



THE CITY OF NEW YORK
OFFICE OF THE MAYOR
NEW YORK, NY 10007

NOTICE OF COMPLETION
of the
FINAL GENERIC ENVIRONMENTAL IMPACT STATEMENT
for the
SEWARD PARK MIXED-USE DEVELOPMENT PROJECT

Lead Agency: Office of the Deputy Mayor for Economic Development
100 Gold Street, 2nd Floor
New York, NY 10038

CEQR Number: 11DME012M

SEQR Classification: Type I

Date Issued: August 10, 2012

Location: Block 409, Lot 56; Block 352, Lots 1, 28;
Block 346, Lot 40; Block 347, Lot 71;
Block 354, Lot 1; Block 353, Lot 44;
Block 354, Lot 12; Block 410, Lot 38*
Community District 2, Borough of Manhattan

* Block 410, Lot 38 is a public parking garage that would not be redeveloped under the proposed actions, but is included for informational purposes

Pursuant to City Environmental Quality Review, Mayoral Executive Order 91 of 1977, as amended, and the City Environmental Quality Review Rules of Procedure found at Title 62, Chapter 5 of the Rules of the City of New York (CEQR), and the State Environmental Quality Review Act, Article 8 of the State Environmental Conservation Law and its implementing regulations found in Part 617 of 6 NYCRR (SEQRA), a Final Generic Environmental Impact Statement (FGEIS) has been prepared for the actions described below and is available for public inspection at the offices listed on the last page of this notice. A draft Scope of Work for the Generic Environmental Impact Statement (GEIS) was issued and distributed on September 8, 2011 and the formal public review process for the project was initiated at a public scoping meeting held on October 11, 2011. The scoping meeting was held at University Settlement House in New York, NY to accept oral comments, and written comments were accepted until October 21, 2011. The Final Scope of Work was issued on March 15, 2012 and reflects analyses determined to be appropriate for inclusion in the EIS.

A public hearing on the Draft Generic Environmental Impact Statement (DGEIS) was held on July 11, 2012 at Spector Hall at the New York City Department of City Planning located at 22 Reade Street, New York, NY 10007. The hearing was in conjunction with the City Planning Commission's public hearing on the project's land use applications pursuant to the Uniform Land Use Review Procedure (ULURP). The public comment period on the DGEIS remained open until 5:00 PM on Monday, July 23, 2012.

1. PROJECT DESCRIPTION

The Office of the Deputy Mayor for Economic Development (ODMED), in coordination with the New York City Economic Development Corporation (NYCEDC) and the City of New York Department of Housing Preservation & Development (HPD), is sponsoring an initiative to allow for the implementation of an approximately 1.7 million gross-square-foot (gsf) (1.648 million zoning square foot) mixed-use development on 10 City-owned sites located in Manhattan Community District 3 generally along Delancey and Essex Streets on the Lower East Side. Five of the sites (Sites 2, 3, 4, 5, and 6) are located within the former Seward Park Extension Urban Renewal Area (SPEURA), which was established in 1965 and expired in 2005. Four sites (Sites 7, 8, 9, and 10) are located within the 2008 East Village/Lower East Side Rezoning area. The tenth site (Site 1) is in neither. The 10 City-owned sites and demapped sections of Broome and Suffolk Streets that would be mapped as City streets and sections of Clinton and Delancey Streets that would be demapped encompass the project site ("project site").

The program for the proposed development on Sites 1 through 6 and 8 through 10 is expected to include a variety of mixed-income residential, commercial such as retail and office space, and community or cultural uses. The project would also include provisions for parking and publicly accessible open space. Site 7 has been considered part of the project site since the community planning process commenced in 2008 and all City-owned properties in the area were identified. However, in the proposed development project, Site 7 would retain its current function as a municipal parking garage, which would continue to support the existing neighborhood uses, as well as the potential new program on the development sites.

The project site is the largest underdeveloped City-owned site south of 96th Street, and the purpose of adopting the proposed land use actions is to allow for the implementation of a mixed-use development on the project site, which has the following goals: (1) transform several underutilized City-owned properties into a thriving, financially viable, mixed-use development; (2) provide affordable and market-rate housing units, commercial and retail uses, community facilities and other neighborhood amenities (e.g., parking, a new and expanded facility for the public Essex Street Market, and publicly accessible open space); and (3) knit these sites back into the larger, vibrant Lower East Side neighborhood.

To facilitate the redevelopment project, a number of discretionary actions would be required. Adoption of proposed ULURP actions would involve public review by a number of entities, which include, depending on the action, Manhattan Community Board 3 (CB3), the Manhattan Borough President, the New York City Planning Commission (CPC), and the New York City Council. These actions include zoning map changes and zoning text amendments, zoning special permits, authorization, City map amendment, the disposition of City-owned property, approval of an Urban Development Action Area Project (UDAAP), and an acquisition. Mayoral and Borough Board approval of the business terms with the developer(s) to be selected pursuant to Requests for Proposals (RFPs) may also be required, as applicable. Should the discretionary actions subject to ULURP be approved, an RFP process would commence to solicit proposals for development under the approvals.

SITE DESCRIPTION

The project site contains a mix of parking, active, vacant, and partially vacant commercial uses, and a residential building with 7 occupied units. Within the project area, Suffolk Street is demapped between Grand and Delancey Streets and Broome Street is demapped between Norfolk and Clinton Streets. Sites 1, 3, 4, and 6 are each entirely occupied by surface parking. Sites 2 and 5 also contain surface parking; Site 2 is also occupied by one of the four Essex Street Market buildings; the former market section of the building is vacant, while the storefronts on Delancey Street contain a diner and a liquor store. In addition to surface parking, Site 5 contains three buildings: a walk-up residential building under the jurisdiction of HPD with a ground-floor visitor center for the Lower East Side Jewish Conservancy; a three-story building that is mostly

vacant except for a ground-floor shoe repair store and a former fire station that formerly housed a film prop company and is occasionally used to house furniture sales. Site 7 is a 362-space municipal public parking garage and would retain its current function as a municipal parking garage. Sites 8, 9, and 10 contain the other three Essex Street Market buildings, only one of which now operates as a public retail market. Site 8 contains a vacant building that is used for the storage of refuse generated by the market. The Essex Street Market building on Site 9 is approximately 20,000 square feet, of which approximately 15,000 square feet are the public market. The market currently has 23 vendors. The building, constructed in 1939 to provide an indoor retail market space for pushcart vendors, also contains retail and restaurant space on the Delancey and Rivington Street frontages. Site 10 contains a health clinic run by the Community Healthcare Network (CHN).

SITE PLAN AND URBAN DESIGN

As currently contemplated, the program for the proposed actions would include up to approximately 1.7 million gsf (1.648 million zoning square feet) of mixed-use residential, commercial development, and community facility use.

The proposed development includes relocating the existing Essex Street Market to a new, larger facility. The new public market would be over 29,000 gsf and would accommodate 35 to 65 vendors (depending on the size of each stall). The larger space would create entrepreneurship opportunities for additional vendors and would allow for a variety of vendor price points. A new facility would be an opportunity for capital investment in the market to address many of the physical limitations of the existing facility. The new market would have an improved internal layout, better connections with the street and expanded common gathering areas for public seating and market events. In addition, the new facility would be energy efficient, be fully compliant with the Americans with Disabilities Act, and have improved storage capabilities, garbage handling, and climate control. The City would give existing vendors at the time of the move the first opportunity to relocate their business to the new market facility, when the new facility on Site 2 is complete and ready for occupancy.

The urban design for the proposed development incorporates elements from the building forms of the surrounding neighborhood, which vary from low-rise walk-ups to large towers-in-the-park. The project would incorporate a connected street grid, and new buildings would have retail and residential entrances on multiple sides to create ground-floor activity and provide necessary access. The buildings would incorporate streetwall design characteristics that are intended to activate the pedestrian realm and setback towers that will permit access to light and air. The development project would maximize street-level uses such as retail that support pedestrian activity throughout the development. A publicly accessible open space of approximately 10,000 square feet with a mix of active and/or passive recreation uses would be incorporated into the development as well. The proposed development would include up to 500 parking spaces on up to four sites (Sites 2 through 5).

To allow for comprehensive planning for the project site and to allow flexibility in design and massing, including the ability to distribute floor area across lots and modify bulk distribution, height, and placement of buildings, the project seeks approval of Large Scale General Development (LSGD) special permits that would apply to Sites 1 through 6. The maximum building envelopes would allow potential towers on Sites 2 and 4 of up to 285 feet and 260 feet to the roof parapets, respectively (up to approximately 24 stories each), and building heights of up to 160 feet to the roof parapets (up to approximately 14 stories) on Sites 1, 3, 5, and 6. Sites 8, 9, and 10 would be consistent with massing requirements and maximum heights allowable under existing zoning.

The proposed land uses and illustrative massings are intended to be illustrative of a possible configuration of the proposed uses and the possible interactions among those proposed uses across the project site. The eventual built configuration of uses would be subject to change based on the results of the environmental review, the results of developer(s)' response(s) to the RFP(s), market conditions, and further discussion with stakeholders, among other factors.

The City is currently in the process of considering how sustainability measures might be implemented as part of the project. Through an RFP process, the City would look favorably upon proposals that enhance the energy efficiency of buildings, use fewer raw materials, make the best of natural light where appropriate,

improve indoor air quality, and decrease the total impact on the natural and human environment. These designs could include features aimed at reducing energy consumption such as energy-efficient building envelopes, high-efficiency heating, ventilation, and air conditioning (HVAC) systems, incinerators and generators, and window glazing to optimize daylighting and solar heat gain and to reduce heat loss. Housing developments on all sites are expected to be certified under the Enterprise Green Communities Program, or meet equivalent sustainability measures. For sites that may be under the jurisdiction of HPD, the Land Disposition Agreement between HPD and the developer(s) would require a commitment to certification under the Enterprise Green Communities program or to the incorporation of equivalent sustainability measures. For housing developments on City-owned sites that are managed by NYCEDC, the commitment to certification under the Enterprise Green Communities program or to the incorporation of equivalent sustainability measures would be required through the provisions of a contract of sale or long-term lease or other legally binding agreement between NYCEDC and the developer(s).

DISCRETIONARY ACTIONS SUBJECT TO CEQR AND SEQRA

The proposed mixed-use development would require multiple City approvals. Some of these are discretionary actions requiring review under the CEQR process. ODMED is the lead agency for CEQR. The potential discretionary actions that would be required for the proposed development include:

- Disposition: Disposition of Sites 1 through 6 and 8 through 10 by the City of New York for the purpose of subsequent development;
- Urban Development Action Area Project Designation (UDAAP): Designation of Sites 1 through 6 and 8 through 10 as an Urban Development Action Area Project;
- Acquisition: Acquisition of a portion of Site 2 for the sole purpose of the relocated Essex Street Market;
- Zoning Map Change: Zoning map amendment for a C2-5 commercial overlay on Sites 3, 4, 5, and 6;
- Special Permit: Special permit from the CPC pursuant to Section 74-743 of the Zoning Resolution (ZR) of the City of New York for an LSGD, applicable to Sites 1–6 to allow the following in order to achieve a superior site plan:
 - Redistribution of floor area, lot coverage and dwelling units between zoning lots and across zoning district boundaries;
 - Waiver of height and setback regulations;
 - Waiver of rear yard regulations, rear yard equivalent regulations, and rear yard setback regulations;
 - Waiver of minimum base height;
 - Waiver of minimum distance between legally required windows and any wall in an inner court;
 - Waiver of outer court regulations; and
 - Waiver of planting requirements;
- Special Permit: Special permit from the CPC pursuant to ZR Section 74-744 for an LSGD, applicable to Sites 1–6, to allow the following:
 - Waiver of regulations regarding the location of residential uses relative to non-residential use;
 - Waiver of regulations regarding the location of commercial uses; and
 - Permit Use Group 10, 11A, and certain 12A uses in C2 districts;
- Special Permits: Four special permits from the CPC pursuant to ZR Sections 13-562 and 74-52 to allow for the development of up to four public parking garages on Sites 2 through 5;
- Authorization: Authorization pursuant to ZR section 74-744(c)(2) to modify signage regulations to permit C6-1 signage regulations along certain streets;
- Zoning Text Amendment: Zoning text amendment to ZR Sections 74-743 and 74-744 to:

- Eliminate the planting strip requirement in the proposed sidewalk widenings;
- Allow commercial FAR to be shifted from the C6 district to the C2 district;
- Allow Use Group 10, 11A, and certain 12A uses in the C2 zoning district; and
- Allow the modification of certain signage regulations;
- Street Mapping: Mapping of the demapped section of Suffolk Street between Grand and Delancey Streets and the demapped section of Broome Street between Norfolk and Clinton Streets as new streets through the project site; and
- Street Mapping: Demapping of sections of Delancey Street between Norfolk and Clinton Streets and of Clinton Street between Delancey and Grand Streets that were previously mapped to widen Delancey and Clinton Streets, thereby aligning the mapped streets with the existing built street condition.

Mayoral and Borough Board approval of the business terms with the developer or developers to be selected pursuant to RFPs, may also be required, as applicable. In addition, NYCEDC and HPD will coordinate with the MTA-New York City Transit (NYCT) regarding subway easement areas. Construction financing for the residential buildings may come from a variety of private and public (local, state, and federal) sources, including, but not limited to funding from HPD, the New York City Housing Development Corporation, and the United States Department of Housing and Urban Development. In addition, potential construction funding may be provided by other state funding sources, including New York State Homes & Community Renewal (HCR) and the New York State Housing Finance Agency (HFA).

2. ANALYTICAL FRAMEWORK FOR ENVIRONMENTAL REVIEW

In order to address the potential range of responses to the RFP(s), the environmental review analyzes a reasonable worst-case development scenario (RWCDS) that conservatively considers for each impact category the reasonable worst-case potential for environmental effects. While the proposed discretionary actions have been defined, the development program and design specifics under those actions would be dependent on the RFP response(s). Thus, pursuant to CEQR, a FGEIS has been prepared that considers the environmental impacts based on the RWCDS.

A GEIS is a more general EIS that analyzes the impacts of a concept or overall plan rather than those of a specific project plan. The GEIS is useful when the details of a specific impact cannot be accurately identified, as no site-specific project has been proposed, but when a broad set of further projects that fit within the RWCDS is likely to result from the agency’s action. It should be noted that the program analyzed in the RWCDS is being used for illustrative and analysis purposes only; a site-specific breakdown is required for the environmental review. This is not meant to indicate an actual development program.

The proposed actions would change the regulatory controls governing land use and development on the project site and would allow the project site to be developed. In accordance with the *CEQR Technical Manual* (January 2012 edition) guidelines, this FGEIS analyzes the proposed actions’ potential to generate significant adverse environmental impacts as the redevelopment takes place. The FGEIS considers alternatives that would reduce or eliminate impacts identified in the technical analyses and proposes mitigation for such impacts, to the extent practicable. The proposed actions would permit a range of development options; from among these, the FGEIS will examine the anticipated “reasonable worst-case development scenario.”

