East New York Rezoning Proposal
Chapter 5: Open Space

A. INTRODUCTION

This chapter assesses the potential impacts of the Proposed Actions on open space resources. Open space is defined in the 2014 *City Environmental Quality Review* (CEQR) *Technical Manual* as publicly accessible, publicly or privately owned land that is available for leisure, play, or sport or serves to protect or enhance the natural environment. The *CEQR Technical Manual* guidelines indicate that an open space analysis should be conducted if an action would result in a direct effect, such as the physical loss or alteration of public open space, or an indirect effect, such as when a substantial new population could place added demand on an area's open spaces.

As outlined in Chapter 1, "Project Description," under the RWCDS, compared to No-Action conditions, the Proposed Actions would facilitate the development of 6,312 dwelling units (DU), including 3,447 affordable DU; 557,290 sf of commercial uses; 457,280 sf of community facility uses; and 1,138 accessory parking spaces; and a net reduction of 27,035 sf of industrial uses. As noted in Chapter 1, the Proposed Actions are intended to facilitate implementation of recommendations of the East New York Community Plan. As part of that Plan, the New York City Department of Parks and Recreation (DPR) is proposing to convert what is an existing asphalt play area at City Line Park to an active recreation space/facility that would allow for greater and more varied usage of the space.

B. PRINCIPAL CONCLUSIONS

According to the *CEQR Technical Manual,* a proposed action may result in a significant impact on open space resources if (a) there would be direct displacement/alteration of existing open space within the study area that would have a significant adverse effect on existing users; or (b) it would reduce the open space ratio and consequently result in the overburdening of existing facilities or further exacerbating a deficiency in open space. The Proposed Actions would not have a direct impact on open space resources in the study area. The Proposed Actions would not result in the physical loss of existing public open space resources, and would not result in any adverse shadow, air, noise, or other environmental impacts that would affect the usefulness of any study area open space. As the Proposed Actions are expected to introduce 18,801 residents and 3,710 workers under the RWCDS, compared to the No-Action condition, a detailed open space analysis for both a non-residential (¼-mile) study area and residential (½-mile) study area was conducted, pursuant to the *CEQR Technical Manual*. The detailed analysis determined that the Proposed Actions would result in a significant adverse indirect impact to both passive and active open space in the residential study area.

According to the *CEQR Technical Manual*, a portion of the rezoning area is located in an area that is considered underserved by open space. In addition, both the non-residential and residential study areas do not currently meet the *CEQR Technical Manual* guidelines for open space. The *CEQR Technical Manual* indicates that a decrease in the open space ratio of five percent or more is generally considered significant. For areas that are extremely lacking in open space, a decrease of as little as one percent may be considered significant. An open space impact assessment also considers qualitative factors.

In the future with the Proposed Actions, while the non-residential study area's passive open space ratio would decrease by more than five percent from No-Action conditions (15.29 percent), it would remain well above the City's guideline ratio of 0.15 acres per 1,000 workers, at 0.4 acres per 1,000 workers. Therefore, workers in the ¼-mile study area would continue to be well-served by passive open space resources, and there would be no significant adverse impact in the non-residential study area as a result of the Proposed Actions.

Within the residential study area, the total active and passive open space ratios would remain below the City's guideline ratios of 2.5 acres, which includes 2.0 acres of active and 0.5 acres of passive space per 1,000 residents, respectively, in the future with the Proposed Actions. The total residential study area open space ratio would decline by 8.31 percent to 0.563 acres per 1,000 residents; the active residential study area open space ratio would decline by 8.39 percent to 0.279 acres per 1,000 residents; and the passive residential study area open space ratio would decline by 8.22 percent to 0.279 acres per 1,000 residents. As these decreases would exceed the five percent impact threshold and the residential study area would continue to be underserved by open space in the future with the Proposed Actions, the Proposed Actions would result in a significant adverse indirect impact on total, active, and passive open space in the residential study area.

C. METHODOLOGY

Direct Effects

According to the *CEQR Technical Manual*, a proposed project would directly affect open space conditions if it causes the loss of public open space, changes the use of an open space so that it no longer serves the same user population, limits public access to an open space, or results in increased noise or air pollutant emissions, odor, or shadows that would temporarily or permanently affect the usefulness of a public open space. As no open space resources would be physically displaced as a result of the Proposed Actions, this chapter uses information from Chapter 6, "Shadows," Chapter 14, "Air Quality," and Chapter 16, "Noise," to determine whether the Proposed Actions would directly affect any open spaces within, or in close proximity to, the rezoning area.

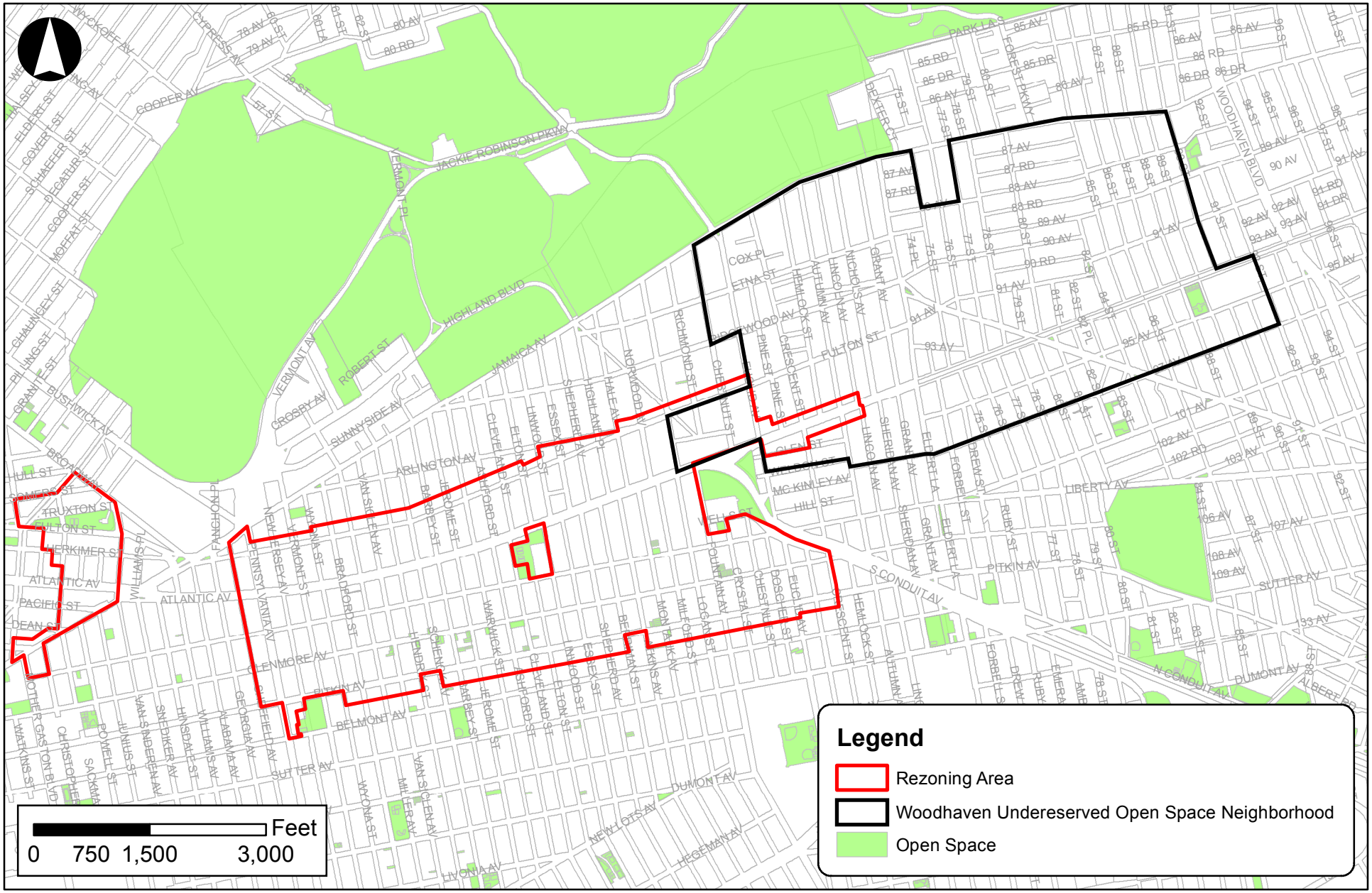
Indirect Effects

As described in the *CEQR Technical Manual*, open space can be indirectly affected by a proposed action if the project would add enough population, either residential or non-residential, to noticeably diminish the capacity of open space in the area to serve the future population. Typically, an assessment of indirect effects is conducted when a project would introduce more than 200 residents or 500 workers to an area; however, the thresholds for assessment are slightly different for areas of the City that have been identified as either underserved or well-served by open space. For areas underserved by open space, the threshold for assessment is more than 50 residents or 125 workers, and for areas well-served by open space, the threshold for assessment is more than 350 residents or 750 workers. As indicated in Figure 5-1, while the majority of the rezoning area is not located within an area that has been identified as either underserved or well-served, a small portion of the rezoning area falls within an area defined as underserved.[1]

Per *CEQR Technical Manual* guidelines, the open space analysis and impact assessment is based on the anticipated development from the projected development sites. As discussed in Chapter 1, "Project Description," the Proposed Actions would introduce up to 6,312 incremental residential units, which would introduce an estimated 18,801 residents to the rezoning area, compared to the No-Action condition.[2] In addition, the Proposed Actions

[1] The *CEQR Technical Manual* defines underserved areas as areas of high population density in the City that are generally the greatest distance from parkland, where the amount of open space per 1,000 residents is currently less than 2.5 acres. Well-served areas are defined as having an open space ratio above 2.5, accounting for existing parks that contain developed recreational resources; or are located within 0.25 miles (approximately a ten-minute walk) from developed and publicly accessible portions of regional parks.

[2] Assumes 2.99 persons per DU for residential units in Brooklyn Community District (CD) 5 and 2.75 persons per DU for residential units in Brooklyn CD 16 (2010 Census).



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Figure 5-1
Underserved Open Space Areas

would introduce approximately 3,710 new workers.[3] As such, an open space assessment for both the residential and non-residential populations generated by the Proposed Actions is warranted.

Study Areas

The first step in assessing potential open space impacts is to establish the appropriate study areas for the new population(s) to be added as a result of the Proposed Actions. According to *CEQR Technical Manual* methodologies, the open space study areas are based on the distance a person is assumed to walk to reach a neighborhood open space, which differs by user. Workers typically use passive open spaces within a short walking distance of their workplaces. Residents are more likely to travel farther to reach parks and recreational facilities, and they use both passive and active open spaces. While they may also visit certain regional parks (like Central Park), such open spaces were not included in the study area's quantitative analysis but are described qualitatively. Workers are assumed to walk up to about ¼-mile distance to reach neighborhood open spaces, and residents are assumed to walk up to about ½-mile distance.

Two study areas were evaluated: a non-residential (worker) study area based on a ¼-mile distance from the rezoning area, and a residential study area based on a ½-mile distance. These two study areas were generally adjusted to include all census tracts with at least 50 percent of their area within the ¼-mile or ½-mile boundary, as recommended in the *CEQR Technical Manual*.[4] In this way, the study areas allow analysis of both the open spaces in the area, as well as the population data.

As shown in Figure 5-2, the ¼-mile non-residential study area is generally bounded by Thomas S. Boyland Street to the west, the Evergreens Cemetery and Highland Park to the north, Ruby Street to the East, and Dumont Avenue to the south. The residential study area is generally bounded by Ralph Avenue to the west, Highland Park to the north, 80th Street to the east, and Riverdale Avenue to the south (refer to Figure 5-2).

Analysis Framework

The *CEQR Technical Manual* methodology suggests conducting an initial quantitative assessment to determine whether more detailed analyses are appropriate, but also recognizes that for projects that introduce a large population in an area that is underserved by open space, it may be clear that a full, detailed analysis should be conducted.

