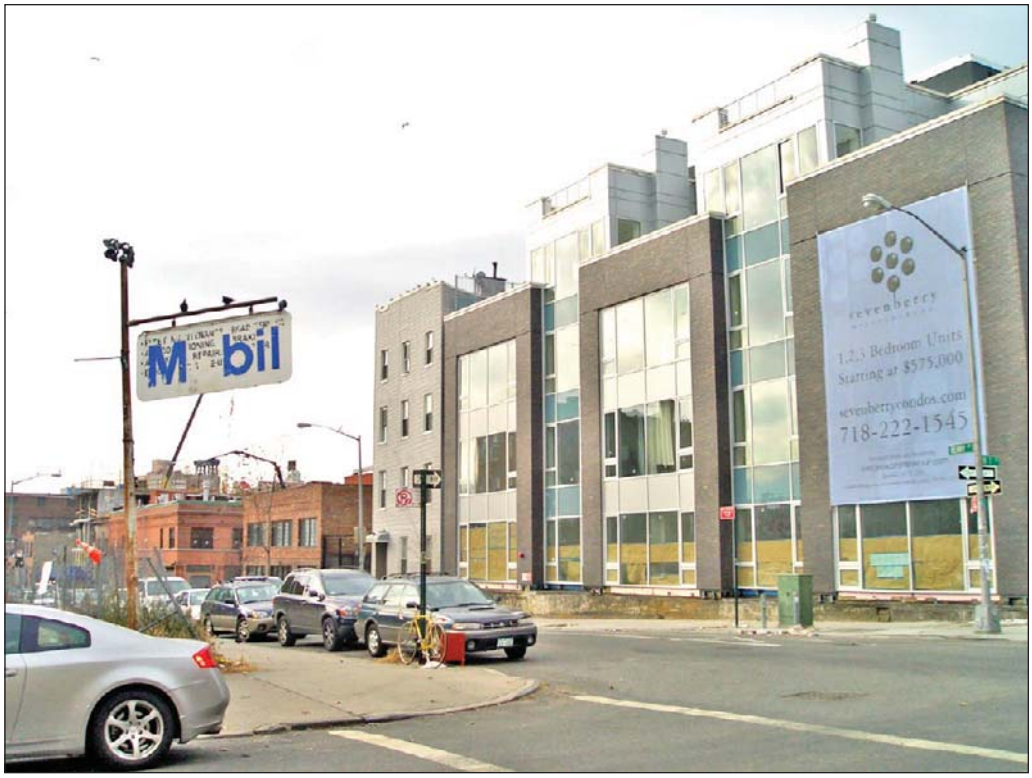
Study Area Views
Figure 9-8

View south along Kent Avenue from North 7th Street **13**

North side of North 8th Street between Berry Street and Wythe Avenue **14**

Study Area Views

Figure 9-9



View southwest from Berry Street and North 7th Street **15**

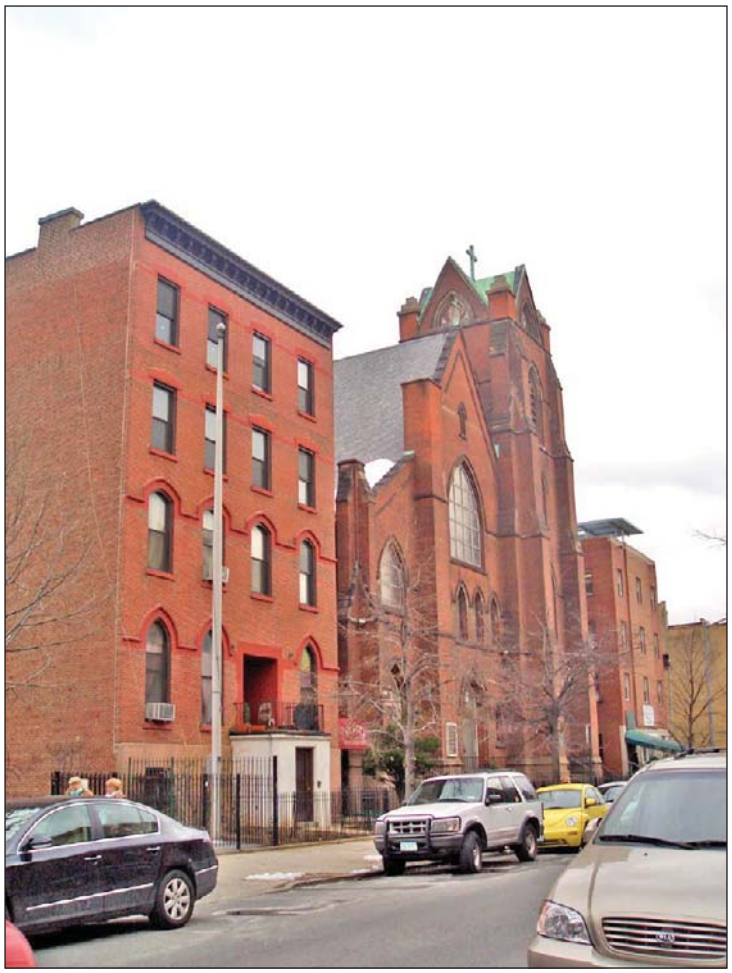
View of the south side of North 6th Street between Berry Street and Wythe Avenue **16**

Study Area Views
Figure 9-10

Bedford Avenue and North 6th Street, view southwest **17**

View north on Wythe Avenue from North 4th Street **18**

