Chapter 5: Open Space

A. INTRODUCTION

The proposed East Site project would add to the inventory of open space in the study area by creating a new publicly accessible open space on the Triangle Site. The East Site project would result in an increase in residential population compared to conditions without the proposed projects (the Center for Comprehensive Care would generate no residents). Therefore, this chapter examines the proposed projects' potential impacts on open space resources in accordance with the guidelines of the 2010 *City Environmental Quality Review (CEQR) Technical Manual*. This chapter examines potential direct effects of the proposed projects on nearby publicly accessible open spaces (e.g., addition or reduction in open space, shadows, noise increases) as well as indirect effects created by changes in demand for and use of the area's open spaces. The analysis inventories conditions and use of open spaces within a half-mile radius of the project area and addresses impacts on these facilities both qualitatively and quantitatively. Together the East Site project and the Center for Comprehensive Care would not increase the number of workers beyond the CEQR threshold requiring analysis, and this analysis therefore focuses on potential effects on residential users of the area's open space resources.

PRINCIPAL CONCLUSIONS

DIRECT EFFECTS

The proposed projects would not remove or alter any existing publicly accessible open spaces, nor would it result in any significant adverse shadow, noise, or air quality impacts on any open spaces.

On the contrary, the proposed East Site project would increase the supply of publicly accessible open space in the study area by expanding and redesigning the area on the Triangle Site facing West 12th Street, and Seventh and Greenwich Avenues and making this approximately 0.35 acre privately owned open space accessible to the public.

INDIRECT EFFECTS

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

Table 5-1 provides a comparison of open space ratios in the future without and with the proposed projects (or "No Build and Build conditions"). For the residential population, the total open space ratio (including both active and passive open space) and the passive open space ratio would increase minimally—the new residential population from the proposed projects would be offset by the provision of the new publicly accessible open space in the project area.

Table 5-1
2015 Future With the Proposed Projects: Open Space Ratios Summary

Ratio[1]	City Guideline	Open Space Ratios			Percent Change Future Without to Future With the Proposed Projects
		Existing Conditions	Future Without the Proposed Projects	Future With the Proposed Projects	
Total/Residents	2.5	0.334	0.331	0.333	0.41
Passive/Residents	0.5	0.203	0.201	0.204	1.20
Active/Residents	2.0	0.131	0.130	0.129	-0.81

Notes: [1] Ratios in acres per 1,000 residents.

Due to the residential population that would be introduced by the proposed projects, the active open space ratio for residents would decrease by approximately 0.81 percent. This ratio would continue to fall short of City open space planning guidelines. However, the decrease in the active open space ratio would be approximately 0.001 acres per 1,000 residents and would not be considered a substantial change. It is recognized that the City guidelines are not feasible for many areas of the city, and they are not considered impact thresholds. In addition, some of the active open space needs of the study area population would be met by open spaces outside the study area, particularly Hudson River Park. Therefore, even though the active open space ratio would continue to fall below city guidelines and would decrease slightly with the proposed projects, the proposed projects would not result in a significant adverse indirect impact on open spaces in the study area.

While private open space and recreational facilities are not considered in the quantitative analysis, the new residential development would provide open space for use by the proposed East Site project's residents and are considered in the qualitative assessment. Although space programming is still in development, the East Site would include recreational amenity space for the residents and may include facilities such as a pool and exercise rooms. In addition, the East Site would also include landscaped courtyard space, yard areas for the townhouses, and terraces for some apartments. These amenities, while not accessible to the general public, would serve residents who might otherwise use open spaces outside the project area.

Overall, the proposed projects would not result in any significant adverse impacts on open space.