With an inventory of available open space resources and potential users, the adequacy of open space in the study areas can be assessed both quantitatively and qualitatively. The quantitative approach computes the ratio of open space acreage to the population in the study area and compares this ratio with certain guidelines. The qualitative assessment examines other factors that may affect conclusions about adequacy, including proximity to additional resources beyond the study area, the availability of private recreational facilities, and the demographic characteristics of the area's population. Specifically, the analysis in this chapter includes:

- Characteristics of the two open space user groups: residents and non-residents. To determine the number of residents in the study areas, 2010 Census data have been compiled for census tracts comprising the nonresidential and residential open space study areas. Because the study areas are characterized by a workforce population that may also use open spaces, the number of employees in the study areas has also been calculated, based on reverse journey-to-work census data provided by Census Transportation Planning Products (CTPP), which is based on 2006-2010 estimates from the American Community Survey (ACS).

[3] Estimate of workers based on the following rates: one employee per 250 sf of office, three employees per 1,000 sf of retail/supermarket/restaurant uses, one employee per 25 DU, one employee per 2.67 hotel rooms (and 400 sf per hotel room), one employee per 1,000 sf of auto-related and industrial uses, one employee per 15,000 sf of warehouse uses, one employee per 11.4 students in school uses, three employees per 1,000 sf of all other community facility uses, and one employee per 50 parking spaces.

[4] ¼-mile and ½-mile radii adjusted to be coterminous with the boundaries of census tracts with existing populations that have 50 percent of their area within the radii; the ¼-mile and ½-mile radii were not adjusted to be coterminous with census tracts without existing populations (e.g., census tracts entirely comprised of open space).

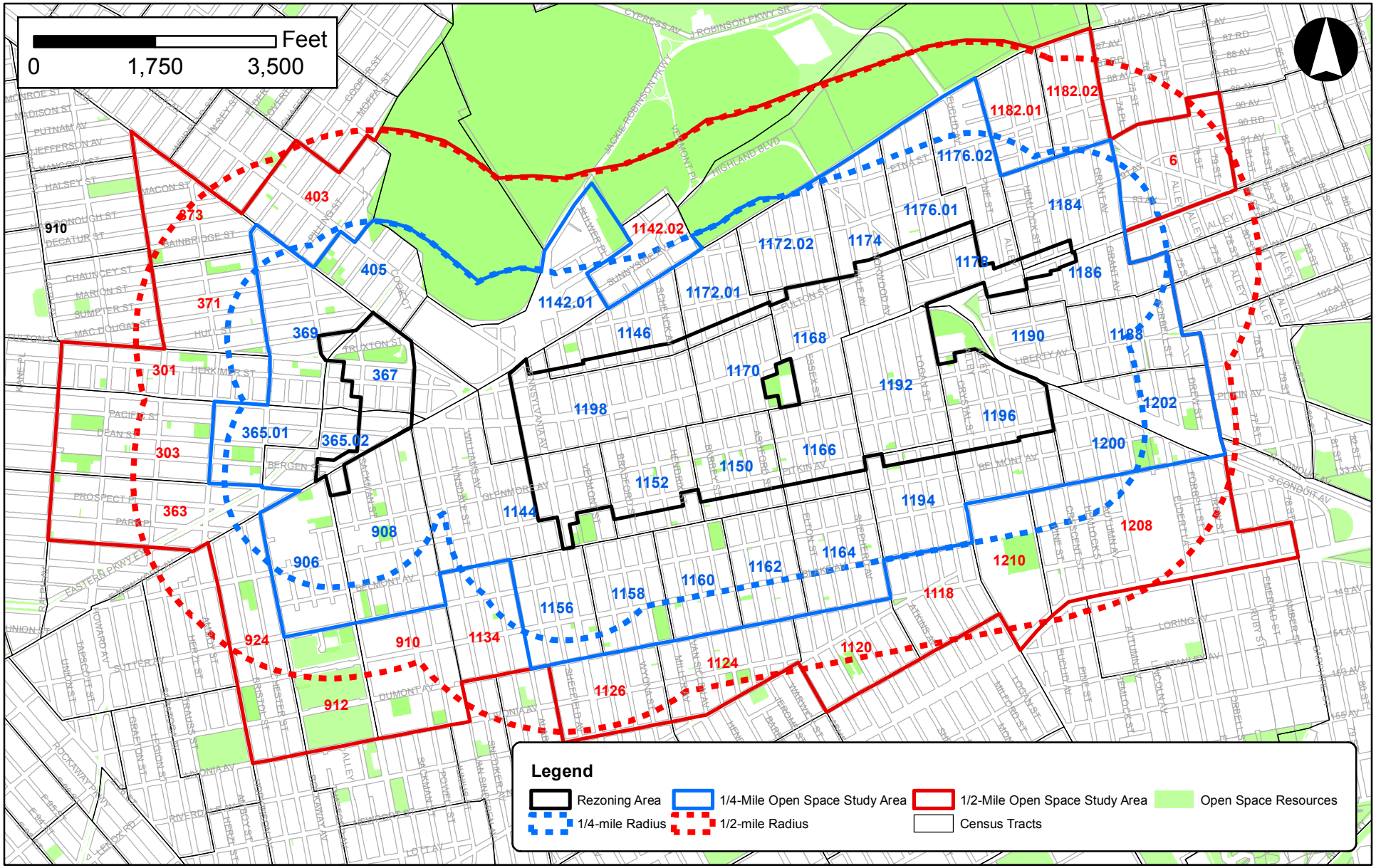


Figure 5-2
Open Space Study Areas

- An inventory of all publicly accessible passive and active recreational facilities in the non-residential and residential open space study areas.
- An assessment of the quantitative ratio of open space in the two study areas by computing the ratio of open space acreage to the population in each study area and comparing this open space ratio with certain guidelines. For the residential population, there are generally two guidelines that are used to evaluate residential open space ratios. The *CEQR Technical Manual* generally recommends a comparison to the median ratio for community districts in New York City, which is 1.5 acres of open space per 1,000 residents. However, the *CEQR Technical Manual* planning guideline is 2.5 acres of open space per 1,000 residents, including 2.0 acres of active open space and 0.5 acres of passive open space. According to the *CEQR Technical Manual*, a ratio of 0.15 acres of passive open space per 1,000 workers represents a reasonable amount of open space. The needs of workers and residential populations are also considered together in each study area because it is assumed that both will use the same passive open spaces. Therefore, a weighted average is also considered for the analysis that balances the amount of open space necessary to meet the guideline of 0.50 acres of passive open space per 1,000 residents and 0.15 acres of passive open space per 1,000 workers. Because this ratio changes depending on the proportion of residents and workers in each study area, the tables summarizing the open space ratios outline the amount of open space needed in each condition in each study area, and calculate the weighted average ratio of passive open space acres per 1,000 combined residents and workers.
- An evaluation of qualitative factors affecting open space use.
- A determination of the adequacy of open space in the non-residential and residential open space study areas.
- An assessment of expected changes in future levels of open space supply and demand in the 2030 analysis year, based on other planned development projects and anticipated background growth rates within the open space study areas. To estimate the population expected in the study areas in the future without the Proposed Actions, an average household size of 2.99 persons is applied to the number of new housing units expected in portions of the study area located within Brooklyn CD 5 and 2.75 persons for new housing units expected in portions of the study area located within Brooklyn CD 16.[5] The daytime population is estimated based on standard ratios of one employee per 250 sf of office, three employees per 1,000 sf of retail/supermarket/restaurant uses, one employee per 25 DU, one employee per 2.67 hotel rooms (and 400 sf per hotel room), one employee per 1,000 sf of auto-related and industrial uses, one employee per 15,000 sf of warehouse uses, one employee per 11.4 students in Pre-K school uses, three employees per 1,000 sf of all other community facility uses, and one employee per 50 parking spaces. Background growth rates were based on changes in the study area residential and non-residential populations between 2000 and 2010. Any new open space or recreational facilities that are anticipated to be operational by the analysis year are also accounted for. Open space ratios are calculated for future No-Action conditions and compared with existing ratios to determine changes in future levels of adequacy.

Impact Assessment

Impacts are based in part on how a project would change the open space ratios in the study areas. According to the *CEQR Technical Manual*, an open space ratio decrease is generally considered to be a significant adverse impact, warranting a detailed analysis, if it would approach or exceed five percent. If a study area exhibits a low open space ratio (e.g., below 1.5 acres per 1,000 residents or 0.15 acres of passive space per 1,000 non-residential users), indicating a shortfall of open space, smaller decreases in that ratio as a result of the action may constitute significant adverse impacts. In addition to the quantitative factors cited above, the *CEQR Technical Manual* also recommends consideration of qualitative factors in assessing the potential for open space impacts. These include the availability of nearby destination resources, the beneficial effects of new open space resources provided by a project, and the comparison of projected open space ratios with established City guidelines. It is recognized that the open space ratios of the City guidelines described above are not feasible for many areas of the City, and they are not considered impact thresholds on their own. Rather, these are benchmarks that indicate how well an area is served by open space.

[5] 2010 Census average household size.

D. EXISTING CONDITIONS

Study Area Population

Non-Residential (¼-Mile) Study Area

NON-RESIDENTIAL POPULATION

As shown in Table 5-1, based on ACS reverse journey-to-work census data compiled by CTPP, the existing worker population for the non-residential open space study area is estimated at approximately 18,290 workers.

TABLE 5-1
Study Area Residential and Non-Residential Populations

Census Tract[1]	Residential Population	Non-Residential (Worker) Population	Total Population
¼-Mile Nonresidential Study Area			
365.01	2,624	320	2,944
365.02	1,255	335	1,590
367	1,305	665	1,970
369	4,923	485	5,408
405	1,480	485	1,965
906	4,581	665	5,246
908	3,990	790	4,780
1142.01	1,578	1,240	2,818
1144	2,403	2,570	4,973
1146	2,998	185	3,183
1150	2,595	225	2,820
1152	3,094	220	3,314
1156	4,315	480	4,795
1158	2,983	115	3,098
1160	2,543	55	2,598
1162	2,157	100	2,257
1164	2,921	405	3,326
1166	2,907	135	3,042
1168	2,057	710	2,767
1170	1,880	495	2,375
1172.01	2,713	285	2,998
1172.02	3,907	185	4,092
1174	4,329	550	4,879
1176.01	2,750	250	3,000
1176.02	3,313	300	3,613
1178	1,717	280	1,997
1184	5,420	325	5,745
1186	2,969	160	3,129
1188	4,651	420	5,071
1190	2,127	95	2,222
1192	3,013	200	3,213
1194	3,914	1,510	5,424
1196	5,403	1,120	6,523
1198	3,426	1,560	4,986
1200	2,148	205	2,353
1202	1,900	165	2,065
¼-Mile Study Area Totals	***108,289***	***18,290***	***126,579***

TABLE 5-1 (continued)
Study Area Residential and Non-Residential Populations

Census Tract[1]	Residential Population	Non-Residential (Worker) Population	Total Population
½-Mile Residential Study Area			
6 (Queens)	3,729	250	3,979
301	2,750	590	3,340
303	4,458	575	5,033
363	4,108	345	4,453
371	4,120	235	4,355
373	3,784	455	4,239
403	3,538	615	4,153
910	5,610	480	6,090
912	6,814	290	7,104
924	2,656	1,915	4,571
1118	3,053	230	3,283
1120	3,155	280	3,435
1124	3,416	235	3,651
1126	3,783	885	4,668
1134	2,838	365	3,203
1142.02	2,766	25	2,791
1182.01	3,002	380	3,382
1182.02	3,083	350	3,433
1208	8,938	750	9,688
1210	4,035	150	4,185
¼-Mile to ½-Mile Subtotals	***79,636***	***9,400***	***89,036***
½-Mile Study Area Totals	***187,925***	***27,690***	***215,615***

Source: U.S. Census Bureau, 2010 Census; U.S. Census Bureau, ACS 2006-2010 Five-Year Estimates. Special Tabulation: Census Transportation Planning.
Notes:
[1] All census tracts within Brooklyn, unless otherwise noted.

