Chapter 5: Open Space

5.1 Introduction

This chapter assesses the potential impacts of the Proposed Actions on open space resources. Open space is defined in the *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 space, or an indirect effect, such as when a substantial new population could place added demand on an area's open spaces.

As described in Chapter 1, "Project Description," the Bronx Metro-North Station Study would consist of a series of land use actions (collectively, the "Proposed Actions"), including zoning map amendments, zoning text amendments (including mapping a special zoning district and Mandatory Inclusionary Housing), changes to the City Map, and disposition of real property, that would facilitate the implementation of a multi-year planning process conducted in the Parkchester/Van Nest and Morris Park neighborhoods of the Bronx in partnership with local stakeholders, City agencies, and the Metropolitan Transit Authority (MTA).

The Proposed Actions would affect an approximately 46-block area primarily along the main corridors—East Tremont Avenue, White Plains Road, Bronxdale Avenue, Eastchester Road, and Stillwell Avenue—near the future Parkchester/Van Nest and Morris Park Metro-North stations in Bronx Community Districts (CDs) 9, 10 and 11 (the "Affected Area"). The approximately 28-block area closest to the future Parkchester/Van Nest station is generally bound by Baker Avenue and Van Nest Avenue to the north, Silver Street to the east, East Tremont Avenue to the south, and St. Lawrence Avenue to the west. The approximately 18-block area closest to the future Morris Park station is generally bound by Pelham Parkway to the north, Marconi Street to the east, Williamsbridge Road to the south, and Eastchester Road to the west. The Proposed Actions are intended to leverage new planned Metro-North Railroad service to promote economic growth, facilitate the development of housing, including affordable housing, as well as guide investment in the public realm around new Metro-North Railroad stations to improve pedestrian safety and comfort.

5.2 Principal Conclusions

Per the guidance of the *CEQR Technical Manual*, a proposed action may result in a significant adverse 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 overburdening of existing facilities or further exacerbating a deficiency in open space.

DIRECT EFFECTS

The Proposed Actions would not result in the physical loss of existing public open space resources, and would not result in any significant adverse operational air quality, noise, or other environmental impacts that would affect the usefulness of any study area open space. The Proposed Actions would result in new significant adverse shadow impacts on a portion of Pelham Parkway, the Greenstreet at Sacket Avenue, and a small portion of the larger 129-acre Parkchester Apartment Complex. As discussed in Chapter 6, "Shadows," the Sacket Avenue Greenstreet would not receive adequate sunlight during the growing season, potentially resulting in a significant adverse shadow impact on the Greenstreet's vegetation. However, per *2021 CEQR Technical Manual* guidance, "landscaped open areas designed to increase the aesthetic value of public spaces, which do not provide amenities for public recreation" are not considered to be publicly-accessible open space resources, and specifically cites Greenstreets as one of the examples of such spaces as they generally do not include recreational features such as benches or seating areas. The Greenstreet at Sacket Avenue does not contain any benches, seating areas, or recreational amenities. Therefore, while this would represent a significant adverse shadow impact, the shading of the Sacket Avenue Greenstreet caused by the Proposed Actions would not result in a significant adverse direct impact to open space.

As discussed in Chapter 6, "Shadows," though incremental shadow coverage on Pelham Parkway would occur for extended durations during the March 21/September 21, May 6/August 6, and December 21 analysis days, it would continue to receive some direct sunlight on all representative analysis days. Across the three analysis days where Pelham Parkway would receive incremental shadow, the incremental shadow would only be cast on an approximately five-acre portion of the larger 108.91-acre open space resource (of which approximately 42 acres fall within the open space study areas). Incremental shadow would not alter the public's use and enjoyment of this resource, and therefore the disclosed shadow impact would not be considered a direct open space impact on Pelham Parkway.

As also discussed in Chapter 6, "Shadows," the Parkchester Apartment Complex's 129-acre area would continue to receive direct sunlight on all representative analysis days, although vegetation in the yard between 1596-1598 Unionport Road and the street and the pedestrian path between Projected Development Site 8 and 1950-1970 E Tremont Avenue may no longer receive adequate sunlight during the growing season. As such, vegetation in this area could be significantly impacted and this small portion of the larger 129-acre area may no longer be able to support a variety of plant life, as compared to the No-Action condition. However, although this significant adverse shadow impact could reduce the utility of these areas, the open spaces within the Parkchester Apartment Complex would continue to be available and provide other passive or active open space uses and therefore there would not be a direct significant adverse open space impact.

INDIRECT EFFECTS

As the Proposed Actions are expected to introduce approximately 20,349 residents and 10,050 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 *CEQR Technical Manual* guidance. The detailed analysis determined that the Proposed Actions would result in a significant adverse indirect impact to total, passive, and active open space in the residential study area.

According to the *CEQR Technical Manual*, the majority of the Affected Area and surrounding study areas are located in "walk gap" areas, i.e. areas that are not within walking distance of a public open space. In addition, both the non-residential and residential study areas do not currently meet the *CEQR* guidance for open space adequacy. The *CEQR Technical Manual* indicates that a decrease in the open space ratio exceeding the thresholds specified in Table 7-5 of the *CEQR Technical Manual* indicates the potential for a significant adverse impact. 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.

Non-Residential (Quarter-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 (18.4 percent), it would remain well above the City's planning goal ratio of 0.15 acres per 1,000 non-residents, at 0.68 acres per 1,000 non-residents. Therefore, non-residents 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.

Residential (Half-Mile) Study Area

Within the residential study area, the total, active and passive open space ratios would remain below the City's planning goal 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 residential study area total open space ratio would decline by 14.4 percent to 0.50 acres per 1,000 residents; the residential study area active open space ratio would decline by 14.4 percent to 0.22 acres per 1,000 residents; and the residential study area passive open space ratio would decline by 14.4 percent to 0.28 acres per 1,000 residents. As these decreases would exceed the *CEQR Technical Manual* thresholds indicating the potential for an impact, and the Affected Area and significant portions of the residential study area are within walk gap areas, the Proposed Actions would result in a significant adverse indirect impact on total, active, and passive open space in the residential study area.

Supplemental Impact Assessment

Given that the geography of the Affected Area is made up of two distinct areas centered around the planned Morris Park and Parkchester Metro-North railroad stations, and that the density of development

anticipated as a result of the Proposed Actions would be concentrated around these two nodes, in consultation with NYC Parks, a supplemental indirect impact assessment was conducted for Morris Park and Parkchester neighborhood sub-districts.

Morris Park Sub-District

Non-Residential (Quarter-Mile) Study Area

In the future with the Proposed Actions, The passive open space ratio in the non-residential study area for the Morris Park sub-district would decrease by over five percent from No-Action conditions (21.7 percent). It would remain well above the City's planning goal ratio of 0.15 acres per 1,000 non-residents, at 0.72 acres per 1,000 non-residents. Therefore, non-residents in the ¼-mile study area for the Morris Park sub-district would continue to be well-served by passive open space resources, and there would be no significant adverse impact to daytime passive open space users in the non-residential study area as a result of the Proposed Actions.

Residential (Half-Mile) Study Area

In the future with the Proposed Actions, the total, passive, and active open space ratios for the residential study area for the Morris Park sub-district would all decrease by 16.3 percent. The total open space ratio would be 0.96, the passive ratio would be 0.61, and the active ratio would be 0.35 acres per 1,000 residents. A significant adverse impact on total and active open space would occur, since these decreases would exceed the *CEQR Technical Manual* thresholds indicating the potential for an impact, and the Affected Area and significant portions of the residential study area are within walk gap areas.

Parkchester Sub-District

Non-Residential (Quarter-Mile) Study Area

In the future with the Proposed Actions, though the passive open space ratio in the non-residential study area for the Parkchester sub-district would experience a decrease of over five percent from No-Action conditions (13.4 percent), it would remain above the City's planning goal ratio of 0.15 acres per 1,000 non-residents, at 0.47 acres per 1,000 non-residents. Therefore, non-residents in the ¼-mile study area for the Parkchester sub-district would continue to be well-served by passive open space resources, and there would be no significant adverse impact to daytime passive open space users in the non-residential study area as a result of the Proposed Actions.

Residential (Half-Mile) Study Area

In the future with the Proposed Actions, the total, passive, and active open space ratios for the residential study area for the Parkchester sub-district would all decrease by 11.2 percent. The total open space ratio would be 0.23, the passive ratio would be 0.10, and the active ratio would be 0.13 acres per 1,000 residents. A significant adverse impact on total, passive, and active open space would occur, since these decreases would exceed the *CEQR Technical Manual* thresholds indicating the potential for an impact, and the Affected Area and significant portions of the residential study area are within walk gap areas.

5.3 Methodology

OPEN SPACE STUDY AREA

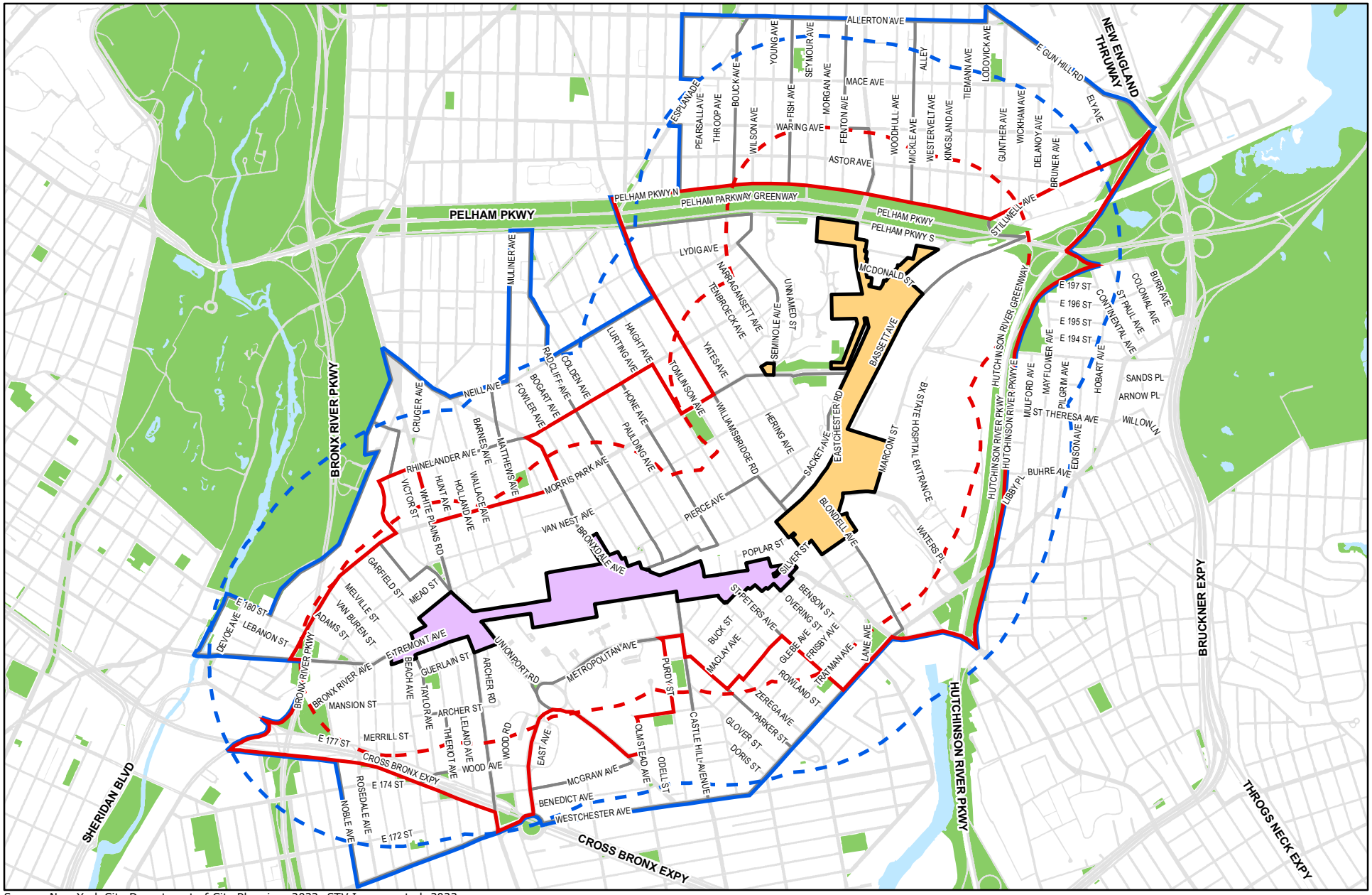
According to the *CEQR Technical Manual* methodologies, the open space study areas are based on the distance a person is assumed to walk to reach a neighborhood open space, which differs by user. Workers and students typically use passive open spaces within a short walking distance of their workplaces or schools. 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 Bronx Park or Pelham Bay Park), such open spaces were not included in the study area's quantitative analysis but are described qualitatively. Non-residents 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 study area based on a ¼-mile distance from the Affected 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, per the guidance of the *CEQR Technical Manual*[1]. In this way, the study areas allow analysis of both the open spaces in the area, as well as the population data.

As shown on Figure 5-1, "Open Space Study Areas," the ¼-mile non-residential study area is generally bounded by Pelham Parkway to the north, Hutchinson River Parkway to the east, Westchester Avenue to the south, and Morris Park Avenue to the west. The ½-mile residential study area is generally bounded by Allerton Avenue to the north, Hutchinson River Parkway to the east, Westchester Avenue to the south, and Birchall Avenue to the west. In addition, these study areas are also considered in terms of a northern portion (the Morris Park sub-district) and a southern portion (the Parkchester sub-district) in order to provide a generalized understanding of differences that may exist.

As discussed further under "Analysis Framework," the same process was used to evaluate open space study areas for two "sub-districts" representing the two main contiguous geographies of the Affected Area: a Morris Park sub-district and a Parkchester sub-district (shown in Figure 5-1, "Open Space Study Areas). Residential and non-residential study areas were created for both the Morris Park and Parkchester sub-districts.

[1] 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 with negligible existing populations (e.g., census tracts entirely comprised of open space).



Source: New York City Department of City Planning, 2023; STV Incorporated, 2023

N

0 0.25 0.5 Mile

Affected Area
Quarter-Mile Radius
Non-Residential (Quarter-Mile) Study Area
Half-Mile Radius
Residential (Half-Mile) Study Area
Open Space
Morris Park Sub-District
Parkchester Sub-District

Bronx Metro-North Station Study

Figure 5-1

OPEN SPACE STUDY AREAS

ANALYSIS FRAMEWORK

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 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 public open space resources would be physically displaced, nor would uses of open spaces be changed or public access be limited, as a result of the Proposed Actions, this chapter relies on information provided in 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 Affected Area.

Indirect Effects

As described in the *CEQR Technical Manual*, open space can be indirectly affected by the Proposed Actions if they 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. An assessment of indirect effects is conducted when a project would introduce more than 200 residents or 500 non-residents to an area. Per the guidance of the *CEQR Technical Manual*, 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 7,474 incremental residential units, which would introduce an estimated increment of 20,349 residents on the projected development sites, compared to the No-Action Condition.[2] In addition, as described in Chapter 1, "Project Description," the Proposed Actions would introduce an increment of approximately 10,050 new workers compared to the No-Action condition.[3] As such, an open space assessment for both the residential and worker populations generated by the Proposed Actions is warranted.