B. METHODOLOGY

DIRECT EFFECTS ANALYSIS

According to the *CEQR Technical Manual*, a proposed action would have a direct effect on an open space if it causes the physical loss of public open space because of encroachment onto the space or displacement of the space; changes the use of an open space so that it no longer serves the same user population; limits public access to an open space; or causes increased noise or air pollutant emissions, odors, or shadows that would affect its usefulness, whether on a permanent or temporary basis. This chapter uses information from Chapter 6, "Shadows," Chapter 15, "Air Quality," and Chapter 17, "Noise," to determine whether the proposed projects would directly affect any open spaces near the project area. A proposed project can also directly affect an open space by enhancing its design or increasing its accessibility to the public. The direct effects analysis is included in the "Probable Impacts of the Proposed Projects" portion of Section C, "Preliminary Assessment."

INDIRECT EFFECTS ANALYSIS

Following the methodology of the *CEQR Technical Manual*, indirect open space impacts may occur when a proposed action would add enough population, either residents or non-residents to noticeably diminish the ability of an area's open space to serve the existing or future population.

Typically, an assessment of indirect effects is conducted when a project would introduce 200 or more residents or 500 or more workers to an area; however, the thresholds for assessment are slightly different for areas of the city that have been identified as either underserved or well-served by open space. Because the project area is not located within an area that has been identified as either underserved or well-served, the 200 resident and 500 worker thresholds were applied in this analysis. Based on the conservative assumption that up to 450 units could be built, the proposed projects would introduce approximately 698 new residents to the project area. The proposed projects would also increase the number of workers in the project area, but the increase would be less than 500 employees.[1] Because the proposed projects would introduce more than 200 new residents, a preliminary analysis was conducted to assess the proposed projects' potential indirect effects on residential users of the area's open space resources. The purpose of a preliminary assessment is to clarify the degree to which an action would affect open space and the need for further analysis. If the preliminary assessment indicates the need for further analysis, a detailed analysis of open space should be performed.

Because the proposed projects would result in less than 500 additional employees compared to the future without the proposed projects, an analysis of potential impacts on non-residential users of open space is not warranted.

Using the methodology of the *CEQR Technical Manual*, the adequacy of open space in the study area is assessed quantitatively using a ratio of usable open space acreage to the study area population—the open space ratio. This quantitative measure is then used to assess the changes in the adequacy of open space resources in the future, both with and without the proposed projects. In addition, qualitative factors are considered in making an assessment of a proposed action's effects on open space resources.

STUDY AREA

The *CEQR Technical Manual* recommends establishing study area boundaries as the first step in an open space analysis. Residents use both passive and active open spaces and are assumed to travel up to ½-mile to reach neighborhood recreational spaces. Thus, for a project that would add substantial residential populations, there should be an analysis of the project's effects on active and passive open spaces located within ½-mile of the project area. Therefore, as recommended in the *CEQR Technical Manual*, a ½-mile residential study area is used in this analysis.

The study area for the proposed projects includes all census tracts that fall at least 50 percent within a ½-mile radius around the project area. **Figure 5-1** shows all census tracts included in the residential study area.

[1] The number of workers (193) represents the difference between workers with the proposed projects (approximately 498, including 391 staff per day in the O'Toole Building and 107 on the East Site) and the number of workers in the future without the proposed projects (305 health care workers in the O'Toole Building).



Project Area

Study Area Boundary (1/2-Mile Perimeter)

Census Tract Study Area Boundary

Census Tract Boundary

71 *Census Tract Number*

Figure 5-1

Census Tracts and Study Area

OPEN SPACE USER POPULATIONS

Existing Conditions

Census data were used to identify potential open space users within the study area. For this analysis, the open space user group is area residents. To determine the number of residents within the study area, data were compiled from the 2010 Census for the tracts in the study area.

The Future Without the Proposed Projects

As discussed in Chapter 2, "Land Use, Zoning, and Public Policy" a number of new developments are expected to be constructed by 2015 in the ½-mile study area. To estimate the population expected in the study areas in the future without the proposed projects, an average household size of 1.55 persons per household was applied to the number of new housing units expected in each area.[1]

Probable Impacts of the Proposed Projects

The population introduced by the proposed projects was estimated by multiplying the maximum number of units by an average household size of 1.55 persons per household.