Study Area Views
Figure 9-11



View of St. Ann's Church, view along North 6th Street between Bedford Avenue and Driggs Avenue **19**

Boricua College building **20**

Study Area Views
Figure 9-12

View northwest from Kent Avenue and South 3rd Street **21**

View northeast along South 1st Street between Kent Avenue and Wythe Avenue **22**

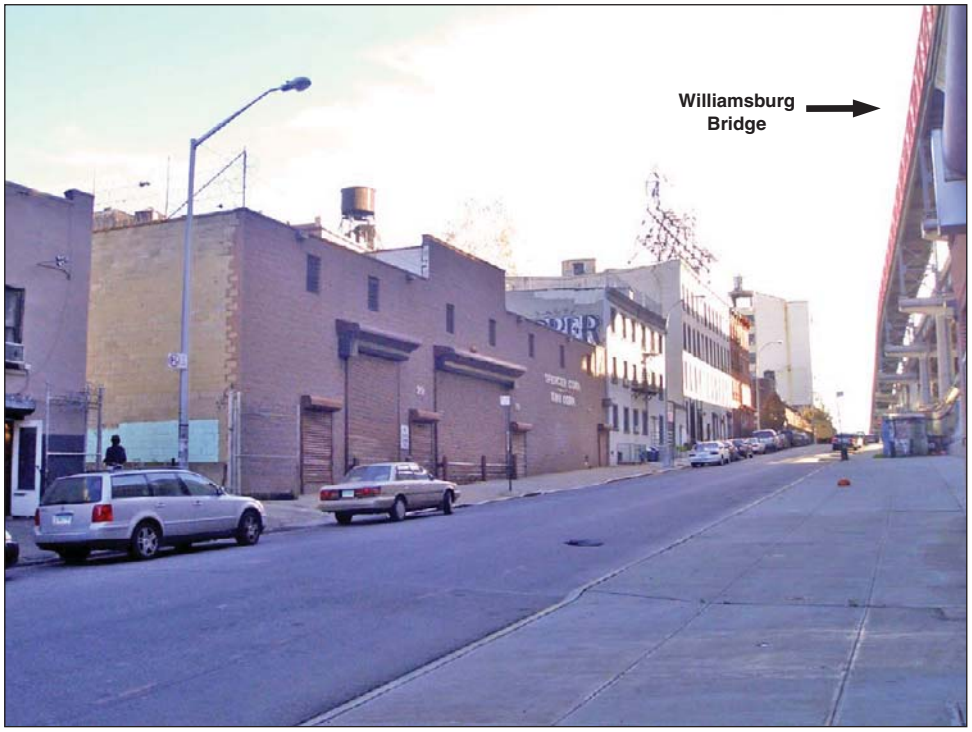
Study Area Views
Figure 9-13

North side of South 4th Street near Berry Street **23**

View of north side of South 3rd Street between Roebling and Havemeyer Streets **24**

