A. INTRODUCTION

The Applicant, Forrest Lots, LLC, is requesting a zoning map amendment, a zoning text amendment, and changes to the city map (collectively, the "Proposed Action") affecting an approximately 6 block area within the Bushwick neighborhood of Brooklyn Community District 4. The affected area is generally bounded by Flushing Avenue, Evergreen Avenue, Melrose Street, Stanwix Street, Forrest Street, Garden Street, and Beaver Street (refer to Figure ES-1). The affected area is currently zoned M1-1 and M3-1, light and heavy manufacturing districts, respectively (refer to Figure ES-2).

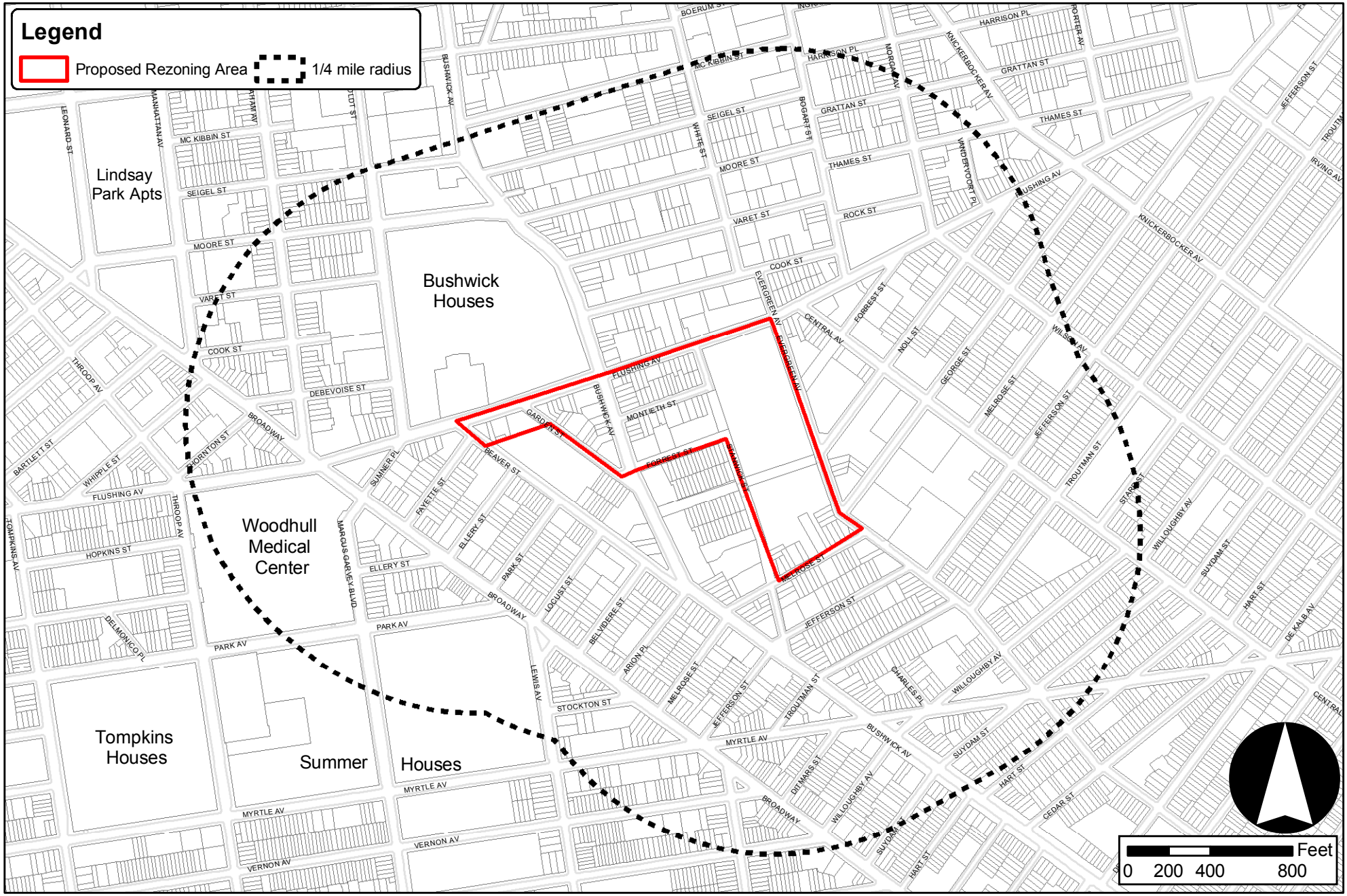
The Proposed Action is described as follows:

- A zoning map amendment to change the zoning in an approximately 6 block area from M3-1 and M1-1 to M1-2, R6A and R7A with a C2-4 commercial overlay district mapped along the Stanwix Street, Bushwick, Flushing and Evergreen Avenue frontages of Blocks 3137, 3138, 3139, 3141 and 3152 to a depth of 100 feet (see Figure ES-3).
- A change to the official City Map to establish the section of Stanwix Street from Montieth Street to Forrest Street and the section of Noll Street between Evergreen Avenue and Stanwix Street as mapped streets.
- A zoning text amendment, which modifies Section 23-922 of the NYC Zoning Resolution to make the newly mapped R6A and R7A districts "inclusionary housing designated areas."

The proposed rezoning area contains mostly underutilized lots used for vehicle/open storage, which have not been available for residential redevelopment since such use is not permitted under the existing zoning. The Proposed Action would facilitate a proposal by the Applicant to develop new affordable and market rate residential development on underutilized lots, currently zoned for manufacturing, where there is no longer a concentration of industrial activity. The Proposed Action would expand future development opportunity while providing incentives for affordable housing through the Inclusionary Housing Program. In addition, the proposed mapping action would connect the existing neighborhoods to the east and west of the rezoning area.

As discussed below, a reasonable worst-case development scenario (RWCDS) for development associated with the Proposed Action has been identified. For environmental assessment purposes, projected developments, considered likely to occur in the foreseeable future, following the adoption of the Proposed Action, are expected to occur on 8 sites, and potential developments, which are considered possible but less likely, have been identified for 3 additional sites (see Figure ES-4). The Proposed Action would allow for the development of new uses and higher densities at the projected and potential development sites. The analyses in this DEIS considers an analysis year of 2016.

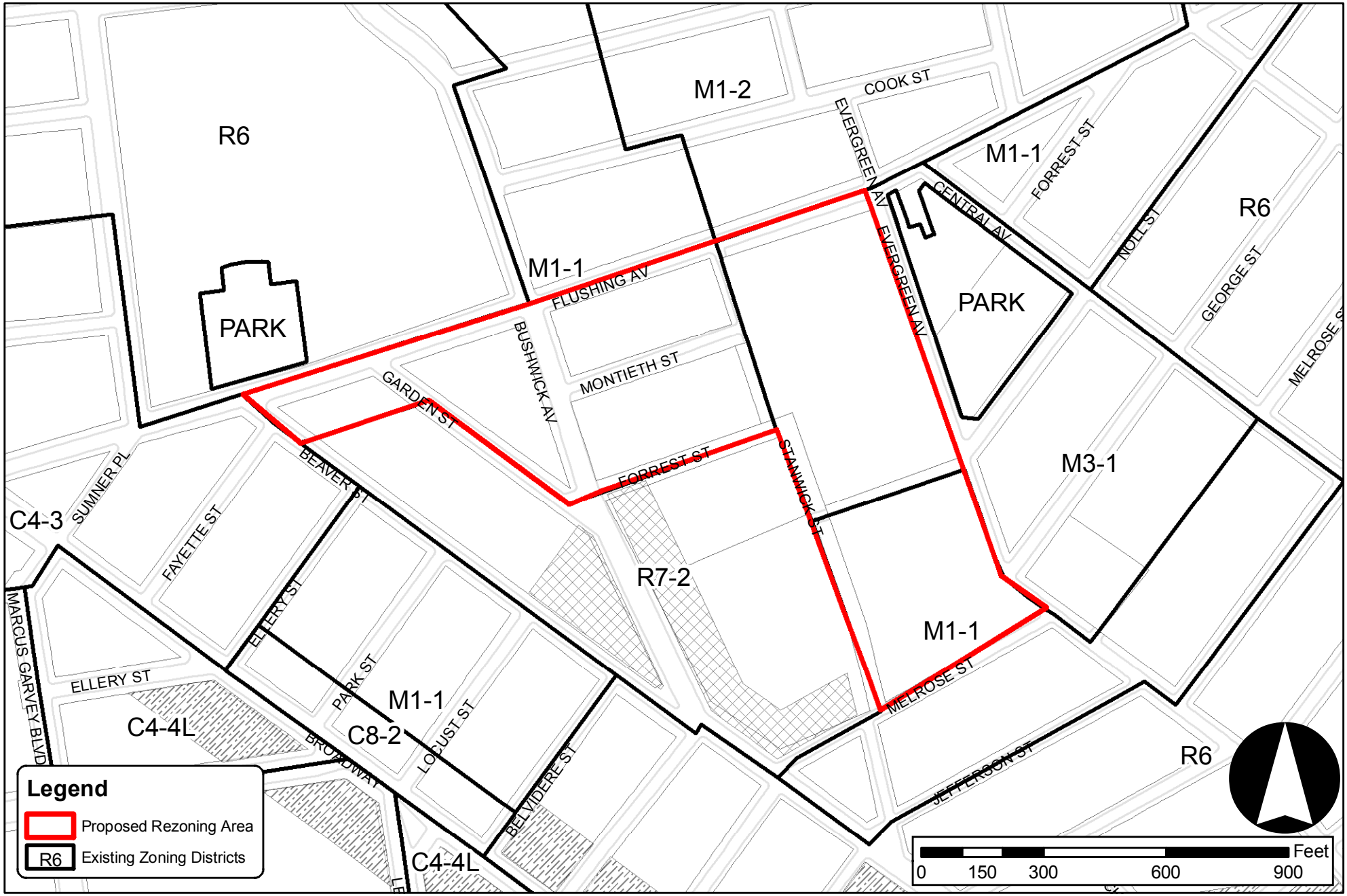
The DEIS includes review and analysis of all impact categories identified in the *CEQR Technical Manual*. The DEIS contains a description and analysis of the Proposed Action and its environmental setting; the environmental impacts of the Proposed Action, including its short and long term effects, and typical associated environmental effects; identification of any significant adverse environmental effects that can be avoided through incorporation of corrective measures into the Proposed Action; a discussion of alternatives to the Proposed Action; the identification of any irreversible and irretrievable commitments of resources that would be involved in the Proposed Action should it be implemented; and a



