

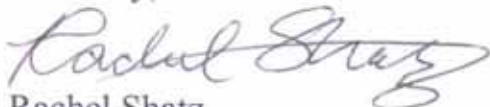
ATLANTIC YARDS ARENA AND REDEVELOPMENT PROJECT
ENVIRONMENTAL IMPACT STATEMENT
FINAL SCOPE OF ANALYSIS

March 31, 2006

Attached is a final scope of analysis for the Environmental Impact Statement (EIS) being prepared for the proposed Atlantic Yards Arena and Redevelopment Project. The Empire State Development Corporation (ESDC), acting as lead agency, has considered in preparing the attached final scope of analysis all comments relevant to the EIS received at the public scoping session on October 18, 2005 and in writing during the comment period held open until October 28, 2005. The attached final scope of analysis reflects changes made to the program in response to public comments and as a result of the on-going planning process for the proposed project. Please note, for your convenience in comparing the draft and final documents, changes resulting in revised text to the draft scope of analysis are indicated by double underlined text. However, revisions resulting in deletions from the draft scope are not identified.

A draft EIS is now being prepared and the public will be invited to review and comment on its content once it has been certified by ESDC. A copy of the final scope is available on the ESDC website at: <http://www.empire.state.ny.us/default.asp>.

Sincerely,



Rachel Shatz
Director, Planning & Environmental Review
Empire State Development Corporation

ATLANTIC YARDS ARENA AND REDEVELOPMENT PROJECT
FINAL SCOPE OF ANALYSIS
FOR AN ENVIRONMENTAL IMPACT STATEMENT

This document is the Final Scope of Analysis (“Final Scope”) for the proposed Atlantic Yards Arena and Redevelopment Project’s Draft Environmental Impact Statement (DEIS). This Final Scope has been prepared to describe the proposed project, present the proposed framework for the EIS analysis, and discuss the procedures to be followed in the preparation of the DEIS. This DEIS will be prepared pursuant to the State Environmental Quality Review Act (SEQRA) and its implementing regulations and the New York City Environmental Quality Review (CEQR) process. The New York State Urban Development Corporation, doing business as the Empire State Development Corporation (ESDC), will serve as lead agency under SEQRA.

A Draft Scope of Analysis (“Draft Scope”) for the project was issued on September 16, 2005. Oral and written comments were received during the public hearing held by ESDC on October 18, 2005 at New York City Technical College, 285 Jay Street, Brooklyn. Written comments were accepted from issuance of the Draft Scope through the public comment period, which ended October 28, 2005. The majority of the comments relevant to the Draft Scope focused on (1) the need to expand the study area boundaries for various environmental analyses; (2) the proposed project’s effects on direct and indirect displacement of businesses and residents; (3) the assumptions and methodology to be used in the traffic, parking, and transit analyses; (4) compatibility and connectivity of the proposed project to its surrounding neighborhoods; and (5) construction-related impacts. A number of comments were made in general support or opposition to the project but did not relate to the proposed approach or methodology for the impact assessments. Other comments suggested editorial changes.

In addition to the comments described above, several comments requested analyses that are beyond the scope of this project’s SEQRA review, specifically:

- *The DEIS should include (1) an assessment of the project’s financial viability, (2) a pro forma for the project, and (3) information on the “true value” of the project accounting for costs related to displacement, replacement costs of affordable housing, direct and indirect subsidies to the developer, net job gains or losses, and intangible costs.*

An assessment of a project’s financial viability is not subject to SEQRA, nor is a pro forma required as part of the environmental review. The EIS will contain a description of the project’s potential economic and fiscal benefits; this analysis will account for fiscal incentives and will disclose, to the extent known, the public funding for the project. The EIS will also include an analysis of the project’s potential to result in both direct and indirect residential and business displacement and will also provide information on the project’s affordable housing component.

- *The DEIS should address the issue of forced realignment of municipal service districts.*

The EIS analysis will consider existing municipal service districts, including New York Police Department (NYPD) precincts and Fire Department of New York (FDNY) service areas, and any changes to them that will occur independent of the proposed project—to the extent relevant for purposes of evaluating the project’s potential to result in significant adverse impacts. Where significant adverse impacts to community facilities are identified,

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mitigation measures are proposed to the extent feasible. The realignment of municipal service districts is not being proposed as part of this project.

- *The DEIS should consider the implications of the proposed reconfiguration of the Vanderbilt Yard on the Cross Harbor Rail-Freight Tunnel, the Metropolitan Transportation Authority's (MTA's) East Side Access project, and the JFK rail service to Lower Manhattan.*

The EIS will not consider the Cross Harbor Rail-Freight Tunnel because the Vanderbilt Yard serves Long Island Rail Road (LIRR) commuter rail operations and cannot accommodate the requirements for freight rail service. Even after the completion of the East Side Access project, the MTA reports that it would have no plans to discontinue operations at the Vanderbilt Yard; the rail yard would still be needed for electric train storage. Lastly, the planning for the JFK rail link project is in its initial stage, and it is too early to know whether any specific alternatives would affect the Vanderbilt Yard.

- *The DEIS should assess the project's contribution to the trend of racial and economic homogeneity for a 40-year time frame beginning 20 years in the past and extending 20 years into the future. It was also requested that the DEIS determine whether the proposed project will result in disparate impacts on minority and/or low-income communities and assess the project's effects on indices of segregation and other forms of social exclusion in the study area and immediately beyond.*

The assessment of population and housing in the study area will begin with an analysis of demographic trends based on data from the 1980, 1990, and 2000 US Census. The 2000 Census figures will be used in combination with a list of housing units built between 2000 and 2005 (from the New York City Department of City Planning [DCP]) to estimate 2006 housing units, households, and population. In accordance with established CEQR methodology, the DEIS will analyze the proposed project's effects for the 2010 and 2016 analysis years, which is when the proposed project's Phase I and the full build program, respectively, will be in full operation. The demographic projections will extend to the proposed project's 2010 and 2016 analysis years. Consistent with SEQRA and CEQR methodology, an assessment will be conducted with respect to the project's potential impact on direct and indirect residential displacement, and overall neighborhood character. The DEIS will present Census data on the socioeconomic and racial character of the Census tracts at the project site and in the study area around the site, and an analysis of the project's potential to cause secondary displacement within the study area. The DEIS will not attempt to project how such displacement would alter indices of segregation or other forms of social exclusion.

- *The DEIS should show how the project will change the area's racial and ethnic composition, in turn affecting representation of minorities in city, state, and federal election districts.*

The DEIS, in conformance with CEQR methodology, will contain an assessment of the proposed project's potential to result in direct and indirect residential and business displacement. The DEIS will present demographic information; however, potential changes to minority representation is beyond the scope of a SEQRA environmental review.

- The DEIS should attempt to predict the impacts of the project decades into the future and include a cumulative impacts analysis of the project and the Downtown Brooklyn Development Plan (rezoning).

The DEIS will analyze reasonably related short-term and long-term impacts and other associated environmental impacts as required by SEQRA and CEQR. The analysis will follow the CEQR Technical Manual, which requires that a prediction be made of environmental conditions at the time that the project is completed. This prediction is made for a particular year, generally known as the “analysis year” or “build year,” which is the year when the proposed project would be substantially operational. As the proposed project would have several elements that would be developed or implemented over a period of time, two analysis years, 2010 and 2016, will be considered with respect to many of the technical areas studied in the DEIS.

With respect to several technical areas (including traffic and parking conditions), long-term impacts will be studied by conservatively assuming that the projected development sites for the Downtown Brooklyn Development Plan, as well as the Brooklyn Bridge Park and several other specific planned or potential developments in Brooklyn, will be built by 2016 as part of the No Build conditions against which the project is assessed. With respect to other technical areas (such as indirect secondary displacement and visual impacts), the analyses will identify the potential for adverse impacts irrespective of the years that those impacts may occur.

Because the project has been undergoing design development, a number of program modifications have been made subsequent to the release of the Draft Scope. These include:

- Adjustments to the program have resulted in a proposed project that is roughly 475,000 gross square feet (gsf) smaller than as originally described in the Draft Scope;
- Addition of a publicly accessible covered pedestrian space. This “Urban Room,” located at the Flatbush Avenue and Atlantic Avenue intersection, would be a highly transparent, grand civic room containing meeting space and cafés as well as ticket windows for the arena, access to the arena and other uses on the arena block, and connection to the Atlantic Terminal mass transit complex;
- Private open space on the arena rooftop has been reduced from approximately 52,000 square feet to approximately one acre;
- Widening of the west side of 6th Avenue at the mid-block between Atlantic Avenue and Dean Street to accommodate a drop-off lane; and
- Based on refinements to the construction phasing, the Phase I analysis year has been modified from 2009 to 2010. Although major components of the Phase I plan, including the arena, will be completed and operational by the fall of 2009, completion of the remainder of the arena block and Site 5 is anticipated to occur in 2010. Thus, for EIS impact assessment purposes, the Phase I build year analysis has been moved to 2010. The Phase II analysis year remains the same at 2016.

Lastly, since the issuance of the Draft Scope, the U.S. Environmental Protection Agency (EPA) has issued regulations that adopted a new dispersion model, AERMOD, to replace the Industrial Source Complex (ISC) model for performing air quality impact analyses. Although the SEQRA process may be completed prior to the end of the transition period for the new model, the New

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York City Department of Environmental Protection (DEP) has directed that new projects should be analyzed using AERMOD, and accordingly this model will be used in the analysis.

This Final Scope reflects changes made in response to relevant public comments on the Draft Scope, as well as modifications to the proposed program or impact assessment methodology. Deletions are not shown in this document. However, where relevant and appropriate, new text and editorial changes to the Draft Scope have been incorporated into the Final Scope and are indicated by double-underlining.

A. INTRODUCTION

Atlantic Yards Development Company, LLC, and Brooklyn Arena, LLC (the “project sponsors”) propose to construct a major mixed-use development in the Atlantic Terminal area of Brooklyn. The Atlantic Yards Arena and Redevelopment Project (the “proposed project”) entails the planning and redevelopment of an underutilized and underdeveloped area and the construction of an arena for use by the Nets professional basketball team, as well as residential, office, retail, hotel, publicly accessible open space, and parking uses. The proposed project development would occupy an approximately 22-acre area, roughly bounded by Flatbush and 4th Avenues to the west, Vanderbilt Avenue to the east, Atlantic Avenue to the north, and Dean and Pacific Streets to the south (see Figure 1). The affected parcels include: Block 927: Lots 1, 16; Block 1118: Lots 1, 5, 6, 21-25, 27; Block 1119: Lots 1, 7, 64; Block 1120: Lots 1, 19, 28, 35; Block 1121: Lots 1, 42, 47; Block 1127: Lots 1, 10-13, 18-22, 29, 30, 33, 43, 45-48, 50, 51, 54-56, 1001-1021 (formerly Lot 35), 1101-1131 (formerly Lot 27); Block 1128: Lots 1, 2, 4, 85-89; and Block 1129: Lots 1, 3-6, 13, 21, 25, 39, 43-46, 49, 50, 54, 62, 76, 81.

In order to develop this proposed project, certain discretionary approvals are required from ESDC, which would adopt the proposed project as a combined civic and land use project, as well as from the MTA and the City of New York (the “City”). MTA and the City, through the Mayor’s Office of Economic Development and Rebuilding, will make their own SEQRA/CEQR findings as involved agencies.

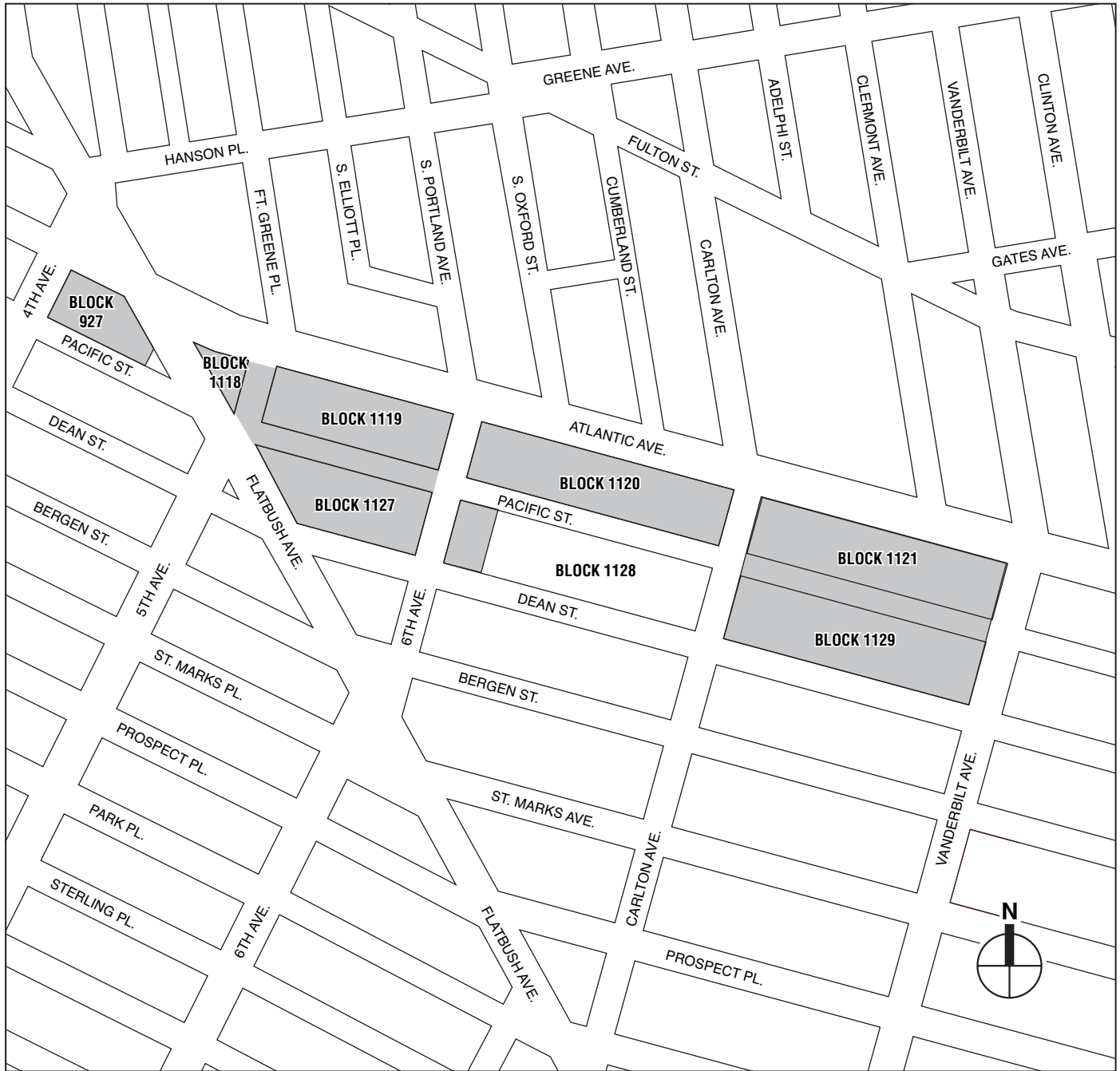
Development of the proposed project may potentially result in significant adverse environmental impacts, requiring that an Environmental Impact Statement (EIS) be prepared. The *CEQR Technical Manual* will serve as a general guide on the methodologies and impact criteria for evaluating the proposed project’s effects on the various environmental areas of analysis.

B. PROJECT DESCRIPTION, AND PURPOSE AND NEED

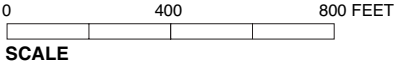
PROJECT DESCRIPTION

PROJECT PROGRAM

The proposed Atlantic Yards Arena and Redevelopment Project involves the reconfiguration, improvement, and platforming over of the storage and inspection uses of the LIRR Vanderbilt Yard (“rail yard”) and the clearance, planning, and reconstruction of the surrounding blocks. The proposed development considers two program variations: residential mixed-use and commercial mixed-use; the commercial mixed-use variation would provide flexibility in the development plan to allow the project sponsors to meet potential future demand for office space in a location that will take advantage of the third largest transit hub in New York City and that is in close proximity to recent commercial development in Downtown Brooklyn. The variations reflect the



 Project Site



fact that the programs for three of the project’s 17 buildings are not fixed and could be used for a mixture of residential and commercial uses.

At full build-out, the residential mixed-use variation would include approximately 606,000 gross square feet (gsf) of commercial office space, 165,000 gsf of hotel use (approximately 180 rooms), 247,000 gsf of retail and community facility space, up to 6.79 million gsf of residential use (approximately 6,860 residential units), approximately 3,800 parking spaces, more than 7 acres of publicly accessible open space, and the proposed 850,000 gsf arena, which would accommodate 18,000 to 20,500 seats and provide approximately one acre of private open space on its roof (see Table 1 and Figure 2a). Additionally, the proposed project would include an Urban Room, a publicly accessible covered pedestrian space and connection to the Atlantic Terminal mass transit complex.

**Table 1
Residential and Commercial Mixed-Use Variation Programs**

Proposed Uses	Residential Mixed-Use Variation	Commercial Mixed-Use Variation
Residential	6,790,000 gsf (6,860 units)	5,730,000 gsf (5,790 units)
Hotel (180 rooms)	165,000 gsf	0 gsf
Retail ¹	247,000 gsf	247,000 gsf
Commercial	606,000 gsf	1,829,000 gsf
Arena	850,000 gsf	850,000 gsf
Parking (spaces)	3,800 spaces	3,800 spaces
Private Open Space	≤ 1 acre	≤ 1 acre
Publicly Accessible Open Space	7+ acres	7+ acres
Notes:		
1. A portion of the retail space is anticipated to house community facilities.		