Study Area Views
Figure 9-14

Former industrial building, southwest corner of Wythe Avenue and South 4th Street **25**



South 5th Street, view northeast near Kent Avenue **26**

Study Area Views
Figure 9-15

Havemeyer Street, view north from South 3rd Street **27**

View north on South 9th Street and Berry Street **28**

Study Area Views
Figure 9-16

Southside of South 9th Street from Roebling Street **29**

View southwest on South10th Street and Berry Street **30**

Study Area Views
Figure 9-17

View north from Clymer and Juliana Streets **31**

View northeast from Division Avenue and Roebling Street **32**

Study Area Views
Figure 9-18

View north from Kent Avenue and South 10th Street **33**

View northeast from Driggs and Division Avenues **34**

Roman Catholic Church of the Ephinany, South 9th Street between Driggs Avenue and Roebling Street **35**

View northeast from Kent Avenue on North 3rd Street **36**

Study Area Views
Figure 9-20

View south on Wythe Avenue and North 1st Street **37**

View south on River Street from North 1st Street **38**

View north from Wythe Avenue and North 6th Street **39**

View north on North 1st Street from Berry Street **40**

Study Area Views

Figure 9-22

View southwest from Berry Street and South 2nd Street **41**

View northwest from Wythe Avenue and South 4th Street **42**

Study Area Views
Figure 9-23

View south along Berry Street from South 1st Street **43**

View east along South 5th Street **44**

Study Area Views
Figure 9-24

Former Williamsburg Trust Company Building, view northwest from Continental Army Plaza **45**

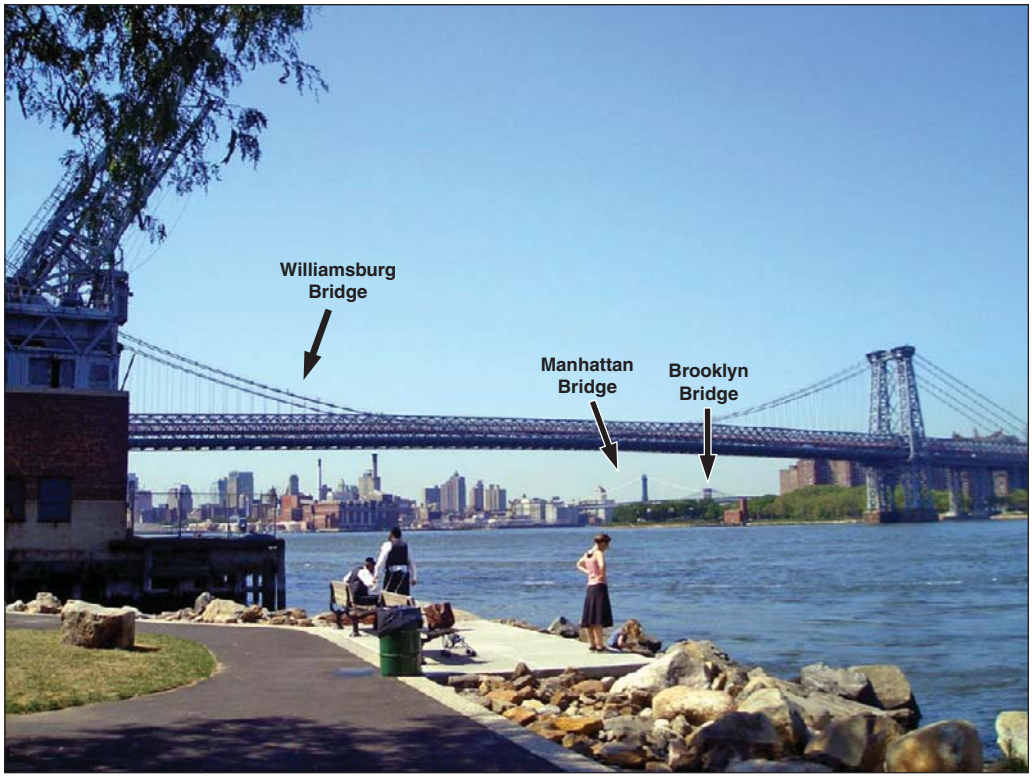
View northwest along South 9th Street from Driggs Avenue **46**