INVENTORY OF OPEN SPACE RESOURCES

All publicly accessible open spaces and recreational facilities located within the study areas were inventoried. The inventory of open spaces was compiled based on field visits conducted in April 2009 and information from the New York City Department of Parks and Recreation (DPR).

The *CEQR Technical Manual* defines a publicly accessible open space as one "that is accessible to the public on a constant and regular basis or for designated daily periods." Open spaces that are not publicly accessible or available to a limited number of people are not included in the quantitative analysis.

The character and condition of the publicly accessible open spaces and recreational facilities within the study area were determined during field visits. Active and passive amenities were noted at each open space. Active facilities are intended for vigorous activities, such as jogging, field sports, and children's active play. Such facilities might include basketball and handball courts, jogging paths, ball fields, and playground equipment. Passive facilities encourage such activities as strolling, reading, sunbathing, and people watching. Passive open spaces are characterized by picnic areas, walking paths, or gardens. Certain areas, such as lawns or public esplanades, can serve as both active and passive open spaces.

In addition to the open spaces located within the study area, open spaces falling just outside the study area were considered qualitatively as these spaces provide additional resources to the study area population.

The publicly accessible open space to be built as part of the proposed East Site project is included in the open space inventory for the future with the proposed projects.

[1] Consistent with the socioeconomic conditions study area, this is the average household size for the area within approximately ¼-mile of the project site (including Census Tracts 63, 71, 73, 77, and 81).

ADEQUACY OF OPEN SPACE RESOURCES

Comparison to City Guidelines

The adequacy of open space in the study area was quantitatively assessed using a ratio of useable open space acreage to the study area population (the "open space ratio"). The open space ratio was compared to City open space planning guidelines. The following guidelines are used in this type of analysis:

- For non-residential populations, 0.15 acres of passive open space per 1,000 non-residents is typically considered adequate.
- For residential populations, two guidelines are used. The first is a citywide median open space ratio of 1.5 acres per 1,000 residents. In New York City, local open space ratios vary widely, and the median ratio at the Community District level is 1.5 acres of open space per 1,000 residents. The second is an open space planning goal established for the City of 2.5 acres per 1,000 residents—2.0 acres of active and 0.5 acres of passive open space per 1,000 residents—for large scale plans and proposals. However, these goals are often not feasible for many areas of the city, and they are not considered an impact threshold. Rather, they are used as benchmarks to represent how well an area is served by its open space resources.

Impact Assessment

Impacts are based on how a project would change the open space ratios in the study area. According to the *CEQR Technical Manual*, if a proposed project would reduce an open space ratio and consequently result in overburdening existing facilities, or if it would substantially exacerbate an existing deficiency in open space, it may result in a significant impact on open space resources. In general, if a study area's open space ratio falls below city guidelines, and a proposed action would result in a decrease in the ratio of more than five percent, it could be considered a substantial change and a detailed analysis is warranted. However, in areas that are extremely lacking in open space, a reduction as small as 1 percent may be considered significant, depending on the area of the City.

In addition to the quantitative factors cited above, the *CEQR Technical Manual* also recommends consideration of more 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 the project, and the comparison of projected open space ratios with established city guidelines. It is recognized that the open space ratios of the city guidelines described above are not feasible for many areas of the city, and they are not considered impact thresholds on their own. Rather, they are benchmarks that indicate how well an area is served by open space.

C. PRELIMINARY ASSESSMENT

A preliminary assessment of open space consists of calculating total population, tallying the open space acreage within the area, and comparing the open space ratios for existing conditions and the future without and with the proposed projects.

EXISTING CONDITIONS

STUDY AREA POPULATION

Based on the 2010 Census, the study area has a population of approximately 84,988 residents (see **Table 5-2**).

Table 5-2
Existing Residential Population

Census Tract	Population
52	3,741
54	3,955
59	5,581
61	5,101
63	6,265
65	6,690
67	5,645
71	5,620
73	6,699
75	4,165
77	6,146
79	4,598
81	7,359
83	3,477
87	4,626
89	5,320
Total Population	**84,988**

Sources: U.S. Census Bureau, 2010 Census.