RESIDENTIAL POPULATION

As also shown in Table 5-1, 2010 Census data indicate that the non-residential study area has a residential population of approximately 108,289 persons.

TOTAL USER POPULATION

Within the non-residential study area, the total population (residents plus workers) is estimated at 126,579 (refer to Table 5-1). Although this analysis conservatively assumes that the residents and employees are separate populations, it is possible that some of the residents live near their workplace or work from home. As a result, there is likely to be some double-counting of the daily user population in which residential and non-residential populations overlap, resulting in a more conservative analysis.

Residential (½-Mile) Study Area

NON-RESIDENTIAL POPULATION

As shown in Table 5-1, based on ACS reverse journey-to-work data compiled by CTPP, the existing worker population for the larger residential open space study area is estimated at approximately 27,690 workers.

RESIDENTIAL POPULATION

As also shown in Table 5-1, 2010 Census data indicate that the residential study area has a residential population of approximately 187,925 persons. As shown in Table 5-2, people between the ages of 20 and 64 make up the majority (approximately 58.5 percent) of the residential population in the ½-mile study area. Children and teenagers (0 to 19 years old) account for approximately 33.2 percent of the residential study area population, and persons 65 years and over account for approximately 8.4 percent of the residential study area population. As also presented in Table 5-2, the age breakdown of the residential study area includes a higher percentage of children and teenagers, as compared to Brooklyn and New York City as a whole, and a lower percentage of adults aged 20 to 64 and persons 65 years and over.

The higher percentage of children and teenagers in the study area is also evident when comparing the median age of the residential study area population to that of Brooklyn and New York City as a whole. As shown in Table 5-2, the residential study area's average median age of 30.4, compared to 34.1 and 35.4 in Brooklyn and New York City as a whole, respectively. The residential study area median ages by census tract range from a high of 35.8 years (Brooklyn Census Tract 1142.01) to a low of 23.9 years (Brooklyn Census Tract 1134).

Within a given area, the age distribution of a population affects the way open spaces are used and the need for various types of recreational facilities. Typically, children four years old or younger use traditional playgrounds that have play equipment for toddlers and preschool children. Children ages five through nine typically use traditional playgrounds, as well as grassy and hard-surfaced open spaces, which are important for activities such as ball playing, running, and skipping rope. Children ages ten through 14 use playground equipment, court spaces, Little League fields, and ball fields. Teenagers' and young adults' needs tend toward court game facilities such as basketball and field sports. Adults between the ages of 20 and 64 continue to use court game facilities and fields for sports, as well as more individualized recreation such as rollerblading, biking, and jogging, requiring bike paths, promenades, and roadways. Adults also gather with families for picnicking, ad hoc active sports, and recreational activities in which all ages can participate. Senior citizens engage in active recreation such as tennis, gardening, and swimming, as well as recreational activities that require passive facilities. As noted above, the demographic data for the residential open space study area suggest a need for facilities geared towards the recreational needs of children and teenagers, as the study area exhibits a high percentage of residents in the 0 to 19 age bracket.

TOTAL USER POPULATION

As shown in Table 5-1, above, within the residential study area, the total population (residents plus workers) is estimated to be 215,615. Although this analysis conservatively assumes that residents and daytime users are separate populations, as noted earlier, it is possible that some of the residents live near their workplace or work from home. As a result, there is likely to be some double-counting of the daily user population in the study area, resulting in a more conservative analysis.

Inventory of Publicly-Accessible Open Space

According to the *CEQR Technical Manual*, open space may be public or private and may be used for active or passive recreational purposes. Pursuant to the *CEQR Technical Manual*, publicly accessible open space is defined as facilities open to the public at designated hours on a regular basis and is assessed for impacts using both a quantitative and a qualitative analysis, whereas private open space is not accessible to the general public on a regular basis and is considered qualitatively. Field surveys and secondary sources were used to determine the number, availability, and condition of publicly accessible open space resources in the non-residential and residential study areas.

TABLE 5-2
½-Mile Study Area Residential Population Age Breakdown

Census Tract[1]	Total Residential Population	Age Distribution												Median Age
		Under 5		5-9		10-14		15-19		20-64		65+		
		#	%	#	%	#	%	#	%	#	%	#	%	
365.01	2,624	189	7.2	188	7.2	194	7.4	202	7.7	1,554	59.2	297	11.3	35.7
365.02	1,255	98	7.8	84	6.7	79	6.3	74	5.9	829	66.1	91	7.3	34.5
367	1,305	93	7.1	89	6.8	120	9.2	121	9.3	778	59.6	104	8.0	32.4
369	4,923	406	8.2	364	7.4	438	8.9	455	9.2	2,911	59.1	349	7.1	29.9
405	1,480	122	8.2	105	7.1	115	7.8	128	8.6	895	60.5	115	7.8	29.5
906	4,581	385	8.4	449	9.8	466	10.2	488	10.7	2,437	53.2	356	7.8	26.1
908	3,990	398	10.0	395	9.9	355	8.9	374	9.4	2,179	54.6	289	7.2	26.8
1142.01	1,578	101	6.4	100	6.3	96	6.1	132	8.4	968	61.3	181	11.5	35.8
1144	2,403	237	9.9	203	8.4	226	9.4	194	8.1	1,372	57.1	171	7.1	28.7
1146	2,998	248	8.3	219	7.3	213	7.1	254	8.5	1,799	60.0	265	8.8	30.9
1150	2,595	250	9.6	209	8.1	256	9.9	292	11.3	1,415	54.5	173	6.7	27.6
1152	3,094	281	9.1	269	8.7	310	10.0	312	10.1	1,681	54.3	241	7.8	26.8
1156	4,315	389	9.0	429	9.9	364	8.4	403	9.3	2,361	54.7	369	8.6	27.5
1158	2,983	210	7.0	220	7.4	225	7.5	304	10.2	1,731	58.0	293	9.8	32.5
1160	2,543	186	7.3	198	7.8	183	7.2	254	10.0	1,480	58.2	242	9.5	31.5
1162	2,157	109	5.1	141	6.5	152	7.0	209	9.7	1,308	60.6	238	11.0	35.0
1164	2,921	209	7.2	211	7.2	232	7.9	248	8.5	1,734	59.4	287	9.8	32.9
1166	2,907	211	7.3	257	8.8	262	9.0	305	10.5	1,709	58.8	163	5.6	28.2
1168	2,057	177	8.6	184	8.9	154	7.5	173	8.4	1,268	61.6	101	4.9	28.7
1170	1,880	149	7.9	154	8.2	149	7.9	181	9.6	1,128	60.0	119	6.3	30.1
1172.01	2,713	208	7.7	169	6.2	190	7.0	250	9.2	1,684	62.1	212	7.8	31.5
1172.02	3,907	306	7.8	278	7.1	329	8.4	358	9.2	2,336	59.8	300	7.7	30.7
1174	4,329	281	6.5	355	8.2	350	8.1	425	9.8	2,592	59.9	326	7.5	30.8
1176.01	2,750	232	8.4	207	7.5	232	8.4	213	7.7	1,670	60.7	196	7.1	30.9
1176.02	3,313	244	7.4	238	7.2	236	7.1	293	8.8	2,034	61.4	268	8.1	31.4
1178	1,717	126	7.3	116	6.8	140	8.2	170	9.9	1,038	60.5	127	7.4	32.1
1184	5,420	423	7.8	388	7.2	412	7.6	458	8.5	3,312	61.1	427	7.9	31.4
1186	2,969	200	6.7	203	6.8	230	7.7	295	9.9	1,805	60.8	236	7.9	31.0
1188	4,651	349	7.5	391	8.4	377	8.1	414	8.9	2,819	60.6	301	6.5	29.8
1190	2,127	202	9.5	180	8.5	177	8.3	188	8.8	1,296	60.9	84	3.9	28.1
1192	3,013	240	8.0	244	8.1	248	8.2	284	9.4	1,764	58.5	233	7.7	30.7
1194	3,914	300	7.7	309	7.9	324	8.3	347	8.9	2,359	60.3	275	7.0	30.2
1196	5,403	459	8.5	434	8.0	418	7.7	453	8.4	3,257	60.3	382	7.1	30.1
1198	3,426	282	8.2	244	7.1	259	7.6	315	9.2	1,973	57.6	353	10.3	31.0
1200	2,148	139	6.5	149	6.9	158	7.4	174	8.1	1,353	63.0	175	8.1	34.1
1202	1,900	128	6.7	171	9.0	160	8.4	182	9.6	1,147	60.4	112	5.9	29.3

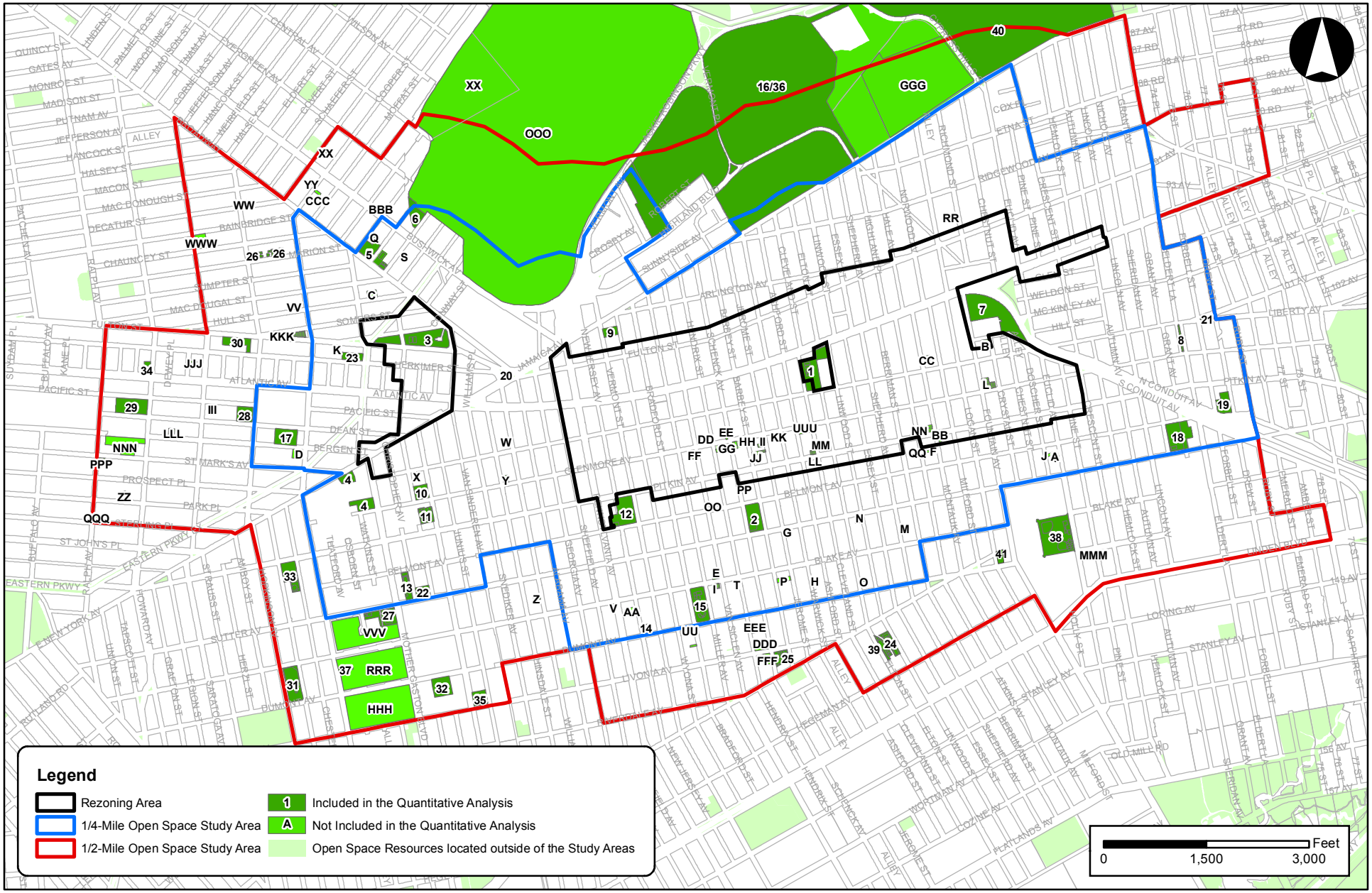
TABLE 5-2 (continued)
Study Area Residential Population Age Breakdown