REASONABLE WORST-CASE DEVELOPMENT SCENARIO

The proposed actions would allow for a range of new developments on the project site. While the actual development will depend on developer proposals and future market conditions, the City has developed a maximum development envelope, or RWCDS, for CEQR analysis purposes. The RWCDS was developed by establishing the maximum buildable floor area allowed under zoning (approximately 1.648 million zoning square feet) and assigning a 60 percent to 40 percent ratio of residential floor area to commercial floor area, in addition to community facilities use. To the extent that actual development proposals exceed the analysis envelope of the RWCDS, they would be subject to additional environmental review, as appropriate. This RWCDS is used as a framework to assess potential impacts.

SITE PROGRAM

Under a reasonable worst-case development scenario, it is assumed that the proposed actions would result in approximately 951,000 gsf of residential development; up to approximately 632,300 gsf of commercial space; approximately 114,000 gsf of community facility or cultural uses; up to 500 parking spaces; and an approximately 10,000-square-foot publicly accessible open space on Site 5. The commercial space would include up to approximately 469,350 gsf of retail (including a grocery store), over 29,000 square feet of public market space, an approximately 97,500-square-foot hotel, and approximately 36,300 gsf of non-specific commercial uses. Note that this site-specific program is illustrative only and for analysis purposes only; and this is not meant to indicate an actual development program. Pursuant to the proposed actions, the existing Essex Street Market, which is located on Site 9, would be relocated to a new, expanded public market facility on Site 2.

Residential

One of the goals of the proposed actions is to allow for the development of a mixed-income residential development. Under the RWCDs, approximately 951,000 gsf of residential development would be developed comprising 900 dwelling units. As contemplated in the RWCDs, these residential units would be developed on all the sites with the exception of Site 2. In accordance with the UDAAP application, half of these dwelling units would be dedicated for affordable housing and would include a mix of affordable housing options such as senior housing. However, for analysis purposes, the FGEIS has not assumed a senior housing component since that would not be the most conservative assumption regarding demand for public school seats or publicly-funded day care services. Senior housing would not be precluded from being built.

Commercial

In order to facilitate development flexibility, a wide range of commercial uses would be allowed under the LSGD plan. These commercial uses, totaling approximately 632,300 gsf, are expected to include retail, such as local and neighborhood services and some retail stores with a larger draw; a public market, which represents the relocation and expansion of the existing Essex Street Market; and other commercial uses such as offices. The FGEIS also includes the analysis of a grocery store and a 200-room hotel since these commercial uses have unique characteristics (particularly related to traffic and pedestrian activities).

Community Facility

The proposed development includes a total of approximately 114,000 gsf of community facility or cultural space that would be distributed among Sites 1 through 6.

Parking and Circulation

Site 7 would remain a municipal public parking garage with a capacity of 362 spaces. In addition, the project proposes the inclusion of up to 500 parking spaces on up to four of the development sites to meet the expected project's demand and to replace a number of existing parking spaces that could be lost as a result of the proposed actions. The proposed development seeks approval for 4 special permits to allow for these additional public parking facilities on Sites 2 through 5 within the LSGD. The RWCDs assumes that Sites 2 through 5 would provide the parking in approximately 314,500 gsf of below-grade space, which is a reasonable worst-case assumption for the maximum amount of below-grade space required to allow up to 500 parking spaces on up to four sites.

ANALYSIS YEARS

It is assumed that the proposed actions would be approved by 2012. Based on a compressed and conservative development timeline, design and construction would be undertaken in a continuous manner and is assumed to span 10 years with a full build-out anticipated to be by 2022. In the future without the proposed actions, it is expected that existing uses on the projected development sites would remain. In addition, the future without the proposed actions would account for other development projects that are planned to be in place by 2022 absent the proposed actions.

3. PROBABLE IMPACTS OF THE PROPOSED PROJECT

LAND USE, ZONING, AND PUBLIC POLICY

Overall, this analysis concludes that the proposed actions would not have any significant adverse impacts on land use, zoning, or public policy.

LAND USE

The proposed actions would have a positive effect on land use by creating an active new mixed-use development with open space on underutilized sites. The new housing, retail, publicly accessible open space, and community facility uses would bring activity to the proposed development sites and would serve both residents of the surrounding area and the larger community. The new uses introduced by the proposed actions would be compatible with the existing and anticipated future mix of residential, retail, and commercial uses in the surrounding area. The height and bulk of the proposed development would complement the existing built fabric and help to knit together surrounding neighborhoods. Therefore, the proposed actions would not result in any significant adverse land use impacts.

ZONING

The proposed actions would include a LSGD special permit, which would allow the proposed development to better integrate the programming of its proposed uses, and would provide flexibility in design and massing. The proposed actions would not change the underlying zoning of the project site, except to map new C2-5 commercial overlay zones on Sites 3, 4, 5, and 6. The proposed commercial overlay zones would be compatible with existing commercial zoning in adjacent areas. The retail uses that could be introduced as a result of the zoning change would be compatible with existing retail uses and the mixed-use character of the study area. The zoning relief (such as height and setback waivers) being sought would facilitate a superior site plan that is responsive to the context of the project site and would complement the surrounding study area. Therefore, the proposed actions would not result in significant adverse zoning impacts.

PUBLIC POLICY

The proposed actions would support and further the objectives of applicable public policies, including the Mayor's New Housing Marketplace Plan, nearby business improvement districts, and PlaNYC 2030. The proposed actions would not result in any significant adverse public policy impacts. The proposed actions would be in broad accordance with CB3's redevelopment guidelines in terms of its mixed-use character, affordable and market housing development, commercial development, urban design plan, parking, and potential for community facility development.

SOCIOECONOMIC CONDITIONS

The analysis presented in this chapter finds that the proposed actions would not result in significant adverse socioeconomic impacts. In accordance with *CEQR Technical Manual* (January 2012 edition) guidelines, this socioeconomic analysis evaluates the RWCDs against six specific elements that can result in significant adverse socioeconomic impacts: (1) direct displacement of residential population on a project site; (2) direct displacement of existing businesses on a project site; (3) indirect displacement of residential population in a study area due to increased rents; (4) indirect displacement of businesses or institutions in a study area due to increased rents; (5) indirect business displacement due to retail market saturation; and (6) adverse effects on specific industries.

DIRECT RESIDENTIAL DISPLACEMENT

A screening-level assessment finds that the proposed actions would not result in significant adverse impacts due to direct residential displacement. The proposed actions would directly displace approximately nine residents who are living in seven dwelling units located in a City-owned rental building at 400 Grand Street (Site 5). The direct displacement resulting from the proposed actions would not be of a scale large enough to alter the demographics and socioeconomic character of the neighborhood. The amount of displacement (nine residents) falls well below the CEQR threshold of 500 displaced residents, and therefore a preliminary assessment is not warranted.

HPD would assign a relocation manager to each of the households that would be displaced and provide each household with an information letter that outlines the benefits available to the household. Eligible residents would receive relocation benefits, which include advisory services, including referrals to comparable and suitable replacement homes and assistance in preparing claim forms; payment for moving expenses; and financial assistance to help buy or rent a replacement home.

DIRECT BUSINESS DISPLACEMENT

A preliminary assessment finds that the proposed actions would not result in significant adverse impacts due to direct business displacement. As part of the proposed actions, the Essex Street Market tenants on Site 9 could relocate to a new market facility on Site 2. Aside from the Essex Street Market relocation, there are an estimated 14 businesses and 107 employees who could be displaced without specific plans or provisions for their relocation within the study area. The retail, parking, eating and drinking, and health care uses that would be displaced are common in the study area such that businesses and consumers would be able to find similar products and services elsewhere in the study area in the future with the proposed actions. The employment that would be lost would not be substantial, and the proposed actions would introduce many new employment opportunities in similar industry sectors. Although these businesses are valuable individually and collectively to the City's economy, their displacement from the project site would not substantially alter the neighborhood's economic activities.

INDIRECT RESIDENTIAL DISPLACEMENT

A preliminary assessment finds that the proposed actions would not result in significant adverse impacts due to indirect residential displacement. The proposed actions would introduce 900 new dwelling units that would be available to households with a mix of incomes; 50 percent of these new units would be affordable. The project-generated population would represent less than 5 percent of the future study area population, and therefore would not introduce a population that could substantially affect residential market conditions in the ¼-mile study area. There is an existing trend toward increased rents in the study area that would exist with or without the proposed actions; the effects of this new housing stock and population are not expected to have a substantial affect on future residential rents in the study area. In addition, the project's affordable housing would expand housing options available to the lower-income residents in the study area, and could balance the upward momentum of rents in the area caused by redevelopment.

INDIRECT BUSINESS DISPLACEMENT DUE TO INCREASED RENTS

A preliminary assessment finds that the proposed actions would not result in significant adverse indirect business displacement impacts due to increased rents. Residential, retail, hotel, community facility uses, and parking are already common in the ¼-mile study area, and there are already existing trends of residential and hotel development in the study area. The proposed actions would contribute to these existing trends, rather than alter economic patterns. Under the RWCDs, approximately 36,300 square feet of non-specific commercial uses would be built on the project site, some of which could be office space. This amount of office space would not be enough of a new economic activity to introduce trends that would alter existing economic patterns.

In the future with the proposed actions, there would be increased foot traffic in the study area, which would benefit existing retail stores, restaurants and galleries in the study area. While the proposed actions could benefit many existing local businesses, increases in pedestrian foot traffic could lead to increased rents in the immediate vicinity of the project site, which in turn could result in the indirect displacement of some existing retail establishments that are not able to capture sales from the increased foot traffic. However, this potential displacement is expected to be limited and would not constitute a significant adverse impact under CEQR. The retail stores that would be vulnerable to indirect displacement are not unique to the study area, and do not have locational needs that would preclude them from relocating elsewhere within the city. The ¼-mile study area already contains a large residential population (an estimated 43,711 residents). Therefore, there would still be the local demand for neighborhood retail and services necessary to maintain the strong retail presence within the study area. The limited indirect retail displacement that could result from increased rents would not be expected to lead to adverse changes to neighborhood character and would not result in significant adverse socioeconomic impacts.

In addition, industrial uses in the ¼-mile study area—including, but not limited to wholesalers, warehouses, and auto repair shops—could be considered potentially vulnerable to indirect displacement. Industrial businesses are typically less compatible with the economic trends that are creating upward rent pressures in the ¼-mile study area; i.e., they tend to not directly benefit in terms of increased business activity from the market forces generating the increases in rent. However, these pressures are already present within the study area and are expected to increase in the future irrespective of the proposed actions. While the proposed actions could result in limited indirect displacement of existing industrial businesses, it would not alter or accelerate trends that would change existing economic patterns in a manner that would result in significant displacement.

INDIRECT BUSINESS DISPLACEMENT DUE TO RETAIL MARKET SATURATION

The proposed actions would not result in significant adverse impacts on neighborhood character due to retail market saturation or competition. The area has a high concentration of employment and encompasses prime tourist destinations that draw shoppers from the region. The proposed actions would add a combination of regional- and local-serving retail that could overlap with the local-serving retail strips in the area, especially those anchored by convenience goods. Therefore, a detailed analysis was conducted. The detailed analysis focused on grocery stores, since they often serve as anchors for retail concentrations and since the RWCDs under the proposed actions could introduce up to a 65,000 square foot grocery store in addition to other stores (e.g., discount department stores) that may offer products that would substantially overlap with typical grocery store offerings. In addition, department stores and home improvement stores were analyzed.

The proposed actions are not expected to alter the number of businesses and services that are located on retail corridors in the ½-Mile Local Trade Area, and vacancy rates are not expected to change in the future. The Lower East Side has a particularly robust retail profile, grounded in a long history of entrepreneurship. The character of retail in the area makes any substantial displacement due to new development and market saturation unlikely. The area contains a broad mix of commercial uses supported by a number of retail spending sources including residents of the Lower East Side and beyond, local workers, day-visitors, and overnight tourists. Overall, the proposed actions would generate increased foot traffic that would benefit existing retail businesses in the ½-Mile Local Trade Area. While the possibility of some limited indirect business displacement due to competition cannot be ruled out, any displacement that might occur would not jeopardize the viability of any local retail strips.

Competitive pressure generated by a chain supermarket would be felt most strongly by major supermarkets in the ½-Mile Local Trade Area. The detailed analysis concludes that there is one grocery store in the ½-Mile Local Trade Area that could experience competitive pressure from a supermarket introduced as part of the RWCDs and that serves as an anchor to a local neighborhood retail concentration. The store could retain its customer base even with the proposed actions due to the density of residential population in surrounding blocks and other factors. However, even if the store was to close due to competition from a grocery store on the project site, the closure would not spur additional vacancies in adjacent storefronts since they are surrounded by high density residential uses so they would continue to experience high levels of foot traffic. Accordingly, the closure would not negatively impact neighborhood character, and would not result in a significant adverse impact due to indirect business displacement from market saturation.

The detailed analysis studied building materials and garden supply stores since they often serve as anchors for retail concentrations and since the RWCDs could introduce a building material and garden supply store. A large-scale building materials and garden supply store on the proposed project site would not draw substantial sales away from stores selling comparable goods in the ½-Mile Local Trade Area. Large-scale home improvement stores tend to draw sales from a broad trade area and from both contractors and households. There are few home improvement stores located in the ½-Mile Local Trade Area and they do not anchor neighborhood retail strips.

The detailed analysis also studied large-scale department stores and discount department stores since they often serve as anchors for retail concentrations and since the RWCDs could introduce a large-scale department store or discount department store. Large-scale department or discount department stores tend to draw sales from a broad trade area. They are not relying on a particular local residential population for their customer base and therefore do not typically have the potential to result in significant adverse impacts due to

indirect business displacement from retail market saturation of the local market. The ½-Mile Local Trade Area does not contain any large-scale department stores, so any such store introduced as part of the proposed actions would be the only one in the trade area. Competitive pressure from this store and other shoppers' goods stores on the project site would be minimal for many shoppers' goods stores in the Local Trade Area. The ½-Mile Local Trade Area includes distinct pockets of shoppers' goods stores, including a concentration of lighting stores on the Bowery, boutique shops in Nolita, stores catering to tourists in Little Italy, and stores in Chinatown catering to the sizable Asian population living in the trade area and beyond. Overall, although there could be some overlap between products offered at existing and proposed project shoppers' goods stores, concentrations of shoppers' goods stores currently located in the ½-Mile Local Trade Area distinguish themselves in different ways (e.g., a focus on tourists, a focus on ethnic populations, a concentration of a particular type of product). Therefore, many of these stores would not be in direct competition with stores expected on the project site.

ADVERSE EFFECTS ON SPECIFIC INDUSTRIES

A preliminary assessment finds that the proposed actions would not have the potential to have a significant adverse impact on any specific industries in the City. The businesses that would be directly displaced by the proposed actions collectively account for only a small fraction of the total employment and economic activities in the study area, and are not expected to be critical to the viability of any City industries.

COMMUNITY FACILITIES AND SERVICES

Based on a preliminary screening, the proposed actions warrant analysis for direct effects to health care facilities and indirect effects to public elementary and intermediate schools and child care centers. The analysis finds that the proposed actions would not result in any significant adverse impacts on community facilities.