STUDY AREA OPEN SPACE INVENTORY

There are 27 public open space and recreational resources located within the ½-mile study area (see **Figure 5-2**). These open spaces include publicly open spaces and privately owned spaces that are open to the public. Altogether, the open space resources in the study area total approximately 28 acres, 11.15 acres of active and 17.27 acres of passive open space (see **Table 5-3**). The study area open spaces include numerous small playgrounds and squares as well as larger parks such as Washington Square Park, Union Square Park, and a portion of Hudson River Park.



Project Area

Study Area Boundary (1/2-Mile Perimeter)

Study Area Boundary

Census Tract Boundary

71 *Census Tract Number*

1 *Study Area Open Space Resource*

Figure 5-2

Study Area Open Space Resources

Table 5-3
Study Area Open Space Inventory

Map No.	Name	Location	Owner	Description	Total Acres	Active	Passive	Condition and Utilization
1	Jackson Square	Greenwich Ave, Eighth Ave, Horatio St	DPR	Trees, benches	0.23	0	0.23	Good/Heavy
2	Corporal John A. Seravalli Playground	Hudson Bet Gansevoort & Horatio Sts	DPR	Trees, benches, basketball courts, swings, playground equipment, comfort station	1.14	0.91	0.23	Good/Moderate
3	The High Line	Gansevoort St to W. 20th St	DPR	Paths, landscaping, seating	1.66	0	1.66	Excellent/Heavy
4	756 Washington Street	Washington Street between Bethune and W. 12th Sts	High Line West Village	Trees, landscaping, seating	0.09	0	0.09	Good/Light
5	Westbeth Courtyard	Bank Street between Washington and West Sts	Westbeth	Trees, plantings, seating	0.21	0	0.21	Good/Light
6	Abingdon Square	Hudson St, Eighth Ave, W. 12th St	DPR	Trees, flowers, benches, paths	0.22	0	0.22	Good/Moderate
7	Bleecker Playground	Hudson, Bleecker & W. 11th Sts	DPR	Trees, planters, benches, play equipment, open play area, sprinklers, comfort station, seating, chess tables	0.45	0.36	0.09	Excellent/Heavy
8	Jefferson Market Gardens	W. 9th St, Ave of Americas & Greenwich Ave	DPR	Plantings, paths, benches	0.36	0	0.36	Excellent/Moderate
9	McCarthy Square	Seventh Ave, Charles St & Waverly Pl	DPR	Benches	0.04	0	0.04	Good/Moderate
10	Christopher Park	Christopher, Grove, W. 4th Sts	DPR	Trees, benches	0.15	0	0.15	Good/Heavy
11	West 4th Street Courts	Ave of Americas, W. 3th & W. 4th Sts	DPR	Basketball and handball courts; Golden Swan garden includes plantings, paths, and fountain	0.42	0.28	0.14	Good/Heavy
12	Minetta Playground	Minetta Lane, W 3rd St & Ave of Americas	DPR	Trees, benches, chess tables, play equipment, swings, slides	0.21	0.17	0.04	Good/Moderate
13	Minetta Green	S/E Corner Minetta Lane & Sixth Ave	DPR	Paths, plantings, fountain	0.06	0	0.06	Fair/Low
14	Minetta Triangle	N/E Corner Sixth Ave & Minetta Street	DPR	Walking path, benches, potted plants, garden	0.07	0	0.07	Excellent/Moderate
15	Father Demo Square	Ave of Americas, Bleecker & Carmine Sts	DPR	Trees, benches, fountain	0.07	0	0.07	Good/Moderate