Rheingold Development Rezoning EIS

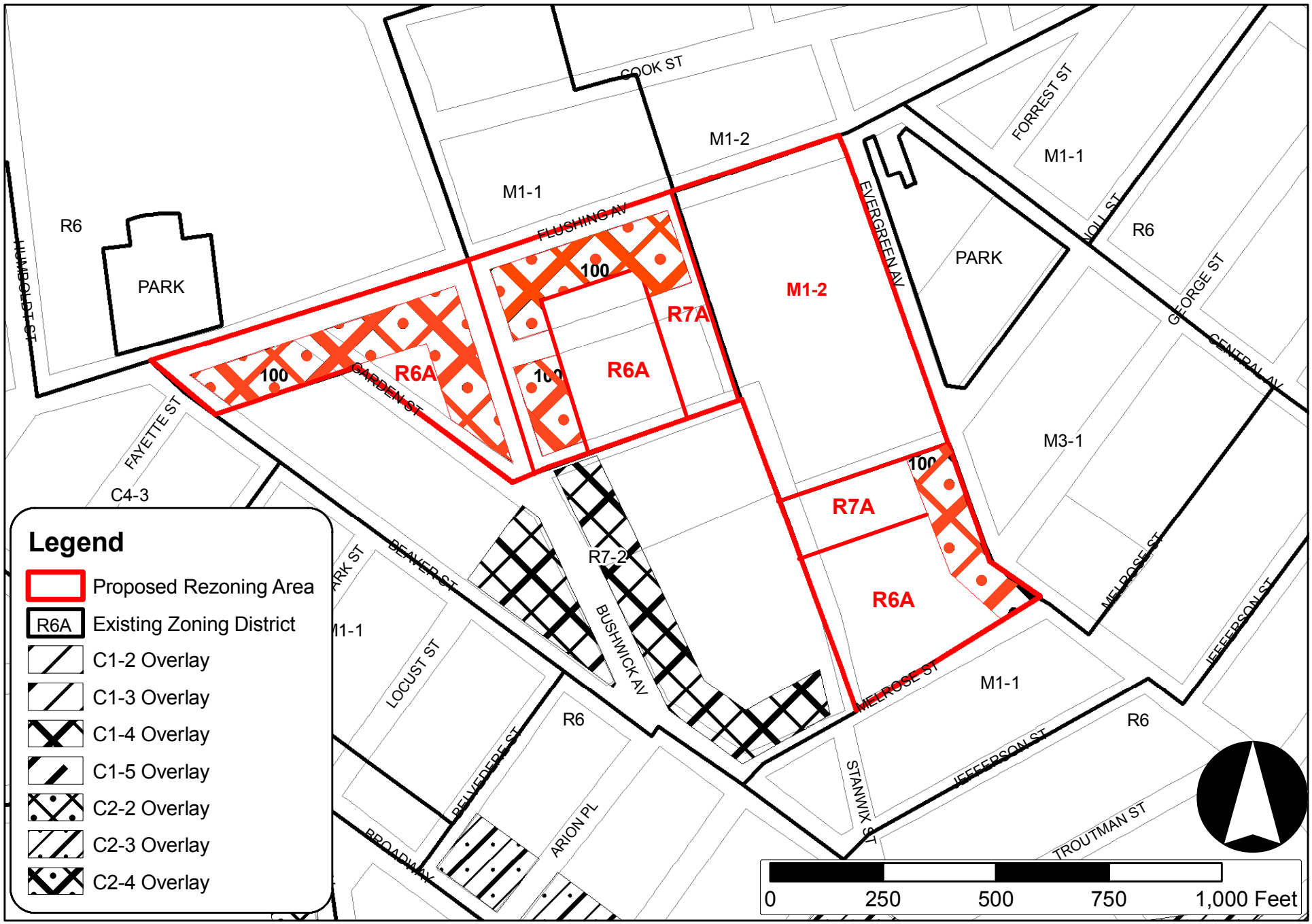
Figure ES-1

Project Area



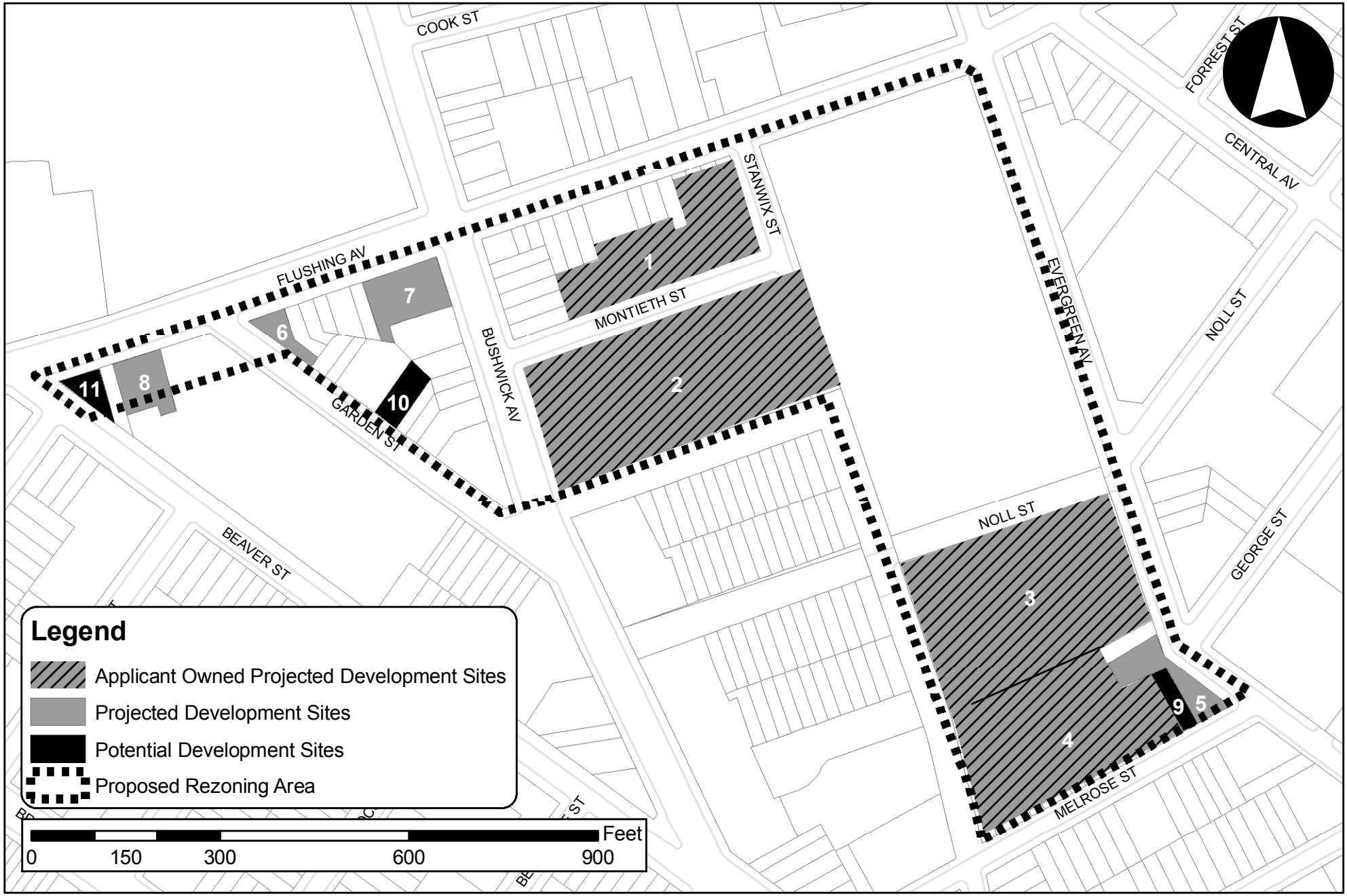
Rheingold Development Rezoning EIS

Figure ES-2
Existing Zoning



Rheingold Development Rezoning EIS

Figure ES-3
Proposed Zoning



Rheingold Development Rezoning EIS

Figure ES-4

RWCDS Projected & Potential Development Sites

description of any necessary mitigation measures proposed to minimize significant adverse environmental impacts.

B. CONTENTS OF THIS EIS

A Draft Scope of Work that set forth the analyses and methodologies proposed for this EIS was released on July 27, 2012. The public, interested and involved agencies, Brooklyn Community Board 4, and elected officials were invited to comment on the scope, either in writing or orally, at a public scoping meeting held at the New York City Department of City Planning, 22 Reade Street, New York, NY 10007. The comment period remained open until September 24, 2012, 10 days after the meeting. Responses to these comments have been incorporated in the Final Scope of Work where appropriate. One comment letter was received from the Brooklyn Borough President's office on September 14, 2012. A Final Scope of Work, issued on May 31, 2013, was used as the framework for preparing this DEIS.

An Environmental Assessment Statement (EAS), dated July 27, 2012, concluded that there would be no potential for significant adverse impacts in the historic and cultural resources, natural resources, solid waste and sanitation services, and energy.