DIRECT EFFECTS ON HEALTH CARE SERVICES

The proposed actions would result in the relocation of the Downtown Health Center, a clinic at 150 Essex Street (on Site 10) that is run by the CHN. The lease between NYCEDC and the CHN allows for the facility to be relocated within its lease term to another location in the immediate area. Because CHN would be relocated in the immediate area, it is expected that it would be able to serve the same population and the extent of service disruption would be minimal. Therefore, the relocation of the Downtown Health Center would not be considered a significant adverse impact.

INDIRECT EFFECTS ON PUBLIC SCHOOLS

The analysis of indirect effects on public schools concludes that the proposed actions would not result in any significant adverse impacts on public elementary or intermediate schools.

The proposed project site is located within Sub-districts 1 and 2 of Community School District (CSD) 1 and Sub-district 1 of CSD 2. The proposed actions would result in the development of 900 residential units in the study area. Based on CEQR student generation rates, the proposed actions would generate approximately 108 elementary school students and 37 intermediate school students in the study area by 2022. Conditions at elementary and intermediate schools in the sub-district study areas in the future without the proposed actions were predicted based on the New York City Department of Education (DOE) enrollment projections and the New York City School Construction Authority (SCA) data on other new development projects in the study areas. The future utilization rate for school facilities was calculated by adding the estimated enrollment from proposed residential developments in the schools study area to DOE's projected enrollment, and then comparing that number with projected school capacity.

Although elementary schools within the three sub-districts analyzed would operate with a shortage of seats in 2022, the proposed actions would introduce a small number of students relative to the overall enrollment of the study area. As a result, they would not substantially increase the elementary school utilization rate. The largest increase in utilization over the No Action condition would be in Sub-district 1 of CSD 2, where the proposed actions would increase the utilization rate by approximately two percent, which is below the CEQR threshold of five percent or more for a significant adverse impact. Because the proposed actions would increase the elementary school utilization rate by less than five percentage points, the proposed

actions would not result in a significant adverse impact on elementary schools in any of the sub-districts analyzed. Therefore, the proposed actions would not result in a significant adverse impact on elementary schools.

With regard to intermediate schools, all three sub-districts analyzed (Sub-districts 1 and 2 of CSD 1 and Sub-district 1 of CSD 2) would operate with surplus capacity at the intermediate school level in 2022. Therefore, the proposed actions would not result in any significant adverse impacts on intermediate schools.

INDIRECT EFFECTS ON CHILD CARE FACILITIES

As discussed below, the proposed actions would not result in any significant adverse impacts on publicly funded child care facilities. The child care analysis was based on current enrollment data from the Administration for Children's Services (ACS) for the child care and Head Start centers closest to the project site. Future conditions were predicted based on the number of new low-income and low/moderate-income housing units expected in the study area. Child care enrollment introduced by the proposed actions was added to conditions in the future without the proposed actions. The proposed actions would introduce approximately 450 low- to middle-income units by 2022. Based on the most recent CEQR child care multipliers, this development would generate approximately 52 children under the age of six who would be eligible for publicly funded child care programs. With the addition of these children, there would be a deficit of slots in the study area by 2022, and the proposed actions would result in an increase in the utilization rate of three percent over the No Action condition. While child care facilities in the study area would operate above capacity, the increase due to the proposed actions would be less than five percentage points and below the CEQR threshold. Therefore, the proposed actions would not result in a significant adverse impact on child care facilities.

OPEN SPACE

DIRECT EFFECTS

The proposed actions would not remove or alter any existing publicly accessible open spaces, nor would they result in any significant adverse shadow, noise, or air quality impacts on any open spaces. On the contrary, the proposed actions would increase the supply of publicly accessible open space in the study area by creating a new 10,000-square-foot (approximately 0.23 acres) publicly accessible open space on Site 5.

INDIRECT EFFECTS

Based on the methodology of the *CEQR Technical Manual*, a preliminary analysis of the proposed actions' indirect effects on open space was conducted to determine the need for a detailed analysis. The preliminary analysis concluded that the proposed actions would not result in a significant adverse impact on open space and that a detailed analysis was not necessary.

The open space ratios for the future with the proposed actions, as with existing conditions and the future without the proposed actions, would continue to fall short of the City's recommended open space ratio guidelines. Because the open space ratios would remain substantially the same in the future with the proposed actions compared to the future without the proposed actions and the proposed actions would introduce new publicly accessible open space to partially offset the additional project-generated demand, the proposed actions would not result in any significant adverse impacts on open space resources in the residential study area and a detailed open space analysis is not required.

SHADOWS

To ensure a conservative shadow analysis, the maximum zoning envelope was used for each of the nine sites that would be redeveloped with new structures. The ultimate development as constructed on each site would be subject to the results of the environmental review, the results of developer(s)' response(s) to an RFP process, and further discussion with stakeholders, among other factors. Each of the zoning envelopes is larger in terms of height, massing, tower locations, and floor area than what could ultimately be built on each development site to allow for flexibility of design, and consequently the actual developments would cast smaller shadows than what would be cast by the maximum zoning envelopes analyzed in the shadow assessment. Three of the Schiff Mall medians, which are located along the center of Delancey Street and

contain rose bushes and other plantings, could experience large extents and durations of incremental shadow during the months of the growing season that would potentially affect the rose bushes' viability, particularly in March and September when the overall length of the day, and therefore the available sunlight, is shorter. However, from early May through mid-August, these medians would receive seven hours or more of direct sun. Therefore, the plantings other than the rose bushes would not be significantly affected by the project-generated shadow. The buildings that would actually be developed on Sites 1, 2, 3, and 4 would not be as large or bulky as the maximum zoning envelopes analyzed in this conservative study, and so the actual extent and duration of incremental shadow would likely be less than what is described here, and the roses may not actually be impacted. Therefore, if a tower is constructed on these sites that would impact the roses, and the roses are still there at the time of construction, then the roses would be replaced with shade tolerant plantings as part of the project.

The P.S. 142 Playground on Delancey Street would experience a little over an hour of new shadow from the proposed actions in the late spring and summer seasons, but it would occur late in the afternoons and would not cause significant adverse impacts. Several other sun-sensitive resources in the study area would receive short durations of incremental shadow and would not be adversely impacted by the proposed actions.

The proposed publicly accessible open space on Site 5 would also experience project-generated shadow. This publicly accessible open space, which would be located on the Broome Street side of Site 5, would experience substantial project-generated shadow throughout the year. This analysis is conservative as it is based on the maximum zoning envelope, which could not be fully built based on the requirements of the LSGD approvals. The actual development on the site would be smaller than the maximum zoning envelope and would likely result in slightly less shadows on the proposed publicly accessible open space in the late spring and summer. However, pursuant to CEQR, shadows cast on the project's proposed open space are not considered significant.

HISTORIC AND CULTURAL RESOURCES

ARCHAEOLOGICAL RESOURCES

In an Environmental Review letter dated August 16, 2011, the New York City Landmarks Preservation Commission (LPC) determined that there is the potential for the recovery of archaeological resources associated with the 19th-century occupation of the following locations within the project site: Block 346, Lot 40 (corresponding to Sites 3, 4, and 5); Block 347, Lot 71 (corresponding to Site 6); and Block 352, Lot 28 (corresponding to part of Site 2). A Phase 1A Archaeological Documentary Study of Sites 2 through 6 was requested by LPC to clarify this initial finding. LPC determined that Site 1, Sites 8 through 10, and the portions of the streets to be mapped and demapped as part of the proposed actions have no archaeological significance, and no in-ground disturbance is proposed for Site 7. Therefore, no further archaeological analysis is warranted for Site 1, Sites 7 through 10, and for the portions of the streets to be mapped and demapped as part of the proposed actions.

In December 2011, a Phase 1A Archaeological Documentary Study of Sites 2, 3, 4, 5, and 6 was prepared. The study concluded that 50 historic lots within Sites 2 through 6 were sensitive for historic-period archaeological resources. The Phase 1A recommended a Phase 1B archaeological investigation to determine the presence or absence of archaeological resources in the areas identified as archaeologically sensitive. These potential archaeological resources could include shaft features (i.e., privies, cisterns, or wells) associated with the residential occupation of these historic lots in the early- to mid-19th century. The Phase 1A was submitted to LPC and the New York State Office of Parks, Recreation and Historic Preservation (OPRHP) for review and comment. In letters dated January 23, 2012 and January 31, 2012, LPC and OPRHP, respectively, concurred with the findings of the Phase 1A. With implementation of Phase 1B testing and continued consultation with LPC and OPRHP regarding the need for, and implementation of, any Phase 2 and 3 investigations, there would be no significant adverse impacts on archaeological resources from the proposed actions.

At this time, it is not known which sites will be disposed of by which project sponsors, and there will be no specific, defined development projects on each site until a developer or developers are selected pursuant to an RFP process. Further archaeological investigation will be required to be undertaken by the developer(s)

after selection. For sites that may be under the jurisdiction of HPD, remedial measures, including Phase 1B testing, any necessary Phase 2 and 3 investigations, and continued consultation with LPC/OPRHP, will be required to be undertaken by the developer(s) through provisions in the LDA between HPD and the developer(s). For City properties that may be managed by NYCEDC, remedial measures, including Phase 1B testing, any necessary Phase 2 and 3 investigations, and continued consultation with LPC/OPRHP, will be required to be undertaken by the developer(s) through the provisions of a contract for sale or lease, or other legally binding agreement between NYCEDC and the developer(s).

ARCHITECTURAL RESOURCES

The proposed actions would result in significant adverse direct impacts on two architectural resources from development on Sites 2, 5, 8, 9, and 10. Those impacts could be partially mitigated as described below. Further, development of the proposed project could have adverse physical impacts on five architectural resources that are located within 90 feet of proposed construction activities, close enough to potentially experience adverse construction-related impacts from ground-borne construction-period vibrations, falling debris, subsidence, collapse, or damage from construction machinery. In addition, development on Site 1 could result in significant adverse visual and contextual impacts on two architectural resources.

URBAN DESIGN AND VISUAL RESOURCES

The analysis concludes that the proposed actions would not have any significant adverse impacts related to urban design and visual resources. The proposed actions would enhance the pedestrian's experience of the development sites by replacing underutilized buildings and surface parking lots with new active, mixed-use development. The proposed actions would change the urban design and visual character of the study area, but would improve the pedestrian experience by activating currently underdeveloped and under-utilized sites. This change would complement the existing context of the adjacent areas and be consistent with the existing trends of new residential, hotel, and mixed-use development, making the neighborhood more densely developed.

HAZARDOUS MATERIALS

The proposed actions would result in the demolition of existing structures and surface parking areas on Sites 1 through 6 and 8 through 10 followed by subsurface disturbance associated with construction of new structures. Site 7 would not be redeveloped pursuant to the proposed actions and the existing parking garage would remain.

The proposed actions would include appropriate health and safety/remedial measures that would precede or govern demolition, construction, and soil disturbance activities on the development sites, as warranted. With the implementation of these measures, no significant adverse impacts related to hazardous materials would be expected to result from the proposed actions. Following construction, there would be no potential for significant adverse impacts.

WATER AND SEWER INFRASTRUCTURE

This analysis finds that the proposed actions would not result in any significant adverse impacts on the City's water supply, wastewater or stormwater conveyance and treatment infrastructure.

WATER SUPPLY

By 2022, the RWCDs would generate an incremental water demand of 656,392 gallons per day (gpd) as compared to the future without the proposed actions. Based on the projected incremental demand, it is expected that there would be adequate water service to meet the proposed actions' incremental water demand, and there would be no significant adverse impacts on the City's water supply.

SANITARY SEWAGE

By 2022, the RWCDs would generate an incremental 373,844 gpd of sewage over the future without the proposed actions. This volume would not result in an exceedance of the Newtown Creek Wastewater Treatment Plant's capacity, and therefore would not create a significant adverse impact on the City's sanitary sewage conveyance and treatment system. In addition, per the New York Plumbing Code (Local

Law 33 of 2007), low-flow fixtures would be required to be implemented and would help to reduce sanitary flows from the new buildings.

STORMWATER

The overall volume of stormwater runoff and the peak stormwater runoff rate from the project site is anticipated to slightly increase due to the replacement of surface parking areas with buildings; however, 10,000 square feet of publicly accessible open space is proposed on Site 5. With the incorporation of select best management practices (BMPs) such as on-site detention facilities (rooftop detention, underground storage tanks, or tanks within the buildings) or other stormwater source controls, the peak stormwater runoff rates would be reduced from the future without the proposed actions and would not have a significant impact on the downstream City combined sewer system or the City sewage treatment system.

SOLID WASTE AND SANITATION SERVICES

While the proposed actions would generate additional solid waste, no significant adverse impacts on solid waste and sanitation services would result from the proposed actions. The New York City Department of Sanitation is responsible for the collection and disposal of municipal solid waste, including the collection of recyclables generated by residents, some nonprofit institutions, tax exempt properties, and City agencies. Private carters provide these services to commercial and other users. The proposed actions would increase the volume of solid waste and recyclables that would have to be managed, but would not pose a significant strain to overall capacity of the City's municipal and private solid waste system or hamper the provision of adequate sanitation services.

ENERGY

The proposed actions would not have a significant adverse impact on energy systems and services. Although the proposed actions would increase demand on electricity, this increase in demand would be insignificant relative to the capacity of these systems and the current levels of service in the Con Edison service area. Upon completion, development pursuant to the proposed actions would comply with the New York City Energy Conservation Code. In compliance with the code, the basic designs of all buildings would incorporate the required energy conservation measures, including meeting the code's requirements relative to energy efficiency and combined thermal transmittance.

Through an RFP process, the City would look favorably upon proposals that enhance the energy-efficiency of buildings, use fewer raw materials, make the best of natural light where appropriate, improve indoor air quality, and decrease the total impact on the natural and human environment. These designs could include features aimed at reducing energy consumption and greenhouse gas (GHG) emissions.

In addition, housing developments on all sites are expected to be certified under the Enterprise Green Communities Program, or meet equivalent sustainability measures. Therefore, no significant adverse energy impacts would result from the proposed actions.

TRANSPORTATION

TRAFFIC

In accordance with *CEQR Technical Manual* (January 2012 edition) guidelines, a RWCDs was developed to estimate the peak hour vehicular and pedestrian volumes expected as a result of the proposed actions. In the weekday AM peak hour (8:00 to 9:00 AM), the RWCDs would generate 209 vehicle trips arriving at the project sites and 162 vehicle trips leaving the project sites, for a total of 371 vehicle trips. In the weekday midday peak hour (1:00 to 2:00 PM), it would generate 267 inbound vehicle trips plus 260 outbound vehicle trips for a total of 527 vehicle trips. In the weekday PM peak hour (5:15 to 6:15 PM), it would generate 244 inbound vehicle trips plus 296 outbound vehicle trips for a total of 540 vehicle trips. In the Saturday peak hour (3:45 to 4:45 PM), it would generate 250 vehicle trips arriving and 246 vehicle trips leaving, for a total of 496 vehicle trips. Although these volumes are significantly lower than those for several other major EISs in New York City, the number of development parcels, the displacement of existing parking facilities, and the critical nature of potential issues along key corridors like Delancey Street, Grand Street, Essex Street,

and others has made the number of intersections analyzed in this FGEIS comparable to other large-scale EISs in New York City.