Table 5-3 (cont'd)
Study Area Open Space Inventory

Map No.	Name	Location	Owner	Description	Total Acres	Active	Passive	Condition and Utilization
16	Winston Churchill Square & Downing Street Playground	Downing to Carmine Sts, Ave of Americas	DPR	Trees, benches, play equipment, swings, sprinkler	0.22	0.18	0.04	Excellent/Moderate
17	Little Red Square	Bleecker St & Ave of the Americas	DPR	Trees, benches	0.07	0	0.07	Good/Moderate
18	Dr. Gertrude B. Kelly Playground	W. 17th St, Eighth to Ninth Aves	DPR	Play equipment, basketball courts, handball courts, benches	0.53	0.42	0.11	Good/Heavy
19	Union Square Park	Broadway to Fourth Ave, E. 14th Street to E. 17th St	DPR	Benches, trees, lawn, dog run, chess tables, play equipment	3.59	0.9	2.69	Good/ Heavy
21	Carmine Street (Tony Dapolito) Recreation Center	Carmine & Leroy Sts, Seventh Ave	DPR	Pool, basketball court, fitness center	0.21	0.21	0	Good/Moderate
22	William F. Passannante Ball Field	W. Houston St, Ave of Americas, MacDougal St	DPR	Baseball diamond, basketball court, benches	0.61	0.55	0.06	Good/Moderate
23	James J. Walker Park	Hudson, Leroy, Clarkson Sts, Seventh Ave	DPR	Trees, benches, play equipment, swings, sprinkler, baseball/soccer field, handball, bocceball courts, pool	1.67	1.5	0.17	Excellent/Heavy
24	Washington Commons @ 99 Jane Street	Washington between Jane and Horatio Sts	Rockrose Dvlpmt Corp.	Trees, planting, seating, fountain	0.23	0	0.23	Excellent/Moderate
25	Clement Clarke Moore Park	W. 22nd St, Tenth Ave	DPR	Swings, play equipment, sprinkler, benches, picnic tables	0.49	0.39	0.1	Good/Heavy
26	Washington Square Park	Fifth Ave, Waverly Place, West 4th and MacDougal Sts	DPR	Trees, benches, chess tables, swings, play equipment, fountain	9.75	2.44	7.31	Good/Heavy
27	Hudson River Park and Route 9A walkway/bikeway	Along Hudson River west of West Street	HRPT	Esplanade, lawn areas, walkway/bikeway, Pier 51 playground	5.67	2.84	2.83	Excellent/Heavy
				Study Area Totals	**28.42**	**11.15**	**17.27**	

Note: See Figure 5-2.
Sources: AKRF field visits; DPR web site.

The largest open space in the study area is Washington Square Park. The park has a variety of amenities for active and passive users including benches, a children's playground, grassy areas, chess tables, trees, and dog runs. The most notable features of the park include the Washington Arch and a large fountain located in the center. Of this park's 9.75 acres, approximately 7.31 are considered passive recreational areas and 2.44 as active recreational areas. Washington Square Park has been recently renovated and it is in excellent condition.

Union Square Park's approximately three and a half acres of open space has been open to the public since 1839. It features grassy lawns, shaded walking paths, chess tables, play equipment, a dog run, and plaza space at the northern end of the park that is used for one of the city's most popular Green Markets. A capital project recently renovated this plaza space, restoring the pavilion, and redesigning a playground. Most of the park is used for passive recreation. It is in good condition and is heavily used.

Approximately 5.67 acres of Hudson River Park fall within the study area. This area includes passive open space amenities such as benches, lawn areas, and walking paths as well as active open space amenities including a biking/running path, and a children's playground at Pier 51. Hudson River Park is in excellent condition and is heavily used. Approximately half of this open space in this portion of Hudson River Park is considered to be for active use and half for passive use. While the portion of Hudson River Park within the study area is completed, other parts are under construction or in the planning stages. Once completed, the entire Hudson River Park will stretch five miles from Battery Place to West 59th Street and include 550 acres.

Another notable open space within the study area is the High Line. This elevated former freight railroad line, which still stands between Gansevoort and West 30th Streets, is being developed into a linear public park featuring a variety of landscapes. The first section of the park, comprising approximately 2.76 acres of passive open space, was opened in June 2009 and extends from Gansevoort Street to West 20th Street. Approximately 60 percent of this open space, or 1.33 acres, falls within the study area. The second section recently opened between West 20th Street and West 30th Street, but is located outside of the study area.

