TECHNICAL MEMORANDUM 2
POTENTIAL CITY COUNCIL MODIFICATIONS
GOWANUS NEIGHBORHOOD REZONING AND RELATED ACTIONS
CEQR No. 19DCP157K

ULURP Nos.: C 210177 ZMK, N 210178 ZRK, C 210052 HAK,
C 210053 PPK, C 210179 MMK, and C 210180 MMK
November 16, 2021

A. INTRODUCTION

The New York City Department of City Planning (DCP), together with the Department of Housing Preservation and Development (HPD), the Department of Parks and Recreation (NYC Parks), and the Department of Citywide Administrative Services is proposing a series of land use actions—including zoning map amendments, zoning text amendments, City Map amendments, and disposition of City-owned property (collectively, the "Proposed Actions")—to implement land use and zoning recommendations in the Gowanus Neighborhood Plan (the "Neighborhood Plan" or "Plan"). The area subject to the Proposed Actions (the "Project Area") 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 Streets to the north (see Figures 1-1 and 1-2). The Proposed Actions would affect an approximately 82-block area of the Gowanus neighborhood of Brooklyn, Community Districts 2 and 6.

The Draft Environmental Impact Statement (DEIS) for the Proposed Actions was accepted as complete on April 19, 2021, by DCP, acting on behalf of the City Planning Commission (CPC) as lead agency. A public hearing on the DEIS was held on July 28, 2021, in conjunction with the CPC's citywide public hearing pursuant to ULURP, and written comments on the DEIS were accepted until August 9, 2021. The Notice of Completion for the Final Environmental Impact Statement (FEIS) was issued September 10, 2021 (CEQR No. 19DCP157K) The FEIS incorporated responses to the public comments received on the DEIS and additional analyses conducted after the completion of the DEIS. Subsequent to the publication of the FEIS, and prior to the CPC's vote on the Proposed Actions, Technical Memorandum – 001 was issued to address a comment letter erroneously omitted from the FEIS and to confirm that the issues raised in the comment letter had been addressed in the FEIS.

The FEIS included a new alternative that analyzed potential modifications to the Proposed Actions that were under consideration by the CPC in response to public comments. The new alternative, identified as the "CPC Modifications Alternative," analyzed refinements to bulk regulations that would substantially reduce incremental shadows on the Douglass and Degraw pool (in Thomas Greene Playground) and a modification to the zoning text to spur remediation work along the Gowanus Canal in the near term as compared to the Proposed Actions. The assessment contained in the CPC Modifications Alternative demonstrated that the CPC modifications would not result in any new or different significant adverse impacts not already identified in the FEIS. The CPC voted to approve the Proposed Actions (with the modifications considered in the new alternative) on September 21, 2021 (the "Approved Actions") and referred the application to the City Council.

Since the CPC's adoption of the Approved Actions, potential modifications have been identified as under consideration by the City Council. The potential City Council modifications (the "Potential Modifications") are summarized below. This technical memorandum examines whether the Potential Modifications would result in any new or different significant adverse environmental impacts not already identified in the FEIS as pertains to the Approved Actions. As set forth below,

this technical memorandum concludes that the Potential Modifications by the City Council would not result in any new or greater significant adverse impacts not already identified in the FEIS.

B. DESCRIPTION OF THE POTENTIAL MODIFICATIONS

The Potential City Council Modifications (the "Potential Modifications") would modify the zoning text amendment (N 210178 ZRK). Specifically, the modifications would affect the proposed zoning text that would establish the Special Gowanus Mixed-Use District (GSD) and a Mandatory Inclusionary Housing (MIH) Area. Potential modifications to the GSD would adjust the permitted uses in manufacturing and certain mixed-use zoning districts, refine the definition of "Gowanus Mix" uses, lower the maximum permitted floor area ratios (FAR) for non-Gowanus Mix uses in the proposed manufacturing districts (e.g., other commercial, community facility and industrial uses), lower the height limits on a block frontage south of Thomas Greene Playground, adjust the authorization for large mixed-use sites. The potential modification of the proposed establishment of an MIH Area would strike MIH Option 2 (MIH Options 1 and 3 would remain).

USE REGULATIONS

The Potential Modifications would adjust uses from the list of defined uses allowed under the Approved Actions as part of the Gowanus Mix. The Potential Modification include removing the following: Use Group (UG) 3 schools, colleges, or universities; most of UG 4A except for community centers or settlement houses and non-profit institutions without sleeping accommodations; most of UG 7 except for bike rental or repair, sailmaking stores, sign painting shops, and taxidermy shops; most of UG 8 except for lumber stores and home appliance repair shops; UG 9 business schools or colleges, medical or dental laboratories; and UG 12 commercial art galleries, jewelry and art metal craft shops. In addition, the Potential Modifications would address an oversight in the original draft zoning text that excluded Use Group (UG) 17 B—manufacturing establishments—as part of the Gowanus Mix. UG 17B uses would be added to the Gowanus Mix under the Potential Modifications. Lastly, the Potential Modifications would amend the draft zoning text to include a recording and monitoring requirement for Gowanus Mix uses in new developments

FLOOR AREA REGULATIONS

The Potential Modifications would increase the allowable density associated with the non-residential / Gowanus Mix floor area incentive in the proposed M1-4/R7X district. The M1-4/R7X district is proposed for 11 full or partial blocks within the Project Area: between Baltic and Sackett Streets, along 3rd Avenue, and around Thomas Greene Playground; on portions of two block frontages at the intersection of Baltic and Nevins Streets; and along 3rd Avenue between 1st and 3rd Streets.

Under the Approved Actions, the floor area incentive provides 0.2 FAR for the inclusion of permitted non-residential uses and 0.2 FAR for the inclusion of Gowanus Mix defined uses, for a total floor area bonus of 0.4 FAR. With the Potential Modifications, the incentive would be increased to 0.3 FAR for the inclusion of permitted non-residential uses and 0.3 FAR for the inclusion of Gowanus Mix defined uses, bringing the total floor area bonus to 0.6 FAR. To accommodate the increase in incentive FARs in the proposed M1-4/R7X districts, the maximum residential FAR would be commensurately reduced by 0.2 FAR.

The Potential Modifications would also lower the maximum permitted FARs for non-Gowanus Mix uses in the proposed M1-4 districts, (e.g., other commercial, community facility and industrial uses). M1-4 districts are proposed on approximately 15 full or partial blocks generally between

3rd and 4th Avenues and Butler and Sackett Streets, and in the area south of 4th Street and west of Hoyt Street.

HEIGHT AND SETBACK REGULATIONS

The Potential Modifications would lower height limits on two projected development sites in the proposed M1-4/R7X district south of Thomas Greene Playground along Degraw Street, between Nevins Street and 3rd Avenue, to reduce potential shadows on the open space. The maximum building height would be reduced from 145 feet under the Approved Actions to 125 feet with the Potential Medications. The maximum base height would be reduced from 105 feet under the Approved Actions to 95 feet with the Potential Modifications.

AUTHORIZATION FOR LARGE MIXED-USE SITES

Under the Approved Actions, the proposed authorization requires a number of conditions that must be satisfied to grant the authorization, including a requirement that the development be comprised of predominantly non-residential floor area. With the Potential Modifications, the authorization could also be granted if a development is comprised of 20 percent Gowanus Mix uses, with buildings not to exceed 300 feet in height, and located on a zoning lot where existing buildings occupy at least 20 percent of the lot.

MANDATORY INCLUSIONARY HOUSING

The Potential Modifications would strike MIH Option 2, leaving MIH Option 1 and the Deep Affordability Option. As discussed in the FEIS, Option 1 would require 25 percent of residential floor area to be set aside for affordable housing units for households with incomes averaging 60 percent of the Area Median Income (AMI). Option 1 also includes a requirement that 10 percent of residential floor area be affordable at 40 percent of AMI. The Deep Affordability Option requires that 20 percent of residential floor area to be set aside for affordable housing units, on average, to households making 40 percent AMI.

C. REASONABLE WORST-CASE DEVELOPMENT SCENARIO

The Potential Modifications would result in minor changes to the Reasonable Worst-Case Development Scenario (RWCDS) presented in the FEIS and assessed in connection with the Approved Actions. Accordingly, a modified With Action condition was established (referred to as the "Modified With Action condition"). Development under the Potential Modifications would occur on the same 133 development sites (63 projected and 70 potential) identified for the Approved Actions. The Potential Modifications would affect nine projected development sites. The Potential Modifications would result in decreased residential density, increased commercial density, and height reductions south of Thomas Greene Playground. The Potential City Council modifications would increase the non-residential floor area incentives within the M1-4/R7X areas from 0.2 FAR to 0.3 FAR for all underlying non-residential uses and 0.3 FAR for Gowanus-mix uses. For purposes of analyzing the Gowanus Mix, which is a bespoke defined list of uses, "Other Commercial" is considered office and innovation economy uses. An additional 37,710 sf of office and innovation economy space and 4,400 sf of light industrial space, and 47 fewer dwelling units, including 9 fewer affordable units, would be built.

The program changes are summarized in **Table 1**, and specific changes affecting the projected development sites with the Potential Modifications are shown in **Table 2**. Under the Modified With Action Condition, the total development expected to occur on the 63 projected development sites would not significantly change compared to the square footage of built floor area under the Approved Actions.