Of the 30 study area intersections analyzed (25 signalized and five unsignalized intersections), the proposed actions would cause significant traffic impacts at 13 intersections in the weekday AM peak hour, 11 in the weekday midday peak hour, 15 in the weekday PM peak hour, and 14 in the Saturday peak hour. The number and locations of significant traffic impacts are different than those identified in the DGEIS. Following the issuance of the DGEIS, the New York City Department of Transportation (NYCDOT) adopted and began implementing an area-wide Delancey Street Safety Improvements plan to improve pedestrian, bicycle, and vehicular safety along the Delancey Street corridor, which resulted in traffic pattern changes at several intersections. Additionally, signal timing modifications were proposed by NYCDOT along Allen Street to improve service along the M15 bus line. These changes to the study area's transportation network were incorporated as part of the FGEIS. As a result, some significantly impacted intersections that were mitigated in the DGEIS would be unmitigated in the FGEIS due to the safety oriented changes in the roadway network. Traffic capacity improvements that would be needed to mitigate these significant impacts are addressed below in Section 5, "Mitigation Measures."

TRANSIT

The preliminary screening assessment concluded that a detailed examination of subway line-haul analysis is not warranted. However, bus line-haul analyses and a detailed analysis of station elements at the Delancey Street/Essex Street subway station (F, J, M, and Z lines) were prepared.

The proposed actions would result in significant adverse impacts on bus line-haul levels on the southbound M9 and westbound M14A during the AM peak period and the northbound and southbound M9 during the PM peak period. Potential measures to mitigate the projected significant adverse bus line-haul impacts are described below in Section 5, "Mitigation Measures."

Additional analysis of certain interior transfer and platform stairways was undertaken in the FGEIS. The analysis indicates the proposed actions would not result in the potential for significant adverse impacts on these stairway elements.

PEDESTRIANS

Weekday and Saturday peak period pedestrian conditions were evaluated at key sidewalk, corner reservoir, and crosswalk elements at 22 area intersections. Under the RWCDs, significant adverse pedestrian impacts are anticipated for five pedestrian analysis locations along Delancey Street at Essex and Clinton Streets including the west crosswalk of Delancey and Essex Streets during the midday peak period, the east crosswalk of Delancey and Essex Streets during the midday, PM, and Saturday peak periods, the west sidewalk of Essex Street between Delancey and Broome Streets during the AM and midday peak periods, the east sidewalk of Essex Street between Delancey and Rivington Streets during the midday and Saturday peak periods, and the north crosswalk of Delancey and Clinton Streets during the Saturday peak period.

The pedestrian analysis for the 2022 With Action condition was performed by incorporating the pedestrian activities generated by the project's RWCDs full build-out. In addition, the pedestrian analysis used the narrowest pedestrian walking paths by reducing the available sidewalk widths from obstructions created by subway stair entrances, street furniture and "shy-distances" (i.e., the space left between pedestrians and curbs/building façades) throughout the entire length of that particular sidewalk segment following the *2000 Highway Capacity Manual* guidelines. These assumptions reduced the effective sidewalk widths to approximately 20 to 30 percent of the overall widths available at the two sidewalk locations on Essex Street. The combination of all these factors would result in the potential for significant adverse pedestrian impacts at the two Essex Street sidewalks in the future 2022 With Action condition.

However, it should be noted that the pedestrian analysis presents a RWCDs assessment of future pedestrian levels since the project's development program and design may not materialize to the full extent resulting in different travel patterns at study area's pedestrian facilities.

Measures that can be implemented to mitigate these significant adverse pedestrian impacts are discussed below in Section 5, "Mitigation Measures."

VEHICULAR AND PEDESTRIAN SAFETY

Accident data for the study area intersections were obtained from the New York State Department of Transportation (NYSDOT) for the time period between February 29, 2008 and February 28, 2011. The data obtained quantify the total number of reportable accidents (involving fatality, injury, or more than \$1,000 in property damage), fatalities, and injuries during the study period, as well as a yearly breakdown of pedestrian- and bicycle-related accidents at each location. During this three-year period, a total of 587 reportable and non-reportable accidents, 3 fatalities, 475 injuries, and 175 pedestrian/bicyclist-related accidents occurred at the study area intersections; ten study area intersections have been defined as high pedestrian accident locations in the 2008 to 2011 period. These intersections are Allen Street at Delancey Street, Clinton Street at Delancey Street, Essex Street at Delancey Street, Norfolk Street at Delancey Street, Suffolk Street at Delancey Street, Avenue A at Houston Street, Bowery at Houston Street, Allen Street at Grand Street, Clinton Street at Grand Street, and Essex Street at Grand Street. As described earlier, in June 2012, NYCDOT began implementation of the safety plan along the Delancey Street corridor to improve pedestrian, bicycle, and vehicular safety. Once this plan is fully implemented, it is expected that the pedestrian safety conditions at the high accident locations along the Delancey Street corridor will improve. For the remaining high pedestrian accident locations, measures that could be implemented to improve vehicular and pedestrian safety include installation of crosswalk countdown timers, restriping faded crosswalks, and installation of warning signs to alert drivers about the high pedestrian activities at the intersections.

PARKING

The proposed actions are expected to include a total of up to 500 off-street parking spaces within Sites 2, 3, 4, and 5. Parking demands generated by the proposed actions during peak traffic hours would be fully accommodated by the parking garages. The maximum project-generated demand of 257 spaces would be reached during 9-10 AM and 2-3 PM on a typical weekday. The maximum accumulation of 252 spaces for a Saturday would occur between 4-5 PM. In the existing conditions, there are approximately 507 parking spaces (approximately 400 public spaces, and approximately 100 spaces being used by commercial vehicles such as vans and trucks) within surface lots that currently occupy Sites 3, 4, 5, and 6. Approximately 400 public spaces on these four sites would be displaced as part of the proposed actions. In the garages developed under the proposed actions, there would be a surplus capacity of about 240 to 250 spaces which would serve to accommodate a portion of the displaced parkers. Approximately 150 vehicles would need to find parking elsewhere in the area. These vehicles would be accommodated within the 375 to 625 off-street spaces that would be available within off-street lots/garages in the study area.

Among the proposed actions of the ULURP application are four special permits for public parking facilities on Sites 2, 3, 4 and 5. Consistent with the overall limit in the number of spaces that would be permitted under the LSGD, the FGEIS analyzed up to 500 off-street parking spaces in accordance with the *CEQR Technical Manual*. Given that the special permits would allow for flexibility with respect to the distribution of these spaces among Sites 2, 3, 4 and 5, an assessment was conducted to project conditions that could arise if the parking spaces were distributed only on two or three of the sites. That assessment found that the resulting conditions would be generally similar to those in the FGEIS and affected locations could require standard traffic improvements. Based on this analysis, it was determined that the streets providing access to the public parking garages would be adequate to handle traffic generated thereby.

AIR QUALITY

The maximum predicted pollutant concentrations and concentration increments from mobile sources with the proposed actions would be below the corresponding guidance thresholds and ambient air quality standards. The proposed actions' parking facilities would also not result in any significant adverse air quality impacts. Based on a refined stationary source modeling analysis, there would be no potential for significant adverse air quality impacts from the heating and hot water systems for the proposed development. The only fossil fuel that would be used for heating and hot water systems at the development sites included in the proposed actions would be natural gas. In addition, the heat and hot water system stack placement would be restricted for Sites 5 and 9. These requirements could be modified or eliminated in the future if additional air quality modeling shows that the requirements are not needed to meet national and

local ambient air quality standards and thresholds. Future modeling could rely on information that is expected to become available as the design for the proposed sites progresses. For sites that may be under the jurisdiction of HPD, the implementation of fuel use and stack placement requirements will be required to be implemented by the developer(s) through provisions in the LDA between HPD and the developer(s). For City properties that may be managed by the NYCEDC, the implementation of fuel use and stack placement requirements will be required to be undertaken by the developer(s) through provisions of a contract of sale or long-term lease or other legally binding agreement between NYCEDC and the developer(s).

Therefore, there would be no potential for significant adverse impacts on air quality with the proposed actions.

GREENHOUSE GAS EMISSIONS

Total potential GHG emissions associated with the operation of the proposed development are estimated to be 24,508 metric tons of carbon dioxide equivalent (CO₂e) per year, comprising 13,615 metric tons CO₂e per year from building heating and electricity and 10,894 metric tons CO₂e per year from on-road emissions. Note that if the buildings were to be constructed elsewhere to accommodate the same uses as the proposed development, the emissions from the use of electricity, energy for heating and hot water, and vehicle use could equal or exceed those of the proposed development sites, depending on their location, access to transit, building type, availability of buildings for reuse, and energy efficiency measures.

The proposed actions would support the City's transit-oriented development and sustainable transportation goal as the project site is well served by public transportation options, is served by the city's bicycle lane network, and may also provide bicycle storage, showers and changing facilities. Further, the proposed actions would include a mix of uses, including residential and retail, and it is located in an area served by existing retail uses within walking distance.

Through an RFP process, the City would look favorably upon proposals that use fewer raw materials, make the best of natural light where appropriate, improve indoor air quality, and decrease the total impact on the natural and human environment. Housing developments on all sites are expected to be certified under the Enterprise Green Communities Program or to incorporate measures which would achieve equivalent energy efficiency levels. In addition, all housing developments would also reduce construction and demolition waste by at least 25 percent.

All proposed buildings would likely produce heat and hot water using natural gas fired systems, which would produce lower GHG emissions than fuel oil. In addition, the proposed actions would support the City's transit-oriented development and sustainable transportation goal as the project site is well served by public transportation options, including both bus and subway services, is served by the city's bicycle lane network, and may also provide bicycle storage, showers and changing facilities. Further, the proposed actions would include a mix of uses, including residential and retail, and it is located in an area served by existing retail uses within walking distance.

Overall, the proposed actions, therefore, are consistent with the City's citywide GHG reduction goal.

NOISE

The analysis concludes that, given the high levels of noise in the study area resulting from vehicular traffic on nearby roadways, vehicular and rail traffic on the Williamsburg Bridge, and other sources, structures on the proposed development sites would be required to provide between 18 and 34 dBA of window/wall attenuation in order to maintain acceptable interior noise levels. By adhering to specific design measures, development pursuant to the proposed actions would be expected to provide sufficient attenuation to comply with CEQR and HUD interior noise level guidelines.

PUBLIC HEALTH

The proposed actions would not result in significant adverse impacts in the following technical areas: air quality, water quality, hazardous materials, or operational noise.

While during some periods of construction, the proposed actions would result in significant adverse impacts related to noise as defined by CEQR thresholds, the predicted overall changes to noise levels would not be

large enough to significantly affect public health. Therefore, the proposed actions would not result in significant adverse public health impacts.

NEIGHBORHOOD CHARACTER

Currently, the southern portion of the project site is generally inactive and aesthetically unappealing as it primarily includes surface parking uses surrounded by chain-link fencing. The inactivity in the southern portion of the project site is in stark contrast to the surrounding area, which is generally densely developed with a mix of residential, commercial, community facility and open space uses. In the future with the proposed actions, the character of the neighborhood would improve as the gaps in the streetscape of the neighborhood south of Delancey Street would be filled with new, active development. The proposed mix of local retail and destination retail stores in the RWCDs would complement the existing mix of commercial uses in the study area. The mix of uses would also bring a greater level of pedestrian activity to the project sites, making the neighborhood more inviting and appealing to live in and visit.

In addition to the ground floor retail that would activate the streets, the character of the project site would be improved with new street trees that would shade as well as visually enhance the neighborhood and with new public open space on Site 5 that would bring passive and/or active recreational opportunities to the area. Also, the proposed mapping and demapping actions would make the mapped street pattern consistent with the pedestrian's current experience of those areas. The pedestrian environment would be further improved by the widened sidewalks adjacent to Sites 1 through 6.

The proposed actions would also enhance neighborhood character by the relocation and expansion of the Essex Street Market. The larger space would create entrepreneurship opportunities for additional vendors and would continue to allow for a variety of vendor price points. A new facility would be an opportunity for capital investment in the market to address many of the physical limitations of the existing facility. A new market facility would have an improved internal layout, better connections with the street and expanded common gathering areas for public seating and market events. In addition, the new facility would be energy efficient, be fully compliant with the Americans with Disabilities Act, and have improved storage capabilities, garbage handling, and climate control. When the new facility is complete and ready for occupancy, the City would give existing vendors at the time of the move the first opportunity to relocate their business to the new market facility.

Overall, the analysis concludes that the proposed actions would not create a significant adverse impact on neighborhood character. To the contrary, neighborhood character would be improved by replacing underutilized buildings and surface parking lots with new active, mixed-use development.

CONSTRUCTION

For each of the various technical areas presented below, appropriate construction analysis years were selected to represent reasonable worst-case conditions relevant to that technical area, which can occur at different times for different analyses. For example, the noisiest part of the construction may not be at the same time as the heaviest construction traffic. Therefore, the analysis periods may differ for different analysis areas. Where appropriate, the analysis accounted for the effects of project elements that would be completed and operational during the selected construction analysis years.

While the anticipated construction durations have been developed with an experienced New York City construction manager, the discussion is only illustrative as specific means and methods will be chosen at the time of construction. At this time, there are no specific construction programs or designs for any development that is projected to result from the proposed actions. The construction durations are conservatively chosen to serve as the basis of the analyses in this chapter and are representative of the reasonable worst-case for potential impacts. The conceptual schedule represents a very compressed and conservative potential timeline for construction, which shows overlapping construction activities and simultaneously operating construction equipment for development sites in proximity to one another. Thus, the analysis captures the cumulative nature of construction impacts, which would result in the greatest impacts at nearby receptors.

TRANSPORTATION

Traffic

Construction activities would generate the highest amount of construction-related traffic in the third quarter of 2017. Construction-related traffic is expected to occur earlier than the commuter peak hours, typically at 6-7 AM and 3-4 PM, and the total number of vehicle trips generated during construction would be approximately 68 percent and 86 percent lower than the total number of vehicle trips generated by the completed development project during the AM and PM hours, respectively. Nevertheless, a detailed analysis of traffic conditions was completed for nine key intersections near the construction sites, and this analysis indicated that significant adverse traffic impacts could occur at just one location during construction, but at lesser magnitudes than impacts identified under the With-Action condition. Where impacts during construction may occur, measures similar to the ones recommended to mitigate impacts of the proposed actions could be implemented early to aid in alleviating congested traffic conditions. Sidewalk and lane closures would be finalized as the maintenance and protection of traffic (MPT) plans are developed and reviewed with NYCDOT.

Parking

The majority of construction workers are expected to commute to the job site by public transportation; only 29 percent are expected to drive to work. There would be no parking provided for them at the construction sites but the overall peak parking demand for 80 spaces would be accommodated in off-street parking facilities within a quarter-mile distance (about a five-minute walk) from the project site.

