A. INTRODUCTION

As described in Chapter 1, "Project Description," the Proposed Actions consist of a series of land use actions, comprised of zoning map zoning text, and City map amendments, along with the disposition of City-owned property that together would implement land use and zoning recommendations of DCP's Gowanus Neighborhood Plan. The area subject to the Proposed Actions covers 82 blocks and is generally bounded by Bond, Hoyt, and Smith Streets to the west; 3rd and 4th Avenues to the east; Huntington, 3rd, 7th, and 15th Streets to the south; and Warren, Baltic, and Pacific Street to the north.

Though much of the proposal provides a future as-of-right zoning framework to achieve the stated land use objectives, the Proposed Actions also include a new special permit and three new authorizations (the "additional zoning mechanisms") that may be pursued by applicants in the future:

- A City Planning Commission (CPC) Special Permit to allow hotels in the Project Area (as permitted by the underlying zoning district regulations);
- A CPC Authorization to allow for the exemption of school floor area and modified bulk under certain conditions throughout the Gowanus Special Mixed-Use District (GSD);
- A CPC Authorization to modify the bulk envelope (height and setback regulations) and use and streetscape regulations for large mixed-use site seeking to redevelop while integrating new development with non-residential uses.

The conceptual analysis presented below examines the potential for impacts under these four actions. The future with the Proposed Actions (With Action condition) as presented in Chapter 1, "Project Description," is based on several factors and assumptions regarding where new development could reasonably be expected under the With Action condition, as well as the type and density of that development. The With Action condition does not consider specific sites that would develop in accordance with the above listed zoning mechanisms since the number and locations of sites that may utilize the future special permit and authorizations cannot be predicted with certainty, and approval of the discretionary zoning mechanisms would be uncertain.

Accordingly, this chapter provides a conceptual analysis to generically assess potential environmental impacts that could result from development under these zoning mechanisms. These additional zoning mechanisms would be subject to separate future discretionary approvals and any environmental impacts associated with such actions would be assessed and disclosed pursuant to those environmental reviews, with a project-specific analysis beyond that provided below. Since the development assumptions examined below are subject to future approvals, the actions that are examined below are referred to as the "Future Discretionary Actions Scenario" at the five analyzed sites.

PRINCIPAL CONCLUSIONS

Development under the Future Discretionary Actions Scenario is not expected to result in any new significant adverse impacts as compared to the With Action con. The proposed hotel special permit is intended to ensure that hotel development does not impair the character or future use or development of the surrounding area. The authorizations would ensure that the bulk modifications and increased floor area provided under the approvals promotes the development of community resources, better site plans, and the integration of a mix of uses. The potential development on Conceptual Development Site 3 associated with the proposed authorization for large mixed-use sites has the potential to result in a significant adverse impact due to the demolition of a contributing building to the State/National Register-eligible (S/NR) Gowanus Canal Historic District. However, as discussed in Chapter 7, "Historic and Cultural Resources," the Proposed Actions would also result in significant adverse impacts to the S/NR-eligible Gowanus Canal Historic District due to the demolition of contributing buildings.

B. DESCRIPTION OF ADDITIONAL ZONING MECHANISMS

The additional zoning mechanisms would create one new special permit and three new authorizations that would be applicable to sites within the Project Area. The additional zoning mechanisms, described below. would be part of the Proposed Actions analyzed in this EIS, but would be subject to future discretionary approvals for permits and authorizations.

HOTEL SPECIAL PERMIT

In zoning districts that permit hotels, the GSD would require a special permit for any new hotel developments within the Project Area. This special permit would apply to the creation of any new hotel floor area, whether through enlargement, conversion, or new development. The proposed hotel special permit is intended to ensure that hotel development does not conflict with the goal of these actions to create opportunities for requiring permanently affordable housing, and to ensure that the neighborhood would continue to serve diverse housing needs. With the Proposed Actions, the development of hotel uses would require an application to CPC for a special permit that may only be granted provided that CPC finds that such hotel use is consistent with such character of the surrounding area and does not constrain future use or development of the surrounding area. The proposed special permit could be applied for in the future for any of the projected and potential development sites in districts that allow hotel use within the GSD.

SCHOOL AUTHORIZATION

The GSD would apply special floor area ratio (FAR) regulations to promote community resources, such as schools. Along the Canal, the GSD would allow floor area for schools, as defined by the GSD, to be exempted, which would be accompanied by an increase in maximum permitted height to accommodate the school. The GSD would create an authorization that would allow for the exemption of school floor area and modified bulk to better accommodate a school, provided that such modification is the least required to achieve accommodation of said school and that the modifications do not impair the character of the surrounding area or have adverse effects on light, air, and privacy of adjacent properties.

AUTHORIZATION FOR LARGE MIXED-USE SITES

The GSD would create an authorization to allow modification of the bulk envelope and certain use regulations on large non-Canal block sites to facilitate predominantly non-residential developments. The authorization would allow for modifications to height and setback regulations and ground-floor and supplemental use regulations to promote superior site design and integration of non-residential and residential uses. The authorization would not provide additional floor area.

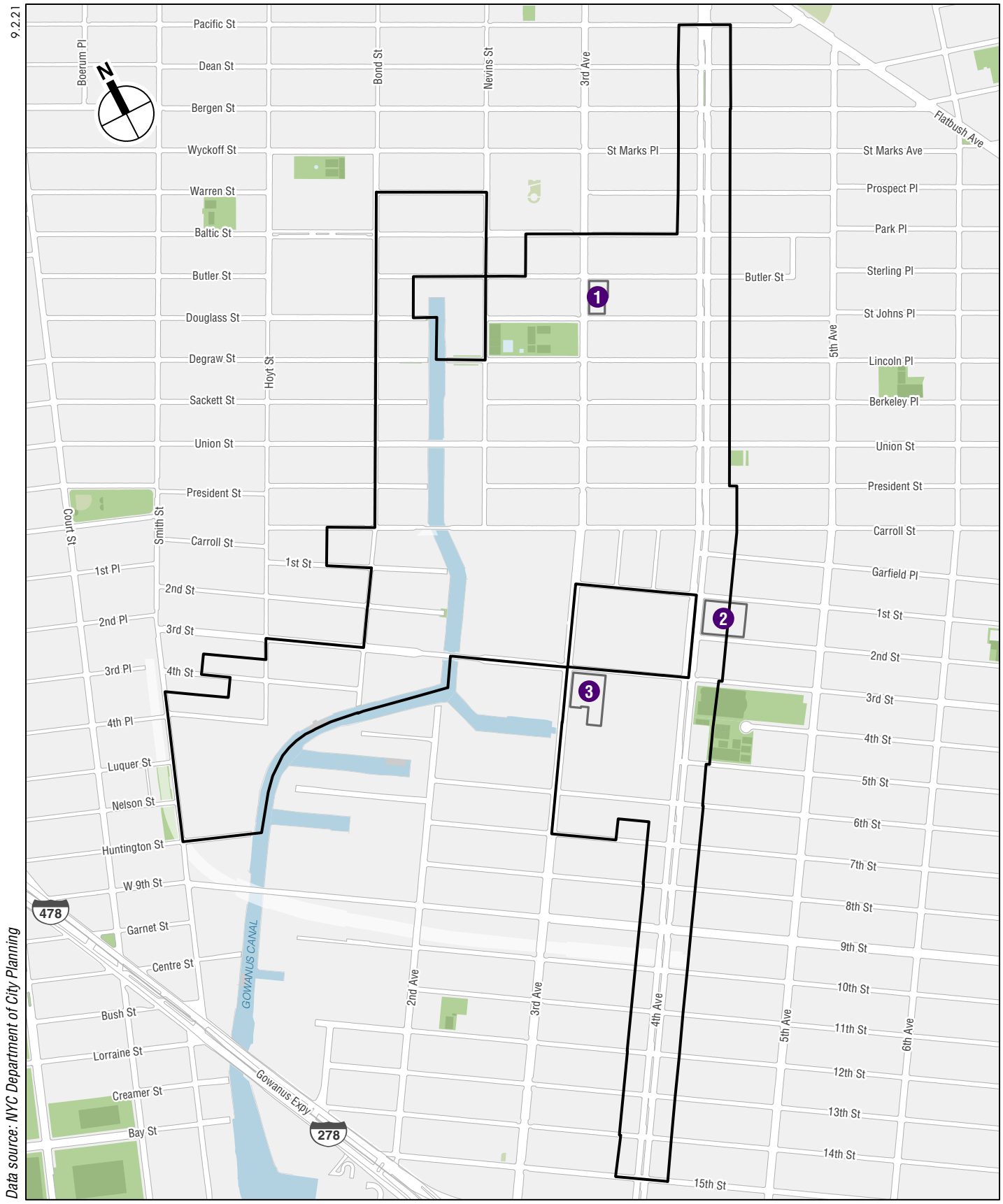
C. METHODOLOGY AND ANALYSIS FRAMEWORK

As described in Chapter 1, "Project Description," the Proposed Actions are intended to facilitate development patterns that meet the long-term vision of a thriving, inclusive, and more resilient Gowanus where existing and future residents and workers can participate in civic, cultural, and economic activities and where a wholly unique resource—the Gowanus Canal—can thrive and play an active role in that equitable and sustainable growth. Overall, the Proposed Actions are expected to result in a net increase of approximately 8,500 dwelling units (DUs), 735,000 square feet (sf) of commercial space, 251,000 sf of community facility space (inclusive of a new, 500-seat public school), and approximately 6 acres of new open space, including over an acre of newly mapped parkland. The Proposed Actions would result in net decreases of approximately 132,000 sf of warehouse space, 125,000 sf of self-storage space, and 60,000 sf of other industrial space. On privately owned sites, the Proposed Actions could result in a net increase of approximately 7,500 DUs, including approximately 2,000 permanently affordable DUs for lower-income New Yorkers in accordance with the Mandatory Inclusionary Housing Program (MIH). On City-owned sites, the Proposed Actions would result in approximately 1,000 affordable DUs, designated to serve a wide range of incomes.

The conceptual analysis provided below is a qualitative assessment of the likely effects the additional zoning mechanisms. Detailed analyses are not provided, since the use of any of these approvals would be a discretionary action subject to a separate environmental and public review process.

For the purposes of this analysis, three sites were selected as to comprise the "Future Discretionary Actions Scenario." The conceptual analysis considers the effects of the additional zoning mechanisms described above, in addition to the projected development identified as part of the With Action condition. The conceptual development sites are shown in **Figure 26-1**. The development program assumed with the Future Discretionary Actions Scenario is shown in **Table 26-1a**. The difference between the Conceptual With Action condition and the Reasonable Worst-Case Development Scenario (RWCDS) With Action condition establishes the incremental development assessed in this conceptual analysis. This incremental development is shown in **Table 26-1b**.

This figure has been updated for the FEIS.



Conceptual Development Sites

GOWANUS NEIGHBORHOOD REZONING AND RELATED ACTIONS

Figure 26-1

Table 26-1a
Development under Future Discretionary Actions Scenario

Conceptual Development Site	RWCDS Site	Residential (DUs)	Medical Office (sf)	School (sf)	Commercial (sf)	Hotel (sf)	Light Industrial (sf)
1	14	0	0	0	0	96,670	0
2	39	322	0	92,500	27,600	0	0
3	N/A	173	5,149	0	151,745	0	5,419
Total		495	5,149	92,500	179,345	96,670	5,419

Table 26-1b
Incremental Differences Between RWCDS With Action and Conceptual With Action

Conceptual Development Site	RWCDS Site	Residential (DUs)	Medical Office (sf)	School (sf)	Commercial (sf)	Hotel (sf)	Light Industrial (sf)
1	14	-49	0	0	-13,110	41,800	0
2	39	0	-46,000	92,500	0	0	0
3	N/A	173	5,149	0	151,745	0	5,419
Total		124	-40,581	92,500	138,635	41,800	5,419

The conceptual development sites that were chosen for the purposes of analysis were selected because they are considered the greatest potential to be redeveloped based on ownership patterns, existing floor area relative to future potential, and a current market indicative of an interest in future redevelopment. While it is not known which sites may be developed utilizing the additional zoning mechanisms, for the purposes of this conceptual analysis, it is assumed that the following sites would utilize one of the discretionary zoning mechanisms described above.