Table 1

Incremental Difference Between Approved Actions and Potential Modifications

Use	Approved Actions Increment	Potential Modifications Increment	Difference
Commercial (zsf)	734,293	772,003	37,710
Community Facility (zsf)	251,413	251,413	0
Industrial (zsf)	(316,919)	(312,519)	4,400
Total Residential Dwelling Units (DUs)	8,495	8,448	-47
Workers	3,494	3,647	153
Residents	18,604	18,501	-103

Table 2

Modifications to Projected Development Sites

	Residential			Commercial			Industrial		
Development Site	Approved Actions DUs	Potential Modification DUs	Increment	Approved Actions zsf	Potential Modification zsf	Increment	Approved Actions zsf	Potential Modification zsf	Increment
3	42	41	-1	9,000	10,501	1,501	0	0	0
7	85	83	-2	61,800	65,775	3,975	0	0	0
12	226	218	-8	39,000	45,499	6,499	0	0	0
13	105	102	-3	15,600	18,200	2,600	0	0	0
14	49	46	-3	59,113	60,927	1,814	0	0	0
19	270	261	-9	42,042	49,050	7,009	0	0	0
20	226	219	-7	24,000	30,000	6,000	0	0	0
21	110	106	-4	23,480	27,393	3,913	0	0	0
41	761	751	-10	60,890	65,290	4,400	18,780	23,180	4,400
Total	**1,874**	**1,827**	**-47**	**334,924**	**372,635**	**37,710**	**18,780**	**23,180**	**4,400**

As described above, the Potential Modifications involve zoning text changes to use, floor area, and height and setback regulations, as well as changes to MIH and the proposed authorization for large, mixed-use sites. Most of the zoning text changes that comprise the Potential Modifications would not result in changes to the RWCDS. The Potential Modifications would establish a 125-foot maximum building height and 95-foot maximum base height along the southside of Degraw Street, between Nevins Street and 3rd Avenue—an area that contains Projected Development Sites 19 and 20. The reduction in these building heights would have no effect on the RWCDS because the proposed floor area is still achievable in these lower heights. The modifications to lower the maximum floor area for non-Gowanus Mix uses in the proposed M1-4 district would not result in additional or different anticipated development. The Gowanus Mix uses are already allowed in the proposed M1-4 districts at the same maximum FARs and were accounted for as part of the program on the identified projected development sites within the proposed M1-4 districts. The slight reductions to the allowable FARs of other uses would not change the anticipated development or programming of new, ground up non-residential construction. The elimination of Option 2 of the MIH program would not change the number of affordable units or the income bands assumed in the FEIS. As noted in the FEIS, conservative analysis assumptions were utilized with respect to the indirect residential displacement analysis and early childhood programs. The proposed modification affecting large mixed-use sites was assessed in Chapter 26, "Conceptual Analysis," of the FEIS. Conceptual Analysis Site 3, the representative development used for analysis purposes in the FEIS, the Old American Can Factory, would be affected by potentially allowing a different configuration of uses, such as more residential and Gowanus Mix uses than just predominantly non-residential space. As noted in the FEIS, the potential authorization was assessed on a conceptual level, and such an approval would be a discretionary action subject to a

separate environmental and public review process in the future when a developer acts upon the authorization and moves forward with a specific development project. Therefore, no new or different environmental effects than those already disclosed with respect to Conceptual Development Site 3 in Chapter 26 of the FEIS would occur under the Potential Modifications.

For the reasons stated above, the only text change proposed under the Potential Modifications that would affect the RWCDS is the change to floor area regulations related to the non-residential and Gowanus Mix incentives in the proposed M1-4/R7X district. As noted below, the same (E) Designation requirements mapped in connection with E-601 for hazardous materials, noise, and air quality would apply with the Potential Modifications. Similarly, the same mitigation measures required to address significant adverse impacts under the Approved Actions would also address impacts under the Potential Modifications. As shown in **Table 1**, the Potential Modifications would result in an increase of approximately 42,110 of non-residential space, including 37,710 sf of commercial space and 4,440 sf of industrial space, and a decrease of 47 DUS. These changes are assessed below.

D. ENVIRONMENTAL ASSESSMENT OF THE POTENTIAL MODIFICATIONS

LAND USE, ZONING, AND PUBLIC POLICY

Like the Approved Actions, the Potential Modifications would not result in any significant adverse impacts and would generally result in the same effects to land use, zoning, and public policy. The Potential Modifications would not adversely affect surrounding land uses, nor would it generate land uses that would be incompatible with existing zoning and land uses. Furthermore, the Potential Modifications would not result in development that conflicts with adopted public policies. The Potential Modifications would generally result in the same mix of uses projected under the Approved Actions and would continue to provide opportunities for new housing, including substantial amounts of affordable housing, and create opportunities for new light industrial, commercial, arts-related, and community facility space. The slight increase in commercial and industrial space, and decrease in residential floor area, expected with the modified floor area incentive would be similar to uses projected throughout the Project Area, and would serve to strengthen the unique mix of uses found in Gowanus. Therefore, no significant adverse impacts to land use, zoning and public policy are anticipated under the Potential Modifications.

SOCIOECONOMIC CONDITIONS

Like the Approved Actions, the Potential Modifications would not result in significant adverse impacts related to socioeconomic conditions. The Potential Modifications would result in the same effects as the Approved Actions with respect to direct residential and business displacement, and like the Approved Actions, would not adversely affect specific industries. With respect to indirect residential displacement, the slightly smaller residential population anticipated under the Potential Modifications would have slightly less potential to alter the demographics of the study area population, while the exclusion of MIH Option 2 with the Proposed Modifications would ensure deeper levels of affordability. With respect to indirect business displacement, the Potential Modifications would expand and strengthen the Gowanus Mix incentives, resulting in slightly more non-residential space, but the additional space (37,710 sf across nine sites) would not be an amount that would alter existing real estate trends in the study area. The following summarizes the potential socioeconomic effects of the Potential Modifications.

DIRECT RESIDENTIAL DISPLACEMENT

As with the Approved Actions, the Potential Modifications would not result in significant adverse impacts due to direct residential displacement. The Potential Modifications would result in the

same amount of direct residential displacement, because the number and location of projected development sites would not change. Like the Approved Actions, under the RWCDS the Proposed Actions could directly displace an estimated 20 residents living in nine DUs by 2035.[1] Based on 2020 *City Environmental Quality Review (CEQR) Technical Manual* guidelines, this level of potential direct residential displacement would not substantially alter the socioeconomic character of the neighborhood.

INDIRECT RESIDENTIAL DISPLACEMENT

Like the Approved Actions, the Potential Modifications would not result in significant adverse impacts due to indirect residential displacement. The Potential Modifications would introduce approximately 47 fewer DUs than the Approved Actions (8,448 DUs, as compared to 8,495 DUs with the Approved Actions), and the Potential Modifications would exclude MIH Option 2, leaving MIH Option 1 and the Deep Affordability Option, both of which ensure deeper levels of affordability relative to MIH Option 2. As such, the slightly smaller population introduced under the Potential Modifications would have a lower imputed average household income as compared to the population introduced by the Approved Actions.

As stated in the FEIS, most neighborhoods within the study area would have higher incomes than the population introduced by the Approved Actions, with the exception of Subareas A (roughly bounded by Douglass Street/St. John's Place, 4th Avenue, the Prospect Expressway, and the Gowanus Canal) and Subarea B (roughly bounded by Wyckoff Street/St. Marks Place, 4th Avenue, Douglass Street, and Hoyt Street). These subareas overlap with the Project Area and have lower average household incomes than other parts of the study area. The analysis found that while the Proposed Actions would add a substantial new population with potentially higher incomes to both subareas, in Subarea A the mixed-income composition of the new population would not cause substantial changes in the real estate market that would lead to indirect displacement of all vulnerable renters in unprotected units. Further, the Approved Actions would be expected to introduce more affordable housing than in the future without the Proposed Actions, potentially slowing the existing trend of increasing rents and maintaining a more diverse mix of incomes within the subarea as compared to the No Action condition. In Subarea B, the analysis found that most low income renters in the subarea reside in protected rental units and would not be vulnerable to indirect residential displacement as a result of the Approved Actions.

With a slightly smaller population increment and lower overall average income, the new residential population under the Potential Modifications would have less potential to alter the demographics of the overall study area and subarea populations.

DIRECT BUSINESS DISPLACEMENT

As with the Approved Actions, the Potential Modifications would not result in significant adverse impacts due to direct business displacement. Projected development under the Potential Modifications would result in the same amount of direct business displacement: 45 businesses and

[1] As with the Approved Actions, there are a number of residential units that could be displaced in the No Action Condition because of development projects unrelated to the Potential Modifications; the residents displaced in the No Action Condition are not considered displaced by the Potential Modifications in the With Action Condition because displacement could occur regardless of the Potential Modifications.

an estimated 600 jobs associated with those businesses. These 14 businesses are located on eight projected development sites.[2]

The 45 businesses do not represent a majority of study area businesses or employment for any given industry sector. While all businesses contribute to neighborhood character and provide value to the City's economy, because there are alternative sources of goods, services, and employment provided within the socioeconomic study area, the potential displacement of these businesses does not constitute a significant adverse impact on the socioeconomic conditions of the area as defined by CEQR. Similar to the Approved Actions, the Potential Modifications would result in incremental community facility and commercial space and would include a greater amount of local retail-maker-space and office-maker-space than the Approved Actions. As such, comparable services and employment opportunities to those provided by directly displaced businesses could be available as part of the Potential Modifications.

INDIRECT BUSINESS DISPLACEMENT

Similar to the Approved Actions, the Potential Modifications would not result in significant adverse impacts due to indirect business displacement. The study area has well-established residential, retail, office, and manufacturing uses and markets; the Potential Modifications would not 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. The Potential Modifications are expected to result in an additional 37,710 sf of incremental commercial space—an increment of 772,003 sf as compared to 734,293 sf with the Approved Actions—but this difference would not alter the findings of the FEIS. As stated in the FEIS, there is an existing trend of increasing retail development in the study area and adaptive reuse of former industrial buildings for commercial uses. The retail added under the RWCDS would not be enough to alter or accelerate ongoing trends. In particular, commercial businesses, offices, and other uses that serve the surrounding residential communities have increased in recent years within the Project Area. The reinvestment in, and reactivation of, older loft buildings for a variety of commercial office and artist spaces indicate a growing local demand for new office and other workspaces. The Proposed Modifications would reinforce the "Gowanus Mix" by expanding and strengthening the Gowanus Mix incentives, resulting in a greater amount of local retail-maker-space and office-maker-space than the Approved Actions.

As concluded for the Approved Actions, the Potential Modifications would not directly displace uses that provide substantial direct support for businesses in the area or that bring people into the area that form a substantial portion of the customer base for local businesses. Similar to the Approved Actions, the Potential Modifications would result in increasing economic activity in an area where commercial corridors are currently fragmented. Further, the new residents and workers would become new customers at many of the existing retail businesses in the Project Area and study area, and the mix of market-rate and affordable DUs resulting from the Proposed Modifications would maintain a diverse customer base to shop at retail stores offering products at a range of price points.

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[2] As with the Approved Actions, there are a number of businesses that could be displaced in the No Action Condition because of development projects unrelated to the Potential Modifications; the businesses displaced in the No Action Condition are not considered displaced by the Potential Modifications in the With Action Condition because displacement could occur regardless of the Potential Modifications.