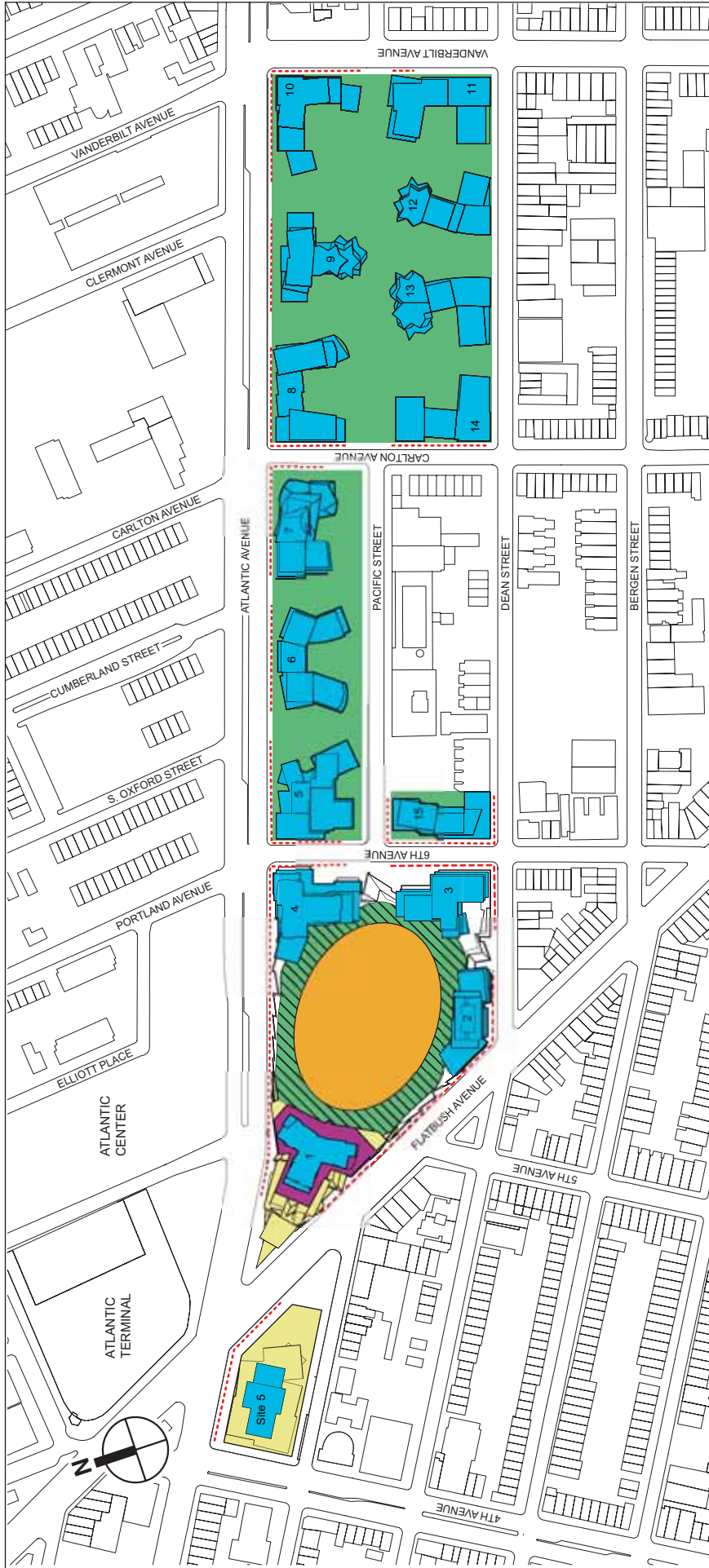
As shown in Table 1 and Figure 2b, the commercial mixed-use variation would allow for additional commercial use to substitute for the hotel use and the residential space in Buildings 1 and 2 on the arena site (Blocks 1118, 1119, and 1127) and on Site 5 of the Atlantic Terminal Urban Renewal Area (ATURA) Plan (Block 927). The other buildings and uses on the project site (the arena, Buildings 3 and 4, and all buildings east of 6th Avenue) would remain the same under either the residential mixed-use or the commercial mixed-use variations.

The proposed project (with either variation) would also provide community facilities, including a health care center and an intergenerational community center offering child care and youth and senior activities. Community facilities built as part of the proposed project would occupy some portion of the 247,000 gsf of ground floor space identified as retail in Table 1.

As part of the residential mixed-use variation, a portion of the site known as Site 5 of the ATURA Plan would be developed with—in addition to approximately 47,000 gsf of existing retail—approximately 288,000 gsf of residential use and 270,000 gsf of office use, or, under the commercial mixed-use variation, with approximately 558,000 gsf of office use. Site 6A of the ATURA Plan (Block 1118, Lot 6) is also located on the project site and will be developed as part of the proposed project. The ESDC General Project Plan (GPP) for the Atlantic Yards Arena and Redevelopment Project would allow for the override of the ATURA Plan to allow for the development.

The proposed project envisions building forms of varied massings and heights with the higher-rise buildings fronting Atlantic and Flatbush Avenues and the lower-rise buildings fronting on

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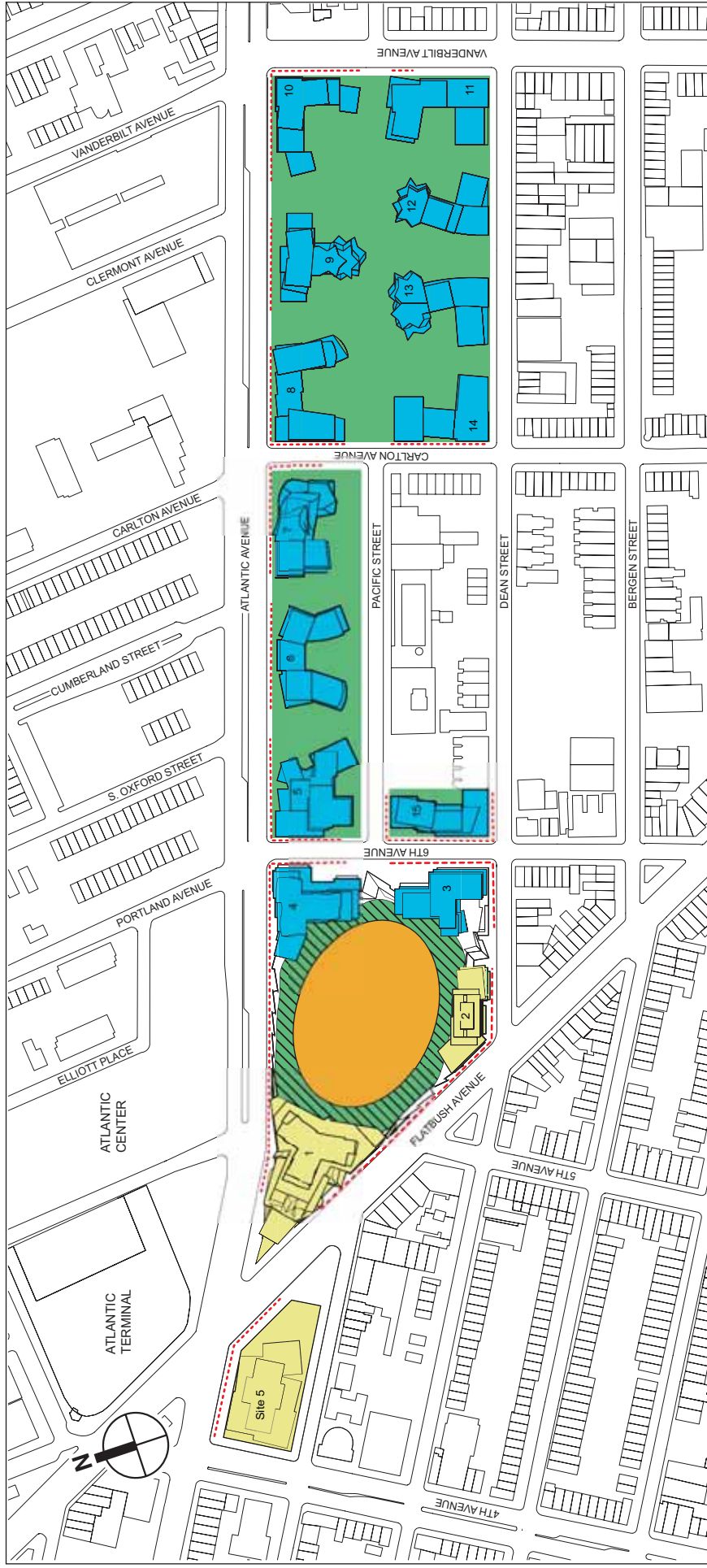


Note: For illustrative purposes only

- Arena
- Residential Building
- Commercial Building
- Public Open Space
- Private Open Space
- Hotel
- Street-Level Retail

Atlantic Yards Arena and Redevelopment Project - Scope

Residential Mixed-Use Variation Site Plan
Figure 2a



Note: For illustrative purposes only

- Arena
- Residential Building
- Commercial Building
- Public Open Space
- Private Open Space
- Street-Level Retail



Commercial Mixed-Use Variation Site Plan
 Figure 2b

**Atlantic Yards Arena and
 Redevelopment Project - Scope**

Atlantic Yards Arena and Redevelopment Project

the less dense neighborhoods to the south and east of the site, conforming to a set of design guidelines that will be developed as part of the GPP. Figures 3a and 3b present schematics of the residential mixed-use and the commercial mixed-use conceptual sectional elevations, respectively. The shape and heights of individual buildings may change as the design is refined.

PROPOSED ROADWAY RECONFIGURATION AND PEDESTRIAN CIRCULATION IMPROVEMENTS

The proposed project would entail a number of permanent roadway closures and changes to vehicular circulation (see Figure 4), including:

- Closures of Pacific Street between Flatbush Avenue and 6th Avenue, and of 5th Avenue between Flatbush and Atlantic Avenues in order to provide a large contiguous footprint necessary to accommodate the arena complex;
- Closure of Pacific Street between Vanderbilt and Carlton Avenues to create more than 7 acres of publicly accessible active and passive open space;
- Widening of Flatbush Avenue at Atlantic Avenue by approximately 10 feet to provide a 750-foot drop-off lane adjacent to the site to decrease congestion at this intersection;
- Restriping and widening of Atlantic Avenue (through setback of the proposed development from the mapped street line) between Flatbush Avenue and 6th Avenue to provide a drop-off lane adjacent to the project site without decreasing the number of lanes; and
- Widening of 6th Avenue between Atlantic Avenue and Flatbush Avenue from 34 to 40 feet to provide two-way circulation through the project site and to provide a drop-off lane adjacent to the project site. In addition, Pacific Street between 6th Avenue and Carlton Avenue would be widened from 34 to 38 feet to permit two-way traffic circulation.

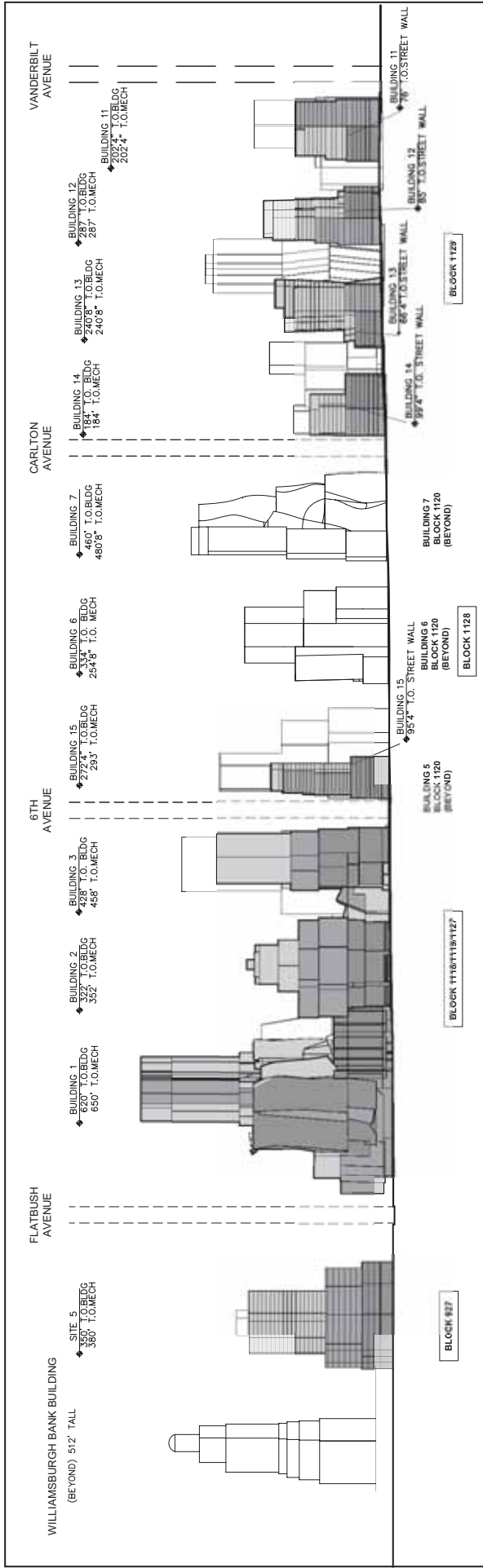
The project also proposes the following permanent pedestrian circulation improvements:

- Providing 20-foot wide sidewalks along the south side of Atlantic Avenue from Flatbush Avenue to Vanderbilt Avenue and along the east side of Flatbush Avenue between Atlantic Avenue and Dean Street by setting the proposed buildings back from the street line; and
- Building a new subway entrance at the corner of Atlantic and Flatbush Avenues, providing direct pedestrian access at the western end of the project site to the Atlantic Terminal (also called the LIRR Flatbush Terminal) transit hub.

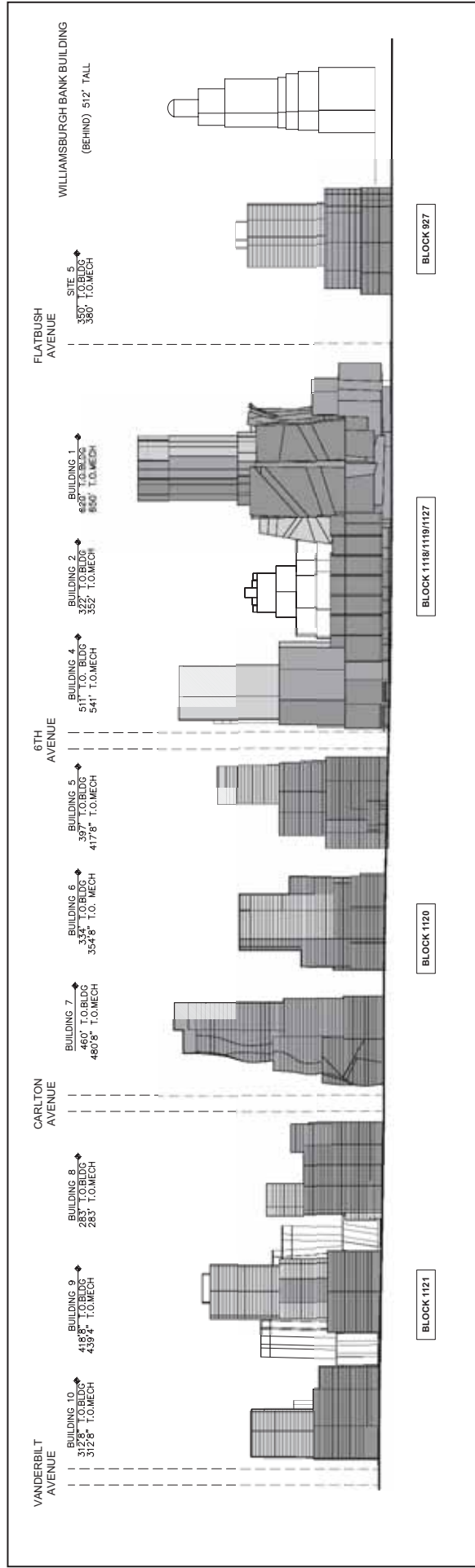
Because of the proposed street closures of sections of 5th Avenue and Pacific Street, the proposed project would need to relocate public infrastructure beneath these streets, particularly the water and sewer connections, as well as electric, gas, and telephone lines.