CONCEPTUAL DEVELOPMENT SITE 1 (BLOCK 413, LOT 1, 2, 7)

This site is Projected Development Site 14 and has a lot area of approximately 21,000 sf and a maximum permitted FAR of 5.6 and 4.0 for residential and non-residential uses, respectively, under the Proposed Actions. The site is currently occupied by the Fairfield Inn hotel and an associated parking lot. It is assumed the site would be developed with a new hotel building on the parking lot in accordance with the Hotel Special Permit. With the special permit, the site could be developed with up to 41,800 sf of hotel floor area. With a conservative average hotel room size of 300 sf, the site could include up to 126 rooms. As compared with the RWCDS for the Proposed Actions, this would result in a net increase of up to 41,800 sf of hotel floor area (126 hotel rooms), and a net decrease of approximately 45,980 sf of residential floor area (49 DUs) and 13,110 sf of a mix of non-residential floor area (local retail, office, light industrial space). The building on Conceptual Development Site 1 would have a maximum building height of 65 feet, which is 30 feet shorter than the mixed-use building that would be built on the parking lot under the Proposed Actions.

CONCEPTUAL DEVELOPMENT SITE 2 (BLOCK 969, LOT 1)

This site is Projected Development Site 39 and has a total lot area of approximately 51,500 sf. The zoning on the site is split between the proposed C4-4D district along 4th Avenue and the existing R6B district. The site has a maximum permitted FAR of 2.0 in the R6B district and maximum permitted FAR of 8.5 in the C4-4D district. The site is currently occupied by a one story warehouse with various commercial and light industrial uses. Under the Future Discretionary Actions Scenario, the site could be developed with a new school in a mixed-use building in accordance with the School Authorization. Development of a mixed-use building with an integrated school must meet New York City School Construction Authority (SCA) and New York City Department of Education (DOE) guidelines and criteria. The specific amount of floor area that could be developed is unknown. However, for analysis purposes, with the authorization, it is assumed the site could be developed with up to 92,500 sf of school floor area. As compared to the RWCDS for the Proposed Actions, this would result in a net increase of up to 92,500 sf of school floor area in addition to the approximately 301,400 sf of residential floor area (322 DUs), and 27,600 sf local retail, and a decrease of 40,000 sf of community facility space. The building on Conceptual Development Site 2 could reach a maximum height of 230 feet (55 additional feet compared to the RWCDS with the Proposed Actions).

CONCEPTUAL DEVELOPMENT SITE 3 (BLOCK 980, LOT 8)

This site has a combined lot area of approximately 49,400 sf and a basic maximum permitted FAR of 5.6 and 4.0 for residential and non-residential, respectively, under the Proposed Actions. The site is currently occupied by the former Somers Brothers Tinware (American Can) Factory. Part of Lot 8 was designated as a New York City Landmark (NYCL) by the New York City Landmarks Preservation Commission (LPC) on October 29, 2019. Any new development of a landmarked site requires a Certificate of Appropriateness from LPC. This analysis is based on what the proposed authorization could allow on large mixed-use sites where integrating a substantial amount of non-residential uses with residential uses (such as the American Can Factory) might proceed, if pursued. To that end, this conceptual analysis assumes new development on the portion of Lot 8 that is not part of the landmarked property and would not require a, LPC Certificate of Appropriateness. All together the new development and the existing landmarked buildings would account for up to 162,500 sf of residential space, 173 DUs, 140,906 sf of office space, and 21,677 sf of a mix of various non-residential space, which includes existing space within the portion of the site designated a NYCL. The building on Conceptual Development Site 3 would have a maximum building height of 140 feet.

INCREMENTAL DEVELOPMENT

The conceptual analysis considers the potential effects of development under the Future Discretionary Actions Scenario as compared to those described for the Proposed Actions. The analysis conservatively considers the three conceptual development sites described above in combination, rather than individual projects occurring independently of one another. As compared to the With Action condition, the increment for the conceptual Future Discretionary Actions Scenario represents a net increase of 41,800 sf of hotel space (126 rooms), 92,500 sf of school space, 121,270 sf of residential space (124 DUs), 138,635 of commercial space, and 5,419 sf of industrial space, and a net decrease of 40,581 sf of community facility space. The Future Discretionary Actions Scenario represents an overall increase of 359,420 sf of building floor area.

As noted above, the conceptual analysis considers the effects of three potential sites for future discretionary action. Specific building heights under the Future Discretionary Actions Scenario are difficult to determine in the absence of site-specific designs, but it is conservatively assumed that approximately 55 feet of additional height could be added to the development that would be subject to the School Authorization. The site identified for the Hotel Special Permit could build up to 145 feet, which is no different than under the Proposed Actions. Maximum heights for buildings developed in accordance with the Authorization for Enlargements of Existing Buildings Being Preserved are extremely difficult to determine without specific plan; however, the analysis will assume a building height of 140 feet to accommodate the conceptual development described above.

ANALYSIS FRAMEWORK

This conceptual analysis assesses the potential environmental impacts of the proposed actions which may result from development at somewhat greater densities and/or modified bulk configurations as compared with the With Action condition. For most technical areas, a detailed analysis at a level consistent with the methodologies of the *City Environmental Quality Review (CEQR) Technical Manual* (e.g., direct business displacement, historic resources, shadows, urban design, hazardous materials, construction impacts) will only be possible at the time that a site-specific application for a discretionary action is submitted to DCP. For some technical areas—including open space, water and sewer infrastructure, transportation, solid waste and sanitation, energy, and greenhouse gas emissions—the five sites selected for the conceptual analysis are likely to be generally representative of the type and amount of development that could occur, should development under any of the additional zoning mechanisms take place at locations other than the five conceptual development sites. Therefore, for these technical areas, the increment associated the Future Discretionary Actions Scenario is assessed in comparison with the RWCDS sites selected as the basis for comparison for that technical area. The build year assumed for this analysis is 2035, by which time it is assumed that the RWCDS would be fully built-out.

D. ENVIRONMENTAL ASSESSMENT

LAND USE, ZONING, AND PUBLIC POLICY

Similar to the analysis conducted in Chapter 2, "Land Use, Zoning, and Public Policy," development with the additional zoning mechanisms would not result in a significant adverse impact on land use, zoning, or public policy. Under the Future Discretionary Actions Scenario represents a net increase of 41,800 sf of hotel space (126 rooms), 92,500 sf of school space, 121,270 sf of residential space (124 DUs), 138,635 of commercial space, and 5,419 sf of industrial space, and a net decrease of 40,581 sf of community facility space. The Future Discretionary Actions Scenario represents an overall increase of 359,420 sf of building floor area. The proposed hotel special permit would ensure that hotel development does not impair the character or future use or development of the surrounding area. The school authorization would promote the development of schools to support the residential population in Gowanus and surrounding neighborhoods. The authorization for large mixed-use sites would promote better site plans and integration of a mix of uses. Similar to the conclusions of the analysis provided in Chapter 2, the additional zoning mechanisms would not generate new land uses that would be incompatible with surrounding land uses or conflict with existing zoning or applicable public policies. As such, the Future Discretionary Actions Scenario would not result in any significant adverse impacts to land use, zoning, and public policy.

SOCIOECONOMIC CONDITIONS

As is the case under the With Action condition, the Future Discretionary Actions Scenario would not result in a significant adverse impact with respect to socioeconomic conditions. Development would occur on the same 63 projected development sites under the Future Discretionary Actions Scenario, with the exception of new residential and non-residential development on Conceptual Site 3, which would result in additional direct displacement of uses within the approximately 55,000-gsf portion of the American Can Factory complex that is not part of the landmarked property. Inclusive of the landmarked portion, the six-building, approximately 130,000-gsf Can Factory complex includes artisans, visual and performing artists, poets and writers, filmmakers, architects and designers, publishers, non-profit organizations, and others working in the creative industries.[1]

As there is no current plan for redevelopment on Conceptual Site 3, the timing of displacement is uncertain, and therefore the specific businesses that could be displaced is difficult to predict. For purposes of analysis, it is assumed that the existing composition of business types would remain, and the numbers and types of displaced businesses and employment would be reflective of existing tenancy. Based on this assumption, **Table 26-2** presents estimates of the numbers and types of businesses that could be displaced from Conceptual Site 3 under the Future Discretionary Actions Scenario. An estimated 41 businesses and 93 employees associated with those businesses across a range of industry sectors could be displaced. The largest proportion of displaced businesses and employees would be from the Arts, Entertainment, and Recreation sector (approximately 51 percent of displaced businesses and 28 percent of displaced employees). These would include painters, poets and writers, sculptors, and multimedia artists, many of whom occupy smaller studio spaces. The next-largest proportion of displaced businesses would be within the Information sector (approximately 20 percent of displaced businesses and 26 percent of displaced employees). These would include filmmaking businesses as well as BC Studio, which in addition to music recording provides over 80 music rehearsal rooms. Other potentially displaced business types could include architects in the Professional, Scientific, and Technical Services sector, as well as non-profit organizations such as the Gowanus Canal Conservancy in the "Other Services" sector.

[1] https://thecanfactory.org/

Table 26-2

Private Businesses and Employment Potentially Displaced under the Future Discretionary Actions Scenario – Conceptual Site 3 (American Can Factory)

	Firms	Percent of Displaced Businesses	Estimated Employment Displaced[1]	Percent of Displaced Employment
Manufacturing	4	9.8	6	6.3
Retail	1	2.4	1	1.1
Information	8	19.5	25	26.3
Professional, Scientific, and Technical Services	6	14.6	26	27.4
Arts, Entertainment, and Recreation	21	51.2	27	28.4
Other Services (except Public Administration)	1	2.4	10	10.5
Total	**41**	**100.0**	**95**	**100.0**

Note:
1. Business and employment estimates are based on the existing composition of businesses within the American Can Factory complex and may not reflect actual displacement within the complex at a future redevelopment date.

Sources: AKRF, Inc.; Current tenant listing for the American Can Factory from: https://thecanfactory.org/people/

Individually and collectively, the potentially displaced uses provide products and services that are important to the local economy, and they are notable contributors to the "cultural economy" within the study area. However, the potential displacement of the business services and employment would not constitute a significant adverse impact under CEQR. In combination with the potential displacement that could occur in the future with the Proposed Actions, the displacement would not represent a substantial proportion of businesses or employment within any given industry sector within the study area (see **Table 26-3**). Comparable products, services, and employment opportunities would still be available within the study area and Brooklyn. For example, as noted in Chapter 3, "Socioeconomic Conditions," music rehearsal and recording spaces would continue to be available to local artists within the study area, including: Battalion Studios at 175 6th Street; King Killer Studios at 69 2nd Avenue; Acme Hall Studios at 435 9th Street; Degraw Sound at 597 Degraw Street; Peter Karl Studios at 295 Douglass Street; Douglass Recording at 332 Douglass Street, Atlantic Sound Studio at 540 President Street; and Rift Studios at 54 Franklin Avenue. In addition, it is assumed that a similar mix of non-residential space would be accommodated on the site and in the new development. A net increase of 124 DUs would not result in additional indirect residential displacement.