Transit

The study area is well served by public transit, including the F, J, M, and Z subway lines at the Essex Street-Delancey Street station. There are also several local bus routes, including the M9, M14A, M15, M21, and M22. Based on the number of projected construction workers being distributed among the various subway and bus routes, station entrances, and bus stops near the project area, only nominal increases in transit demand would be experienced along each of these routes and at each of the transit access locations during hours outside of the typical commuter peak hours of 8-9 AM and 5-6 PM. Hence, there would not be a potential for significant adverse transit impacts attributable to the projected construction worker transit trips. Any temporary relocation of bus stops along bus routes that operate adjacent to the project area would be coordinated with and approved by NYCDOT and NYCT to ensure proper access is maintained.

Pedestrians

Considering that pedestrian trips generated by construction workers would occur during hours outside of the typical commuter peak hours of 8-9 AM and 5-6 PM and would be distributed among numerous sidewalks and crosswalks in the area, the preliminary analysis found that there would not be a potential for significant adverse pedestrian impacts attributable to the projected construction worker pedestrian trips. During the course of construction, sidewalks may be closed for varying periods of time to allow for certain construction activities but pedestrian circulation and access would be maintained through the use of temporary sidewalks or sidewalk bridges. This sidewalk work would be coordinated with and approved by NYCDOT and the New York City Department of Buildings (NYCDOB).

AIR QUALITY

The proposed actions would not result in significant adverse impacts with respect to air quality. A detailed analysis of on-site and on-road emissions determined that annual-average NO₂, CO, and PM₁₀ concentrations would be below their corresponding NAAQS. Therefore, construction under the proposed actions would not cause or contribute to any significant adverse air quality impacts with respect to these standards.

Dispersion modeling determined that the maximum predicted incremental concentrations of PM_{2.5} (using a worst-case emissions scenario) would exceed the City's applicable 24-hour interim guidance criterion of 2 micrograms per cubic meter (µg/m³) at near-side sidewalk receptor locations and four residential locations. The occurrences of elevated 24-hour average concentrations for PM_{2.5} would be limited in duration, frequency, and magnitude. Therefore, taking into account the limited duration and extent of these predicted

exceedances, and the limited area-wide extent of the 24-hour impacts, it was concluded that no significant adverse air quality impacts for PM_{2.5} would occur from the on-site construction sources.

Because background concentrations are not known and the analysis methodology for mobile and construction sources have not been developed for the new 1-hour NO₂ NAAQS, exceedances of the 1-hour NO₂ standard resulting from construction activities cannot be ruled out. Therefore, measures including diesel equipment reduction, utilization of newer equipment, and idling restriction, would be implemented to the extent feasible and practicable to minimize NO_x emissions from construction activities under the proposed actions.

NOISE AND VIBRATION

Noise

Development pursuant to the proposed actions would result in significant adverse impacts with respect to construction noise. This conclusion is based on a conservative analysis of the construction procedures, including peak quarterly levels assumed to represent each year of construction, a maximum amount of construction equipment assumed to be operational on each development site and at locations closest to nearby receptors, and a compressed construction schedule with a maximum amount of development sites under construction simultaneously.

Construction on the proposed development sites would include noise control measures as required by the New York City Noise Control Code, including both path and source controls. Even with these measures, the results of more detailed construction analyses undertaken for the FGEIS indicate that elevated noise levels are predicted to occur for two or more consecutive years at 13 of the 83 receptor sites analyzed. Affected locations include residential, institutional and open space areas adjacent to the proposed development sites and along routes expected to be traveled by construction-related vehicles to and from the project site. However, most affected buildings have double-glazed windows and air-conditioning, and would consequently be expected to experience interior L₁₀₍₁₎ values less than 45 dBA, which would be considered acceptable according to CEQR criteria. At affected locations that do not already have double-glazed windows and air conditioned interiors, L₁₀₍₁₎ values resulting from construction may exceed 45 dBA. Additional options for source and path controls would be incorporated into the construction methodology to the extent practicable and feasible. Thus, should the development sites be developed and constructed as conservatively presented in this conceptual schedule, up to three locations could experience significant impacts for certain limited periods during construction. Of the three locations with predicted noise impacts, one location is at a high school and the other two locations are at the outdoor balconies of residential buildings.

At limited times during the construction period, Seward Park High School (350 Grand Street) would be expected to experience significant noise impacts. The FGEIS discloses worst-case construction-related noise impacts at the school. Upon selection of a developer for each of Sites 1, 2, and 3, an additional construction noise analysis shall be completed by the developer(s) of each site, taking into consideration: (1) the specific development project(s) to be constructed; (2) the anticipated construction timeline and sequencing in relation to the other project sites; (3) the proposed construction means and methodologies and any new available technologies that exist at the time of construction to reduce construction noise; and (4) the path and source controls, which are to be implemented in conjunction with the proposed actions. If the additional analyses find that construction at any of the three development sites would continue to have the potential to result in significant noise impacts at Seward Park High School, the developer(s) of the site(s) with the potential to result in significant noise impacts will investigate whether additional path and source controls may be available to mitigate the potential significant impact and the extent to which the impact would be mitigated. If the additional analysis, taking into account the detailed information on construction methodology, timing and sequencing, and any additional path and source controls still shows the potential for significant noise impacts at Seward Park High School resulting from construction at one of the development sites, the developer of that site will explore potential receptor controls for the school facility in consultation with the New York City School Construction Authority. In the event that implementing such receptor controls is not practicable, as determined by ODMED, as the lead agency in consultation with HPD

and/or NYCEDC, the proposed actions would result in a partially mitigated impact on Seward Park High School, as set forth in the FGEIS.

In addition, at the residential building south of Grand Street between Essex and Clinton Streets and the residential building at the southeast corner of Clinton and Grand Streets, balconies on various floors may experience significant noise impacts due to construction for limited portions of the construction period. However, it should be noted that even during the portions of the construction period that would generate the most noise at these balconies, the balconies could still be enjoyed without the effects of construction noise outside of the hours that construction would occur, e.g., during night-time and on weekends. At these outdoor balconies, there would be no feasible or practicable mitigation to mitigate the construction noise impacts. Therefore, these balconies would be considered to experience unmitigated significant noise impacts as a result of construction.

Vibration

Development pursuant to the proposed actions is not expected to result in significant adverse construction impacts with respect to vibration. Use of construction equipment that would have the most potential to exceed the 65 VdB criterion within a distance of 230 feet of sensitive receptor locations (e.g., equipment used during pile driving) would be perceptible and annoying. Therefore, for limited time periods, perceptible vibration levels may be experienced by occupants and visitors to all of the buildings and locations on and immediately adjacent to the construction sites. However, the operations which would result in these perceptible vibration levels would only occur for finite periods of time at any particular location and, therefore, the resulting vibration levels, while perceptible, would not result in any significant adverse impacts.

OTHER TECHNICAL AREAS

Historic and Cultural Resources

Construction would involve subsurface disturbance to areas that have been identified as archaeologically sensitive by the Phase 1A studies. The Phase 1A recommended a Phase 1B archaeological investigation to determine the presence or absence of archaeological resources in the areas identified as archaeologically sensitive. These potential archaeological resources could include shaft features (i.e., privies, cisterns, or wells) associated with the residential occupation of these historic lots in the early to mid-19th century. The Phase 1A was submitted to LPC and OPRHP for review and comment. In letters dated January 23, 2012 and January 31, 2012, LPC and OPRHP, respectively, concurred with the findings of the Phase 1A. With implementation of Phase 1B testing and continued consultation with LPC and/or OPRHP regarding the need for, and implementation of, any Phase 2 and 3 investigations, no significant adverse impacts on archaeological resources would result from construction.

Architectural resources are defined as buildings, structures, objects, sites or districts listed on S/NR or determined eligible for such listing, National Historic Landmarks, NYCLs and Historic Districts, and properties that have been found by the LPC to appear eligible for designation, considered for designation (“heard”) by LPC at a public hearing, or calendared for consideration at such a hearing (these are “pending” NYCLs). The proposed actions could have adverse physical impacts on five architectural resources that are located within 90 feet of proposed construction activities, close enough to potentially experience adverse construction-related impacts from ground-borne construction-period vibrations, falling debris, subsidence, collapse, or damage from construction machinery. NYCDOB Technical Policy and Procedure Notice (TPPN) #10/88, applies to New York City Landmarks, properties within New York City Historic Districts, and National Register-listed properties. TPPN #10/88 supplements the standard building protections afforded by the Building Code by requiring a monitoring program to reduce the likelihood of construction damage to adjacent New York City Landmarks and National Register-listed properties (within 90 feet) and to detect at an early stage the beginnings of damage so that construction procedures can be changed. With these required measures, significant adverse construction-related impacts would not occur to the former Norfolk Street Baptist Church (NYCL, S/NR) or to the contributing buildings within the Lower East Side Historic District (S/NR) that are located within 90 feet of project construction. Further, for sites that may be developed under the jurisdiction of HPD, Construction Protection Plans to protect historic resources within

90 feet of construction will be likely required to be developed and implemented in coordination with OPRHP by the developer(s) through provisions in the LDA between HPD and the developer(s).

For the non-designated or listed resources—the potential Clinton, Rivington, Stanton Street Historic District (NYCL-eligible, S/NR-eligible) and the Williamsburg Bridge (S/NR-eligible)—construction under the proposed actions could potentially result in construction-related impacts on the resources. Additional protective measures afforded under TPPN #10/88 would only become applicable if those resources are designated or listed in the future prior to the initiation of adjacent construction or if the adjacent sites are developed under the jurisdiction of HPD. Further, for sites that may be developed under the jurisdiction of HPD, Construction Protection Plans to protect historic resources within 90 feet of construction will be likely required to be developed and implemented in coordination with OPRHP by the developer(s) through provisions in the LDA between HPD and the developer(s). If the resources are not designated or listed and the adjacent sites are developed under the management of NYCEDC, they would not be subject to TPPN #10/88 and may, therefore, be adversely impacted by adjacent development resulting from the proposed actions.

Hazardous Materials

The proposed actions would result in the demolition of existing structures and surface parking areas on Sites 1 through 6 and 8 through 10 followed by subsurface disturbance associated with construction of new structures. Site 7 would not be redeveloped pursuant to the proposed actions and the existing parking garage would remain. The proposed actions would include appropriate health and safety/remedial measures, as warranted, that would precede or govern demolition, construction, and soil disturbance activities on the development sites. With the implementation of these measures, no significant adverse impacts related to hazardous materials would be expected to result from the proposed actions.

Open Space

There are no publicly accessible open spaces within the project site, and no open space resources would be used for staging or other construction activities. The nearest open space is the 0.45-acre Broome Seward Park Extension, which is located on Broome Street between Clinton Street and Ridge Street, approximately 130 feet east of Site 6. At limited times, activities such as excavation and foundation construction may generate noise that could impair the enjoyment of nearby open space users, but such noise effects would be temporary. Construction fences around the project site would shield the park from construction activities. Construction under the proposed actions would not limit access to the park or other open space resources in the vicinity of the project site. Therefore, construction under the proposed actions would not result in significant adverse impacts on open space.

Socioeconomic Conditions

Construction activities could temporarily affect pedestrian and vehicular access. However, lane and/or sidewalk closures would not obstruct entrances to any existing businesses, and businesses are not expected to be significantly affected by any temporary reductions in the amount of pedestrian foot traffic or vehicular delays that could occur as a result of construction activities. Utility service would be maintained to all businesses, although short term interruptions (i.e., hours) may occur when new equipment/infrastructure (e.g., a transformer, or a sewer or water line) is put into operation. Overall, construction activities associated with the proposed actions would not result in any significant adverse impacts on surrounding businesses.

Construction would create direct benefits resulting from expenditures on labor, materials, and services, and indirect benefits created by expenditures by material suppliers, construction workers, and other employees involved in the direct activity. Construction also would contribute to increased tax revenues for the City and State, including those from personal income taxes.

Community Facilities

The construction sites would be surrounded by construction fencing and barriers that would limit the effects of construction on nearby facilities. Construction workers would not place any burden on public schools and would have minimal, if any, demands on libraries, child care facilities, and health care. Construction of the proposed buildings would not block or restrict access to any facilities in the area, and would not materially affect emergency response times significantly. NYPD and FDNY emergency services and response times would not be materially affected due to the geographic distribution of the police and fire facilities and their

respective coverage areas. As discussed above (See “Noise and Vibration”), at limited times during the entire construction period, Seward Park High School would be expected to experience significant noise impacts. Upon selection of a developer for each of Sites 1, 2, and 3, an additional construction noise analysis shall be completed by the developer(s) of each site, taking into consideration: (1) the specific development project(s) to be constructed; (2) the anticipated construction timeline and sequencing in relation to the other project sites; (3) the proposed construction means and methodologies, and any new available technologies that exist at the time of construction to reduce construction noise; and (4) the path and source controls, which are to be implemented in conjunction with the proposed actions. If the additional analyses find that construction at any of the three development sites would continue to have the potential to result in significant noise impacts at Seward Park High School, the developer(s) of the site(s) with the potential to result in significant noise impacts will investigate whether additional path and source controls may be available to mitigate the potential significant impact and the extent to which the impact would be mitigated. If the additional analysis, taking into account the detailed information on construction methodology, timing and sequencing, and any available additional path and source controls still shows the potential for significant noise impacts at Seward Park High School resulting from construction at one of the development sites, the developer of that site will explore potential receptor controls for the school facility in consultation with the SCA. In the event that implementing such receptor controls is not practicable, as determined by ODMED as lead agency in consultation with HPD and/or NYCEDC, the proposed actions would result in a partially mitigated impact on Seward Park High School, as set forth in this FGEIS.

Land Use and Neighborhood Character

Construction activities would affect land use on the project site but would not alter surrounding land uses. As is typical with construction projects, during periods of peak construction activity there would be some disruption, predominantly noise, to the nearby area. These disruptions would be temporary in nature and would have limited effects on land uses within the study area, particularly as most construction activities would take place within the project site or within portions of sidewalks, curbs, and travel lanes of public streets immediately adjacent to the project site. Overall, while the construction at the site would be evident to the local community, the limited duration of construction would not result in significant or long-term adverse impacts on local land use patterns or the character of the nearby area.

4. ALTERNATIVES

As mandated by both CEQR and SEQRA, this FGEIS examines a No Action Alternative, which describes the conditions that would exist if the proposed actions were not implemented. The second alternative analyzed is the Essex Street Market Alternative, in which the existing Essex Street Market remains in its current facility on Site 9 and there is no additional development on that site. The third alternative is the No Unmitigated Significant Impacts Alternative, which examines alternatives that would avoid unmitigated significant adverse impacts in the areas of historic and cultural resources, traffic, and construction.

NO ACTION ALTERNATIVE

In the future without the proposed actions, it is expected that existing uses on the projected development sites would remain. The future without the proposed actions would account for other development projects that are planned to be in place by 2022 absent the proposed actions. Differences between the proposed actions and the No Action Alternative are described below.