With an inventory of available open space resources and potential users, the adequacy of open space in the study area can be assessed both quantitatively and qualitatively. The quantitative approach computes the ratios of open space acreage to the residential and non-residential populations in the study area and compares these ratios to certain guidelines. The qualitative assessment examines other factors that can 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 residential and non-residential populations. Specifically, the analysis in this chapter includes:

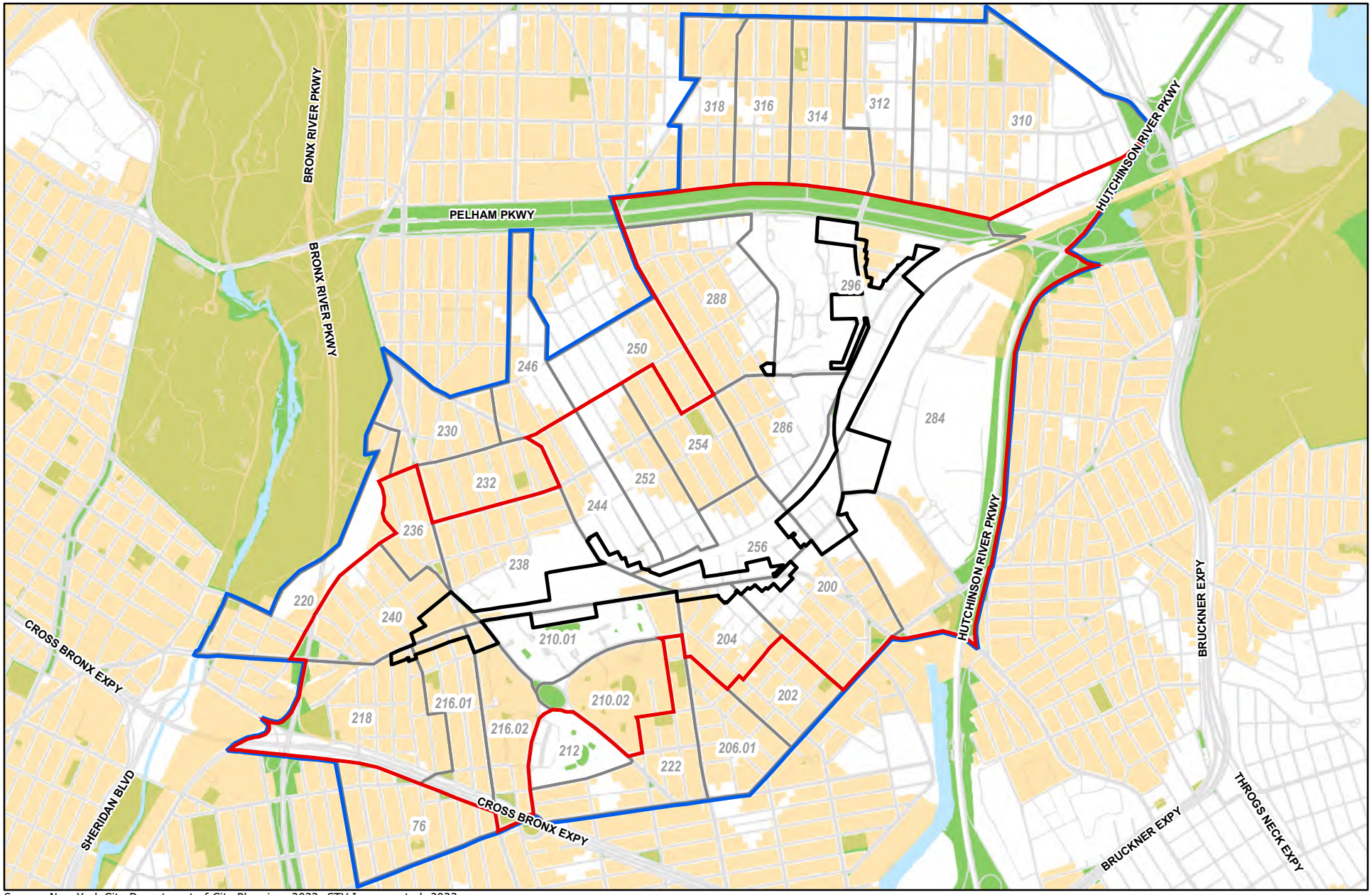
- Characteristics of the residential and non-residential users. To determine the number of residents in the study area, 2020 Census data have been compiled for the census tracts comprising the

[2] Based on average household sizes for Bronx CD 9 (2.82 persons per household), CD 10 (2.45 persons per household), and CD 11 (2.71 persons per household), per 2020 US Census.
[3] Refer to Chapter 1, "Project Description".

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 US Census Bureau's LEHD Origin-Destination Employment Statistics (LODES) Version 8 for 2019, the last year of data availability before the COVID-19 pandemic.

- An inventory of all publicly accessible passive and active recreational facilities in the residential and non-residential open space study areas.
- An assessment of the quantitative ratio of open space in the study area by computing the ratios of open space acreage to the residential and non-residential populations in the study area and comparing these open space ratios with the City's planning goals. In New York City, the optimal open space ratio for residential populations is 2.5 acres of open space per 1,000 residents. Ideally, this would be comprised of a balance of 80 percent active open space (2.0 acres per 1,000 residents) and 20 percent passive open space (0.5 acres per 1,000 residents). According to the *CEQR Technical Manual*, a ratio of 0.15 acres of passive open space per 1,000 non-residents represents a sufficient amount of open space for a non-residential population.
- An evaluation of qualitative factors affecting open space use.
- A determination of the adequacy of open space in the residential and non-residential open space study areas for existing, No-Action, and With-Action conditions.

As part of the preliminary assessment for open space, a project should be reviewed to determine if it is located in an area of the City within a Walk to a Park Service Area. A Walk to a Park Service Area (WtPSA) is a part of the *OneNYC 2050 Building a Strong and Fair City* plan, in which New York City has laid out a goal for 85 percent of New York City residents living within a walking distance of a park by 2033. Existing areas located within a WtPSA are within a walking distance of a park (i.e., 0.5-miles). Areas not located within a WtPSA are considered "walk gaps;" they are areas of New York City that are not within walking distance to a park. While the focus of the Walk to a Park initiative is on residents living within a walking distance to a park, projects that create a non-residential population (e.g., new workers) should also review if the project is located within a known walk gap and assess if the project would generate a new non-residential population within areas of the City with inadequate access to open space resources. As shown in Figure 5-2, "Walk to a Park Service Area," the majority of the Affected Area and a majority of the surrounding ¼-mile and ½-mile study areas are located within areas identified as "walk gaps" as they are not within a walking distance of a park.



Source: New York City Department of City Planning, 2023; STV Incorporated, 2023

N

0 0.25 0.5 Mile

Affected Area
Non-Residential (Quarter-Mile) Study Area
Residential (Half-Mile) Study Area
256 Census Tract
Open Space
Walk to a Park Service Area

Bronx Metro-North Station Study

Figure 5-2

WALK TO A PARK SERVICE AREA

Preliminary Assessment

Determination of impacts is 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 resulting from the Proposed Actions, generally, may be considered to constitute 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 0.5 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 planning goals and optimal benchmarks. It is recognized that open space ratios of the City's planning goals described above are not feasible for many areas of the City, and they are not considered impact thresholds alone. Rather, these are benchmarks that indicate how well an area is served by open space.

Impact Assessment

As described in the *CEQR Technical Manual,* the significance of an action's effects on an area's open spaces is determined using both quantitative and qualitative factors, as compared to the No-Action condition. The determination of significance is based upon the context of an action, including its location, the quality and quantity of the open space in the future With-Action condition, and any new open space provided by an action.

An action's potential effects on an area's open space are based, in part, on how a project would change the open space ratios in the study area, as well as other qualitative considerations. According to the *CEQR Technical Manual*, a project that would reduce the residential open space ratio by more than the general guidance for the open space percentage change shown in Table 5-1, "Guidance for Percentage Change in Residential Open Space Ratio," may be considered significant, as these reductions may result in overburdening existing facilities or further exacerbating a deficiency in open space. As shown in Table 5-1, "Guidance for Percentage Change in Residential Open Space Ratio," the guidance for tolerated percent change in residential open space ratio is determined based on the open space ratio ranges outlined in the *CEQR Technical Manual*. In areas that are within a WtPSA, a greater percentage of change (more than five percent) may be tolerated. According to the *CEQR Technical Manual,* projects that would reduce the open space ratio for a non-residential population would not follow the guidance presented below in Table 5-1, "Guidance for Percentage Change in Residential Open Space Ratio," but rather consider the project's effect on passive open space in the study area. The more the open space ratio falls below the optimal ratio of 0.15 acres of passive space per 1,000 population, the more likely the decrease would lead to a significant impact.

Table 5-1: Guidance for Percentage Change in Residential Open Space Ratio

Open Space Ratio Range	Percent Change in Open Space Ratio
2.01 to 2.50 or Greater*	5%
1.51 to 2.0	4%
1.01 to 1.5	3%
0.51 to 1.0	2%
0.50 or Less	1%
*2.5 open space ratio is the planning goal in New York City.	

Source: Table 7-1 in Chapter 7, "Open Space" of the 2021 *CEQR Technical Manual.*

It should be noted that the City's optimal open space ratios and percentage reductions shown in Table 5-1, "Guidance for Percentage Change in Residential Open Space Ratio," do not constitute an absolute impact threshold. The *CEQR Technical Manual* also recommends consideration of qualitative factors in assessing the potential for open space impacts. Furthermore, as discussed in Section 321 of Chapter 7, "Open Space" of the 2021 *CEQR Technical Manual*, projects located outside of the WtPSA should be further assessed for qualitative impacts. As such, projects that may result in significant quantitative impacts on open space are typically further assessed in a qualitative assessment to determine the overall significance of the impact.

The qualitative assessment supplements the quantitative assessment and considers the distribution of open space, whether a site is within the WtPSA, the distance from the site to regional parks, the connectivity of open space(s), and any additional open space created by the Proposed Actions not available to the general public, if applicable. Determinations as to what constitutes a significant adverse open space impact are not based solely on the results of the quantitative assessment.

Supplemental Indirect Impact Assessment

Given that the geography of the Affected Area is made up of two distinct areas centered around the planned Morris Park and Parkchester Metro-North railroad stations, and that the density of development anticipated as a result of the Proposed Actions would be concentrated around these two nodes, in consultation with NYC Parks, a supplemental indirect impact assessment was conducted for Morris Park and Parkchester neighborhood sub-districts in order to provide a generalized understanding of differences that may exist.

The supplemental indirect impact assessment utilizes the same methodology discussed above. For each sub-district, the non-residential and residential open space study areas are comprised of all census tracts that have 50 percent or more of their area located within the ¼-mile and a ½-mile radius of the sub-district, respectively. The resultant supplemental indirect impact assessment open space study areas for the Morris Park and Parkchester sub-districts are presented in Figures 5-4 and 5-5, respectively.

5.4 Existing Conditions

STUDY AREA POPULATION

Non-Residential (Quarter-Mile) Study Area

Non-Residential Population

As shown in Table 5-2, "Study Area Residential and Non-Residential Populations," the existing non-residential population for the quarter-mile open space study area is estimated at approximately 35,314. This population is composed of workers, based on the US Census Bureau's LEHD Origin-Destination Employment Statistics (LODES) Version 8 for 2019 (accessed via OnTheMap), as well as daytime college student populations at two major educational institutions within the study area: Albert Einstein College of Medicine and the Hutchinson Metro Center campus of Mercy College.

Residential Population

As also shown in Table 5-2, "Study Area Residential and Non-Residential Populations," 2020 Decennial Census data indicate the quarter-mile open space study area has a residential population of approximately 69,035 persons.

Total User Population

Within the quarter-mile non-residential study area, the total population (residents plus non-residents) is estimated at 104,349 (refer to Table 5-2, "Study Area Residential and Non-Residential Populations"). Although this analysis conservatively assumes that the residents and daytime users are separate populations, it is possible that some of the residents live near their workplace/place of education or work from home. As a result, there is likely to be some double-counting of the daily user population in which residential and worker or student populations overlap, resulting in a more conservative analysis.

Residential (Half-Mile) Study Area

Non-Residential Population

As shown in Table 5-2, "Study Area Residential and Non-Residential Populations," based on the LEHD Origin-Destination Employment Statistics (LODES) Version 8 for 2019 (accessed via OnTheMap), the existing non-residential population for the half-mile open space study area is estimated at approximately 44,147.

Residential Population

As also shown in Table 5-2, "Study Area Residential and Non-Residential Populations," 2020 Decennial Census data indicate that the half-mile residential study area has a residential population of approximately 116,858 persons. As shown in Table 5-3, "Half-Mile Study Area Residential Population Age Breakdown," people between the ages of 20 and 64 make up the majority (approximately 61.4 percent) of the residential population in the ½-mile study area. Children and teenagers (0 to 19 years old) account for

approximately 24.9 percent of the residential study area population, and persons 65 years and over account for approximately 13.6 percent of the residential study area population. As also presented in Table 5-3, "Half-Mile Study Area Residential Population Age Breakdown," the age breakdown of the residential study area includes a lower percentage of children and teenagers compared to the Bronx, but a higher percentage compared to New York City as a whole. Conversely, the residential study area includes a higher percentage of adults aged 20 to 64 and persons 65 years and older compared to the Bronx, but a slightly lower percentage for both compared to the city as a whole.

As shown in Table 5-3, "Half-Mile Study Area Residential Population Age Breakdown," the residential study area's average median age is 37.7, compared to 35.6 in the Bronx and 37.4 in New York City as a whole. The residential study area median ages by census tract range from a high of 51.3 years (Bronx Census Tract 284, which contains few residential uses, one of which is an adult inpatient psychiatric facility) to a low of 30.8 years (Bronx Census Tract 296, which is home to the Albert Einstein College of Medicine and includes student housing).

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 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 reflect those needs of the city as a whole, suggesting a demand for facilities geared toward the recreational needs of a wide range of adults, as the study area exhibits a high percentage of residents in the 20 to 64 age bracket.

Total User Population

As shown in Table 5-2, "Study Area Residential and Non-Residential Populations," above, within the residential study area, the total population (residents plus non-residents) is estimated to be 161,005. 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.

Table 5-2: Study Area Residential and Non-Residential Populations

Census Tract	Residential Population	Non-Residential Population	Total Population
Quarter-Mile Study Area			
200	5,235	2,767	8,002
204	3,129	467	3,596
210.01	8,946	1,035	9,981
210.02	7,855	146	8,001
216.01	4,701	340	5,041
216.02	6,237	558	6,795
218	6,610	288	6,898
236	2,204	362	2,566
238	2,750	6,029	8,779
240	4,583	47	4,630
244	2,407	644	3,051
252	2,682	312	2,994
254	2,163	400	2,563
256	1,908	372	2,280
284[1]	297	8,362	8,659
286	1,395	3,663	5,058
288	3,055	394	3,449
296[2]	2,878	9,128	12,006
Quarter-Mile Study Area Total:	***69,035***	***35,314***	**104,349**
Half-Mile Study Area			
76	5,682	436	6,118
202	2,789	397	3,186
206.01	3,277	195	3,472
212	6,596	194	6,790
220	2,511	561	3,072
222	3,968	1,362	5,330
230	3,001	139	3,140
232	3,000	1,472	4,472
246	2,297	74	2,371
250	2,672	314	2,986
310	4,372	2,440	6,812
312	1,555	248	1,803
314	2,071	713	2,784
316	2,071	49	2,120
318	1,961	239	2,200
Half-Mile Study Area Total:	***116,858***	***44,147***	**161,005**

Notes:

[1] Non-residential population includes 1,800 students at the Mercy College - Hutchinson Metro Center Campus.

[2] Non-residential population includes 1,307 students at the Albert Einstein College of Medicine.

