Chapter 6: Open Space

A. INTRODUCTION

The 2001 *City Environmental Quality Review (CEQR) Technical Manual* guidelines indicate the need for an open space analysis when an action would result in the physical loss of public open space or would introduce 200 or more residents or 500 or more workers to an area. The open space analysis helps to determine whether a proposed project would have either a direct or indirect impact on area open spaces. A direct effect on an open space would occur if the proposed project would cause the physical loss of a 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. An indirect effect would occur if the population introduced by a proposed action would overtax available open space.

The proposed project would redevelop the current site of the Hotel Pennsylvania located at 15 Penn Plaza with a new commercial office building and retail base. Because the proposed project would not introduce a new residential population, an open space analysis for a residential study area (½-mile around the project site) is not necessary. However, the proposed project would increase the number employees in the study area by more than 500 workers. In addition, the new building could cast additional shadows on existing open spaces in the area. Therefore, a detailed open space analysis for a non-residential study area (¼-mile around the project site) was conducted to determine whether the proposed project would result in any direct or indirect significant adverse open space impacts. This chapter assesses existing conditions (both users and resources) and compares conditions in the future with and without the proposed project to determine potential impacts for the 2014 Build year.

PRINCIPAL CONCLUSIONS

DIRECT EFFECTS

As detailed in this chapter, the proposed project would not result in the physical loss of publicly accessible open space. Furthermore, based on information from Chapter 7, "Shadows," Chapter 18, "Air Quality and Greenhouse Gas Emissions," and Chapter 19, "Noise," the proposed project would not cause increased shadows, air pollutant emissions, odors or noise that would affect the usefulness of open spaces in the area, whether on a permanent or temporary basis.

As discussed in Chapter 7, "Shadows," both scenarios would add approximately an hour-and-a-half of new shadow on late spring and summer afternoons at Herald Square. Much of the square is already shaded by existing buildings at this time of day. At times during the affected period, the incremental shadow in both scenarios would remove the small remaining area of sunlight. At other times during the affected period, the extent of new shadow would be very small. The square would continue to experience direct sunlight from late morning through mid-afternoon

during the late spring and summer, and the increased shadow on Herald Square would not affect the usability of this open space.

Therefore, no significant adverse direct open space impacts would occur as a result of the proposed project.

INDIRECT EFFECTS

The analysis concludes that the surrounding area is and would continue to be underserved by passive open space resources. The *CEQR Technical Manual* acknowledges that even a small change in the open space ratio in areas underserved by open space may result in a potential significant adverse impact. In this case, the proposed project would introduce a substantial new worker population but would not introduce any new open space resources. The passive open space ratios for workers and for the combined population of residents and workers would remain below the guideline ratios and would decrease by approximately 3 percent each. These open space ratios do not take into consideration the availability of additional open space resources just beyond the study area, including several small passive open spaces and the public plazas created by the New York City Department of Transportation (NYCDOT) Broadway Boulevard program. Nonetheless, the proposed project is located in an area that is underserved by open space resources and would result in a decrease of approximately 3 percent in the passive open space ratios. Therefore, the proposed project would result in a significant adverse open space impact. Potential mitigation measures are described in Chapter 22, "Mitigation."

As discussed below, the Broadway Boulevard program has not currently been made permanent. If the program is made permanent between the Draft and Final EIS, the quantitative analysis will be updated to include the additional open space at the Herald Square Broadway Boulevard.

B. METHODOLOGY

The open space analysis has been conducted in accordance with the methodology presented in the *CEQR Technical Manual*. As discussed in Chapter 2, "Procedural and Analytical Framework," this Environmental Impact Statement (EIS) assesses the potential for impacts from both a Single-Tenant Office Scenario and a Multi-Tenant Office Scenario. Because the Single-Tenant Office Scenario would generate a higher number of employees, this scenario would represent the worst-case and is therefore assessed in this chapter.

DIRECT EFFECTS ANALYSIS

A direct effect on an open space occurs if a proposed action would cause the physical loss of a 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 temporarily or permanently affect its usefulness.

This chapter uses information from Chapter 7, "Shadows," Chapter 18, "Air Quality and Greenhouse Gas Emissions," and Chapter 19, "Noise," to determine whether the proposed project would directly affect any of the study area's open spaces. The direct effects analysis is included in the "Future with the Proposed Project" section of this chapter. The potential for the proposed project to result in direct impacts on open space during the construction period is assessed in Chapter 20, "Construction Impacts."