Study Area Views
Figure 9-25

View south along Kent Avenue from North 3rd Street **47**

View southwest from Metropolitan Avenue and Wythe Avenue **48**

Study Area Views
Figure 9-26



View of the East River and East River Bridges, view south from Grand Ferry Park **49**

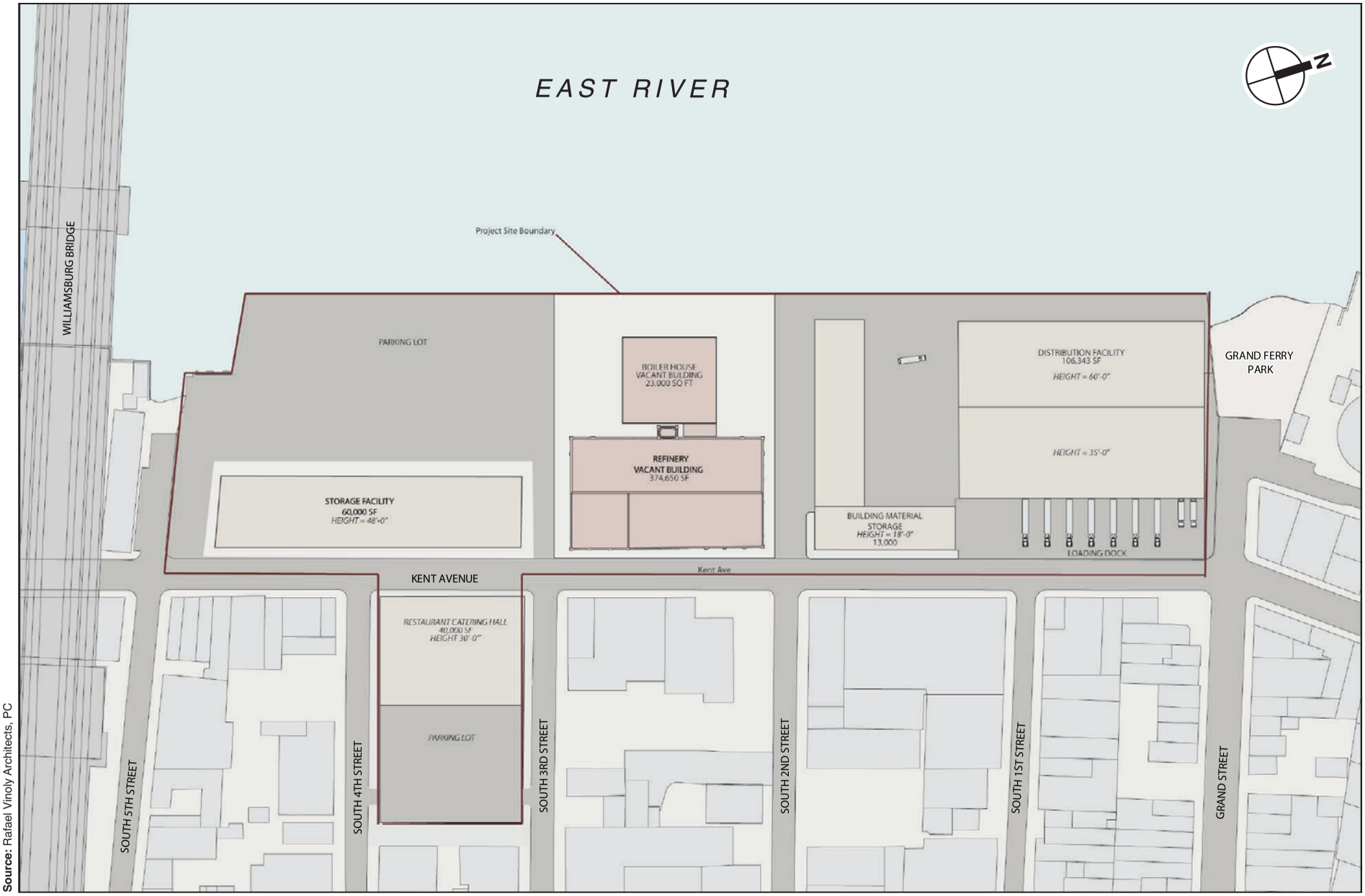
View northwest from South 4th Street between Kent Avenue and Wythe Avenue **50**