ADVERSE EFFECTS ON SPECIFIC INDUSTRIES

Similar to the Approved Actions, the Potential Modifications would not result in significant adverse impacts on specific industries. The Potential Modifications would result in the same amount of direct business displacement. For existing customers of those directly displaced businesses, there are alternative and comparable sources of goods and services available within the study area, and there are no regulations or plans to preserve, enhance, or otherwise protect them. In terms of indirect business displacement, the Potential Modifications would result in the similar amounts of incremental commercial, industrial, and residential space, and the same amount of community facility space as the Approved Actions. As concluded for the Approved Actions, the Potential Modifications would not significantly affect business conditions in any particular industry or category of business.

COMMUNITY FACILITIES AND SERVICES

Like the Approved Actions, the Potential Modifications would result in a significant adverse impact on publicly funded early childhood programs. As compared to the Approved Actions the Potential Modifications would result in less demand on schools, publicly funded childcare, and libraries. The effects of the Potential Modifications on community facilities and services are discussed below.

SCHOOLS

The Potential Modifications would result in a decrease of 47 incremental residential units across nine of the projected development sites. Based on the *CEQR Technical Manual* student generation rates, with an increment of approximately 8,448 DUs, the Potential Modifications would generate up to approximately 1,354 elementary students, 293 intermediate students, and 422 high school students. As shown in **Table 3**, 40 fewer units are located in Subdistrict 3/CSD 15 and approximately 7 fewer units are located in Subdistrict 1/CSD 13. Due to the relatively small reduction of dwelling units (7 DUs) in Subdistrict 1/CSD 13, there are no changes to the number of students introduced by the Potential Modifications as compared the Approved Project. In Subdistrict 3/CSD15, approximately 1,282 elementary students, 277 intermediate students, and 367 high school students would be introduced in Subdistrict 3/CSD 15.

Table 3
Estimated Student Generation in the Future with the Potential Modifications

Study Area	Proposed Incremental DUs	Change in Incremental DUs Compared to the Approved Project	Students Introduced by the Potential Modifications		
			Elementary	Intermediate	High School
Subdistrict 3/CSD 15	7,349	-40	1,282	277	367
Subdistrict 2/CSD 15	119	0	21	4	6
Subdistrict 1/CSD 13	980	-7	51	12	49

Source: See Table 6-1a of the 2020 *CEQR Technical Manual*.

Elementary Schools

Under the Potential Modifications, elementary school enrollment in Subdistrict 3/CSD 15 would decline by 7 students to 1,282 (99.7 percent utilization) with a surplus of 23 seats (see **Table 4**). Like in the Approved Actions, Projected Development Site 47 is anticipated to include a 500-seat elementary school, which would increase capacity in Subdistrict 3/CSD 15 under the Proposed Modification. There would be no changes in enrollment, capacity, available seats, or utilization for Subdistrict 2/CSD15 and Subdistrict 1/CSD 13 as compared to the Approved Actions.

As noted in the FEIS, a significant adverse impact may occur if a proposed project would result in both of the following conditions: (1) a utilization rate of school in the study area that is equal to or greater than 100 percent in the With Action Condition; and (2) an increase of five percentage points or more in the collective utilization rate between the No Action and With Action Conditions.

For Subdistrict 3/CSD 15, the utilization rate of elementary schools would remain below 100 percent even though it would result in an increase of five percentage points or more in the collective utilization rate between the future without and the future with the Potential Modifications. Therefore, like the Approved Actions, the Potential Modifications would not result in a significant adverse impact to elementary schools.

Table 4
Estimated Public School Enrollment, Capacity, and Utilization: Future with the Potential Modifications

Study Area	No Action Enrollment	Students Introduced by the Potential Modifications	Total Modified With Action Enrollment	Capacity	Available Seats	Utilization	Change in Utilization Compared with No Action
Elementary Schools							
Subdistrict 3/CSD 15	5,313	1,282	6,595	6,618	23	99.7%	12.81%
Intermediate Schools							
Subdistricts 2 and 3/ CSD 15	4,172	281	4,453	5,552	1,099	80.2%	5.06%
High Schools							
Brooklyn	73,102	422	73,524	94,177	20,653	78.1%	0.45%

Sources:
DOE Enrollment Projections 2019–2028 by Statistical Forecasting, LLC; DOE, *Utilization Profiles: Enrollment/Capacity/Utilization*, 2018–2019.

Intermediate Schools

In the future with the Potential Modifications, intermediate school enrollment in Subdistricts 2 and 3/CSD 15 would decline by 1 student to 281 (80.2 percent utilization) with a surplus of 1,099 seats (see **Table 4**). There would be no changes in enrollment, capacity, available seats, or utilization for Subdistrict 1/CSD 13.

For Subdistricts 2 and 3/CSD 15, the utilization rate of intermediate schools would remain below 100 percent even though it would result in an increase of five percentage points or more in the collective utilization rate between the future without and the future with the Potential Modifications. Therefore, like the Approved Actions, the Potential Modifications would not result in a significant adverse impact to intermediate schools.

High Schools

In the future with the Potential Modifications, the total high school enrollment in Brooklyn would decline by 2 students to 73,524 (78.1 percent utilization), resulting in a surplus of 20,653 seats (see **Table 4**). As with the Approved Actions, the new high school students introduced by the Potential Modifications would increase utilization in the borough by 0.45 percentage points, less than 1 percentage point over the No Action Condition.

As described in the FEIS, DOE does not require high school students to attend a specific high school in their neighborhood; instead, they may attend any high school in the City depending on seating availability and admissions criteria. Utilization would remain under 100 percent. Further, the increase in the study area high school utilization rate would remain unchanged compared to

the Approved Actions and would be 0.45 percent, substantially lower than the five percentage-point increase in utilization that, according to the *CEQR Technical Manual*, could be considered a significant adverse impact. Therefore, like the Approved Actions, the Potential Modifications would not result in significant adverse impacts on high schools.

LIBRARIES

The Potential Modifications would result in a decrease of 47 incremental DUs across nine of the projected development sites. Overall, the Potential Modifications would result in an increment of approximately 8,448 units over the No Action condition. Using an average household size of 2.19 persons (the average household size for Brooklyn Community District 6 according to 2010 U.S. Census data), the Potential Modifications would result in an increment of approximately 18,501 residents over the No Action condition.

While some projected development sites are located within more than one library catchment area, residents have been assigned to all catchment areas within three-quarters of a mile. Therefore, approximately 15,230 residents would be introduced in the Carroll Gardens Branch library catchment area, approximately 12,935 residents would be introduced to the Pacific Branch library catchment area, approximately 8,214 residents would be introduced to the Park Slope Branch library catchment area, and approximately 3,898 residents (no change from the Approved Actions) would be introduced to the Red Hook Branch library catchment area (see **Table 5**). Similar to the Approved Actions, no residents have been assigned to the Clinton Hill Branch, or the Walt Whitman Branch because these libraries are farther from the projected development sites.

With this reduction in population, the Branch libraries would serve fewer residents and the holdings per resident ratios would increase with the Potential Modifications. Similar to the Approved Actions, each of the libraries with catchment area population increases attributable to the population generated by the Project Modifications are above the 5 percent threshold, which may represent a noticeable change in delivery of library services and could be considered a significant adverse impact on library services according to the *CEQR Technical Manual*. However, many of the residents in the catchment areas for each of the affected libraries also reside in the catchment areas for other nearby libraries and would also be served by these libraries. Additionally, residents in the study area would have access to the entire BPL system through the interlibrary loan system and could have volumes delivered directly to their nearest library branch. Residents would also have access to libraries near their place of work. Furthermore, it is anticipated the trend toward increased electronic research, the SimplyE mobile application, and the interlibrary loan system would make space for increased patron capacity and programs to serve population growth. Therefore, like the Approved Actions, the Potential Modifications would not result in a noticeable change in the delivery of library services, or a significant adverse impact related to library services.

Table 5
Future with the Potential Modifications: Catchment Area Population

Library Name	Catchment Area Population—No Action Condition	Projected Development Sites within Catchment Area[1]	Population Increase compared to No Action condition due to the Potential Modifications[2]	Population Reduction compared to the Approved Project[2]	Catchment Area Population with the Potential Modifications	Population Increase	Holdings per Resident
Carroll Gardens	93,925	58a, 4a-c, 6a-c, 5a-d, 7aa-ac, 57aa-ab, 8a, 11a, 12a, 12ba-bb, 12c-e, 13a-e, 15a-d, 18a-b, 20aa-ab, 19aa-ab, 19b-c, 22a-d, 53a, 23a, 24aa-ab, 24b, 25a, 28a-f, 29a, 30a, 30ba-bb, 55a-c, 56a, 34a, 33a, 36a, 37a-b, 40a-b, 62a-b, 61a, 42a-i, 43a-b, 44a, 46a, 45a-b, 47a-b, 59a, 48a, 41a, 41ba-bb, 41c, 3a-b	15,230	-86	109,155	16.22%	0.32
Clinton Hill	149,340	0	0	0	149,340	0%	0.26
Pacific	169,378	1a-1e, 58a, 4a-4c, 5a-5d, 7aa-ac, 57aa-ab, 8a, 6a-b, 9a-b, 10a-b, 60a, 11a, 12a, 12ba-bb, 12c-e, 13a-e, 14a-c, 15a-d, 16,a, 52a-b, 18a-b, 20aa-ab, 19aa-ab, 19b-c, 21a-c, 54a, 22a-d, 53a, 23a, 24aa-ab, 24b, 25a, 25ba-bb, 26a, 27a, 28a-g, 29a, 30a, 30ba-bb, 55a-55c, 32a-b, 31a-c, 56a, 34a, 33a, 35a, 36a, 37a-b, 38aa-ab, 38b-c, 2a-2j, 17a-i, 39aa-ab, 41a, 41-ba-bb, 41c, 3a-b, 63a-c	12,935	-102	182,313	7.64%	0.18
Park Slope	106,173	52b, 21a, 54a, 24aa-ab, 24b, 25a, 25ba-bb, 26a, 27a, 29a, 30a, 30ba-bb, 55a-c, 32a-b, 31a-c, 34a, 33a, 35a, 37a, 37b, 38aa-ab, 38b-c, 40a-b, 42d, 43a-b, 44a, 59a, 17g, 39aa-ab, 41a, 41ba-bb, 41c, 49a, 50a-c, 51a, 17a-f, 17h-i, 63a-c	8,214	-32	114,387	7.74%	0.33
Red Hook	30,289	47a, 48a	3,898	0	34,187	12.87%	0.76
Walt Whitman	114,733	0	0	0	114,733	0%	0.23

Notes:
[1] Projected development sites located within more than one library catchment area have been assigned to the most proximate library.
[2] Based on an average household size of 2.19 persons (the average household size for Brooklyn Community District 6 according to 2010 U.S. Census data).
Sources: BPL (2014); 2014–2018 American Community Survey 5-Year Estimates; AKRF, Inc.