Census Tract[1]	Total Residential Population	Age Distribution												Median Age
		Under 5		5-9		10-14		15-19		20-64		65+		
		#	%	#	%	#	%	#	%	#	%	#	%	
6 (Queens)	3,729	258	6.9	239	6.4	303	8.1	253	6.8	2,411	64.7	265	7.1	33.0
301	2,750	175	6.4	173	6.3	222	8.1	233	8.5	1,745	63.5	202	7.3	32.8
303	4,458	403	9.0	358	8.0	399	9.0	431	9.7	2,511	56.3	356	8.0	28.3
363	4,108	304	7.4	316	7.7	341	8.3	363	8.8	2,372	57.7	412	10.0	31.5
371	4,120	351	8.5	345	8.4	300	7.3	365	8.9	2,470	60.0	289	7.0	30.4
373	3,784	311	8.2	270	7.1	270	7.1	288	7.6	2,197	58.1	448	11.8	32.7
403	3,538	233	6.6	243	6.9	269	7.6	263	7.4	2,219	62.7	311	8.8	31.4
910	5,610	422	7.5	405	7.2	524	9.3	593	10.6	2,756	49.1	910	16.2	30.4
912	6,814	536	7.9	515	7.6	710	10.4	857	12.6	3,623	53.2	573	8.4	26.1
924	2,656	202	7.6	194	7.3	255	9.6	323	12.2	1,477	55.6	205	7.7	29.3
1118	3,053	225	7.4	274	9.0	259	8.5	284	9.3	1,775	58.1	236	7.7	30.2
1120	3,155	220	7.0	187	5.9	226	7.2	269	8.5	1,924	61.0	329	10.4	35.6
1124	3,416	288	8.4	251	7.3	293	8.6	318	9.3	2,003	58.6	263	7.7	29.7
1126	3,783	279	7.4	262	6.9	342	9.0	367	9.7	2,261	59.8	272	7.2	30.8
1134	2,838	325	11.5	268	9.4	273	9.6	307	10.8	1,501	52.9	164	5.8	23.9
1142.02	2,766	206	7.4	213	7.7	244	8.8	237	8.6	1,635	59.1	231	8.4	32.1
1180	6	0	0.0	1	16.7	0	0.0	0	0.0	5	83.3	0	0.0	31.5
1182.01	3,002	213	7.1	204	6.8	270	9.0	300	10.0	1,804	60.1	211	7.0	30.1
1182.02	3,083	237	7.7	222	7.2	256	8.3	263	8.5	1,893	61.4	212	6.9	31.2
1208	8,938	681	7.6	717	8.0	653	7.3	750	8.4	5,143	57.5	994	11.1	33.3
1210	4,035	284	7.0	313	7.8	371	9.2	498	12.3	2,192	54.3	377	9.3	28.6
½-Mile Study Area Totals	***187,925***	***14,720***	***7.8***	***14,513***	***7.7***	***15,609***	***8.3***	***17,484***	***9.3***	***109,888***	***58.5***	***15,711***	***8.4***	***30.4[2]***
Total for Brooklyn	***2,504,700***	***177,198***	***7.1***	***159,391***	***6.4***	***156,563***	***6.3***	***170,684***	***6.8***	***1,553,231***	***62.0***	***287,633***	***11.5***	***34.1***
Total for NYC	***8,175,133***	***517,724***	***6.3***	***473,159***	***5.8***	***468,154***	***5.7***	***535,833***	***6.6***	***5,187,105***	***63.4***	***993,158***	***12.1***	***35.4***

Source: U.S. Census Bureau, 2010 Census; U.S. Census Bureau.
Notes:
[1] All census tracts within Brooklyn, unless otherwise noted.
[1] Weighted average for study area census tracts.

An open space is determined to be active or passive by the uses that the design of the space allows. Active open space is the part of a facility used for active play such as sports or exercise and may include playground equipment, playing fields and courts, swimming pools, skating rinks, golf courses, lawns and paved areas for active recreation. Passive open space is used for sitting, strolling, and relaxation, and typically contains benches, walkways and picnicking areas. However, some passive spaces can be used for both passive and active recreation; such as a green lawn or riverfront walkway, which can also be used for ball playing, jogging or rollerblading.

All of the publicly accessible open space and recreational resources within the two defined study areas are shown in Figure 5-3 and listed in Table 5-3.



East New York Rezoning Proposal

Figure 5-3
Open Space Study Area Resources

TABLE 5-3
Open Space Resources within the ¼-Mile and ½-Mile Open Space Study Areas

Map No.[1]	Name	Location	Owner/ Agency	Amenities	Acreage	Passive		Active		Condition	Utilization
						Acres	%	Acres	%		
¼-Mile Nonresidential Study Area											
1	Sperandeo Brothers Playground	Atlantic Ave. btwn. Cleveland & Liberty Aves.	DPR/ DOE	Basketball courts, handball courts, playgrounds, spray showers, track	2.80	0.28	10	2.52	90	Good	Moderate (weekday & weekend)
2	Sutter Ballfield	Belmont Ave. & Sutter Ave. btwn. Schenck Ave. & Barbey St.	DPR	Ballfield	1.84	0.0	0	1.84	100	Fair	Moderate (weekday & weekend)
3	Callahan-Kelly Playground	Fulton St. & Truxton St. btwn. Eastern Pkwy. & Van Sinderen Ave.	DPR	Fitness equipment, playgrounds, handball court	3.90	0.59	15	3.32	85	Good	Moderate (weekday) – High (weekend)
4	Howard Playground & Pool	Mother Gaston Blvd. btwn. Glenmore Ave. & E. N.Y. Ave. at St. Mark's Ave.	DPR	Basketball courts, outdoor pools, handball courts, playgrounds, spray showers	1.21	0.12	10	1.09	90	Good	Moderate (weekday & weekend)
5	Thomas Boyland Park	Broadway btwn. Granite St. & Aberdeen St.	DPR	Baseball fields, handball courts, fitness equipment, playgrounds, spray showers	1.82	0.27	15	1.55	85	Poor	Moderate (weekday & weekend)
6	Rudd Playground	Furman Ave. & Aberdeen St. by Bushwick Ave.	DPR	Basketball courts, playground, bathrooms	1.28	0.19	15	1.09	85	Good	Moderate (weekday & weekend)
7	City Line Park	Atlantic Ave. btwn. Fountain Ave. & N. Conduit Ave.	DPR	Baseball fields, basketball courts, handball courts, playgrounds	5.04	0.25	5	4.79	95	Poor	Moderate (weekday & weekend)
8	Eldert Lane Public Place	Eldert Lane btwn. Liberty & Glenmore Aves.	DPR	Benches, paths, tree, statues	0.09	0.09	100	0.0	0	Good	Moderate (weekday & weekend)
9	George Walker Jr. Park	57 Vermont St.	DPR	Playground, spray shower	0.59	0.12	20	0.47	80	Fair	Moderate (weekday & weekend)
10	Houston Playground	145 Glenmore Ave.	DPR/ DOR	Basketball courts, handball courts, playgrounds, spray showers	0.92	0.18	20	0.73	80	Excellent	Moderate (weekday & weekend)
11	Powell Playground	130 Powell St.	DPR	Handball courts, playground	1.02	0.05	5	0.97	95	Poor	Moderate (weekday & weekend)
12	Grace Playground	2126 Pitkin Ave.	DPR/ DOE	Basketball courts, handball courts, fitness equipment, playground, baseball field	2.74	0.27	10	2.47	90	Poor	Moderate (weekday) – High (weekend)
13	Carter G. Woodson Children's Park	Christopher Ave. btwn. Sutter & Belmont Aves.	DPR	Playground, spray shower, track, seating area, ball courts	0.92	0.14	15	0.78	85	Fair	Moderate (weekday & weekend)
14	Duke Park	517 New Jersey Ave.	HPD	Playground, seating area, plantings	0.14	0.07	50	0.07	50	Good	Low (weekday & weekend)
15	Martin Luther King Jr. Playground	757 Dumont Ave.	DPR	Basketball courts, handball courts, spray showers, playgrounds	2.29	0.76	33	1.53	67	Fair	Moderate (weekday & weekend)
16	Highland Park	Jackie Robinson Pkwy., Vermont Ave., & Highland Blvd. btwn. Bulwer Pl. & Cypress Hills St.	DPR	Spray shower, garden, statues, seating areas, playgrounds, baseball field, paths[1]	8.57[1]	4.29	50	4.29	50	Good	Moderate (weekday & weekend)
17	Ocean Hill Playground	Dean St. & Bergen St. btwn. Rockaway & Hopkinson Ave.	DPR/ DOE	Basketball courts, handball courts, playgrounds, spray showers	1.60	0.24	15	1.36	85	Good	Moderate (weekday & weekend)
18	Robert Venable Park	1411 Sutter Ave.	DPR	Fitness equipment, playgrounds, skate parks	2.98	1.49	50	1.49	50	Fair	Moderate (weekday) – High (weekend)

TABLE 5-3 (continued)
Open Space Resources within the ¼-Mile and ½-Mile Open Space Study Areas

Map No.[1]	Name	Location	Owner/ Agency	Amenities	Acreage	Passive		Active		Condition	Utilization
						Acres	%	Acres	%		
19	Belmont Playground	Belmont Ave. btwn. Forbell & Drew Sts.	DPR	Basketball courts, handball courts, playgrounds	1.18	0.12	10	1.06	90	Fair	Moderate (weekday & weekend)
20	Jewel Square	Bounded by William St., Fulton Ave., Broadway, & E. N.Y. Ave.	DOT	Benches, plantings	0.13	0.13	100	0.0	0	Fair	Low/Moderate
21	101st Avenue Greenstreet	Bounded by 101st & Liberty Aves. & Fobekk & Drew Sts.	DPR	Plantings, tables, chairs	0.12	0.12	100	0.0	0	Good	Low
22	Brownsville Collegiate Charter/P.S. 150 Open Space	Sutter Ave. btwn. Christopher & Sackman Sts.	DOE	Ball courts, playgrounds, benches, trees	0.10	0.01	5	0.09	95	Excellent	Low (weekday & weekend)
23	P.S./I.S. 155 Open Space	1339 Herkimer St.	DOE	Basketball court, playground	0.09	0.0	0	0.09	100	Good	Moderate (weekday & weekend)
				¼-Mile Study Area Totals	***41.36***	***9.77***	***23.6***	***31.60***	***76.4***		
				½-Mile Residential Study Area							
24	Linwood Playground	Linwood St. btwn New Lots & Hegeman Aves.	DPR	Basketball courts, handball courts, playgrounds	0.71	0.07	10	0.64	90	Fair	Moderate (weekday & weekend)
25	Schenck Playground	Livonia Ave. btwn. Barbey St. & Schenck Ave.	DPR	Basketball courts, handball courts, playgrounds, spray showers	0.85	0.26	30	0.60	70	Good	Moderate (weekday) – High (weekend)
26	Marion Hopkinson Playground	Thomas S. Boyland St. btwn. Marion & Chuncey Sts.	HPD	Basketball court, handball courts, playgrounds, spray showers, volleyball courts	1.32	0.40	30	0.93	70	Fair	Low (weekday) – Moderate (weekend)
27	Dr. Richard Green Playground	334 Sutter Ave.	DPR	Basketball courts, handball court, spray showers, playground, baseball field	1.79	0.27	15	1.52	85	Good	Moderate (weekday & weekend)
28	Saratoga Ballfields	Boyland Ave. btwn. Pacific & Dean St.	DPR/ DOE	Asphalt field	1.10	0.0	0	1.10	100	Fair	High (weekday & weekend)
29	South Pacific Playground	338 Howard Ave. btwn. Pacific & Dean Sts.	DPR	Playground, basketball court, asphalt field, playsets	2.26	0.57	25	1.70	75	Good	Moderate (weekday) – High (weekend)
30	Fish Playground	Saratoga btwn. Herkimer & Fulton Sts.	DPR/ DOE	Basketball courts, handball courts, playgrounds	1.03	0.10	10	0.93	90	Good	Moderate (weekday) – High (weekend)
31	Betsy Head Park	Blake, Dumont, & Livonia Aves. Btwn. Strauss & Bristol Sts. & Hopkinson Ave.	DPR	Baseball fields, handball courts, playgrounds, basketball courts[2]	2.30[2]	0.23	10	2.07	90	Good	High (weekday & weekend)
32	Van Dyke Playground	Dumont Ave. btwn. Powell St. & Mother Gaston Blvd.	DPR/ NYCHA	Handball courts, playgrounds, spray showers	1.40	0.21	15	1.19	85	Good	Moderate (weekday & weekend)
33	Chester Playground	Chester St. to Bristol St. btwn. Sutter & Pitkin Aves.	DPR/ DOE	Basketball courts, handball courts, playgrounds, spray showers, baseball field	1.00	0.05	5	0.95	95	Good	Moderate (weekday & weekend)
34	Weeksville Playground	Howard Ave. btwn Herkimer St. & Atlantic Ave.	DPR	Playground	0.30	0.02	5	0.28	95	Poor	Moderate (weekday & weekend)