There are numerous small and moderately sized playgrounds scattered throughout the study area, particularly in the western and southern parts of the study area. The Corporal John A. Seravalli Playground, located a few blocks west of the project area on the block bounded by West 4th, Hudson, Gansevoort, and Horatio Streets, offers 1.14 acres of open space including basketball courts, swings, and play equipment as well as benches and a comfort station. Bleecker Playground, along Bleecker Street between Bank and West 11th Streets, includes play equipment, an open play area, sprinklers, seating, chess tables, and a comfort station. The Dr. Gertrude B. Kelly Playground, just west of Eighth Avenue between West 16th and West 17th Streets, offers play equipment, basketball courts, and handball courts. Clement Clarke Moore Park, at the northwestern edge of the study area, includes play equipment, sprinklers, and picnic tables.

The West 4th Street Courts, Minetta Playground, the William F. Passannante Ball Field, and the Downing Street Playground, all located along Sixth Avenue in the southern part of the study area, provide opportunities for active recreation, including basketball, handball, baseball, and playgrounds. Minetta Playground is currently undergoing renovations but is included in the analysis due to the short-term nature of the construction. The Carmine Street (Tony Dapolito) Recreation Center, located at Seventh Avenue and Carmine Street, is operated by DPR and includes an indoor pool, basketball courts, and a fitness center. The adjacent James J. Walker Park includes an outdoor pool, baseball/soccer fields, handball and bocceball courts, a sprinkler,

and play equipment. As shown in **Table 5-3**, most of the playgrounds in the study area are in good condition and have moderate to high levels of use.

The remainder of the public open spaces consists of passive recreational resources in the form of small parks, gardens, plazas, and squares in the southern and western portions of the study area. These include Jackson Square at Eighth and Greenwich Avenues, McCarthy Square at Seventh Avenue and Charles Street, and Christopher Park at West 4th and Christopher Streets, all of which feature landscaping and benches. Along Sixth Avenue, passive open spaces—including Minetta Green, Minetta Triangle, Father Demo Square, and Little Red Square—provide benches, landscaping, and fountains. The Jefferson Market Garden is a community garden on the grounds of the landmarked Jefferson Market Courthouse that features plantings, paths, and benches and is open to the public in the afternoons in the spring through the fall. At the western edge of the study area, there are public plazas at private developments including the Westbeth Artists Housing, 99 Jane Street, and 756 Washington Street.

ADEQUACY OF OPEN SPACES

With a total of 28.42 acres of open space (11.15 for active use and 17.27 for passive use) and a total residential population of 84,988, the residential study area has an overall open space ratio of 0.334 acres per 1,000 residents (see **Table 5-4**). This is less than the City's planning guideline of 2.5 acres of open space per 1,000 residents, and it falls short of the citywide community district median of 1.5 acres per 1,000 residents.

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

Residential Population	Open Space Acreage			Open Space Ratios per 1,000 People			City Open Space Guidelines		
	Total	Active	Passive	Total	Active	Passive	Total	Active	Passive
84,988	28.42	11.15	17.27	0.334	0.131	0.203	2.5	2.0	0.50

The study area's current residential passive open space ratio is 0.203 acres of passive open space per 1,000 residents, which is below the City's goal of 0.5 acres per 1,000 residents. The area's residential active open space ratio is 0.131 acres per 1,000 residents, which is below the City's planning guideline of 2.0 acres per 1,000 residents.

Qualitative Considerations

As described above, one of the major open spaces in the study area, Hudson River Park, extends far beyond the study area boundaries. Study area residents, particularly those seeking opportunities for active recreational activities such as biking and running, are likely to make use of a larger area of this park than the 5.67-acre portion that falls within the study area. In addition, the High Line continues outside the study area to the northwest, including the second section of the High Line, which recently opened between West 20th Street and West 30th Street. Neither of these is reflected in the quantitative analysis.