The No Action Alternative would not have a positive effect on land use by creating an active new mixed-use development with open space on underutilized sites. The No Action Alternative would not introduce new housing, retail, publicly accessible open space, community facility uses, and a relocated Essex Street Market assumed in the RWCDs that would bring activity to the proposed development sites and would serve both residents of the surrounding area and the larger community. In addition, the No Action Alternative would not support and further the objectives of applicable public policies, including the Mayor’s New Housing Marketplace Plan, nearby business improvement districts, and PlaNYC 2030. The No Action Alternative would also not support CB3’s redevelopment guidelines as it would not introduce affordable or market rate housing, commercial development, publicly accessible open space, parking, or community facilities.

While the proposed actions would displace approximately nine residents who are living in seven dwelling units located in a City-owned rental building at 400 Grand Street (Site 5), the No Action Alternative would not result in the direct displacement of any residents. Also unlike with the proposed actions, in which an estimated 14 businesses and 107 employees could be displaced without specific plans or provisions for their relocation within the study area, no businesses would be directly displaced under the No Action Alternative. Under the No Action Alternative, the potential for indirect displacement of some existing retail establishments that may occur with the proposed actions would not occur. However, the No Action Alternative would not result in the increased foot traffic in the study area that would benefit existing retail stores, restaurants and galleries in the study area as the proposed actions would. The No Action Alternative would not provide new market rate and affordable housing that would be developed with the proposed actions.

Unlike the proposed actions, the No Action Alternative would not result in the relocation of the Downtown Health Center, a clinic at 150 Essex Street (on Site 10) that is run by CHN. Under this alternative, there would not be the approximately 114,000 gsf of community facility or cultural uses introduced by the proposed actions.

The No Action Alternative would not increase the supply of publicly accessible open space in the study area by creating a new 10,000-square-foot (approximately 0.23 acres) publicly accessible open space on Site 5, as would occur with the proposed actions. Neither the No Action Alternative nor the proposed actions would result in adverse shadow impacts on any sun-sensitive resource. However, unlike the proposed actions, three of the Schiff Mall medians, which are located along the center of Delancey Street between Ludlow and Suffolk Streets and contain rose bushes and other plantings, and the P.S. 142 Playground on Delancey Street would not experience incremental shadows with the No Action Alternative.

Under the No Action Alternative, the development sites would not be redeveloped, and there would be no potential for significant adverse impact to archaeological or architectural resources. Unlike the proposed actions, the No Action Alternative would not result in significant adverse direct impacts on two architectural resources from development on Sites 2, 5, 8, 9, and 10. The No Action Alternative would also not have the potential for adverse physical impacts on five architectural resources that are located within 90 feet of proposed construction activities, close enough to potentially experience adverse construction-related impacts from ground-borne construction-period vibrations, falling debris, subsidence, collapse, or damage from construction machinery. In addition, since there would be no development on Site 1, unlike with the proposed actions, the No Action Alternative would not result in significant adverse visual and contextual impacts on two architectural resources.

As opposed to the proposed actions, the No Action Alternative would not improve the pedestrian experience by activating currently underdeveloped and under-utilized sites which are surrounded by chain link fencing. Unlike the proposed actions, the No Action Alternative would not serve to fill in the gaps in the streetscape of the neighborhood with new development south of Delancey Street. In addition, the No Action Alternative would not include new street trees that would shade as well as visually enhance the pedestrian experience.

The No Action Alternative would result in a higher rate of stormwater runoff from the project site as compared to the proposed actions, as it would not benefit from the incorporation of select BMPs.

Under the No Action Alternative, it is expected that existing uses on the projected development sites would remain. Although the No Action Alternative would not generate any new vehicular trips, traffic volumes in the study area would be expected to increase as a result of background growth and planned development in the study area. The overall levels of service would be expected to deteriorate slightly for the No Action Alternative as compared to the existing conditions since traffic increases from background growth and other developments in the area would be relatively modest. Under this alternative, all subway station stairways and control area elements would continue to operate at acceptable levels, except for the northeast stairway (S-6) at the Delancey Street and Norfolk Street entrance, and all analyzed bus routes would continue to operate within their guideline capacities. All sidewalk, corner reservoir, and crosswalk analysis locations would continue to operate at acceptable mid-LOS D or better, except at the north crosswalk of Clinton Street and Delancey Street.

The No Action Alternative would not result in the significant adverse traffic impacts at the 13 intersections in the weekday AM peak hour, 11 in the weekday midday peak hour, 15 in the weekday PM peak hour, and 14 in the Saturday peak hour identified under the proposed actions.

The significant adverse pedestrian impacts anticipated for the proposed actions at the intersection of Delancey and Essex Streets and Delancey and Clinton Streets would not occur with the No Action Alternative. Furthermore, the significant adverse transit impacts anticipated for the proposed actions on the M9 and M14A bus routes would also not occur with the No Action Alternative.

Under the No Action Alternative, it is expected that existing uses on the projected development sites would remain. Therefore, unlike the proposed actions, there would be no change in greenhouse gas emissions associated with this alternative.

The No Action Alternative would not introduce the mix of uses that would be developed by the proposed actions, which would bring a greater level of pedestrian activity to the project sites, making the neighborhood more inviting and appealing to live in and visit. The increased pedestrian activity resulting from the proposed actions, which would benefit existing retail stores in the area, would also not occur under the No Action Alternative. As the No Action Alternative would not create a new publicly accessible open space on Site 5, passive and/or active recreational opportunities would not be introduced to the area. Also, the No Action Alternative would not implement the proposed mapping and demapping actions, which would make the mapped street pattern consistent with drivers' and the pedestrians' current experience of those areas. Under the No Action Alternative, certain sidewalks would not be widened as under the proposed actions. The No Action Alternative would not enhance neighborhood character by the relocation and expansion of the Essex Street Market, which would create entrepreneurship opportunities for additional vendors and would continue to allow for a variety of vendor price points.

Under the No Action Alternative, no construction would occur on the project site. Thus, there would not be the potential for impacts of construction with respect to transportation, air quality, noise and vibration, historic and cultural resources, hazardous materials, open space, socioeconomic conditions, community facilities and land use and neighborhood character. Specifically, the No Action Alternative would not result in significant adverse construction traffic impacts at four intersections identified under the proposed actions, or elevated construction noise levels at 13 of the 83 receptor sites analyzed including residential, institutional and open space areas adjacent to the proposed development sites and along routes expected to be traveled by construction-related vehicles to and from the project site. It would not result in the significant adverse construction noise impacts under the proposed actions at up to three of the 13 receptor locations. Unlike the proposed actions, the No Action Alternative would not have the potential for adverse physical impacts on five architectural resources that are located within 90 feet of proposed construction activities, close enough to potentially experience adverse construction-related impacts from ground-borne construction-period vibrations, falling debris, subsidence, collapse, or damage from construction machinery. In addition, the potential for construction-related impacts on the non-designated or listed resources—the potential Clinton, Rivington, Stanton Street Historic District (NYCL-eligible, S/NR-eligible) and the Williamsburg Bridge (S/NR-eligible)—would also not occur under the No Action Alternative.

Under the No Action Alternative, the direct economic benefits resulting from expenditures on labor, materials, and services, and indirect benefits created by expenditures by material suppliers, construction workers, and other employees involved in the direct activity would not be realized. The No Action Alternative would also not contribute to increased tax revenues for the City and State, including those from personal income taxes.

ESSEX STREET MARKET ALTERNATIVE

The Essex Street Market Alternative retains the existing public Essex Street Market in its current facility on Site 9, with no new development on that site. Site 2 would be redeveloped as under the proposed actions with the space allocated for the market under the proposed actions used instead for retail, although market uses would not be precluded. At other sites, this Alternative assumes the same uses and same floor area as the proposed actions. Overall, the Essex Street Market Alternative would provide approximately 1.60 million gross square feet of development, approximately 6 percent less total development than with the proposed actions. Similar to the proposed actions, the Essex Street Market Alternative would introduce an

approximately 97,500-square-foot hotel, approximately 36,300 gsf of non-specific commercial uses, and 114,000 gsf of community facility or cultural uses. However, the Essex Street Market Alternative would introduce less residential and retail space compared with the proposed actions. The Essex Street Market Alternative would introduce 875,800 gsf of residential space, approximately 8 percent lower than the 951,000 gsf of residential space that would be introduced by the proposed actions. This alternative would introduce 479,700 gsf of retail space, which is 4 percent less space than the retail and public market space that would be introduced by the proposed actions.

Like the proposed actions, the Essex Street Market Alternative assumes that half of all units on the project site would be affordable housing units. However, as less residential space would be introduced in the future with the Essex Street Market alternative, fewer total units and therefore fewer affordable housing units would be introduced with this alternative compared with the proposed actions.

As discussed above, the Essex Street Market Alternative would retain the existing Essex Street Market on Site 9, with no new development on that site. Under this alternative, the market would continue to be approximately 15,000 sf, which is 14,000 square feet less than the market that would be introduced by the proposed actions. In addition, the physical limitations of the existing market would remain. The facility would continue to be not fully compliant with the Americans with Disabilities Act and have insufficient storage capabilities, garbage handling, and climate control. It is currently anticipated that the market would continue to accommodate approximately 23 vendors. However, addressing these physical shortcomings in the future may require changes to the facility's operations. In addition, this alternative would not include the expanded common gathering areas for public seating and market events.

In the existing condition, garbage from the Essex Street Market is stored on Site 8. With the Essex Street Market Alternative, Site 8 would be redeveloped and would no longer store garbage from the Essex Street Market. Therefore, under this alternative, the Essex Street Market would need to find another garbage handling solution, such as other nearby storage or removing vendor stalls to accommodate a garbage storage room onsite.

Building above the existing market was determined to be infeasible as it would require temporarily closing the existing market to construct columns through the existing structure and would temporarily displace vendors during the construction period. In addition, the new columns and potential spaces (such as a lobby and elevator and mechanical core) for the new structure above would reduce the area available for public market uses and could potentially reduce the number of vendors.

It is assumed that on all sites other than Site 9 the Essex Street Market Alternative would include the same sustainable, green components as those analyzed in the proposed actions.

The site plan, bulk and massing of buildings under the Essex Street Market Alternative would be the same as the proposed actions. However, with this alternative, no new development would occur on Site 9 as the existing Essex Street Market building would be retained. Further differences between the proposed actions and the Essex Street Market Alternative are described below.

Although this alternative would increase the supply of affordable housing available in New York City, which is consistent with City housing policy, fewer dwelling units would be introduced by the Essex Street Market Alternative than the proposed actions. The Essex Street Market Alternative, therefore, would provide fewer affordable housing units than the proposed actions.

The Essex Street Market Alternative would result in many of the same impacts on architectural resources as the proposed actions. However, this Alternative would partially avoid the significant adverse impact on the Essex Street Market as it would retain the existing market building on Site 9.

Like the proposed actions, the Essex Street Market Alternative would generate increased demands on New York City's energy services. However, the Essex Street Market Alternative would demand less energy than the proposed actions, which include development on Site 9. Therefore, the Essex Street Market Alternative would result in lower energy consumption than the proposed actions.

With the Essex Street Market Alternative, the existing Essex Street Market would remain on Site 9 and thus the stack placement requirements for the site, identified for the proposed actions would not apply with this

alternative. Under this alternative, Site 9 would not undergo energy efficiency improvements, but would also not require energy and materials for construction of a new market. This alternative would also result in less development, and therefore the energy and emissions associated with construction and operation of Site 9 would not occur; however, that demand would be accommodated elsewhere (not as part of this project), and may be more or less energy efficient than under the proposed actions.

Travel demand estimates were conducted for the Essex Street Market Alternative. The Essex Street Market Alternative would generate 3,005, 6,441, 6,007, and 7,010 person trips and 357, 522, 520, and 482 vehicle-trips during the weekday AM, midday, PM, and Saturday peak hours, respectively. In comparison, the proposed actions would generate up to 7,403 peak hour person-trips and up to 540 peak hour vehicle-trips. The Essex Street Market Alternative would result in up to 393 fewer peak hour person-trips and up to 20 fewer peak hour vehicle-trips. Overall, the Essex Street Market Alternative is expected to generate one percent to four percent fewer peak hour vehicle-trips compared to the proposed actions. Thus, with the Essex Street Market Alternative, there would be no significant reduction in impacts or the ability to provide mitigation.

As stated above in “Construction,” construction activities would result in significant noise impacts at some residential receptors adjacent to the proposed development sites. Since the construction of Site 9 would not begin until 2020 according to the conceptual construction schedule on which the construction noise analysis was based, the conclusions of the construction noise analysis for the years 2016 through 2019 would be unchanged. During 2020 and 2021, construction activities and equipment would be decreased without the construction of Site 9 occurring, and depending on the specific location, noise levels would be the same to somewhat lower as compared to the levels with the proposed actions. Consequently, the Essex Street Market Alternative would be expected to result in the same or possibly slightly fewer significant adverse construction noise impacts as the proposed actions.

NO UNMITIGATED SIGNIFICANT IMPACTS ALTERNATIVE

The proposed actions would result in some partial or unmitigated impacts with respect to historic and cultural resources, traffic, and construction. Therefore, as required by the *CEQR Technical Manual*, alternatives were developed to explore modifications to the proposed actions and reasonable worst-case development scenario that would allow for the mitigation of these impacts.

The No Unmitigated Significant Impacts Alternative would retain the four Essex Street Market buildings on Sites 2, 8, 9, and 10 and the former fire station on Site 5 and would reduce the scale of the building on Site 1. Overall, this alternative would greatly reduce the number of residential units that could be provided, preventing the proposed actions from providing 900 units, of which 450 would be affordable units. This alternative would also reduce the amount of commercial space that could be provided, compromising another of the proposed actions’ goals.

The proposed actions would result in significant adverse traffic impacts at intersections within the study area that can not be fully mitigated with practical traffic capacity improvement measures. Because of existing congestion at a number of intersections, even a minimal increase in traffic could result in unmitigated impacts at some locations. A sensitivity analysis determined that the addition of just two vehicle trips turning right along the northbound approach of Essex Street at the intersection with Delancey Street during the PM peak period would create a significant adverse impact that can not be fully mitigated. Thus, almost any new development on the project site would result in unmitigated significant adverse traffic impacts, and no reasonable alternative could be developed to completely avoid such impacts without substantially compromising the goals of the proposed actions.

The proposed actions would result in potential significant adverse pedestrian impacts at the west sidewalk of Essex Street between Delancey and Broome Streets and the east sidewalk of Essex Street between Delancey and Rivington Streets. The potential significant adverse pedestrian impact at the west sidewalk of Essex Street could be fully mitigated by widening the sidewalk from its existing width of 13 feet to 13 feet and 8 inches. For the east sidewalk of Essex Street, the potential significant adverse pedestrian impact could be fully mitigated by widening the sidewalk from its existing width of 13 feet to 13 feet and 7 inches. However, these mitigation measures are not feasible and practicable since there are constraints that would prohibit such widening. Specifically, the presence of subway stairways would preclude any widening towards the

building lines. Although widening the sidewalks by extending them into the roadbed is a potential mitigation measure, NYCDOT does not typically undertake such widening except for extending corners by providing bulbouts; thus, the potential significant adverse sidewalk impacts would be unmitigated.