Study Area Views
Figure 9-27

View east on Broadway and Kent Avenue **51**

Study Area View
Figure 9-28

12.17.09



Source: Rafael Vinoly Architects, PC

NOT TO SCALE

No Action Development on the Project Site

Figure 9-29

12.28.09

Source: Rafael Vinoly Architects

Project Site Boundary

Illustrative Site Plan
Figure 9-30

Source: Rafael Vinoly Architects

•••••••••• Maximum Building Envelope

NOTE: The proposed buildings are limited to the area within the zoning envelope. However, given the amount of floor area permitted under the proposed zoning, the buildings could not fill out the entire envelope.

Building Envelopes and Heights: North Elevation

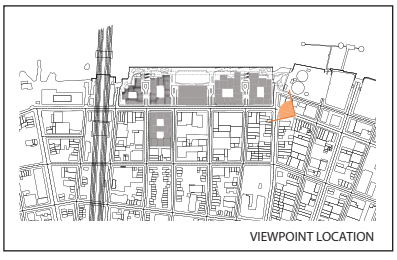
Figure 9-31

12.22.09

FUTURE WITHOUT THE PROPOSED PROJECT: VIEW FROM KENT AVENUE FACING SOUTH

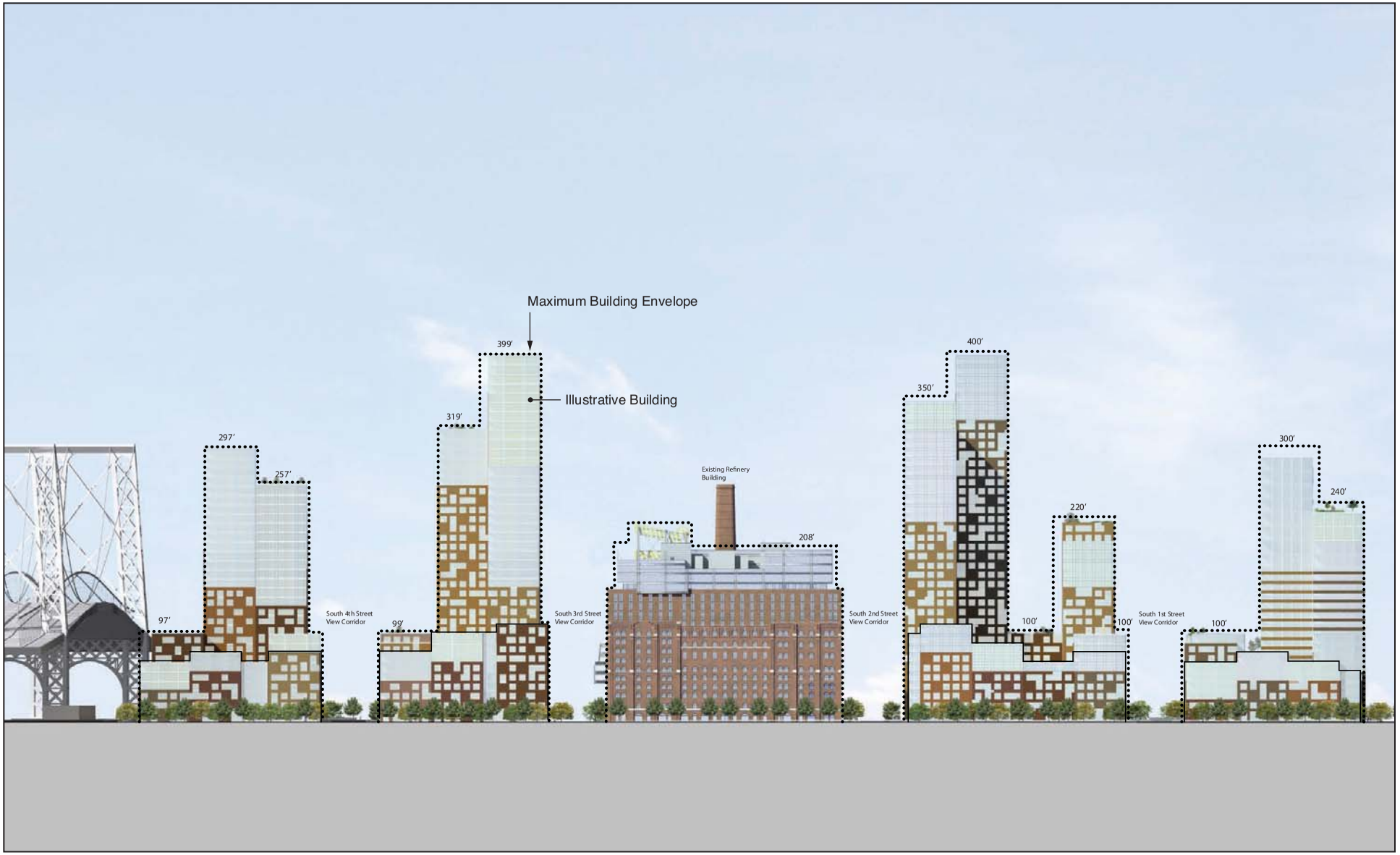
ILLUSTRATIVE RENDERING OF PROPOSED PROJECT: PROPOSED VIEW FROM KENT AVENUE FACING SOUTH