THE FUTURE WITHOUT THE PROPOSED PROJECTS

STUDY AREA POPULATION

In the future without the proposed projects, it is assumed that there will be health care uses in the former O'Toole Building and that the East Site would remain vacant with no significant worker or residential population.

Several planned developments within the study area will be completed by 2015. These developments will increase the study area population. New developments within the ½-mile study area are described in Chapter 2, "Land Use, Zoning, and Public Policy," and listed in Table 2-2.

The projects planned and under way within the open space study area include approximately 130 residential units and 608 dormitory beds. Assuming a household size of 1.55 persons for these new units and one person per new dormitory bed, it is anticipated that the population of the study area will increase by 816 residents for a total study area residential population of 85,804.

STUDY AREA OPEN SPACES

No study area open spaces are anticipated to be added or removed from the open space inventory. It is expected that Minetta Playground would be fully renovated in the future without the proposed projects.

ADEQUACY OF OPEN SPACES

In the future without the proposed projects, the additional population introduced to the study area by expected developments will result in a small increase in the demand on the area's open spaces. However, because the population increase would be small compared the total study area population, the open space ratios would be the same as in existing conditions and will remain below the city's guidelines. The overall open space ratio will be 0.331 acres per 1,000 residents, considerably lower than the city's planning guideline of 2.5 acres of total open space per 1,000 residents and the citywide median of 1.5 acres per 1,000 residents (see **Table 5-5**). The passive ratio per 1,000 residents will be 0.201 acres and will remain well below the guideline ratio of 0.5 acres of passive space per 1,000 residents. The active open space ratio will be 0.130 acres per 1,000 residents, remaining below the city's planning guideline of 2.0 acres per 1,000 residents.

Table 5-5
Future Without the Proposed Projects: Adequacy of Open Space Resources

Residential Population	Open Space Acreage			Open Space Ratios per 1,000 People			City Open Space Guidelines		
	Total	Active	Passive	Total	Active	Passive	Total	Active	Passive
85,804	28.42	11.15	17.27	0.331	0.130	0.201	2.5	2.0	0.50

Qualitative Considerations

As in existing conditions, in the future without the proposed projects, residents will continue to have access to open spaces just outside the study area, particularly the portions of Hudson River Park that extend north and south of the study area and the portion of the High Line that extends north of the study area.

PROBABLE IMPACTS OF THE PROPOSED PROJECTS

STUDY AREA POPULATION

Based on the conservative assumption of 450 residential units and using an average household size of 1.55, the proposed projects would introduce approximately 698 residents to the project area. In total, with the proposed projects, the study area would have 86,502 residents.

STUDY AREA OPEN SPACES

As discussed in Chapter 1, "Project Description," the proposed East Site project would add approximately 0.35 acres of publicly accessible passive open space on the Triangle Site. With the addition of this publicly accessible project open space, the total amount of open space in the study area would be 28.77 acres, of which 17.62 would be for passive recreation and 11.15 would be for active recreation.

ADEQUACY OF OPEN SPACES

With the proposed projects, as in existing conditions and the future without the proposed projects, all open space ratios in the residential study area would remain below City guideline levels. However, the new publicly accessible open space on the Triangle Site would offset the open space demand created by the proposed projects' new residential population, and the total open space ratio and passive open space ratio would increase slightly. The total open space ratio in the residential study area would increase by approximately 0.4 percent to 0.333 acres per 1,000 residents (see **Table 5-6**). The passive open space ratio per 1,000 residents would increase slightly to 0.204 acres. Because the project-created open space would not include active open space, the active open space ratio for residents would decrease slightly, from 0.130 acres to 0.129 acres with the proposed projects (a decrease of less than one percent).

Table 5-6
Future With the Proposed Projects: Adequacy of Open Space Resources

Residential Population	Open Space Acreage			Open Space Ratios per 1,000 People			City Open Space Guidelines		
	Total	Active	Passive	Total	Active	Passive	Total	Active	Passive
86,502	28.77	11.15	17.62	0.333	0.129	0.204	2.5	2.0	0.50

Qualitative Considerations

As in the future without the proposed projects, study area residents and workers would continue to have access to open spaces just outside the study area, including the remainder of Hudson River Park and the High Line. It is likely that these open space areas not included in the quantitative analysis would help to meet the open space needs of some portion of the study area population.