Sources: U.S. Census Bureau, 2020 Decennial Census, LEHD Origin-Destination Employment Statistics (LODES) Version 8 for 2019 (accessed via OnTheMap); Albert Einstein College of Medicine, https://www.einsteinmed.edu/about/; Bronx Psychiatric Center EIS

Table 5-3: Half-Mile Study Area Residential Population Age Breakdown

Census Tract	Total Population	Under 5 years		5 to 9 years		10 to 14 years		15 to 19 years		20 to 64 Years		65 years and over		Median Age
		#	%	#	%	#	%	#	%	#	%	#	%	
76	5,682	371	6.5%	431	7.6%	395	7.0%	410	7.2%	3,412	60.0%	663	11.7%	33.9
200	5,235	419	8.0%	397	7.6%	375	7.2%	384	7.3%	3,127	59.7%	533	10.2%	32.7
202	2,789	192	6.9%	190	6.8%	214	7.7%	212	7.6%	1,638	58.7%	343	12.3%	34.7
204	3,129	209	6.7%	211	6.7%	235	7.5%	206	6.6%	1,934	61.8%	334	10.7%	34.2
206.01	3,277	192	5.9%	210	6.4%	217	6.6%	235	7.2%	1,999	61.0%	424	12.9%	34.2
210.01	8,946	495	5.5%	511	5.7%	469	5.2%	481	5.4%	5,677	63.5%	1,313	14.7%	40.3
210.02	7,855	479	6.1%	496	6.3%	445	5.7%	383	4.9%	4,861	61.9%	1,191	15.2%	39.8
212	6,596	408	6.2%	399	6.0%	392	5.9%	341	5.2%	4,091	62.0%	965	14.6%	40.4
216.01	4,701	329	7.0%	364	7.7%	384	8.2%	338	7.2%	2,811	59.8%	475	10.1%	33.4
216.02	6,237	393	6.3%	353	5.7%	337	5.4%	331	5.3%	3,911	62.7%	912	14.6%	40.1
218	6,610	440	6.7%	478	7.2%	448	6.8%	450	6.8%	4,099	62.0%	695	10.5%	34.3
220	2,511	162	6.5%	201	8.0%	169	6.7%	181	7.2%	1,617	64.4%	181	7.2%	34.6
222	3,968	283	7.1%	263	6.6%	287	7.2%	295	7.4%	2,477	62.4%	363	9.1%	33.6
230	3,001	202	6.7%	220	7.3%	231	7.7%	235	7.8%	1,828	60.9%	285	9.5%	32.2
232	3,000	193	6.4%	205	6.8%	227	7.6%	245	8.2%	1,842	61.4%	288	9.6%	31.5
236	2,204	139	6.3%	159	7.2%	181	8.2%	181	8.2%	1,300	59.0%	244	11.1%	32.3
238	2,750	200	7.3%	198	7.2%	196	7.1%	205	7.5%	1,714	62.3%	237	8.6%	32.2
240	4,583	313	6.8%	394	8.6%	337	7.4%	402	8.8%	2,799	61.1%	338	7.4%	31.3
244	2,407	153	6.4%	141	5.9%	165	6.9%	144	6.0%	1,455	60.4%	349	14.5%	37.5
246	2,297	164	7.1%	142	6.2%	117	5.1%	111	4.8%	1,400	60.9%	363	15.8%	38.1
250	2,672	138	5.2%	136	5.1%	148	5.5%	146	5.5%	1,657	62.0%	447	16.7%	39.5
252	2,682	155	5.8%	147	5.5%	150	5.6%	187	7.0%	1,655	61.7%	388	14.5%	38.0
254	2,163	116	5.4%	124	5.7%	105	4.9%	140	6.5%	1,330	61.5%	348	16.1%	40.3
256	1,908	106	5.6%	106	5.6%	97	5.1%	93	4.9%	1,229	64.4%	277	14.5%	37.8
284	297	7	2.4%	9	3.0%	14	4.7%	20	6.7%	171	57.6%	76	25.6%	51.3
286	1,395	101	7.2%	82	5.9%	85	6.1%	69	4.9%	821	58.9%	237	17.0%	39.2
288	3,055	143	4.7%	142	4.6%	131	4.3%	160	5.2%	1,845	60.4%	634	20.8%	44.0
296	2,878	147	5.1%	78	2.7%	80	2.8%	89	3.1%	2,276	79.1%	208	7.2%	30.8
310	4,372	179	4.1%	205	4.7%	202	4.6%	242	5.5%	2,241	51.3%	1,303	29.8%	49.1
312	1,555	54	3.5%	99	6.4%	70	4.5%	97	6.2%	934	60.1%	301	19.4%	45.0
314	2,071	90	4.3%	100	4.8%	131	6.3%	130	6.3%	1,146	55.3%	474	22.9%	44.0
316	2,071	95	4.6%	105	5.1%	139	6.7%	131	6.3%	1,314	63.4%	287	13.9%	38.9
318	1,961	78	4.0%	103	5.3%	100	5.1%	98	5.0%	1,175	59.9%	407	20.8%	45.1

Table 5-3: Half-Mile Study Area Residential Population Age Breakdown (continued)

Census Tract	Total Residential Population	Age Distribution												Median Age
		Under 5		5-9		10-14		15-19		20-64		65+		
		#	%	#	%	#	%	#	%	#	%	#	%	
1/2-Mile Study Area Total	*116,858*	*7,145*	*6.1%*	*7,399*	*6.3%*	*7,273*	*6.2%*	*7,372*	*6.3%*	*71,786*	*61.4%*	*15,883*	*13.6%*	*37.7*[1]
Total for Bronx	*1,472,654*	*89,023*	*6.0%*	*96,043*	*6.5%*	*102,234*	*6.9%*	*106,398*	*7.2%*	*885,586*	*60.1%*	*193,370*	*13.1%*	*35.6*
Total for NYC	*8,804,190*	*475,637*	*5.4%*	*479,017*	*5.4%*	*491,325*	*5.6%*	*505,700*	*5.7%*	*5,542,287*	*63.0%*	*1,310,224*	*14.9%*	*37.4*

Notes:

[1] No median age for the ½-mile study was available; this number represents the average median age of the census tracts within the study area.

Sources: U.S. Census Bureau, 2020 Decennial Census

Supplemental Impact Assessment Study Area Populations

Morris Park Sub-District

Non-Residential (Quarter-Mile) Study Area

Based on the LEHD Origin-Destination Employment Statistics (LODES) Version 8 for 2019 (accessed via OnTheMap), the existing non-residential population in the non-residential quarter-mile study area for the Morris Park sub-district is approximately 24,686, which includes workers along with students from the Albert Einstein College of Medicine and the Mercy College Hutchinson Metro Center campus. Based on the 2020 US Census, the residential population for the quarter-mile study area is approximately 14,768. The total (combined) population is approximately 39,454.

Residential (Half-Mile) Study Area

The existing non-residential population in the half-mile residential study area for the Morris Park sub-district is approximately 30,265, which includes worker populations acquired from LODES Version 8 for 2019. The residential population for the half-mile study area is approximately 40,233, based on the 2020 US Census. The total (combined) population is approximately 70,498.

Parkchester Sub-District

Non-Residential (Quarter-Mile) Study Area

Based on LODES Version 8 for 2019, the existing non-residential population in the non-residential quarter-mile study area for the Parkchester sub-district is approximately 13,367. Apart from workers, there are no other identifiable sources of daytime non-residential population in the study area. Based on the 2020 US Census, the residential population for the quarter-mile study area is approximately 59,247. The total (combined) population is approximately 72,614.

Residential (Half-Mile) Study Area

The existing non-residential population in the half-mile residential study area for the Parkchester sub-district is approximately 22,574, which includes worker populations acquired from LODES Version 8 for

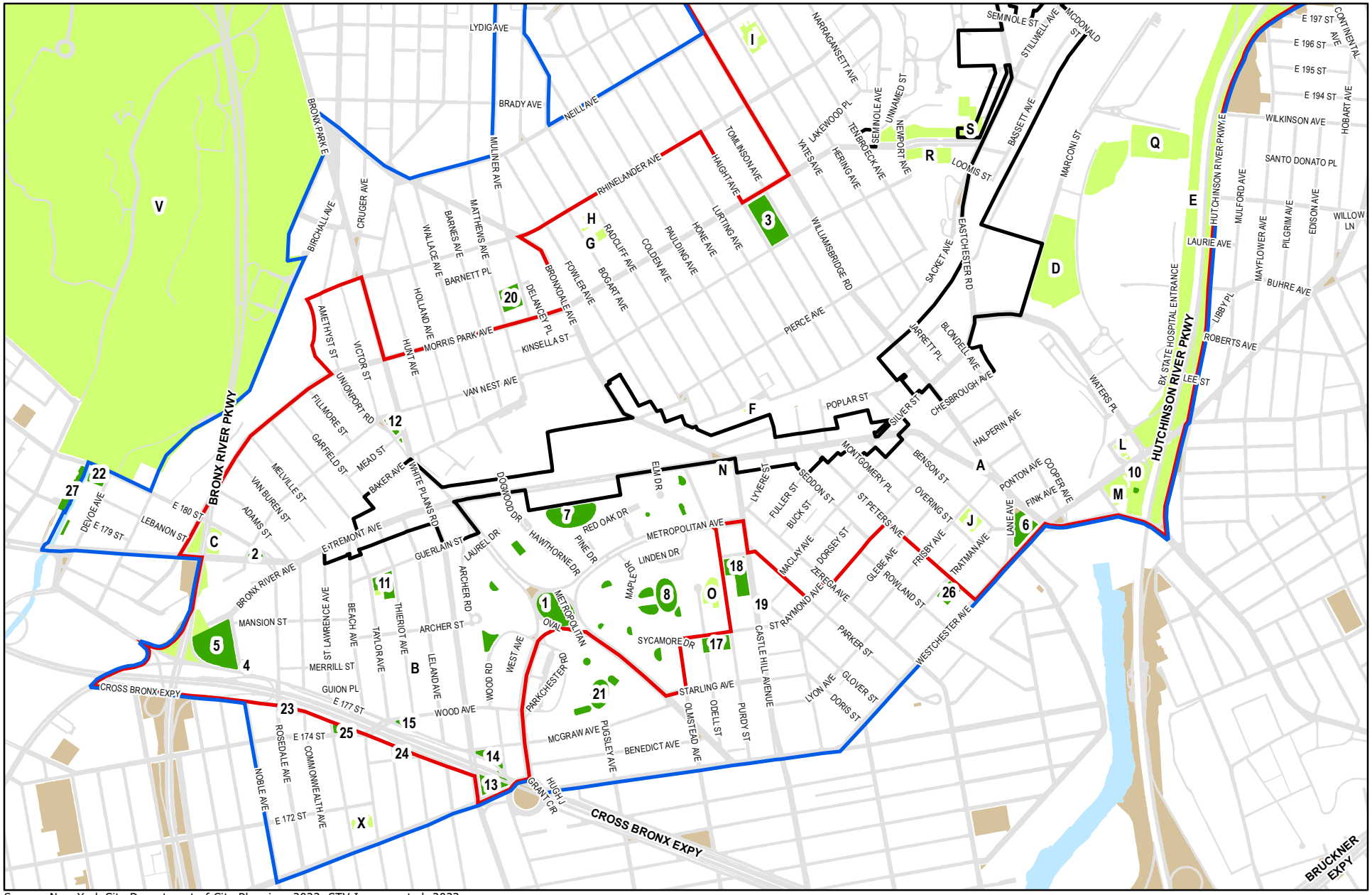
2019. The residential population for the half-mile study area is approximately 98,598, based on the 2020 US Census. The total (combined) population is approximately 121,172.

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. Per the guidance of 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 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.

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 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 on Figures 5-3a and 5-3b, "Open Space Resources," and listed in Table 5-4, "Quantitative Open Space Resources within the ¼-Mile and ½-Mile Open Space Study Areas". Additional open spaces not meeting the *CEQR* criteria for inclusion in the quantitative analysis are discussed qualitatively; they are listed in Table 5-5, "Qualitative Open Space Resources within the ¼-Mile and ½-Mile Open Space Study Areas."



Source: New York City Department of City Planning, 2023; STV Incorporated, 2023

N

0 0.25 0.5 Mile

Affected Area
Non-Residential (Quarter-Mile) Study Area
Residential (Half-Mile) Study Area
1 Open Space Included in Quantitative Analysis (Refer to Table 5-4)
A Open Space Included in Qualitative Analysis (Refer to Table 5-5)
Open Space Not Included in Quantitative or Qualitative Analysis

Bronx Metro-North Station Study

Figure 5-3a

OPEN SPACE RESOURCES



Source: New York City Department of City Planning, 2023; STV Incorporated, 2023

N

0 0.25 0.5 Mile

- Affected Area
- Non-Residential (Quarter-Mile) Study Area
- Residential (Half-Mile) Study Area
- 1 Open Space Included in Quantitative Analysis (Refer to Table 5-4)
- A Open Space Included in Qualitative Analysis (Refer to Table 5-5)
- Open Space Not Included in Quantitative or Qualitative Analysis

Bronx Metro-North Station Study

Figure 5-3b

OPEN SPACE RESOURCES

Table 5-4: Quantitative Open Space Resources within the ¼-Mile and ½-Mile Open Space Study Areas

Map No.[1]	Name	Address	Owner/ Agency[2]	Amenities	Hours	Park Acreage	Passive		Active		Condition/ Utilization
							Acres	%	Acres	%	
1/4-Mile Radius Quantitative Analysis Open Space Resources											
1	Bronx Unionport Parkchester Park	1589 Unionport Rd.	PPMRD	Benches, fountain, landscaping, sculptures	24 hours	2.16	1.73	80%	0.43	20%	Excellent/ Moderate
2	James A. Young Park	Van Nest Ave at E. 180th St and Tremont Ave	NYC DPR	Benches, landscaping	6AM-10PM	0.19	0.04	20%	0.15	80%	Good/ Low
3	Loreto Playground	1111 Van Nest Ave	NYC DPR	Basketball Courts, Handball Courts, Bocce Courts, Roller Hockey, Playgrounds, Spray Showers	March 2 - Oct 31: 7AM-9PM, Nov 1 - March 1: 7AM-6PM	2.18	0.44	20%	1.74	80%	Fair/ Moderate
4	Noble Mansion Courtyard	1500 Noble Ave	Noble Mansion	Benches, landscaping	-	0.22	0.22	100%	0.00	0%	Excellent/ Low
5	Noble Playground	1541 Bronx River Ave	NYC DPR	Baseball Fields, Basketball Courts, Fitness Equipment, Playgrounds, Spray Showers	March 2 - October 3: 7AM-9PM, November 1 - March 1: 7AM-6PM	3.21	0.32	10%	2.89	90%	Good/ Low
6	Owen F. Dolen Park	2551 Westchester Square	NYC DPR	Landscaping, Recreational Center	6AM-10PM	1.40	1.26	90%	0.14	10%	Good/ High
7	Parkchester Open Space (Excl. Bronx Unionport Parkchester Park and Parkchester Oval Park)	-	PPMRD	Benches, playground, basketball court, sports fields, landscaping	-	3.64	0.73	20%	2.91	80%	Excellent/ Low
8	Parkchester Oval Park	Maple Dr	PPMRD	Tennis courts, playground, lawn, landscaping, seating areas	-	2.05	1.23	60%	0.82	40%	Excellent/ Low
9	Pelham Parkway	Pelham Parkway	NYC DOT	Benches, greenway, landscaping	-	41.87	29.31	70%	12.56	30%	Poor/ Low
10	Samuel H. Young Park	1530 Hutchinson River Pkwy	NYC DPR	Baseball Fields	6AM-10PM	1.28	0.00	0%	1.28	100%	Good/ Low
11	Taylor Playground	1564 Taylor Ave	NYC DPR	Handball Courts, Playgrounds, Spray Showers	March 2 - Oct 31: 7AM-6PM, Nov 1- March 1: 7AM-8PM	1.58	0.32	20%	1.26	80%	Fair/ Low
12	Van Nest Park	Van Nest Ave	NYC DPR	Playgrounds, Spray Showers	Nov 1 - March 1: 7AM-6PM, March 2 - Oct 31: 7AM-9PM	0.40	0.08	20%	0.32	80%	Good/ Moderate
13	Virigina Park	1878 Cross Bx Service Road South	NYC DPR	Benches, Landscaping	6 AM - 10 PM	0.92	0.92	100%	0.00	0%	Good/ High
14	Virginia Playground	1878 Cross Bx Service Road South	NYC DPR	Playgrounds, Spray Showers	March 2 - Oct 31: 7AM-9PM, Nov 1 - March 1: 7AM-6PM	0.46	0.05	10%	0.41	90%	Fair/ Moderate
15	Wood Park	Wood Ave & Thieriot Ave	NYC DPR	Landscaping, Benches	6AM-10PM	0.19	0.19	100%	0.00	0%	Good/ Low
1/4-Mile Study Area Total						***61.75***	***36.82***	***60%***	***24.92***	***40%***	