TABLE 5-3 (continued)
Open Space Resources within the ¼-Mile and ½-Mile Open Space Study Areas

Map No.[1]	Name	Location	Owner/ Agency	Amenities	Acreage	Passive		Active		Condition	Utilization
						Acres	%	Acres	%		
35	Livonia Park	Livonia Ave. btwn. Powell & Junius Sts.	DPR/ NYCHA	Benches, seating areas, plantings	0.92	0.92	100	0.0	0	Good	Moderate
36	Highland Park	Jackie Robinson Pkwy., Vermont Ave., & Highland Blvd btwn. Bulwer Pl. & Cypress Hills St.	DPR	Barbecuing areas, soccer field, basketball courts, baseball fields, handball courts, tennis courts, reservoir, forested areas[1]	53.04[1]	37.13	70	15.91	30	Good	Moderate (weekday & weekend)
37	P.S. 125 Playground	610 Rockaway Ave.	DPR	Playgrounds	0.21	0.0	0	0.21	100	Fair	Moderate (weekday & weekend)
38	Cypress Hills Playground	Euclid Ave. btwn. Blake & Dumont Aves.	DPR	Baseball fields, playgrounds, basketball courts, handball courts, spray showers	4.95	0.25	5	4.70	95	Fair	Moderate (weekday & weekend)
39	Elton Playground	Elton St. btwn. New Lots & Hegeman Aves.	DPR	Fitness equipment, handball courts, playgrounds, spray showers, benches	0.62	0.12	20	0.50	80	Fair	Moderate (weekday & weekend)
40	Mount Hope Cemetery	785 Jamaica Ave.	Cypress Hills Cemetery	Cemetery, benches, paths	13.68	13.68	100	0.0	0	Good	Low
41	JH 218 James P. Sinnott Playground	Logan St. at Dumont Ave.	DOE	Track, sports fields, basketball courts, benches, plantings	0.47	0.05	10	0.42	90	Excellent	Undetermined
				½-Mile Study Area Totals	***129.29***	***64.07***	***49.56***	***65.22***	***50.44***		
Resources Not Included in Quantitative Assessment – ¼-Mile Radius											
A	Euclid 500 Block Association	Euclid Ave. btwn. Sutter & Belmont Aves.	DPR	Trees, plantings, raised beds, shed, murals	0.10	0.10	100	0.0	0	Fair	Moderate
B	Crystal Street Block Association Community Garden	Fountain Ave. at Wells St.	DPR	Trees, plantings, seating areas	0.34	0.34	100	0.0	0	Fair	Moderate
C	Hull Street Community Garden	196 Hull St.	DPR	Toolshed, seating area, gazebo, educational signs, raised beds, pathways, grill, playground, mural, tables	0.32	0.32	100	0.0	0	Fair	Moderate
D	Our Lady of the Presentation Garden	1661 St. Marks St.	Our Lady of the Presentation	Trees, plantings, lawns	0.38	0.38	100	0.0	0	Good	Low
E	Big Red Garden	436 Van Siclen Ave.	DPR	Picnic table, shed, plantings, raised beds	0.04	0.04	100	0.0	0	Good	Moderate
F	Concerned Residents of Montauk Avenue	214 Montauk Ave.	DPR	Seating area, gazebo, raised beds, rainwater catchment system, pathways, grill, tables	0.09	0.09	100	0.0	0	Fair	Moderate
G	Jerome Garden	447 Jerome St.	DPR	Trees, plantings, raised beds, pathways	0.04	0.04	100	0.0	0	Good	Moderate
H	Greenery Glow Garden	601 Warwick St.	DPR	Overgrown	0.04	0.04	100	0.0	0	Poor	Moderate
I	Festival Garden	780-788 Blake Ave.	DPR	Trees, plantings, raised beds, mural, greenhouse/hoop house	0.17	0.17	100	0.0	0	Good	Moderate
J	Doscher Street Block Association	Doscher St. btwn. Belmont & Sutter Aves.	DPR	Trees, plantings, raised beds	0.09	0.09	100	0.0	0	Fair	Moderate

TABLE 5-3 (continued)
Open Space Resources within the ¼-Mile and ½-Mile Open Space Study Areas

Map No.[1]	Name	Location	Owner/ Agency	Amenities	Acreage	Passive		Active		Condition	Utilization
						Acres	%	Acres	%		
K	Oak Grove Pentecostal Holiness Church Community Garden	2176 Fulton St.	DPR	Trees, pathways	0.05	0.05	100	0.0	0	Good	Moderate
L	Green Gems	143-151 Fountain Ave.	DPR	Greenhouse/hoop house, seating area, grill, playground	0.51	0.46	90	0.05	10	Excellent	Moderate
M	Bgood Shepherd's Community Garden	555-557 Shepherd Ave.	DPR	Gazebo, seating area, benches, tool shed, arbor	0.12	0.12	100	0.0	0	Good	Moderate
N	Pagan's Garden (Linwood Street Block Association)	992 Sutter Ave.	HPD	Tables, beds	0.08	0.08	100	0.0	0	Fair	Low
O	Elton Street Block Association	585 Elton St.	DPR	Tool shed, play area equipment, benches, chairs, tables	0.10	0.08	85	0.02	15	Good	Moderate
P	Nehemiah Ten Garden	565 Barbey St.	DCAS	Trees, pathways, plantings, raised beds	0.28	0.28	100	0.0	0	Poor/Fair	Low
Q	Granite Street Block Association	Granite St. btwn. Bushwick Ave. & Broadway	DPR	Trees, raised beds, plantings, seating	0.17	0.17	100	0.0	0	Fair	Moderate
R	Aberdeen Street Community Garden	Aberdeen St. north of Bushwick Ave.	NY Garden Trust	Trees, pathways	0.33	0.33	100	0.0	0	Poor	Low
S	Infant Jesus Garden	Aberdeen St. btwn. Bushwick Ave. & Broadway	NY Garden Trust	Seating area, pathways, sculptures	0.05	0.05	100	0.0	0	Good	Low
T	Hendrix Street Community Garden	532 Hendrix St.	NY Garden Trust	Seating, pathways	0.02	0.02	100	0.0	0	Good	Low
U	The Evergreens Cemetery	1629 Bushwick Ave.	Cemetery of the Evergreens	Cemetery	26.71	26.71	100	0.0	0	Good	Low
V	Thomas Jefferson High School Open Space	642 Blake Ave.	DOE	Gazebo, gardens	0.11	0.11	100	0.0	0	Good	Low
W	Williams Avenue Community Garden	88 Williams Ave.	NY Garden Trust	Toolshed, tables	0.06	0.06	100	0.0	0	Excellent	Low
X	McLeod's Community Garden	130 Liberty Ave.	NY Garden Trust	Toolshed, seating area, gazebo, raised beds, pathways, grill, tables	0.12	0.12	100	0.0	0	Good	Low
Y	TLC Sculpture Park	271-275 Glenmore Ave.	DPR	Trees, plantings, raised beds, gazebo, shed, seating, pathways	0.17	0.17	100	0.0	0	Good	Moderate
Z	NYCHA Long Island Baptist Houses	322 Williams Ave.	NYCHA	Playground, lawns, trees, benches	0.18	0.07	40	0.11	60	Fair	Low
AA	St. John Cantius Parish Community Garden	476 New Jersey Ave.	DPR	Toolshed, seating area, raised beds, pathways, tables	0.18	0.18	100	0.0	0	Fair	Moderate
BB	Upon This Rock Community Garden	2556 Pitkin Ave.	DOE	Seating area with benches & tables	0.08	0.08	100	0.0	0	Fair	Low
CC	Shield of Faith	85 Montauk Ave.	DPR	Trees, picnic tables, grill	0.17	0.17	100	0.0	0	Good	Moderate
DD	Glenmore Hendrix Block Association	555 Glenmore Ave.	DPR	Overgrown	0.03	0.03	100	0.0	0	Poor	Moderate
EE	Clara's Garden	579 Glenmore Ave.	DPR	Trees, plantings, planting beds, seating areas	0.04	0.04	100	0.0	0	Fair	Moderate

TABLE 5-3 (continued)
Open Space Resources within the ¼-Mile and ½-Mile Open Space Study Areas

Map No.[1]	Name	Location	Owner/ Agency	Amenities	Acreage	Passive		Active		Condition	Utilization
						Acres	%	Acres	%		
FF	East End Community Garden	530-532 Glenmore Ave.	DPR	Toolshed, seating area, gazebo, raised beds, pathways,, mural tables	0.16	0.16	100	0.0	0	Fair	Moderate
GG	Herbal Garden	285 Schenck Ave.	DPR	Toolshed, gazebo, raised beds, rainwater catchment system, pathways, grill, tables	0.23	0.23	100	0.0	0	Fair	Moderate
HH	Concerned Residents of Barbey Street	362 Barbey St.	DPR	Raised beds	0.06	0.06	100	0.0	0	Poor	Moderate
II	Garden Party	316-218 Jerome St./624 Glenmore Ave.	DPR	Overgrown	0.23	0.23	100	0.0	0	Poor	Moderate
JJ	Oriental Garden	369-371 Barbey St. & 326-328 Jerome St.	DPR	Plantings, raised beds, trees, pathways	0.19	0.19	100	0.0	0	Good	Moderate
KK	Warwick Block Association	650 Glenmore Ave.	HPD	Toolshed, shack, arbor	0.10	0.10	100	0.0	0	Fair	Low
LL	Floral Vineyard	2377-2379 Pitkin Ave.	DPR	Arbor, tool shed, gazebo, seating area, benches, tables	0.11	0.11	100	0.0	0	Fair	Moderate
MM	Cleveland Street Vegetable Garden	433-435 Cleveland St.	DPR	Trees, plantings, planting beds, shed	0.09	0.10	100	0.0	0	Fair	Moderate
NN	Manley's Place	2539 Pitkin Ave.	DPR	Trees, plantings, planting beds, picnic table	0.30	0.30	100	0.0	0	Good	Moderate
OO	Momma-n-Poppa Jones Historical Garden	337 Van Siclen Ave.	Dep't of General Services	Rainwater catchment system, raised beds, pathways, grill, tables	0.10	0.10	100	0.0	0	Fair	Low
PP	Jerry & The Senior Gents of East New York	349 Schenck Ave.	DPR	Plantings, planting beds, gazebo	0.06	0.06	100	0.0	0	Good	Moderate
QQ	Atkins Gardeners	213 Atkins Ave.	DPR	Trees, planting beds	0.07	0.07	100	0.0	0	Fair	Moderate
RR	Achievement First East New York Middle School Open Space	172 Richmond St.	DPR	Ball court, benches	0.09	0.0	0	0.09	100	Good	Moderate
SS	Ashford Learning Garden	337 Ashford St.	HPD	Raised beds, paths, seating	0.05	0.05	100	0.0	0	Good	Low
TT	Essex Street Garden	3030 Fulton Street	NY Garden Trust	Raised beds, paths, seating	0.08	0.08	100	0.0	0	Good	Low
Total Additional ¼-Mile Study Area Open Space Not Included					***33.08***	***32.82***	***99.21***	***0.26***	***0.79***		
Resources Not Included in Quantitative Assessment – ½-Mile Radius											
UU	First Temple of David Community Garden	Bradford St. at Dumont Ave.	DPR	Toolshed, seating area, raised beds, pathways, grill, playground, tables, stage, dog run	0.06	0.06	100	0.0	0	Fair	Moderate
VV	Hull Street Playground	145 Hull St.	NY Garden Trust	Toolshed, playground, tables	0.06	0.05	80	0.01	20	Good	Low
WW	700 Decatur Street Block Association	43-47 Hopkinson Ave.	DPR	Toolshed, seating area, raised beds, pathways, tables	0.11	0.11	100	0.0	0	Fair	Moderate
XX	Decatur Street Community Garden	1052 Decatur St. btwn. Bushwick & Evergreen Aves.	NY Garden Trust	Toolshed, seating area, raised beds, rainwater catchment system, pathways, grill, tables	0.06	0.06	100	0.0	0	Good	Low
YY	Cooper Street Block Buster Block Association	Cooper St. btwn. Bushwick Ave. & Broadway	DPR	Raised beds	0.16	0.16	100	0.0	0	Fair	Moderate