This DEIS has been prepared in conformance with applicable laws and regulations, including Executive Order No. 91, New York City Environmental Quality Review (CEQR) regulations, and follows the guidance of the CEQR Technical Manual. This EIS contains analyses of topics for which the screening methodologies contained in the CEQR Technical Manual indicated that the potential for significant adverse environmental impacts exists, thus warranting additional detailed studies. A Draft EIS was prepared on the following analyses:

- Land Use, Zoning, and Public Policy
- Socioeconomic Conditions
- Community Facilities and Services
- Open Space
- Shadows
- Urban Design and Visual Resources
- Hazardous Materials
- Water and Sewer Infrastructure
- Air Quality
- Greenhouse Gas Emissions
- Noise
- Public Health
- Neighborhood Character
- Construction Impacts

In addition, chapters evaluating Alternatives, and Mitigation and Unavoidable Adverse Impacts, and chapters evaluating Growth-Inducing Aspects of the Proposed Action, and Irreversible and Irretrievable Commitment of Resources are included. The analysis identified significant adverse impacts on open space, public elementary schools, and traffic.

C. PURPOSE AND NEED FOR THE PROPOSED ACTION

The proposed rezoning area contains mostly underutilized lots used for vehicle/open storage, which have not been available for residential redevelopment since such use is not permitted under the existing zoning. The Proposed Action would facilitate a proposal by the Applicant to develop new affordable and market rate residential development on underutilized lots, currently zoned for manufacturing, where there is no longer a concentration of industrial activity.

The existing low-density M1-1 zoning designations in the rezoning area would be replaced with contextual medium-density R6A and R7A residential zoning districts, which would allow residential

development. The proposed rezoning area is located adjacent to an existing R7-2 zoning district to west of Stanwix Street and an existing R6 zoning district to north of Flushing Avenue. The Proposed Action would bring into compliance 23 noncompliant existing residential uses with approximately 172 DUs, located within the M1-2 manufacturing district along Evergreen Avenue, Flushing Avenue, Garden Street, and Bushwick Avenue within the rezoning area. In order to incentivize the creation of affordable housing, the Proposed Action would designate the proposed zoning districts as Inclusionary Housing designated areas.

With the rezoning to residential in the M1-1 zone, the mapping of the M1-2 district in place of the M3-1 district on Block 3140 would provide a more appropriate zoning designation for an area adjacent to residential zoning districts where existing uses are expected to remain. M1 districts often function as buffer zones between residential and heavy manufacturing uses such as those found in M3 zones. M3 zones permit heavy manufacturing uses while M1-2 zones permit light manufacturing and commercial uses. In addition, the proposed M1-2 district would be an extension of the existing M1-2 zoning district located just north of the rezoning area, across Flushing Avenue. Uses on Block 3140 (warehousing) would conform to the M1 designation.

The proposed mapping action would connect the existing neighborhoods to the east and west of the rezoning area. New access to the existing and proposed housing on Stanwix Street, Forrest Street, Montieth Street, and Noll Street would be provided through the proposed Stanwix Street and Noll Street extensions. New sidewalks and streets would connect the proposed new neighborhood with neighborhoods to the east and allow for pedestrian and vehicle use. In addition, new infrastructure to support the existing and proposed developments can be placed in the newly mapped public streets.

D. DESCRIPTION OF THE PROPOSED ACTION

The Proposed Action includes a zoning map amendment, a zoning text amendment, and changes to the city map.

Proposed Zoning Map Changes

The Proposed Action includes zoning map amendments to: replace the existing M1-1 and M3-1 zoning districts within the proposed rezoning area with R6A, R7A, and M1-2 districts; and map new commercial overlays along portions of Stanwix Street, Flushing Avenue, Bushwick Avenue and a portion of Garden Street and Evergreen Avenue to promote and better support local retail development. Figure ES-3 illustrates the proposed zoning designations, and Table ES-1 provides a summary of the changes proposed to zoning districts in the proposed rezoning area.

TABLE ES-1
Summary of Proposed Zoning Changes

Existing Zoning District	Proposed Zoning District
M1-1	R6A R7A
M3-1	M1-2

As shown in Figure ES-3, the proposed R6A zoning district would be mapped in the western portion of the rezoning area along the south side of Flushing Avenue between Beaver and Garden Streets on Block 3137, and on Block 3138, which is bounded by Flushing Avenue, Bushwick Avenue and Garden Street. The midblocks of Block 3139 and 3141, which are generally bounded by the north side of Forrest Street between Bushwick Avenue and Stanwix Street would also be zoned R6A. The southwestern portion of rezoning area near the intersection of Melrose and Stanwix Streets (part of Block 3152) would be rezoned R6A as well. R6A is a contextual residential zoning district, which permits Use Groups 1-4 as-of-right and has a maximum FAR of 3.0 for both residential and community facility uses. Within the Inclusionary Housing Program, R6A districts allow a base FAR of 2.7 and maximum FAR of 3.6 for residential uses. The street wall could rise 40 to 60 feet, with a maximum building height of 70 feet. The proposed R6A district, with lower bulk, height and street wall requirements would provide consistency with the existing built context of low-scale areas.

The proposed R7A zoning district would be mapped on portions of Blocks 3139 and 3141, including along the south side of Flushing Avenue between Bushwick Avenue and Stanwix Street, the east side of Bushwick Avenue between Flushing Avenue and Forrest Street, and on the west side of the Stanwix Street (portion of which is to mapped as part of the Proposed Action) between Flushing Avenue and Forrest Street. R7A zoning would also be mapped on portions of Block 3152, including along the west side of Evergreen Avenue between Noll Street (to be mapped as part of the Proposed Action) and Melrose Street, and on the south side of Noll Street (to be mapped as part of the Proposed Action) between Stanwix Street and Evergreen Avenue. R7A is also a contextual residential district, which permits use groups 1-4 as-of-right but has a higher FAR than the R6A district with a maximum FAR of 4.0. Within the Inclusionary Housing Program, R7A districts allow a base FAR of 3.45 and maximum FAR of 4.6 for residential uses. This zoning district allows maximum building heights of 80 feet, street wall heights of 40 to 65 feet. The building form encouraged by R7A regulations would result in residential buildings that are consistent with the scale, streetwall and density of the existing buildings.

C2-4 commercial overlays are proposed to be extended to the south side of Flushing Avenue between Beaver Street and Evergreen Avenue, on both sides of Bushwick Avenue between Flushing Avenue and Forrest Street, on the west side of Stanwix Street between Flushing Avenue and Montieth Street, and on the west side of Evergreen Avenue between Noll and Melrose Streets to a depth of 100 feet. C2 commercial overlays are mapped on streets within residential districts that serve the local retail needs of the surrounding residential neighborhood. Typical retail uses include grocery stores, restaurants, and beauty parlors. C2 districts permit a slightly wider range of uses than C1 districts, such as funeral homes and repair services. The proposed commercial overlays would be mapped with R6A and R7A districts where ground floor retail uses would be allowed up to 2.0 FAR in mixed-use residential and commercial buildings. Buildings without residential uses would also be allowed 2.0 FAR of commercial uses.

The existing heavy M3-1 manufacturing zoning on Block 3140 would be replaced with high performance manufacturing M1-2 zoning. The existing M3-1 zoning is a heavy manufacturing use district, which permits Use Groups 5-18 as-of-right, and has a maximum floor area ratio (FAR) of 2.0 for commercial and industrial uses. Residential and community facility uses are not permitted. All manufacturing and industrial uses are required to conform to minimum performance standards in M3 districts. M1-2 zoning allows use groups 5-14, 16 and 17 as-of-right with has a maximum FAR of 2.0. Certain community facility uses (Use Group 4) such as houses of worship and schools are also allowed in M1-2 districts up to an FAR of 4.8. M1-2 districts also permit applications for special permits, whereas M3-1 districts do not. The M1-2 zoning light manufacturing district would be an appropriate buffer zoning district between the heavier industrial M3-1 zoning district to the east and the proposed R6A and R7A residential districts to the west and south.

Proposed Zoning Text Amendments

Inclusionary Housing Program

The Proposed Action would also modify Section 23-922 of the New York City Zoning Resolution to make the newly mapped R6A and R7A districts "inclusionary housing designated areas." This would make the Inclusionary Housing Program (IHP) zoning regulations applicable in the rezoning area's proposed R6A and R7A zoning districts. In the areas where the IHP would be applicable, new residential developments that provide housing which will remain permanently affordable would receive increased FAR. The IHP provides 33 percent bonus in exchange for twenty percent of FAR set aside as affordable units. The additional FAR must be accommodated within the bulk regulations of the underlying zoning districts. Affordable units could be financed through City, State, and federal affordable housing subsidy programs.

The affordable housing requirement of the Inclusionary Housing zoning bonus could be met through the development of affordable on-site or off-site units, either through new construction or preservation of existing affordable units. Off-site affordable units must be located within the same community district, within a half-mile of the development receiving the FAR bonus, or anywhere within Brooklyn Community District 4. The availability of on-site and off-site options provides maximum flexibility to ensure the broadest possible utilization of the program under various market conditions. This zoning text amendment would establish an inclusionary FAR bonus providing opportunity and incentive for the development of affordable housing in the rezoning area.