Table 5-4: Quantitative Open Space Resources within the ¼-Mile and ½-Mile Open Space Study Areas (continued)

Map No.[1]	Name	Address	Owner/ Agency[2]	Amenities	Hours	Park Acreage	Passive		Active		Condition
							Acres	%	Acres	%	
1/2-Mile Radius Quantitative Analysis Open Space Resources (Excluding 1/4-Mile)											
16	Burns Playground	2507A Lodovick Ave	NYC DPR	Handball Courts, Playgrounds, Spray Showers	7 AM - 6 PM	1.62	0.16	10%	1.46	90%	Good/ Moderate
17	Caserta Playground	2151 St Raymond Ave	NYC DPR	Basketball Courts, Fitness Equipment, Handball Courts, Playgrounds	March 2- Oct 31: 7 Am 9 PM, Nov 1- March 1: 7 AM - 6 PM	1.00	0.20	20%	0.80	80%	Fair/ High
18	Castle Hill Playground	1679 Castle Hill Ave	NYC DPR	Basketball Courts, Handball Courts, Playgrounds, Spray Showers	8 Am- 4pm, area for school use during school days	1.37	0.14	10%	1.23	90%	Fair/ Moderate
19	Glover Street Community Garden	1642 Castle Hill Avenue	NYC DPR	Benches, Landscaping	11 AM- 4 PM	0.03	0.03	100%	0.00	0%	Good/ Low
20	Matthews Muliner Playground	Matthews Ave & Muliner Ave	NYC DPR	Basketball Courts, Handball Courts, Playgrounds, Spray Showers	March 2- Oct 31: 7 AM- 7 PM, Nov 1- March 1: 7 AM - 6 PM	1.02	0.31	30%	0.71	70%	Fair/ Moderate
21	Parkchester Open Space (Excl. Bronx Unionport Parkchester Park and Parkchester Oval Park)	-	PPMRD	Landscaping, Seating Areas, Playgrounds	-	1.53	0.92	60%	0.61	40%	Good/ Moderate
22	River Garden	1086 E 180th St	NYC DPR	Landscaping, Benches	6 AM - 9 PM	0.22	0.22	100%	0.00	0%	Good/ Low
23	Rosedale Bus Stop	Cross Bronx Exp Service Rd and Rosedale Ave	NYC DOT	Landscaping, Benches	-	0.12	0.12	100%	0.00	0%	Fair/ Low
24	Sitting Area	Cross Bronx Exp Service Rd and Taylor Ave	NYC DPR	Landscaping, Benches	-	0.24	0.24	100%	0.00	0%	Fair/ Low
25	St Lawrence Triangle	Cross Bronx Exp Service Rd and St Lawrence Triangle	NYC DPR	Landscaping	-	0.24	0.24	100%	0.00	0%	Fair/ Low
26	The Pearly Gates	St Peters Ave and Tratman Ave	NYC DPR	Bathrooms, Handball Courts, Playgrounds, Spray Showers	March 2- October 31: 7 AM -9 PM, Nov 1- March 1: 7 AM -6 PM	0.66	0.13	20%	0.53	80%	Good/ High
27	West Farms Park	1087 E Tremont Ave	NYC DPR	Boat Launch, Bike Trail, Benches	6 AM - 10 PM	1.02	0.51	50%	0.51	50%	Good/ Low
1/2-Mile Study Area Subotal						***9.07***	***3.22***	***35%***	***5.86***	***65%***	
1/2-Mile Study Area Total						***70.82***	***40.04***	***57%***	***30.78***	***43%***	

Notes:

[1] Refer to Figure 5-3a and Figure 5-3b, "Open Space Resources."

[2] NYC DPR = New York City Department of Parks and Recreation; NYC DOT= New York City Department of Transportation; NYC DOE = New York City Department of Education; PPMRD = Parkchester Preservation Management Recreation Department

Sources: NYC Parks, 2023 Primary Land Us Tax Lot Output (PLUTO) data, site visits conducted in May 2023

Table 5-5: Qualitative Open Space Resources within the ¼-Mile and ½-Mile Open Space Study Areas

Map No.[1]	Name	Address	Owner/ Agency[2]	Amenities	Hours	Park Acreage	Passive		Active		Condition
							Acres	%	Acres	%	
1/4-Mile Radius Qualitative Analysis Open Space Resources											
A	Greenstreet	E Tremont Ave and Williamsbridge Rd	NYC DOT & NYC DPR	Landscaping, benches	-	0.03	0.03	100%	0.00	0%	
B	Archer Co-Op Courtyard	1430 Thieriot Ave	Archer Co-Op, Inc	Benches	7AM-9PM Spring/Summer 8AM-4PM Fall/Winter	0.12	0.12	100%	0.00	0%	
C	Bronx River Parkway	Bronx River Parkway	NYC DOT	Landscaping	-	2.77	2.77	100%	0.00	0%	
D	Bronxchester Little League	1250 Waters Pl	Bronxchester Little League	Baseball field, benches	M: 9:30AM-4:30PM T-Thu: 10AM-4:30PM W: 11AM-5:30PM F: 24 hours Sat: 10AM-5PM Sun: 8AM-4:30PM	7.17	0.00	0%	7.17	100%	
E	Hutchinson River Parkway	Hutchinson River Parkway	NYCDOT & NYSDOT	Trails	24 hours	35.49	35.49	100%	0.00	0%	
F	Morris Park Communtiy Garden	100 Sacket Ave	NYC DPR	Landscaping, Benches	-	0.17	0.17	100%	0.00	0%	
G	P. S. 83 Annex Playground	1840 Bogart Ave	NYC DOE	Basketball court, playground	-	0.28	0.00	0%	0.28	100%	
H	P. S. 83 Playground	950 Rhinelander Ave	NYC DOE	Basketball court	-	0.40	0.04	10%	0.36	90%	
I	P. S. 108 Playground	1166 Neill Ave	NYC DOE	Track, basketball courts, playground	-	1.04	0.00	0%	1.04	100%	
J	P. S. X012 Playground[3]	2555 Tratman Ave	NYC DOE	Track, basketball courts, playground	-	0	0.00	0%	0.00	100%	
K	P. S. 531 Playground	1827 Archer St	NYC DOE	Benches, playground, basketball court, track	-	0.07	0.01	20%	0.06	80%	
L	P. S. 721X Playground	289 Westchester Ave	NYC DOE	Basketball court	-	0.31	0.00	0%	0.31	100%	
M	Pelham Bay Little League	2680 Westchester Ave	Pelham Bay Little League	Baseball Fields	M-Wed: 9AM-8PM Thu-Fri: Closed Sat-Sun: 9AM-5PM	1.26	0.00	0%	1.26	100%	
N	St. Raymond Church Cemetery	1759 Castle Hill Ave	St. Raymond Catholic Church	Running Track, Sports Field	Rectory Hours: Mon- Fri 8:30 AM- 12:30 PM, 1:30 PM- 7:30 PM	0.35	0.35	100%	0.00	0%	
O	St. Raymond High School Field	1603 Purdy St	St. Raymond	Play Field, Seating Areas	-	0.91	0.00	0%	0.91	100%	
P	United Cerebral Palsy School	1822 Stillwell Avenue	United Cerebral	Baseball Fields, Landscaping	-	2.09	1.05	50%	1.05	50%	
Q	Van Nest Little League	Marconi St and Waters Pl	Van Nest Little League	Van Nest Little League	-	3.37	0.00	0%	3.37	100%	
R	Yeshiva University - Albert Einstein College	1300 Morris Park Ave	Yeshiva University	Benches, landscaping	-	1.46	1.46	100%	0.00	0%	
S	Yeshiva University - Jack and Pearl Resnick	1301 Morris Park Ave	Yeshiva University	Benches, landscaping	-	3.14	3.14	100%	0.00	0%	
T	Yeshiva University - Falk Rec Center	1915 Eastchester Road	Yeshiva University	Pool, basketball courts, weight room, locker rooms	M-Th: 6:30AM-10PM	0.51	0.00	0%	0.51	100%	
1/4-Mile Total						***60.94***	***44.63***	***73%***	***16.31***	***27%***	

Table 5-5: Qualitative Open Space Resources within the ¼-Mile and ½-Mile Open Space Study Areas (continued)

Map No.[1]	Name	Address	Owner/Agency[2]	Amenities	Hours	Park Acreage	Passive		Active		Condition
							Acres	%	Acres	%	
1/2-Mile Radius Qualitative Analysis Open Space Resources (Excluding 1/4-Mile)											
V	Bronx Park[4]	West of Bronx Park East	NYC DPR	Baseball Fields, Basketball Courts, Bicycling and Greenways, Bocce Courts, Fitness Equipment, Football Fields, Handball Courts, Hiking Trails, Kayak/Canoe Launch Sites, Playgrounds, Skate Parks, Soccer Fields, Spray Showers, Zoos and Aquariums	6 AM - 10 PM	54.20	27.10	50%	27.10	50%	
W	Hutchinson River	Hutchinson River	NYC DOT	Landscaping	-	2.79	2.79	100%	0.00	0%	
X	P.S. 47 Playground	Beach Ave and E	NYC DOE	Playground	-	0.47	0.09	20%	0.37	80%	
Y	P.S. 97 Playground	Mace Avenue and Fish Ave	NYC DOE	Playground	-	1.13	0.00	0%	1.13	100%	
1/2-Mile Total						***119.53***	***39.13***	**33%**	***80.40***	**67%**	

Notes:

[1] Refer to Figure 5-3a and Figure 5-3b, "Open Space Resources."

[2] NYC DPR = New York City Department of Parks and Recreation; NYC DOT= New York City Department of Transportation; NYC DOE = New York City Department of Education; PPMRD = Parkchester Preservation Management Recreation Department

[3] P.S. X012 Playground has been excluded from the total acreage in the existing condition as it is currently closed for construction. The park is expected to provide 0.69 acres of active open space in the 2033 future conditions.

[4] Though Bronx Park is outside of the ½-mile study area, a portion of the park is within a half-mile of the Affected Area. Bronx Park is excluded from the quantitative analysis, however the approximately 54.20-acre portion of the park located within a half-mile radius of the Affected Area is considered in the qualitative analysis

Sources: NYC Parks, 2023 Primary Land Us Tax Lot Output (PLUTO) data, site visits conducted in May 2023

Non-Residential (Quarter-Mile) Study Area

As shown in Table 5-4, "Quantitative Open Space Resources within the ¼-Mile and ½-Mile Open Space Study Areas," the non-residential study area contains a total of 61.75 acres of open space, of which 36.82 acres (approximately 60 percent) are used for passive recreation and approximately 24.92 acres (approximately 40 percent) are used for active recreation. As shown on Figure 5-3a and Figure 5-3b, "Open Space Resources," and listed in Table 5-4, "Quantitative Open Space Resources within the ¼-Mile and ½-Mile Open Space Study Areas," 15 publicly accessible open space and recreational resources are located within the non-residential study area. The largest of these resources is Pelham Parkway. Other significant open space resources within the ¼-mile radius (e.g., open spaces greater than 1.5 acres in area) include Bronx Unionport Parkchester Park, Loreto Playground, Noble Playground, Parkchester Oval Park, Taylor Playground, and the other open spaces associated with the Parkchester developments (excluding Bronx Unionport Parkchester Park and Parkchester Oval, which are each considered individually in the quantitative analysis).

Pelham Parkway is a linear open space located along the northern edge of the study area, bounded by Williamsbridge Road to the west and Stillwell Avenue to the east, and contains seating areas, landscaping, and paths for walking or biking. Noble Playground is bounded by the Cross Bronx Expressway and off-ramp, Bronx River Avenue, and Noble Avenue, and contains basketball courts, a baseball field, bathrooms, playgrounds, benches, and trees.

Three large playgrounds (Loreto Playground, Noble Playground, and Taylor Playground) serve the non-residential study area. They feature sports and play equipment, spray showers, and seating areas. Loreto Playground has an area of 2.18 acres and is located along Van Nest Avenue between Tomlinson and Haight Avenues. Noble Playground has an area of 3.21 acres and is located along Noble Avenue at the junction of the Bronx River Parkway and Cross Bronx Expressway. Taylor Playground has an area of 1.58 acres and is located along Guerlain Street between Taylor and Theriot Avenues.

There are several open spaces associated with the Parkchester developments, including Bronx Unionport Parkchester Park and Parkchester Oval Park, as well as other unnamed open spaces. The Parkchester open spaces within the non-residential study area are approximately located between Unionport Road, Castle Hill Avenue, and East Tremont Avenue. Bronx Unionport Parkchester Park has an area of approximately 2.16 acres, Parkchester Oval Park has an area of 2.05 acres, and the remaining unnamed open spaces have a total area of 3.64 acres. The Parkchester open spaces feature amenities including playgrounds, basketball and tennis courts, lawns, and benches. The Parkchester open spaces are open to the public.

The remainder of the open space resources within the non-residential (¼-mile) study area are less than two acres in size and primarily programmed with active open space uses, with numerous playgrounds, basketball courts, baseball fields, spray showers, and running tracks. Passively-programmed open spaces within the non-residential study area that are included in the quantitative assessment are programmed with a mixture of benches/seating areas, paths, trees, and landscaping.

Residential (Half-Mile) Study Area

The residential study area includes all open spaces in the non-residential study area as well as 12 additional resources totaling 9.07 acres (refer to Table 5-4, "Quantitative Open Space Resources within the ¼-Mile and ½-Mile Open Space Study Areas," Figure 5-3a, "Open Space Resources," and Figure 5-3b, "Open Space Resources"). As shown in Table 5-4, "Quantitative Open Space Resources within the ¼-Mile and ½-Mile Open Space Study Areas," the residential study area contains a total of approximately 70.82 acres of publicly accessible open space (including all open spaces listed in the non-residential study area). Of this total, approximately 40.04 acres (approximately 57 percent) are passive space and 30.78 acres (approximately 43 percent) are active space (see Table 5-4, "Quantitative Open Space Resources within the ¼-Mile and ½-Mile Open Space Study Areas").

There are two additional open space resources located outside the ¼-mile study area but within the ½-mile study area that are greater than 1.5 acres in size: Burns Playground and the remaining Parkchester open space not located within the ¼-mile study area, as discussed above. Burns Playground has an area of 1.62 acres and is bounded by Gunther Avenue, Mace Avenue, Lodovick Avenue and Pelham Gardens Middle School, and contains playgrounds, handball courts, spray showers, and bathrooms. The remaining Parkchester open spaces not included in the ¼-mile study area total 1.53 acres and are generally located between Metropolitan Avenue, Unionport Road, and Westchester Avenue. These open spaces feature seating areas, landscaping, and play equipment.

In addition to the passively programmed open spaces in the ¼-mile study area, noted above, there are four entirely passively programmed open space resources within the ½-mile study area: River Garden, Sitting Area, Rosedale Bus Stop, and St. Lawrence Triangle. The ½-mile study area features a variety of facilities for active recreation, including basketball courts, bocce courts, handball courts, playgrounds, spray showers, and baseball fields (refer to Table 5-4 "Quantitative Open Space Resources within the ¼-Mile and ½-Mile Open Space Study Areas").