TABLE 5-3 (continued)
Open Space Resources within the ¼-Mile and ½-Mile Open Space Study Areas

Map No.[1]	Name	Location	Owner/ Agency	Amenities	Acreage	Passive		Active		Condition	Utilization
						Acres	%	Acres	%		
ZZ	Preston Community Garden	1711 Park Pl.	DPR	Pathways, plantings, trees	0.06	0.06	100	0.0	0	Fair	Moderate
AAA	Holy Trinity Cemetery	685 Central Ave.	Holy Trinity Cemetery	Cemetery	2.69	2.69	100	0.0	0	Good	Low
BBB	Contented Hart Garden	1475 Bushwick Ave.	Brooklyn Queens Land Trust	Gazebo, plantings, pathways	0.05	0.05	100	0.0	0	Excellent	Low
CCC	Cooper Street Community Garden	Cooper St. btwn. Bushwick Ave. & Broadway	NY Garden Trust	Toolshed, seating area, raised beds	0.08	0.08	100	0.0	0	Good	Low
DDD	New Visions Garden	590-594 Schenck Ave.	Private	Seating area, educational signs, rainwater catchment system, pathways, grill, mural, tables, sculptures	0.32	0.32	100	0.0	0	Good	Low
EEE	Triple R/Relaxation, Reflection, Revenue	613 Hendrix St.	DPR	Raised beds, plantings, shed	0.05	0.05	100	0.0	0	Fair	Moderate
FFF	East New York Farms (UCC)	600 Schenck Ave.	DPR	Toolshed, greenhouse/hoop house, seating area, educational signs, rainwater catchment system, pathways, grill, mural, tables	0.36	0.36	100	0.0	0	Good	Moderate
GGG	Salem Field Cemetery	775 Jamaica Ave.	Salem Fields Cemetery	Cemetery	28.97	28.97	100	0.0	0	Excellent	Low
HHH	NYCHA Tilden Houses	263 Livonia Blvd.	NYCHA	Paths, playground, basketball court	8.69	2.87	33	5.82	67	Good	Low
III	Sh'ma Yisrael Community Garden	2084 Pacific St. btwn. Saratoga & Thomas S. Boyland Aves.	DPR	Shelter, plant beds, trees	0.15	0.15	100	0.0	0	Fair	Moderate
JJJ	Louis Place Friends' Community Garden	11A Louis Pl.	DPR	Plantings, pathways, tress, seating	0.04	0.04	100	0.0	0	Fair	Moderate
KKK	Phoenix Community Garden	Bounded by Fulton St., Somers St., & Rockaway Ave.	DPR	Toolshed, seating area, gazebo, rainwater catchment system, pathway, grill, mural, tables	0.46	0.46	100	0.0	0	Fair	Moderate
LLL	Farmer's Garden	1897-1905 Bergen St. btwn. Howard & Saratoga Aves.	DPR	Plant beds, trees	0.15	0.15	100	0.0	0	Fair	Moderate
MMM	Euclid & Pine Block Association	1308 Dumont Ave.	Brooklyn Queens Land Trust	Planting, seating, trees	0.07	0.07	100	0.0	0	Poor	Low
NNN	New York City Children's Center Brooklyn Campus	1814 Bergen St.	NYC Childrens Center	Lawns, playground, tennis court, ball courts, seating	1.44	0.86	60	0.58	40	Good	Low

TABLE 5-3 (continued)
Open Space Resources within the ¼-Mile and ½-Mile Open Space Study Areas

Map No.[1]	Name	Location	Owner/ Agency	Amenities	Acreage	Passive		Active		Condition	Utilization
						Acres	%	Acres	%		
OOO	The Evergreens Cemetery	1629 Bushwick Ave.	Cemetery of the Evergreens	Cemetery	68.16	68.16	100	0.0	0	Good	Low
PPP	St. Marks Block Association Community Garden	Mark St. btwn. Ralph & Howard Aves.	DPR	Shelter, plant beds, trees	0.20	0.20	100	0.0	0	Good	Moderate
QQQ	Sterling Community Group Community Garden	535 Ralph Ave. btwn. Sterling Pl. & Ralph St.	DPR	Shelter, plant beds, trees	0.12	0.12	100	0.0	0	Good	Moderate
RRR	NYCHA Brownsville Houses	Bounded by Mother Gaston Blvd. & Dumont, Rockaway, & Sutter Aves.	NYCHA	Lawns, trees, benches	12.90	12.90	100	0.0	0	Good	Low
SSS	Community Garden	Bradford St.	DPR	Garden	0.06	0.06	100	0.0	0	Fair	Moderate
TTT	National Cemetery	625 Jamaica Ave.	U.S. Government	Cemetery	13.25	13.25	100	0.0	0	Good	Low
VVV	P.S. 284 Lew Wallace Open Space	553 Rockaway Ave.	Jointly-Owned	Ball courts	0.33	0	0	0.33	100	Good	Low
WWW	P.S./I.S. 137 Open Space	121 Saratoga Ave.	DOE	Basketball court	0.37	0.0	0	0.37	100	Excellent	Low
UUU	P.S. 4 Paradise Garden	676-696 Glenmore Ave.	DPR	Trees, raised planting beds, gazebo	0.300	0.40	100	0.0	0	Good	Moderate
				Total Additional ½-Mile Study Area Open Space Not Included	***172.78***	***165.41***	***95.74***	***7.37***	***4.26***		

Source: New York City Open Accessible Space Information System (OASIS), DPR, 2014 Primary Land Use Tax Lot Output (PLUTO) data, site visits conducted in March and April, 2015.
Notes:
[1] As Highland Park acreage extends beyond the open space study areas, only the portions and amenities that fall within the ¼-mile and ½-mile study areas are included in the quantitative analysis. The "total acres" refers to the total open space within the specified section only.
[2] As Betsy Head Park acreage extends beyond the ½-mile open space study area, only the portion and amenities that fall within the ½-mile study area are included in the quantitative analysis. The "total acres" refers to the total open space within the ½-mile study area only.
DPR = New York City Department of Parks and Recreation; DOE = New York City Department of Education; NYCHA = New York City Housing Authority; DOT = New York City Department of Transportation; HPD = New York City Department of Housing Preservation and Development

Non-Residential (¼-Mile) Study Area

As shown in Table 5-3, the non-residential study area contains a total of 41.36 acres of open space, of which approximately 9.77 acres (23.6 percent) are used for passive recreation and approximately 31.59 acres (76.4 percent) are used for active recreation. As shown in Figure 5-3 and Table 5-3, 23 publicly accessible open space and recreational resources are located within the non-residential study area.

The largest of these resources is Highland Park, located north of the rezoning area along Jamaica Avenue (Park "16/37" in Figure 5-3). Highland Park is a significant destination open space resource straddling the Brooklyn and Queens border. Approximately 8.57 passively and actively programmed acres of this 101.28-acre park fall within the ¼-mile radius, including a baseball field, several playgrounds, a spray shower, garden, seating areas, statues, and paved paths and landscaping. As noted in the "Residential (½-Mile) Study Area" section below, additional Highland Park acreage and amenities fall within the ½-mile study area.

Other significant open space resources within the ¼-mile radius (i.e., open spaces greater than three acres in area) include Callahan-Kelly Playground and City Line Park, both of which are located within the rezoning area. Callahan-Kelly Playground is located in the Ocean Hill neighborhood of the rezoning area and is bounded by Fulton Street, Truxton Street, Eastern Parkway, and Van Sinderen Avenue. The park is named for two local soldiers who died in World War I: William E. Callahan and Edward E. Kelly. Callahan-Kelly Playground is primarily comprised of actively programmed open space, including fitness equipment, playgrounds, and handball courts. City Line Park is located on the eastern border of the rezoning area and is bounded by Atlantic, Fountain, and North Conduit Avenues. The park was assembled from land previously occupied by the New York City Water Department and Department of Sanitation between 1937 and 1949 and is primarily comprised by active open space uses, including baseball fields, basketball and handball courts, and playgrounds.

The remainder of the open space resources within the non-residential (¼-mile) study area are less than three acres in size and are primarily programmed with active open space uses, with numerous basketball and handball courts, playgrounds, spray shows, ballfields, tracks, and baseball fields, as well as an outdoor pool (at Howard Playground and Pool) and a skate park (at Robert Venable Park). Only three of the ¼-mile study area open spaces included in the quantitative assessment are comprised entirely of passively programmed uses: the 0.091-acre Eldert Lane Public Place, the 0.126-acre Jewel Square, and the 0.12-acre 101st Avenue Greenstreet. These three open spaces are programmed with a mixture of benches/seating areas, paths, trees, and landscaping.

Residential (½-Mile) Study Area

The residential study area includes all open spaces in the non-residential study area as well as 18 additional resources (refer to Table 5-3 and Figure 5-3). As shown in Table 5-3, the residential study area contains a total of approximately 129.29 acres of publicly accessible open space (including all of the open spaces listed in the non-residential study area). Of this total, approximately 64.07 acres (49.56 percent) are passive space and 65.22 acres (50.44 percent) are active space (see Table 5-3).

The largest open space resource in the ½-mile study area is Highland Park, 8.57 acres of which are located within the ¼-mile study area, and an additional 53.04 acres of which are located within the ½-mile study area. While the open space is comprised primarily of passive features, including lawns, forested areas, a reservoir, and barbecuing areas, active open space features of this resource that are located within the ½-mile study area include baseball and soccer fields and basketball, handball, and tennis courts.

With the exception of Cypress Hills Playground, which encompasses 4.95 acres, and Callahan-Kelly Playground and City Line Park (noted above), there is only one other open space resource within the ½-mile study area that is greater than three acres is size: Mt. Hope Cemetery. Mt. Hope Cemetery total 13.68 acres of passive open space and includes paths and benches for passive recreation and strolling. The remainder of the ½-mile study area open spaces are less than three acres in size. In addition to the three passively programmed open spaces in the ¼-mile study area, noted above, and Highland Park and Mt. Hope Cemetery, Livonia Park, located along the southwest border of the ½-mile study area, is the only other passively programmed open space resource in the study area.