Source: Rafael Vinoly Architects



VIEWPOINT LOCATION

View from Kent Avenue Facing South
Figure 9-32



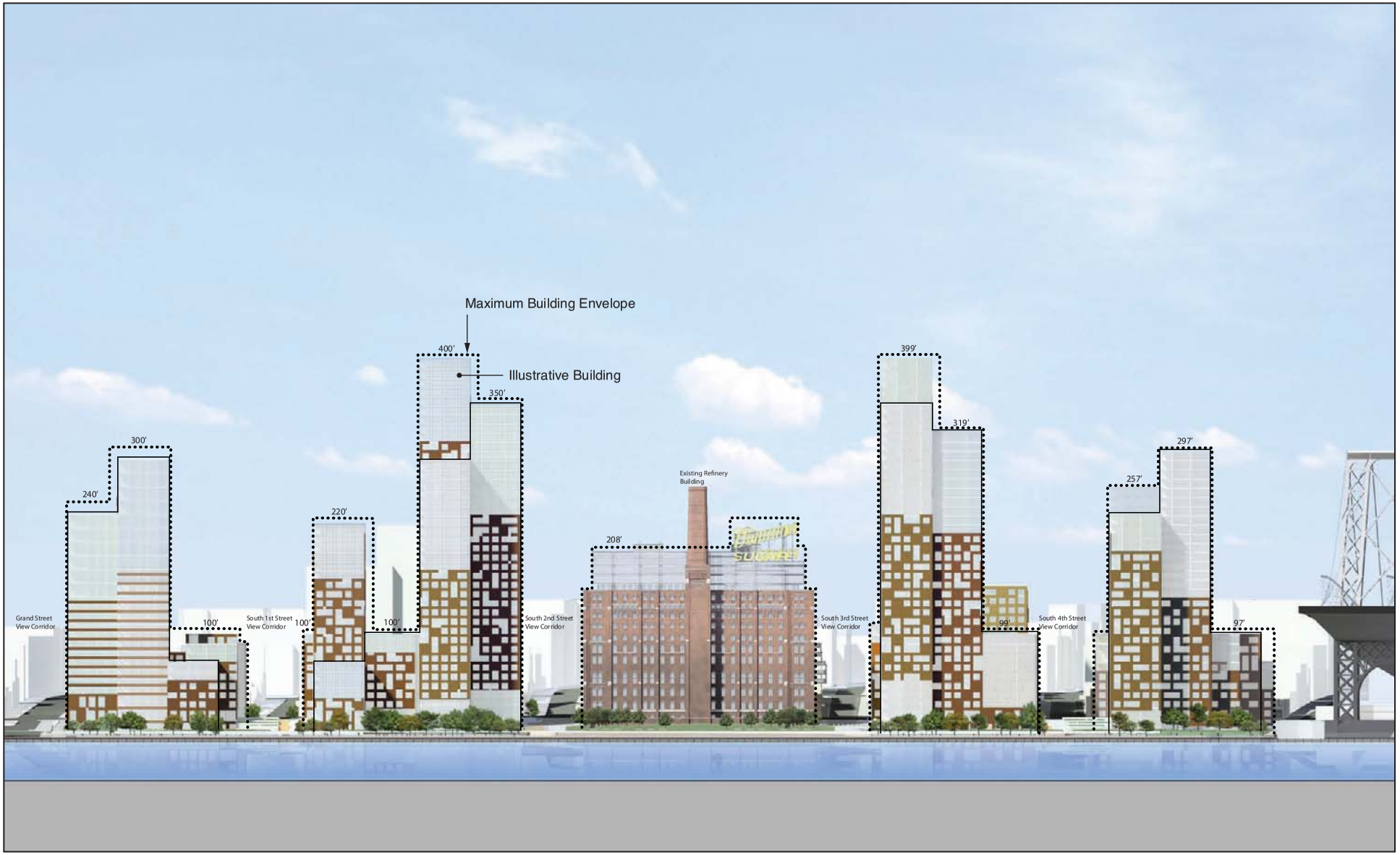
Source: Rafael Vinoly Architects

•••••••••• Maximum Building Envelope

NOTE: The proposed buildings are limited to the area within the zoning envelope. However, given the amount of floor area permitted under the proposed zoning, the buildings could not fill out the entire envelope.

Building Envelopes and Heights: East Elevation

Figure 9-33



Source: Rafael Vinoly Architects

•••••••••• Maximum Building Envelope

NOTE: The proposed buildings are limited to the area within the zoning envelope. However, given the amount of floor area permitted under the proposed zoning, the buildings could not fill out the entire envelope.

Building Envelopes and Heights: West Elevation

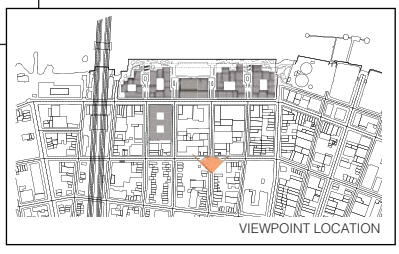
Figure 9-34