Proposed Street Mapping

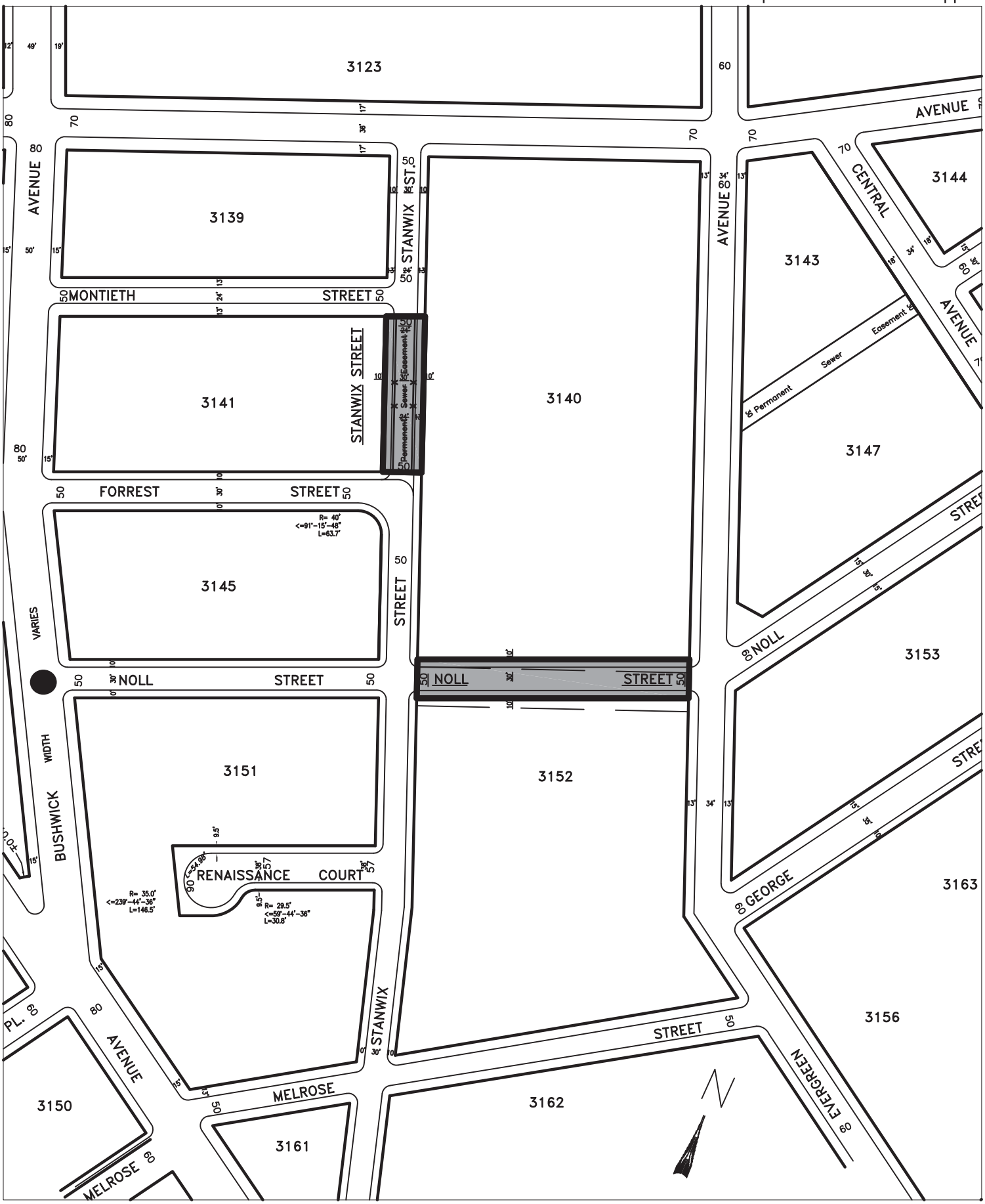
In the future with the Proposed Action, portions of Stanwix Street and Noll Street would be remapped and opened to through traffic (see Figure ES-5). The mapping would allow better access to the proposed mixed use development and restore the street grid at this location. The Applicant proposes to map and formally bestow to the City the unbuilt section of Stanwix Street between Montieth Street and Forrest Street and the unbuilt section of Noll Street between Evergreen Avenue and Stanwix Street. At present, these portions of the unmapped Stanwix and Noll Streets are inaccessible to the public and to public traffic.

Stanwix Street would have a mapped width of 50 feet, including a 30-foot travel way and two 10-foot sidewalks. Noll Street would also have a width of 50 feet, including a 30-foot travel way and two 10-foot sidewalks. These widths are consistent with the adjacent streets connecting to these newly mapped street segments. The New York City Department of City Planning (DCP) and the New York City Department of Transportation (DOT) have consulted on the area's circulation plan and recommended the opening of these newly mapped streets. In conjunction with this mapping, selected one-way streets within the study area would change in direction. Montieth Street would change from eastbound operation to westbound operation, Forrest Street would change from westbound operation to eastbound operation, Stanwix Street would change from northbound operation to southbound operation, and Noll Street would be changed from eastbound operation to westbound operation in the vicinity of the rezoning area.

As discussed above, the street mapping would achieve a number of benefits: the neighborhoods to the east and west of the project site would be visually connected. New access to the existing and proposed housing on Stanwix Street, Forrest Street and Noll Street would be provided through the proposed Stanwix Street. New sidewalks and streets would connect the proposed new neighborhood with neighborhoods to the east and allow for pedestrian and vehicle use. In addition, new infrastructure to support the proposed developments can be placed in the newly mapped public streets.

Figure ES-5

Proposed Streets to be Mapped



Streets Proposed to be Mapped

Proposed Traffic Signal Location

E-Designations

The Proposed Action includes (E) designations (E-315) for hazardous materials, noise, and air quality. As described in greater detail in the Hazardous Materials chapter of this document (Chapter 8), the Proposed Action includes the mapping of (E) designations for hazardous materials on all of the projected and potential development sites. In addition, as described in the Air Quality chapter (Chapter 11), an (E) designation would be mapped on 6 of the 8 projected and all of the potential development sites to ensure that there would be no significant adverse air quality impacts. Furthermore, as described in the Noise chapter (Chapter 13), an (E) designation would be mapped on all of the projected and potential development sites to ensure that there would be no significant adverse noise impacts. The (E) designation is a mechanism that ensures no significant adverse impacts would result from a proposed action because of steps that would be undertaken prior to the development of a rezoned site. The (E) designation would ensure that these identified sites would not be developed unless necessary remedial measures are implemented.

Restrictive Declaration

In connection with the proposed project, a Restrictive Declaration would be recorded at the time all land use-related actions required to authorize the proposed project's development are approved. The Restrictive Declaration would provide for the implementation of "Project Components Related to the Environment" (i.e., certain project components which were material to the analysis of the environmental impacts in the EIS) and mitigation measures, substantially consistent with the EIS.

E. REASONABLE WORST-CASE DEVELOPMENT SCENARIO (RWCDS)

In order to assess the possible effects of the Proposed Action, a reasonable worst-case development scenario was established for both the current zoning (Future No-Action) and proposed zoning (Future With-Action) conditions projected to the build year of 2016. The incremental difference between the Future No-Action and Future With-Action conditions are the basis of the impact category analyses of this Environmental Impact Statement.

To determine the With-Action and No-Action conditions, standard methodologies have been used to identify the amount and location of future development, following the *CEQR Technical Manual* guidelines and employing reasonable assumptions. In projecting the amount and location of new development, several factors have been considered in identifying likely development sites. These include known development proposals, past development trends, and the development site criteria described below. The first step in establishing the development scenario was to identify those sites where new development could reasonably occur.

To produce a reasonable, conservative estimate of future growth, the development sites were further divided into two categories - projected development sites and potential development sites. The projected development sites are considered more likely to be developed within the analysis period (build year 2016) because of known development plans for such sites, their relatively low FAR and current utilization, and relatively large size. Potential sites are considered less likely to be developed over the same period because of their relatively higher FARs, existing utilization, and generally more cumbersome means of development.

This EIS assesses both density-related and site specific potential impacts from the development on all projected development sites. Density-related impacts are dependent on the amount and type of development projected on a site and the resulting impact on traffic, community facilities, and open space.

Site specific impacts relate to individual site conditions and are not dependent on the density of projected development. Site specific impacts include potential air quality, noise and shadows impacts from development, and the possible presence of hazardous materials. Development is not anticipated on the potential development sites by the analysis year; therefore, these sites have not been included in the density-related impact assessments. However, specific review of site specific impacts for these sites has been conducted in order to ensure a conservative analysis.

Eleven development sites (8 projected and 3 potential) have been identified in the rezoning area. Figure ES-4 shows these projected and potential development sites, and Table ES-2 below provides a summary of the RWCDS for each analysis scenario.

The Future Without the Proposed Action (No-Action Conditions)

Within the proposed rezoning area, little change in manufacturing development has occurred over the last two decades, even with the presence of available vacant sites. Absent the Proposed Action, it is projected that no new development would occur on the projected and potential development sites and existing uses are expected to remain.

The Future With the Proposed Action (With-Action Conditions)

Defining the Reasonable Worst Case Development Scenario for Environmental Analysis

The Proposed Action would allow for the development of new uses and higher densities at the projected and potential development sites. In the future with the Proposed Action, it is expected that a total of approximately 1,076 dwelling units and 74,194 sf (net) of local retail.

Table ES-2 below provides a summary of each of the reasonable worst-case development scenarios (RWCDSs) for projected development sites. The RWCDS represents the upper bounds of residential, retail commercial, and parking uses for the purposes of impact analysis.

A total of 3 sites were considered less likely to be developed within the foreseeable future, and were thus considered potential development sites. The potential sites are addressed in the DEIS for site-specific effects.

As such, this environmental impact statement document analyzes the projected developments for all technical areas of concern and also evaluates the effects of the potential developments for site-specific effects such as shadows, hazardous materials, air quality, and noise.