Active recreation features found in the ½-mile study area include numerous basketball, volleyball, and handball courts, playgrounds, sports fields, and spray showers (refer to Table 5-3).

Assessment of Open Space Adequacy

Non-Residential (¼-Mile) Study Area

As described above, the analysis of the non-residential study area focuses on passive open spaces that may be used by workers in the area. To assess the adequacy of open spaces in the area, the ratio of workers to acres of passive open space is compared to the City's planning guideline of 0.15 acres of passive space per 1,000 workers. In addition, the combined passive open space ratio for both workers and residents in the ¼-mile study area is compared with the recommended weighted average ratio.

QUANTITATIVE ASSESSMENT

The non-residential study area includes a total of 41.36 acres of open space, of which approximately 9.77 acres are passive space. A total of 108,289 residents live within this study area, and 18,290 people work within the non-residential study area boundary; the combined residential and non-residential population is 126,579.

Based on *CEQR Technical Manual* methodology, the ¼-mile study area has a passive open space ratio of 0.534 acres per 1,000 workers, which is more than three times greater than the City's guideline of 0.15 acres (see Table 5-4, below). As such, workers in the non-residential study area are well-served by open space under existing conditions. The combined workers and residents passive open space ratio is 0.077 acres per 1,000 residents and workers, which is substantially lower than the recommended weighted average ratio of 0.449 acres per 1,000 combined users (refer to Table 5-4, below). However, as noted in the *CEQR Technical Manual,* residents are more likely to travel farther to reach parks and recreational facilities, and they use both passive and active open spaces.

TABLE 5-4
Adequacy of Open Space Resources: Existing Conditions

		Open Space Acreage			Open Space Ratios per 1,000 Persons			*CEQR Technical Manual* Open Space Guidelines		
	Population	Total	Passive	Active	Total	Passive	Active	Total	Passive	Active
Non-Residential (¼-Mile) Study Area										
Workers	18,290	41.36	9.77	31.60	N/A	0.534	N/A	N/A	0.15	N/A
Combined Workers & Residents	126,579				N/A	0.077	N/A	N/A	0.449[1]	N/A
Residential (½-Mile) Study Area										
Residents	187,925	129.29	64.07	65.22	0.688	0.341	0.347	2.50	0.50	2.00
Combined Workers & Residents	215,615				N/A	0.297	N/A	N/A	0.455[1]	N/A

Notes:
[1] Based on target open space ratios established by creating a weighted average of the amount of open space necessary to meet the City guideline of 0.50 acres of passive open space per 1,000 residents and 0.15 acres of passive open space per 1,000 workers.

QUALITATIVE ASSESSMENT

As shown in Table 5-3, most of the non-residential study area open spaces are in good or excellent condition, and use levels are low to moderate at all of these facilities on the weekdays. The non-residential study area includes several passive open space features, such as benches, lawns, and pathways, which are suitable for use by the non-residential population in the area.

It should also be noted that 46 additional open space resources, which are not included in the quantitative assessment due to their limited hours or limited access, are located within the ¼-mile study area. As indicated in Table 5-3, these 46 open space resources total 33.08 acres, the majority of which (99.2 percent, or 32.82 acres) are comprised of passively programmed open space. These additional open spaces include 43 community gardens,

which range from 0.02 to 0.5 acres; a 0.11-acre garden associated with Thomas Jefferson High School; the Achievement First East New York Middle School's 0.09-acre active open space; the NYCHA Long Island Baptist Houses' open space; and the Evergreens Cemetery, 26.7 acres of which are located within the ¼-mile study area. While these facilities are conservatively excluded from the quantitative analysis, it is likely that they are used by a portion of the population who live and work in the ¼-mile study area.

In addition, while only 8.57 acres of the 101-acre Highland Park fall within the non-residential study area, there are several pathways within this park that provide access beyond the ¼-mile study area boundary to other areas within the park. Though not all of the pathways to the northern portions of the park are ADA-accessible from the pathways in the southern portion of the park, and several are steeply sloped, it is possible that visitors to this park could venture further north into Highland Park, beyond the ¼-mile boundary of the non-residential study area, to use Highland Park's existing facilities.

Moreover, as noted above, the quantitative analysis is conservative as it assumes that residents and daytime users are separate populations, whereas it is possible, especially considering the size of the study area, that some of the residents live near their workplace, resulting in some double-counting of the daily user population in the non-residential study area.

Residential (½-Mile) Study Area

The following analysis of the adequacy of open space resources within the residential study area takes into consideration the ratios of active, passive, and total open space resources per 1,000 residents, as well as the ratio of passive open space per 1,000 combined residents and workers.

QUANTITATIVE ASSESSMENT

With a total of 129.29 acres of open space, of which approximately 64.07 acres are for passive use and approximately 65.22 acres are for active use, and a total residential population of 187,925, the residential study area has an overall open space ratio of 0.688 acres per 1,000 residents (see Table 5-4). This is substantially less than the City's planning guideline of 2.5 acres of combined active and passive open space per 1,000 residents. The study area's residential passive and active open space ratios are 0.341 acres and 0.347 acres per 1,000 residents, respectively, which are below the *CEQR Technical Manual* guidelines of 0.5 acres of passive open space and 2.0 acres of active open space per 1,000 residents. As such, there is an existing shortfall of both passive and active open space in the residential study area.

When the employees who work within the residential study area are added to the population, the passive open space ratio is lower. As described earlier, workers typically use passive open space during the workday, so the passive open space ratio is the relevant ratio for consideration. With a combined worker and residential population of 215,615, the combined passive open space ratio in the residential study area is 0.297 acres per 1,000 users, which is below the recommended weighted average guideline ratio of 0.455 acres per 1,000 residents and workers.

QUALITATIVE ASSESSMENT

Although the residential study area contains a good mix of recreational facilities, with approximately 50 percent dedicated to active uses and 50 percent dedicated to passive use, the open space ratios per 1,000 residents still fall well below the guideline goal of 2.5 acres per 1,000 residents and the citywide median of 1.5 acres per 1,000 residents.

The deficiency of open space resources within the residential study area is partially ameliorated by several factors. As shown in Table 5-3, the residential study area open spaces include a wide variety of actively programmed open spaces appropriate for the residential user groups. As noted above, the study area includes a high percentage of children and teenagers, as compared to the borough of Brooklyn and New York City as a whole (refer to Table 5-2). The percentage of teenagers and young adults is particularly marked, with 15 to 19 year olds comprising over nine percent of the study area population. As indicated in the *CEQR Technical Manual,* teenagers and young adults tend

to use court facilities, such as basketball courts, and sports facilities, such as football or soccer fields. 31 of the residential study area's 41 open spaces include such facilities (refer to Table 5-3). In addition, and as noted in Table 5-3, most are in good or excellent condition with low to moderate utilization rates. While active open space resources are generally more utilized in the weekend hours than during the weekday, only eight of the 41 open space resources located within the residential study area are highly utilized on weekends. It should also be noted that a significant number of additional open space resources, which are not included in the quantitative assessment due to their limited hours or limited access, are located within the ½-mile study area. As presented in Table 5-3, these 75 open space resources total approximately 172.78 acres, including approximately 165.41 acres of passively programmed open space and approximately 7.37 acres of actively programmed open space. Active open space amenities include a number of playgrounds and ball courts. Passive open space amenities include 63 community gardens, in addition to multiple cemeteries. While these facilities are conservatively excluded from the quantitative analysis, it is likely that they are used by people that live and work in the ½-mile study area.

It should also be noted that a significant destination open space resource (Forest Park) is located in the vicinity of the rezoning area and provides additional active and passive open space resources. The 507-acre Forest Park, a major regional park, is located approximately one mile to the northeast of the rezoning area, and includes hiking trails, bridle paths and horse stables, barbecuing areas, playgrounds, fitness equipment, a bandshell, a nature center, and numerous programmed athletic fields, including softball, baseball, and football fields, tennis, bocce, basketball, and handball courts, and a 110-acre golf course. As Forest Park is considered a "destination park," residents would travel farther than the ½-mile extent of the residential study area (either by vehicle, transit, or bike) to enjoy its open space and recreational amenities.

Moreover, as noted above, the quantitative analysis is conservative as it assumes that residents and daytime users are separate populations, whereas it is possible, especially considering the size of the study area, that some of the residents live near their workplace, resulting in some double-counting of the daily user population in the non-residential study area.

E. THE FUTURE WITHOUT THE PROPOSED ACTIONS (NO-ACTION CONDITION)

Study Area Population

As discussed in Chapter 2, "Land Use, Zoning, and Public Policy," in the 2030 future without the Proposed Actions, development is anticipated on 27 of the 80 projected development sites. In addition, eight known and anticipated developments within a ½-mile of the rezoning area were identified. In total, these combined No-Action developments are expected to introduce approximately 1,542 residents and 1,130 employees to the ¼-mile study area, and approximately 4,438 residents and 1,680 employees to the ½-mile study area. In addition, residential and non-residential growth rates were developed based on growth that occurred in the area between 2000 and 2010. These growth rates were applied to the existing residential and non-residential populations to account for general background growth anticipated in the area. As indicated in Table 5-5, the anticipated No-Action development, combined with the residential and non-residential growth rates, are expected to increase the ¼-mile study area population to 20,750 workers and 141,155 combined workers and residents. The ½-mile study area population is expected to increase to 210,714 residents and 242,097 combined workers and residents.

TABLE 5-5
No-Action Open Space Study Area Population[1]

	Existing Population	Incremental Background Population Growth[1]	Additional Population on Projected Development Sites[2]	Additional Population in Study Areas[2]	2030 No-Action Population
Non-Residential (¼-Mile) Study Area					
Workers	18,290	1,330	1,093	37	20,750
Combined Workers & Residents	126,579	11,904	2,373	299	141,155
Residential (½-Mile) Study Area					
Residents	187,925	18,351	1,280	3,158	210,714
Combined Workers & Residents	215,615	20,364	2,373	3,745	242,097

Notes:
[1] Based on ten-year residential population growth rate of 4.8 percent (2000 and 2010 Census) and non-residential growth rate of 3.6 percent (2000 Census and 2006-2010 ACS reverse-journey-to-work data).
[2] Refer to Table 2-4 in Chapter 2, "Land Use, Zoning, and Public Policy."

Open Space Resources

DPR has plans to renovate parts of Sperandeo Brothers Playground (sports court) and Highland Park (ballfields and basketball court). Outside of these planned projects, no other changes to the study area open spaces area anticipated by the 2030 analysis year. As such, the ¼-mile study area will continue to be served by 41.36 acres of open space (including 9.77 acres of passive open space and 31.59 acres of active open space), and the ½-mile study area will continue to be served by approximately 129.29 acres of open space (including approximately 64.07 acres of passive open space and 65.22 acres of active open space).

Assessment of Open Space Adequacy

Non-Residential (¼-Mile) Study Area

As noted above, it is anticipated that new development in the ¼-mile study area will result in an increase in the population in the future without the Proposed Actions; no changes to the ¼-mile study area open space acreage are anticipated. As a result of the anticipated No-Action development, while the ratio of open space per 1,000 workers will decrease to 0.471 (from 0.534 under existing conditions), it will continue to exceed the City's guideline ratio of 0.15 acres (see Table 5-6). The ratio for the combined population of residents and workers will decrease to 0.069 (from 0.077 under existing conditions) and will remain below the calculated No-Action recommended weighted ratio of 0.449.