Supplemental Impact Assessment Study Area Open Space

Morris Park Sub-District

Non-Residential (Quarter-Mile) Study Area

As shown in Figure 5-4, there are three open space resources located within the non-residential study area for the Morris Park sub-district: the 1.40-acre Owen F. Dolan Park, a 41.87-acre portion of Pelham Parkway, and the 1.28-acre Samuel H. Young Park. In total, there are 44.55 acres of open space in this study area, of which approximately 30.57 acres (69 percent) are passive and 13.98 acres (31 percent) are active.

Residential (Half-Mile) Study Area

There are three additional open spaces located in the half-mile residential study area for the Morris Park sub-district: the 2.18-acre Loreto Playground, the 1.62-acre Burns Playground, and The Pearly Gates, which has an area of 0.66 acres. These open spaces represent an additional 4.46 acres. In total, the

residential study area has 49.01 acres of open space, of which approximately 31.30 acres (64 percent) are passive and 17.71 acres (36 percent) are active.

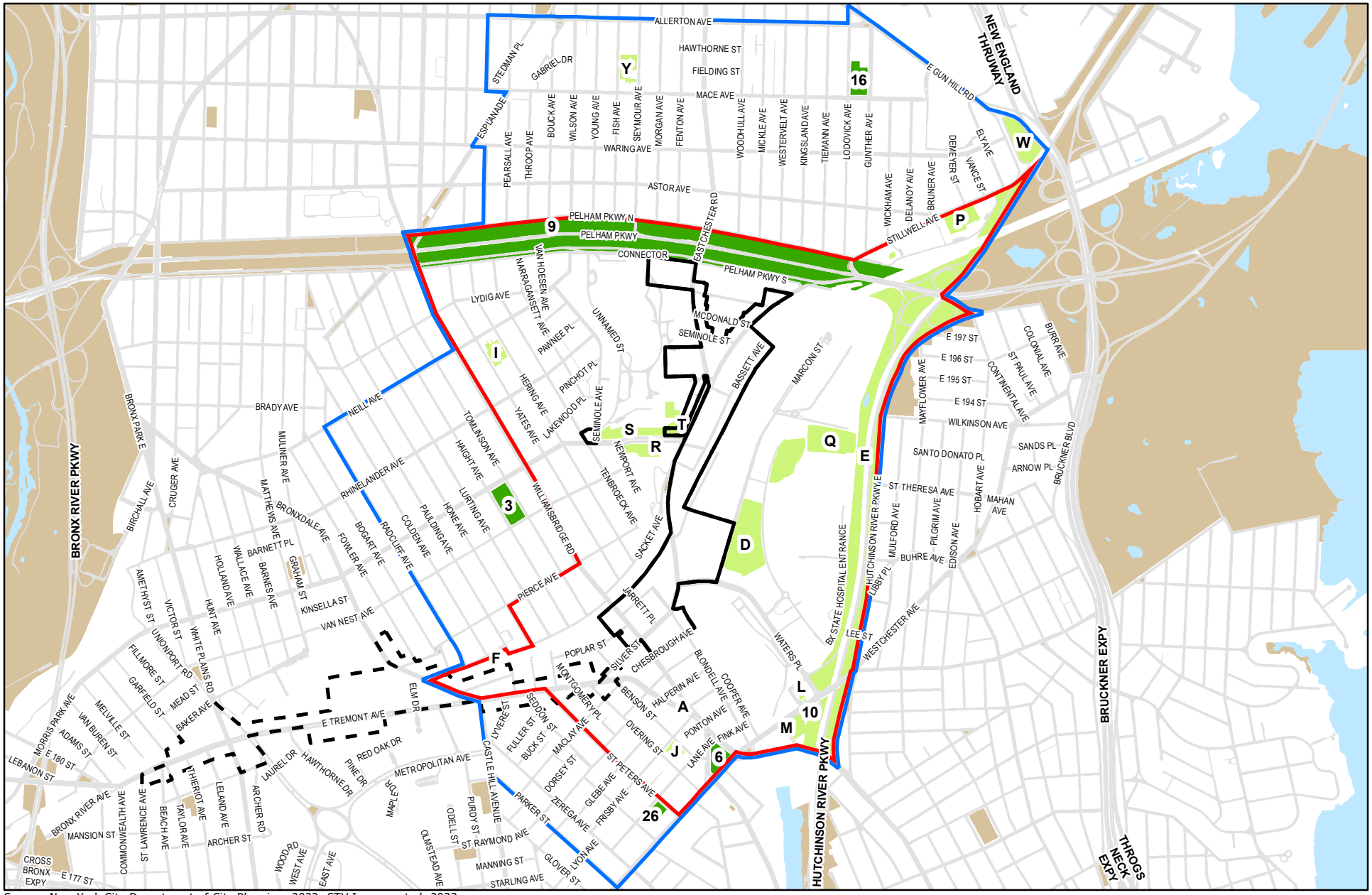
Parkchester Sub-District

Non-Residential (Quarter-Mile) Study Area

As shown in Figure 5-5, there are 12 open space resources located within the non-residential study area for the Parkchester sub-district. These open space resources mainly consist of small playgrounds and neighborhood parks as well as the publicly-accessible open space within the Parkchester development. In total, there are 16.42 acres of open space in this study area, of which approximately 7.40 acres (45 percent) are passive and 9.02 acres (55 percent) are active.

Residential (Half-Mile) Study Area

In addition to the 16.42 acres of open space contained in the quarter-mile study area, there are 12 more open space resources located in the half-mile study area for residential open space users. These open space resources mainly consist of small playgrounds, and represent an additional 9.63 acres. In total, the residential study area for the Parkchester sub-district has 26.05 acres of open space, of which approximately 10.89 acres (42 percent) are passive and 15.16 acres (58 percent) are active.



Source: New York City Department of City Planning, 2023; STV Incorporated, 2023

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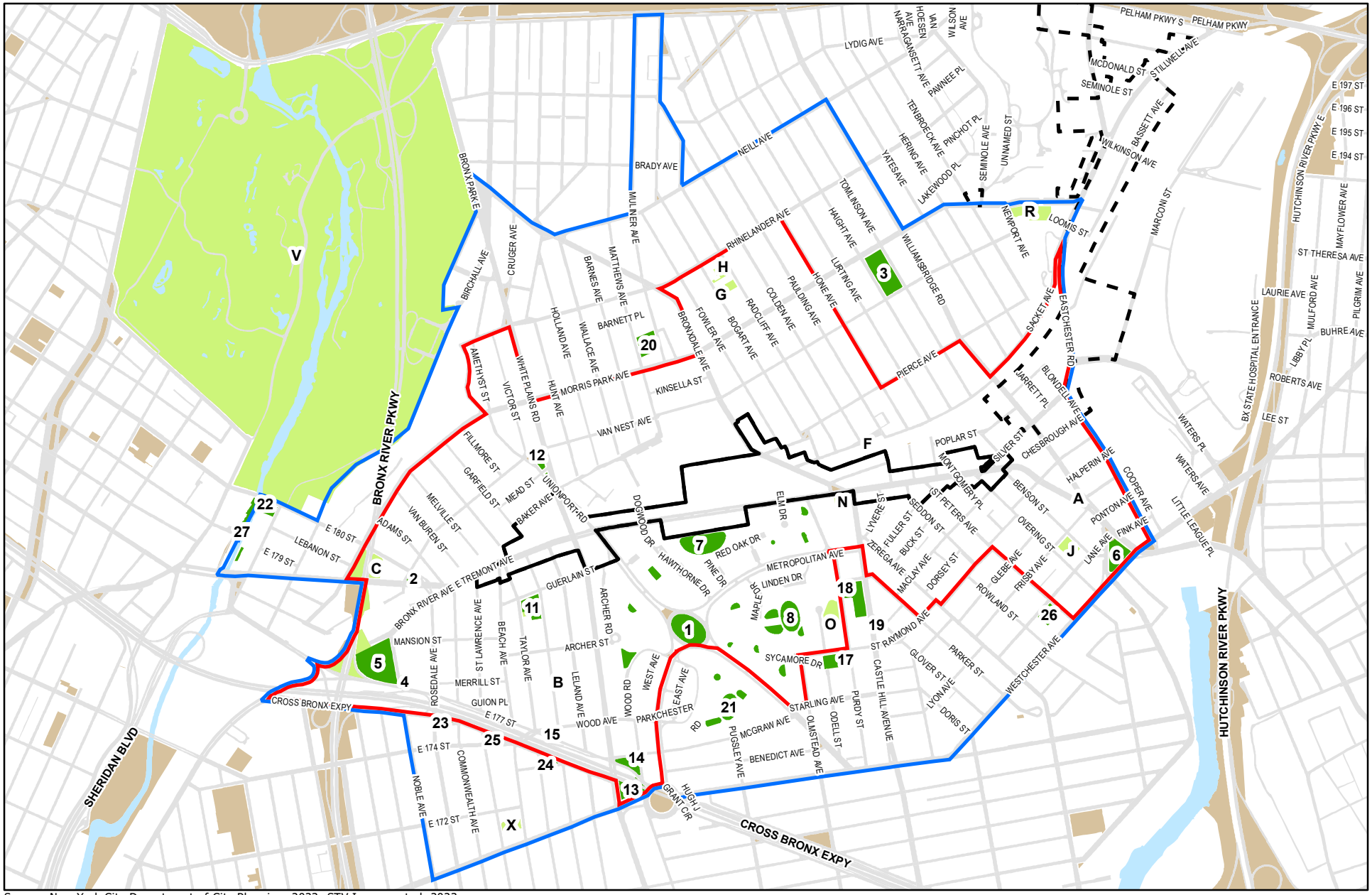
0 0.25 0.5 Mile

- Morris Park Sub-District
- Remainder of Affected Area (Parkchester Sub-District)
- Morris Park Non-Residential (Quarter-Mile) Study Area
- Morris Park Residential (Half-Mile) Study Area
- Open Space Not Included in Quantitative or Qualitative Analysis
- 1 Open Space Included in Quantitative Analysis (Refer to Table 5-4)
- A Open Space Included in Qualitative Analysis (Refer to Table 5-5)

Bronx Metro-North Station Study

Figure 5-4

MORRIS PARK SUB-DISTRICT



Source: New York City Department of City Planning, 2023; STV Incorporated, 2023

N

0 0.25 0.5 Mile

Bronx Metro-North Station Study

- Parkchester Sub-District
- Remainder of Affected Area (Morris Park Sub-District)
- Parkchester Non-Residential (Quarter-Mile) Study Area
- Parkchester Residential (Half-Mile) Study Area
- Open Space Not Included in Quantitative or Qualitative Analysis
- 1 Open Space Included in Quantitative Analysis (Refer to Table 5-4)
- A Open Space Included in Qualitative Analysis (Refer to Table 5-5)

Figure 5-5

PARKCHESTER SUB-DISTRICT

ASSESSMENT OF OPEN SPACE ADEQUACY

Non-Residential (Quarter-Mile) Study Area

As described above, the analysis of the non-residential study area focuses on passive open spaces that may be used by non-residents in the area. To assess the adequacy of open spaces in the area, the ratio of non-residents to acres of passive open space is compared to the City's planning goal of 0.15 acres of passive open space per 1,000 non-residents. In addition, the combined passive open space ratio for both non-residents and residents in the ¼-mile study area is compared with a weighted average ratio of 0.268 acres per 1,000 combined users ratios, established by creating a weighted average of the amount of open space necessary to meet the City planning goal of 0.50 acres of passive open space per 1,000 residents and 0.15 acres of passive open space per 1,000 non-residents.

Quantitative Assessment

The non-residential study area includes a total of 61.75 acres of open space, of which approximately 36.82 acres are passive space. A total of 69,035 residents live within this study area, and the study area also has a non-residential population of 35,314, which consists of both students and workers. The combined residential and non-residential population is 104,349.

Per *CEQR Technical Manual* methodology, the ¼-mile study area has a passive open space ratio of 1.04 acres per 1,000 non-residents, which exceeds the City's planning goal of 0.15 acres (refer to Table 5-6, "Adequacy of Open Space Resources – Existing Conditions"). As such, the daytime users in the non-residential study area are well-served by open space in existing conditions. The combined passive open space ratio is 0.35 acres per 1,000 residents and non-residents, which is lower than the recommended weighted average ratio of 0.38 acres per 1,000 combined users (refer to Table 5-6, "Adequacy of Open Space Resources – Existing Conditions").

Table 5-6: Adequacy of Open Space Resources – Existing Conditions

Total Study Area	Population	Open Space Acreage			Open Space Ratios per 1,000 Persons			*CEQR Technical Manual* Open Space Guidelines[1]		
		Total	Passive	Active	Total	Passive	Active	Total	Passive	Active
Worker (1/4-Mile) Study Area										
Non-Residents	35,314	61.75	36.82	24.92		1.04			0.15	
Combined Non-Residents and Residents	104,349					0.35			0.38	
Residential (1/2-Mile) Study Area										
Residents	116,858	70.82	40.04	30.78	0.61	0.34	0.26	2.5	0.5	2
Combined Non-Residents and Residents	161,005					0.25			0.40	

Notes:

[1] Target passive open space ratio for combined users is determined by creating a weighted average of the amount of open space necessary to meet the City planning goal of 0.50 acres of passive open space per 1,000 residents and 0.15 acres of passive open space per 1,000 non-residents.

Sources: U.S. Census Bureau, 2020 Decennial Census, LEHD Origin-Destination Employment Statistics (LODES) Version 8 for 2019 (accessed via OnTheMap)

Qualitative Assessment

As shown in Table 5-4, "Quantitative Open Space Resources within the ¼-Mile and ½-Mile Open Space Study Areas," all but four of the non-residential study area open spaces considered in the quantitative analysis are in good or excellent condition, and utilization levels were observed to be low to moderate at the majority of these facilities. In total, 73 percent (11 out of 15) of the quantitative open spaces in the ¼-mile study area are in good or excellent condition. The non-residential study area includes numerous passive open space features, such as benches, lawns, and pathways, which are suitable for use by the non-residential population.

As indicated in Table 5-5, "Qualitative Open Space Resources within the ¼-Mile and ½-Mile Open Space Study Areas," 20 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. These open space resources total 60.94 acres, of which 73 percent, or 44.63 acres are composed of passively programmed open space, with the other 27 percent, or 16.31 acres, composed of actively programmed open space. These resources consist of open space associated with schools, child care facilities, housing complexes, and medical facilities, and include soccer fields, baseball fields, playgrounds, pedestrian walkways, and one Greenstreet that includes seating. 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.

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 (Half-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 non-residents.

Quantitative Assessment

With a total of 70.82 acres of open space, of which approximately 40.04 acres are for passive use and approximately 30.78 acres are for active use, and a total residential population of 116,858, the residential study area has an overall open space ratio of 0.61 acres per 1,000 residents (see Table 5-6, "Adequacy of Open Space Resources – Existing Conditions"). This is less than the City's planning goal of 2.5 acres of combined active and passive open space per 1,000 residents. The study area's residential passive open space ratio (0.34) and active open space ratio (0.26) are below the *CEQR Technical Manual* guidance 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 total, passive, and active open space in the residential study area.

When non-residents who work or study in the residential study area are added to the population, the passive open space ratio is slightly lower. As described earlier, workers and students 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 161,005, the combined passive open space ratio in the residential study area is 0.25 acres per 1,000 users, which is below the weighted average guideline of 0.40 acres per 1,000 persons.