Table ES-2: Summary of RWCDS (Increment)

Site	Residential (sf)	DUs	Inclusionary DUs	Retail (sf)	Accessory Parking Spaces
1*	132,290	132	26	16,058	76
2*	326,426	326	65	17,010	167
3*	299,149	300	60	17,960	155
4*	219,134	219	44	3,154	106
5	36,581	37	7	8,292	25
6	15,331	15	3	4,739	12
7	29,150	29	6	7,414	23
8	18,013	18	4	-433	14
TOTAL	**1,076,074**	**1,076**	**215**	**74,194**	**578**

*Applicant's site

Project Site

The Applicant intends to develop 54,182 sf of local retail space and 977 dwelling units (DUs), of which 242 DUs would be affordable to low-to-moderate-income households, per the Inclusionary Housing regulations, of which 47 units would be set aside for senior housing. However, for analysis purposes, this environmental review will consider that the Applicant would develop a maximum of 195 affordable dwelling units, and that the 47 senior units would be considered typical dwelling units. Therefore, under the RWCDS, the Applicant's sites would result in a net increase of 54,182 sf of local retail and 977 dwelling units, 195 of which are expected to be affordable to low-to-moderate-income households in accordance with the Inclusionary Housing Program. The height of the Applicant's proposed developments is expected to be 4 stories for the low rise building facing Forrest Street, 5-7 stories for the buildings facing local streets (Montieth Street, Stanwix Street, Noll Street, and Melrose Street) and 7-8 stories for the apartment buildings facing major avenues (Bushwick Avenue and Evergreen Avenue). However, for conservative analysis purposes, it is assumed that all buildings on the Applicant's property would be built to the maximum permitted height of 70 to 80 feet. The RWCDS would also include a total of 504 accessory parking spaces.

Projected Development Sites

In addition to the Applicant owned sites, it is anticipated that the Proposed Action would result in the development of sites 5-8. Sites 5-8 are projected to be developed with 99 DUs (of which 20 DUs will be affordable). This development would be required to provide 74 accessory parking spaces. Sites 5-8 would be mapped with a C2-4 commercial overlay and would result in approximately 20,013 sf (net) of local retail. It is assumed for analysis purposes that these buildings would be developed pursuant to the maximum permitted FAR and height of the R6A and R7A zoning regulations.

The incremental difference between the future with-action and future no-action development scenarios (build year 2016) for all projected development sites is an increase of 1,076 DUs (of which 215 would be considered affordable), 74,194 sf of local retail, and a decrease of 129,513 of vacant lot area, 53,895 sf of vehicle/open storage/parking, and 79,915 of industrial/manufacturing (mainly accessory manufacturing uses and a vacant manufacturing building). Based on 2010 Census Data for a half mile radius around the rezoning area, it is projected that the average household size for the projected residential development would be approximately 2.95 persons per dwelling unit. With the projected developments combined, the Proposed Action would add approximately 3,174 new residents. In addition, applying space occupancy rates typically used in CEQR documents (3 employees/1,000 sf of retail), the Proposed Action would generate approximately 223 new employees. Also using typical rates, the Proposed Action would remove 46 employees from the projected development sites. This would result in a net increase of 177 employees in the proposed rezoning area.

F. APPROVALS REQUIRED

The proposed actions require City Planning Commission (CPC) and City Council approvals through the Uniform Land Use Review Procedure (ULURP), and include the following:

- A zoning map amendment to change the zoning in an approximately 6 block area from M3-1 and M1-1 to M1-2, R6A and R7A with a C2-4 commercial overlay district mapped along the Stanwix Street, Bushwick, Flushing and Evergreen Avenue frontages of Blocks 3137, 3138, 3139, 3141 and 3152 to a depth of 100 feet. Refer to Figure ES-3.

- A change to the official City Map to establish the section of Stanwix Street from Montieth Street to Forrest Street and the section of Noll Street between Evergreen Avenue and Stanwix Street as mapped streets.
- A zoning text amendment, which modifies Section 23-922 of the NYC Zoning Resolution to make the newly mapped R6A and R7A districts "inclusionary housing designated areas."

All of the above actions are also subject to the City Environmental Quality Review (CEQR) procedures. The ULURP and CEQR review processes are described below.

G. PROBABLE IMPACTS OF THE PROPOSED ACTION

Land Use, Zoning and Public Policy

No significant adverse impacts on land use, zoning, or public policy, as defined by the guidelines for determining impact significance set forth in the *CEQR Technical Manual*, are anticipated in the future with the Proposed Action in the primary and secondary study areas. The Proposed Action would not directly displace any land uses so as to adversely affect surrounding land uses, nor would it generate land uses that would be incompatible with land uses, zoning, or public policy in the secondary study area. The Proposed Action would not create land uses or structures that would be incompatible with the underlying zoning, nor would it cause a substantial number of existing structures to become non-conforming. The Proposed Action would not result in land uses that conflict with public policies applicable to the primary or secondary study areas.

The proposed zoning map amendment would allow new residential development at a scale and density that the Applicant considers appropriate for the area, and at the same time continue to permit certain commercial uses along the Flushing, Bushwick and Evergreen Avenue corridors. Also, while the affected area is currently zoned for manufacturing uses, it is located within an area that is largely characterized by residential and retail uses. The affected area contains underutilized lots used for vehicle/open storage, where residential uses are not permitted per the existing zoning. The proposed rezoning would therefore provide opportunities for new affordable and market rate residential development on those underutilized lots. The proposed rezoning action would therefore ensure that the zoning designation more accurately reflects the area's development trends.

M1 zoning districts often function as buffer zones between residential and heavy manufacturing uses such as those found in M3 zones. M3 zones permit heavy manufacturing uses while M1-2 zones permit light manufacturing and commercial uses. M1-2 districts also permit certain large retail uses, and community facility uses, by City Planning Commission special permit, whereas M3-1 districts do not. In addition, the proposed M1-2 district would be an extension of the existing M1-2 zoning district located just north of the rezoning area, across Flushing Avenue. Uses on Block 3140 (transportation & warehousing – Use Group 16) would conform to the M1 designation. Furthermore, the proposed R6A and R7A districts would bring into compliance 23 existing, noncompliant residential uses with approximately 172 dwelling units. These dwelling units are located within the M1-2 manufacturing district along Evergreen Avenue, Flushing Avenue, Garden Street, and Bushwick Avenue within the rezoning area. Since M1-2 districts generally are compatible with residential uses than M3-1, and the lots adjacent to Block 3140 would be rezoned to allow residential uses, the Applicant believes that rezoning Block 3140 from M3-1 to M1-2 is appropriate.

In addition, to encourage new residential development for all income levels, the Proposed Action would create increased densities though use of the Inclusionary Housing Program (IHP) to expand and enhance

future affordable housing development opportunities.

Socioeconomic Conditions

Direct Residential Displacement

The Proposed Action would not result in significant adverse direct residential displacement impacts. None of the projected developments include residential units. However, there are nine (9) dwelling units on one potential site. The displacement of nine dwelling units would not have the potential to result in significant adverse impacts due to direct residential displacement.

Direct Business and Institutional Displacement

A preliminary assessment found that the Proposed Action would not result in significant adverse impacts due to direct business and institutional displacement. Direct displacement would be limited to seven business establishments located on four of the eight projected development sites, subject to lease terms and agreements between private firms and property owners existing at the time of redevelopment in the With-Action condition. These seven businesses that could be directly displaced conduct a variety of business activities, including automotive, wholesale, warehousing, and retail. They occupy a total of approximately 8,596 sf of commercial space and approximately 77,680 sf of industrial/warehousing space and employ and estimated 46 workers. This number of employees would be less than the *2012 CEQR Technical Manual* thresholds of more than 100 employees for a detailed analysis of direct business displacement. As the Proposed Action would not displace more than 100 employees, there would be no significant adverse impacts from the Proposed Action due to direct business displacement.

Indirect Residential Displacement

A preliminary assessment found that the Proposed Action would not result in significant adverse impacts due to indirect residential displacement. According to the *CEQR Technical Manual*, a population increase of less than 5 percent of the total study area population would generally not be expected to change real estate market conditions in a study area. The RWCDS associated with the Proposed Action would result in a maximum net increase of approximately 1,076 residential units, of which 215 housing units would be affordable units pursuant to the Inclusionary Housing program, compared to the No-Action condition. Assuming that the units would be fully occupied and would have the same average household size as the ½-mile study area in 2010 (2.95 persons per household), this is expected to increase the residential population by 3,174 people. This equates to an approximately 4.2 percent increase as compared to existing conditions in a ½-mile radius from the proposed rezoning area. Therefore, the Proposed Action would not introduce a substantial new population that could substantially affect residential real estate market conditions in the study area, and no further analysis is required.

Furthermore, there is already an existing trend toward more costly housing and a higher income population, as demonstrated by considerable increase in median household income from 1999 to 2010, recently residential developments, and rising rental rates and home values. The Proposed Action and associated RWCDS would introduce affordable units that are expected to rent at prices comparable to or below most existing rents in the study area and add a population with incomes that more closely reflect those of lower income households in the study area,. The new market-rate units would be comparable in price to recent and new developments that are planned to be in place by 2016. Therefore, the Proposed Action would not result in any significant adverse impacts due to indirect residential displacement.

Indirect Business and Institutional Displacement

The Proposed Action would not result in significant adverse impacts due to indirect business and institutional displacement. The Proposed Action would not introduce a new economic activity that would alter existing economic patterns in the study area. The study area already has a well-established residential market and supports a mix of commercial, retail, light industrial and institutional uses.

Adverse Effects on Specific Industries

The Proposed Action would not significantly affect business conditions in any specific industry or any category of businesses, nor would it indirectly reduce employment or impair the economic viability of any specific industry or category of business. Therefore, there would be no significant adverse impacts from the Proposed Action due to adverse effects on specific industries.

Community Facilities

Based on preliminary screening, the Proposed Action warrants analysis for indirect effects to elementary, intermediate, and high schools; libraries; and child care centers. The analysis finds that the Proposed Action would result in significant adverse impacts to public elementary schools. Measures that are currently being explored to mitigate this impact are discussed further in the "Mitigation" section below.