CHILD CARE

The Potential Modifications would introduce an increment of approximately 3,448 affordable DUs as compared to the No Action condition, which is 9 fewer than under the Approved Actions. As a result, based on the *CEQR Technical Manual* child care multipliers, this development would result in approximately 614 children under the age of six who would be eligible for publicly funded child care programs (as compared to 615 children under the Approved Actions).

With the addition of these children, child care facilities in the study area would operate at 169.09 percent utilization with a deficit of 1,699 slots (see **Table 6**). Total enrollment in the study area would increase to 4,158 children, compared with a capacity of 2,459 slots, which represents an increase in the utilization rate of 24.97 percentage points over the No Action Condition.

Table 6
Estimated Public Child Care Facility Enrollment, Capacity, and Utilization

	Enrollment	Capacity[1]	Available Slots	Utilization Rate	Change in Utilization
No Action Condition	3,544	2,459	-1,085	144.1%	N/A
Future with the Potential Modifications	4,158	2,459	-1,699	169.09%	24.97%

Note: Affordable units reflect units between extremely low income to moderate income (80 percent AMI or below). If income rate was not able to be determined, all units were considered affordable.
Sources: ACS June 2018; AKRF, Inc.

As noted above, the *CEQR Technical Manual* guidelines indicate that a demand for slots greater than the remaining capacity of child care facilities and an increase in demand of five percentage points of the study area capacity could result in a significant adverse impact. Like the Approved Actions, the Potential Modifications would result in an increase in utilization of more than five percentage points over the No Action Condition. In addition, the overall utilization would remain above 100 percent over the Potential Modifications. Therefore, like the Approved Actions, the Potential Modifications would result in a significant adverse impact on publicly funded child care facilities.

OPEN SPACE

The Potential Modifications, like the Approved Actions, would result in an indirect significant adverse open space impact. The same direct effects associated with shadows on these open space resources that would occur under the Approved Actions would also occur with the Potential Modifications. Because the Potential Modifications would negligibly reduce residents and add workers to the open space study area, equal demand would be placed on publicly accessible open space resources as compared to the Approved Actions. The Potential Modification would introduce 153 workers and detract 103 residents than the Approved Actions due to the building height and zoning incentives. It is concluded that the Proposed Modifications would continue to result in an (indirect) significant adverse impact to open space due to the added residential demand placed on active open space in an area that has limited available open space resources. The analysis found that although the significant adverse shadow impacts would reduce the utility of the open spaces, the open spaces would continue to be available and provide for other passive or active open space uses and therefore would not be a direct significant adverse open space impact.

SHADOWS

The Potential Modifications would lower maximum building heights from 145 feet to 125 feet and lower maximum base heights from 105 feet to 95 feet along the southside of Degraw Street, between Nevins Street and 3rd Avenue. This area is occupied by Projected Development Sites 19 and 20. Under the Approved Actions, bulk changes affecting Potential Development Site W were made to reduce the significant adverse shadow impact to the Thomas Greene Playground, including shadows on the Douglass and Degraw Pool. The changes made to building bulk in the area surrounding Thomas Greene Playground would reduce the potential duration and extent of shadows on the open space. Overall, the Potential Modifications would not result in new or greater impacts than previously disclosed in the FEIS.

HISTORIC AND CULTURAL RESOURCES

The Potential Modifications would result in the same significant adverse impacts as the Approved Actions, with the same direct and indirect effects on cultural and historic resources occurring under the Potential Modifications. The Potential Modifications would reduce the allowable heights of buildings constructed on the blockfront immediately south of Thomas Greene Playground (Sites 19 and 20), but in this analysis area the FEIS already analyzed the lower heights that would be required under the Potential Modifications. Therefore, the potential impacts of the height reductions have already been evaluated in the FEIS for historic and cultural resources. The other proposed modifications would not result in new subsurface disturbance not previously evaluated in the FEIS or affect development site location, massing or other characteristics that could potential impact archaeological and architectural resources.

URBAN DESIGN AND VISUAL RESOURCES

The Potential Modifications, like the Approved Actions, would not result in any significant adverse impacts to urban design and visual resources. The Potential Modifications would reduce the heights of buildings immediately south of Thomas Greene Playground (Sites 19 and 20), but the FEIS already analyzed the heights required under the Potential Modifications. Therefore, the height reductions at Sites 19 and 20 were already evaluated in the FEIS for urban design and visual resources and no impacts were identified. The other proposed modifications related to adjusting the permitted uses in manufacturing and certain mixed-use zoning districts, refining the definition of "Gowanus Mix" uses, expanding and strengthening the Gowanus Mix incentives, adjusting the authorization for large mixed-use sites, and striking MIH Option 2 to ensure the deepest affordability, would not result in changes to the building envelopes and massings that would be permitted under the Approved Actions. The Potential Modifications, like the Approved Actions, would support a walkable, vibrant mixed-use neighborhood, while providing for sufficient flexibility and variety for building envelopes, appropriate transitions between lower and medium density adjacencies, the creation of new waterfront open space, enhanced pedestrian-oriented sidewalk conditions, and lively, active streets. The Potential Modifications would not affect development site location, massing or other characteristics that could potentially impact urban design and visual resources.

NATURAL RESOURCES

Like the Approved Actions, the Potential Modifications would not result in significant adverse impacts to Natural Resources for reasons similar to those presented in the FEIS, as summarized below.

- Floodplains—Because the floodplain within New York City is controlled by astronomic tide and meteorological forces (e.g., nor'easters and hurricanes) and not by fluvial flooding, the projected development sites would not have the potential to adversely affect the floodplain or result in increased coastal flooding within or adjacent to the study area. Projected development sites would comply with New York City Building Codes for construction within the 1 percent and 0.2 percent annual chance floodplains, and capital improvements planned within the study area would reduce street flooding.
- Groundwater—As with the Approved Actions, the Potential Modifications would not result in significant adverse impacts to groundwater resources, including the Brooklyn-Queens sole source aquifer, and would not result in the introduction of any new groundwater contaminants. Projected development sites would implement measures developed on the basis of further environmental investigation to minimize adverse impacts to the environment, such as (E) Designations, as detailed in the FEIS.

- Terrestrial Resources—Any development associated with the Potential Modifications, as with the Approved Actions, would result in the disturbance of paved road/paths, mowed lawns with trees, urban vacant lots, and urban structure exterior habitats. These ecological communities provide limited habitats to wildlife apart from those species common to urban areas. While loss of these habitats may affect individual wildlife unable to find suitable available habitats in the vicinity of the study area, any potential loss would not constitute significant adverse impacts to populations of affected species within the New York City metropolitan region. As with the Approved Actions, properly maintained and functioning bioswales, stormwater greenstreets, landscaping, and newly developed or enhanced open space would provide habitat for pollinators and wildlife species within the study area.
- Wetlands—As with the Approved Actions, any development associated with the Potential Modifications would involve minimal in-water construction which would not adversely impact wetlands. As detailed in the FEIS, stormwater management improvements would result in minimal temporary direct impacts to tidal wetlands during outfall rehabilitation. Overall, the improvements to stormwater management would result in long-term beneficial impacts to wetlands within Gowanus Canal.
- Aquatic Resources—Development associated with the Potential Modifications, as with the Approved Actions, would involve minimal in-water construction and temporary disturbance to aquatic resources with the potential rehabilitation of storm sewers and/or outfalls as detailed in the FEIS. Improvements to stormwater management infrastructure with the Approved Actions and Potential Modifications would have beneficial effects on water quality and aquatic habitat in concert with incremental improvements in water quality associated with the cleanup of the Canal, occurring separately from the Approved Actions and the Potential Modifications.

HAZARDOUS MATERIALS

The Potential Modifications would not result in significant adverse impacts associated with hazardous materials. The effects with the Potential Modifications would be the same as the Approved Actions. Like the Approved Actions, the same projected and potential development sites identified under the Potential Modifications would be mapped with (E) Designations to preclude exposure to hazardous materials. Testing and remedial measures, if warranted, would be required through (E) Designation E-601 (or required through an LDA or comparable mechanism for City-owned sites). With these requirements, the Potential Modifications like the Approved Actions would not result in significant adverse impacts related to hazardous materials.

WATER AND SEWER INFRASTRUCTURE

Like the Approved Actions, the Potential Modifications would not result in significant adverse impacts. The Potential Modifications would place a similar amount of demand on the City's water supply and wastewater treatment systems as the Approved Actions, and the Potential Modifications would result in generally the same effects as the Approved Actions as they pertain to stormwater drainage and management.

WATER SUPPLY

As compared to the Approved Actions, the projected development sites under the Potential Modifications are expected to generate a similar amount of water demand: with the decrease in in demand from residential space and the increases in demand from commercial and light manufacturing uses, on balance, overall water demand would be roughly equal to the demand under the Approved Actions (approximately 4.3 million gallons per day [mgd], an increase of 3.5

mgd compared with demand in the No Action condition, as discussed in the FEIS). Similar to the Approved Actions, this would represent a minimal increase in demand compared to the City's average daily water supply of approximately one billion gpd. Therefore, development under the Potential Modifications would not result in significant adverse impacts on the City's water supply system.

WASTEWATER TREATMENT

Under the Potential Modifications, the projected development sites would result in slightly less sanitary sewage generation as compared to the projected sanitary sewage generation of the Approved Actions, as discussed in the FEIS (a total of approximately 2.4 mgd of sanitary sewage, of which 1.6 mgd would be directed to the Red Hook Wastewater Resource Recovery Facility [WRRF] and approximately 0.8 mgd would be directed to the Owls Head WRRF). The decrease in sanitary sewage generation is largely the result of the decrease in generation from residential uses. As with the RWCDS analyzed for the Approved Actions, the incremental increase in sanitary sewage would be divided between the Red Hook and Owls Head WRRFs, and would represent a minor increase in flows to the WWRFs (approximately 2 percent of the permitted capacity of the Red Hook WRRF and approximately 0.5 percent of the permitted capacity of the Owls Head WRRF). Both WRRFs serving the Project Area would continue to have reserve capacity. Therefore, the demand associated with the Potential Modifications would be well within the capacity of the affected treatment plants, and, similar to the Approved Actions, the Potential Modifications would not result in a significant adverse impact to the City's wastewater treatment services.