INDIRECT EFFECTS ANALYSIS

An indirect effect occurs if the population introduced by a proposed project would overtax available open space. The methodology for assessing such open space impacts is described below.

INITIAL ASSESSMENT

According to the *CEQR Technical Manual*, an initial quantitative assessment may be useful to determine if a detailed open space analysis is necessary, or whether the open space assessment can be targeted to a particular user group. For analyses of commercial projects, an initial assessment calculates an open space ratio by relating the existing non-residential population to the passive open space in the study area. If the study area exhibits a low open space ratio from the onset (indicating that the area is underserved by open space), or if there is a decrease in the open space ratio between existing conditions and the future with the proposed project that would approach or exceed 5 percent, a detailed analysis is warranted. As described below, the detailed analysis examines passive open space resources available to non-residents (e.g., daily workers and visitors) within a study area delineated in accordance with the *CEQR Technical Manual*. In addition, the detailed analysis examines the combined open space ratio for both non-residents and residents.

Because the project site is located in a densely developed area of midtown Manhattan, the study area surrounding the project site includes few open spaces (8 open spaces totaling 2.13 acres). As described below, the study area has a low open space ratio in existing conditions (0.016 acres of passive open space per 1,000 workers, which is lower than the City's guideline of 0.15 acres per 1,000 workers). Because the study area exhibits a low open space ratio from the onset, a detailed open space analysis was undertaken. The methodology for the detailed analysis is discussed in the following section.