PROPOSED LIRR RAIL YARD IMPROVEMENTS

The proposed project would include the complete redevelopment and platforming over of the existing rail yard. Under the proposed project, the arena would be built on a portion of the site that is currently occupied by the rail yard on the LIRR Atlantic Branch, bounded by Atlantic Avenue, 5th Avenue, Pacific Street and Vanderbilt Avenue. A reconfigured and upgraded yard, which would expand storage and inspection capacity and improve yard functionality (including equipment servicing), would be built below street grade on the eastern end of the existing rail yard footprint to allow for both the continuation of LIRR yard operations and the operation of



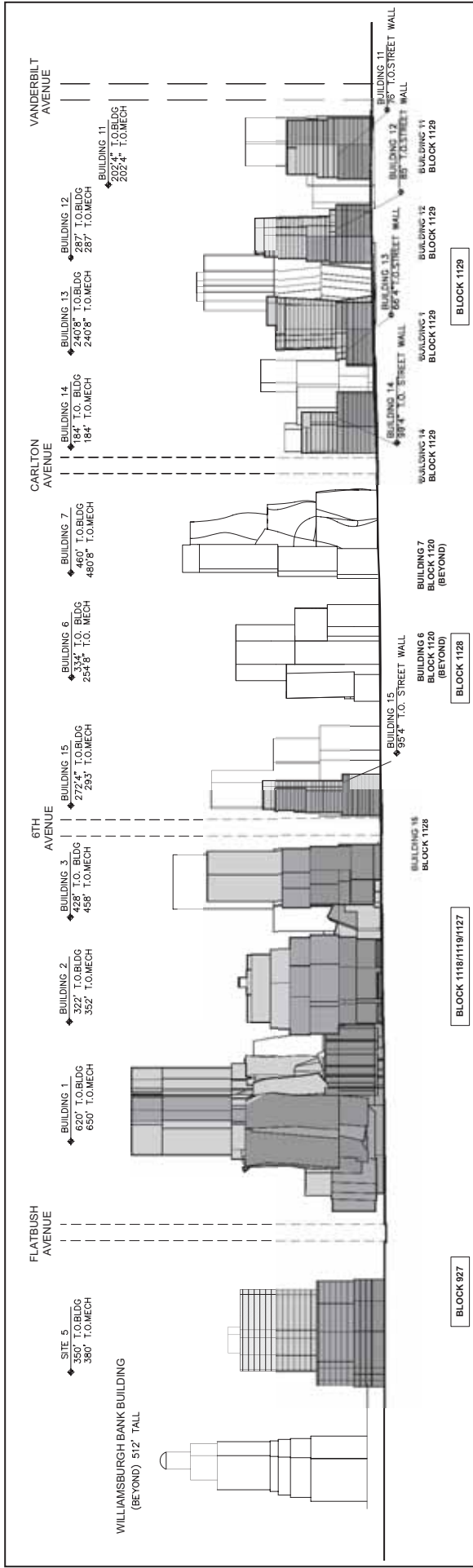
Dean Street Elevation (facing north)



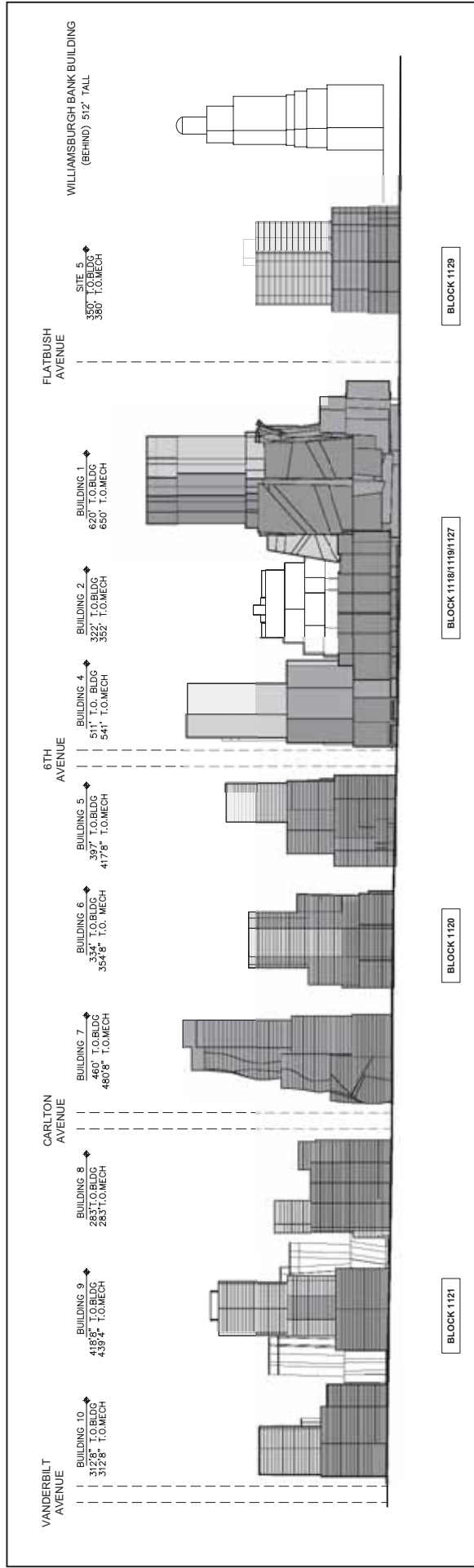
Atlantic Avenue Elevation (facing south)

Conceptual Sectional Elevation
Residential Mixed-Use
Figure 3a

Atlantic Yards Arena and
Redevelopment Project - Scope



Dean Street Elevation (facing north)

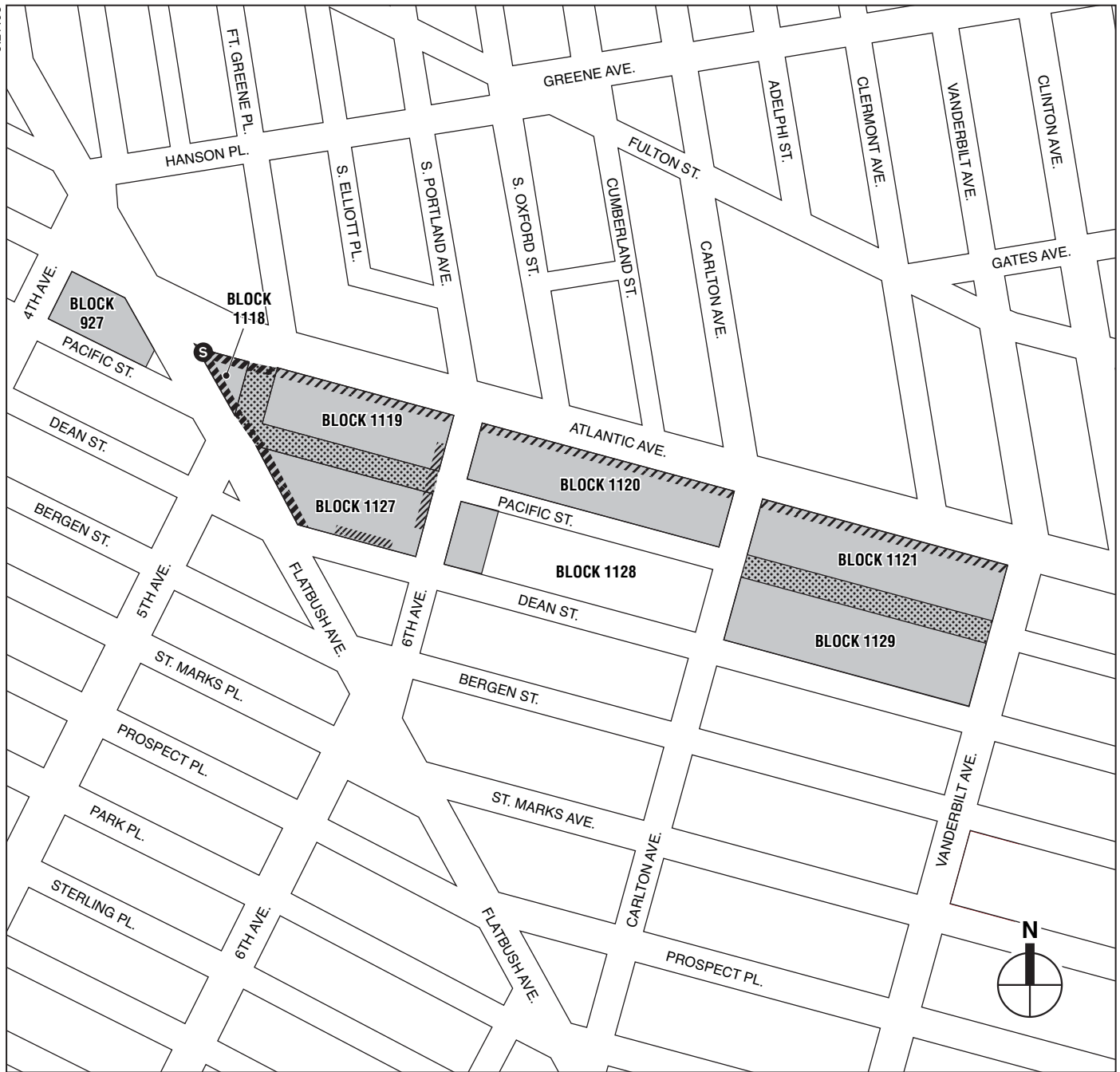


Atlantic Avenue Elevation (facing south)

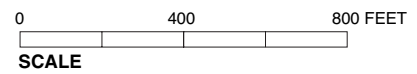
Conceptual Sectional Elevation Commercial Mixed-Use

Figure 3b

Atlantic Yards Arena and Redevelopment Project - Scope



-  Project Site
-  Street Closures
-  Lay-By Lane
-  New Transit Facility
-  Wider Sidewalks
-  Lay-By Lane and Wider Sidewalks



the arena. In order to provide for the continuance of LIRR Atlantic Branch operations during the construction of the arena, a staged scheme will be developed to provide a temporary storage yard in Block 1121 prior to the completion of the improved rail yard.

Improved Rail Yard Configuration and Entrances

The improved rail yard's west end will include a new portal (West Portal) providing a direct route from the LIRR Atlantic Terminal to the storage yard. The new West Portal will also provide a second means of train egress from Atlantic Terminal, adding security and flexibility in the event of an emergency on the Main Line. The proposed project also will provide a Drill Track under the arena site that will allow the switching of 10-car trains within the boundaries of the improved rail yard without interfering with the Main Line track. The improved rail yard will be fully signaled and interlocked, eliminating the need for manual signaling; and the existing traction power substation will be relocated and replaced with a new, modern, indoor substation.

New M-7 Fleet Accommodations

LIRR has begun to introduce a new M-7 train fleet. Because of federal accessible bathroom requirements and other American with Disabilities Act (ADA) upgrades, M-7 cars can accommodate fewer passengers than older cars, and longer cars are needed to accommodate the same passenger capacity. While five of the ten tracks in the rail yard currently are unable to accommodate the new M-7 trains, the new, longer, 8- and 10-car storage tracks that would be constructed as part of the improved rail yard will be able to accommodate the new M-7 train fleet.

Reconstruction of Bridges

Reconstruction of the rail yard will require the temporary closure and eventual improvement of two New York City Department of Transportation (DOT) bridges. The Carlton Avenue Bridge would be demolished and replaced with a completely new permanent span. In addition, the 6th Avenue Bridge, which connects Atlantic Avenue to Pacific Street, will be temporarily closed and reconstructed. Work on these two bridges will be phased such that they will at no time be simultaneously closed to street traffic.

PURPOSE AND NEED

The overarching goal of the proposed project is to transform an area that is blighted and largely underutilized into a vibrant mixed-use community over a newly renovated rail yard with enhanced storage, increased inspection capacity, and improved functionality. The proposed project aims to provide greatly needed affordable and market-rate housing, a state-of-the-art arena, neighborhood retail and first-class office space, publicly accessible open space, and a hotel. The proposed project is intended to connect the surrounding neighborhoods, which are currently separated by the open rail yard and a major avenue (Atlantic Avenue) with inadequate street crossings. More specifically,

- Eliminate blighted conditions on the project site, including dilapidated and structurally unsound buildings, debris-filled vacant lots, and underutilized properties;
- Replace the open rail yard with an enclosed, state-of-the-art LIRR storage, service, and inspection facility that will improve existing yard operations by expanding yard capacity, providing direct access to the yard from Atlantic Terminal through a new West Portal, building a new Drill Track to allow for the switching of 10-car trains, installing new toilet

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manifolds for unrestricted toilet servicing, and adding signal, interlocking, and switching systems;

- Provide new residential, retail, office, and hotel space that will capitalize on the project's proximity to the third largest transit hub in New York City and to recent commercial development in Downtown Brooklyn;
- Contribute to New York City's effort to meet the short- and long-term demand for affordable and market-rate housing by providing up to 6,860 housing units including 4,500 rental units, 50 percent of which will be affordable to low-, moderate-, and middle-income families;
- Create a first-class sports and entertainment venue to meet the needs and demands of the New York City area—primarily Brooklyn, which, with a population of approximately 2.4 million is equivalent in size to the fourth largest city in the United States. In addition to promoting the prominence of Brooklyn and New York City as a market for a national professional sports team, the arena would be a valuable facility for college and local academic institutions, which currently lack adequate athletic facilities;
- Foster and support growth of Brooklyn through: (a) the creation of jobs and economic activity during construction and operation of the new arena, commercial office, hotel, and retail development; and (b) the introduction of new households, which will stimulate the local economy by purchasing goods and services from local businesses;
- Remove the physical and visual barrier created by the existing below-grade rail yard that separates the neighborhoods of Fort Greene, Prospect Heights, Park Slope, and Boerum Hill;
- Enhance the Brooklyn skyline and streetscape with buildings designed by world-renowned architects and landscape architects, conforming to design guidelines regarding building forms, facades, street treatments, sidewalk widths, and open space configurations;
- Provide a major transit improvement that will enhance pedestrian safety by creating a subway station entrance on the south side of Atlantic Avenue at Flatbush Avenue, eliminating the need for pedestrians approaching the transportation hub from the south to cross Atlantic Avenue;
- Create publicly accessible active and passive open space on the project site for the surrounding neighborhood, with amenities encouraging year-round use of the open space; and
- In coordination with local community groups, provide community facility spaces including a health care center and an intergenerational facility offering child care and youth and senior center services.

To achieve many of the goals of the project's purpose and need and to maximize the benefits to the local Downtown Brooklyn community, the project sponsors have coordinated and will continue to coordinate and consult with local community organizations. This effort has resulted in a Community Benefits Agreement between the project sponsors and eight community-based organizations addressing job training, affordable housing, community facilities, Minority- and Women-Owned Business Enterprise (MWBE) participation, and other items.

PROJECT PLANNING PRINCIPLES

To unify the various elements of the proposed project and to fulfill the project's stated purpose and need, a set of criteria has been established as part of the GPP. A primary goal of the proposed GPP is to capitalize on the available infrastructure and mass transit system in the area

to create a mixed-use development providing an arena for the Nets, with world-class urban design and architecture. Some of the planning principles that are integral to the design of the proposed project include:

- Placement of the larger scale and higher density development closest to Atlantic Terminal, the third-largest mass transit hub in New York City, and stepping down density and scale from west to east and north to south;
- Concentration of commercial and arena uses, which have higher transportation demand, on the western part of the project site, close to the existing transportation hub;
- Removal of visual and physical obstacles that separate surrounding communities from each other and creation of a project that strengthens links among the residential neighborhoods. In particular, the proposed project calls for platforming over the below-grade rail yard, which currently causes a major break in the urban fabric. The project would also replace a number of underutilized and blighted sites that stand in stark contrast to trends in nearby areas towards residential and retail development;
- Creation of publicly accessible open space that is compatible with a mixed-use development and easily accessible to the surrounding neighborhoods;
- Creation of visual and pedestrian corridors from Fort Greene going south into and through the proposed project's open space and connecting surrounding neighborhoods;
- Improvements to the streetscape and the pedestrian environment surrounding and within the project site;
- Utilization of sustainable design principles, where possible and feasible;
- Promotion of Downtown Brooklyn as a destination through the introduction of high quality design and a variety of uses, including a professional sports arena; and
- Incorporation of urban design guidelines regarding issues such as building form, facades, street treatments, sidewalk widths, and open space configurations to provide a visually coherent project with an active street life.

C. REQUIRED ACTIONS AND ENVIRONMENTAL REVIEW

DISCRETIONARY APPROVALS

In order for the proposed project to be developed, full assemblage of the site is necessary. This assemblage would be accomplished by ESDC. Although a substantial proportion of the project site is currently controlled by the project sponsors, ESDC would acquire all parcels on the project site, including the identified city streets, through condemnation or acquisition, and dispose of them through a lease or sale to the project sponsors or a local development corporation.

Approximately 8 acres of this 22-acre site is the below-grade LIRR rail yard/New York City Transit (NYCT) storage yard for retired buses. The remaining properties are owned by the City and by private entities, including the project sponsors.

At this time, it is expected that the proposed project will require the following actions:

- Adoption of the GPP by ESDC, including overrides of certain local laws (described below);

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- Override by ESDC of certain aspects of the *New York City Zoning Resolution*, including, but not limited to, use and bulk (including height and setback, floor area, and yards), signage, and parking requirements and allowances;
- Override by ESDC of the ATURA Plan as it relates to Site 5 and Site 6A (which requires consistency with zoning);
- Override of the City Map as it relates to Pacific Street between Flatbush and 6th Avenues, 5th Avenue between Flatbush and Atlantic Avenues, and Pacific Street between Vanderbilt and Carlton Avenues;
- Acquisition of property by ESDC through negotiation or condemnation and subsequent disposition of the property (by sale or long-term lease) to the project sponsors or a local development corporation;
- Approval by the Public Authorities Control Board;
- Disposition by MTA of a property interest in the rail yard to ESDC, project sponsors, or a local development corporation;
- Approval by MTA of relocated and upgraded rail yard and other transit improvements, and any related real property acquisitions by LIRR or MTA;
- Provision of state and city funding for affordable housing and other elements of the proposed project and tax exempt financing;
- Condemnation by ESDC of the City's interest in Pacific Street and 5th Avenue (as described above); and
- Condemnation or acquisition by ESDC or disposition by the City of the City's interest in Site 5 and other City-owned property within the project site.