STORMWATER AND DRAINAGE MANAGEMENT

The Potential Modifications would generally result in reduced building heights on some of the Projected Development Sites, however they would not affect the applicable lot coverage regulations. Therefore, the surface areas on the Projected Development Sites are expected to be similar to the surface areas presented in the Approved Actions, and as a result, stormwater flows to the sewer system would be similar. As noted above, the Potential Modifications would result in slightly less sanitary sewage generation on the projected development sites, therefore overall flows to the combined sewer system during storm events would be similar to or slightly less than the flows under the Approved Actions in the FEIS.

As discussed in the FEIS, a detailed analysis of the Approved Actions was performed based on hydrologic and hydraulic modeling which incorporates the stormwater infrastructure improvements being undertaken and proposed by DEP for the Gowanus Canal drainage area and the forthcoming citywide Unified Stormwater Rule. This detailed analysis found that, with the additional development facilitated by the Proposed Actions, combined sewer overflow (CSO) volumes would decrease as compared with the No Action condition despite the increase to sanitary flows from new development. This reduction in CSO volumes is a result of the new on-site stormwater management volume requirements under the Unified Stormwater Rule, which increases the total volume of water that must be managed on new and redeveloped properties as well as updates the type and performance of on-site stormwater management practices that must be implemented. In the Project Area, the Unified Stormwater Rule ensures that redeveloped properties manage more total stormwater and manage it more efficiently than prior to redevelopment. This improved on-site stormwater management on the redeveloped properties is substantial enough that it would offset the increase in sanitary flow, so CSO volumes to the Canal would decrease overall. In addition, under the Approved Actions, CSO volumes discharged to the Canal would remain well below existing conditions, and the Proposed Actions would not affect the City's ability to meet the EPA Superfund requirements. The detailed analysis also found that

the estimated pollutant loads to Gowanus Canal would decrease, due to the decrease in CSO volumes as described above.

Similar to the Approved Actions, under the Potential Modifications, each projected development site, regardless of lot size, will trigger the Chapter 31 component of the Unified Stormwater Rule and will be required to implement slow-release stormwater management practices (SMPs) to meet updated release rate and volume requirements on-site, which ensures that redeveloped properties manage more total stormwater and manage it more efficiently than prior to redevelopment. Therefore, as with the Approved Actions, the Potential Modifications are not projected to affect CSO discharges or water quality in the Gowanus Canal, and would not result in significant adverse impacts on DEP infrastructure in the Gowanus Canal drainage area.

SOLID WASTE AND SANITATION SERVICES

Significant adverse impacts would not occur under the Approved Actions or the Potential Modifications. The Potential Modifications would cause equal demand in the City's Solid Waste Sanitation services as compared to the Approved Actions. While solid waste generated by the projected development sites would increase under both the Approved Actions and the Potential Modifications, the Potential Modifications would generate a comparable amount of solid waste (an equal amount of tons of waste per week) as the Approved Actions. Like the Approved Actions, this would not overburden available waste management capacity and would not conflict with, or require any amendment to, the City's solid waste management objectives as stated in the SWMP. Therefore, no significant impacts related to solid waste generation and sanitation services are anticipated under the Potential Modifications.

ENERGY

Significant adverse impacts related to energy systems would not occur under the Approved Actions or the Potential Modifications. The Potential Modifications would place somewhat less demand on energy as compared to the Approved Actions because it would result in fewer DUs, however the increase in commercial space would add a similar amount of additional workers.

The Potential Modifications would result in an increased demand of approximately 5,000,000 British thermal units (BTUs) of energy per year as compared with the Approved Actions, which would introduce over 1,500,000,000 BTUs of energy per year as compared to the No Action condition. The Potential Modifications 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 would occur.

Any new development resulting from the Potential Modifications would be required to comply with the New York City Energy Conservation Code (NYCECC), which governs performance requirements of heating, ventilation, and air condition systems, as well as the exterior building envelope of new buildings. In compliance with this code, new development must meet standards for energy conservation, which include requirements related to energy efficiency and combined thermal transmittance.

TRANSPORTATION

With the Potential Modifications, the number of action-generated vehicle, transit, and pedestrian trips and the demand for on-street and off-street parking would be generally comparable to, or slightly greater than, the numbers of trips and the parking demand that would be generated by the Approved Actions. Based on the trip generation assumptions detailed in Chapter 14, "Transportation," in the FEIS, the Potential Modifications would generate approximately 64, 108

and 80 more incremental person trips in the weekday AM, midday and PM peak hours, respectively, and 14 fewer trips in the Saturday peak hour (see **Table 7**). This represents an approximately 0.6 percent increase in project-generated person trips in the weekday AM and PM peak hours compared with the Approved Actions, a one percent increase in the weekday midday peak hour, and a 0.1 percent decrease in the Saturday peak hour. This amount of additional demand is not expected to result in conditions appreciably different from those disclosed for the Approved Actions in the FEIS. Like the Approved Actions, it is anticipated that the Potential Modifications would continue to result in significant adverse traffic, subway and pedestrian impacts. Neither the Approved Actions nor the Potential Modifications would result in significant adverse impacts to transit bus conditions or parking; however, parking shortfalls would occur under both scenarios.

Table 7
Comparison of Incremental Peak Hour Person Trips by Mode
Approved Actions vs. Potential Modifications

Scenario	Auto	Taxi	Subway	Bus	School Bus	Walk/ Other	Total
Weekday AM							
Approved Actions	1,179	128	5,823	399	10	2,801	10,340
Potential Modifications	1,202	129	5,832	413	10	2,818	10,404
Difference	***23***	***1***	***9***	***14***	***0***	***17***	***64***
Weekday Midday							
Approved Actions	712	88	3,057	395	0	5,952	10,204
Potential Modifications	710	88	3,053	403	0	6,058	10,312
Difference	***(2)***	***0***	***(4)***	***8***	***0***	***106***	***108***
Weekday PM							
Approved Actions	1,358	159	6,430	492	0	3,831	12,270
Potential Modifications	1,387	165	6,443	506	0	3,849	12,350
Difference	***29***	***6***	***13***	***14***	***0***	***18***	***80***
Saturday							
Approved Actions	835	76	5,274	318	0	3,853	10,356
Potential Modifications	834	76	5,255	322	0	3,855	10,342
Difference	***(1)***	***0***	***(19)***	***4***	***0***	***2***	***(14)***

TRAFFIC

As shown in **Table 8**, the Approved Actions would generate an estimated 1,287, 536, 1,320 and 714 incremental vehicle (auto, taxi, truck and school bus) trips in the weekday AM, midday and PM peak hours, and Saturday peak hour, respectively. As discussed in Chapter 14, "Transportation," in the FEIS, these trips would result in significant adverse traffic impacts at a total of 43 study area intersections during one or more analyzed peak hours. A total of 60 lane groups at 37 intersections would be impacted in the AM peak hour, 31 lane groups at 23 intersections in the midday, 60 lane groups at 36 intersections in the PM and 43 lane groups at 33 intersections in the Saturday peak hour.

Compared with the Approved Actions, the Potential Modifications would generate approximately 19 and 29 more incremental vehicle trips during the weekday AM and PM peak hours, respectively, and two fewer trips in the weekday midday peak hour. There would be no change in the number of trips in the Saturday peak hour. This represents increases of only 1.5 percent and 2.2 percent as compared with the incremental vehicle trips that would be generated under the Approved Actions in the weekday AM and PM peak hours, respectively, and a 0.3 percent decrease in the midday peak hour. The relatively small number of additional trips in the weekday AM and PM peak hours would be distributed among multiple corridors providing access to the projected development sites. It is therefore anticipated that the Potential Modifications would not result in traffic conditions appreciably different from those disclosed for the Approved Actions in

the FEIS, and that there would be no new impacted intersections that were not previously identified as impacted under the Approved Actions. It should be noted, however, that with the Potential Modifications, there would be a relatively small increase in the amount of office, innovation economy and light industrial space, compared to the Approved Actions, while the number of dwelling units would decrease (by 47 DUs). This may result in a relatively small change in the directional distribution of action-generated trips at some intersections, especially during the weekday AM and PM commuter peak hours, as worker demand is typically inbound in the AM and outbound in the PM, the opposite of residential commuter demand. Therefore, at some impacted intersections, an impact may occur on a different approach and/or in a different peak hour than under the Approved Actions. However, it is anticipated that at any such intersection, the same or similar mitigation measures as recommended for the Approved Actions would be equally effective at mitigating the impact. As noted above, it is not anticipated that there would be any additional impacted intersections due to the Potential Modifications.

Table 8
Comparison of Incremental Peak Hour Vehicle Trips by Mode
Approved Actions vs. Potential Modifications

Scenario	Auto	Taxi	Truck	School Bus	Total
Weekday AM					
Approved Actions	1,069	178	38	2	1,287
Potential Modifications	1,086	180	38	2	1,306
Net Difference	***17***	***2***	***0***	***0***	***19***
Weekday Midday					
Approved Actions	380	94	62	0	536
Potential Modifications	378	94	62	0	534
Net Difference	***(2)***	***0***	***0***	***0***	***(2)***
Weekday PM					
Approved Actions	1,100	218	2	0	1,320
Potential Modifications	1,121	226	2	0	1,349
Net Difference	***21***	***8***	***0***	***0***	***29***
Saturday					
Approved Actions	596	112	6	0	714
Potential Modifications	596	112	6	0	714
Net Difference	***0***	***0***	***0***	***0***	***0***

TRANSIT

Subway

As presented in **Table 1**, compared with the Approved Actions, the Potential Modifications would generate approximately 9 and 13 more incremental subway trips during the analyzed weekday AM and PM peak hours, respectively. This represents an increase of approximately 0.2 percent during each of these periods compared with the incremental subway trips that would be generated under the Approved Actions.