TABLE 5-6
Adequacy of Open Space Resources: No-Action Condition

		Open Space Acreage			Open Space Ratios per 1,000 Persons			*CEQR Technical Manual* Open Space Guidelines		
	Population	Total	Passive	Active	Total	Passive	Active	Total	Passive	Active
Non-Residential (¼-Mile) Study Area										
Workers	20,750	41.36	9.77	31.60	N/A	0.471	N/A	N/A	0.15	N/A
Combined Workers & Residents	141,155				N/A	0.069	N/A	N/A	0.449[1]	N/A
Residential (½-Mile) Study Area										
Residents	210,714	129.29	64.07	65.22	0.614	0.304	0.310	2.50	0.50	2.00
Combined Workers & Residents	242,097				N/A	0.265	N/A	N/A	0.455[1]	N/A

Notes:
[1] Based on target open space ratios established by creating a weighted average of the amount of open space necessary to meet the City guideline of 0.50 acres of passive open space per 1,000 residents and 0.15 acres of passive open space per 1,000 workers.

Residential (½-Mile) Study Area

In the 2030 No-Action condition, the additional population introduced to the ½-mile study area would increase the demand on the area's open spaces. With the anticipated No-Action development, the residential study area will continue to be underserved by open spaces in comparison to the City's guidelines. As indicated in Table 5-6, the No-Action total, passive, and active open space ratios per 1,000 residents are expected to decrease to 0.614, 0.304, and 0.310, respectively, from 0.688, 0.341, and 0.347, respectively, under existing conditions. These No-Action residential open space ratios would be less than the City's guideline ratio of 2.5 acres of open space per 1,000 residents, including 0.5 acres of passive open space and 2.0 acres of active open space.

The combined passive open space ratio in the ½-mile study area is also expected to decrease in the 2030 No-Action condition, to 0.265 acres per 1,000 combined residents and workers, below the calculated recommended weighted ratio of 0.455.

The total, passive, and active open space ratios within the residential study area would remain substantially below the City's guidelines in the future without the Proposed Actions. As under existing conditions, there is a significant number of additional open space resources within the study area that are not included in the quantitative analysis, including multiple community gardens, schoolyards, and open spaces on NYCHA housing developments, as well as the 101.28-acre Highland Park, which is only partially located within the study area. In addition, the 507-acre Forest Park, a major regional park with both active and passive open space amenities, is located approximately one mile to the northeast of the rezoning area. These additional open spaces represent a considerable amount of accessible active and passive open space for the residential population.

F. THE FUTURE WITH THE PROPOSED ACTIONS (WITH-ACTION CONDITION)

In the 2030 future with the Proposed Actions, it is anticipated that development on the 80 projected development sites would comprise 6,312 DU (including 3,447 affordable DU), 557,290 sf of commercial uses, 457,870 sf of community facility uses, and 1,138 accessory parking spaces over the No-Action condition, as well as a net reduction of 27,035 sf of industrial uses. In total, the RWCDS With-Action development would introduce an estimated 18,801 new residents and 3,710 new workers, compared to No-Action conditions.

Direct Effects

No publicly-accessible open space is currently located on any of the projected development sites. Therefore, the Proposed Actions would not cause the physical loss of publicly-accessible open space. In addition, as discussed in other chapters of this EIS, the Proposed Actions would not cause increased shadows, noise, or air pollutant emissions that would affect the usefulness of any study area open space, whether on a permanent or temporary basis. Furthermore, the Proposed Actions would not change the use of a publicly-accessible open space so that it no longer serves the same user population, nor would it limit public access to any open spaces. Therefore, no significant adverse direct effects on open space would occur as a result of the Proposed Actions.

Indirect Effects

Study Area Population

In total, the RWCDS With-Action development would introduce an estimated 18,801 new residents and 3,710 new workers over the No-Action condition. As indicated in Table 5-7, this additional population is expected to increase the ¼-mile non-residential study area's worker population to 24,460 and the combined worker and residential population to 163,666. The ½-mile study area's residential population is expected to increase to 229,515, and the ½-mile study area's combined worker and residential population is expected to increase to 264,608.

TABLE 5-7
With-Action Open Space Study Area Population

	No-Action Population	Additional Population on Projected Development Sites	2030 With-Action Population
Non-Residential (¼-Mile) Study Area			
Workers	20,750	3,710	24,460
Combined Workers & Residents	141,155	22,511	163,666
Residential (½-Mile) Study Area			
Residents	210,714	18,801	229,515
Combined Workers & Residents	242,097	22,511	264,608

Open Space Resources

As detailed in Chapter 1, "Project Description," the Proposed Actions are intended to facilitate implementation of recommendations of the East New York Community Plan. As part of that Plan, DPR is proposing to convert what is an existing asphalt play area at City Line Park to an active recreation space/facility that would allow for greater and more varied usage of the space. Besides this proposed project, no other changes to the study area open spaces are currently proposed to the study area open spaces. As such, the ¼-mile study area would continue to be served by 41.36 acres of open space (including 9.77 acres of passive open space and 31.59 acres of active open space), and the ½-mile study area would continue to be served by approximately 129.29 acres of open space (including approximately 64.07 acres of passive open space and 65.22 acres of active open space) in the 2030 With-Action condition.

Assessment of Open Space Adequacy

NON-RESIDENTIAL (¼-MILE) STUDY AREA

Quantitative Assessment

As presented in Table 5-8, in the future with the Proposed Actions, while the ratio of passive open space per 1,000 workers would decrease to 0.399 (from 0.471), it would continue to exceed the City's guideline ratio of 0.15 acres (see Table 5-8). The passive open space ratio for the combined population of residents and workers would decrease to 0.060 (from 0.069 under No-Action conditions) and would remain below the calculated No-Action recommended weighted ratio of 0.448. However, as noted in the *CEQR Technical Manual,* residents are more likely to travel farther to reach parks and recreational facilities, and they use both passive and active open spaces.

TABLE 5-8
Adequacy of Open Space Resources: With-Action Condition

		Open Space Acreage			Open Space Ratios per 1,000 Persons			*CEQR Technical Manual* Open Space Guidelines		
	Population	Total	Passive	Active	Total	Passive	Active	Total	Passive	Active
Non-Residential (¼-Mile) Study Area										
Workers	24,460	41.36	9.77	31.60	N/A	0.399	N/A	N/A	0.15	N/A
Combined Workers & Residents	163,666				N/A	0.060	N/A	N/A	0.448[1]	N/A
Residential (½-Mile) Study Area										
Residents	229,515	129.29	64.07	65.22	0.563	0.279	0.284	2.50	0.50	2.00
Combined Workers & Residents	264,608				N/A	0.242	N/A	N/A	0.454[1]	N/A

Notes:
[1] Based on target open space ratios established by creating a weighted average of the amount of open space necessary to meet the City guideline of 0.50 acres of passive open space per 1,000 residents and 0.15 acres of passive open space per 1,000 workers.

Qualitative Assessment

In the future with the Proposed Actions, the worker passive open space ratio would remain above the City's guideline ratio. While the passive open space ratio for combined residents and workers within the ¼-mile radius would be less than the recommended weighted ratio, the non-residential study area residents would likely make use of additional open space resources outside of the ¼-mile study area. For example, while only 8.57 acres of the 101-acre Highland Park fall within the non-residential study area, there are several pathways within this park that provide access beyond the ¼-mile study area boundary to other areas within this park. It is therefore likely that visitors to this park (including ¼-mile study area residents) would venture further north into Highland Park, beyond the ¼-mile boundary of the non-residential study area, to use Highland Park's existing facilities. In addition, most of the non-residential study area open spaces are in good or excellent condition, and use levels are low to moderate at all of these facilities during the weekday peak utilization periods for non-residential users. Moreover, the quantitative analysis is conservative as it assumes that residents and daytime users are separate populations, whereas it is possible, especially considering the size of the study area, that some of the residents live near their workplace, resulting in some double-counting of the daily user population in the non-residential study area.

RESIDENTIAL (½-MILE) STUDY AREA

Quantitative Assessment

Under With-Action conditions, total open space ratios in the residential (½-mile) study area would decrease, from 0.614 in the No-Action condition to 0.563 acres per 1,000 residents in the With-Action (see Table 5-8). The active open space ratio would decrease compared to No-Action conditions, from 0.304 to 0.279 acres per 1,000 residents, which would continue to be below the City's guidance ratio of 2.0 acres per 1,000 residents. The passive open space ratios per 1,000 residents would also decrease compared to No-Action conditions, from 0.310 to 0.284 acres per 1,000 residents, and would also remain below the City's guideline ratio of 0.50. The passive open space ratio for combined residential and worker populations would decrease from 0.265 under No-Action conditions to 0.242 acres per 1,000 users, and would be below the calculated guidance ratio of 0.454.

Qualitative Assessment

In the future with the Proposed Actions, ratios of open space would continue to be lower than the measure of open space adequacy and the guideline planning goals. The population to be generated by the Proposed Actions under the RWCDS is not expected to have any special characteristics, such as a disproportionately younger or older population, that would place heavy demand on facilities that cater to specific groups.

It should also be noted that, while the amounts of total and active open space resources in the residential study area are, and would continue to be, deficient in comparison to City guidelines, of the majority of the residential study area open spaces have low to moderate utilization levels, and most are in good or excellent condition (refer to Table 5-3).

Furthermore, as described above, an additional 75 open space resources totaling approximately 172.78 acres (including approximately 165.41 acres of passively programmed open space and approximately 7.37 acres of actively programmed open space) are located within the ½-mile study area. Active open space amenities include a number of playgrounds and ball courts. Passive open space amenities include 63 community gardens, in addition to multiple cemeteries. While these facilities are conservatively excluded from the quantitative analysis, it is likely that they are used by people that live and work in the ½-mile study area.

In addition, the availability of high quality regional open space resources located just outside of the study area, including 507-acre Forest Park, a major regional park located one mile to the northeast of the rezoning area, could help to partially offset this quantitative deficit.

Determining Impact Significance

A significant adverse open space impact may occur if a proposed action would reduce the open space ratio by more than five percent in areas that are currently below the City's median community district open space ratio of

1.5 acres per 1,000 residents. In areas that are extremely lacking in open space, a reduction as little as one percent may be considered significant, depending on the area of the City. These reductions may result in overburdening existing facilities or further exacerbating a deficiency in open space. Table 5-9 expresses the percentage change from No-Action to With-Action conditions for both the non-residential and residential study areas.

NON-RESIDENTIAL (¼-MILE) STUDY AREA

In the future with the Proposed Actions, while the non-residential study area's passive open space ratio would decrease by more than five percent from No-Action conditions (15.29 percent), it would remain well above the City's guideline ratio of 0.15 acres per 1,000 workers, at 0.4 acres per 1,000 workers (refer to Table 5-9). Therefore, workers in the ¼-mile study area would continue to be well-served by passive open space resources, and there would be no significant adverse impact in the non-residential study area as a result of the Proposed Actions.

TABLE 5-9
Open Space Ratios Summary

Ratio	*CEQR Technical Manual* Open Space Guideline	Open Space Ratios per 1,000			Percent Change (Future No-Action to Future With-Action)
		Existing	No-Action	With-Action	
Non-Residential (¼-Mile) Study Area					
Passive – Workers	0.15	0.534	0.471	0.399	-15.29
Residential (½-Mile) Study Area					
Total – Residents	2.5	0.688	0.614	0.563	-8.31
Passive – Residents	0.5	0.341	0.304	0.279	-8.22
Active - Residents	2.0	0.347	0.310	0.284	-8.39

RESIDENTIAL (½-MILE) STUDY AREA

With respect to the reductions in open space within the residential study area, the total, active, and passive open space ratio's would remain below the City's guideline ratios of 2.5 acres, 2.0 acres, and 0.5 acres per 1,000 residents, respectively, in the future with the Proposed Actions. The total residential study area open space ratio would decline by 8.31 percent to 0.563 acres per 1,000 residents; the active residential study area open space ratio would decline by 8.39 percent to 0.284 acres per 1,000 residents; and the passive residential study area open space ratio would decline by 8.22 percent to 0.279 acres per 1,000 residents. As these decreases would exceed the five percent impact threshold and the residential study area would continue to be underserved by open space in the future with the Proposed Actions, the Proposed Actions would result in a significant adverse indirect impact on total, active, and passive open space in the residential study area. Possible mitigation measures are discussed in Chapter 20, "Mitigation."