Indirect Effects on Public Schools

The analysis of indirect effects on public schools concludes that the Proposed Action would result in a significant adverse impact on public elementary schools in Sub-district 2 of Community School District (CSD) 32.

The proposed rezoning area falls within the boundaries of two New York City Community School Districts (CSD) including sub-district 2 of CSD 14 and sub-district 2 of CSD 32, which encompass most of northern Brooklyn. In the future with the Proposed Action, there would continue to be a surplus of elementary school seats in CSD 14, sub-district 2. Within sub-district 2 of CSD 32, elementary schools would operate at 111.4 percent of capacity, with a shortfall of 408 seats in the future with the Proposed Action. The Proposed Action would result in an approximately 7.4 increase in utilization from the No-Action condition. As collective utilization rate of elementary schools in CSD 32, sub-district 2 would exceed 100 percent in the With-Action conditions and the Proposed Action would result in an increase of more than five percent in the collective utilization rate between the No-Action and With-Action conditions, the Proposed Action would result in a significant adverse impact on elementary schools in CSD 32, sub-district 2. Potential measures to mitigate the elementary school impact are described below in Section H, "Mitigation."

Intermediate schools would operate with surplus capacity in sub-district 2 of CSD 14 and in sub-district 2 of CSD 32 in the future with the Proposed Action, and therefore, the Proposed Action would not result in a significant adverse impact on intermediate schools.

According to the *CEQR Technical Manual,* the determination of impact significance for high schools is conducted at the borough level. The additional high school students as a result of the Proposed Action would raise the utilization for high schools in Brooklyn from approximately 82.1 percent to 82.3 percent. Accordingly, the Proposed Action would not have a significant adverse impact on high school.

Open Space

The Proposed Action would result in a significant adverse open space impact due to indirect effects. As discussed further in the "Mitigation" section below, while the identified significant adverse impact to open space could be partially mitigated, as it would not be completely eliminated, it would constitute an unavoidable significant adverse impact on open space resources.

As shown in Table ES-3, in the residential study area's total open space ratio in the future with the Proposed Action would be 0.411 acres per 1,000 residents, which represents a reduction of approximately 3.97% (0.017 acres per 1,000 residents) from No-Action conditions. The active open space ratio in the residential study area would decrease from 0.265 acres per 1,000 residents to 0.255 acres per 1,000 residents in the future with the Proposed Action, a 3.77% decrease. The passive open space ratio for residents would decrease from 0.163 acres per 1,000 residents 0.156 acres per 1,000 residents, a 4.29% decrease.

The qualitative assessment indicates that the quality and low utilization of a number of the study area open spaces combined with the availability of open spaces outside the study area would somewhat alleviate the burden on open spaces in the future action conditions. However, the rezoning area is located in an area underserved by open space and the decrease of 3.97% in the total open space ratio as a result of the Proposed Action is sizeable. Because of this, the Proposed Action would result in a significant adverse open space impact.

TABLE ES-3
2016 Future With the Proposed Action: Open Space Ratios Summary

RATIO	DCP Open Space Guideline	Open Space Ratios Per 1,000			Percent Change
		Existing	No-Action	With-Action	Future No-Action to Future With Action
Non-Residential Study Area					
Passive - Nonresidents	0.15	0.913	0.871	0.852	-2.18%
Passive - Total Population	Weighted 0.398 / 0.384 / 0.381* Existing / No-Action / With Action	0.293	0.281	0.246	-12.46%
Residential Study Area					
Total - Residents	2.5	0.435	0.428	0.411	-3.97%
Passive - Residents	0.5	0.165	0.163	0.156	-4.29%
Passive - Total Population	Weighted 0.371 / 0.365 / 0.364* Existing / No-Action / With Action	0.118	0.116	0.113	-2.59%
Active - Residents	2.0	0.269	0.265	0.255	-3.77%

* Based on a target open space ratio established by creating a weighted average of the amount of open space necessary to meet the City guideline of 0.50 acres of passive open space per 1,000 residents and 0.15 acres of passive open space per 1,000 non-residents is considered in this analysis. Non-residents typically use passive spaces; therefore, for the nonresidential study area, only passive open space ratios are calculated. For the residential study area, active, passive, and total park space ratios are calculated. Weighted average combining 0.15 acres per 1,000 non-residents and 0.50 acres per 1,000 residents.
Because this guideline depends on the proportion of non-residents and residents in the study area's population, it is different for existing, No Build, and Build conditions. Each of these ratios is listed in this table.

Shadows

As discussed in detail in Chapter 6, projected and potential developments resulting from the Proposed Action would cast new shadows at times throughout the year on some of the existing open space in the study area. The open spaces in the study area would not be significantly affected. Although the three open spaces (Green Central Knoll Park, Bushwick Playground and Pool, and Garden Playground) would be subject to varying amounts of incremental shadows as a result of the Proposed Action, these increments would be not be significant due to their limited extent and/or duration, and other site specific factors, and no significant adverse impacts would occur as a result of the Proposed Action.

Urban Design and Visual Resources

The Proposed Action will not result in significant adverse impacts on urban design and visual resources, as defined by the guidelines for determining impact significance set forth in the *CEQR Technical Manual*. The proposed zoning map changes would replace the existing M1-1 and M1-3 zoning districts within the proposed rezoning area with R6A, R7A, M1-2 zoning districts and map new C2-4 commercial overlay along portions of Stanwix Street, Flushing Avenue, Bushwick Avenue and Evergreen Avenue.

The Proposed Action is anticipated to result in new development exhibiting a built form that is congruous to the existing building types prevalent throughout the study area. Generally, the Proposed Action would establish contextual zoning districts for residential and mixed-use buildings that would maintain the scale and character of the existing Bushwick community while providing appropriate development opportunities. The Proposed Action would preserve the low and mid-rise scale of mid-blocks and avenue frontages with strong built contexts, by creating increases in density with contextual zoning districts targeted to these areas. The Proposed Action would provide support for existing ground floor retail uses by mapping commercial overlays along streets where existing ground floor retail uses exist to encourage the growth of local-scale commercial activity. The Proposed Action would not result in any changes to block form, or building arrangement. Therefore, the Proposed Action is not expected to result in any significant adverse impacts to urban design in the study area.

Hazardous Materials

The hazardous materials assessment in Chapter 8 identified that each of the 8 projected and 3 potential development sites has some associated concern regarding environmental conditions. As a result, the proposed zoning map action includes (E) designations (E-315) for all projected and potential development sites. Therefore the Proposed Action is not expected to result in significant adverse impacts for hazardous materials.

With the requirements of the (E) designation on projected and potential development sites, there would be no impact from the potential presence of contaminated materials. The implementation of the preventative and remedial measures outlined above would reduce or avoid the potential that significant adverse hazardous materials impacts would result from potential construction in the rezoning area resulting from the Proposed Action. Following such construction, there would be no potential for significant adverse impacts.

Water and Sewer Infrastructure

Based on the analysis pursuant to the *CEQR Technical Manual*, with the Best Management Practices (BMPs) described in Chapter 9, "Water and Sewer Infrastructure," implemented by the developer of each

projected development site, it is concluded that the Proposed Action would not result in significant adverse impacts on the water supply, wastewater or stormwater conveyance and treatment infrastructure.

The incremental additional water usage on the 8 projected development sites as a result of the Proposed Action is expected to total 315,888 gallons per day (gpd), compared to the No-Action condition. This incremental demand would represent less than 1 percent of the City's overall water supply. Changes of this magnitude would not be large enough to have a significant adverse impact on the City's water system.

Sanitary Sewage

The rezoning area is served by the Newtown Creek Wastewater Treatment Plant (WWTP), which, in existing conditions, handles an average of approximately 228 millions of gallons per day (mgd) of sewage flow, and is designed to treat a dry weather flow of 310 mgd. The proposed rezoning has the potential to result in an incremental sanitary sewage discharge of just under approximately 316,861 gpd over the No-Action condition. This incremental increase in sanitary flow would not result in significant adverse impacts to the sewage system within the Subcatchment area or to the Newtown Creek WWTP, as it represents approximately 0.1 percent of the facility's current dry weather capacity.

Stormwater Drainage and Management

As described in detail below, there would be increases of combined sewer volumes in the area affected by the Proposed Actions, as compared to the No-Action condition. The incremental change in volume to the combined sewer system ranges from approximately 0.05 million gallons (MG) to 0.36 MG for the various rainfall intensity increments.

Based on the analysis pursuant to the *CEQR Technical Manual*, with Best Management Practices (BMPs) implemented by the developer of each projected development site, it is concluded that the Proposed Action would not result in significant adverse impacts on the water supply, wastewater or stormwater conveyance and treatment infrastructure.

Transportation

Traffic

Weekday AM, midday and PM and Saturday midday peak hour traffic conditions were evaluated at a total of five intersections.

The traffic impact analysis indicates that there would be the potential for significant adverse impacts at four intersections – two in each of the weekday AM and Saturday midday peak hours, three in the weekday midday peak hour, and four in the weekday PM peak hour, as outlined below. The "Mitigation," section below discusses measures that would fully mitigate all of these significant adverse traffic impacts.

Weekday AM Peak Hour

- Melrose Street and Bushwick Avenue – westbound approach; and
- Noll Street and Bushwick Avenue –westbound left-right movement.

Weekday Midday Peak Hour

- Forrest Street and Bushwick Avenue – northbound approach;
- Arion Place/Beaver Street and Bushwick Avenue – northbound through movement; and
- Noll Street and Bushwick Avenue – westbound left-right movement.

Weekday PM Peak Hour

- Forrest Street and Bushwick Avenue – northbound approach;
- Arion Place/Beaver Street and Bushwick Avenue – eastbound left-right movement;
- Melrose Street and Bushwick Avenue – westbound approach; and
- Noll Street and Bushwick Avenue – westbound left-right movement.