The pedestrian analysis for the With Action condition was performed by incorporating the pedestrian activities generated by the project's RWCDs full build-out. In addition, the pedestrian analysis used the narrowest pedestrian walking paths by reducing the available sidewalk widths from obstructions created by subway stairs, street furniture, and "shy-distances" (i.e., the space left between pedestrians and curbs/building façades) throughout the entire length of that particular sidewalk segment following the *2000 Highway Capacity Manual* guidelines. These assumptions reduced the effective sidewalk widths to approximately 20 to 30 percent of the overall widths available at the two sidewalk locations on Essex Street. The combination of all these factors would result in the potential for significant adverse pedestrian impacts at the two Essex Street sidewalks in the future With Action condition. However, it should be noted that the pedestrian analysis presents a RWCDs assessment of future pedestrian levels, since the project's development program and design may not materialize to the full extent resulting in different travel patterns at the study area's pedestrian facilities.

A sensitivity analysis determined that even the addition of just one pedestrian trip to the levels in the No Action condition during the AM peak period could result in a significant adverse impact that cannot be mitigated. Thus, any new development in the With Action condition on the project site would result in potential unmitigated significant adverse sidewalk impacts, and no reasonable alternative could be developed to completely avoid such impacts.

Construction of the proposed development would be expected to result in substantially elevated noise levels for two or more continuous years at 13 locations within the study area. However, most affected buildings have double-glazed windows and air-conditioning, and would consequently be expected to experience interior $L_{10(1)}$ values less than 45 dBA, which would be considered acceptable according to CEQR criteria. Of these 13 locations, up to 3 locations, including 350 Grand Street (Seward Park High School) and the outdoor balconies of two residential buildings south of Grand Street near Clinton Street, could experience significant impacts for certain limited periods during construction. The impacts at 350 Grand Street (Seward Park High School) would be avoided if construction were not undertaken on Sites 1, 2, or 3. The unmitigated impacts at the residential balconies would be avoided if construction were not undertaken on Site 5. If construction were not undertaken on Sites 1, 2, 3, or 5, this alternative would fail to meet the goal of the proposed actions to provide 900 residential units, of which 450 would be affordable units, and to provide commercial and retail development as part of a thriving, financially viable, mixed-use development.

5. MITIGATION MEASURES

The preceding sections discuss the potential for significant adverse environmental impacts resulting from the proposed Seward Park Mixed-Use Development Project. Such potential impacts were identified in the areas of historic and cultural resources, transportation, and construction. Measures have been examined to minimize or eliminate these anticipated impacts. These mitigation measures are discussed below.

HISTORIC AND CULTURAL RESOURCES

The proposed actions, through redevelopment, would have significant adverse direct impacts on two architectural resources that have been determined eligible for listing on the State and National Registers of Historic Places (S/NR)—the Essex Street Market and the former fire station at 185 Broome Street. In addition, new development could have significant adverse visual and contextual impacts on the S/NR-listed Lower East Side Historic District and the S/NR-eligible Eastern Dispensary, which also appears to be eligible for New York City Landmark (NYCL) designation.

In accordance with CEQR guidelines, NYCEDC and HPD are undertaking ongoing consultation with LPC regarding the development of mitigation measures for these significant adverse impacts. In addition, because construction financing may come from New York State and/or the United States Department of Housing and Urban Development, NYCEDC and HPD are undertaking ongoing consultation with OPRHP in accordance with the New York State Historic Preservation Act of 1980 (Section 14.09 of the New York Parks,

Recreation and Historic Preservation Law) and, acting in its capacity as the State Historic Preservation Office, Section 106 of the National Historic Preservation Act of 1966.

Potential mitigation measures that could partially mitigate the impact of the demolition of the Essex Street Market and former fire station may include, to the extent practicable and feasible:

- Historic American Buildings Survey (HABS) documentation. HABS Level I documentation of all four buildings of the Essex Street Market and the former fire station could be conducted by a recognized professional credentialed for preparing such reports, to be submitted to LPC, OPRHP, the New York Historical Society, the Museum of the City of New York, and/or other repositories.
- A site commemoration plan. A permanent interpretive exhibit or exhibits about the Essex Street Market and the former fire station could be developed and installed in the new Essex Street Market facility on Site 2 or in another appropriate location near the project site. This exhibit could document the history of the Essex Street Market and former fire station and could encompass the larger history of the project site neighborhood.
- Architectural salvage. Surveys of the Essex Street Market and former fire station could be conducted to determine if any significant exterior or interior architectural elements could be removed and incorporated into the proposed development.
- Design of the new buildings on Sites 2, 8, 9, and/or 10 to reference the design of the Essex Street Market. This could include incorporating references to such architectural elements of the market buildings as the strip windows and the incised lettering above the entrances.

In addition, NYCEDC and HPD will continue to consult with LPC and/or OPRHP regarding the compatibility of the proposed development on Site 1 with the S/NR-listed Lower East Side District, in which it is located, and with the S/NR-eligible and NYCL-eligible Eastern Dispensary. Although the historic and cultural resources analysis concluded that the proposed developments on Sites 8, 9, and 10 would not have significant adverse visual and contextual impacts on the adjacent potential Clinton, Rivington, Stanton Street Historic District (NYCL-eligible, S/NR-eligible), should there be any State or Federal permitting or funding for development on those sites, HPD and NYCEDC shall consult with OPRHP regarding the compatibility of the proposed developments on Sites 8, 9, and 10 with the historic district.

TRANSPORTATION

TRAFFIC

The proposed actions would result in significant adverse traffic impacts at a number of locations in the traffic study area. The major overall finding of the traffic mitigation analysis is that the majority of the 30 intersections analyzed would either not be significantly impacted or could be mitigated with readily implementable traffic improvement measures, including signal timing and phasing changes, parking regulation changes to gain or widen a travel lane at key intersections, and lane restriping. These measures represent some of the standard traffic capacity improvements that are typically implemented by NYCDOT.

During the weekday AM peak hour, seven of the 30 intersections would remain unmitigated, and one intersection could only be partially mitigated; in the weekday midday peak hour, four intersections would remain unmitigated; in the weekday PM peak hour, seven intersections would remain unmitigated; and in the Saturday peak hour, six intersections would remain unmitigated.

Ten of the thirty intersections would have significant adverse traffic impacts resulting from the proposed actions and could not be fully mitigated in at least one peak hour, including:

- East Houston Street and Chrystie Street/Second Avenue (unmitigated during the weekday AM peak hour).
- East Houston Street and Allen Street/First Avenue (could be partially mitigated during the weekday AM peak hour).
- Delancey Street and Allen Street (unmitigated during the weekday PM peak hour).
- Delancey Street and Ludlow Street (unmitigated during all four peak hours).
- Delancey Street and Essex Street (unmitigated during all four peak hours).

- Delancey Street and Norfolk Street (unmitigated during all four peak hours).
- Delancey Street and Suffolk Street (unmitigated during the weekday PM and Saturday peak hours).
- Delancey Street and Clinton Street (unmitigated during all four peak hours).
- Broome Street and Norfolk Street (unmitigated during the weekday PM peak hour).
- Grand Street and Clinton Street (unmitigated during the weekday AM and Saturday peak hours).

Six of these intersections are along Delancey Street, which is characterized by heavy volumes approaching and leaving the Williamsburg Bridge.

As noted previously, NYCDOT has adopted and begun implementation of an area-wide plan to improve pedestrian, bicycle, and vehicular safety along the Delancey Street corridor including left turn prohibitions, sidewalk expansions, corner “bump-outs” and signal timing changes along Delancey Street to shorten pedestrian crossing distances and to provide pedestrians more green time to safely cross Delancey Street, reconfiguration of Clinton Street south of Delancey Street to allow vehicular traffic to access the Williamsburg Bridge from northbound Clinton Street, and other measures to promote pedestrian and bicycle safety, which will result in traffic pattern changes at several intersections. In addition, signal timing modifications are being proposed by NYCDOT along Allen Street to improve service along the M15 bus line. These changes to the study area’s transportation network have been incorporated as part of the FGEIS. As a result, mitigation measures presented in the FGEIS at a number of analysis locations are different than those identified in the DGEIS. Some significantly impacted intersections that were mitigated in the DGEIS would be unmitigated in the FGEIS due to the safety oriented changes in the roadway network described above, particularly along Delancey Street where vehicular traffic capacity would be reduced in order to enhance overall pedestrian, bicycle, and vehicular traffic safety in response to community needs.

Implementation

Each of the traffic capacity improvements described above fall within the jurisdiction of NYCDOT for implementation. The implementation of these measures would result in the loss of approximately seven parking spaces along Essex Street between Rivington and Stanton Streets during the Saturday peak period. No designated truck loading/unloading zones or bus layover space would be affected by the proposed parking modifications for mitigation. If it is determined that on-street parking should be retained at locations where such mitigation was assumed, additional unmitigated traffic impacts could result.

TRANSIT

The proposed actions would result in significant adverse bus line haul impacts on the M9 bus route during both the AM and PM peak periods and the M14A bus route during the AM peak period. While NYCT routinely monitors changes in bus ridership and would make the necessary service adjustments where warranted, these service adjustments are subject to the agencies’ fiscal and operational constraints and, if implemented, are expected to take place over time.

PEDESTRIANS

The proposed actions would result in significant adverse pedestrian impacts for five pedestrian analysis locations along Delancey Street at Essex and Clinton Streets including the west crosswalk of Delancey and Essex Streets during the midday peak period, the east crosswalk of Delancey and Essex Streets during the midday, PM, and Saturday peak periods, the west sidewalk of Essex Street between Delancey Street and Broome Street during the AM and midday peak periods, the east sidewalk of Essex Street between Delancey Street and Rivington Street during the midday and Saturday peak periods, and the north crosswalk of Delancey Street and Clinton Street during the Saturday peak period.

Delancey Street and Essex Street

The west crosswalk at this intersection would deteriorate from below mid-LOS D (21.7 SFP) to beyond mid-LOS D (17.2 SFP) during the midday peak period. This significant adverse pedestrian impact could be fully mitigated by restriping the width of this crosswalk from its existing width of 14 feet to 16 feet.

The east crosswalk at this intersection would deteriorate from LOS C (39.6 SFP), LOS C (39.8 SFP) and LOS C (34.5 SFP) to LOS E (14.5 SFP), LOS D (15.4 SFP) and LOS E (13.5 SFP) during the midday, PM

and Saturday peak periods, respectively. This significant adverse pedestrian impact could be fully mitigated by restriping the width of this crosswalk from its existing width of 14 feet to 20 feet.

The west sidewalk of Essex Street between Delancey Street and Broome Street would deteriorate from below mid-LOS D (6.4 PMF) and LOS C (4.6 PMF) to beyond mid-LOS D (10.9 PMF) and LOS D (9.3 PMF) during the AM and midday peak periods, respectively. Subsequent to the issuance of the DGEIS, at NYCDOT's direction, the assignment of pedestrian trips to study area sidewalks and crosswalks was revised to direct more pedestrian trips on Essex Street. These changes resulted in increased project-generated pedestrian trips on Essex Street's sidewalks and crosswalks, and subsequently in potential significant adverse impact at this sidewalk location. The pedestrian analysis for the 2022 With Action condition was performed by incorporating the pedestrian activities generated by the project's RWCDs full build-out. In addition, the sidewalk analysis used the narrowest pedestrian walking paths by reducing the available sidewalk widths from obstructions created by subway stair entrances, street furniture and "shy-distances" (i.e., the space left between pedestrians and curbs/building façades) throughout the entire length of this sidewalk segment following the *2000 Highway Capacity Manual* guidelines. These assumptions reduced the effective sidewalk width to approximately 20 percent of the overall width. The combination of all these factors resulted in the potential for significant adverse sidewalk impact at this location in the future 2022 With Action condition. This potential significant adverse pedestrian impact could be fully mitigated by widening the sidewalk from its existing width of 13 feet to 13 feet and 8 inches. However, this mitigation measure is not feasible and practicable since there are constraints that would prohibit such widening. Specifically, the presence of a subway stairway would preclude any widening towards the west side. Although widening the sidewalk by extending it into the roadbed is a potential mitigation measure, NYCDOT does not typically undertake such widening except for extending corners by providing bulbouts; thus, the potential significant adverse sidewalk impact would be unmitigated.

It should be further noted that the pedestrian analysis presents a RWCDs assessment of future pedestrian levels since the project's development program and design may not be fully realized as assumed in the RWCDs in the future conditions, resulting in different travel patterns at this location.

The east sidewalk of Essex Street between Delancey Street and Rivington Street would deteriorate from LOS C (3.7 PMF) and LOS C (5.2 PMF) to LOS D (8.6 PMF) and LOS D (9.8 PMF) during the midday and Saturday peak periods, respectively. As previously discussed, subsequent to the issuance of the DGEIS, the assignment of pedestrian trips to study area sidewalks and crosswalks was revised to direct more pedestrian trips on Essex Street. These changes resulted in increased project-generated pedestrian trips on Essex Street's sidewalks and crosswalks, and subsequently in potential significant adverse impact at this sidewalk location. In addition, the pedestrian analysis for the 2022 With Action condition was performed by incorporating the pedestrian activities generated by the project's RWCDs full build-out. The sidewalk analysis used the narrowest pedestrian walking paths by reducing the available sidewalk widths from obstructions created by subway stair entrances, street furniture and "shy-distances" throughout the entire length of this sidewalk segment following the *2000 Highway Capacity Manual* guidelines. This assumption reduced the effective sidewalk width to approximately 30 percent of the overall width. The combination of all these factors resulted in the potential for significant adverse sidewalk impact at this location in the future 2022 With Action condition. This potential significant adverse pedestrian impact could be fully mitigated by widening the sidewalk from its existing width of 13 feet to 13 feet and 7 inches. However, this mitigation measure is not feasible and practicable, since there are constraints that would prohibit such widening. Specifically, the presence of subway stairways abutting the proposed development site (Site 9) would preclude any widening towards the east side. Although widening the sidewalk by extending in to the roadbed is a potential mitigation measure, NYCDOT does not typically undertake such widening except for extending corners by providing bulbouts; thus, the potential significant adverse sidewalk impact would be unmitigated.

It should be further noted that the pedestrian analysis presents a RWCDs assessment of future pedestrian levels since the project's development program and design may not be fully realized as assumed in the RWCDs in the future conditions, resulting in different travel patterns at this location.

Delancey Street and Clinton Street

The north crosswalk at this intersection would deteriorate from LOS D (16.7 SFP) to LOS E (14.9 SFP) during the Saturday peak period. This significant adverse pedestrian impact could be fully mitigated by restriping the width of this crosswalk from its existing width of 16 feet to 17 feet.

Effects of Traffic Mitigations on Pedestrian Operations

As described above, intersection operations could be altered with the implementation of the recommended traffic mitigation measures. These measures would include changes to existing signal timings and lane utilizations. A review of the effects of these changes on pedestrian circulation and service levels at intersection corners and crosswalks showed that they would not alter the conclusions made for the pedestrian impact analyses, nor would they result in the potential for any additional significant adverse pedestrian impacts.