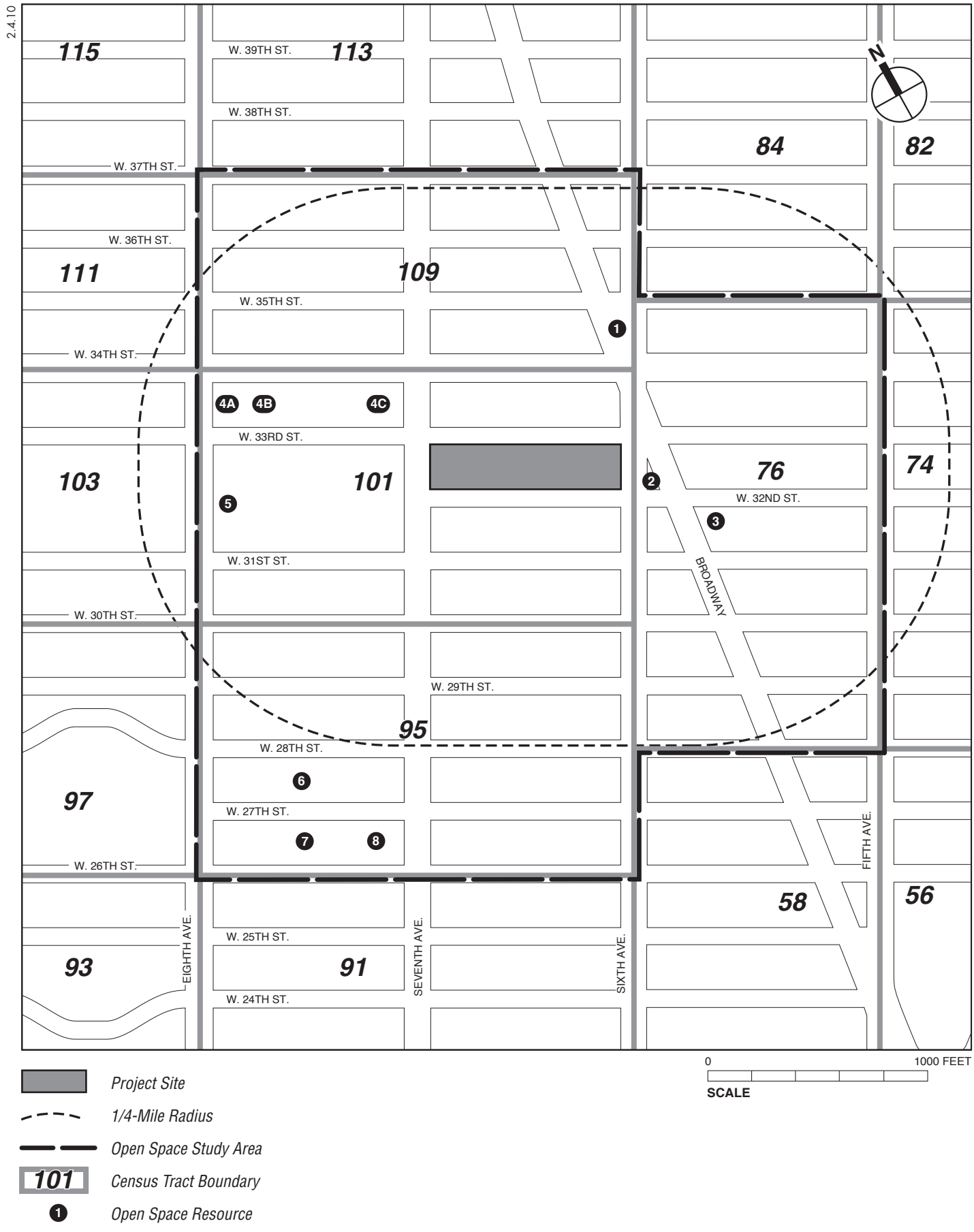
DETAILED ASSESSMENT

Study Area

According to the *CEQR Technical Manual* guidelines, the first step in assessing potential open space impacts is to establish study areas for the new population(s) added as a result of the proposed project. The study area is based on the distance a person is assumed to walk to reach a neighborhood open space. Workers typically use passive open spaces and are assumed to walk about ¼ mile from their workplaces to utilize area open spaces. Residents are more likely to travel farther to reach parks and recreational facilities; they are assumed to walk about ½ mile to reach both passive and active neighborhood open spaces.

The proposed project includes only a commercial component and would not introduce any new residents into the study area. As such, only a worker or commercial study area ("non-residential" study area) based on a ¼-mile distance from the project site was evaluated.

As recommended in the *CEQR Technical Manual*, the open space study area is comprised of all census tracts that have 50 percent of their area located within ¼ mile of the project site. All open spaces, as well as all employees and residents within census tracts that fall at least 50 percent within the ¼-mile radius, were included. As shown in **Figure 6-1**, the study area includes Census Tracts 76, 95, 101, and 109.



Open Space Study Area
Figure 6-1

Open Space User Populations

To determine the existing open space user population, demographic data from the 2000 U.S. Census were used to identify potential open space users (workers and residents) within the ¼-mile study area. To determine the number of residents, 2000 U.S. Census Bureau population data were compiled for the tracts in the study area. The number of employees in the study area was determined based on reverse journey-to-work data from the Census Transportation Planning Package (CTPP). The 2000 resident and worker population obtained from the census was then adjusted using an annual background growth rate of 0.5 percent, which was applied to each census tract to achieve existing (2009) conditions.

In addition, population and employment projections have been made for the 2014 analysis year in the No Action condition. These estimates are based on known developments expected to be completed in the study area by 2014.

Inventory of Open Space Resources

All publicly accessible open spaces and recreational facilities within the study area were inventoried to determine their size, character, and condition. Public spaces that do not offer usable recreational areas, such as spaces where seating is unavailable, were excluded from the survey, as were open spaces that are not easily accessible by the general public. The information used for this analysis was gathered through field studies conducted in August and September 2007 on weekdays, from the NYCDPR, and from *Privately Owned Public Space: The New York City Experience* (2000), a collaboration of the New York City Department of City Planning (DCP), Jerold S. Kayden, and the Municipal Art Society. At each open space, active and passive recreational spaces were noted. Passive open space facilities are characterized by such activities as strolling, reading, sunbathing, and people-watching. While active open spaces may be noted, these open spaces were not included in the analysis because workers typically use passive open spaces.

In addition to the open spaces located within the study area, open spaces outside the study area were considered qualitatively. These open spaces are located beyond the ¼-mile study area boundary but are likely to be utilized by the open space user population within the study area. Open spaces considered qualitatively in this chapter include several small open passive open spaces and the public plazas created by the Broadway Boulevard street design changes at Times Square, Herald Square, and at the intersection of 23rd Street, Fifth Avenue, and Broadway.