Table 2 provides the street address, use type, and ownership status for every lot on the project site. Approximately 46 percent of this 22-acre site is owned or controlled by the MTA or the City of New York, approximately 33 percent by the project sponsors, and the remaining 21 percent by other private entities.¹

As of February 2006, to the best knowledge of the project sponsors based on publicly available information, there are approximately 171 housing units located on the project site, 60 of which are occupied. Of the occupied units, 3 units are occupied by owners who have not yet reached an agreement with the project sponsors, and 57 units are renter-occupied. Additionally, as of February 2006, there are approximately 18 commercial businesses operating on the project site.

¹ The project sponsors are currently under contract to purchase the tenant's interest in the ground lease for Lots 5, 6, and 13 on Block 1129, subject to the fee owner's consent to assignment, which cannot be unreasonably withheld. In the percent breakdown above, these lots are included under "private" rather than "project sponsors."

**Table 2
Parcels to be Acquired for the Proposed Project**

Lot	Address	Street	Use Type	Ownership
Block 1118				
1	181	Flatbush Avenue	Transportation (Auto repair) [Vacant]	<u>Project Sponsors</u>
5	177	Flatbush Avenue	Commercial (Restaurant)	<u>Project Sponsors</u>
6	175	Flatbush Avenue	Industrial/Storage [Vacant]	<u>City</u>
21	608	Atlantic Avenue	Industrial/Storage [Vacant]	<u>Project Sponsors</u>
22	610	Atlantic Avenue	Industrial/Storage [Vacant]	<u>Project Sponsors</u>
23	612	Atlantic Avenue	Industrial/Storage [Vacant]	<u>Project Sponsors</u>
24	614	Atlantic Avenue	Industrial/Storage [Vacant]	<u>Project Sponsors</u>
25	616	Atlantic Avenue	Industrial/Storage [Vacant]	<u>Project Sponsors</u>
27	618	Atlantic Avenue	Industrial/Storage [Vacant]	<u>Project Sponsors</u>
Block 1119				
1	622	Atlantic Avenue	Transportation (Truck rental)	<u>Project Sponsors</u>
7	630	Atlantic Avenue	LIRR Rail Storage Yard	<u>MTA/LIRR</u>
64	NA	5th Avenue	Transportation (Truck rental)	<u>Project Sponsors</u>
Block 1120				
1	676	Atlantic Avenue	LIRR Rail Storage Yard	<u>MTA/LIRR</u>
19	700	Atlantic Avenue	Industrial/Storage	<u>Private</u>
28	728	Atlantic Avenue	Industrial/Storage	<u>Private</u>
35	730-740	Atlantic Avenue	Vacant Lot	<u>Project Sponsors¹</u>
Block 1121				
1	NA	Carlton Avenue	LIRR Rail Storage Yard	<u>MTA/LIRR</u>
42	516	Vanderbilt Avenue	Transportation (Gas station)	<u>Private</u>
47	524	Vanderbilt Avenue	Transportation (Gas station/Auto repair)	<u>Project Sponsors</u>
Block 1127				
1	195	Flatbush Avenue	Transportation (Gas station)	<u>Project Sponsors</u>
10	193	Flatbush Avenue	Residential and Commercial	<u>Project Sponsors</u>
11	191	Flatbush Avenue	Residential and Commercial [Vacant]	<u>Project Sponsors</u>
12	189	Flatbush Avenue	Residential [Vacant]	<u>Project Sponsors</u>
13	185	Flatbush Avenue	Vacant Lot	<u>Project Sponsors</u>
18	618	Pacific Street	Residential	<u>HUD</u>
19	620	Pacific Street	Transportation (Auto repair) [Vacant]	<u>Project Sponsors</u>
20	622	Pacific Street	Transportation (Auto repair) [Vacant]	<u>Project Sponsors</u>
21	624	Pacific Street	Residential and [Vacant] Commercial	<u>Project Sponsors</u>
22	626	Pacific Street	Industrial [Vacant]	<u>Project Sponsors</u>
1101-1131(27)	636	Pacific Street	Condominium Building	<u>Project Sponsors²</u>
29	640	Pacific Street	Industrial [Vacant]	<u>Project Sponsors</u>
30	642/644/646	Pacific Street	Residential and Art Studio [Vacant]	<u>Project Sponsors</u>
33	648	Pacific Street	FDNY Equipment Cleaning/Storage Facility	<u>City (FDNY)</u>
1001-1021 (35)	24	6th Avenue	Condominium Building	<u>Project Sponsors²</u>
43	483-485	Dean Street	Residential and Commercial	<u>Project Sponsors</u>
45	481	Dean Street	Residential	<u>Private</u>
46	479	Dean Street	Residential	<u>Project Sponsors</u>
47	477	Dean Street	Parking Lot	<u>Private</u>
48	475	Dean Street	Residential	<u>Project Sponsors³</u>
50	473	Dean Street	Residential	<u>Project Sponsors</u>
51	467	Dean Street	Institutional (Union office)	<u>Private</u>
54	465	Dean Street	Commercial [Vacant]	<u>Project Sponsors</u>
55	463	Dean Street	Residential [Vacant]	<u>Project Sponsors</u>
56	461	Dean Street	Residential [Vacant]	<u>Project Sponsors</u>
Block 1128				
1	NA	6th Avenue	Vacant Lot	<u>Private</u>
2	NA	6th Avenue	Vacant Lot	<u>Private</u>
4	25	6th Avenue	Commercial & Storage	<u>Private</u>
85	495	Dean Street	Residential	<u>Private</u>
86	493	Dean Street	Residential	<u>Private</u>
87	491	Dean Street	Residential [Vacant]	<u>Private</u>
88	489	Dean Street	Residential [Vacant]	<u>Project Sponsors</u>
89	487	Dean Street	Residential and Commercial	<u>Private</u>

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**Table 2 (cont'd)
Parcels to be Acquired for the Proposed Project**

Lot	Address	Street	Use Type	Ownership
Block 1129				
1	551	Carlton Avenue	Vacant Lot	Project Sponsors
3	549	Carlton Avenue	Vacant Lot	Project Sponsors
4	547	Carlton Avenue	Parking Lot	Private
5	545	Carlton Avenue	Parking Lot	Private ⁴
6	543	Pacific Street	Parking Lot	Private ⁴
13	752-766	Pacific Street	Industrial [Vacant]*	Private ⁵
21	768	Pacific Street	Community Facility	Private
25	800	Pacific Street	Industrial/Storage	Project Sponsors
39	802	Pacific Street	Industrial/Storage	Private
43	810	Pacific Street	Residential	Project Sponsors
44	812	Pacific Street	Residential	Private
45	814	Pacific Street	Industrial [Vacant]	Project Sponsors
46	818	Pacific Street	Residential	Project Sponsors
49	540	Vanderbilt Avenue	Residential	Project Sponsors
50	542	Vanderbilt Avenue	Transportation (Auto repair)	Private
54	546	Vanderbilt Avenue	Industrial/Storage [Vacant]	Project Sponsors
62	645	Dean Street	Industrial (Framing shop)	Private
76	603	Dean Street	Community Facility	Private
81	545	Dean Street	Industrial/Storage [Vacant]	Project Sponsors
Block 927				
1	15	4th Avenue	Commercial	Private
16	617	Pacific Street	Commercial	Project Sponsors
Notes:				
1. <u>Lot 35 on Block 1120 is owned by 730 Equity Corporation; FCRC assumed the ground lease for the property in Fall 2005.</u>				
2. <u>Lots 1101-1131 (27) and 1001-1021 (35) on Block 1127 are residential condominium buildings. As of February 2006, all but one unit on Lot 27 and two units on Lot 35 were under FCRC control.</u>				
3. <u>All of the units in the six condominium building on Block 1127, Lot 48 are under contract by FCRC. The single-story building on the lot is owned by Peter Williams Enterprises.</u>				
4. <u>Lots 5 and 6 on Block 1129 are owned by 535 Carlton Avenue Realty Corporation, and leased by Pacific Street Park Corporation. FCRC is currently under contract to purchase the tenants' interest in the ground lease for the lots, subject to the fee owner's consent, which cannot be unreasonably withheld.</u>				
5. <u>Lot 13 on Block 1129 is owned by Pacific Carlton Development Corporation and leased by 753 Pacific, LLC. FCRC is currently under contract to purchase the tenant's interest in the ground lease for the lot, subject to the fee owner's consent, which cannot be unreasonably withheld.</u>				
Source: Forest City Ratner Companies (FCRC), February 2006; Real Property Assessment Data (RPAD) from the New York City Department of Finance.				

ANALYSIS FRAMEWORK FOR THE ENVIRONMENTAL REVIEW

The DEIS will provide a description of “Existing Conditions” for the 2006 analysis year and assessments of future conditions without the proposed project (“Future Without the Proposed Project”) and with the proposed project (“Future With the Proposed Project”). The proposed project will be developed in phases over a period of time. Phase I represents the anticipated opening of the arena and the completion of the newly renovated rail yard and other development planned for the arena blocks and Site 5. Although the project sponsors anticipate that major components of the Phase I plan, including the arena, will be completed and operational by the fall of 2009, completion of the development of the arena block and Site 5 would occur in 2010. Phase II represents construction of all other project elements, which is anticipated to be complete by 2016.

FUTURE BASELINE CONDITIONS

The DEIS will analyze the cumulative impacts of other projects that will affect conditions in any of the relevant study areas in 2010 and 2016. The future baseline in all technical chapters—future without the proposed project—will assume that none of the discretionary approvals proposed as part of the proposed project are adopted. The list of future baseline developments is presented in Table 3. The analysis of traffic impacts will include additional developments in Brooklyn in predicting future baseline conditions.

Table 3
Development in the Study Area Recently Completed or
Anticipated to be Complete by 2016

Project Name/Address	Development Proposal/Program	Build Year
LIU Recreation and Wellness Center (site of present Goldner Building and LIU tennis courts)	10,000 sf for Brooklyn Hospital Center/athletic staff; 117,000 sf wellness/recreation center with natatorium, tennis courts, track, 3,500 seating for athletic events	<u>Completed</u>
The Greene House, 383 Carlton Avenue between Lafayette and Greene Avenues	27 dwelling units	Completed
Atlantic Terminal	425,000 sf office, 470,000 sf retail, rehabilitated LIRR station	Completed
Williamsburgh Savings Bank Building	<u>189 dwelling units; 30,000 sf dental offices; 23,000 retail</u>	2007
South Portland Avenue at Atlantic Avenue (Block 2004)	32 3-family houses	Completed
<u>Atlantic Terrace, Atlantic Avenue between South Portland Avenue and South Oxford Street</u>	<u>80 dwelling units; 11,960 sf ground floor retail</u>	<u>2008</u>
567 Warren Street between 3rd and 4th Avenues	20 dwelling units	<u>2006</u>
The Washington, 35 Underhill Avenue between Pacific and Dean Streets	39 dwelling units	2006
17 Eastern Parkway (Union Temple site)	200 dwelling units (residential conversion of eight-story temple)	2007
Bond Street Garage	14,000 sf retail; 4,000 sf community facility	Completed
Schermerhorn between Hoyt and Bond Streets (Block 171)	135 units, 14 townhouses; 14,700 sf ground floor retail and 50 parking spaces	2009
80 DeKalb Avenue between Hudson Avenue and Rockwell Place	430,000 sf residential	2009
BAM LDC (Block bounded by Ashland Place and Lafayette and Flatbush Avenues) ¹	140,000 sf Visual and Performing Arts Library, 40,000 sf theater, 15,000 sf commercial, 466-space public parking facility	2013
BAM LDC North (Block 2107 bounded by Ashland and Rockwell Places, Lafayette Avenue, and Fulton Streets)	570,000 sf residential, 10,000 sf retail, 7,000 sf open space, 43,000 sf dance center, 160,000 sf museum/gallery, 50,000 sf theater, and 465-space parking facility	2013
395 Flatbush Avenue Ext. ¹	12,000 sf retail office expansion	2013
Atlantic Center	<u>850,000 sf residential, 550,000 sf commercial, 395,000 sf retail on lower levels (same as in existing conditions)</u>	2013
254 Livingston Street ¹	186,000 sf residential, 21,000 sf commercial	2013
<u>230 Livingston Street at the southwest corner of Bond Street (Block 165, Lots 17-19 and 58)¹</u>	<u>163,000 sf residential, 18,000 sf commercial</u>	<u>2013</u>
<u>Fulton Street/Rockwell Place</u>	<u>140 dwelling units</u>	<u>2007</u>
<u>Fulton Street/Ashland Place</u>	<u>100 dwelling units</u>	<u>2007</u>
<u>620 Fulton Street</u>	<u>80 dwelling units, 7,200 sf retail</u>	<u>2009</u>
<u>Ingersoll Community Center</u>	<u>18,250 sf community center (replaces former 9,000 sf center)</u>	<u>2006</u>

Table 3 (cont'd)
Development in the Study Area Recently Completed or
Anticipated to be Complete by 2016

Project Name/Address	Development Proposal/Program	Build Year
<u>Flatbush Avenue at Albee Square West (Block 149, Lots 1 and 49)¹</u>	<u>1,233,000 sf office, 415,000 sf retail (majority of retail use is the existing Gallery at Fulton Street, which would remain)</u>	<u>2013</u>
<u>Willoughby Street between Gold and Duffield Streets (Block 146, Lots 2, 7, 11-18, 23, 29, 34-37, 41-43, and 46-52)¹</u>	<u>999,000 sf office, 48,000 sf retail, 1.15-acre public space (Willoughby Square), 694-space public parking facility</u>	<u>2013</u>
<u>Willoughby Street between Duffield and Bridge Streets (Block 145, Lots 8, 10, 13-16, 18-22, 26, and 32)¹</u>	<u>544,000 sf office, 50,000 sf retail</u>	<u>2013</u>
<u>Adams Street/Boerum Place at Fulton Street (Block 153, Lots 3, 14, and 15; Block 154, Lots 1, 5, 11, 12, and 36-40)¹</u>	<u>788,000 sf office, 70,000 sf retail</u>	<u>2013</u>
<u>53 Boerum Place</u>	<u>99 dwelling units, 85 parking spaces</u>	<u>Completed</u>
<u>ESDC/HS (Block 170, south of Schermerhorn Street between Smith and Hoyt Streets)</u>	<u>440 dwelling units (including 200 affordable)</u>	<u>2008</u>
<u>Atlantic Avenue and Smith Street (Block 176)</u>	<u>50 dwelling units, 31,500 sf office/commercial use, 15,000 sf ground-floor retail, 8,500 sf community facility, 130 parking spaces</u>	<u>2007</u>
<u>Myrtle Avenue at Flatbush Avenue (Block 2060, Lots 22-27, 32 [part], and 122; Block 2061, Lot 1 [part]; Block 2062, Lot 6 [part])¹</u>	<u>300,000 sf residential, 60,000 sf retail; 457-space public parking facility</u>	<u>2013</u>
<u>Myrtle Avenue between Fair Place and Ashland Place (Block 2061, Lot 1 [part])¹</u>	<u>259,000 sf residential, 86,000 sf retail</u>	<u>2013</u>
<u>525 Clinton Avenue</u>	<u>30 dwelling units, 15,500 sf of medical office, 41 parking spaces</u>	<u>2007</u>
<u>557 Atlantic Avenue</u>	<u>72 dwelling units</u>	<u>2006</u>
<u>477 Atlantic Avenue</u>	<u>21 dwelling units</u>	<u>2006</u>
Note: ¹ Projects anticipated as a result of the Downtown Brooklyn Rezoning Project. Sources: <u>Downtown Brooklyn Council, New York City Economic Development Corporation, New York City Department of City Planning, New York City Department of Housing Preservation and Development, AKRF, Forest City Ratner Companies.</u>		

Although some of the more intact buildings vacated through buyouts by the project sponsors could be reoccupied by 2010, the DEIS will conservatively assume, where appropriate, that the conditions currently present on the project site would remain the same in the future without the proposed project. As a conservative measure none of these potential projects will be included in the No Build condition.

REASONABLE WORST-CASE SCENARIO PROGRAM

The DEIS will assess the reasonable worst-case impacts that may occur as a result of the proposed project, which would be constructed in two phases. Table 4 below presents the build programs for the 2010 and 2016 analysis years. As described earlier, Phase I would consist of development of the arena blocks (Blocks 1118, 1119, and 1127), which are bounded by Atlantic Avenue to the north, 6th Avenue to the east, Dean Street to the south, and Flatbush Avenue to the west, and Site 5 (Block 927), which is bounded by Atlantic Avenue to the north, Flatbush Avenue to the east, Pacific Street to the south, and 4th Avenue to the west. The blocks on the eastern part of the project site (Blocks 1120, 1121, 1128, and 1129) would be built out during Phase II, though some preliminary work on the eastern blocks, including improvement of the rail yard and interim surface parking, would occur during Phase I.

Table 4
Comparison of Residential and Commercial
Mixed-Use Variation Programs for 2010 and 2016

Proposed Uses	Residential Mixed-Use Variation	Commercial Mixed-Use Variation
Analysis Year: 2010 (Phase I: Development of Arena Block and Site 5)		
Residential	2,320,000 gsf (2,350 units)	1,260,000 gsf (1,275 units)
Hotel (180 rooms)	165,000 gsf	0 gsf
Retail	91,000 gsf	91,000 gsf
Commercial	606,000 gsf	1,829,000 gsf
Arena	850,000 gsf	850,000 gsf
Parking (spaces)	2,000 spaces	2,000 spaces
Private Open Space	≤1 acres	≤1 acres
Publicly Accessible Open Space	0 acres	0 acres
Analysis Year: 2016 (Phase II: Full Build-Out)		
Residential	6,790,000 gsf (6,860 units)	5,730,000 gsf (5,790 units)
Hotel (180 rooms)	165,000 gsf	0 gsf
Retail ¹	247,000 gsf	247,000 gsf
Commercial	606,000 gsf	1,829,000 gsf
Arena	850,000 gsf	850,000 gsf
Parking (spaces)	3,800 spaces	3,800 spaces
Private Open Space	≤1 acres	≤1 acres
Publicly Accessible Open Space	7+ acres	7+ acres
Note:		
¹ A portion of the retail space is anticipated to house community facilities.		