Table 26-3
Private Businesses and Employment Potentially Displaced by the Proposed Actions and the Future Discretionary Actions Scenario

	Firms	Percent of Study Area Businesses Displaced	Estimated Employment Displaced[1]	Percent of Study Area Displaced Employment
Construction	5	2.0	93	3.7
Manufacturing	10	7.8	92	7.9
Wholesale	5	2.9	108	6.8
Retail	5	0.7	38	0.5
Transportation and Warehousing	4	6.9	88	7.7
Information	11	5.3	52	2.2
Professional, Scientific, and Technical Services	6	1.0	26	1.4
Administrative and Support and Waste Management and Remediation Services	1	0.8	6	0.7
Arts, Entertainment, and Recreation	24	11.9	57	2.6
Accommodation and Food Services	2	0.3	42	0.4
Other Services (except Public Administration)	13	NA	93	NA
Total	**45**	**100.0**	**600**	**100.0**

Notes:
1. Potentially displaced business and employment estimates are based on AKRF field observations; standard industry employment density ratios commonly used for CEQR analysis; and specific to Conceptual Site 3, on the existing composition of businesses within the American Can Factory complex.
2. NYSDOL QCEW data includes workers covered by State unemployment insurance (UI) laws and Federal workers covered by the Unemployment Compensation for Federal Employees (UCFE) program. Self-employed or freelance workers who work within these geographic areas may not be captured as QCEW excludes proprietors and the unincorporated self-employed.

Sources: AKRF, Inc.; DCP MapPLUTO 2018 data; NYSDOL QCEW, 3Q 20174; NYSDOL QCEW, 3Q 2017 data provided at the census tract-level for the socioeconomic study area by DCP HEIP Division (May 2019); and current tenant listing for the American Can Factory from: https://thecanfactory.org/people/.

As discussed above, the proposed hotel special permit is intended to ensure that hotel development does not impair the character or future use or development of the surrounding area. The school authorization would promote the development of schools to support the residential population in Gowanus and surrounding neighborhoods. The authorization for large mixed-use sites would promote better site plans and integration of a mix of uses. The changes in floor area and uses attributed to the additional zoning mechanisms are not expected to result in significant adverse impacts.

As compared to the With Action condition, under the Future Discretionary Actions Scenario, hotels could be sited within an area where they would otherwise be prohibited. However, this change in land use as compared with the With Action condition would not (1) add a new economic activity or add to a concentration of a particular sector of the local economy enough to significantly alter or accelerate existing economic patterns; (2) directly displace any type of use that either directly supports businesses in the area; or (3) bring a new customer base to the area for local businesses, or directly or indirectly displace residents or workers who form the customer base of existing businesses in the area. As with the With Action condition, the Future Discretionary Actions Scenario would not result in any significant adverse impacts due to indirect business/institutional displacement. In addition, the Future Discretionary Actions Scenario would not result in any significant adverse impacts on specific industries.

COMMUNITY FACILITIES AND SERVICES

Similar to the With Action condition, the Future Discretionary Actions Scenario would result in a significant adverse impact to child care. The conceptual development sites would not displace or otherwise directly affect any public schools, child care centers, libraries, health care facilities, or police and fire protection service facilities. The addition of 124 DUs would result in increased demand for schools; however, the provision of a new 500-seat elementary school would increase capacity in Subdistrict 2/CSD 15. Elementary school capacity would not increase in Subdistrict 3/CSD 15 or Subdistrict 1/CSD 13. Utilization of elementary schools would increase slightly in Subdistrict 3/CSD 15 and decrease in Subdistrict 2/CSD 15 and Subdistrict 1/CSD 13 compared to the With Action condition.

For intermediate schools, there would be no change to capacity in the Future Discretionary Actions Scenario compared to the With Action condition. Utilization in CSD 15 would increase slightly while utilization in Subdistrict 1/CSD 13 would decrease slightly compared to the With Action condition.

For high schools, there would be no change to capacity in the Future Discretionary Actions Scenario compared to the With Action condition. Utilization throughout Brooklyn would increase slightly. The addition of 124 DUs in the Future Discretionary Actions Scenario would also result in a slight increase in demand for publicly funded child care service as compared to the With Action condition.

The addition of 124 DUs in the Future Discretionary Actions Scenario would also result in a slight increase in demand for library services as compared to the With Action condition. Therefore, the Future Discretionary Actions Scenario would not result in any new or different significant adverse impacts to community facilities compared to the With Action condition.

OPEN SPACE

Similar to the With Action condition for the Proposed Actions, the additional zoning mechanisms would not result in any significant adverse impacts to open space. Under the Future Discretionary Actions Scenario, the non-residential study area population would increase by 1,747, and the residential study area population would increase by 272 when compared with the With Action condition. The resulting non-residential open space ratio in the Future Discretionary Actions Scenario would be 0.223 acres per 1,000 non-residents, which is slightly lower than that in the With Action condition (0.231 acres). The passive open space ratio for combined residents and workers would be reduced slightly from 0.067 to 0.066, respectively. between the With Action condition and Future Discretionary Actions Scenario.

With respect to reductions in the open space ratio within the residential study area, the total residential study area open space ratio in the Future Discretionary Actions Scenario would remain the same as compared to the With Action condition.

Given the minor reduction in the non-residential study area open space ratio, it is concluded that the Future Discretionary Actions Scenario would not result in a quantitative significant adverse impact on open space.

SHADOWS

As discussed in Chapter 6, "Shadows," the With Action condition could result in incremental shadows on 23 sunlight sensitive resources. These resources include: 11 public open spaces, three

community gardens, two project-generated open spaces, three historic resources, three New York City Housing Authority (NYCHA) open spaces, and one natural resource. Of the 23 resources affected, the detailed analysis found that the additional project-generated shadow would be substantial enough in extent and/or duration to cause significant adverse impacts to two of the resources: Our Lady of Peace Church, and Douglass and Degraw Pool in Thomas Greene Playground.

With the Hotel Special Permit, it is assumed that Conceptual Development Site 1 (Projected Development Site 14) would be developed with a new hotel building on the southern portion of the site, where a parking lot currently exists. The new hotel building would reach a maximum building height of 65 feet, which is 30 feet shorter than the mixed-use building that would be built on that portion of the site under the Proposed Actions.

Under the Future Discretionary Actions Scenario, Conceptual Development Site 2 (Projected Development Site 39) could be developed with 92,500 sf of school floor area in addition to the development projected under the With Action condition. This would result in a maximum building height of 230 feet as compared to 175 feet in the With Action condition.

Regarding Conceptual Development Site 3, this analysis conservatively assumes that with CPC Authorization, new development on the portion of the tax lot that is not part of the landmarked site could reach a maximum height of approximately 140 feet. In the With Action condition this site would remain as it current exists, occupied by a two- to four-story building.

Under the Future Discretionary Actions Scenario for Conceptual Development Site 1, the maximum building height of the new hotel building in the southern portion of the site, and therefore its longest possible shadow, would be shorter compared to the mixed-use building in the With Action condition. Similar to the With Action condition, the longest possible shadow from the hotel building would not be long enough to reach any sunlight-sensitive resources on the winter and March 21/September 21 analysis days. Compared to the mixed-use building in the With Action condition, the longest shadow from the hotel building would reach a shorter distance into the northeast area of Thomas Greene Playground in the early mornings of the May 6/August 6 and June 21 analysis days. In the With Action condition, shadow from this site (Projected Development Site 14) would not contribute to the significant adverse impacts to Our Lady of Peace Church and Douglass and Degraw Pool in Thomas Greene Playground, and given that the Hotel Special Permit Scenario would result in less shadow from the site than in the With Action condition, no further analysis of the site was required.

A preliminary or Tier 1 shadows assessment was conducted for the remaining two conceptual development sites to determine whether their greater maximum heights and longer shadows, compared with the With Action condition, could potentially reach additional sunlight-sensitive resources. **Figure 26-2** shows a map of the study area with sunlight-sensitive resources identified, similar to Figure 6-2 in Chapter 6, "Shadows," and the locations of Conceptual Development Sites 2 and 3.

For each of the two conceptual development sites requiring shadow assessment, the maximum height, including rooftop mechanical structures, was used to calculate their longest possible shadow. Using this length as the radius, a perimeter was drawn around each of the conceptual development sites. **Figure 26-2** illustrates the combined longest shadow study area resulting from the Tier 1 assessment, relative to the location of sunlight-sensitive public open space, community gardens, historic architectural resources, and natural resources. A Tier 2 assessment was conducted to further refine the longest shadow study area. Because of the path that the sun travels

This figure has been updated for the FEIS.

Tier 1 and Tier 2 Assessment

across the sky in the northern hemisphere, no shadow can be cast in a triangular area south of any given development site. In New York City this area lies between -108 and +108 degrees from true north. For the two conceptual development sites requiring shadow assessment, **Figure 26-2** illustrates this combined area south of the development sites where no project-generated shadow could fall. The complementary area to the north within the longest shadow study area represents the remaining area that could potentially experience new shadow.

The Tier 2 assessment showed that a number of sunlight-sensitive resources are located in the remaining longest shadow study area and could potentially receive additional shadow under the Future Discretionary Actions Scenario, compared to the With Action condition, and therefore a Tier 3 assessment was warranted.

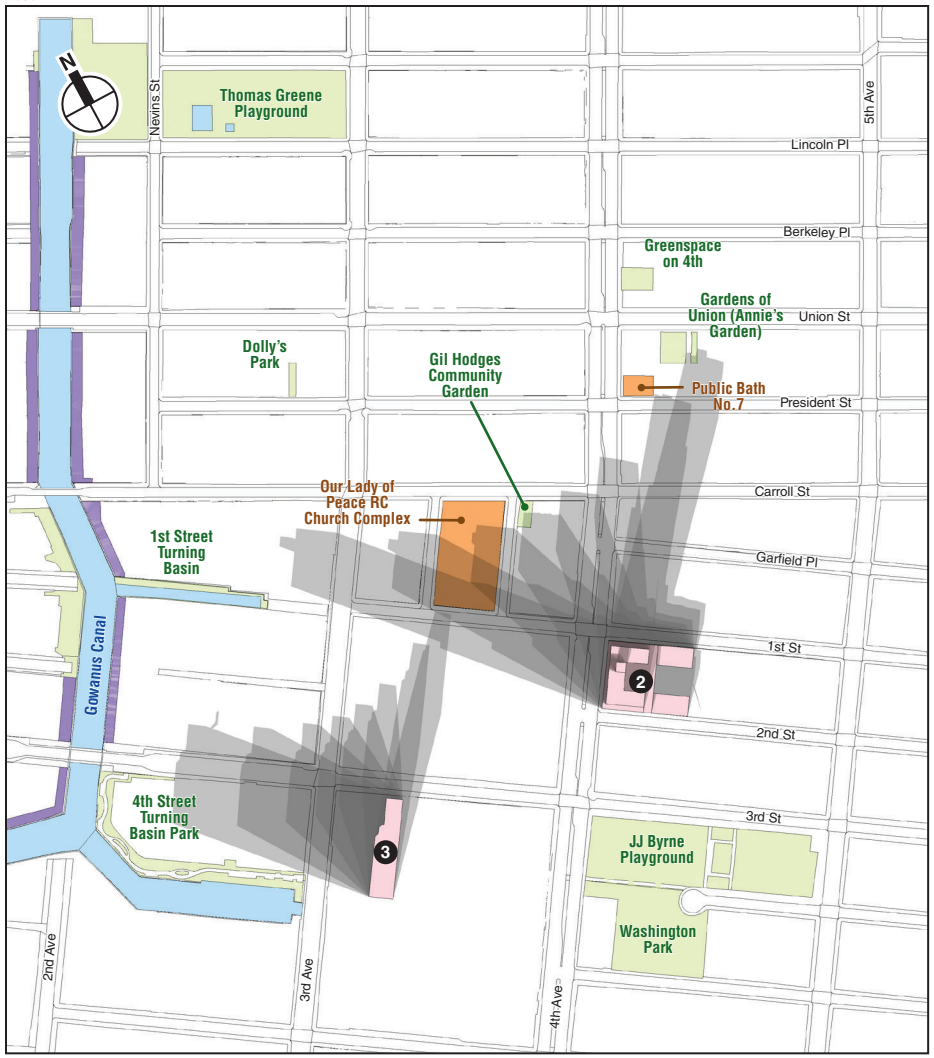
The direction and length of shadows vary throughout the course of the day and also differ depending on the season. In order to determine whether project-generated shadow could fall on a sunlight-sensitive resource, three-dimensional (3D) computer modeling software was used to calculate and display the shadows on individual representative days of the year. Following the guidance of the *2020 CEQR Technical Manual*, shadows on the summer solstice (June 21), winter solstice (December 21) and spring and fall equinoxes (March 21 and September 21, which are approximately the same in terms of shadow patterns) are modeled to represent the range of shadows over the course of the year. An additional representative day during the growing season is also modeled, generally the day halfway between the summer solstice and the equinoxes, i.e., May 6 or August 6, which have approximately the same shadow patterns. The shadow assessment considers shadows occurring between one and a half hours after sunrise and one and a half hours before sunset. The Tier 3 assessment does not account for intervening existing buildings but serves only to determine the potential reach of shadow on representative days. The results of the Tier 3 assessment are shown in **Figures 26-3 to 26-6**.