Subway Stations

Table 9 presents a comparison of the number of subway trips (inbound and outbound combined) that would be generated by the Approved Actions and by the Potential Modifications at analyzed subway stations. These include the Bergen Street (F/G), Carroll Street (F/G) and Union Street (R) stations, and the Atlantic Avenue (2/3/4/5/B/D/N/R/W) subway station complex. As shown in **Table 9**, compared with the Approved Actions, the Potential Modifications would generate no more than eight additional trips in the AM peak hour and five in the PM peak hour at any of the four analyzed subway stations. Given the relatively small changes in the numbers of peak hour

trips, it is anticipated that there would be no new significant adverse stair or fare array impacts at any station with the Potential Modifications. However, the significant adverse impacts to two street stairs (S2/P2 and S4/P4) and one fare array (C010) in the AM peak hour and to two street stairs (S1/P1 and S3/P3) in the PM at the Union Street subway station under the Approved Actions are expected to remain under the Potential Modifications.

Table 9
Comparison of Incremental Peak Hour Subway Trips at Analyzed Subway Stations
Approved Actions vs. Potential Modifications

Scenario	Total Subway Trips	Atlantic Ave (2,3,4,5, B,D,N,R,W) Station Complex	Bergen Street (F,G) Station	Carroll Street (F,G) Station	Union Street (R) Station
Weekday AM					
Approved Actions	5,823	104	286	2,633	2,168
Potential Modifications	5,832	103	288	2,633	2,176
Net Difference	***9***	***(1)***	***2***	***0***	***8***
Weekday PM					
Approved Actions	6,430	116	306	2,746	2,530
Potential Modifications	6,443	118	311	2,747	2,535
Net Difference	***13***	***2***	***5***	***1***	***5***

Note: Trips shown are inbound and outbound combined.

Subway Line Haul

Under the Approved Actions, northbound F trains are expected to be operating over capacity in the AM peak hour, and would be considered significantly adversely impacted during this period based on *CEQR Technical Manual* impact criteria. As shown in **Table 1**, the Potential Modifications would generate only nine additional subway trips in the AM peak hour and 13 in the PM compared with the Approved Actions, and these trips would be distributed among the 11 subway routes serving the Project Area. Therefore, The Potential Modifications are not expected to result in any new significant adverse impacts to subway line conditions. The impact to northbound F trains in the AM peak hour under the Approved Actions is expected to remain with the Potential Modifications.

Bus

As presented in **Table 7**, compared with the Approved Actions, the Potential Modifications would generate approximately 14 more incremental bus trips during each of the weekday AM and PM peak hours, respectively. This represents increases of approximately 3.5 percent and 2.8 percent during these periods, respectively, compared with the incremental bus trips that would be generated under the Approved Actions.

As shown in **Table 10**, compared with the Approved Actions, the Potential Modifications would generate no more than five additional trips per direction in each peak hour on the analyzed B37, B57 and B103 bus routes. Each of these routes are projected to have from 29 to 195 seats of available capacity in each direction in each peak hour with the Approved Actions, and none would be significantly adversely impacted. Consequently, the small numbers of additional trips with the Potential Modifications are not anticipated to result in new significant adverse impacts on any of the analyzed bus routes.

Table 10
Comparison of Incremental Peak Hour Bus Trips by Analyzed Route
Approved Actions vs. Potential Modifications

Scenario	Total Bus Trips	B37 (NB)	B37 (SB)[1]	B57 (EB)	B57 (WB)	B103 LTD (EB)[1]	B103 LTD (WB)[1]
Weekday AM							
Approved Actions	399	35	41	50	74	35	40
Potential Modifications	413	37	46	49	73	37	45
Net Difference	***14***	***2***	***5***	***(1)***	***(1)***	***2***	***5***
Weekday PM							
Approved Actions	492	54	49	83	53	54	48
Potential Modifications	506	59	50	84	53	58	49
Net Difference	***14***	***5***	***1***	***1***	***0***	***4***	***1***

PEDESTRIANS

As presented in **Table 11**, it is estimated that the Approved Actions would generate approximately 9,023, 9,404, 10,753 and 9,445 incremental pedestrian trips (walk-only plus pedestrians en route to/from subway stations and bus stops) in the weekday AM, midday and PM peak hours and the Saturday peak, hour respectively. Compared with the Approved Actions, the Potential Modifications are expected to generate 40, 110 and 45 more incremental pedestrian trips in the weekday AM, midday and PM peak hours, respectively, and 13 fewer in the Saturday peak hour. Pedestrian demand with the Potential Modifications would therefore be from 0.4 to 1.2 percent greater in the weekday peak hours and 0.1 percent less in the Saturday peak hour.

As discussed in Chapter 14, "Transportation," in the FEIS, the Approved Actions would result in significant adverse impacts to nine sidewalks and four crosswalks in one or more of the analyzed peak hours, and there would be no significant impacts to any corner areas. The relatively small increases in pedestrian trips generated by the Potential Modifications in the weekday peak hours would be distributed among 12 projected development sites, and are not expected to result in new significant adverse impacts to any analyzed sidewalk or crosswalk. It is anticipated that the mitigation measures proposed for the Approved Actions' significant adverse pedestrian impacts would be equally effective at mitigating the significant adverse impacts under the Potential Modifications.

Table 11
Comparison of Incremental Peak Hour Pedestrian Trips
Approved Actions vs. Potential Modifications

Scenario	Total
Weekday AM	
Approved Actions	9,023
Potential Modifications	9,063
Net Difference	***40***
Weekday Midday	
Approved Actions	9,404
Potential Modifications	9,514
Net Difference	***110***
Weekday PM	
Approved Actions	10,753
Potential Modifications	10,798
Net Difference	***45***
Saturday	
Approved Actions	9,445
Potential Modifications	9,432
Net Difference	***(13)***

Note:
Includes walk-only trips and trips en route to/from area transit services.

VEHICULAR AND PEDESTRIAN SAFETY EVALUATION

A review of DOT crash data for the three-year reporting period between January 1, 2016, and December 31, 2018, identified two intersections in the traffic and pedestrian study areas as high crash locations. Under both the Approved Actions and the Potential Modifications, additional improvements to increase pedestrian/cyclist safety at these high crash locations could include improved street lighting, lane restriping, improvements to pavement markings, and modifications to traffic signal timings and phasing.

PARKING

Compared with the Approved Actions, the increase in office, innovation economy and light industrial uses and the reduction in dwelling units under the Potential Modifications could result in increased incremental demand for off-street and on-street parking in proximity to projected development sites during the weekday midday period and less demand during the overnight period. As shown in **Table 12,** development associated with the Potential Modifications would generate a peak net parking demand of approximately 3,222 spaces in the weekday midday (12–1 PM) period and 3,798 spaces in the overnight period. This compares with 3,210 spaces in the midday and 3,820 spaces in the overnight period under the Approved Actions. Under the Potential Modifications, it is assumed that up to 1,940 accessory parking spaces would be provided on projected development sites, the same as under the Approved Actions.

As discussed in Chapter 14, "Transportation," in the FEIS, after accounting for the number of accessory parking spaces provided on a site-by-site basis, it is estimated that compared with the No Action Condition, incremental parking demand at off-street public parking facilities and on-street under the Approved Actions would total approximately 2,214 spaces in the weekday midday period and 2,221 spaces during the overnight period. By comparison, incremental parking demand with the Potential Modifications would total approximately 2,226 spaces in the weekday midday

and 2,199 spaces in the overnight period, 12 more spaces than the Approved Actions in the midday and 22 fewer spaces in the overnight period.

Under the Approved Actions there would be a deficit of approximately 2,980 spaces of on-street and off-street public parking capacity within ¼-mile of projected development sites during the midday period, and 2,838 spaces overnight. With the changes in parking demand under the Potential Modifications, it is anticipated that the midday deficit would increase to approximately 2,992 spaces, and that the overnight deficit would increase to approximately 2,816 spaces. While some drivers destined for the Project Area would potentially have to travel a greater distance to find available parking in the midday and overnight periods, the shortfalls under both the Approved Actions and the Potential Modifications would not be considered significant adverse impacts based on *CEQR Technical Manual* criteria due to the magnitude of available alternative modes of transportation. Therefore, like the Approved Actions, the Potential Modifications are not expected to result in significant adverse parking impacts during the weekday midday peak period for commercial and retail parking demand, nor during the overnight peak period for residential demand.

Table 12

Net Incremental Weekday Hourly Parking Demand by Land Use—Potential Modifications

	Local Retail	Office [a]	Residential [b,f]	Destination Retail [c]	Restaurant [e]	Supermarket [c]	Auto Repair	Innovation Economy [d]	Light Industrial [a]	Warehouse	Medical Office	Community Center	Waterfront Park [h]	School Staff	Total Demand
12-1 AM	0	0	3,798	0	0	0	0	0	0	0	0	0	0	0	3,798
1-2	0	0	3,798	0	0	0	0	0	0	0	0	0	0	0	3,798
2-3	0	0	3,798	0	0	0	0	0	0	0	0	0	0	0	3,798
3-4	0	0	3,798	0	0	0	0	0	0	0	0	0	0	0	3,798
4-5	0	0	3,798	0	0	0	0	0	0	0	0	0	0	0	3,798
5-6	0	0	3,753	0	0	0	0	0	0	0	0	0	0	0	3,753
6-7	0	0	3,569	-3	0	2	0	0	0	0	0	0	2	0	3,570
7-8	18	37	3,271	-10	0	12	-13	26	-2	-31	2	3	0	0	3,313
8-9	18	284	2,926	-24	1	20	-48	117	-26	-101	12	5	0	12	3,196
9-10	25	458	2,830	-74	21	20	-128	183	-41	-157	11	5	0	12	3,165
10-11	30	463	2,794	-113	42	20	-134	193	-42	-169	20	4	0	12	3,120
11-12	32	444	2,795	-140	80	30	-104	184	-39	-155	25	3	0	12	3,167
12-1 PM	30	447	2,782	-159	141	19	-62	184	-40	-152	16	4	0	12	3,222
1-2	30	440	2,782	-177	141	15	-62	181	-40	-152	14	6	0	12	3,190
2-3	30	505	2,826	-168	70	15	-68	207	-44	-166	12	6	0	12	3,237
3-4	28	502	2,980	-158	38	18	-67	206	-44	-164	19	7	0	12	3,377
4-5	28	352	3,226	-150	7	24	-24	154	-31	-126	27	6	0	12	3,505
5-6	28	55	3,380	-138	51	20	-24	46	-5	-51	14	5	0	0	3,381
6-7	23	6	3,579	-137	135	16	-5	6	-1	-20	1	6	0	0	3,609
7-8	12	0	3,671	-132	193	7	0	0	0	-2	0	5	0	0	3,754
8-9	7	0	3,748	-98	112	5	0	0	0	0	0	1	0	0	3,775
9-10	0	0	3,788	-31	37	3	0	0	0	0	0	0	0	0	3,797
10-11	0	0	3,760	-11	0	0	0	0	0	0	0	0	0	0	3,749
11-12	0	0	3,798	0	0	0	0	0	0	0	0	0	0	0	3,798

Notes:

Parking accumulation pattern based on data from the 2016 *East New York Rezoning FEIS* unless otherwise noted.