For some technical areas, the proposed project as outlined in Table 4 may have different potential environmental impacts between the two program variations. Accordingly, each section of the EIS would present a full analysis of the program variation with the greatest potential—the Reasonable Worst Case Scenario (RWCS)—to cause significant adverse environmental impacts for that particular technical area, and a less-detailed analysis for the other development variation, when relevant. Each EIS section would also describe, either in the section analysis or in a separate “mitigation” section, any mitigation required for both variations, highlight relevant differences between the development variations, and discuss ways in which the effects of the two differ from each other. This conservative methodology would fully disclose any impacts, and describe any required mitigation that could be associated with either the residential mixed-use variation or the commercial mixed-use variation. The options that would be analyzed for each technical section are identified below:

Land Use, Zoning, and Public Policy—The analysis would focus on the residential mixed-use variation because it proposes a wider range of land uses.

Socioeconomic Conditions—The analysis would focus on the commercial mixed-use variation for indirect business displacement analysis, as the commercial mixed-use variation would generate greater potential off-site demand for commercial space. While direct displacement and effects on specific industries would be the same under both variations, the residential mixed-use variation, with its higher number of residential units, would generate greater potential off-site demand for residential space. Thus, the other socioeconomic areas of analysis would assume the residential mixed-use variation.

Open Space—This EIS chapter would assess both variations for the passive and active open space analysis.

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Shadows—The analysis would focus on the commercial mixed-use variation because the design of the office component would contain larger floorplates typical of office development. The proposed building heights would be the same for both the residential mixed-use and commercial mixed-use variations.

Infrastructure—This EIS chapter would focus on the residential mixed-use variation because residential uses would create greater demands on water supply, sewage treatment, solid waste management, and energy use at the project site.

Traffic and Parking—For weekday analyses, the commercial mixed-use variation would be the focus of the analysis, as office uses are higher trip generators than residential uses during the week. For Saturday analyses, the residential mixed-use variation would be analyzed, as the residential uses would typically result in higher trip generators than office uses on the weekends.

Transit and Pedestrians—For weekday analyses, the commercial mixed-use variation would be analyzed in detail, as office uses are higher trip generators than residential uses during the week. For Saturday analyses, however, the residential mixed-use variation would be the focus of the analysis, as residential uses are higher trip generators than office uses on the weekends.

Air Quality—The mobile source analysis is dependent on traffic and parking (see above). For the stationary source analysis, the residential mixed-use variation would be the focus of the analysis based on heights of buildings and exhaust systems.

Noise—The noise analysis is dependent on traffic and parking (see above).

Neighborhood Character—Since a number of factors contribute to defining the character of a neighborhood and this chapter would rely on the impact analyses found in other EIS technical areas, this section would focus on the program variation that would contribute to the greatest potential impacts for each particular environmental area of analysis.

For all other technical areas (i.e., hazardous materials, cultural resources, urban design and visual resources, and construction impacts), the potential effects would be the same under both project variations.

D. PREPARATION OF ENVIRONMENTAL IMPACT STATEMENT

The EIS will contain:

- A description of the proposed project and its environmental setting;
- A statement of the environmental impacts of the proposed project, including its short- and long-term effects, and typical associated environmental effects;
- An identification of any significant adverse environmental effects that cannot be avoided if the proposed project is completed;
- A discussion of alternatives to the proposed project;
- An identification of any irreversible and irretrievable commitments of resources that would be involved if the proposed project is built; and
- A description of mitigation measures proposed to avoid or minimize any significant adverse environmental impacts.

As noted previously, the analyses of the proposed project will be performed for two years of project occupancy: 2010 (Phase I) and 2016 (Phase II).

Project components expected to be complete and operational at the end of Phase I (2010) include the newly reconfigured and upgraded below-grade rail yard and the development planned for the blocks housing the proposed arena (consisting of Buildings 1 through 4, and the arena) and Site 5; interim parking would be located on Blocks 1120 and 1129. The remainder of the program would be developed during Phase II, to be completed by 2016 (see Table 4).

Based on the preliminary screening assessments outlined in the *CEQR Technical Manual*, the following environmental areas would not require detailed analysis in the EIS:

- Natural Resources. The study area for the proposed project is fully developed and substantially devoid of natural resources, as defined by the *CEQR Technical Manual*. In addition, the study area does not contain “built resources” that are known to contain or may be used as habitat by a protected species as defined by regulations promulgated under the Federal Endangered Species Act (50 CFR 17) or the New York State Environmental Conservation Law (6 NYCRR Parts 182 and 193). The disruption of the subsurface of the proposed development sites would not affect the function or value of natural resources.
- Waterfront Revitalization Program. The sites comprising the proposed project are not within the boundaries of the City’s Coastal Zone. Therefore, a detailed assessment of the proposed project’s conformance with the City’s Waterfront Revitalization Program is not necessary.

The specific areas to be included in the EIS, as well as their respective tasks, are described below.

TASK 1. PROJECT DESCRIPTION

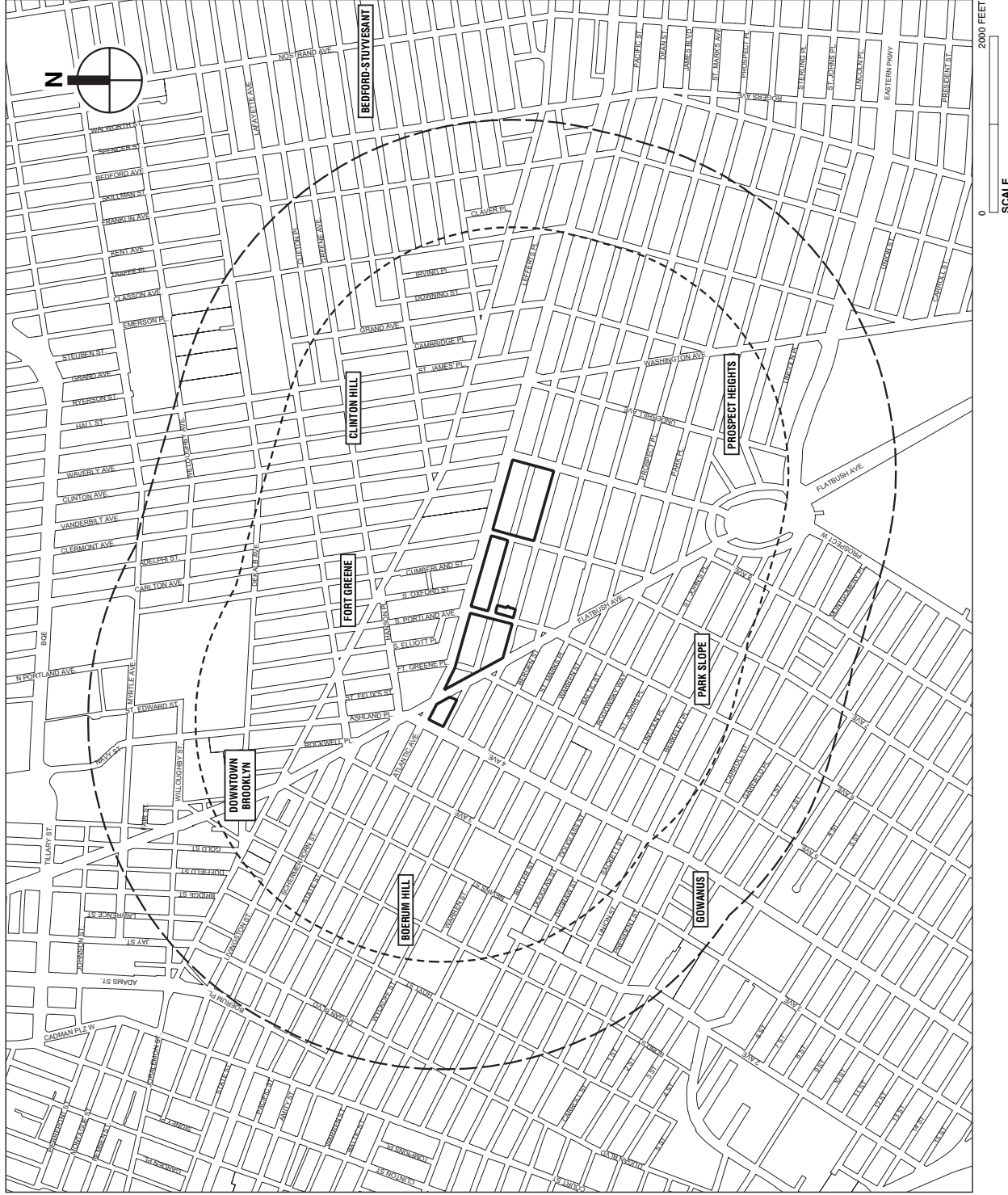
The first chapter of the EIS will introduce the reader to the proposed project and set the context in which to assess impacts. The chapter will contain a project identification (brief description and location of the project); a statement of purpose and need for the proposed project; a detailed description of the proposed actions and development programs; and discussion of the approvals required, procedures to be followed, and the role of the EIS in the process. The chapter is the key to understanding the proposed project and its impact, and gives the public and decision-makers a base from which to evaluate the project.




TASK 2. ANALYSIS FRAMEWORK

This chapter will outline the procedural framework utilized to comply with environmental review regulations and the necessary approvals, actions, and schedule to implement the proposed project. It will identify the analysis years and project phasing, and describe the build program that will be assessed in the EIS. In addition, the chapter will provide an overview of the analytical framework used to guide the EIS technical analyses presented in subsequent chapters of the document.

TASK 3. LAND USE, ZONING, AND PUBLIC POLICY

The land use, zoning, and public policy analysis will assess the potential impacts of the expected changes in land uses resulting from the proposed project. The analysis will evaluate impacts within the land use study areas, which include the project site, and primary and secondary study areas (Figure 5). The land use assessment will include a description of existing (2006) conditions



-  Project Site
-  Primary Study Area Boundary (1/2-Mile Perimeter)
-  Secondary Study Area Boundary (3/4-Mile Perimeter)

Land Use Study Areas
Figure 5

Atlantic Yards Arena and Redevelopment Project - Scope

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and evaluations of the future with the proposed project and the future without the proposed project in 2010 and 2016.

The principal study area for the land use, zoning, and public policy analysis is the project site, which represents the area within which impacts can be estimated with a relatively high degree of certainty. The project site, as discussed above, contains the area of the proposed arena, office, retail, hotel, and residential development, including Site 5.

The ½-mile primary study area is generally bounded by DeKalb Avenue to the north, Classon Avenue to the east, Eastern Parkway and President Street to the south, and Hoyt Street to the west (see Figure 5). As the potential for impacts is generally greater in closer proximity to the project site, the primary study area will be assessed at a greater level of detail than the secondary study area.

The secondary study area for land use, zoning, and public policy extends from approximately ½-mile to ¾-mile from the boundaries of the site of the proposed project area and is generally bounded by Myrtle Avenue to the north, Bedford Avenue to the east, 3rd Street to the south, and Boerum Place to the west. These expanded study area boundaries for these impacts analyses were selected to recognize the presence of the various neighborhoods in the surrounding area.

Tasks include:

- A brief development history of the project site will be provided. Based on field surveys, the chapter will identify, describe, and graphically present predominant land use patterns and site utilization on the project site and in the primary and secondary study areas. The chapter will also identify properties that were vacated through agreement with ESDC, project sponsors, or local development corporation;
- Description and mapping of existing zoning and recent zoning actions in the study area;
- Description of other public policies that apply to the project site and the study area, including specific development projects and plans for public improvements;
- List of future development projects in the study area that could affect future land use patterns and trends by 2010 and 2016. Also, identification of pending zoning actions or other public policy actions that could affect land use patterns and trends as they relate to the proposed project. Based on these changes, future conditions in land use zoning without the proposed project will be assessed;
- Impacts of the proposed project on land use and land use trends, zoning, and public policy will be addressed. This section will include a discussion of the project's consistency with existing zoning and an evaluation of potential impacts associated with ESDC's overrides and the resulting project as defined in the GPP; and
- In coordination with the socioeconomic task, the potential for the proposed project to influence land use trends and development will be addressed.

TASK 4. SOCIOECONOMIC CONDITIONS

Socioeconomic impacts can occur when a proposed project directly or indirectly changes economic activities in an area. The purpose of the socioeconomic assessment is to disclose changes that would be created by the proposed project and identify whether they rise to the level of a significant adverse effect. This chapter will examine the effects of the proposed project on socioeconomic conditions in the land use study area described in Task 2, including changes to

the population and housing profiles, increases in economic activity, displacement of businesses, employment and residences from the project site, and potential indirect displacement within the study area.

The analysis will follow the guidelines of the *CEQR Technical Manual* in assessing the proposed project's effects on socioeconomic conditions within the study area. According to the *CEQR Technical Manual*, the five principal issues of concern with respect to socioeconomic conditions are whether a proposed project would result in significant impacts due to: (1) direct residential displacement; (2) direct business and institutional displacement; (3) indirect residential displacement; (4) indirect business and institutional displacement; and (5) adverse effects on a specific industry.

In conformance with the *CEQR Technical Manual* guidelines, the assessment of these five areas of concern will begin with a preliminary screening assessment. Detailed analyses will be conducted for those areas in which the preliminary assessment cannot rule out the potential for significant adverse impacts. Detailed analyses will be framed in the context of existing conditions and evaluations of the future without the proposed project and the future with the proposed project in 2010 and 2016. In conjunction with the land use task, specific development projects that would occur in the study area in the future without the proposed project will be identified, and the number of residents and employees associated with those projects will be estimated. These residents and employees will be added to the current population and employment to establish the future baselines—the future without the proposed project in 2010 and 2016—against which the project-induced growth will be measured.

The analysis tasks for each of the five areas of socioeconomic concern are outlined below, followed by analysis tasks for analyzing economic and fiscal benefits of the proposed project.

DIRECT RESIDENTIAL DISPLACEMENT

Direct displacement is defined in the *CEQR Technical Manual* as the involuntary displacement of residents from the site of a proposed action. Although apartment owners who sell their properties to a project sponsor are not typically considered to be directly displaced, the DEIS will conservatively treat all of the 68 non-rental housing units as directly displaced households. In addition, although some of the rental units on the project site were vacant prior to acquisition by the project sponsor, and some renter households have agreed to vacate their apartments subject to agreements with the project sponsor, the DEIS will conservatively treat each rental unit—irrespective of its occupancy status—as a directly displaced household. Therefore, although 46 of the 103 rental units on the project site were vacant as of February 2006, the analysis will count all 103 units in the direct displacement analysis. In total, the DEIS will analyze the direct displacement of 171 housing units.

The analysis of direct residential displacement will:

- Identify the number of households that would be displaced by the proposed project and describe the type of relocation benefits that would be available to displaced homeowners and residential tenants;
- Determine whether the profile of the displaced residents is similar to or markedly different from that of the overall study area;
- Determine whether the displaced population represents a substantial portion of the population within the study area and whether the proposed project would result in the loss of a particular population group in the study area; and

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- Assess whether the numbers and types of residents being displaced would be enough to alter neighborhood character and perhaps lead to indirect displacement of remaining residents.

DIRECT BUSINESS AND INSTITUTIONAL DISPLACEMENT

There are a number of businesses and institutional uses located on the project site. As of February 2006, to the best knowledge of the project sponsors based on publicly available information, there were 18 commercial businesses operating on the project site in addition to an LIRR rail storage yard, an MTA retired bus yard, a privately-operated facility that provides temporary housing for homeless families through contract with the NYC Department of Homeless Services, and an FDNY Special Operations Command equipment cleaning and storage facility. The DEIS will conservatively treat all of the 18 businesses currently located on the project site, as well as five businesses that have left the project site already due to property acquisition by the project sponsors, as directly displaced. The FDNY Special Operations Command facility and homeless facility will also be considered as directly displaced uses. The rail yard would remain active and would be reconfigured and improved in phases in coordination with MTA and the project sponsors.

The analysis of direct business displacement will:

- Identify the number of existing employees, and number and types of businesses and institutions that would be displaced by the proposed project, and describe the type of relocation benefits that would be available to the displaced property owners and commercial tenants;
- Determine whether the displaced businesses are of substantial economic value to the City or region and can only be relocated with great difficulty or not at all;
- Determine whether any of the businesses to be displaced are subject to regulations or publicly adopted plans to preserve, enhance, or protect them, or are a defining element of the character of the study area; and
- Determine whether the businesses or institutions to be displaced define or contribute substantially to a defining element of neighborhood character.