Saturday Midday Peak Hour

- Arion Place/Beaver Street and Bushwick Avenue – northbound through movement; and
- Noll Street and Bushwick Avenue – westbound left-right movement.

Parking

Under future parking conditions, proposed residential and commercial uses would have required accessory parking. In addition, the newly mapped streets would also create new curbside public parking. The analyses indicate that the required accessory parking will exceed the peak overnight projected demand, independent of the newly created curbside public parking spaces. As such, no parking impacts are expected.

Transit

A required detailed analysis of two area subway stations that exceed the 200 trips per hour threshold showed that there would be no significant adverse impacts to any station elements in the AM or PM peak commuter hours.

Pedestrians

Lastly, detailed pedestrian analyses were also conducted at 11 sidewalks, 19 corner elements as well as seven crosswalks for all four peak hours. All pedestrian elements analyzed were found to have level of service B or better under 2016 Build conditions, with no significant adverse impacts.

Vehicular and Pedestrian Safety Evaluation

One intersection experienced five or more pedestrian and/or bicyclist injury crashes in one or more years and are therefore considered high accident locations. This location is the Flushing Avenue/Evergreen Avenue intersection. At all other locations, the number of pedestrian/bicyclist injury crashes per year totaled four or fewer during the 2008 through 2010 period.

The Proposed Action would increase pedestrian flows at this Flushing Avenue/Evergreen Avenue intersection while the street network changes would marginally reduce overall traffic. As the development would not measurably change operating conditions at this location, the Proposed Action would not affect safety at this location. However, in conjunction with the NYCDOT reviews/coordination required to

construct the new Stanwix and Noll Streets (change street directions and install new signalization), the applicant would also coordinate with NYCDOT regarding monitoring of the post-2010 accident records, to insure appropriate safety measures are implemented, if needed, at the Flushing Avenue/Evergreen Avenue intersection.

Air Quality

The result of the analyses conducted is that the Proposed Action would not have any significant air quality impacts. This is based on the following findings:

- Emissions from project-related vehicle trips would not cause a significant air quality impact;
- With the specified (E) designations, emissions from the heating, ventilation and air conditioning systems of the projected and potential developments would not significantly impact other projected/potential development sites or existing sensitive land uses;
- Emissions from "major" existing emission sources would not significantly impact the projected/potential development sites; and
- Air toxic emissions generated by nearby existing industrial sources would not significantly impact the projected/potential development sites.

With the specified (E) designations, the potential impacts from the projected and potential development sites heating systems would not exceed the applicable NAAQS and would therefore not have potential significant adverse environmental impacts on air quality.

Greenhouse Gas Emissions

Following the methodology provided in the *CEQR Technical Manual*, it is estimated that the Proposed Action would annually result in approximately 8,074 metric tons of GHG emissions from its operations and 3,113 metric tons of GHG emissions from mobile sources—for an annual total of approximately 12,000 metric tons of GHG emissions as compared to New York City's 2011 annual total of 54.3 million metric tons. In addition, according to the PlaNYC document *Inventory of New York City Greenhouse Gas Emissions* (September 2011), the total for supplying energy to buildings (residential, commercial, industrial, and institutional) was 40.6 million metric tons.

As compared to these values, the contribution of the Proposed Action's GHG emissions to GHG emissions citywide is insignificant; it is approximately 0.02 percent of the total (and 0.03 percent of building-related emissions). Further, the buildings associated with the Proposed Action, as dense and mixed-use developments, advance New York City's GHG reduction goals as stated in *PlaNYC*. In addition, the developments could be subject to changes in the New York City Building Code that are currently being considered to require greater energy efficiency and to further the goals of *PlaNYC*. These could include energy efficiency requirements, specifications regarding cement, and other issues influencing GHG emissions.

The Proposed Action is, therefore, consistent with the City's citywide GHG and climate change goals, and there would be no significant adverse GHG emission or climate change impacts as a result of the Proposed Action.

Noise

The Proposed Action would not result in significant, adverse noise impacts. The analysis concludes that the traffic generated by the Proposed Action would not have the potential to produce significant increases to noise levels at any sensitive receptors within the project study area. Existing and future With-Action noise levels for the majority of the project study area shows little to no change with most noise levels within the CEQR "marginally unacceptable" limits. The largest No-Action to With-Action noise level increase is projected to be less than one-half dBA, therefore the Proposed Action would not generate sufficient new traffic to cause a significant noise impact. With the incorporation of the attenuation levels specified in Chapter 13, "Noise", noise levels within the proposed buildings would comply with all applicable requirements. To implement the specified attenuation requirements, an (E) designation for noise would be required for all projected and potential development sites, specifying the appropriate minimum amount of window/wall attenuation required for each projected and potential development site building.

Based on the projected noise levels, the specified design measures would provide sufficient attenuation to satisfy CEQR requirements. With the specified attenuation measures, the Proposed Action would not have any significant adverse noise impacts and would comply with all CEQR noise requirements.

Neighborhood Character

The rezoning area and surrounding study area include parts of the Bushwick, Bedford Stuyvesant, and East Williamsburg neighborhoods. As described elsewhere in this EIS, the Proposed Action would not cause significant adverse impacts regarding land use, zoning, and public policy; socioeconomic conditions; shadows; urban design and visual resources, or noise. The scale of significant adverse impacts to open space and transportation would not affect any defining feature of neighborhood character, nor would a combination of moderately adverse effects affect a neighborhood's defining features. The Proposed Action would therefore not have a significant adverse neighborhood character impact.

Construction

Construction-related activities resulting from the Proposed Action are not expected to have any significant adverse impacts on traffic, transit or pedestrian conditions, air quality, noise, archaeological resources, or hazardous materials conditions.

The inconvenience and disruption arising from the construction of projected development sites could likely include temporary diversions of pedestrians, vehicles, and construction truck traffic to other streets. Given that the 8 projected development sites are distributed over 6 blocks, no one location within the rezoning area would be under construction for more than 18 months. As construction activity associated with the RCWDS would occur on multiple development sites within the same geographic area, such that there is the potential for several construction timelines to overlap, a preliminary assessment of potential construction impacts was prepared in accordance with the guidelines of the *CEQR Technical Manual*, and is presented in Chapter 15.

Throughout the construction period, access to surrounding residences, businesses, institutions, and open spaces in the area would be maintained (see discussions below in "Socioeconomic Conditions," and "Transportation"). In addition, throughout the construction period, measures would be implemented to control noise, vibration, and dust on the construction sites and minimize impacts on the surrounding areas in conformance with the City's building code. These measures would include the erection of construction fencing and, in some areas, fencing incorporating sound-reducing measures. Even with these measures in

place, temporary impacts, and in some cases significant traffic impacts, are predicted to occur. However, because none of these impacts would be continuous in any one location or permanent, they would not create significant impacts on land use patterns or neighborhood character in the area. In addition to the activity associated with construction, some part of the parcels not yet in construction would be used for construction staging. These uses would not conflict with or significantly affect neighborhood character in the surrounding areas.

With the combination of peak construction and operational traffic in 2016 (peak cumulative year for construction analysis purposes), no new intersections are expected to experience significant adverse traffic impacts in these periods during the 2016 construction analysis year.

Construction-related activities resulting from the Proposed Action are not expected to have any significant adverse impacts on transit or pedestrian conditions, noise, archaeological resources, or hazardous materials conditions. Moreover, the construction process in New York City is highly regulated to ensure that construction period impacts are eliminated or minimized.

Construction-related activities resulting from the Proposed Action are not expected to have any significant adverse impacts on Air Quality since the Applicant has committed to using an emissions reduction program for all construction activities to the extent practicable. The measures, which are detailed in Chapter 15 "Construction," would be included in a Restrictive Declaration as part of the approval process for the Proposed Action. However, between the Draft and Final EIS, additional analyses of construction air quality may be prepared. Based on additional analyses, the components of the emissions reduction program described above and the need for a Restrictive Declaration may be adjusted, as appropriate.

Public Health

Where no significant unmitigated adverse impact is found in other CEQR analysis areas, such as air quality, water quality, hazardous materials, or noise, no public health analysis is warranted. If, however, an unmitigated significant adverse impact is identified, the lead agency may determine that a public health assessment is warranted for that specific technical area.

The Proposed Action would not have the potential for unmitigated significant adverse impacts related to air quality, hazardous materials, construction, and natural resources. Therefore, the proposed action would not have the potential for significant adverse impacts related to public health.

H. MITIGATION

Community Facilities

Elementary Schools

The 264 elementary school students generated by the Proposed Action in CSD 32, sub-district 2 would increase the shortfall of available seats to 408, up from 143 seats. This would constitute a significant adverse impact. To eliminate or alleviate this significant adverse impact, the following mitigation measures are currently being explored by the Applicant in consultation with the New York City School Construction Authority (SCA) and the New York City Department of Education (DOE):

- Reconfiguration of certain existing administrative and support space within P.S. 145 (located at 100 Noll Street) to create additional classroom space; or
- Provide new classroom space within one of the Applicant's proposed buildings.

These preliminary mitigation options will be further explored and refined with SCA/DOE between the Draft and Final EIS. If one of these mitigation measures are implemented, the impacts will be considered fully mitigated. Absent the implementation of such measures, the Proposed Action could have an unmitigated significant adverse impact on elementary schools.

Open Space

The Proposed Action would result in a significant open space impact. Mitigation measures are currently being explored by the Applicant in consultation with the New York City Department of Parks (DPR) and the lead agency, DCP. The Applicant is proposing the following possible measures to partially mitigate the Proposed Action's significant adverse open space impact:

- Provide funding to DPR for the creation of adult fitness equipment at Green Central Knoll;
- Provide approximately 17,235 sf ft (0.4 acres) of publicly accessible on-site open space;
- Other mitigation options, to be determined, identified by DPR.