5.17.10

FUTURE WITHOUT THE PROPOSED PROJECT: VIEW FROM WYTHE AVENUE AND SOUTH 2ND STREET

ILLUSTRATIVE RENDERING OF PROPOSED PROJECT: ILLUSTRATIVE VIEW FROM WYTHE AVENUE AND SOUTH 2ND STREET

Source: Rafael Vinoly Architects



View from Wythe Avenue and South 2nd Street

Figure 9-35

5.10.10

FUTURE WITHOUT THE PROPOSED PROJECT: VIEW FROM BERRY AND SOUTH 3RD STREETS

ILLUSTRATIVE RENDERING OF PROPOSED PROJECT: ILLUSTRATIVE PROPOSED VIEW FROM BERRY AND SOUTH 3RD STREETS

Source: Rafael Vinoly Architects

VIEWPOINT LOCATION

View from Berry and South 3rd Streets

Figure 9-36

1. Children's Play Area
2. Active Play Lawn
3. Refinery Lawn
4. North Lawn

NOTE: This figure has been revised for the FEIS

Open Space Plan
Figure 9-37

10.30.08

Source: Rafael Vinoly Architects

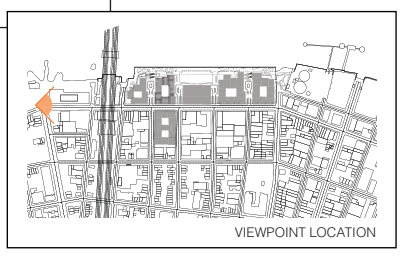
Rendering of the Refinery with Proposed Addition