INDIRECT RESIDENTIAL DISPLACEMENT

The objective of the indirect residential displacement analysis is to determine whether the proposed project, by making the surrounding area more attractive as a residential neighborhood, would increase residential property values and subsequently rents in the study area, making it difficult for some existing residents to afford their homes. Tasks include:

- Provide current and trend information on population, households, household size, and income based on Census data from 1980, 1990, and 2000;
- Discuss housing characteristics, including trends in rents, sales prices, vacancy, and tenure, based on Census data and discussions with local real estate firms;
- Identify populations at risk of displacement by comparing household incomes for renters living in the study area to household incomes for renters in Brooklyn, and estimating the number of households living in units not protected by rent control or rent stabilization regulations;

- Determine whether the proposed project would add substantial new population with different socioeconomic characteristics compared with the size and character of the existing population, or a substantial amount of more costly housing than the housing mix in the study area;
- Determine whether the proposed project would displace uses that have had a blighting effect on residential property values in the area;
- Determine whether the proposed project would introduce a critical mass of non-residential uses such that the surrounding area becomes more attractive as a residential neighborhood complex; and
- Determine whether the proposed project would cause a significant indirect residential displacement impact. Generally, if a project would introduce or accelerate a trend of changing socioeconomic conditions and if the study area contains populations at risk, then the proposed project may have an indirect residential displacement impact. This analysis will take into consideration the affordable housing that would be included in the proposed project.

INDIRECT BUSINESS AND INSTITUTIONAL DISPLACEMENT

The objective of the indirect business and institutional displacement analysis is to determine if the proposed project would ultimately lead to higher property values and rents in commercial or institutional buildings in the study area, causing existing businesses to relocate from the study area, or from the City as a whole. Following the methodologies outlined in the *CEQR Technical Manual*, the analysis of indirect business displacement will:

- Identify and characterize conditions and trends in employment and businesses within the study area based on field surveys, discussions with real estate brokers, and employment data from the New York State Department of Labor. This analysis will include identification of local and destination retail corridors or concentrations;
- Present the number of businesses/institutions and employment by key industry sectors; include data, as available, on the number of arts-related businesses located within the 3/4-mile study area;
- Identify major employers in the study area;
- Describe the physical conditions and characteristics of the commercial and industrial buildings in the study area;
- Identify potentially vulnerable categories of business; and
- Characterize the potential effect of the proposed project, including changes in the value of commercial properties that may result from: 1) the introduction of new commercial office, retail, and arena space; 2) the introduction of a new residential population; 3) the introduction of new vehicular and pedestrian trips in the study area due to the proposed project.

ADVERSE EFFECTS ON A SPECIFIC INDUSTRY

Based on the guidelines in the *CEQR Technical Manual*, an analysis of the proposed project's potential effects on specific industries will be performed to analyze:

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- Whether the proposed project would significantly affect business conditions in any industry or category of businesses within or outside the study area; and
- Whether the proposed project would substantially reduce employment or impair viability in a specific industry or category of business.

The analysis will draw on the economic and real estate data compiled in assessing direct and indirect displacement impacts.

ECONOMIC AND FISCAL BENEFITS

The development of the arena, office, hotel, retail, and residential space would generate significant economic and fiscal benefits to New York City and New York State during both the construction and operating periods. These benefits typically are measured in direct (on-site) and indirect (off-site) jobs and payroll, as well as taxes that would accrue to both the City and the State. Although not required by the *CEQR Technical Manual*, the socioeconomic analysis will assess the fiscal and economic benefits of the proposed project to the City and State economies. The analysis will be based on the Regional Input-Output Modeling System (RIMS II) developed by the U.S. Department of Commerce, Bureau of Economic Analysis. Additionally, the analysis will disclose, to the extent known, the public funding for the project.

Construction Period Benefits

The following benefits, which would occur during the overall construction period in the City and the State, will be estimated:

- Direct employment created by the capital investment, and indirect employment created by purchases of other goods and services during the construction period;
- Wages and salaries generated by the direct and indirect employment;
- Taxes generated during the construction period, including payroll taxes, corporate and business taxes, mortgage recording fees (if any), and miscellaneous taxes; and
- The total economic activity, or the total economic output created by construction of the proposed project, for the 2010 and 2016 phases.

Operating Period Benefits

The following benefits that would occur annually in the City and the State after the proposed project is fully developed will be estimated:

- Direct or permanent employment and indirect employment, based on economic multipliers specific to the type of development;
- Wages and salaries generated by the direct and indirect employment;
- Direct taxes generated by the annual operation of commercial, institutional, and/or residential development, including retail sales tax, hotel occupancy tax (if any), payroll taxes, corporate and business taxes, and miscellaneous taxes;
- Taxes generated by indirect economic activity; and
- The total economic activity, or the total economic output created by the annual operation of the proposed project, for the 2010 and 2016 phases.

TASK 5. COMMUNITY FACILITIES AND SERVICES

This chapter of the EIS will evaluate the effects on community services due to the development of the proposed project, including effects on police and fire protection, public schools, outpatient and emergency health care facilities, libraries, and publicly funded day care facilities in the two analysis years, 2010 and 2016. The individual catchment areas for each service provider will serve as the study area boundaries for these analyses. The analysis will also consider the displacement of a privately operated facility located at 630 Pacific Street, which provides temporary housing for homeless families through contract with the New York City Department of Homeless Services. The community facilities and services assessment will include a description of Existing Conditions (2006) and evaluations of the future with the proposed project and the future without the proposed project in 2010 and 2016.

Particular attention will be given to the need for additional public school capacity. The chapter will identify public schools serving the proposed project's study area and assess conditions in terms of enrollment and utilization during the current school year, noting any specific problems with school capacity. Conditions that will exist in the future without the proposed project will be identified, taking into consideration projected increases in future enrollment and plans to increase school capacity either through administrative actions on the part of the Department of Education or as a result of the proposed project, relative to available capacity that may exist in the future without the proposed project for the 2010 and 2016 analysis years.

Tasks include:

- Develop an inventory of existing public schools, libraries, outpatient and emergency health care service facilities, public day care centers, police precincts, and fire stations (including emergency medical services) located in the study area. This will be accomplished via phone interviews and/or written communication with department representatives, school officials, and local medical service providers. Additionally, field checks will be performed and a map of all community facilities will be created; and
- Identify any direct or indirect impacts to the above-referenced community facilities, following the *CEQR Technical Manual* methodology. As the proposed project would result in development which would exceed the *CEQR Technical Manual* 100-residential unit screening threshold, potential indirect effects will be evaluated.

According to the *CEQR Technical Manual*, preliminary thresholds indicating the need for detailed analyses are as follows:

- Public Schools: More than 50 elementary/middle school or 150 high school students;
- Libraries: A greater than five percent increase in ratio of residential units to libraries in the borough. For Brooklyn, this is equivalent to a residential population increase of 734 residential units;
- Health Care Facilities (outpatient): More than 600 low- to moderate-income units;
- Day Care Centers (publicly funded): More than 50 eligible children based on the number of low/moderate-income units by borough. For Brooklyn, this is equivalent to an increase of 135 low-income or 147 low/moderate-income units;
- Fire Protection: The ability of the fire department to provide fire protective services for a new project usually does not warrant a detailed assessment under CEQR. Generally, a

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detailed assessment of fire protective services is included only if a proposed project would affect the physical operations of, or access to and from, a station house. However, the analysis will include assessment of the project's potential effect on FDNY response times; and

- Police Protection: The ability of the police department to provide public safety for a new project usually does not warrant a detailed assessment under CEQR. Generally, an assessment of police protective services is included only if the proposed project would affect the physical operations of, or access to and from, a precinct house. However, the analysis will include assessment of the project's potential effect on NYPD response times.

Based on these thresholds and the proposed project program, detailed analyses will be conducted for public schools, libraries, emergency health care facilities, and day care centers.

TASK 6. OPEN SPACE

Open space is defined as publicly or privately owned land that is publicly accessible and has been designated for leisure, play, or sport, or land set aside for the protection and/or enhancement of the natural environment (*CEQR Technical Manual*, p. 3D-1). Direct impacts on open spaces occur when such a resource would be either physically altered or eliminated by a proposed project. Indirect impacts occur when these resources are overtaxed due to increases in residential and/or working populations brought about by a proposed project. Preliminary thresholds for a detailed open space analysis are an increase of 200 residents or 500 employees. Because the proposed project is anticipated to exceed preliminary thresholds, a detailed open space assessment will be conducted.

The proposed project would introduce a substantial number of new workers, visitors, and residents into the area and would place added demands on existing open spaces. At the same time, the proposed project envisions the creation of publicly accessible open space that would help to alleviate the demand generated by the projected new worker and residential populations, as well as demand from the existing population. In addition, approximately one acre of private recreational space would be provided on the roof of the arena. This rooftop open space would be accessible to users of the buildings constructed as part of the proposed project. A discussion of the open space created by the proposed project will be included, as will the creation of the Urban Room, a publicly accessible covered pedestrian space that also would provide access to the arena and a connection to the Atlantic Terminal mass transit complex.

Tasks include:

- Establish the study area boundaries, specifically: a study area of ½-mile around the project site for the residential population and a study area of ¼-mile around the project site for the commercial (working) population. All Census block groups with at least 50 percent of their area falling within these study areas will be included in the open space study areas. Qualitative discussions of other major open space areas in proximity to the site but outside the study area (e.g., Fort Greene Park, Prospect Park, Brooklyn Bridge Park) will also be included;
- Perform a detailed open space analysis. This will involve identifying the open space study area population and describing it in terms of age groups, as different age groups represent different types of open space users. It will also entail identifying and describing in detail the open space resources within the study area, particularly in terms of user groups served by the

open space. The adequacy of open space will then be assessed and used as a benchmark against which the 2010 and 2016 conditions will be compared;

- Compile an inventory of all passive and active open spaces, both publicly and privately owned, for the study areas. This will be accomplished through coordination with the New York City Department of Parks and Recreation and private owners of public spaces, and verified through field visits. The inventory will include an evaluation of the condition and use of existing open spaces, as well as acreage;
- Assess expected changes in future levels of open space supply and demand in both 2010 and 2016 based on other planned development projects within the study areas, including the creation of any new public open spaces. Open space ratios will be developed for future conditions and compared with existing ratios to determine changes in future levels of adequacy;
- Calculate the open space ratios, the amount of open space per 1,000 user population, for the future with the proposed project; compare these ratios with open space ratios calculated for the future without the proposed project in 2010 and 2016; and
- Determine the impact significance of the proposed project and other actions on open spaces, both quantitatively and qualitatively. A substantial amount of new open space would be created with the proposed project. The evaluation of the future with the proposed project will include the effect of this additional new open space.

TASK 7. CULTURAL RESOURCES

The project site is located in the vicinity of the Boerum Hill Historic District, Fort Greene Historic District, Park Slope Historic District, the Brooklyn Academy of Music (BAM) Historic District, and the Prospect Heights Historic District, which it abuts on the south. Individual historic resources located outside of the project site, but within the project's 800-foot study area, include: the St. Luke's Episcopal Church; the Atlantic Control House, part of the City's early subway system; the Williamsburgh Savings Bank Building; the Royal Castle Apartments; and the Hanson Place Seventh Day Adventist Church.

The project site is located in an area of Brooklyn that was developed relatively early and nearby sites have yielded archaeological artifacts. However, much of the site has been extensively disturbed, and it is expected that documentation of disturbance in these areas would preclude the need for further archaeological evaluation. For areas where disturbance cannot be fully documented, further documentary research will be undertaken.

The analysis of archaeological and historic resources will include the following tasks:

- Consultation with the New York City Landmarks Preservation Commission (LPC) for its preliminary determination of the project site's archaeological sensitivity. Based upon LPC's review of the affected project site blocks and lots, LPC has recommended that a Phase 1A Documentary Study be prepared to evaluate the potential archaeological sensitivity of the following lots: Block 1118, Lots 6, 21, 22, 23, and 25; Block 1119, Lot 1; Block 1127, Lots 45, 46, 47, 48, 50, 55, and 56. LPC has determined that there are no archaeological concerns for the remainder of lots on the project site.
- Seek concurrence with the Office of Parks, Recreation and Historic Preservation (OPRHP) regarding LPC's evaluation of which lots on the project site should be included in the Phase

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1A Documentary Study, and prepare the Phase 1A Documentary Study for review by LPC and OPRHP. The Phase 1A Study will identify the potential of these areas of the project site to contain prehistoric and/or historic-period archaeological resources. It will provide a prehistoric and historic contextual overview in which to assess archaeological resources, a development history of these areas, an in-depth assessment of past disturbance, and the identification of any potential resource types, and their potential significance, that may be present on these areas of the project site. The conclusions of the Phase 1A Study will be summarized in the EIS;

- In concurrence with LPC and OPRHP, based on the conclusions of the Phase 1A Study, Phase 1B archaeological field testing would be undertaken for any portions of the project site that are determined to have potential sensitivity for archaeological resources and are found to possess potential significance and research value, and hence warrant archaeological testing. Prior to the initiation of Phase 1B investigations, a testing protocol would be submitted to LPC and OPRHP for review and approval. Following approval of the protocol, it is expected that the Phase 1B testing would be undertaken prior to construction of the proposed project, as similar site preparation activities are required for both the archaeological testing and the project construction, would proceed in a manner to allow evaluation and proper treatment of any potential archaeological resources;
- Map and briefly describe designated historic resources (New York City Landmarks [NYCLs] and Historic Districts, properties pending NYCL designation, and properties and districts listed or determined eligible for listing on the State and National Registers of Historic Places, including National Historic Landmarks [NHLs]) on the project site and within approximately 800 feet of the proposed project. Contact OPRHP for any resources found eligible but not listed on the Registers and LPC for any pending NYCL designations. The analysis will focus on resources closest to the development site and those resources that have views of or visual relationships to the proposed project;
- Present a field survey of the project site and study area to identify any potential architectural resources that could be affected by the proposed project. Potential architectural resources comprise properties that may be eligible for listing on the State and National Registers and/or designation as a NYCL. Identification of potential architectural resources will be based on criteria for listing on the National Register as found in the Code of Federal Regulations, Title 36, part 60. Map and describe any identified architectural resources. Prepare Historic Resource Inventory Forms (“blue forms”) for properties on the project site that appear to meet State and National Register (S/NR) and NYCL eligibility criteria for submission to OPRHP for determinations of eligibility. Also, submit information to OPRHP on potential resources in the study area for OPRHP to make determination of eligibility;
- Describe the potential for any changes in the study area and its architectural and archaeological resources in the future without the proposed project;
- Assess any direct physical impacts of the proposed project on architectural and archaeological resources. In conjunction with the urban design task, assess the project's potential to result in any visual and contextual impacts on architectural resources; and
- Develop measures to mitigate any potential adverse impacts on archaeological and architectural resources in consultation with LPC and OPRHP.

TASK 8. URBAN DESIGN AND VISUAL RESOURCES

The proposed project would result in new above-ground construction that could adversely impact significant publicly accessible views. Additionally, the proposed project will have different bulk and/or setbacks than existing development; therefore, an urban design/visual resources assessment will be conducted for the EIS. The assessment will be based on *CEQR Technical Manual* methodologies and will include a discussion of potential bulk configurations and urban design characteristics of the proposed project in 2010 and 2016. The discussion of the visual and contextual relationship of the proposed development to nearby historic resources will be coordinated with the Historic Resources analysis.

The urban design/visual resources analysis will:

- Describe in text and photographs the urban design characteristics and significant visual resources in the study area. In consideration of both the scale of the proposed project and the surrounding urban fabric, this chapter will analyze an approximately 800-foot study area. To account for areas where the project may have a visual presence in a larger area, this analysis also will consider more distant views along major view corridors, such as the view from Grand Army Plaza along Flatbush Avenue. A more detailed analysis of the blocks facing the proposed development site will include building configuration and materials, density, block form and street pattern, and streetscape elements. It will also identify and describe visual resources, as the project site occupies a prominent location at the intersection of Flatbush and Atlantic Avenues, and is close to a well-known visual landmark in the Brooklyn skyline, the Williamsburgh Savings Bank Building. The discussion of existing urban design and visual resources conditions will specify baseline lighting conditions on the project site and in the surrounding area;
- Using the information gathered in the task above, describe ways in which the urban design characteristics and visual resources in the study area will change in the future without the proposed project in 2010 and 2016; and
- Employing the analysis of existing urban design characteristics and visual resources outlined above, describe and assess whether and how the urban design characteristics and visual resources in the study area will change in the future with the proposed project, as compared with those anticipated in the future without the proposed project. The DEIS will analyze design elements of the GPP, including building heights, materials, and streetscape. The analysis will include a description and illustrative renderings of the proposed lighting, signage, and other building graphics plan for the arena and surrounding area, and will assess the proposed lighting and signage conditions against existing conditions. Photo-simulations or appropriate renderings to accurately depict the context of the proposed project and the visual effect of the project in the study area will be included.

TASK 9. SHADOWS

Under CEQR, an adverse shadow impact may occur when the shadow caused by a proposed project: is cast on a publicly accessible open space, important natural feature, or historic landscape or other historic resource (if the features rendering the significance of the resource are dependent on sunlight); and adversely affects its use and/or important landscaping and vegetation, or in the case of historic resources, obscures the details that make the resource significant. Shadows falling on streets and sidewalks or other buildings generally are not

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considered significant, nor are shadows occurring within an hour and one-half of sunrise or sunset.

The proposed project envisions building forms of varied massings and heights. The proposed maximum heights range from a 620-foot mixed-use building near the corner of Flatbush and Atlantic Avenues to an approximately 185-foot residential building near the corner of Carlton Avenue and Dean Street. Because the proposed project includes the construction of buildings or structures that are at least 50 feet tall and the project is in proximity to historic resources and neighborhood open spaces, the effects of project shadows on publicly accessible open spaces and historic resources with light-sensitive features will need to be assessed, using the methodology recommended in the *CEQR Technical Manual*.