(a) Auto share variable by time of day (office=28.7% AM/PM, 2% MD; light industrial=32.2% AM/PM, 2% MD).

(b) 0.45 spaces/D.U. derived from average 2013-2017 ACS Tenure by Vehicles Available data for project area census tracts.

(c) Parking accumulation pattern based on data from 2017 *East Harlem Rezoning FEIS*.

(d) Office parking accumulation pattern assumed for innovation economy uses.

(e) Restaurant linked-trip credit varies by time of day (0% AM, 25% MD, 15% PM).

(f) Residential auto occupancy varies by time of day (1.12 AM/PM, 1.57 MD).

(g) Parking accumulation pattern based on data from 2013 St. George Waterfront Redevelopment FEIS.

AIR QUALITY

MOBILE SOURCES

Compared to the Approved Actions, the Potential Modifications would result in 19 and 29 additional vehicle trips in the AM and PM peak hours, respectively, (i.e., a roughly 1.5 percent and 2 percent increase in vehicle trips in each period, respectively) while during the midday period there is no change in vehicle trips predicted, and a slight reduction of two vehicles during the Saturday peak period. These small changes in traffic would not materially affect the results of the mobile source air quality analyses performed for the FEIS. Therefore, like the Approved Actions, the Potential Modifications would not result in significant adverse air quality impacts from mobile sources.

STATIONARY SOURCES

With the Potential Modifications, an additional 37,710 square feet (sf) of office and innovative economy space and 4,400 sf of light industrial space, and 47 fewer dwelling units, would be built. For the air quality analysis performed for the Approved Actions, mixed-use developments used the residential fuel consumption factors since they are more conservative. Therefore, the proposed Potential Modifications would not be anticipated to result in increased emissions from heating and hot water systems, compared to the Approved Actions. At certain sites, an (E) Designation (E-601) would be mapped (or comparable measures required through an LDA for sites under City jurisdiction) in connection with the Approved Actions to ensure that future developments would not result in any significant adverse air quality impacts from fossil fuel-fired heat and hot water systems emissions. The same requirements identified for the Approved Actions would apply with the Potential Modifications.

For the Proposed Actions, an analysis was performed of the industrial sources associated with the RWCDS. As noted above, the Potential Modifications would address an oversight in the original draft zoning text that excluded Use Group (UG) 17B—manufacturing establishments—as part of the Gowanus Mix. These uses were intended to be in the draft zoning text and, as such, were included in the analysis presented in the FEIS. As described in more detail in the FEIS Chapter 15, "Air Quality," air emissions were analyzed from potential manufacturing uses that would be permitted and reasonably could locate in the proposed Special Gowanus Mixed-Use District (GSD). Therefore, no analysis of the potential modification to add UG17B uses is required. To ensure that there are no potential significant adverse impacts of identified air toxic compounds in the GSD, the requirements identified for the Approved Actions would apply with the Potential Modifications.

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

Like the Approved Actions, the Potential Modifications would not result in significant adverse impacts associate with GHG emissions and climate change. Following the methodology described in the FEIS and per the *CEQR Technical Manual* guidance, projected GHG emissions are presented in this section for the Potential Modifications were estimated and are presented below, followed by a qualitative discussion of potential measures for reducing GHG emissions and consistency of the Potential Modifications with the City's policy for GHG emissions reduction. All differences between the GHG emissions quantified for the Potential Modifications and for the Approved Actions are due to the reduction in projected residential development. The building floor area, emission intensity, and resulting GHG emissions from the projected uses in the Potential Modifications are presented in detail in **Table 13**. Compared to the Approved Actions, the Potential

Modifications would result in a minor increase of GHG emissions from annual building operations by approximately 263 annual metric tons—a less than 1 percent increase.

Table 13
Annual Building Operational Emissions—Potential Modifications RWCDS

Source Use	Building Area (gsf)	GHG Intensity[1] (kg CO_2e/gsf/yr)	Annual GHG Emissions (metric tons CO_2e)
Residential	8,676,063	6.59	57,175
Community Facility (Medical Offices)	88,976	11.42	1,016
Community Facility (Community Center)	379,504	11.42	4,334
Commercial, Retail, and Office	1,649,441	9.43	15,554
Commercial Hotel	54,870	9.00	2,458
Industrial	103,631	23.18	2,402
Parking	25,625	0.98 [2]	25
		Total	**81,000**

Notes: Totals may not sum due to rounding.
Per *CEQR Technical Manual* guidance, electricity emissions are representative of existing conditions in 2012 and not the analysis year (2035). Future emissions are expected to be lower.
Representative emission intensity for existing buildings are higher than new and future construction, and do not include the specific energy efficiency measures.
Sources: 1. 2020 *CEQR Technical Manual.*
2. Based on 27,400 Btu/sf/yr, 2001 *CEQR Technical Manual*.

Similarly, the projected annual vehicle miles traveled and subsequent mobile-source-related GHG emissions under the Potential Modifications are summarized in **Tables 14 and 15**, respectively. Compared to the Approved Actions, the Potential Modifications would result in a minor increase of annual mobile source GHG emissions of approximately 676 metric tons of annual mobile source emissions—representing an increase of approximately 1.2 percent.

Table 14
Vehicle Miles Traveled per Year—Potential Modifications RWCDS

Use Type	Passenger	Taxi	Truck
Residential	35,392,918	636,805	6,276,845
Community Facility (Medical Offices)	4,983,530	613,597	357,888
Community Facility (Community Center)	2,646,153	307,190	1,526,481
Commercial, Retail, and Office	39,488,496	1,822,571	6,088,868
Commercial Hotel	6,827,556	631,764	2,739,769
Industrial	934,749	19,700	861,551
Open Space	9,504	452	149
Total	**88,853,218**	**4,006,356**	**17,597,998**

Table 15
Annual Mobile Source Emissions—Potential Modifications RWCDS
(metric tons CO_2e, 2035)

Use	Passenger Vehicle	Taxi	Truck	Total
Residential	11,086	178	9,058	20,322
Community Facility (Medical Offices)	1,561	171	516	2,249
Community Facility (Community Center)	829	86	2,203	3,117
Commercial, Retail, and Office	12,369	509	8,787	21,664
Commercial Hotel	2,139	176	3,954	6,269
Industrial	293	5	1,243	1,524
Open Space	3	0	0	3
Total	**28,279**	**1,125**	**25,761**	**55,165**

Overall, the Potential Modifications would result in a minor increase of approximately 938 metric tons of annual GHG emissions—representing an overall increase of less than 1 percent.

CONSISTENCY WITH THE CITYWIDE GHG REDUCTION GOALS

Similar to the Approved Actions, since development under the Potential Modifications involve zoning changes that would primarily affect privately owned properties, decisions regarding construction and building design for those sites, which would affect energy use and GHG emissions, would be made by the property developers in accordance with the City's building code requirements in effect at the time. The Proposed Modifications would follow the same requirements as under the Approved Actions. Therefore, the Proposed Modifications would be consistent with the Citywide GHG reduction goals.

RESILIENCE TO CLIMATE CHANGE

As with the Approved Actions, some developments with the Potential Modifications would be subject to current and future flood risks, with flood depth increasing in the future as sea levels rise and flood hazard areas expand. Current flood hazards are addressed under the requirements of the building code. No specific requirements would be incorporated to address future flood risk.

The Potential Modifications, as with the Approved Actions, would not affect resilience in the area or other environmental effects as they may be affected by climate change. As with the Approved Actions, the Potential Modifications would not result in any development in the water or on the waterfront, and therefore other considerations identified in WRP Policy 6.2 are not relevant. The Potential Modifications would also not adversely affect other resources (including ecological systems, public access, visual quality, water-dependent uses, infrastructure, and adjacent properties) due to climate change.

NOISE

Similar to the Approved Actions, the Potential Modifications would not result in any significant adverse impacts due to noise. The noise effects with the Potential Modifications would be the same as the Approved Actions. With the incorporation of noise attenuation requirements set forth in (E) Designation (E-601) applicable to privately owned projected and potential development sites, or required through an LDA for sites under City jurisdiction, the Potential Modifications would not result in any significant adverse noise impacts. The same window-wall attenuation requirements required under the Approved Actions would be required with the Potential Modifications. Like the Approved Actions, the projected and potential development sites assessed in the Potential Modifications would require up to 33 dBA window/wall attenuation to meet applicable *CEQR Technical Manual* interior noise level requirements and at minimum 50 dBA interior partition attenuation between Manufacturing/Industrial uses and residential units and/or community facility uses, where applicable. These attenuation requirements would be required through (E) Designation E-601 (or through an LDA or comparable mechanism for City-owned sites). With these attenuation measures, the Potential Modifications like the Approved Actions would not result in significant adverse impacts related to noise.

PUBLIC HEALTH

Neither the Approved Actions nor the Potential Modifications would result in significant adverse public health impacts. Like the Proposed Actions, the Potential Modifications would not result in unmitigated significant adverse impacts in the areas of air quality, operational noise, water quality, or hazardous materials. While the Proposed Actions could result in unmitigated construction noise impacts as defined by *CEQR Technical Manual* thresholds, a public health assessment was conducted, and it was determined that the construction noise impact would not generate a significant adverse public health impact.

NEIGHBORHOOD CHARACTER

Like the Approved Actions, the Potential Modifications would not result in significant adverse impacts to neighborhood character. The Proposed Actions would not result in any significant adverse impacts on neighborhood character. The changes resulting from the Potential Modifications, like the changes expected under the Approved Actions, would be seen under the Approved Actions, would generally result in similar effects in the following technical areas that are considered in the neighborhood character assessment pursuant to the *CEQR Technical Manual*: land use, zoning, and public policy; socioeconomic conditions; open space; historic and cultural resources; urban design and visual resources; shadows; transportation; and noise. Although the same significant adverse impacts would occur with respect to historic resources, shadows and transportation under the Potential Modifications, like the Approved Actions, these impacts would not result in a significant change to one of the determining elements of neighborhood character.