The Tier 3 assessment showed that, compared with the With Action condition, Conceptual Development Site 2 could potentially cast additional shadow on three sun-sensitive resources on the winter analysis day, but would not cast any additional shadow on sun-sensitive resources on the other analysis days. On the winter analysis day it could potentially cast additional shadow on portions of Our Lady of Peace Church Complex. As discussed in Chapter 6, "Shadows," the church in the northern part of the complex contains stained glass windows that under the With Action condition would receive substantial project-generated shadow in the morning of the winter analysis day, significantly impacting the potential appreciation of this resource. There is also a small round chapel in the southern part of the complex with stained glass windows that could also receive additional shadow from Conceptual Development Site 2 compared to the With Action condition. Additional shadow would also be long enough to reach a portion of Gil Hodges Community Garden and, minimally, the Gardens of Union (Annie's Garden) compared to the With Action condition.

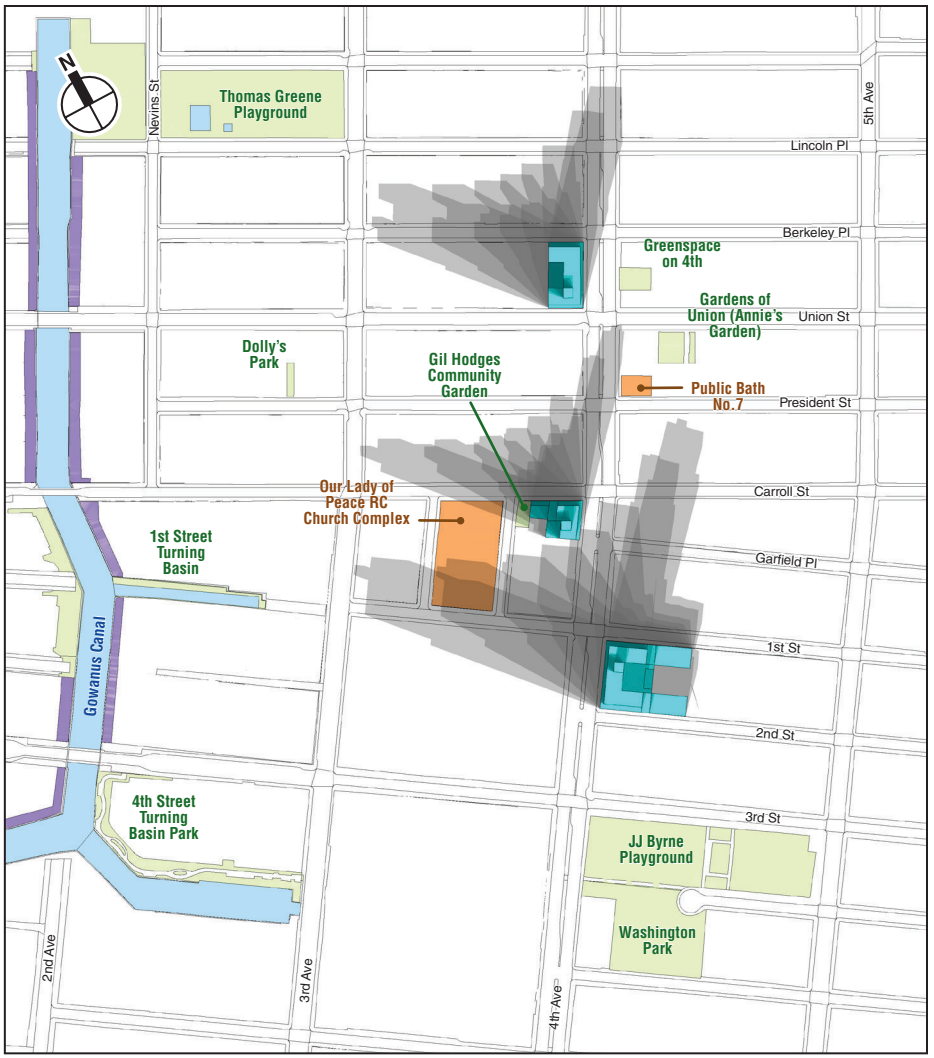
The Tier 3 assessment showed that Conceptual Development Site 3 could potentially cast additional shadow, compared with the With Action condition, on a portion of 4th Street Turning Basin Park and the adjacent turning basin itself on the spring, summer and fall analysis days but not the winter analysis day.

As noted above, the Tier 3 assessment does not account for intervening or surrounding buildings and the existing shadows they cast.

This figure has been updated for the FEIS.



Conceptual Development Sites



With-Action Development for Comparison

2 *Conceptual Development Sites Requiring Shadow Analysis*

Projected or Potential With-Action Development for Comparison

Publicly Accessible Open Space

Project-Generated Open Space

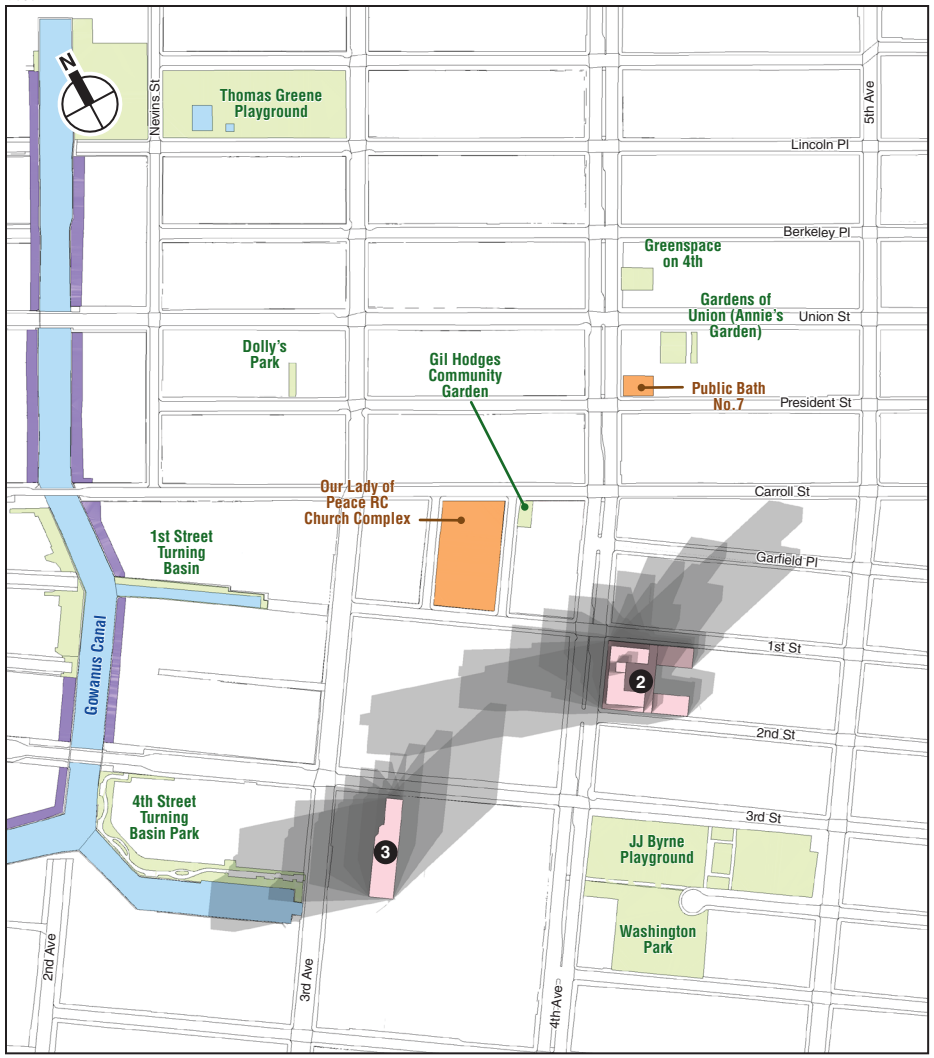
Historic Resources with Sunlight-Sensitive Features

This figure illustrates the range of shadows that would occur, absent intervening structures, from the development sites on the December 21 representative analysis day. The shadows are shown occurring approximately every 60 minutes from the start of the analysis day (one and a half hours after sunrise) to the end of the analysis day (one and a half hours before sunset). The Tier 3 assessment serves to illustrate the daily path or "sweep" of the development site's shadows across the landscape, indicating which resources could potentially be affected on that analysis day, absent intervening buildings. Daylight Saving Time was not used, per *CEQR Technical Manual* guidelines.