An analysis of shadows will be prepared focusing on the relation between the incremental shadows created by the proposed project's buildings on any historic resources or sun-sensitive landscape or activities in the open spaces near the project site. These analyses will be performed for the two analysis years (2010 and 2016) and will include the following tasks:

- Identify sun-sensitive landscapes and historic resources within the path of the proposed project's shadows. In coordination with a survey of the open space and historic resources, map and describe any sun-sensitive areas. For open spaces, map active and passive recreation areas and features of the open spaces such as benches or play equipment;
- Acquire a 3-dimensional CAD model of the project area, including existing structures and topology, as well as the proposed structures;
- Prepare shadow diagrams for time periods when shadows from the new buildings could fall onto publicly accessible open space as well as project-created open spaces. The analysis will also take into account any historic resources identified in Task 7 that may have significant sunlight-dependent features. These diagrams will be prepared for up to four representative analysis days if shadows from the proposed buildings would fall onto any of the open spaces on that day. A total of 12 diagrams will be prepared for each analysis year. The four analysis days are: March 21—the vernal equinox, which is the equivalent of September 21—the autumnal equinox; May 6—the midpoint between the equinox and the longest day of the year, which is the equivalent of August 6—the midpoint between the equinox and the shortest day of the year; June 21—the longest day of the year, and; December 21—the shortest day of the year;
- Describe the effect of the incremental shadows on the publicly accessible open spaces as well as any historic resources with significant sunlight-dependent features based on the shadow diagrams for each of the analysis dates. Assess the effects of the project's incremental shadow compared with shadows expected in the future without the proposed project; and
- If vegetation or sun-sensitive activity areas will be covered by the project's incremental shadows for a significant amount of time, the duration of the project's increment will be compared with the amount of sunlight on those areas in the future without the proposed project.

TASK 10. HAZARDOUS MATERIALS

The proposed project would require demolition and excavation over much of the project parcels. The open areas of the site, occupied by the existing rail yard, may have hazardous material

contamination from historic and current uses. Other portions of the site occupied by buildings may have a history of industrial/manufacturing use and/or petroleum/chemical storage. To the extent practicable based on the ability to access various properties on the project site, a Phase 1 Environmental Site Assessment (ESA) will be presented and conform to the protocols of the American Society for Testing Materials (ASTM E-1527 Standard Practice for Environmental Site Assessments) or other applicable standards. This assessment will include a block/lot discussion of known and potential environmental contamination and discuss whether further investigation, in the form of a Phase 2 (subsurface investigation), is required.

The results of the Phase 1 ESA will be used to assess the potential for significant impacts and to identify locations where further investigation, such as a Phase 2 ESA or other appropriate investigation or management, will be required. Where a Phase 2 ESA or other appropriate investigation is required, and where access for testing is possible (such as on the rail yard), this subsurface testing will be performed in accordance with ASTM standards, and the results will be disclosed in the DEIS. If such an investigation is required, it will be undertaken and the results and proposed measures to address any recognized conditions will be identified in the DEIS. These potential measures would include: remediation of hazardous materials; development of procedures to avoid releases or exposure during construction; and an overall environmental health and safety plan (HASP) that would detail procedures to avoid impacts to the community and site workers, and describe monitoring protocols that will be employed to ensure that these procedures will be followed; and, if necessary, the use of institutional and engineering controls. Prior to any renovation or demolition activities, a comprehensive asbestos survey of the affected areas will be performed and any asbestos-containing materials will be properly removed and disposed of in accordance with all state and federal regulations; similarly, renovation/demolition activities with the potential to disturb lead-based paint must be performed in accordance with the applicable Occupational Safety and Health Administration regulation (OSHA 29 CFR 1926.62—Lead Exposure in Construction).

For those sites where the project sponsors do not have access, the DEIS will include a general site history and description of potential hazardous material conditions suggested by the site history. Additionally, a short narrative history will be written for all project parcels, highlighting environmental conditions on the project site and, if appropriate, noting potential impacts from properties adjacent to the project site and the potential for these uses to result in public health concerns either during or following development. This evaluation will consider the potential health effects of the classes of chemicals potentially present at each site and the associated potential pathways for human exposure to occur either during or following development. For those properties where access is not currently possible within the EIS review timeframe, the EIS will specify the types of measures (including any necessary testing and remediation) that would be undertaken to ensure that no significant adverse hazardous material impacts would occur. Such measures will include adherence to a HASP and the other elements detailed in the immediately preceding paragraph.

Environmental conditions identified in this research will be summarized in tabular format specific to tax block and lots, indicating whether the potential exists for a hazardous materials condition.

TASK 11. INFRASTRUCTURE, ENERGY, AND SOLID WASTE

This chapter of the EIS will assess the additional demands the proposed project would place on the infrastructure systems serving the area, including water supply, sanitary sewage, stormwater

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management, solid waste disposal services, and energy supply. Internal infrastructure systems, including any “green measures” to reduce water and energy consumption and sewage generation, will also be described.

Utility line improvements necessary to support the proposed project, which include utility line relocations, upgrades, and connections, will be identified. In Phase I, these would include relocating to Dean Street, Flatbush Avenue and 6th Avenue all utilities in the roadbed of 5th Avenue between Atlantic and Flatbush Avenues, and in the roadbed of Pacific Street between 5th and 6th Avenues. In Phase II, utilities in the roadbed of Pacific Street between Carlton and Vanderbilt Avenues would be relocated to Dean Street. A new water main would be located in Dean Street to accommodate increased demand from the proposed project. The analyses will include the following:

WATER SUPPLY

- Based on information obtained from the DEP, describe the existing water supply network and capacity of the distribution system that currently serves the development area;
- Using water usage rates for typical land uses provided in the *CEQR Technical Manual*, as well as other available literature sources not identified in the Manual, determine the incremental increase in water demand from future baseline projects for both the 2010 and 2016 analysis years;
- Using water usage rates for typical land uses provided in the *CEQR Technical Manual*, other available literature sources not identified in the Manual, as well as water usage estimates from similar arena facilities, provide an estimate of the total average and peak water demand for the proposed project; and
- Assess the effects of the incremental demand of the proposed project on the water supply system to determine whether there would be adequate water supply and pressure to the service area.

SEWAGE AND STORMWATER

- Based on information obtained from DEP, describe the existing sewer and stormwater system that services the development area. Existing flows to the Red Hook Water Pollution Control Plant (WPCP), which serves the development site, will be presented for the latest 12-month period, including the average and maximum monthly flow;
- Using the water demand determined in the task above, estimate sanitary sewage generation for the future baseline condition and the future with the proposed project for both analysis years;
- Assess the effects of the incremental average and peak demand of the proposed project on the sewage treatment system to determine whether there would be significant adverse impacts on operations at the Red Hook WPCP;
- Describe any planned modifications to the stormwater system and any future changes to the stormwater runoff based on baseline conditions for both analysis years;
- Assess the effects of any changes to the stormwater runoff due to the development of the proposed project and discuss the project’s potential to result in increases in Combined Sewer

Overflow (CSO) events, potential impacts on the Gowanus Canal Pumping Station, and the effect on water quality in the Gowanus Canal; and

- Describe how stormwater would be managed within the development area.

ENERGY

- Based on information obtained from Consolidated Edison, describe the existing energy distribution system and estimated energy usage for existing conditions;
- Using energy usage rates for typical land uses provided in the *CEQR Technical Manual* and other available literature sources not identified in the Manual, determine future energy demands in the future without the proposed project for the 2010 and 2016 analysis years;
- Using energy usage rates for typical land uses provided in the *CEQR Technical Manual*, other available literature sources not identified in the Manual, and energy usage estimates from similar arena facilities, provide an estimate of the total average and peak energy demand for the proposed project;
- Assess the effects of the incremental energy demand of the proposed project to determine whether the distribution system can adequately supply the energy needs to the proposed project and the service area and any necessary upgrades or reinforcements; and
- Describe any proposed alternative sources of energy or energy conservation measures (i.e., incorporation of sustainable design elements) that are being considered for the proposed project.

SOLID WASTE AND SANITATION SERVICES

The proposed project will generate increased demand for solid waste and sanitation services. The New York City Department of Sanitation (DSNY) is responsible for the collection and disposal of municipal waste and recyclables; private carters are responsible for the collection and disposal of commercial waste and recyclables. This section will:

- Describe the existing solid waste management services for the development area, including the City's Solid Waste Management Plan;
- Using solid waste generation rates for typical land uses provided in the *CEQR Technical Manual*, as well as other available literature sources not identified in the Manual, determine solid waste demands in the future without the proposed project for the 2010 and 2016 analysis years;
- Using solid waste generation rates for typical land uses provided in the *CEQR Technical Manual*, and other available literature sources not identified in the Manual, as well as solid waste estimates from similar arena facilities, provide an estimate of the solid waste demand for the proposed project; and
- Assess the effects of the incremental demand of the proposed project for municipal and private sanitation services to determine whether these services can adequately handle the future solid waste disposal needs for the proposed project and their service areas.

TASK 12. TRAFFIC AND PARKING/TRANSIT AND PEDESTRIANS

The proposed project, which includes a sports arena, office, retail, hotel, parking, and residential uses, will exhibit a range of travel demand characteristics. The transportation facilities provided within the development and the circulation plan for movement to, from, and within the complex will also affect transportation conditions for travel by all modes.

The project site is located near existing major retail and office developments in Downtown Brooklyn and the ability of the transportation system to absorb the proposed new development will be an important issue. The Atlantic Avenue/Pacific Street subway station complex is projected to service the vast majority of the project's new transit demand, whereas the Atlantic Avenue/Flatbush Avenue corridors are expected to attract increased vehicular demand.

The various project components will have a mix of travel demand characteristics. The project's office component generates travel demands in the typical commuter periods, while most basketball games at the arena would start after the PM commuter peak; retail activity peaks on weekends; and residential uses are low-demand generators with their heaviest flows in the weekday commuter periods. The transportation analyses will focus on the basketball use in the arena as a worst-case condition because of its frequency, concentrated peak hour, and higher auto use.

The proposed project will also include more than 7 acres of publicly accessible active and passive open space, attracting pedestrian trips from nearby worker and resident populations. The project site also is bordered to the south and north by residential uses east of Flatbush Avenue. Therefore, pedestrian safety will be analyzed in the EIS.

Each of the proposed uses generates public parking requirements. The study area has a very limited parking supply and, thus, the proposed project anticipates providing a substantial number of new spaces: approximately 2,000 parking spaces in the first phase of project development (2010), increasing to approximately 3,800 parking spaces in the full build (2016). The EIS will analyze parking supply and demand for different time periods on both weekdays and weekends.

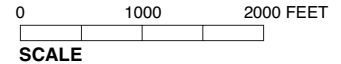
The overall transportation impact analyses will also be performed for two phases. The first phase would be at completion of the arena and a portion of the mixed-use component in 2010 and the second phase would be at full completion of the project in 2016. The critical time periods for analysis will include the weekday 8:00-9:00 AM, noon-1:00 PM, 5:00-6:00 PM, 7:00-8:00 PM (pre-game) and 10:00-11:00 PM (post-game) periods as well as Saturday 1:00-2:00 PM (pre-game) and 4:00-5:00 PM (post-game).

To the extent appropriate, the study will draw on existing available transportation data and resources from other projects in the area, including the Downtown Brooklyn Development FEIS, Atlantic Terminal Office Development FSEIS, and other Downtown Brooklyn studies. The tasks will include the following:

- Analyze the study area intersections shown in Figure 6. The study area was developed to account for the principal travel corridors to/from the site and is bounded on the north by Tillary Street/Park Avenue, on the south by Eastern Parkway/Union Street, on the east by Grand Avenue, and on the west by Hicks Street. Approximately 93 intersections will be analyzed in this transportation study area, which encompasses most of the key arterials in Downtown Brooklyn;



- Project Site
- Intersections to be Analyzed



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Traffic Study Area Intersections to be Analyzed

Figure 6

- Inventory and update street widths, sidewalk widths, traffic flow directions, and curbside parking regulations, as well as other items required for traffic analysis. The most recent signal timings from DOT for each study area intersection will be obtained;
- Determine existing traffic flows in the study area for the weekday AM, midday, PM, and evening peak hours as well as the project's weekend afternoon peak hours using available data and a new count program. Counts will be conducted according to criteria outlined in the *CEQR Technical Manual*. Automatic Traffic Recorder (ATR) counts will be obtained on principal arterials to establish daily and hourly patterns. Vehicle classification and time/delay data will also be collected along key corridors used for air quality studies. The analysis of existing conditions will reflect any ongoing construction and temporary road closures in the study area;
- Analyze the capacity of the street system in the study area for 2006 Existing Conditions using the *Highway Capacity Manual* (HCM) methodology, and determine the existing levels of service and volume-to-capacity (v/c) ratios and delays on streets in the traffic study area for each peak hour;
- Compute future No Build traffic volumes based on a background traffic growth rate for the study area of 0.5 percent per year, and the volume of traffic expected to be generated by other projects anticipated to be in place by the 2010 and 2016 analysis years. Trips associated with the development projects listed in Table 3, along with several large development projects located outside of the land use study area, are included in the analysis for 2010 and 2016. These anticipated developments include the Pier 12 cruise ship terminal, the Federal Courthouse at Adams and Tillary Streets, the Red Hook IKEA, Brooklyn Bridge Park, and all the projected development sites for the Downtown Brooklyn Development Plan (rezoning). The future traffic volumes from these sites will be estimated using data from environmental impact statements, the 2000 Census, and other sources. Traffic volumes will be determined, v/c ratios and levels of service will be calculated, and problem intersections will be identified. Mitigation measures specified for all No Build projects, and several DOT initiatives in Downtown Brooklyn will be considered in the future No Build traffic networks;
- Determine the travel characteristics of each major new development element. Trip generation rates, temporal distributions, and mode choice assumptions will be based on accepted CEQR criteria, standard professional references, studies that have been conducted for similar uses in Downtown Brooklyn, census data, and other data sources as appropriate. For the proposed project's arena component, data on the travel demand characteristics for a similar sports arena in an urban setting will be acquired. Trip origin and modal split assumptions for the proposed arena will reflect the anticipated origin/destination distribution of arena spectators and the accessibility by transit of the project's Downtown Brooklyn location. Aggregate travel forecasting for the arena component will be superimposed on travel demands for the commercial and residential elements to produce an overall forecast in each peak hour;
- Perform a traffic impact assessment of the proposed project for both the 2010 and 2016 analysis years. New net project-generated vehicle trips will be assigned and mapped to the transportation network for each analysis period, roadway closures and other changes to the street network at the project site will be incorporated, and the impact on v/c ratios and delays

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will be evaluated using the HCM methodology. Impact criteria established in the *CEQR Technical Manual* will be used for this analysis;

- Quantitatively analyze the current and future parking conditions for the peak periods for existing commercial lots/garages in the study area. The available capacity and average utilization of all off-street facilities within a ½-mile radius of the project site will be assessed based on utilization surveys. Parking will be analyzed for the weekday 7:00 AM, noon, and 7:00 PM periods, as well as the Saturday 2:00 PM hour. The analysis of future conditions will reflect changes in the parking supply and any changes in accumulated parking demand generated in the future without the proposed project. The impact of the proposed project will be based on demand generated by the proposed new development for each critical parking period, as well as the addition of spaces as part of the proposed project. Parking conditions for all analysis periods will be evaluated quantitatively;
- Quantitatively analyze the current and future on-street parking conditions on streets within a ¼-mile radius of the project site. The available capacity and average utilization along these blocks will be assessed for periods when demand would typically be highest, i.e., the 5:00-6:00 PM, 7:00-8:00 PM and Saturday 1:00-2:00 PM periods. The analysis will account for the effects of the loss of curbside spaces due to street closures associated with the proposed project;
- Identify existing and proposed bicycle facilities in the vicinity of the project site, including on-street bicycle lanes and bicycle routes identified in the City's *Bicycle Network Development* program. Assess the potential effects on these bicycle facilities from new project travel demand and project-related changes to the street network;
- Analyze subway station elements at those stations nearest the project site, based on NYCT criteria, and include the analysis of existing conditions, future conditions without the proposed project, and the effects of the trips generated by the proposed project in the weekday AM, PM, and pre-game (7:00-8:00 PM) peak hours. The peak hour transit trips from the new development will be assigned to the individual subway lines serving the site. The analysis will include the street stairways and fare arrays that would be utilized by project trips at stations where project demand would exceed the CEQR threshold of 200 trips per hour. These are expected to include the four subway stations nearest the project site: Atlantic Avenue (B, Q, 2, 3, 4, 5 trains), Pacific Street (D, M, N, R trains), Lafayette Avenue (C train), and Bergen Street (2, 3 trains). Detailed analyses will also be performed for key pedestrian circulation elements within the Atlantic Avenue/Pacific Street station complex, including the new subway entrance at the corner of Atlantic and Flatbush Avenues. In addition to the station analyses, a line haul analysis will be prepared for the AM and PM peak hours. This section also will present an evaluation of the existing rail yard operations and effects, if any, on the rail yard during and after construction;
- Analyze the impact of the proposed project on local bus service using peak load point data from NYCT for the principal bus routes serving the site. Weekday AM and PM peak hour bus trips generated by the proposed project will be analyzed quantitatively for impacts. Where bus routes are relocated due to the proposed project, these changes will also be addressed; and
- Prepare a quantitative analysis of pedestrian conditions in the vicinity of the site. Pedestrian characteristics will be evaluated for public sidewalks, corners, and crosswalks connecting the site to the surrounding system. The analysis will focus on key pedestrian facilities within

an area bounded by Atlantic Avenue on the north, Dean Street on the south, Vanderbilt Avenue on the east, and 4th Avenue on the west. Existing and No Build conditions will be analyzed for the weekday AM, PM, pre-game, and Saturday midday peak hours. This task also includes a review of high-accident pedestrian intersections in the area and an assessment of the proposed project on pedestrian safety.