CONSTRUCTION

The total amount of development would be similar between the Potential Modifications and the Approved Actions. In addition, the construction phasing, activities, and duration estimates under the Potential Modifications would be similar to those under the Approved Actions. Therefore, as with the Approved Actions, the Potential Modifications would not result in significant adverse construction impacts with respect to land use and neighborhood character, socioeconomic conditions, community facilities, open space, hazardous materials, air quality, or vibration. However, similar to the Approved Actions, construction activities related to the Potential Modifications would result in the same temporary historic and cultural resources, transportation, and noise impacts.

MITIGATION MEASURES REQUIRED FOR THE POTENTIAL MODIFICATIONS

The Proposed Modifications would result in the same significant adverse impacts related to shadows, historic and cultural resources (architectural and archaeological resources), air quality, and construction (noise), requiring the same mitigation measures identified in the FEIS for the Approved Actions.

Because the Potential Modifications would result in slightly less residential floor area, including 47 fewer DUs, and 9 fewer affordable units, the demand placed on early childhood programs and open space would be slightly less than the Approved Actions, but would generally require the same mitigation measures. As discussed in the FEIS for the Approved Actions, no feasible mitigation measures were identified for early childhood programs and partial mitigation was identified for the open space impact. The partial mitigation measure for the open space impact identified in the FEIS would be implemented through the Schoolyards to Playground program, providing use of an additional 22,000 sf of active open space at PS 32 in the open space study area.

A discussion of mitigation measures required under the Potential Modifications with respect to transportation is provided below.

TRANSPORTATION

For both the Approved Actions and the Potential Modifications, some of the identified traffic and pedestrian impacts could be fully mitigated through the implementation of recommended mitigation measures. Absent the identification and implementation of feasible mitigation measures that would mitigate the stair and fare array impacts at the Union Street subway station to the greatest extent practicable, both the Approved Actions and the Potential Modifications would result in unmitigated significant adverse impacts at this station. Similarly, in the absence of the addition of two

northbound F trains in the AM peak hour, both the Approved Actions and the Potential Modifications would result in an unmitigated significant adverse impact to subway line haul conditions.

Traffic

As shown in Table 21-3 and discussed in Chapter 21, "Mitigation," in the FEIS, the Approved Actions' traffic mitigation plan would include implementation of traffic engineering improvements such as signal timing changes, the installation of new traffic signals or all-way stop control, and modifications to curbside parking regulations and lane striping. The recommended measures would provide mitigation for many of the traffic impacts anticipated under the Approved Actions. However, impacts to one or more lane groups would remain unmitigated in one or more peak hours at 34 intersections.

As discussed previously, compared with the Approved Actions, the Potential Modifications would generate approximately 19 and 29 more incremental vehicle (auto, taxi, truck and school bus) trips during the weekday AM and PM peak hours, respectively, and two fewer trips in the weekday midday peak hour. There would be no change in the number of trips in the Saturday peak hour.

Given that the Potential Modifications would generate relatively small increases in vehicle trips in the weekday AM and PM peak hours compared to the Approved Actions, with trips in the weekday midday and Saturday peak hours essentially unchanged, it is anticipated that there would be no additional impacted intersections due to the Potential Modifications. In general, the mitigation measures recommended for the Approved Actions' traffic impacts are expected to be equally effective at mitigating many of the significant adverse traffic impacts due to the Potential Modifications. As noted previously, however, with the Potential Modifications, the amount of office, innovation economy and light industrial space would increase by approximately four percent compared to the Approved Actions, while the number of dwelling units would decrease by 0.5 percent (47 DUs). This may result in a relatively small change in the directional distribution of action-generated trips at some intersections, especially during the weekday AM and PM commuter peak hours, as worker demand is typically inbound in the AM and outbound in the PM, the opposite of residential commuter demand. Therefore, at some impacted intersections, an impact may occur on a different approach and/or in a different peak hour than under the Approved Actions. However, it is anticipated that at any such intersection, the same or similar mitigation measures as recommended for the Approved Actions would be equally effective at mitigating the impact. As noted above, it is not anticipated that there would be any additional impacted intersections due to the Potential Modifications.

Transit

Subway Stations

Both the Approved Actions and the Potential Modifications are expected to result in significant impacts to two street stairs and one fare array in the AM peak hour and two stairs in the PM peak hour at the Union Street (R) subway station on the 4th Avenue Line. Stairway widening is the most common form of mitigation for significant stairway impacts, provided that New York City Transit (NYCT) deems it practicable (i.e., that it is worthwhile to disrupt service on an existing stairway to widen it and that a given platform and sidewalk affected by such mitigation are wide enough to accommodate the stairway widening). Another potential mitigation measure would be to add vertical capacity (i.e., adding an elevator, escalator, or additional stairway) in the vicinity of the impacted stairway. Increasing the number of turnstiles is a common form of mitigation for significant fare array impacts. As noted in Chapter 1, "Project Description, in the FEIS, the Approved Actions include a zoning incentive specific to the Union Street (R train) subway station that would allow an increase in density on Site 27 in exchange for identified transit improvements to the station entrance. Absent the identification and implementation of feasible mitigation

measures that would mitigate the AM and PM peak hour subway stair and fare array impacts at the Union Street (R) subway station to the greatest extent practicable, the Potential Modifications, like the Approved Actions, would result in unmitigated significant adverse subway station impacts.

Subway Line Haul

Both the Approved Actions and the Potential Modifications are expected to result in a significant adverse impact to line haul conditions on northbound F trains in the AM peak hour. This impact could be fully mitigated by the addition of two northbound F trains during this period. As standard practice, NYCT routinely conducts periodic ridership counts and adjusts subway frequency to meet its service criteria, within fiscal and operating constraints. In the absence of an increase in service frequency on northbound F trains in the AM, this impact would remain unmitigated under both the Approved Actions and the Potential Modifications.

Pedestrians

Incremental demand from both the Approved Actions and the Potential Modifications is expected to significantly adversely impact nine sidewalks and four crosswalks in one or more analyzed peak hours. There would be no significant impacts to any corner areas in any period. Recommended mitigation measures consisting of the relocation/removal of impediments to sidewalk flow and the widening of crosswalks would fully mitigate the impacts to three sidewalks and all four crosswalks under the Approved Actions, and it is expected that these measures would similarly mitigate these impacts with the Potential Modifications. Implementation of the proposed mitigation measures would be subject to review and approval by DOT, as well as NYC Parks if a street tree is to be removed. Absent the identification and implementation of additional feasible mitigation measures that would mitigate the pedestrian impacts to the greatest extent practicable, both the Approved Actions and the Potential Modifications would result in unmitigated significant adverse pedestrian impacts.

UNAVOIDABLE ADVERSE IMPACTS

The Proposed Modifications would result in significant adverse impacts with respect to community facilities, open space, shadows, historic and cultural resources, transportation (traffic, pedestrians and transit), air quality and construction (architectural resources and construction noise). To the extent practicable, mitigation has been proposed for these identified significant adverse impacts, and for air quality, the mitigation described in the FEIS for the Approved Actions would fully mitigate the significant adverse impacts of the Potential Modifications. However, in some instances no practicable mitigation has been identified to fully mitigate significant adverse impacts, and there are no reasonable alternatives to that would meet the Project's purpose and need, eliminate potential impacts, and not cause other or similar significant adverse impacts. In other cases mitigation has been proposed, but absent a commitment to implement the mitigation, the impacts may not be eliminated.

TRANSPORTATION

Traffic

As discussed above, the Approved Actions would result in significant adverse traffic impacts at 43 study area intersections during one or more analyzed peak hours. A total of 60 lane groups at 37 intersections would be impacted in the AM peak hour, 31 lane groups at 23 intersections in the midday, 60 lane groups at 36 intersections in the PM and 43 lane groups at 33 intersections in the Saturday peak hour.

The Approved Actions' traffic mitigation plan would include implementation of traffic engineering improvements such as signal timing changes, the installation of new traffic signals or all-way stop control, and modifications to curbside parking regulations and lane striping. The recommended measures would provide mitigation for many of the traffic impacts anticipated under the Approved Actions. However, as discussed in Chapter 21, "Mitigation," in the FEIS, impacts to one or more lane groups would remain unmitigated in one or more peak hours at 34 intersections.

Because of existing congestion at a number of these intersections, even a minimal increase in traffic would result in unmitigated impacts. As such, almost any new development in the rezoning area could result in unmitigated traffic impacts. Therefore, no reasonable alternative could be developed to completely avoid such impacts without substantially compromising the Proposed Actions' stated goals, and the Potential Modifications, like the Proposed Actions, would result in unavoidable significant adverse traffic impacts.

Transit – Subway Stations

Both the Approved Actions and the Potential Modifications are expected to result in significant impacts to two street stairs and one fare array in the AM peak hour and two stairs in the PM peak hour at the Union Street (R) subway station on the 4th Avenue Line. Absent the identification and implementation of feasible mitigation measures that would mitigate these subway stair and fare array impacts to the greatest extent practicable, the Potential Modifications, like the Approved Actions, would result in unavoidable significant adverse subway station impacts.

Transit – Subway Line Haul

Both the Approved Actions and the Potential Modifications are expected to result in a significant adverse impact to subway line haul conditions on northbound F trains in the AM peak hour. This impact could be fully mitigated by the addition of two northbound F trains during this period. As standard practice, NYCT routinely conducts periodic ridership counts and adjusts subway frequency to meet its service criteria, within fiscal and operating constraints. In the absence of an increase in service frequency on northbound F trains in the AM, this impact would remain unmitigated under both the Approved Actions and the Potential Modifications and would constitute an unavoidable significant adverse impact.

Pedestrians

As discussed above, incremental demand from both the Approved Actions and the Potential Modifications is expected to significantly adversely impact nine sidewalks and four crosswalks in one or more analyzed peak hours. Recommended mitigation measures consisting of the relocation/removal of impediments to sidewalk flow and the widening of crosswalks would fully mitigate the impacts to three sidewalks and all four crosswalks under the Approved Actions, and it is expected that these measures would similarly mitigate these impacts with the Potential Modifications. Absent the identification and implementation of additional feasible mitigation measures that would mitigate the remaining sidewalk impacts to the greatest extent practicable, both the Approved Actions and the Potential Modifications would result in unavoidable significant adverse pedestrian impacts. ✶