Following the issuance of the DGEIS, the New York City Department of Transportation (NYCDOT) adopted and began implementing an area-wide plan to improve pedestrian, bicycle, and vehicular safety along the Delancey Street corridor including left turn prohibitions, sidewalk expansions, corner “bump-outs” and signal timing changes to shorten pedestrian crossing distances and to provide pedestrians more green time to safely cross Delancey Street, reconfiguration of Clinton Street south of Delancey Street to allow vehicular traffic to access the Williamsburg Bridge from northbound Clinton Street, and other measures to promote pedestrian and bicycle safety, which will result in traffic pattern changes at several intersections. In addition, signal timing modifications are being proposed by NYCDOT along Allen Street to improve service along the M15 bus line. These changes to the study area’s transportation network were incorporated as part of the FGEIS.

CONSTRUCTION

TRAFFIC

As existing and No Action traffic conditions at some study area intersections through which construction-related traffic is expected to travel would operate at unacceptable levels during commuter peak hours, it is possible that significant adverse traffic impacts could occur at some of these locations during construction. A detailed analysis of traffic conditions was completed for nine key intersections near the construction sites, and this analysis indicated that significant adverse traffic impacts could occur at one of these locations during construction, but at lesser magnitudes than impacts identified under the With Action condition. Where impacts during construction may occur, measures similar to the ones recommended to mitigate impacts of the proposed actions could be implemented early to alleviate congested traffic conditions.

NOISE

Construction activities would be expected to result in substantially elevated noise levels for two or more continuous years at 13 locations within the study area. Most of those locations, however, have double-glazed windows and an alternate means of ventilation. For buildings with double-glazed windows and window air conditioners, interior noise levels would be approximately 20 to 25 dBA less than exterior noise levels, and for buildings with double-glazed windows and well-sealed through-the-wall/sleeve/PTAC air conditioners interior noise levels would be approximately 25 to 30 dBA less than exterior noise levels. The typical attenuation provided by double-glazed windows and the alternate ventilation outlined above would be expected to result in interior noise levels during most of the time that are below 45 dBA $L_{10(1)}$ (the CEQR acceptable interior noise level criteria). However, although these structures have double-glazed windows and alternate ventilation, during some limited time periods construction activities may result in interior noise levels that would be above the 45 dBA $L_{10(1)}$ noise level recommended by CEQR for these uses.

A visual survey was performed to identify which locations may not currently have double-glazed windows and/or a means of alternate ventilation, or may have outdoor balconies. At these locations, typical attenuation provided by single-paned windows would range from 5 dBA for an open window condition (i.e., no alternate means of ventilation) to 20 dBA (i.e., with an alternate means of ventilation/closed-window condition). This level of attenuation would not be expected to result in interior noise levels during most of the time that are

below 45 dBA L₁₀₍₁₎ (the CEQR acceptable interior noise level criteria). Construction activities would be expected to result in significant adverse noise impacts at three locations.

The refined construction analysis performed between the DGEIS and FGEIS predicted construction noise impacts at fewer windows at Seward Park High School and a shorter duration of impacts than that shown in the DGEIS. The remaining impacts at the school are a result of noise generated by construction of Sites 1, 2, and 3.

Upon selection of a developer for each of these development sites, an additional construction noise analysis shall be completed by the developer(s) of each site, taking into consideration: (1) the specific development project(s) to be constructed; (2) the anticipated construction timeline and sequencing in relation to the other project sites; (3) the proposed construction means and methodologies, and any new available technologies that exist at the time of construction to reduce construction noise; and (4) the path and source controls, which are to be implemented in conjunction with the project. The Office of the Deputy Mayor for Economic Development (ODMED), as lead agency, and HPD and/or NYCEDC will review the additional analyses.

If the additional analyses find that construction at any of the three development sites would continue to have the potential to result in significant noise impacts at Seward Park High School, the developer(s) of the site(s) with the potential to result in significant noise impacts will investigate whether additional path and source controls may be available to mitigate the potential significant impact and the extent to which the impact would be mitigated.

If the additional analysis, taking into account the detailed information on construction methodology, timing and sequencing and any available additional path and source controls, still shows the potential for significant noise impacts at Seward Park High School resulting from construction at one of the development sites, the developer of that site will explore potential receptor controls for the school facility in consultation with the New York City School Construction Authority (SCA). Potential receptor controls to be considered may include the installation of interior storm windows at locations with single-glazed windows, replacement of single-glazed windows with acoustically rated windows, improvements in the sealing of the existing windows, and/or the provision of air conditioning, so that the impacted façades of the school can maintain a maximum interior noise environment of 45dBA under closed-window conditions. These measures would have the potential to mitigate the impacts at Seward Park High School. In the event that implementing such receptor controls is not practicable, as determined by ODMED as lead agency in consultation with HPD and/or NYCEDC, the proposed actions would result in a partially mitigated impact on Seward Park High School, as set forth in this FGEIS.

For properties that may be under the jurisdiction of HPD or developed through an HPD program, additional mitigation (source and path control measures) identified in the refined and/or additional analyses would be required to be undertaken by the developer(s) through provisions in a Land Disposition Agreement to be entered into at the time of closing. The Land Disposition Agreement would also require the use of a construction monitor, which would operate under the oversight of ODMED, to ensure such measures are implemented during construction activities. In the event it is determined that receptor controls will be implemented at the school, the developer(s) would be required to fund and install the measures (in coordination with ODMED, HPD and SCA) at the affected facades of the school prior to the commencement of construction at the site(s) causing the noise impact.

For properties that may be under the jurisdiction of NYCEDC, noise control measures identified in the refined and/or additional analyses, including receptor controls if determined to be practicable, would be required to be undertaken by the developer(s) through provisions of a contract or other legally binding agreement between NYCEDC and the developer(s). The contract or other legally binding agreement would require the use of a construction monitor, which will operate under the oversight of ODMED, to ensure that such measures are implemented during construction activities.

At the two locations with the potential to experience construction noise impacts only at outdoor balconies, there would be no feasible or practicable mitigation to mitigate the construction noise impacts. Therefore these balconies would be considered to experience an unmitigated significant adverse impact at various times.

6. UNAVOIDABLE ADVERSE IMPACTS

As described above, a number of the potential impacts identified for the proposed actions could be mitigated. However, in some cases, impacts from the proposed actions would not be fully mitigated.

HISTORIC AND CULTURAL RESOURCES

Potential mitigation measures that could partially mitigate the impact of the demolition of the S/NR-eligible Essex Street Market and former fire station may include, to the extent practicable and feasible: preparation of HABS documentation of all four buildings of the Essex Street Market and the former fire station; a permanent interpretive exhibit or exhibits about the Essex Street Market and the former fire station, which could be developed and installed in the new Essex Street Market facility on Site 2 or in another appropriate location near the project site; architectural salvage if any significant exterior or interior architectural elements could be removed and incorporated into the proposed development; and design of the new buildings on Sites 2, 8, 9, and/or 10 to reference the design of the Essex Street Market, which could include incorporating references to such architectural elements of the market buildings as the strip windows and the incised lettering above the entrances. In addition, NYCEDC and HPD will continue to consult with LPC and/or OPRHP regarding the compatibility of the proposed development on Site 1 with the S/NR-listed Lower East Side District, in which it is located, and with the S/NR-eligible and NYCL-eligible Eastern Dispensary.

Submission of the preliminary design of the proposed building on Site 1 to LPC and/or OPRHP for review and comment following a developer's RFP process is proposed as a means to eliminate or partially mitigate the potential contextual and visual impact on the historic district and Eastern Dispensary from the proposed development on Site 1. If LPC and/or OPRHP determine that the preliminary design of the proposed building on Site 1 would result in a significant adverse impact on the Lower East Side Historic District and/or the Eastern Dispensary and no design changes, which are feasible and practicable given NYCEDC and HPD's goals and objectives, are identified to eliminate or fully mitigate this impact, it would constitute an unmitigable significant adverse impact on the Lower East Side Historic District and/or the Eastern Dispensary.

TRANSPORTATION

Traffic

As described above, NYCDOT adopted and began implementing an area-wide plan to improve pedestrian, bicycle, and vehicular safety along the Delancey Street corridor. Some significantly impacted intersections that were mitigated in the DGEIS would be unmitigated in the FGEIS due to these safety oriented changes, particularly along Delancey Street where vehicular traffic capacity would be reduced in order to enhance overall pedestrian, bicycle, and vehicular traffic safety in response to community needs. In addition, signal timing modifications are being proposed by NYCDOT along Allen Street to improve service along the M15 bus line. These changes to the study area's transportation network were incorporated as part of the FGEIS.

Under the proposed actions, ten intersections would experience unmitigable traffic impacts in the 2022 With Action year (but not in all peak hours). Of these ten intersections, one intersection, the intersection of East Houston Street and Allen Street, could be partially mitigated. At this intersection, traffic improvements would be able to mitigate one, but not all, of the impacted movements during the weekday AM peak hour. The nine other intersections that would remain unmitigated are the intersections of: East Houston Street and Chrystie Street/Second Avenue; Delancey Street with Allen Street, Ludlow Street, Essex Street, Norfolk Street, Suffolk Street and Clinton Street; Broome Street and Norfolk Street; and Grand Street and Clinton Street.

Pedestrians

Under the proposed action, up to two sidewalks could experience unmitigable impacts in the 2022 With-Action year (but not in all peak hours). These potential significant impacts would occur at the west sidewalk of Essex Street between Delancey and Broome Streets and the east sidewalk of Essex Street between Delancey and Rivington Streets. As previously discussed, subsequent to the issuance of the DGEIS, at NYCDOT's direction, the pedestrian trip assignment was revised to direct more pedestrian trips on Essex

Street. These changes resulted in increased project-generated pedestrian trips on Essex Street's sidewalks and crosswalks, and subsequently in potential significant adverse impacts at these sidewalk locations. In addition, the pedestrian analysis for the 2022 With Action condition was performed by incorporating the pedestrian activities generated by the project's RWCDs full build-out. In addition, the sidewalk analysis used the narrowest pedestrian walking paths by reducing the available sidewalk widths from obstructions created by subway stair entrances, street furniture and "shy-distances" (i.e., the space left between pedestrians and curbs/building façades) throughout the entire length of these sidewalk segments following the *2000 Highway Capacity Manual* guidelines. These assumptions reduced the effective widths to approximately 20 to 30 percent of the overall widths available at these two sidewalk locations. The combination of all these factors resulted in the potential for significant adverse sidewalk impacts at these locations in the future 2022 With Action condition.

For the east sidewalk of Essex Street between Delancey and Rivington Streets, the potential significant adverse pedestrian impact could be fully mitigated by widening the sidewalk from its existing width of 13 feet to 13 feet and 7 inches. The potential significant adverse pedestrian impact at the west sidewalk of Essex Street between Delancey and Broome Streets could be fully mitigated by widening the sidewalk from its existing width of 13 feet to 13 feet and 8 inches. However, these mitigation measures to widen the sidewalks by 7 and 8 inches are not feasible and practicable, since there are constraints that would prohibit such widening. Specifically, the presence of subway stairways would preclude any widening towards the property lines. Although widening the sidewalks by extending in to the roadbed is a potential mitigation measure, NYCDOT does not typically undertake such widening except for extending corners by providing bulbouts; thus, the potential significant adverse sidewalk impacts would be unmitigated.

It should also be noted that the pedestrian analysis presents a RWCDs assessment of future pedestrian levels since the project's development program and design may not be fully realized as assumed in the RWCDs in the future conditions, resulting in different travel patterns at these locations.

CONSTRUCTION

Construction activities would be expected to result at various times in significant adverse noise impacts at three locations. At the two locations with the potential to experience construction noise impacts only at outdoor balconies, there would be no feasible or practicable mitigation to mitigate the construction noise impacts. Further assessment related to construction impacts at Seward Park High School (350 Grand Street) resulting from construction at Sites 1, 2, and 3 will be conducted upon selection of a developer or developers for these Sites, and additional mitigation measures will also be considered. In the event that mitigation measures are not determined to be feasible and practicable, the impacts at Seward Park High School would be only partially mitigated.

7. GROWTH-INDUCING ASPECTS OF THE PROPOSED ACTIONS

The proposed actions would be limited to the project site, which would be developed with mixed-income residential, commercial, community or cultural uses, parking, and publicly accessible open space. The proposed actions would be expected to improve land use conditions in the study area by replacing underutilized sites with new development that would integrate with, and knit together, surrounding communities. While the new uses would contribute to growth in the City and State economies, they would not be expected to induce additional notable growth outside the project site. It is anticipated that the consumer needs of the new residential and worker populations would largely be satisfied by a combination of the new retail uses that would be included as part of the proposed actions and the existing retail stores in the area. The area already contains a broad mix of commercial uses, local services, and a growing number of restaurants and drinking establishments. It is possible that development resulting from the proposed actions and other developments in the area could prompt some new retail development from those looking to capitalize on the area's increased consumer base. Induced commercial development, if it were to occur, would be limited and would likely include stores catering to the new residential and worker populations, such as food stores, restaurants, beauty salons and dry cleaners.

In addition, the proposed actions would not include the introduction or expansion of infrastructure capacity (e.g., sewers, central water supply) that would result in indirect development.

Therefore, the proposed actions would not induce significant new growth in the surrounding area.

8. IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

The commitments of land resources and materials are weighed against the benefits of the proposed actions. The proposed actions would transform several underutilized City-owned properties into a thriving, financially viable, mixed-use development. The proposed actions would provide affordable and market-rate housing units, commercial and retail uses, community facilities and other neighborhood amenities (e.g., parking, a new and expanded facility for the public Essex Street Market, and publicly accessible open space). The mix of uses would bring a greater level of pedestrian activity to the project site, making the neighborhood more inviting and appealing to live in and visit. In addition, the increased pedestrian activity that would result from the proposed actions would increase foot traffic and retail demand, benefitting existing retail stores in the area.

The proposed development includes relocating the existing Essex Street Market to a new, larger facility, which would create entrepreneurship opportunities for additional vendors and would allow for a variety of vendor price points. A new market facility would have an improved internal layout, better connections with the street and expanded common gathering areas for public seating and market events. In addition, the new facility would be energy efficient, be fully compliant with the Americans with Disabilities Act, and have improved storage capabilities, garbage handling, and climate control. The City would give existing vendors the first opportunity to relocate their business to the new market facility, when the facility on Site 2 is complete and ready for occupancy.

In addition, the proposed actions would replace underutilized sites with new development that would integrate with, and knit together, surrounding communities.

9. NEW YORK STATE ENVIRONMENTAL CONSERVATION LAW

This Notice of Completion for the Final Generic Environmental Impact Statement for the Seward Park Mixed-Use Development Project has been prepared in accordance with Article 8 of the New York State Environmental Conservation Law.

10. CONTACT OFFICE

Requests for copies of this FGEIS should be forwarded to the contact office: Mayor's Office of Environmental Coordination, 100 Gold Street – 2nd Floor, New York, NY 10038, or by email to rkulikowski@cityhall.nyc.gov.

The FGEIS is also available on the New York City Mayor's Office of Environmental Coordination website:

<http://www.nyc.gov/oec>



Robert R. Kulikowski, Ph.D.
Assistant to the Mayor
On behalf of the Deputy Mayor for
Economic Development

August 10, 2012
Date