Qualitative Assessment

Although the residential study area contains a good mix of recreational facilities, with approximately 57 percent dedicated to passive uses and 43 percent dedicated to active uses, the open space ratios per 1,000 residents are below the planning goal of 2.5 acres of total open space, 0.5 acres of passive open space, and 2.0 acres of active open space 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 5-4, "Quantitative Open Space Resources within the ¼-Mile and ½-Mile Open Space Study Areas," the residential study area open spaces include a variety of actively programmed open spaces appropriate for the residential user groups, including numerous playgrounds and several neighborhood parks. As shown in Figure 5-3a and 5-3b, "Open Space Resources," the 598-acre Bronx Park, which was not included in the quantitative assessment, is located directly adjacent to the residential study area (with a 54.2-acre portion located within a half mile of the Affected Area) and is programmed with a diverse mix of recreational activities, including athletic facilities, hiking trails, eateries, the Bronx Zoo, and New York Botanical Garden. In addition, and as noted in Table 5-4, "Quantitative Open Space Resources within the ¼-Mile and ½-Mile Open Space Study Areas," most open space resources included in the quantitative analysis are in good or excellent condition and typically moderately utilized (i.e., typically appearing to have capacity to accommodate more users).

It should also be noted that a significant number of additional open space resources associated with schools, child care facilities, housing complexes, and medical facilities, which are not included in the quantitative assessment due to their limited hours or limited access, are located within the ½-mile study area. This includes several private open spaces associated with the Yeshiva University and Albert Einstein College of Medicine campuses and the United Cerebral Palsy School. As presented in Table 5-5, "Qualitative Open Space Resources within the ¼-Mile and ½-Mile Open Space Study Areas," this includes the open space resources within the ¼-mile study area not included in the quantitative analysis (as discussed above) as well as four additional open space resources outside the ¼-mile study area and within the ½-mile study area. There are a total of 119.53 acres of additional open space not included in the quantitative analysis within the ½-mile study area. Active open space resources include several playgrounds, while passive open space amenities include walking paths and seating areas. While these facilities are conservatively excluded from the quantitative analysis, it is likely that they are used by populations in the ½-mile study area.

In total, 63 percent of the quantitative open spaces in the ½-mile study area are in good or excellent condition. Furthermore, utilization of these spaces is mostly either low or moderate. 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.

Supplemental Impact Assessment Study Areas

Morris Park Sub-District

Non-Residential (Quarter-Mile) Study Area

The Morris Park sub-district's non-residential study area includes a total of 44.55 acres of open space, of which 30.57 acres are passive and 13.98 acres are active. There are 24,686 non-residents (consisting of workers and students) in the study area, along with 14,768 residents, for a total combined population of 39,454.

Based on *CEQR Technical Manual* methodology, the Morris Park sub-district's non-residential study area has a passive open space ratio of 1.24 acres per 1,000 workers, which is greater than that of the overall non-residential study area (refer to Table 5-6, "Adequacy of Open Space Resources – Existing Conditions") and is well above the City's planning goal of 0.15 acres. As such, non-residents in the quarter-mile study area for the Morris Park sub-district are well-served by open space resources under existing conditions. The combined passive open space ratio is 0.77 acres per 1,000 residents and workers, which is greater than the recommended weighted average ratio of 0.28 acres per 1,000 combined users (refer to Table 5-7, "Morris Park Sub-District: Adequacy of Open Space Resources – Existing Conditions").

Table 5-7: Morris Park Sub-District: Adequacy of Open Space Resources – Existing Conditions

Total Study Area	Population	Open Space Acreage			Open Space Ratios per 1,000 Persons			*CEQR Technical Manual* Open Space Guidelines[1]		
		Total	Passive	Active	Total	Passive	Active	Total	Passive	Active
Worker (1/4-Mile) Study Area										
Non-Residents	24,686	44.55	30.57	13.98		1.24			0.15	
Combined Non-Residents and Residents	39,454					0.77			0.28	
Residential (1/2-Mile) Study Area										
Residents	40,233	49.01	31.30	17.71	1.22	0.78	0.44	2.5	0.5	2
Combined Non-Residents and Residents	70,498					0.44			0.35	

Notes:

[1] Target passive open space ratio for combined users is determined by creating a weighted average of the amount of open space necessary to meet the City planning goal of 0.50 acres of passive open space per 1,000 residents and 0.15 acres of passive open space per 1,000 non-residents.

Sources: U.S. Census Bureau, 2020 Decennial Census, LEHD Origin-Destination Employment Statistics (LODES) Version 8 for 2019 (accessed via OnTheMap)

Residential (Half-Mile) Study Area

The residential study area for the Morris Park sub-district contains a total of 49.01 acres of open space, of which 31.30 acres are passive and 17.71 acres are active. There are 40,233 residents and 30,265 non-residents in the half-mile residential study area, for a total combined population of 70,498.

Based on *CEQR Technical Manual* methodology, the Morris Park sub-district's residential study area has total, passive, and active ratios of 1.22, 0.78, and 0.44 acres per 1,000 residents, respectively. The total and active ratios fall short of the City's planning goal of 2.5 acres of total open space and 2.0 acres of active open space per 1,000 residents, while the passive open space ratio exceeds the City's planning goal

of 0.5 acres per 1,000 residents. The passive open space ratio for the combined population of residents and non-residents is 0.44, which is greater than the recommended weighted average ratio of 0.35 acres per 1,000 combined users (refer to Table 5-7, "Morris Park Sub-District: Adequacy of Open Space Resources – Existing Conditions").

Parkchester Sub-District

Non-Residential (Quarter-Mile) Study Area

The Parkchester sub-district's non-residential study area includes a total of 16.42 acres of open space, of which 7.40 acres are passive and 9.02 acres are active. There are 13,367 non-residents (consisting of workers and students) in the study area, along with 59,247 residents, for a total combined population of 72,614.

Based on *CEQR Technical Manual* methodology, the Parkchester sub-district's non-residential study area has a passive open space ratio of 0.55 acres per 1,000 workers, which, while lower than that of the overall non-residential study area (refer to Table 5-6, "Adequacy of Open Space Resources – Existing Conditions") is well above the City's planning goal of 0.15 acres. As such, non-residents in the quarter-mile study area are well-served by open space resources under existing conditions. The combined passive open space ratio is 0.10 acres per 1,000 residents and workers, which does not meet the recommended weighted average ratio of 0.44 acres per 1,000 combined users (refer to Table 5-8, "Parkchester Sub-District: Adequacy of Open Space Resources – Existing Conditions").

Table 5-8: Parkchester Sub-District: Adequacy of Open Space Resources – Existing Conditions

Total Study Area	Population	Open Space Acreage			Open Space Ratios per 1,000 Persons			*CEQR Technical Manual* Open Space Guidelines[1]		
		Total	Passive	Active	Total	Passive	Active	Total	Passive	Active
Worker (1/4-Mile) Study Area										
Non-Residents	13,367	16.42	7.40	9.02		0.55			0.15	
Combined Non-Residents and Residents	72,614					0.10			0.44	
Residential (1/2-Mile) Study Area										
Residents	98,598	26.05	10.89	15.16	0.26	0.11	0.15	2.5	0.5	2
Combined Non-Residents and Residents	121,172					0.09			0.43	

Notes:

[1] Target passive open space ratio for combined users is determined by creating a weighted average of the amount of open space necessary to meet the City planning goal of 0.50 acres of passive open space per 1,000 residents and 0.15 acres of passive open space per 1,000 non-residents.

Sources: U.S. Census Bureau, 2020 Decennial Census, LEHD Origin-Destination Employment Statistics (LODES) Version 8 for 2019 (accessed via OnTheMap)

Residential (Half-Mile) Study Area

The residential study area for the Parkchester sub-district contains a total of 26.05 acres of open space, of which 10.89 acres are passive and 15.16 acres are active. There are 98,598 residents and 22,574 non-residents in the half-mile residential study area, for a total combined population of 121,172.

Based on *CEQR Technical Manual* methodology, the Parkchester sub-district's residential study area has total, passive, and active ratios of 0.26, 0.11, and 0.15 acres per 1,000 residents, respectively. The total, active, and passive ratios all fall short of the City's planning goal of 2.5, 2.0, and 0.5 acres of open space

per 1,000 residents, respectively. The passive open space ratio for the combined population of residents and non-residents is 0.09, which falls short of the recommended weighted average ratio of 0.43 acres per 1,000 combined users (refer to Table 5-8, "Parkchester Sub-District: Adequacy of Open Space Resources – Existing Conditions").

5.5 The Future Without the Proposed Actions (No-Action Condition)

STUDY AREA POPULATION

As discussed in Chapter 1, "Project Description" and Chapter 2, "Land Use, Zoning, and Public Policy," development is anticipated on some of the projected development sites in the 2033 future without the Proposed Actions, and there are several known and anticipated developments expected to occur in the ¼-mile and ½-mile study areas. In total, these combined No-Action developments are expected to introduce approximately 9,171 non-residents (including workers and students) and 3,312 residents to the ¼-mile study area, and a total of approximately 9,742 workers and 3,759 residents to the ½-mile study area. A list of anticipated No-Action developments in the ¼-mile and ½-mile study areas is presented below in Table 5-9, "Development Projects in the Future Without the Proposed Actions. Refer to Table 2-4 in Chapter 2, "Land Use, Zoning, and Public Policy," for a more detailed description of anticipated No-Action developments in the ¼-mile radius. As indicated in Table 5-9, "No-Action Open Space Study Areas Population", the anticipated No-Action developments are expected to increase the ¼-mile non-residential study area population to 44,485 non-residents and 116,832 combined non-residents and residents. The ½-mile residential study area population is expected to increase to 120,617 residents and 174,506 combined non-residents and residents.

Table 5-9: Development Projects in the Future Without the Proposed Action

Project Name/Address	Additional Residential Population Generated[1]	Additional Non-Residential Population Generated[2]
Projected Development Sites[3]	477	1,173
Affected Area and Non-Residential (1/4-Mile) Study Area[4]		
2438 Lyvere Street	113	2
2443 Poplar Street	300	8
1682 Stillwell Avenue	45	1
25 Westchester Square	0	66
1312 Blondell Ave	618	75
1776 Eastchester Rd	493	7
1701 Purdy St	599	58
2422-2426 Lyvere St	78	11
841A Morris Park Ave	22	4
1644-1646 Parker St	37	1
1550 White Plains Rd	110	2
1374 Blondell Ave	49	104
Bronx Psychiatric Center Land Use Project[5]	290	7,489
1601 Purdy St	0	167
1846 Guerlain St	23	3
1547 Leland Ave	28	0
840 Morris Park Ave	30	0
Non-Residential (1/4-Mile) Study Area Total:	**3,312**	**9,171**
Residential (1/2-Mile) Study Area		
2040 McGraw Avenue	68	1
2500 Fish Avenue	0	272
3250 Westchester Avenue	0	249
2316 Bruner Avenue	325	5
2039 Westchester Avenue	54	19
2932 Wilkinson Avenue	0	25
Residential (1/2-Mile) Study Area Subtotal (Excluding 1/4-Mile Study Area):	**447**	**571**
Residential (1/2-Mile) Study Area Total:	**3,759**	**9,742**

Notes:

[1] Based on average household sizes for Bronx CD 9 (2.82 persons per household), CD 10 (2.45 persons per household), and CD 11 (2.71 persons per household), per 2020 US Census

[2] Based on rates of 1 worker per 25 residential DUs, 3 workers per 1,000 gsf of generic commercial and retail uses, 1 worker per 2.67 hotel keys, 1 worker per 450 gsf of community facility use, and 1 worker per 1,000 gsf of generic industrial and warehouse use. Refer to Chapter 1, "Project Description" for a detailed explanation.

[3] Refer to Chapter 1, "Project Description," for a summary of anticipated No-Action development on the projected development sites.

[4] Refer to Table 2-4 in Chapter 2, "Land Use, Zoning, and Public Policy," for a more detailed list of anticipated No-Action developments in the ¼-mile radius.

[5] Additional residential and non-residential populations for the Bronx Psychiatric Center are based on information from Chapter 2, "Land Use, Zoning, and Public Policy."

Sources: STV Incorporated, 2023; New York YIMBY; New York City Department of Buildings

Table 5-10: No-Action Open Space Study Area Population

	Existing Population	Additional Population on Projected Development Sites[1]	Additional Population in Study Areas[2]	Total Population Introduced in No-Action Condition	2033 No-Action Population
Non-Residential (¼-Mile) Study Area					
Non-Residents	35,314	1,173	7,998	9,171	44,485
Combined Non-Residents & Residents	104,349	1,650	10,833	12,483	116,832
Residential (½-Mile) Study Area					
Residents	116,858	477	3,282	3,759	120,617
Combined Non-Residents & Residents	161,005	1,650	11,851	13,501	174,506

Notes:
[1] Additional population on the projected development sites anticipated in the No-Action condition is calculated based on residential and employee generation rates presented in Chapter 1, "Project Description."
[2] Refer to Table 2-4 in Chapter 2, "Land Use, Zoning, and Public Policy"
Sources: NYCDCP, 2023

OPEN SPACE RESOURCES

As noted in Table 5-5, "Qualitative Open Space Resources within the ¼-Mile and ½-Mile Open Space Study Areas," the P.S. X012 Playground, which was not considered in the quantitative open space analysis, is currently closed due to ongoing construction, and is anticipated to reopen in 2025. It is anticipated that the playground will be in use in the 2033 future conditions, and would continue to be accessible to students of P.S. X012 in the future without the Proposed Action, though it is not routinely accessible to the public. This would result in an increase of 0.69 acres of active recreational space within the ¼-mile study area, though this would not affect the quantitative analysis of open space resources.

In addition, NYC Parks has two reconstruction and renovation projects planned within the ½-mile residential study area. In Pelham Parkway, the planned construction of a new plaza and renovations to the existing open space are currently in the design phase, with completion anticipated in 2026. The estimated budget for the project is $5 to $10 million dollars. The project would involve the renovation of the Pelham Parkway open space between Boston Road and Stillwell Avenue, and would include landscaping restoration and the construction of new seating areas and trails. The Golden Age Center, which is an NYC Parks recreation center located in the Owen F. Dolen Park is undergoing a renovation involving the reconstruction of its doors and windows. This project is currently in the construction phase, and completion is anticipated in 2024. Both of these reconstruction and renovation projects are expected to be complete by the 2033 analysis year. Though neither project is expected to result in an increase in open space acreage, it is expected that these projects would improve the quality of study area open spaces in the 2033 future conditions.

ASSESSMENT OF OPEN SPACE ADEQUACY

Non-Residential (Quarter-Mile) Study Area

As noted above, it is anticipated that new development in the non-residential study area will result in an increase in the population in the future without the Proposed Actions. As a result of these anticipated No-Action changes, the ratio of passive open space per 1,000 non-residents would decrease to 0.83 (from 1.04 under existing conditions), but would continue to be well above the City's planning goal ratio of 0.15 acres (see Table 5-11, "Adequacy of Open Space Resources – No Action Condition"). The ratio for the combined population of residents and non-residents would decrease to 0.32 (from 0.35 under existing conditions), and would fall short of the calculated No-Action recommended weighted ratio of 0.37.

Table 5-11: Adequacy of Open Space Resources – No-Action Condition

	2033 No-Action Population	Open Space Acreage			Open Space Ratios per 1,000 Persons			*CEQR Technical Manual* Open Space Optimal Planning Goal[1]		
		Total	Passive	Active	Total	Passive	Active	Total	Passive	Active
Non-Residential (¼-Mile) Study Area										
Non-Residents	44,485	61.75	36.82	24.92		0.83			0.15	
Combined Non-Residents & Residents	116,832					0.32			0.37	
Residential (½-Mile) Study Area										
Residents	120,617	70.82	40.04	30.78	0.59	0.33	0.26	2.5	0.5	2
Combined Non-Residents & Residents	174,506					0.23			0.39	

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 non-residents.

Source: PHA, 2023.