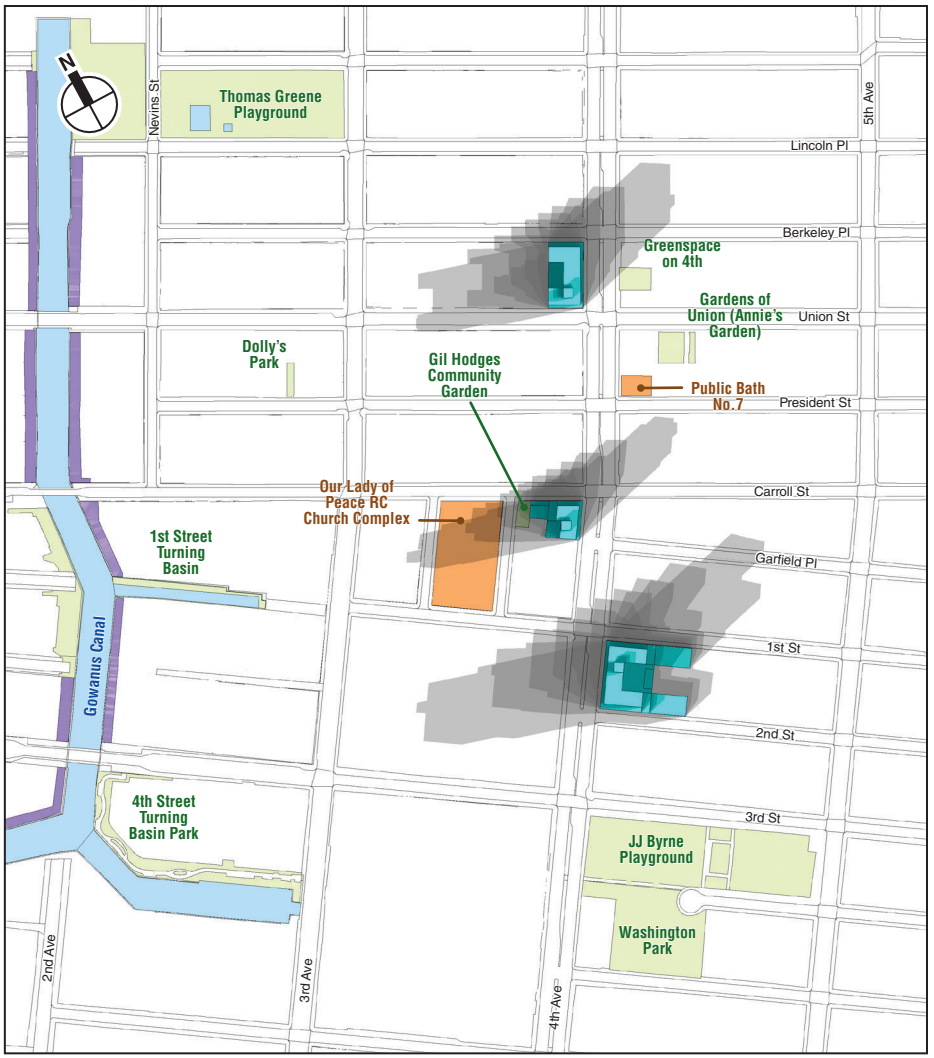
Shadows - Tier 3 Assessment
December 21

Figure 26-3

This figure has been updated for the FEIS.



Conceptual Development Sites



With-Action Development for Comparison

2 *Conceptual Development Sites Requiring Shadow Analysis*

Projected or Potential With-Action Development for Comparison

Publicly Accessible Open Space

Project-Generated Open Space

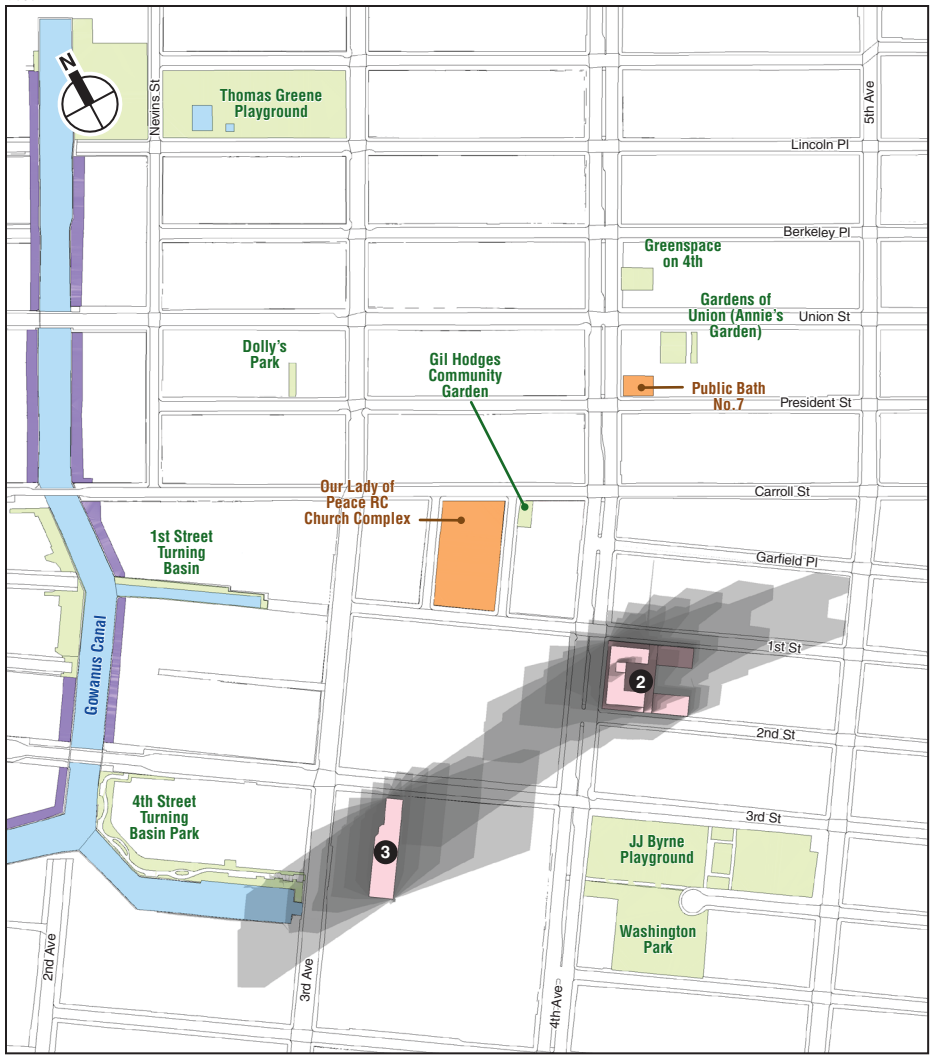
Historic Resources with Sunlight-Sensitive Features

This figure illustrates the range of shadows that would occur, absent intervening structures, from the development sites on the March 21/September 21 representative analysis day. The shadows are shown occurring approximately every 60 minutes from the start of the analysis day (one and a half hours after sunrise) to the end of the analysis day (one and a half hours before sunset). The Tier 3 assessment serves to illustrate the daily path or "sweep" of the development site's shadows across the landscape, indicating which resources could potentially be affected on that analysis day, absent intervening buildings. Daylight Saving Time was not used, per *CEQR Technical Manual* guidelines.

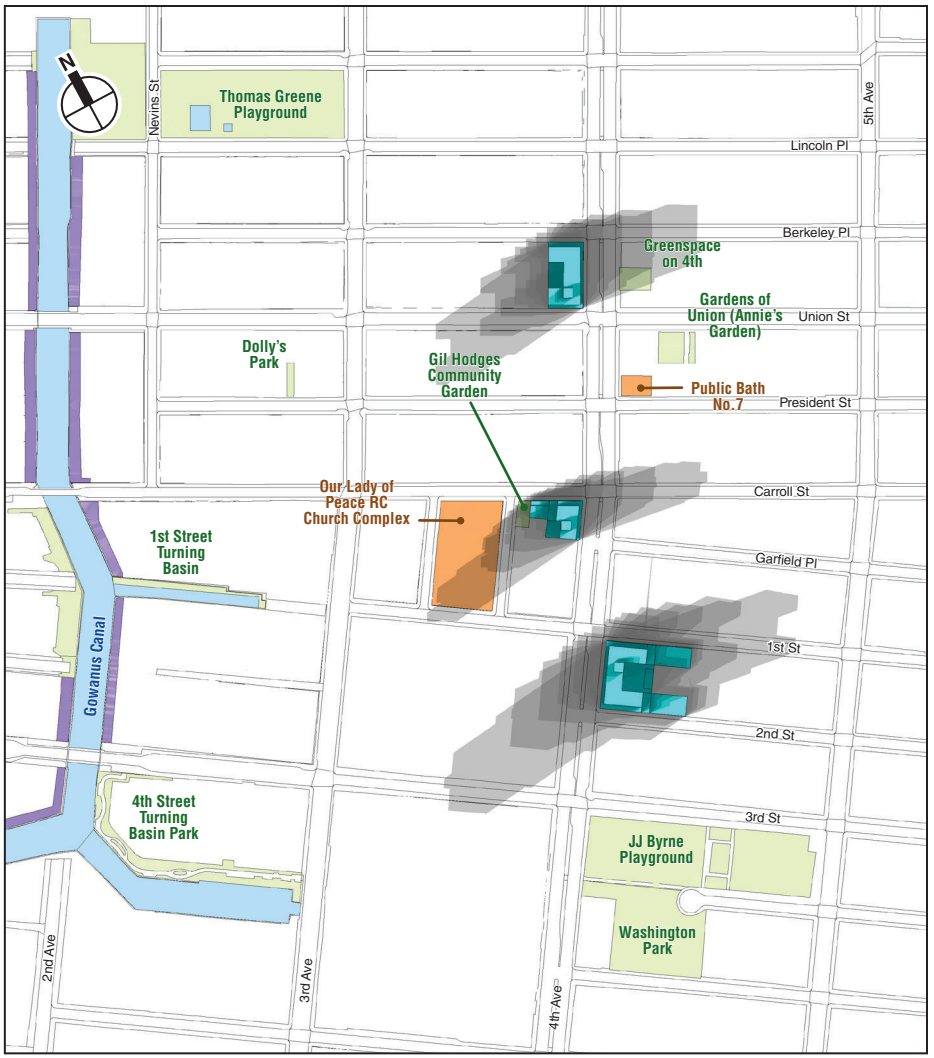
Shadows - Tier 3 Assessment
March 21/September 21

Figure 26-4

This figure has been updated for the FEIS.