While private open space and recreational facilities are not considered in the quantitative analysis, the proposed residential development would provide open spaces for the use of the residents. Specifically, the building on the East Site is expected to include recreational amenity space for the residents and may include facilities such as a pool and exercise rooms. In addition, the East Site would also include a landscaped interior courtyard available to the residents of the East Site project. These open space amenities would serve residents who might otherwise use open spaces outside the project area.

IMPACT SIGNIFICANCE

Direct Effects

The proposed projects would have a positive direct effect on open space by creating a publicly accessible open space on the Triangle Site. Currently, the portion of the Triangle Site fronting on Seventh Avenue is landscaped and provides visual relief along the streetscape, but it is fenced off and not accessible to the public. With the proposed projects, this landscaped area would be redesigned to create an approximately 0.35-acre publicly accessible passive open space. As described in Chapter 6, "Shadows," the availability and duration of sunlight that this open space would experience is being taken into account in its design and selection of plantings.

As described earlier in the discussion of methodology, direct adverse effects on an open space occur when a proposed action would cause the physical loss of public open space; change the use of an open space so that it no longer serves the same user population; limit public access to an open space; or cause increased noise or air pollutant emissions, odors, or shadows that would affect its usefulness, whether on a permanent or temporary basis. The proposed projects would not result in significant adverse shadow, noise, or air quality impacts on any of the open spaces in the study area.

Indirect Effects

According to the *CEQR Technical Manual*, if the decrease in the open space ratio approaches or exceeds 5 percent, it is generally considered a substantial change warranting a more detailed analysis. However, the change in the open space ratio should be balanced against how well-served an area is by open space. If the study area exhibits a low open space ratio, even a small decrease may warrant a detailed analysis. Likewise, if the study area exhibits an open space ratio that approaches or exceeds the planning goal of 2.5 acres, a greater percentage of change in the ratio may be acceptable.

The proposed projects would result in a slight increase in the total open space ratio (including both active and passive open space) and the passive open space ratio for the residential population (see **Table 5-7**), due to the fact that the increase in the residential population with the proposed projects would be offset by the addition of the approximately 0.35-acre new public open space in the project area.

Table 5-7
2015 Future With the Proposed Projects: Open Space Ratios Summary

Ratio[1]	City Guideline	Open Space Ratios			Percent Change Future Without to Future With the Proposed Projects
		Existing Conditions	Future Without the Proposed Projects	Future With the Proposed Projects	
Total/Residents	2.5	0.334	0.331	0.333	0.41
Passive/Residents	0.5	0.203	0.201	0.204	1.20
Active/Residents	2.0	0.131	0.130	0.129	-0.81

Notes:
[1] Ratios in acres per 1,000 residents.

Due to the residential population introduced by the proposed projects, the active open space ratio for residents would decrease by approximately 0.81 percent, and would continue to fall short of City open space planning guideline ratios. However, this decrease would be approximately 0.001 acres per 1,000 residents and would not be considered a substantial change. It is recognized that

the City guidelines are not feasible for many areas of the city, and they are not considered impact thresholds. In addition, some of the active open space needs of the study area population would be met by open spaces outside the study area, particularly Hudson River Park. Hudson River Park's active open space amenities just outside the study area include the continuation of the bike/jogging path, an open lawn area on Pier 46 that could be used for active recreation such as informal ball games, and several multi-use athletic fields at Pier 40. Furthermore, the proposed building on the East Site will include private open space and recreation amenities for use by building residents.

Overall, because the open space ratios would remain substantially the same in the future with the proposed projects compared to the future without the proposed projects and the projects would provide new public and private open spaces to offset its open space demand, a detailed open space analysis is not required. The proposed projects would not result in any significant adverse impacts on open space resources in the study area. ✷