Residential (Half-Mile) Study Area

Anticipated development in the residential study area in the 2033 future without the Proposed Actions is expected to result in an increase in population. As a result of anticipated No-Action changes within the residential study area, additional population would increase the demand on the area's open space resources (i.e., would reduce the residential open space ratios). The residential study area will continue to fall short of the City's planning goal for total, passive, and active space. As indicated in Table 5-11, "Adequacy of Open Space Resources – No-Action Condition," the No-Action total and passive open space ratios per 1,000 residents are expected to decrease to 0.59 and 0.33, respectively, from 0.61 and 0.34, respectively, under existing conditions. The No-Action active open space ratio is expected to remain at 0.26 acres per 1,000. The combined passive open space ratio in the ½-mile residential study area is also expected to decrease in the 2033 No-Action condition to 0.23 acres per 1,000 combined residents and non-residents, and would remain below the calculated recommended weighted ratio of 0.39.

Supplemental Impact Assessment Study Areas

Morris Park Sub-District

Non-Residential (Quarter-Mile) Study Area

In the non-residential study area for the Morris Park sub-district, it is anticipated that new development in the future without the Proposed Actions would result in increases in non-residential and residential populations. The No-Action populations take into account (1) population increases due to development on projected development sites within the Morris Park sub-district (projected development sites 20 through 60), (2) population increases due to development on projected development sites within the Affected Area, outside the Morris Park sub-district but within the applicable open space study area, and (3) population increases due to development on sites outside the Affected Area but within the applicable open space study area. As a result of these expected changes, the 2033 non-residential population within the quarter-mile study area for the Morris Park sub-district is expected to increase to 33,188, and the combined non-residential and residential population is expected to increase to 49,751. Changes in the sub-district's non-residential open space ratios are anticipated (refer to Table 5-12, "Morris Park Sub-District: Adequacy of Open Space Resources – No-Action Condition"). Passive open space per 1,000 non-residents would decrease from 1.24 acres in the existing conditions to 0.92 acres, which would continue to exceed City guidance of 0.15 acres per 1,000 non-residents. The combined passive open space ratio per 1,000 residents and non-residents would decrease to 0.61, which is still above the recommended weighted average ratio of 0.27.

Residential (Half-Mile) Study Area

In the residential study area for the Morris Park sub-district, it is also anticipated that new development would increase the residential and non-residential populations. As discussed above, the No-Action population for the half-mile study area includes anticipated new population on development sites within the Morris Park sub-district, other development sites in the Affected Area within the study areas, and sites within the study areas outside the affected area. As a result of these expected changes, the 2033 residential population within the half-mile study area for the Morris Park sub-district is expected to increase to 42,796, and the combined non-residential and residential population is expected to increase to 81,970. The total, passive, and active open space ratios would decrease to 1.15, 0.73, and 0.41 acres per 1,000 residents, respectively, from 1.22, 0.78, and 0.44 acres per 1,000 residents, respectively. The total and active ratios would continue to fall short of the City targets, while the passive ratio would continue to exceed the City goal of 0.5 acres of passive open space per 1,000 residents. The combined passive open space ratio for residents and non-residents, at 0.38 acres per 1,000 combined population, would continue to exceed the recommended weighted average of 0.33.

Table 5-12: Morris Park Sub-District: Adequacy of Open Space Resources – No-Action Condition

	2033 No-Action Population	Open Space Acreage			Open Space Ratios per 1,000 Persons			*CEQR Technical Manual* Open Space Optimal Planning Goal[1]		
		Total	Passive	Active	Total	Passive	Active	Total	Passive	Active
Non-Residential (¼-Mile) Study Area										
Non-Residents	33,188	44.55	30.57	13.98		0.92			0.15	
Combined Non-Residents & Residents	49,751					0.61			0.27	
Residential (½-Mile) Study Area										
Residents	42,796	49.01	31.30	17.71	1.15	0.73	0.41	2.5	0.5	2
Combined Non-Residents & Residents	81,970					0.38			0.33	

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 planning goal of 0.50 acres of passive open space per 1,000 residents and 0.15 acres of passive open space per 1,000 non-residents.

Source: PHA, 2023.

Parkchester Sub-District

Non-Residential (Quarter-Mile) Study Area

In the non-residential study area for the Parkchester sub-district, it is anticipated that new development in the future without the Proposed Actions would result in increases in non-residential and residential populations. The No-Action populations take into account (1) population increases due to development on projected development sites within the Parkchester sub-district (projected development sites 1 through 19), (2) population increases due to development on projected development sites within the Affected Area, outside the Parkchester sub-district but within the applicable open space study area, and (3) population increases due to development on sites outside the Affected Area but within the applicable open space study area. As a result of these expected changes, the 2033 non-residential population within the quarter-mile study area for the Parkchester sub-district is expected to increase to 13,751, and the combined non-residential and residential population is expected to increase to 74,763. Changes in the sub-district's non-residential open space ratios are anticipated (refer to Table 5-13, "Parkchester Sub-District: Adequacy of Open Space Resources – No-Action Condition"). Passive open space per 1,000 non-residents would decrease from 0.55 acres in the existing conditions to 0.54 acres, which would continue to exceed City guidance of 0.15 acres per 1,000 non-residents. The combined passive open space ratio per 1,000 residents and non-residents would remain at 0.10, which is still below the recommended weighted average ratio of 0.44.

Residential (Half-Mile) Study Area

In the residential study area for the Parkchester sub-district, it is also anticipated that new development would increase the residential and non-residential populations. However, these changes would be relatively minimal, resulting in changes to open space ratios on the order of thousandths of an acre per 1,000 residents. As discussed above, the No-Action population for the half-mile study area includes anticipated new population on development sites within the Parkchester sub-district, other development sites in the Affected Area within the study areas, and sites within the study areas outside the affected area. As a result of these expected changes, the 2033 residential population within the half-mile study area for the Parkchester sub-district is expected to increase to 100,415, and the combined non-residential

and residential population is expected to increase to 123,649. The total, passive, and active open space ratios would remain at 0.26, 0.11, and 0.15 acres per 1,000 residents, respectively, same as under existing conditions. The open space ratios would all continue to fall short of the applicable City goals. The combined passive open space ratio for residents and non-residents, would remain unchanged at 0.09 acres per 1,000 combined population, and would continue to fall short of the recommended weighted average of 0.43.

Table 5-13: Parkchester Sub-District: Adequacy of Open Space Resources – No-Action Condition

	2033 No-Action Population	Open Space Acreage			Open Space Ratios per 1,000 Persons			*CEQR Technical Manual* Open Space Optimal Planning Goal[1]		
		Total	Passive	Active	Total	Passive	Active	Total	Passive	Active
Non-Residential (¼-Mile) Study Area										
Non-Residents	13,751	16.42	7.40	9.02		0.54			0.15	
Combined Non-Residents & Residents	74,763					0.10			0.44	
Residential (½-Mile) Study Area										
Residents	100,415	26.05	10.89	15.16	0.26	0.11	0.15	2.5	0.5	2
Combined Non-Residents & Residents	123,649					0.09			0.43	

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 planning goal of 0.50 acres of passive open space per 1,000 residents and 0.15 acres of passive open space per 1,000 non-residents.

Source: PHA, 2023.

5.6 The Future With the Proposed Actions (With-Action Condition)

As described in detail in Chapter 1, "Project Description," it is anticipated that in the 2033 future with the Proposed Actions, development on the projected development sites would result in the incremental addition (compared to the No-Action condition) of 7,474 DUs, including approximately 1,902 to 2,282 affordable DUs, 1,231,972 gross square feet (gsf) of commercial uses, 1,290,628 gsf of community facility uses, and a reduction of 405,096 gsf of industrial uses. In total, With-Action development under the Reasonable Worst-Case Development Scenario (RWCDS) would introduce an estimated 20,349 new residents and 10,050 new workers, compared to No-Action conditions.

DIRECT EFFECTS

The Proposed Actions would not result in the physical loss of existing public open space resources, and would not result in any significant adverse operational air quality, noise, or other environmental impacts that would affect the usefulness of any study area open space. The Proposed Actions would result in new significant adverse shadow impacts on a portion of Pelham Parkway, the Greenstreet at Sacket Avenue, and a small portion of the larger 129-acre Parkchester Apartment Complex. As discussed in Chapter 6, "Shadows," the Sacket Avenue Greenstreet would not receive adequate sunlight during the growing

season, potentially resulting in a significant adverse shadow impact on the Greenstreet's vegetation. However, per *2021 CEQR Technical Manual* guidance, "landscaped open areas designed to increase the aesthetic value of public spaces, which do not provide amenities for public recreation" are not considered to be publicly-accessible open space resources, and specifically cites Greenstreets as one of the examples of such spaces as they generally do not include recreational features such as benches or seating areas. The Greenstreet at Sacket Avenue does not contain any benches, seating areas, or recreational amenities. Therefore, while this would represent a significant adverse shadow impact, the shading of the Sacket Avenue Greenstreet caused by the Proposed Actions would not result in a significant adverse direct impact to open space.

As discussed in Chapter 6, "Shadows," though incremental shadow coverage on Pelham Parkway would occur for extended durations during the March 21/September 21, May 6/August 6, and December 21 analysis days, it would continue to receive some direct sunlight on all representative analysis days. Across the three analysis days where Pelham Parkway would receive incremental shadow, the incremental shadow would only be cast on an approximately five-acre portion of the larger 108.91-acre open space resource (of which approximately 42 acres fall within the open space study areas). Incremental shadow would not alter the public's use and enjoyment of this resource, and therefore the disclosed shadow impact would not be considered a direct open space impact on Pelham Parkway.

As also discussed in Chapter 6, "Shadows," the Parkchester Apartment Complex's 129-acre area would continue to receive direct sunlight on all representative analysis days, although vegetation in the yard between 1596-1598 Unionport Road and the street and the pedestrian path between Projected Development Site 8 and 1950-1970 E Tremont Avenue may no longer receive adequate sunlight during the growing season. As such, vegetation in this area could be significantly impacted and this small portion of the larger 129-acre area may no longer be able to support a variety of plant life, as compared to the No-Action condition. However, although this significant adverse shadow impact could reduce the utility of these areas, the open spaces within the Parkchester Apartment Complex would continue to be available and provide other passive or active open space uses and therefore there would not be a direct significant adverse open space impact.

INDIRECT EFFECTS

Study Area Population

In total, the RWCDS With-Action development would introduce an estimated 20,349 new residents and 10,050 new workers over the No-Action condition. As indicated in Table 5-14, "With-Action Open Space Study Area Population", this additional population is expected to increase the non-residential study area's non-resident population to 54,535 and the combined non-residential and residential population to 147,231. The ½-mile residential study area's residential population is expected to increase to 140,966,

and the ½-mile residential study area's combined non-residential and residential population is expected to increase to 204,905.

Table 5-14: With-Action Open Space Study Area Population

	2033 No-Action Population[1]	Additional Population on Projected Development Sites	2033 With-Action Population
Non-Residential (¼-Mile) Study Area			
Non-Residents	44,485	10,050	54,535
Combined Non-Residents & Residents	116,832	30,399	147,231
Residential (½-Mile) Study Area			
Residents	120,617	20,349	140,966
Combined Non-Residents & Residents	174,506	30,399	204,905

Notes:
[1] Refer to Table 5-10, "No-Action Open Space Study Area Population."
Source: PHA, 2023.

Open Space Resources

No changes are currently proposed to the study area open spaces.[4] As such, the ¼-mile study area would continue to be served by 61.75 acres of open space (including 36.82 acres of passive open space and 24.92 acres of active open space), and the ½-mile study area would continue to be served by approximately 70.82 acres of open space (including approximately 40.04 acres of passive open space and 30.78 acres of active open space) in the 2033 With-Action condition.

Assessment of Open Space Adequacy

Non-Residential (Quarter-Mile) Study Area

Quantitative Assessment

As presented in Table 5-15, "Adequacy of Open Space Resources – With-Action Condition," in the future with the Proposed Actions, though the ratio of passive open space per 1,000 non-residents would decrease to 0.68 (from 0.83 in the No-Action condition), it would continue to be above the City's planning goal ratio of 0.15 acres. The passive open space ratio for the combined population of residents and non-residents would decrease to 0.25 (from 0.32 under No-Action conditions), and would fall short of the With-Action recommended weighted ratio of 0.37

[4] As part of the Bronx Metro North Station Study, concurrent land use actions are being sought to map public pedestrian plazas to facilitate access to the planned Morris Park and Parkchester Metro-North stations. Though it is possible that these areas could meet the *CEQR* criteria to be considered publicly-accessible open space resources, they are excluded from the quantitative analysis for conservative analysis purposes.

Table 5-15: Adequacy of Open Space Resources – With-Action Condition

	2033 With-Action Population	Open Space Acreage			Open Space Ratios per 1,000 Persons			*CEQR Technical Manual* Open Space Optimal Planning Goal[1]		
		Total	Passive	Active	Total	Passive	Active	Total	Passive	Active
Non-Residential (¼-Mile) Study Area										
Non-Residents	54,535	61.75	36.82	24.92		0.68			0.15	
Combined Non-Residents & Residents	147,231					0.25			0.37	
Residential (½-Mile) Study Area										
Residents	140,966	70.82	40.04	30.78	0.50	0.28	0.22	2.5	0.5	2
Combined Non-Residents & Residents	204,905					0.20			0.39	

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 planning goal of 0.50 acres of passive open space per 1,000 residents and 0.15 acres of passive open space per 1,000 non-residents.

Source: PHA, 2023.

Qualitative Assessment

In the future with the Proposed Actions, the passive open space ratio for non-residents would remain above the City's planning goal ratio of 0.15 acres per 1,000 non-residents, but the passive open space ratio for the combined population of residents and non-residents would fall below the weighted average ratio of 0.37. The non-residential study area populations would likely be able to make use of additional open space resources not considered in the quantitative analysis. Also, the recommended ratio for combined open space users in the quarter-mile study area is conservative, and does not reflect the fact that residential users can also utilize open spaces within a larger, half-mile radius. Moreover, a majority of the non-residential study area open spaces are in good to excellent condition and use levels are characterized by low to moderate utilization.

Lastly, the quantitative analysis is conservative as it assumes that residents and daytime users are separate populations, whereas it is possible that some of the residents live near their workplace or work from home, resulting in some double-counting of the daily user population in the non-residential study area.

Residential (Half-Mile) Study Area

Quantitative Assessment

Under the With-Action conditions, the open space ratios in the residential study area would decrease compared to the No-Action conditions. The total residential open space ratio would decrease from 0.59 in the No-Action conditions to 0.50 the passive open space ratio would decrease from 0.33 to 0.28, and the active open space ratio would decrease from 0.26 to 0.22. The total, passive, and active open space ratios in the future with the Proposed Actions would continue to fall below the City's target ratios of 2.50, 0.50, and 2.00 acres per 1,000 residents, respectively. The passive open space ratio for the combined residential and non-residential population would decrease from 0.23 under the No-Action condition to

0.20 acres per 1,000 users, and would not meet the calculated guidance ratio of 0.39, as under the No-Action condition.

Qualitative Assessment

The residential study area would continue to have open space ratios below what is specified by the City's planning goals. However, this deficiency would be ameliorated by several factors. The residential study area borders on Bronx Park, and as discussed above, it is expected that residents would be likely to utilize the 598-acre regional park for active and passive recreation. As noted above, a portion of the park measuring approximately 54.2 acres is located within a half-mile radius of the Affected Area, and would be within walking distance for a portion of the residents and other users within the study area. Bronx Park is programmed with a diverse mix of recreational activities, including athletic facilities, hiking trails, eateries, the Bronx Zoo, and New York Botanical Garden. Pelham Bay Park is also located approximately 200 feet to the east of the half-mile study area boundary. The 2,772-acre regional park is the City's largest, and features numerous amenities for active and passive recreation including athletic fields, hiking and horseback riding trails, historic attractions, and beaches. Though outside the residential study area, Pelham Bay Park would likely be utilized by study area residents due to its proximity, size, and range of amenities, potentially alleviating some of the open space deficiency within the residential study area. Combined, Bronx Park and Pelham Bay Park represent 3,370 acres of open space just beyond the boundaries of the residential study area that would be accessible to study area residents.