Conceptual Development Sites



With-Action Development for Comparison

2 *Conceptual Development Sites Requiring Shadow Analysis*

Projected or Potential With-Action Development for Comparison

Publicly Accessible Open Space

Project-Generated Open Space

Historic Resources with Sunlight-Sensitive Features

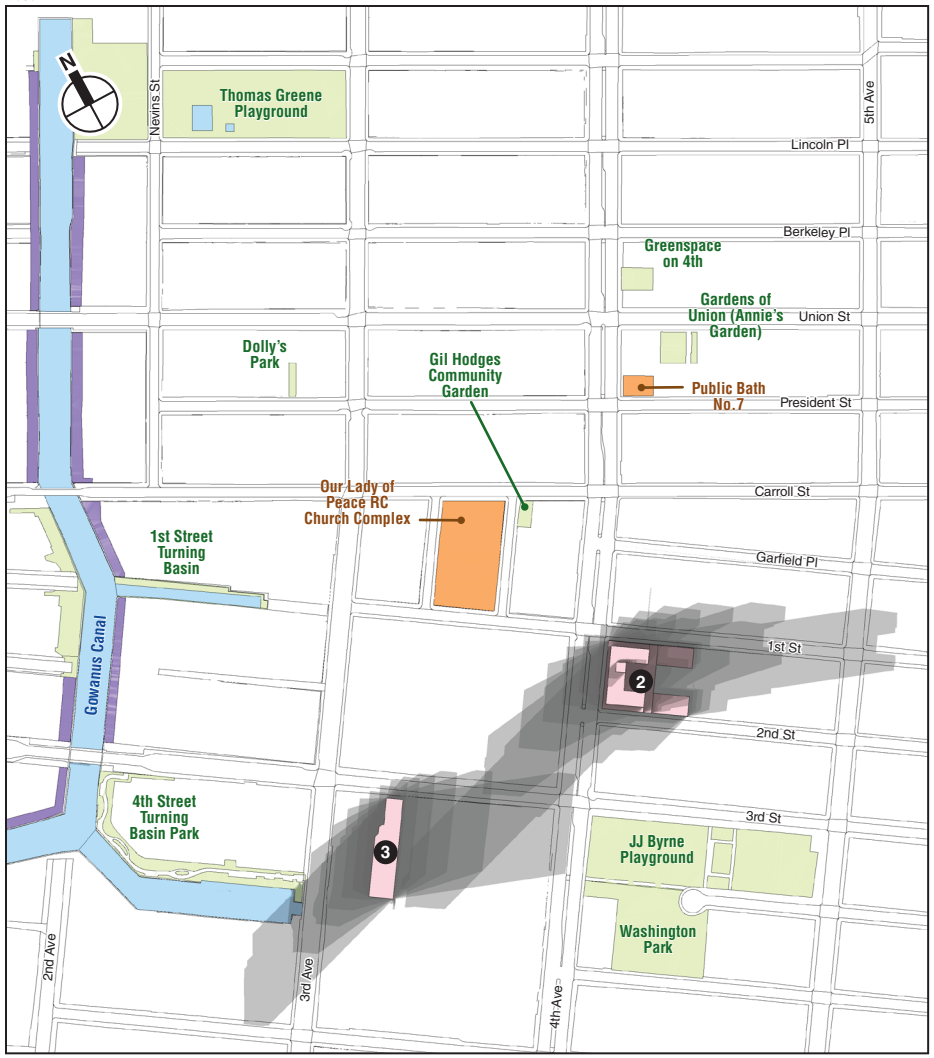
This figure illustrates the range of shadows that would occur, absent intervening structures, from the development sites on the May 6/August 6 representative analysis day. The shadows are shown occurring approximately every 60 minutes from the start of the analysis day (one and a half hours after sunrise) to the end of the analysis day (one and a half hours before sunset). The Tier 3 assessment serves to illustrate the daily path or "sweep" of the development site's shadows across the landscape, indicating which resources could potentially be affected on that analysis day, absent intervening buildings. Daylight Saving Time was not used, per *CEQR Technical Manual* guidelines.

Shadows - Tier 3 Assessment
May 6/August 6

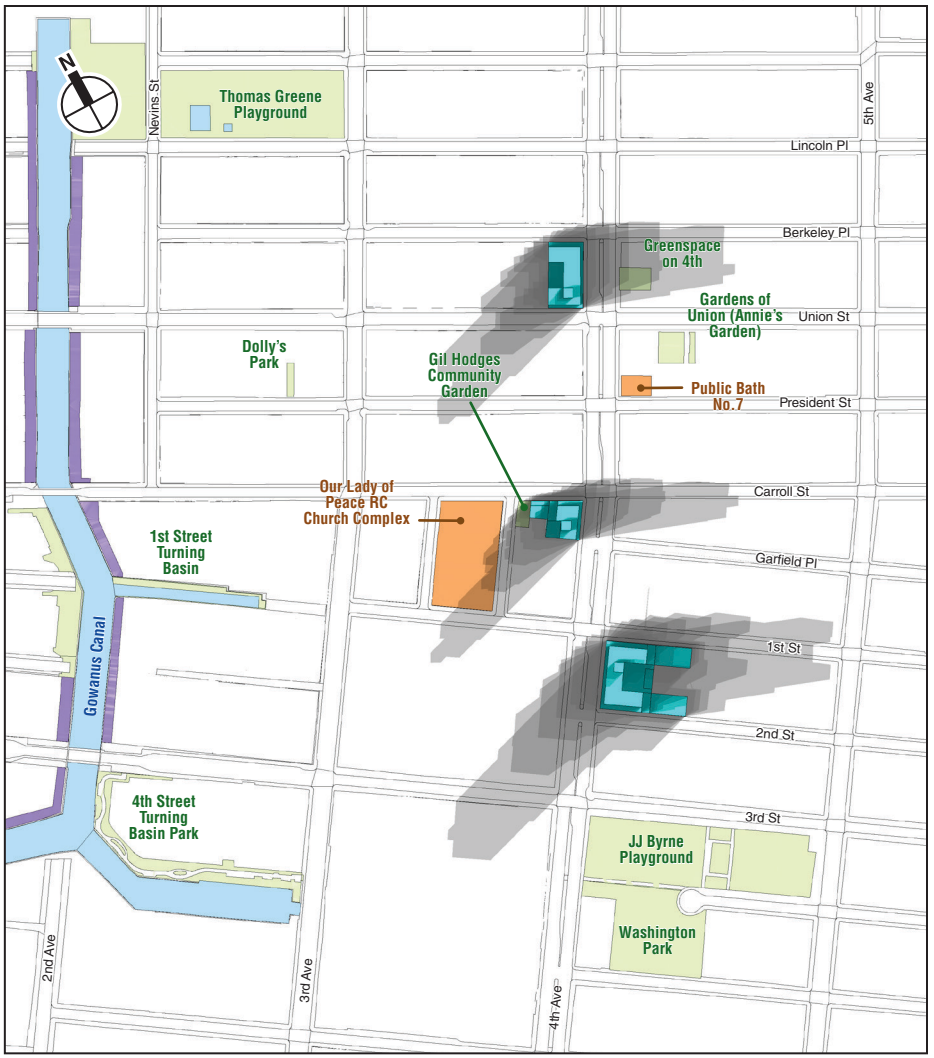
Figure 26-5

9.8.21

This figure has been updated for the FEIS.



Conceptual Development Sites



With-Action Development for Comparison

2 *Conceptual Development Sites Requiring Shadow Analysis*

Projected or Potential With-Action Development for Comparison

Publicly Accessible Open Space

Project-Generated Open Space

Historic Resources with Sunlight-Sensitive Features

This figure illustrates the range of shadows that would occur, absent intervening structures, from the development sites on the June 21 representative analysis day. The shadows are shown occurring approximately every 60 minutes from the start of the analysis day (one and a half hours after sunrise) to the end of the analysis day (one and a half hours before sunset). The Tier 3 assessment serves to illustrate the daily path or "sweep" of the development site's shadows across the landscape, indicating which resources could potentially be affected on that analysis day, absent intervening buildings. Daylight Saving Time was not used, per *CEQR Technical Manual* guidelines.

Shadows - Tier 3 Assessment
June 21
Figure 26-6

HISTORIC AND CULTURAL RESOURCES

The above described actions are not expected to result in any new impacts as compared to the With Action condition for the Proposed Actions. As discussed in Chapter 7, "Historic and Cultural Resources," the Proposed Actions would result in direct and indirect significant adverse impacts to both archaeological and architectural resources. This includes direct and indirect impacts on the S/NR-eligible Gowanus Canal Historic District, construction-related impacts to contributing properties located within the boundaries of the district from adjacent projected construction, shadow impacts on Our Lady of Peace Church, and construction-related impacts on properties that were determined to be archaeologically sensitive. Conceptual Development Site 3 contains the former Somers Brothers Tinware (American Can) Factory at 232-246 3rd Street, recently designated a NYCL by LPC. The site was not considered as either a projected or potential development site in the RWCDS developed for the Proposed Actions. The American Can Factory building was built in 1884 by the Somers Brothers and is a four-story brick building with frontages on 3rd Street and 3rd Avenue. Conceptual Development Site 3 also includes the buildings at 248-250 3rd Street, which are four-story brick buildings with two-story rear extensions that are contributing properties within the S/NR-eligible Gowanus Canal Historic District.[2] Any new development on a NYCL site requires a C of A from LPC. Furthermore, construction activity occurring within 90 feet of a NYCL must occur in accordance with the New York City Department of Buildings' (DOB's) *Technical Policy and Procedure Notice (TPPN) #10/88.* Any development that involves demolition of the buildings at 248-250 3rd Street on the non-NYCL portion of Conceptual Development 3 may result in an additional significant adverse impact as these buildings are contributing properties to the S/NR-eligible Gowanus Canal Historic District. As discussed in Chapter 7, "Historic and Cultural Resources," the Proposed Actions would result in significant adverse impacts to the S/NR-eligible Gowanus Canal Historic District due to the demolition of contributing resources in the district. At such time that a development project is proposed for Conceptual Development Site 3, a review in accordance with CEQR would be required.

URBAN DESIGN AND VISUAL RESOURCES

As in the With Action condition described in Chapter 8, "Urban Design and Visual Resources," there would be no significant adverse impacts on urban design and visual resources with the above-described actions..

The school authorization could be utilized on Site 2, which could be developed with a building that reaches a maximum height of 125 feet. The site is located along 4th Avenue, and would have heights that are consistent with the heights of other developments along 4th Avenue. Like the With Action condition, base heights of buildings developed in accordance with the additional zoning mechanisms would have a maximum base height of 125 feet, and would be compatible with respect to the varied scale that exists along 4th Avenue, including three- and four-story mixed-use buildings and taller mixed-use and residential buildings.

The building on Conceptual Development Site 1, which would utilize the hotel special permit, could reach a maximum building height of 140 feet, which is generally the same height as under the Proposed Actions. The building on Conceptual Development Site 3, which is assumed to

[2] The National Register of Historic Places Registration Form for the Gowanus Canal Historic District (December 2013) misidentifies the street address as 252-258 3rd Street which is a vacant parcel.

utilize the authorization for large mixed-use sites, would have a maximum building height of approximately 140 feet (excluding bulkhead), which is similar to the height of the building that could be developed on the adjacent site (Potential Development Site V).

Buildings developed in accordance with the additional zoning mechanisms would be generally consistent with the scale and bulk of buildings developed under the Proposed Actions and would also be similar in scale to other new buildings being developed in the study areas. With the additional zoning mechanisms, bulk requirements could be waived, and the resulting developments could have building bulk and massings configured in a somewhat different manner than under the With Action condition. As discussed above, application for each of the proposed zoning mechanisms would be subject to a separate environmental review and any environmental impacts associated with a specific development would be assessed and disclosed pursuant to separate environmental review. Therefore, the Future Discretionary Actions Scenario would not result in any significant impacts on urban design and visual resources.

NATURAL RESOURCES

Like the With Action condition, the Future Discretionary Actions Scenario would not result in significant adverse impacts to natural resources. Development under the Future Discretionary Actions Scenario would not result in significant adverse impacts to wildlife or ecological communities. As with the Proposed Actions, the Future Discretionary Actions Scenario would not affect the flood elevation and would not increase risks from flooding in the study area and is not expected to involve any in-water construction, or incremental impacts on wetlands, aquatic resources, water quality, or stormwater management.

HAZARDOUS MATERIALS

As with the With Action condition, there would be no significant adverse impacts with respect to hazardous materials in the Future Discretionary Actions Scenario. As discussed in Chapter 10, "Hazardous Materials," the conceptual development sites in the Future Discretionary Actions Scenario would be assigned an (E) designation in connection with the Proposed Actions. The potential for exposure of hazardous materials on Conceptual Development Site 3, which is currently located in an M-zoned district, would be assessed at the time a specific development proposal moves forward, and remedial measures, if any, would be developed at that time. The effects of the additional zoning mechanisms would be the same as with the With Action condition with respect to hazardous materials, and would not result in significant adverse impacts.

WATER AND SEWER INFRASTRUCTURE

WATER SUPPLY

Similar to the With Action condition, the Future Discretionary Actions Scenario would not result in any significant adverse impacts on the City's water supply system. As discussed in Chapter 11, "Water and Sewer Infrastructure," the Projected Development Sites in the With Action condition are expected to generate a water demand of approximately 4.3 million gallons per day (mgd), an increase of approximately 3.5 mgd compared with demand in the No Action condition. Future incremental demand from the projected development sites would be dispersed throughout the Project Area and would represent approximately 0.35 percent of the City's average daily water supply of approximately one billion gpd. Under the Future Discretionary Actions Scenario, the additional hotel, school, residential, commercial, industrial, and community facility space on the

conceptual development sites would result in a minimal increase in water demand over the With Action condition, which is negligible compared to the City's average daily water supply of approximately one billion gpd. Therefore, the Future Discretionary Actions Scenario would not result in any significant adverse impacts on water supply.