5.10.10

FUTURE WITHOUT THE PROPOSED PROJECT: VIEW FROM KENT AVENUE AND BROADWAY

ILLUSTRATIVE RENDERING OF PROPOSED PROJECT: ILLUSTRATIVE VIEW NORTH FROM KENT AVENUE AND BROADWAY

Source: Rafael Vinoly Architects



View North from Broadway and Kent Avenue

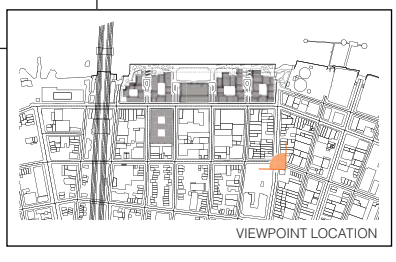
Figure 9-39

5.24.10

FUTURE WITHOUT THE PROPOSED PROJECT: VIEW FROM WYHTE AVENUE AND GRAND STREET

ILLUSTRATIVE RENDERING OF PROPOSED PROJECT: ILLUSTRATIVE VIEW SOUTHWEST FROM WYHTE AVENUE AND GRAND STREET

Source: Rafael Vinoly Architects

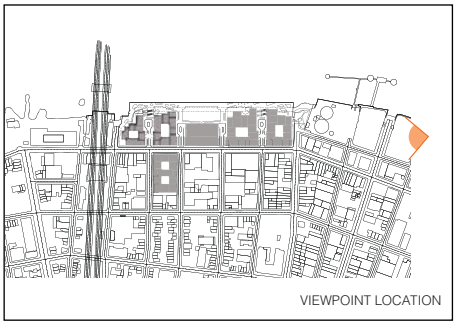


View Southwest from Wythe Avenue and Grand Street

Figure 9-40

9.29.09

Source: Rafael Vinoly Architects



View South from East River State Park

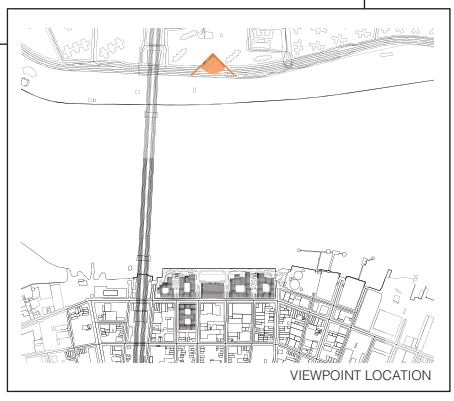
Figure 9-41

12.22.09

FUTURE WITHOUT THE PROPOSED PROJECT: VIEW FROM MANHATTAN

ILLUSTRATIVE RENDERING OF PROPOSED PROJECT: ILLUSTRATIVE VIEW EAST FROM MANHATTAN

Source: Rafael Vinoly Architects



VIEWPOINT LOCATION

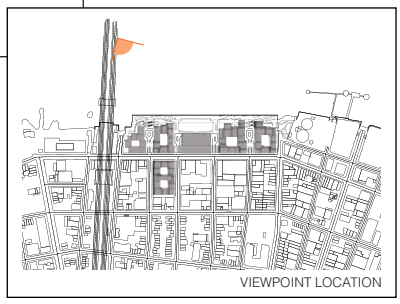
View East from Manhattan
Figure 9-42

12.22.09

FUTURE WITHOUT THE PROPOSED PROJECT: VIEW FROM WILLIAMSBURG BRIDGE

ILLUSTRATIVE RENDERING OF PROPOSED PROJECT: ILLUSTRATIVE VIEW NORTHEAST FROM WILLIAMSBURG BRIDGE

Source: Rafael Vinoly Architects



VIEWPOINT LOCATION

Illustrative View Northeast from Williamsburg Bridge