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

Supplemental Impact Assessment Study Areas

Morris Park Sub-District

Non-Residential (Quarter-Mile) Study Area

In the future with the Proposed Actions, worker and residential populations would be introduced to the quarter-mile study area for Morris Park from anticipated development on projected development sites within the Morris Park sub-district as well as other projected development sites in the Affected Area, outside the Morris Park sub-district, but within the applicable open space study area. A total of 9,300 non-residents and 9,500 residents would be added over the No-Action condition, resulting in a non-residential population of 42,387 and a combined population of 67,266. In the future with the Proposed Actions, as a result of these population changes, the Morris Park sub-district's ratio of passive open space per 1,000 workers would decrease to 0.72 (from 0.92 under No-Action conditions), but it would continue to be well above the City's planning goal ratio of 0.15 acres. The passive open space ratio for the combined population of residents and workers in the Morris Park sub-district would decrease to 0.45 (from 0.61 under No-Action conditions) and would exceed the calculated With-Action recommended weighted ratio of 0.28 as under No-Action conditions. Daytime users of passive open space in the non-residential study area would likely also make use of additional open space resources not considered in the quantitative analysis, including the approximately 4.60 acres of passive open space located on the campuses of Yeshiva University and the Albert Einstein College of Medicine. As noted above, the quantitative analysis is

conservative as it assumes that residents and daytime users are separate populations, whereas it is possible that some of the residents live near their workplace, resulting in some double-counting of the daily user population in the residential study area.

Residential (Half-Mile) Study Area

In the future with the Proposed Actions, worker and residential populations would be introduced to the half-mile study area for Morris Park from anticipated development on projected development sites within the Morris Park sub-district as well as other projected development sites in the Affected Area, outside the Morris Park sub-district, but within the applicable open space study area. A total of 9,557 residents and 9,233 non-residents would be added over the No-Action condition, resulting in a residential population of 51,112 and a combined population of 99,485. As a result of these population changes, in the future with the Proposed Actions, the residential study area for the Morris Park sub-district would exhibit total, passive, and active open space ratios of 0.96, 0.61, and 0.35 acres per 1,000 residents, respectively, decreasing from No-Action ratios of 1.15, 0.73, and 0.41, respectively. The total and active ratios would remain below the applicable City targets, while the passive ratio would continue to exceed the City goal of 0.5 acres per 1,000 residents. The passive open space ratio for the combined residential and non-residential population would decrease from 0.38 under the No-Action condition to 0.31 acres per 1,000 users, and would not meet the calculated guidance ratio of 0.33. The quantitative deficiency in total and active open space could be ameliorated by several factors, including the presence of additional resources not included in the quantitative analysis, including the Hutchinson River Parkway, which has trails and landscaping. The 2,772-acre Pelham Bay Park is located near the boundary of the half-mile study area, and could reasonably be expected to attract users from within the residential study area for Morris Park.

Table 5-16: Morris Park Sub-District: Adequacy of Open Space Resources – With-Action Condition

	2033 With-Action Population	Open Space Acreage			Open Space Ratios per 1,000 Persons			*CEQR Technical Manual* Open Space Optimal Planning Goal[1]		
		Total	Passive	Active	Total	Passive	Active	Total	Passive	Active
Non-Residential (¼-Mile) Study Area										
Non-Residents	42,387	44.55	30.57	13.98		0.72			0.15	
Combined Non-Residents & Residents	67,266					0.45			0.28	
Residential (½-Mile) Study Area										
Residents	51,112	49.01	31.30	17.71	0.96	0.61	0.35	2.5	0.5	2
Combined Non-Residents & Residents	99,485					0.31			0.33	

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 planning goal of 0.50 acres of passive open space per 1,000 residents and 0.15 acres of passive open space per 1,000 non-residents.

Source: PHA, 2023.

Parkchester Sub-District

Non-Residential (Quarter-Mile) Study Area

In the future with the Proposed Actions, worker and residential populations would be introduced to the quarter-mile study area for Parkchester from anticipated development on projected development sites

within the Parkchester sub-district as well as other projected development sites in the Affected Area, outside the Parkchester sub-district, but within the applicable open space study area. A total of 2,125 non-residents and 12,655 residents would be added over the No-Action condition, resulting in a non-residential population of 15,876 and a combined population of 89,543. In the future with the Proposed Actions, as a result of these population changes, the Parkchester sub-district's ratio of passive open space per 1,000 workers would decrease to 0.47 (from 0.54 under No-Action conditions), but it would continue to be well above the City's planning goal ratio of 0.15 acres. The passive open space ratio for the combined population of residents and workers in the Parkchester sub-district would decrease to 0.08 (from 0.10 under No-Action conditions) and would fall short of the calculated With-Action recommended weighted ratio of 0.44 as under No-Action conditions. As noted above, the quantitative analysis is conservative as it assumes that residents and daytime users are separate populations, whereas it is possible that some of the residents live near their workplace, resulting in some double-counting of the daily user population in the residential study area.

Residential (Half-Mile) Study Area

In the future with the Proposed Actions, worker and residential populations would be introduced to the half-mile study area for Parkchester from anticipated development on projected development sites within the Parkchester sub-district as well as other projected development sites in the Affected Area, outside the Parkchester sub-district, but within the applicable open space study area. A total of 12,655 residents and 2,125 non-residents would be added over the No-Action condition, resulting in a residential population of 113,070 and a combined population of 138,429. As a result of these population changes, in the future with the Proposed Actions, the residential study area for the Parkchester sub-district would exhibit total, passive, and active open space ratios of 0.23, 0.10, and 0.13 acres per 1,000 residents, respectively, decreasing from No-Action ratios of 0.26, 0.11, and 0.15, respectively. The total, passive, and active ratios would remain below the applicable City targets. The passive open space ratio for the combined residential and non-residential population would decrease from 0.09 under the No-Action condition to 0.08 acres per 1,000 users, and would not meet the calculated guidance ratio of 0.44. The quantitative deficiency in total and active open space could be ameliorated by several factors, including the presence of additional resources not included in the quantitative analysis, including the Hutchinson River Parkway, which has trails and landscaping. The 2,772-acre Pelham Bay Park is located near the boundary of the half-mile study area, and could reasonably be expected to attract users from within the residential study area for Parkchester.

Table 5-17: Parkchester Sub-District: Adequacy of Open Space Resources – With-Action Condition

	2033 With-Action Population	Open Space Acreage[1]			Open Space Ratios per 1,000 Persons			*CEQR Technical Manual* Open Space Optimal Planning Goal		
		Total	Passive	Active	Total	Passive	Active	Total	Passive	Active
Non-Residential (¼-Mile) Study Area										
Non-Residents	15,876	16.42	7.40	9.02		0.47			0.15	
Combined Non-Residents & Residents	89,543					0.08			0.44	
Residential (½-Mile) Study Area										
Residents	113,070	26.05	10.89	15.16	0.23	0.10	0.13	2.5	0.5	2
Combined Non-Residents & Residents	138,429					0.08			0.44	

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 planning goal of 0.50 acres of passive open space per 1,000 residents and 0.15 acres of passive open space per 1,000 non-residents.

Source: PHA, 2023.

Determining Impact Significance

A significant adverse open space impact may occur if a proposed action would reduce the residential open space ratio by more than the general guidance for the open space percentage change discussed above and shown in Table 5-1 "Guidance for Percentage Change in Residential Open Space Ratio." In some cases, such as in areas that are within a WtPSA, a greater percentage of change (more than five percent) may be tolerated. According to the *CEQR Technical Manual,* projects that would reduce the open space ratio for a non-residential population would consider the project's effect on passive open space in the study area. The more the open space ratio falls below the optimal ratio of 0.15 acres of passive space per 1,000 population, the more likely the decrease would lead to a significant impact. These reductions may result in the overburdening of existing facilities or further exacerbating a deficiency in open space. Table 5-18, "Non-Residential and Residential Open Space Ratios Summary," displays the percentage change from the No-Action to the With-Action conditions for the non-residential and residential study areas.

Table 5-18: Non-Residential and Residential Open Space Ratios Summary

Ratio	CEQR Technical Manual Open Space Optimal Planning Goal (acres per 1,000)	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 – Non-Residents	0.15	1.04	0.83	0.68	-18.4%
Residential (½-Mile) Study Area					
Total – Residents	2.5	0.61	0.59	0.50	-14.4%
Passive – Residents	0.5	0.34	0.33	0.28	-14.4%
Active - Residents	2	0.26	0.26	0.22	-14.4%

Source: PHA, 2023.

Non-Residential (Quarter-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 (18.4 percent), it would remain well above the City's planning goal ratio of 0.15 acres per 1,000 non-residents, at 0.68 acres per 1,000 non-residents (refer to Table 5-18, "Non-Residential and Residential Open Space Ratios Summary"). Therefore, non-residents 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 on open space in the non-residential study area as a result of the Proposed Actions.

Residential (Half-Mile) Study Area

With respect to the reduction in open space ratios in the residential study area, the residential total, passive, and active open space ratios would all decrease by 14.4 percent as compared to the No-Action condition. In the future with the Proposed Actions, the total, active, and passive open space ratios would all fall short of the City's planning goals for open space. The total open space ratio would be 0.50 acres per 1,000 residents, below the City planning goal of 2.50; the passive open space ratio would be 0.28 acres per 1,000 residents, below the City planning goal of 0.50; and the active open space ratio would be 0.22, below the City planning goal of 2.00.

Table 5-19: Percentage Change Guidance to Determine Possible Open Space Impact

Total Open Space Ratio Range	Active Open Space Ratio Range	Passive Open Space Ratio Range	Percentage Change in Open Space Ratio Signifying a Possible Adverse Open Space Impact
2.01 to 2.50* Or greater	1.61 to 2.0* Or greater	0.41 to 0.50* Or greater	5%
1.51 to 2.00	1.21 to 1.60	0.31 to 0.40	4%
1.01 to 1.50	0.81 to 1.20	0.21 to 0.30	3%
0.51 to 1.00	0.41 to 0.80	0.11 to 0.20	2%
0.50 or Less	0.01 to 0.40	0.01 to 0.10	1%

Notes:
*2.5 OSR is the planning goal in NYC, with optimal distribution goal of 2.0 Active OSR and 0.5 Passive OSR
Sources: NYCDCP, *2021 CEQR Technical Manual* Table 7-5

The decreases in total, active, and passive open space ratios caused by the Proposed Actions would exceed the applicable *CEQR* guidance, as presented in Table 5-19, "Percentage Change Guidance to Determine Possible Open Space Impact," and in Table 7-5 of the 2021 *CEQR Technical Manual.* Though the City's optimal open space ratios and percentage reductions, as shown in Table 5-19, "Percentage Change Guidance to Determine Possible Open Space Impact," do not constitute an absolute impact threshold, as the residential study area would continue to exhibit low open space ratios, and the Affected Area and study areas would continue to be within walk gaps 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. Potential mitigation measures to address this impact are discussed in Chapter 20, "Mitigation."

Supplemental Impact Assessment Study Areas

Morris Park Sub-District

Non-Residential (Quarter-Mile) Study Area

In the future with the Proposed Actions in the Morris Park sub-district, while the non-residential study area's passive open space ratio would decrease by more than five percent from No-Action conditions (a reduction of 21.7 percent), it would remain well above the City's planning goal ratio of 0.15 acres per 1,000 non-residents, at 0.72 acres per 1,000 non-residents (refer to Table 5-20, "Morris Park Sub-District: Non-Residential and Residential Open Space Ratios Summary"). Therefore, non-residents 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 on open space in the non-residential study area for the Morris Park sub-district as a result of the Proposed Actions.

Residential (Half-Mile) Study Area

In the residential study area for Morris Park, the residential total, passive, and active open space ratios would all decrease by 16.3 percent as compared to the No-Action condition. In the future with the Proposed Actions, the total, active, and passive open space ratios would all fall short of the City's planning goals for open space. The total open space ratio would be 0.96 acres per 1,000 residents, below the City planning goal of 2.50; the passive open space ratio would be 0.61 acres per 1,000 residents, below the City planning goal of 0.50; and the active open space ratio would be 0.35, below the City planning goal of 2.00. The decreases in total, active, and passive open space ratios in the Morris Park sub-district caused by the Proposed Actions would exceed the applicable *CEQR* planning goal, as presented in Table 5-19, "Percentage Change Guidance to Determine Possible Open Space Impact," and in Table 7-5 of the 2021 *CEQR Technical Manual.* Though the City's optimal open space ratios and percentage reductions, as shown in Table 5-19, "Percentage Change Guidance to Determine Possible Open Space Impact," do not constitute an absolute impact threshold, as the residential study area for Morris Park would continue to exhibit low open space ratios, and the sub-district and study areas would continue to be within walk gaps 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 Morris Park sub-district's residential study area.

Table 5-20: Morris Park Sub-District: Non-Residential and Residential Open Space Ratios Summary

Ratio	CEQR Technical Manual Open Space Optimal Planning Goal (acres per 1,000)	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 – Non-Residents	0.15	1.24	0.92	0.72	-21.7%
Residential (½-Mile) Study Area					
Total – Residents	2.5	1.22	1.15	0.96	-16.3%
Passive – Residents	0.5	0.78	0.73	0.61	-16.3%
Active - Residents	2	0.44	0.41	0.35	-16.3%

Source: PHA, 2023.

Parkchester Sub-District

Non-Residential (Quarter-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 (13.4 percent), it would remain well above the City's planning goal ratio of 0.15 acres per 1,000 non-residents, at 0.47 acres per 1,000 non-residents (refer to Table 5-21, "Parkchester Sub-District: Non-Residential and Residential Open Space Ratios Summary"). Therefore, non-residents 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 on open space in the non-residential study area for Parkchester as a result of the Proposed Actions.

Residential (Half-Mile) Study Area

In the residential study area for the Parkchester sub-district, the residential total, passive, and active open space ratios would all decrease by 11.2 percent as compared to the No-Action condition. In the future with the Proposed Actions, the total, active, and passive open space ratios would all fall short of the City's planning goals for open space. The total open space ratio would be 0.23 acres per 1,000 residents, below the City planning goal of 2.50; the passive open space ratio would be 0.10 acres per 1,000 residents, below the City planning goal of 0.50; and the active open space ratio would be 0.13, below the City planning goal of 2.00. The decreases in total, active, and passive open space ratios in the Parkchester sub-district caused by the Proposed Actions would exceed the applicable *CEQR* guidance, as presented in Table 5-19, "Percentage Change Guidance to Determine Possible Open Space Impact," and in Table 7-5 of the 2021 *CEQR Technical Manual.* Though the City's optimal open space ratios and percentage reductions, as shown in Table 5-19, "Percentage Change Guidance to Determine Possible Open Space Impact," do not constitute an absolute impact threshold, as the residential study area for Parkchester would continue to exhibit low open space ratios, and the sub-district and study areas would continue to be within walk gaps 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 Parkchester sub-district's residential study area.

Table 5-21: Parkchester Sub-District: Non-Residential and Residential Open Space Ratios Summary

Ratio	CEQR Technical Manual Open Space Optimal Planning Goal (acres per 1,000)	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 – Non-Residents	0.15	0.55	0.54	0.47	-13.4%
Residential (½-Mile) Study Area					
Total – Residents	2.5	0.26	0.26	0.23	-11.2%
Passive – Residents	0.5	0.11	0.11	0.10	-11.2%
Active - Residents	2	0.15	0.15	0.13	-11.2%

Source: PHA, 2023.