WASTEWATER TREATMENT

Similar to the With Action condition, the Future Discretionary Actions Scenario would not result in any significant adverse impacts on the City's wastewater treatment systems. As discussed in Chapter 11, "Water and Sewer Infrastructure," developments on the projected development sites in the With Action condition are expected to generate a total of approximately 2.4 mgd of sanitary sewage: the majority of the sanitary sewage generation (approximately 1.6 mgd) would occur in the Red Hook Wastewater Resource Recovery Facility (WRRF) service area, with the remainder (approximately 0.8 mgd) occurring in the Owls Head WRRF service area. In the Red Hook WRRF service area, the With Action sanitary sewage generation would represent an increase of approximately 1.3 mgd over the No Action condition; in the Owls Head WRRF service area, the With Action sanitary sewage generation would represent an increase of approximately 0.8 mgd over the No Action condition. Both the Red Hook and Owls Head WRRFs would continue to have reserve capacity. The Future Discretionary Actions Scenario is expected to generate additional sanitary sewage that would be treated by the Red Hook and Owls Head WRRFs; .however, given that both WRRFs are currently operating below their maximum permitted capacity (the average monthly flow at the Red Hook WRRF is approximately 45 percent of the permitted capacity, and the average monthly flow at the Owls Head WRRF is approximately 78 percent of the permitted capacity), it is expected that the WRRFs would have sufficient capacity for this incremental increase in sanitary sewage. Therefore, no significant adverse impacts to the City's wastewater treatment services are expected under this Future Discretionary Actions Scenario.

STORMWATER AND DRAINAGE MANAGEMENT

The Future Discretionary Actions Scenario is expected to have comparable sanitary flow resulting from denser development and similar amount of fully impervious rooftop area. As in the With Action condition, increased volumes and flows would be conveyed to the Red Hook and Owls Head WRRFs or discharged directly to the Gowanus Canal, depending on rainfall volume and duration. As a result of the extensive stormwater infrastructure improvements that have been undertaken by the New York City Department of Environmental Protection (DEP) in the Gowanus Canal sewershed to control combined sewer overflows (CSOs) being discharged into the waterbody, as well as future additional improvements that are expected to be constructed independent of the Proposed Actions in connection with the ongoing Superfund remediation of the Canal, there would be a significant reduction in surcharging/flooding conditions and CSO volumes/frequencies as compared to current conditions. As the Future Discretionary Actions Scenario is not expected to result in any substantive increase in impervious surface coverage over the With Action condition, it is not expected that the additional development would result in a significant increase in stormwater runoff. In addition, as with the Proposed Actions, stormwater runoff to combined sewers from redeveloped sites would be reduced as a result of DEP sewer connection requirements that control runoff to combined sewers and increase the total volume of stormwater that must be managed on new and redeveloped sites. Therefore, it is concluded that the Future Discretionary Actions Scenario would not result in any significant adverse impacts on water quality and to the City's sanitary sewage conveyance and treatment system.

SOLID WASTE AND SANITATION SERVICES

The Future Discretionary Actions Scenario, similar to the With Action condition, would not directly affect a solid waste management facility. As discussed in Chapter 12, "Solid Waste and Sanitation Services," development resulting from the With Action condition would generate a net increase of approximately 224 tons per week of solid waste, of which approximately 79 percent (178 tons) is expected to be handled by the New York City Department of Sanitation (DSNY), and 21 percent (46 tons) is expected to be handled by private carters. This correlates to approximately 14 additional truckloads per week of solid waste handled by DSNY, and approximately 4 additional truckloads per week handled by private carters.

The Future Discretionary Actions Scenario, as compared to the With Action condition, would generate an increment of approximately 16.7 tons per week of solid waste, of which approximately 20 percent (3.3 tons) would be handled by DSNY, and 80 percent (13.3 tons) would be handled by private carters. Similar to the With Action condition, additional solid waste resulting from the conceptual development sites would be negligible relative to the approximately 12,260 tons of solid waste handled by the DSNY every day, or the 13,000 tons handled by private carters. As such, the Future Discretionary Actions Scenario would not result in an increase in solid waste that would overburden available waste management capacity.

ENERGY

The Future Discretionary Actions Scenario would not result in a significant adverse impact on energy systems. As discussed in Chapter 13, "Energy," the With Action condition would result in increased demand of approximately 937,535,040 thousand British thermal units (MBTUs) of energy per year as compared with future conditions without the No Action condition. The Future Discretionary Actions Scenario would generate an increase of 70,412,844 MBTUs of energy per year compared to the With Action condition. The Future Discretionary Actions Scenario, similar to the With Action condition, would generate an incremental increase in energy demand that would be negligible when compared with the overall demand within Consolidated Edison's (Con Edison's) New York City and Westchester County service area. Therefore, no significant adverse energy impacts are expected to occur.

TRANSPORTATION

The development programs assumed for each of the three conceptual development sites comprising the Future Discretionary Actions Scenario are shown in **Tables 26-1a and 26-1b**. The program represents the net incremental change from the With Action condition.

TRANSPORTATION PLANNING FACTORS

The transportation planning factors used to forecast the travel demand under the Proposed Actions' RWCDS were also used to forecast the incremental travel demand generated by the Future Discretionary Actions Scenario. These factors are discussed in detail in the *Gowanus Neighborhood Rezoning Transportation Planning Factors and Travel Demand Forecast Technical Memorandum* included as an appendix to the FEIS.

TRAVEL DEMAND FORECAST

Table 26-4 shows an estimate of the net incremental change in peak hour person trips and vehicle trips (versus the With Action condition under the Proposed Actions' RWCDS) that would occur

under the Future Discretionary Actions Scenario. **Table 26-5** and **Table 26-6** summarize the numbers of incremental vehicle and pedestrian trips, respectively, that would be generated by each of the three conceptual development sites. As shown in **Table 26-4**, under the Future Discretionary Actions Scenario, there would be a total net increase of approximately 1,090 person trips in the weekday AM peak hour, 4 in the weekday midday and 334 in the weekday PM peak hour, and a net decrease of 138 person trips in the Saturday peak hour. Peak hour vehicle trips (including auto, truck, school bus, and taxi trips balanced to reflect that some taxis arrive or depart empty) would increase by a net total of approximately 203 and 95 (in and out combined) in the weekday AM and PM peak hours, respectively, and decrease by 74 and 30 in the weekday midday and Saturday peak hours, respectively. Peak hour subway trips would increase by a net total of approximately 89 and 88 during the weekday AM and PM peak hours, respectively, and decrease by 14 and 59 during the weekday midday and Saturday peak hours, respectively. Similarly, transit bus trips would increase by approximately 44 and 33 during the weekday AM and PM peak hours, respectively, and decrease by approximately four and nine during the weekday midday and Saturday peak hours, respectively. Lastly, walk-only trips would increase by 789, 257 and 126 during the weekday AM, midday and PM peak hours, respectively, and would decrease by 25 during the Saturday peak hour.

Table 26-5 shows the net incremental change in peak hour vehicle trips (auto, taxi, truck and school bus) that would be generated by each individual conceptual development site during the weekday AM, midday, PM, and Saturday peak hours. As shown in **Table 26-5**, Site 3 would generate the greatest number of new vehicle trips in all periods, with 136, 36, 146, and 51 in the weekday AM, midday and PM and Saturday peak hours, respectively. Site 2 would generate a net increase of 77 vehicle trips in the weekday AM peak hour (primarily school-related), and net decreases in all other periods. Site 1 would generate net decreases in incremental vehicle trips in all periods.

Table 26-6 shows the net incremental change in peak hour pedestrian trips that would be generated by each individual conceptual development site during the weekday AM, midday, PM, and Saturday peak hours. These trips would include walk-only trips and pedestrians en route to area subway stations and bus stops. As shown in **Table 26-6**, Site 2 would generate the greatest number of incremental pedestrian trips (588) in the weekday AM peak hour (primarily due to the site's public school component), and net decreases in other periods. Site 3 would generate the greatest numbers of trips outside of the AM, with 518, 434, and 215 in the weekday midday and PM and Saturday peak hours, respectively. Site 1 would generate net decreases in incremental pedestrian trips in all periods.