TASK 13. AIR QUALITY

The number of project-generated trips will likely exceed the *CEQR Technical Manual* air quality analysis screening thresholds at a number of locations within the traffic study area. Thus, an analysis of mobile emissions air quality impacts will be conducted. The potential effects of carbon monoxide (CO) and particulate matter emissions (PM₁₀ and PM_{2.5}) from the project-generated vehicles on ambient levels in the project study area will be assessed at the locations where the greatest potential for project-related increases in concentrations would occur.

The stationary source air quality impact analysis will assess the effects of emissions (i.e., sulfur dioxide, CO, particulate matter, and/or nitrogen oxides) from the proposed project's heating, ventilating, and air conditioning (HVAC) systems. In addition, the proposed project would add new residential uses and open spaces in an area with existing industrial/manufacturing uses. Therefore, an analysis to examine the potential for impacts on the proposed project from industrial emissions will be performed.

MOBILE SOURCE ANALYSES

The mobile source analyses will include the following tasks:

- Gather existing air quality data. Collect and summarize existing ambient air quality data for the study area. Specifically, ambient air quality monitoring data published by NYSDEC will be compiled for the analysis of existing conditions;
- Determine receptor locations for the CO and particulate matter microscale analyses. Intersections in the traffic study area with the greatest expected changes in traffic volumes that exceed the screening threshold outlined in the *CEQR Technical Manual* would be selected for analysis. At each intersection, multiple receptor sites will be analyzed in accordance with guidelines from the *CEQR Technical Manual*. Annual PM_{2.5} concentrations will be calculated at neighborhood scale receptor locations;
- Select dispersion model. The U.S. Environmental Protection Agency (EPA)'s mobile source CAL3QHC screening model will be used for the CO microscale analysis for less congested locations. For PM₁₀ and PM_{2.5} analyses, the CAL3QHR dispersion model will be used, and refined analyses may be employed at receptor sites showing larger shifts in air quality conditions to obtain more realistic results. Three peak periods will be analyzed: the weekday PM, and pre-game and post-game conditions;
- Select meteorological conditions. For the "worst-case" analysis (at screening locations), conservative meteorological conditions to be assumed in the dispersion modeling are a 1 meter per second wind speed, Class D stability, and a 0.70 persistence factor. For refined mobile source modeling with CAL3QHCR, meteorological data will be employed instead of worst-case assumptions concerning wind speeds, wind direction frequencies, and atmospheric stabilities. Five years (2000-2004) of meteorological data from La Guardia Airport and concurrent upper air data from Brookhaven, New York will be utilized for the simulation program;

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- Select emission calculation methodology. Vehicular cruise and idle emissions for the dispersion modeling will be computed using EPA's MOBILE6.2 model;
- Select appropriate background levels. For the CO microscale analysis, select appropriate background levels for the study area in consultation with DEP. For the PM₁₀ and PM_{2.5} analyses, existing background levels will be used as estimates of future background conditions;
- At each CO mobile source microscale receptor site, calculate maximum 1- and 8-hour concentrations for existing conditions, the future without the proposed project, and the future with the proposed project. PM₁₀ and PM_{2.5} maximum 24-hour and annual concentrations will be determined with the proposed project. Future year analyses with and without the proposed project will be performed for two build years: 2010 and 2016. The analysis period will be based on the reasonable worst-case project trips as determined in the traffic task;
- Assess the potential impacts associated with proposed parking facilities. In order to quantify the potential emissions from project-related parking facilities, prototypical garages will be modeled as parking facility designs are refined. The analysis will use the procedures outlined in the *CEQR Technical Manual* for assessing potential impacts from proposed parking facilities. Cumulative impacts from on-street sources and emissions from the parking facilities will be calculated where appropriate. Compare future CO pollutant levels with standards and applicable *de minimis* criteria, to determine potential significant adverse project impacts;
- Compare existing and future levels with standards. Future CO and PM₁₀ pollutant levels with and without the proposed project will be compared with the National Ambient Air Quality Standards (NAAQS) to determine compliance with standards, and the City's CO *de minimis* criteria will be employed to determine the impacts of the proposed project. The incremental increases in PM_{2.5} for the future conditions with and without the proposed project will be compared with the latest DEP interim guidance criteria for PM_{2.5}; and
- Assess the consistency of the proposed project with the State Implementation Plan (SIP).

STATIONARY SOURCE ANALYSES

The stationary source analyses will include the following tasks:

- Perform a detailed stationary source analysis using the AMS/EPA Regulatory Model AERMOD dispersion model to estimate the potential impacts from the proposed project's HVAC systems. Five years of meteorological data (2000-2004), consisting of surface data from LaGuardia Airport and concurrent upper air data from Brookhaven, New York, will be used for the simulation modeling. Concentrations of the air contaminants of concern (i.e., particulate matter, sulfur dioxide, nitrogen dioxide, and CO) will be determined at ground level receptors as well as elevated receptors representing nearby building floors. Predicted values will be compared with NAAQS, EPA significant impact levels (SILs), and the most current NYSDEC and DEP interim guideline thresholds for PM_{2.5}. Impacts will be evaluated for the 2010 and 2016 analysis years;
- Perform an analysis to quantify impacts of CO and particulate matter from the proposed railroad track ventilation system on receptors near the project site. Detailed stationary source modeling will be performed using the AERMOD dispersion model;

- Perform a field survey to determine if there are any manufacturing or processing facilities within 400 feet of the site. The DEP's Bureau of Environmental Compliance (BEC) files will be examined to determine if there are permits for any industrial facilities that are identified. A review of federal and state permits will also be conducted. Based upon this information a determination will be made of whether further detailed analysis is necessary. The AERMOD dispersion model screening database will be used to estimate the short-term and annual concentrations of critical pollutants at the potential receptor sites. Predicted worst-case impacts on the proposed project will be compared with the short-term guideline concentrations (SGC) and annual guideline concentrations (AGC) reported in the NYSDEC's *DAR-1 AGC/SGC Tables* (December 2003) to determine the potential for significant impacts. In the event that violations of standards are predicted, refined modeling will be performed, and measures to reduce pollutant levels to within standards will be examined; and
- If potential significant impacts of stationary source pollutants are predicted, a cumulative impact analysis to determine the interaction of the proposed project's air quality impacts with other combustion projects may be required. An emissions inventory of sources in the area will be developed which will be put into the AERMOD dispersion model. The maximum predicted concentrations from the cumulative modeling will be added to the background concentrations to estimate the future ambient air quality conditions at the locations near the project site.

TASK 14. NOISE

The noise study will focus on assessing: (1) potential noise impacts due to project-generated traffic; and (2) the level of attenuation needed in project-developed buildings to satisfy CEQR requirements. (Additional details of impact receptors and building attenuation receptors are provided in the task descriptions below.) The Federal Highway Administration (FHWA) Traffic Noise Model, TNM 2.5, will be used for modeling roadway traffic. TNM calculates the noise contribution of each roadway segment to a given noise receptor. The noise from each vehicle type is determined as a function of the reference energy-mean emission level, corrected for vehicle volume, speed, roadway grade, roadway segment length, and source-receptor distance. Further adjustments needed to model the propagation path include shielding provided by rows of buildings, the effects of different ground types and source and receptor elevations, and the effect of any intervening noise barriers.

The noise study will include the following tasks:

- Select appropriate noise descriptors. Appropriate noise descriptors that characterize the noise environment and the impact of the proposed development will be selected based on criteria outlined in the *CEQR Technical Manual*. Consequently, the 1-hour equivalent ($L_{eq(1)}$) and, where appropriate, the L_{10} noise levels will be examined;
- Perform a screening analysis to determine locations where there is the potential for significant impacts due to the project. In general, these locations would be places where traffic generated by the proposed project would result in a doubling of passenger car equivalents (PCEs). Proportional modeling techniques will be used for this screening analysis;
- Select receptor locations for detailed analysis. Two types of receptor sites will be selected: receptor sites for detailed impact analysis, and receptor sites for building attenuation

purposes. Receptor sites selected for impact analysis will be those locations where the proposed project has the potential for significant impact (based upon a screening analysis that will look for a doubling of traffic). These receptor sites would include locations where the proposed project would have the greatest potential to affect ambient noise levels. Receptor sites for building attenuation purposes will be locations where building design measures would be necessary to meet criteria outlined in the *CEQR Technical Manual*;

- Measure existing noise levels. At each of the impact receptor sites identified above, existing noise levels will be measured during six time periods—weekday AM, midday, PM, nighttime, weekend midday, and weekend nighttime. At each of the building attenuation receptor sites identified above, existing noise levels will be measured during three time periods—weekday AM, midday, and PM. Measurements will be made using a Type 1 instrument, and L_{eq} , L_1 , L_{10} , L_{50} , and L_{90} values will be recorded;
- Calculate existing noise levels. Existing noise levels will be calculated at each impact receptor site using the TNM model. Calculated values will be compared with measured noise levels. Where necessary, adjustment factors will be calculated to account for noise from sources other than modeled nearby roadways;
- Determine future noise levels without the proposed project. At each of the impact receptor locations, noise levels without the proposed project will be determined using the TNM model and predicted No Build traffic (i.e., volumes, vehicle mixes, and speeds) for the analysis years of 2010 and 2016;
- Determine future noise levels with the proposed project for the 2010 and 2016 development programs. At each of the impact receptor locations, noise levels with the proposed project will be determined using the TNM model and predicted No Build traffic (i.e., volumes, vehicle mixes, and speeds);
- Assess the potential for noise impacts from arena crowds;
- Compare noise levels with impact evaluation criteria. Existing noise levels and future noise levels, both with and without the project, will be compared with the noise impact criteria contained in the *CEQR Technical Manual* to determine project impacts; and
- Determine the level of building attenuation required. For the buildings analyzed as part of the proposed project, the level of attenuation and the types of measures necessary to achieve the attenuation specified in the *CEQR Technical Manual* will be examined.

TASK 15. NEIGHBORHOOD CHARACTER

The character of a neighborhood is established by numerous factors, including land use patterns, the scale of development, the design of buildings, the presence of notable historic, physical, or natural landmarks, and a variety of other features, including traffic and pedestrian patterns, noise, and socioeconomic conditions. The proposed development project could affect the character of these areas by introducing new commercial offices, housing, open space, an arena, retail, and other uses.

Neighborhood character tasks include:

- Drawing on other EIS sections, describe the predominant factors that contribute to defining the character of the area;

- Based on planned development projects, public policy initiatives, and planned public improvements, summarize changes that can be expected in the character of the neighborhood in the future without the proposed project; and
- Drawing on the analysis of impacts in various other EIS sections, assess and summarize the proposed project's impacts on neighborhood character.

TASK 16. CONSTRUCTION IMPACTS

Construction impacts, though temporary, can have a disruptive and noticeable effect on the adjacent community, as well as people passing through the area. The proposed project, because of its size and development phasings, would have the potential for substantial and extended effects.

The likely construction schedule for development at the site and an estimate of activity on-site will be described. Construction impacts will be evaluated according to the *CEQR Technical Manual* guidelines. The construction assessment for the proposed project will focus on areas where construction activities may pose specific environmental problems. Technical areas to be analyzed include:

- **Transportation Systems.** Project construction would require the closure or partial closure of streets on, and surrounding, the project site, and temporary bridge closures. The EIS will analyze quantitatively potential temporary impacts to the area's transportation systems from these losses, any other losses in traffic lanes or other above- and below-grade transportation services, and increases in vehicle traffic from construction workers;
- **Air Quality.** Describe mobile source emissions from construction equipment and worker and delivery vehicles, and fugitive dust emissions. Analyze potential CO and particulate matter mobile source air quality impacts during construction based on information on traffic and truck volumes and on-site activities. Assess impacts of criteria pollutants from on-site construction activities, including particulate matter emissions from sources of fugitive dust. Discuss measures to reduce impacts;
- **Noise.** Estimate construction noise levels from various pieces of construction equipment and discuss potential effects on adjacent land uses. Measures to minimize construction noise impacts will be presented, as necessary;
- **Hazardous Materials.** Construction of the proposed project would involve a variety of earthmoving and excavating activities, and construction activities in these areas could encounter contaminated soil or groundwater. For these reasons, as described in the Hazardous Materials chapter, subsurface investigations will be performed to determine appropriate health and safety and/or remedial measures that would precede or govern soil disturbance activities in known or potentially contaminated areas. Investigative measures would include more detailed preliminary assessments to identify potential contaminants of concern, likely followed by subsurface testing and testing of building materials to confirm the types, levels, and the approximate extent of contaminants of concern on development sites. The range of remedial and health and safety measures that would be employed prior to and/or during construction would vary with the types, levels, and extent of contamination identified during the testing programs. Site-specific Health and Safety Plans would also govern remedial and construction activities. All work with the potential to generate dust (e.g., excavation) would be done in accordance with appropriate health and safety

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requirements to protect workers (who have the greatest potential for exposure because of their close proximity to the work areas) and the public;

- Infrastructure. The proposed project would need to relocate public infrastructure, particularly water and sewer connections, as well as electric, gas, and telephone lines; thus, the services to the neighborhood during the relocation will be addressed;
- Cultural Resources. The integrity of nearby historic resources within and adjacent to the project site could be adversely affected by construction vibrations; thus, the maintenance of the integrity of such resources would need to be assessed; and
- Other Technical Areas. As appropriate, this section will discuss the other areas of environmental assessment for potential construction-related impacts, including tree loss and on-site rodent control.

TASK 17. PUBLIC HEALTH

According to the guidelines of the *CEQR Technical Manual*, public health concerns for which a public health assessment may be warranted include: increased vehicular traffic or emissions from stationary sources resulting in significant adverse air quality impacts; increased exposure to heavy metals and other contaminants in soil/dust resulting in significant adverse hazardous materials or air quality impacts; the presence of contamination from historic spills or releases of substances that might have affected or might affect ground water to be used as a source of drinking water; solid waste management practices that could attract vermin and result in an increase in pest populations; potentially significant adverse impacts to sensitive receptors from noise and odors; and actions for which any potential impacts result in an exceedance of accepted federal, state, or local standards. Depending on the results of relevant technical analyses, a public health analysis may be warranted. If so, this analysis will be provided.

TASK 18. MITIGATION

Where significant adverse project impacts have been identified in the analyses discussed above, measures will be assessed to mitigate those impacts. This task summarizes the findings of the relevant analyses and discusses potential mitigation measures. Depending on the nature and extent of the significant adverse impact, a variety of measures to avoid or minimize the significant adverse impact would be evaluated for their feasibility and practicability for implementation. For example, should there be a potential significant adverse impact on community facilities such as schools or day care centers, or on open space resources, the DEIS would evaluate the potential feasibility for providing a new facility either on the project site or nearby in an off-site location. Other options may entail the expansion or upgrade of an existing community facility or open space resource. Should there be potential significant adverse traffic impacts, the DEIS would identify a range of measures, including simple changes to signal timings; lane re-stripings to add capacity; new exclusive turning lanes and signals; and major reconfigurations of the roadway network. Where impacts cannot be mitigated, they will be described as unavoidable adverse impacts.

TASK 19. ALTERNATIVES

The purpose of an alternatives analysis is to examine reasonable and practicable options that avoid or reduce project-related significant adverse impacts and achieve the stated goals and

objectives of the proposed project. The specific alternatives to be analyzed are typically finalized with the lead agency as project impacts become clarified. However, they will include:

- 1) No Action Alternative, which assumes that the proposed project is not built and the project parcels maintain their current uses; and
- 2) No Unmitigated Significant Adverse Impact Alternative, which assesses a change in density or program design in order to avoid the potential for unmitigated significant adverse impacts associated with the proposed project.

In addition, this chapter will also evaluate lower density alternatives such as the following three proposals identified during the public comment period on the Draft Scope:

- 3) UNITY Plan—under this proposal, development would occupy only the rail yard parcels and include up to 600,000 sf of retail and commercial space, 2,300 housing units, a recreation center, school, day care facility, and 4 acres of open space. Elements of the plan include the extension of South Elliott Place, South Oxford Street, Cumberland Street, Adelphi Street, and Clermont Avenue through the rail yard site.
- 4) Extell Proposal—under this proposal, development would occupy only the rail yard parcels and include 116,000 sf of retail and commercial space, 1,940 housing units, 75,515 sf of community facility/school, 1,000 parking spaces, and 3.8 acres of open space.
- 5) Pacific Plan—under this proposal, development would occupy a similar footprint and contain the same program components as the proposed project but have lower densities and different massing designs. Proposed uses under this plan include: 800,000 sf of arena use, 3,000 residential units, 490,200 sf of office space; 201,340-sf of retail; 71,600 sf of community facilities use; 25,300 sf of light industrial space; a 290,900 sf hotel; and 1.94 acres of open space. Elements of this plan include the extension of South Oxford Street, Cumberland Street, and Clermont Avenue through the project site.

The description and evaluation of each alternative will be provided at a level of detail sufficient to permit a comparative assessment of each alternative discussed.

TASK 20. GROWTH-INDUCING ASPECTS OF THE PROPOSED PROJECT

This chapter will identify, from the analyses contained in the EIS, the growth-inducing aspects of the proposed project.

TASK 21. EXECUTIVE SUMMARY

The executive summary will utilize relevant material from the body of the EIS to describe the proposed project, the necessary approvals, study areas, environmental impacts predicted to occur, measures to mitigate those impacts, unmitigated and unavoidable impacts (if any), and alternatives to the proposed project. *