The proposed on-site open space would be located on the Applicant's property between sites 3 & 4 (see Chapter 16, "Mitigation" for preliminary illustrative plan) and would be accessible by the public from Stanwix Street and Evergreen Avenue. The details of the proposed on-site open space will be refined between the Draft and Final EIS. The Final EIS will include an analysis of how the proposed residential buildings would affect the proposed open space.

While the identified significant adverse impact to open space could be partially mitigated with the measures proposed above, it would still constitute an unavoidable significant adverse impact on open space resources. As the significant adverse impact on open space would not be fully mitigated, the Proposed Action would result in an unavoidable adverse impact on open space.

Transportation

The traffic impact analysis indicates that there would be the potential for significant adverse impacts at two intersections each in the weekday AM and Saturday MD peak hours, three intersections each in the weekday midday peak hour, and four intersections each in the PM peak hour. Table ES-4 summarizes the recommended mitigation measures to address these impacts, which are subject to review and approval by NYCDOT. As shown in Table ES-4, these measures consist of standard signal timing changes and parking regulation modifications, which are considered low-cost, readily implementable measures as per Table 16-18 in the *CEQR Technical Manual*, and conform to the guidance in NYCDOT's 2009 *Street Design Manual.* In addition, a new warranted traffic signal would be installed at the Bushwick Avenue/Noll Street intersection reflecting of the change in street direction of Noll Street to westbound and its extension west of Evergreen Avenue due to the newly mapped segment of the street.

The traffic mitigation plan shown in Table ES-4 would fully mitigate all of the identified significant adverse traffic impacts without any additional significant adverse impacts to pedestrian or parking conditions.

Table ES-4
Proposed Traffic Mitigation Measures

Intersection	Approach	No Build Signal Timing (Seconds) (1)				Build With Mitigation Signal Timing (Seconds) (1)				Proposed Mitigations
		AM	MD	PM	SAT MD	AM	MD	PM	SAT MD	
1. Forrest Street (E) @	WB	34	47	28	47	-	-	-	-	- Implement a no standing 7 AM-7 PM, Mon-Fri regulation for 100' on east
Bushwick Ave (N-S)	NB/SB	86	73	92	73	86	73	92	73	curb of NB approach.
	PED					34	47	28	47	
2. Noll Street (W) @	WB	-	-	-	-	34	47	30	47	- Install new traffic signal with 120s cycle length.
Bushwick Ave (N-S)	NB/SB	-	-	-	-	86	73	90	73	
3. Arion Place (E)/ Beaver Street (S) @	EB	24	31	24	31	24	30	24	29	- Implement a no standing 7 AM-7 PM, Mon-Fri regulation for 100' on south
Bushwick Ave (N-S)	SB (Beaver St)	24	29	24	29	24	28	24	29	curb of EB approach.
	NB/SB	72	60	72	60	72	62	72	62	- Transfer 1s of green time from EB and SB (Beaver St) to NB/SB in MD peak hour.
										- Transfer 2s of green time from EB to NB/SB in Saturday midday peak hour.
4. Melrose Street (W) @	WB	28	35	28	35	31	35	31	35	- Implement a no standing 7-10 AM, Mon-Fri regulation for 100' on north
Bushwick Ave (N-S)	NB/SB	92	85	92	85	89	85	89	85	curb of WB approach.
										- Transfer 3s of green time from NB/SB to WB in AM and PM peak hours.

Notes :
(1) Signal timings shown indicate Green plus Yellow (including All Red) for each phase.

I. ALTERNATIVES

No-Action Alternative

The No-Action Alternative examines future conditions within the proposed rezoning area, but assumes the absence of the Proposed Action (i.e., none of the discretionary approvals proposed as part of the Proposed Action would be adopted). Under the No-Action Alternative, existing zoning would remain in the area affected by the Proposed Action. None of the 8 projected development sites or 3 potential development sites would be redeveloped in this Alternative.

The technical chapters of the EIS have described the No-Action Alternative as "the Future Without the Proposed Action." The significant adverse impacts anticipated for the Proposed Action would not occur with the No-Action Alternative. However, the No-Action Alternative would not meet the goals of the Proposed Action. The benefits expected from the Proposed Action on land use, urban design, and neighborhood character would not be realized under this alternative. In addition, the No-Action Alternative would fall short of the objectives of the Proposed Action in promoting building forms that are compatible with existing neighborhood character, fostering new opportunities for developing affordable housing, supporting and enhancing mixed-use development opportunities, and enhancing ground-floor uses.

Lower Density Alternative

A Lower Density Alternative to the proposed action was developed to determine whether the impacts to open space, community facilities, and traffic could be reduced or eliminated while accomplishing the purpose and need established for the Proposed Action.

The Lower Density Alternative would still result in significant adverse impacts in open space indirect effects and public elementary schools. The Lower Density Alternative is expected to result in the same or a slightly fewer number of significant adverse traffic impacts than the Proposed Action, depending on the peak analysis hour. These impacts could be mitigated using the same mitigation measures identified for the Proposed Action.

The Lower Density Alternative would be less supportive of the objectives of the Proposed Action in creating a new mixed-use neighborhood with affordable housing. The Lower Density Alternative would result in fewer projected dwelling units but would have roughly the same local retail space. Overall, although the Lower Density Alternative would meet a number of the goals and objectives of the Proposed Action, it would do so to a lesser degree than the proposed project because it would introduce fewer residential units while continuing to result in the same significant adverse impacts in open space, public elementary schools and traffic. Compared to the Proposed Action, while the Lower Density Alternative would result in the same or fewer impacts, not all impacts could be avoided, and the goals and objectives established for the Proposed Action would not be achieved at the same level.

No Unmitigated Significant Adverse Impacts Alternative

The No Unmitigated Significant Adverse Impact Alternative examines a scenario in which the density of the Proposed Action is changed specifically to avoid the unmitigated significant adverse impacts associated with the Proposed Action. Based on the analysis presented in the other chapters of this Draft EIS, there is the potential for significant adverse impacts in the areas of community facilities (elementary schools), open space, and traffic. As discussed in above, the proposed mitigation measures would fully

mitigate all of the significant adverse impacts in community facilities (elementary schools) and traffic. Between the Draft and Final EIS, possible partial mitigation measures for the open space impact will be explored. As the significant adverse impact on open space would not be fully mitigated, the Proposed Action would result in an unavoidable adverse impact on open space.

As mentioned above, between the Draft and Final EIS, possible partial mitigation measures for the open space impact will be explored. To eliminate all unmitigated significant adverse impacts, the Proposed Action would have to be modified to a point where its principal goals and objectives would not be realized. The No Unmitigated Significant Adverse Impact Alternative examines a scenario in which the density of the Proposed Action is changed specifically to avoid the unmitigated significant adverse impacts associated with the Proposed Action.

J. UNAVOIDABLE SIGNIFICANT ADVERSE IMPACTS

Unavoidable significant adverse impacts occur when significant adverse impacts would be unavoidable if a project is implemented regardless of the mitigation employed (or if mitigation is impossible).

Open Space

Given the anticipated decrease in the open space ratio in the residential study area and the fact that open space ratios in the study area would remain below the city guideline ratios, the Proposed Action would result in a significant adverse impact to open space resources in the residential study area.

As discussed in the “Mitigation” section, mitigation measures for this significant adverse impact will be explored by the lead agency, in consultation with DPR between the Draft and Final EIS. While the identified significant adverse impact to open space could be partially mitigated, with the provision of on-site public open space and a contribution to DPR for the creation of adult fitness equipment at Green Central Knoll, it would still constitute an unavoidable significant adverse impact on open space resources. As the significant adverse impact on open space would not be fully mitigated, the Proposed Action would result in an unavoidable adverse impact on open space.

K. GROWTH-INDUCING ASPECTS OF THE PROPOSED ACTION

Growth-inducing aspects of a proposed action generally refer to "secondary" impacts of a proposed action that trigger further development. Proposals that add substantial new land use, new residents, or new employment could induce additional development of a similar kind or of support uses (e.g., stores to serve new residential uses). Actions that introduce or greatly expand infrastructure capacity (e.g., sewers, central water supply) might also induce growth.

The Proposed Action would result in more intensive land uses within the rezoning area. However, it is not anticipated that the Proposed Action would generate significant secondary impacts resulting in substantial new development in nearby areas. The Proposed Action would not introduce a new economic activity that would alter existing economic patterns in the study area. As the study area already has a well-established residential market and a critical mass of non-residential uses, including retail, office and community facility uses, the Proposed Action would not create the critical mass of uses or populations that would induce additional development. Moreover, the Proposed Action does not include the introduction of new infrastructure or an expansion of infrastructure capacity that would result in indirect development. Therefore, the Proposed Action would not induce significant new growth in the surrounding area.

L. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Resources, both natural and man-made, would be expended in the construction, renovation, reuse and operation of developments projected to occur as a result of the Proposed Action. These resources include the building materials used during construction or renovation; energy in the form of gas and electricity consumed during construction and operation of buildings by various mechanical and processing systems; and the human effort required to develop, construct, renovate, and operate various elements of projected and potential developments. These are considered irretrievably committed because their reuse for some other purpose would be highly unlikely.

The land use changes associated with the proposed rezoning action may also be considered a resource loss. Projected and potential development under the Proposed Action constitutes a long-term commitment of sites as land resources, thereby rendering land use for other purposes infeasible. Further, funds committed to the design, construction/renovation, and operation of projected or potential developments under the Proposed Action are not available for other projects.

The public services provided in connection with the projected and potential developments under the Proposed Action (e.g., police and fire protection and public school seats) also constitute resource commitments that might otherwise be used for other programs or projects, although the Proposed Action would also generate tax revenues to provide additional public funds for such activities.