Table 26-4
Future Discretionary Actions Scenario Travel Demand Forecast

Land Use:	Local Retail		Office		Residential		Innovation Economy		Light Industrial		Medical Office		School (Grade K-4 Students)		School (Grade 5 Students)		School Staff		Parents (Grades K-5 Students)		Total	
Size/Units:	-8,740 gsf		138,721 gsf		124 DU		8,654 gsf		5,419 gsf		-40,581 gsf		394 students 92,500 gsf		81 students		44 staff		228 parents			
Peak Hour Trips:																						
AM	-16		298		100		18		12		-298		394		82		44		456		1,090	
Midday	-102		374		50		24		10		-352		0		0		0		0		4	
PM	-54		350		110		22		12		-244		40		8		44		46		334	
Saturday	-64		92		96		6		2		-270		0		0		0		0		-138	
Person Trips:																						
AM	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	-1	-1	80	5	3	8	5	0	3	0	-45	-27	85	0	12	0	14	0	0	0	156	-15
Taxi	0	0	14	1	0	0	1	0	0	0	-11	-7	0	0	0	0	0	0	0	0	4	-6
Subway	0	0	90	6	18	57	6	0	5	1	-110	-65	22	0	5	0	18	0	18	18	72	17
Bus	0	0	35	2	1	1	2	0	1	0	-17	-10	8	0	3	0	4	0	7	7	44	0
School Bus	0	0	0	0	0	0	0	0	0	0	0	0	8	0	21	0	0	0	0	0	29	0
Walk/Other	-7	-7	61	4	3	9	4	0	2	0	-3	-3	271	0	41	0	8	0	203	203	583	206
Total	-8	-8	280	18	25	75	18	0	11	1	-186	-112	394	0	82	0	44	0	228	228	888	202
MD	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	-6	-6	3	5	3	3	0	0	0	0	-40	-45	0	0	0	0	0	0	0	0	-40	-43
Taxi	0	0	1	2	0	0	0	0	0	0	-10	-11	0	0	0	0	0	0	0	0	-9	-9
Subway	-2	-2	10	16	18	18	1	1	0	0	-98	-110	0	0	0	0	0	0	0	0	-71	-77
Bus	-1	-1	10	16	1	1	1	1	0	0	-15	-17	0	0	0	0	0	0	0	0	-4	0
School Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk/Other	-42	-42	121	190	3	3	8	12	5	5	-3	-3	0	0	0	0	0	0	0	0	92	165
Total	-51	-51	145	229	25	25	10	14	5	5	-166	-186	0	0	0	0	0	0	0	0	-32	36
PM	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	-3	-3	5	95	7	4	0	6	0	3	-20	-38	0	10	0	2	0	14	0	0	-11	93
Taxi	0	0	1	17	0	0	0	1	0	0	-5	-9	0	0	0	0	0	0	0	0	-4	9
Subway	-1	-1	6	106	52	32	0	8	1	5	-51	-94	0	2	0	1	0	18	2	2	9	79
Bus	-1	-1	2	42	1	1	0	2	0	1	-8	-14	0	1	0	1	0	4	1	1	-5	38
School Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk/Other	-22	-22	4	72	8	5	0	5	0	2	-2	-3	0	27	0	4	0	8	20	20	8	118
Total	-27	-27	18	332	68	42	0	22	1	11	-86	-158	0	40	0	8	0	44	23	23	-3	337
SAT	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Auto	-4	-3	15	11	5	6	0	1	0	0	-32	-33	0	0	0	0	0	0	0	0	-16	-18
Taxi	0	0	3	2	0	0	0	0	0	0	-8	-8	0	0	0	0	0	0	0	0	-5	-6
Subway	-1	-1	17	12	32	38	1	1	1	1	-79	-81	0	0	0	0	0	0	0	0	-29	-30
Bus	-1	-1	7	5	1	2	1	0	0	0	-11	-12	0	0	0	0	0	0	0	0	-3	-6
School Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk/Other	-29	-24	12	8	5	7	1	1	0	0	-3	-3	0	0	0	0	0	0	0	0	-14	-11
Total	-35	-29	54	38	43	53	3	3	1	1	-133	-137	0	0	0	0	0	0	0	0	-67	-71
Vehicle Trips :																						
AM	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out			In	Out
Auto	-1	-1	63	4	3	7	4	0	3	0	-30	-18	65	65	9	9	12	0			128	66
Taxi	0	0	11	1	0	0	1	0	0	0	-8	-4	0	0	0	0	0	0			4	-3
Taxi (Balanced)	0	0	12	12	0	0	1	1	0	0	-12	-12	0	0	0	0	0	0			1	1
Truck	0	0	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0			3	3
School Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0			1	0
Total	-1	-1	77	18	4	8	5	1	3	0	-42	-30	65	65	10	9	12	0			133	70
MD	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out			In	Out
Auto	-3	-3	2	4	2	2	0	0	0	0	-26	-30	0	0	0	0	0	0			-25	-27
Taxi	0	0	1	2	0	0	0	0	0	0	-7	-8	0	0	0	0	0	0			-6	-6
Taxi (Balanced)	0	0	3	3	0	0	0	0	0	0	-15	-15	0	0	0	0	0	0			-12	-12
Truck	0	0	2	2	0	0	0	0	0	0	-1	-1	0	0	0	0	0	0			1	1
School Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0	0
Total	-3	-3	7	9	2	2	0	0	0	0	-42	-46	0	0	0	0	0	0			-36	-38
PM	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out			In	Out
Auto	-2	-2	4	75	6	3	0	4	0	3	-13	-25	7	7	2	2	0	12			4	79
Taxi	0	0	1	13	0	0	0	1	0	0	-3	-6	0	0	0	0	0	0			-2	8
Taxi (Balanced)	0	0	14	14	0	0	1	1	0	0	-9	-9	0	0	0	0	0	0			6	6
Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0	0
School Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0	0
Total	-2	-2	18	89	6	3	1	5	0	3	-22	-34	7	7	2	2	0	12			10	85
SAT	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out			In	Out
Auto	-2	-2	12	9	3	4	0	1	0	0	-21	-22	0	0	0	0	0	0			-8	-10
Taxi	0	0	2	2	0	0	0	0	0	0	-5	-5	0	0	0	0	0	0			-3	-3
Taxi (Balanced)	0	0	4	4	0	0	0	0	0	0	-10	-10	0	0	0	0	0	0			-6	-6
Truck	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0	0
School Bus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0	0
Total	-2	-2	16	13	3	4	0	1	0	0	-31	-32	0	0	0	0	0	0			-14	-16

Notes:
70% linked trip credit applied to local retail use; 0% AM, 25% MD, 15% PM and 15% Saturday link trip credit applied to restaurant use.

Table 26-5
Summary of Incremental Vehicle Trips
under the Future Discretionary Actions Scenario

Conceptual Development	Weekday Peak Hour			Saturday Peak Hour
	AM	MD	PM	
Site 1	-10	-8	-13	-8
Site 2	77	-102	-38	-73
Site 3	136	36	146	51
Total	**203**	**-74**	**95**	**-30**

Table 26-6
Summary of Incremental Pedestrian Trips
under the Future Discretionary Actions Scenario

Conceptual Development	Weekday Peak Hour			Saturday Peak Hour
	AM	MD	PM	
Site 1	-58	-120	-95	-93
Site 2	588	-293	-92	-215
Site 3	392	518	434	215
Total	**922**	**105**	**247**	**-93**

AIR QUALITY

MOBILE SOURCES

As presented in Chapter 15, "Air Quality," maximum CO and PM_{10} concentrations and concentration increments from mobile sources at the analyzed intersections would be below the corresponding ambient air quality standards and guidance thresholds. The mobile source analysis also determined that maximum predicted concentration increments would be below the corresponding $PM_{2.5}$ *de minimis* criteria with the exception of Smith Street and 5th Street.

As presented in the Transportation section of this chapter, in the Future Discretionary Actions Scenario, peak hour vehicle trips would increase by a net total of approximately 203 and 95 (in and out combined) in the weekday AM and PM peak hours, respectively, and decrease by 74 and 30 in the weekday midday and Saturday peak hours, respectively. These additional vehicle trips would not be anticipated to result in any new or additional significant adverse air quality impacts. With respect to $PM_{2.5}$ specifically, the additional vehicle trips would be somewhat offsetting, as concentrations are evaluated over a 24-hour and annual average period, and furthermore, these additional trips would be distributed over the transportation study area. With regard to the intersection at Smith Street and 5th Street, which was found to result in a significant adverse air quality impact, the proposed traffic mitigation measures for this intersection were found to fully mitigate the potential air quality impact; therefore, under the Future Discretionary Actions Scenario, no significant adverse air quality impact would be expected at this intersection.

STATIONARY SOURCES

As discussed in Chapter 15, "Air Quality," to preclude the potential for significant adverse air quality impacts on other projected and potential development sites, or existing buildings, from the heat and hot water emissions, an (E) Designation would be assigned as part of the Proposed

Actions for 82 projected and potential development sites (including 36 projected and 46 potential development sites). These designations would specify the various restrictions, such as type of fuel to be used, the use of low NO_x burners, the distance that the vent stack on the building roof must be from its lot line(s), and/or the increase of the exhaust stack height. Conceptual Development Site 3 was not identified as a development site in the RWCDS for the Proposed Actions; therefore an (E) designation was not proposed at the site.

The Future Discretionary Actions Scenario would result in increases in floor area at five conceptual development sites. Development in accordance with any of the additional zoning mechanisms would be subject to a separate discretionary approval process, with project-specific analysis that would address the potential effects of stationary source emissions on air quality. Such analyses would include specific information regarding fuel type used, types and sizes of equipment, exhaust stack location and height. As with the proposed actions, air quality (E) designations for stationary sources (such as fossil fuel-fired heating and hot water systems) may be required for one or more of the conceptual development sites to ensure that there are no significant adverse air quality impacts from these sources.

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

As in the With Action condition, no significant adverse greenhouse gas (GHG) emission impacts are expected to result from development assumed under the Future Discretionary Actions Scenario. Given that the overall floor area would not increase significantly, GHG emissions are anticipated to be similar to emission levels in the With Action condition. Construction and operation of buildings developed in accordance with the additional zoning mechanisms, as well as mobile source emissions, would continue to be consistent with the goals of OneNYC and PlaNYC.

NOISE

As is the case under the With Action condition analyzed for the Proposed Actions, no significant adverse noise impacts are anticipated as a result of the Future Discretionary Actions Scenario. Detailed analyses are not provided herein, given that the application of any of the approvals would be a discretionary action subject to its environmental review as part of the public review process.

The mobile noise exposure from traffic movements under the Future Discretionary Actions Scenario would not be perceptibly higher than those projected under the Proposed Action. Therefore, no significant adverse noise impacts would likely occur at any of the 25 representative noise receptor locations evaluated within the Project Area.

Under the Proposed Actions, institutional controls, including (E) Designations, are proposed to avoid significant impacts four of the conceptual development sites with respect to noise (window-wall attenuation). At Conceptual Development Sites 1 and 2, the institutional controls, presented in Table 17-10 of Chapter 17, "Noise," would be sufficient to avoid significant impacts and ensure acceptable interior noise levels. Conceptual Development Site 3 was not part of development sites considered for potential development under the Future With-Action condition without discretionary actions assumed in the Conceptual Analysis chapter and is projected to co-locate light-industrial uses with residential uses; therefore, co-location of light-industrial uses with residential uses would prompt a demising wall partition requirement to ensure an acceptable interior noise environment. Given that the noise characteristics would not differ between the With Action condition and the Future Discretionary Actions Scenario, window-wall attenuation requirements under both scenarios are expected to be the same (up to 31 dBA), and the same

institutional controls would apply to development generated in accordance with the additional zoning mechanisms.

With the above mentioned noise controls in place, like the Proposed Actions, no significant adverse noise impacts are expected under the Future Discretionary Actions Scenario.

PUBLIC HEALTH

As is the case under the With Action condition, no significant adverse impacts are anticipated with respect to public health as a result of the Future Discretionary Actions Scenario. As discussed in other sections of this chapter, the Future Discretionary Actions Scenario is not expected to result in any unmitigated significant adverse impacts related to hazardous materials, air quality, or noise. Development in accordance with the any of the additional zoning mechanisms would be a discretionary action requiring a separate environmental review; any adverse impacts on public health that could result from such development would be assessed and disclosed to the public under and pursuant to that environmental review.

NEIGHBORHOOD CHARACTER

As is the case under the With Action condition, the Future Discretionary Actions Scenario is not expected to result in any significant adverse impacts on neighborhood character. As discussed in Chapter 19, "Neighborhood Character," the former industrial waterfront is a mix of commercial activity, parking lots, storage, and light industrial uses interspersed with vacant buildings and land. Although the land around the Canal remains industrial in character, manufacturing and industrial uses are no longer active. Due to its historic development as an industrial area, Gowanus is characterized by a variety of building forms and a mix of uses, including one- to two-story former industrial buildings, vacant or underutilized lots that are primarily used for open storage or parking, and larger loft-style buildings. Many of the buildings have been adaptively reused for commercial and art-related uses, including co-working, technology, media and design firms, and other newly emerging business sectors as well as traditional distribution/warehousing and other light industrial uses.

The With Action condition and Future Discretionary Actions Scenario would not result in any significant adverse impacts in the areas of land use, zoning, and public policy; socioeconomic conditions; open space; urban design and visual resources; traffic; or noise. Although significant adverse impacts are expected with shadows, historic resources, and transportation under the With Action condition, these impacts would not result in any significant adverse impacts to neighborhood character. The Future Discretionary Actions Scenario would not cause substantially different impacts as compared to the Proposed Actions that could impact neighborhood character. Under the With Action condition, the duration and extent of incremental shadow cast on Douglass and Degraw Pool in Thomas Greene Playground would result in a significant adverse impact. The Future Discretionary Actions Scenario would not cause new or different shadow impacts and therefore would not have the potential to cause significant adverse impacts to neighborhood character.

CONSTRUCTION

Under the Future Discretionary Actions Scenario, there would be an increase of 41,800 sf of hotel floor area (126 hotel rooms) and an increase of 121,270 sf of residential use (124 DUs) and 138,635 sf of commercial space. Given the similarity between the Future Discretionary Actions Scenario and the With Action condition (similar development size and bulk), the duration and magnitude of construction activities that could take place on the conceptual development sites

would be expected to approximate those for Projected Development Site 5 in the With Action condition. Construction activities associated with the With Action condition would result in temporary significant adverse noise impacts that require mitigation. The Future Discretionary Actions Scenario would result in the same—but no additional—construction impacts as with the With Action condition. ✷