Adequacy of Open Space Resources

To assess the adequacy of the quantity of open space resources, open space ratios are compared against goals set by DCP. Although these open space ratios are not meant to determine whether a proposed action might have a significant adverse impact on open space resources, they are helpful guidelines in understanding the extent to which user populations are served by open space resources. The following guidelines have been used in this analysis:

- For non-residential populations, 0.15 acres of passive open space per 1,000 non-residents is typically considered adequate.
- For the combined resident and non-resident population, a target open space ratio—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—is considered. This ratio changes depending on the proportion of residents and non-residents in the study area.

Impact Assessment

The impact assessment is based on how the proposed project would change the open space ratios in the study area combined with a qualitative assessment of such factors as the availability of nearby destination resources, the beneficial effects of new open space resources provided by the proposed action, if any, 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 the ratios are not considered impact thresholds on their own. Rather, they are benchmarks that indicate how well an area is served by open space.

C. EXISTING CONDITIONS

STUDY AREA POPULATION

As shown in **Figure 6-1**, the open space study area for the proposed project extends north to West 37th Street, east to Fifth Avenue, south to West 26th Street, and west to Eighth Avenue. The study area includes four census tracts: 76, 95, 101, and 109.

The non-residential population in the ¼-mile study area is estimated to be 130,090, and the residential population is estimated to be 5,893, for a total open space user population of 135,983 (see **Table 6-1**). Although this analysis conservatively assumes that residents and employees are separate populations, it is possible that some of the residents live near their workplace. As a result, there is likely to be some double-counting of the daily user population in which the non-residential and residential populations overlap, resulting in a more conservative analysis.

Table 6-1
Existing Residential and Non-Residential Populations–2009 Estimate

Census Tract	Resident Population*	Non-Residential Population*	Total User Population
76	2,607	30,881	33,488
95	2,818	18,863	21,681
101	250	40,675	40,925
109	218	39,671	39,889
Total Population	**5,893**	**130,090**	**135,983**

Note: * 0.5 percent per year background growth has been added to the 2000 U.S. Census Population data in order to estimate the current 2009 population.
Sources: U.S. Census Bureau, 2000; Central Transportation Planning Package (CTPP) 2000—Part 2.

STUDY AREA OPEN SPACES

There are eight publicly accessible open spaces located within the study area totaling 2.13 acres, all of which are passive (see **Table 6-2** and **Figure 6-1**). The study area open spaces are primarily urban plazas with seating, landscaping details, and other passive resources. There are no active open spaces within the study area. The open spaces are also very well utilized, with either heavy or moderate utilization.

Table 6-2
Existing Conditions Open Space Inventory

Map Ref.*	Name/ Address	Owner/ Agency	Acres of Passive Open Space**	Condition/ Utilization
1	Herald Square	NYCDPR	0.04	Excellent/Heavy
2	Greeley Square	NYCDPR/34th Street Partnership	0.14	Excellent/Heavy
3	1250 Broadway Plaza	Carlyle/SL Green 1250 Broadway LLC	0.22	Excellent/Moderate
4a	One Penn Plaza-West	One Penn Plaza LLC	0.40	Good/Moderate
4b	One Penn Plaza-East	One Penn Plaza LLC	0.21	Good/Moderate
4c	One Penn Plaza-Mid-Block	One Penn Plaza LLC	0.54	Good/Moderate
5	Two Penn Plaza	Vornado Two Penn Plaza LLC, Madison Square Garden LP	0.42	Good/Moderate
6	FIT: West 27th Street between Seventh and Eighth Avenues	FIT	0.04	Excellent/Moderate
7	FIT: 230 West 27th Street	FIT	0.07	Excellent/Moderate
8	FIT: West 27th Street at Seventh Avenue	FIT	0.05	Excellent/Moderate
		Total	**2.13**	

Notes:
NYCDPR= New York City Department of Parks and Recreation
FIT= Fashion Institute of Technology
NYCDOT= New York City Department of Transportation
* See **Figure 6-1** for open space locations.
** All open spaces in the study area contain passive amenities only. No active open space resources are located in the study area.
Sources: NYCDPR; AKRF, Inc. field surveys, August, September, and November 2007, and February 2009.

Herald Square consists of 0.04 acres and is formed by the intersection of Sixth Avenue, Broadway, and West 34th Street. The park was named for the New York Herald, which had its headquarters just to the north. The park includes seating, landscaping, a clock that was on the top of the Herald Building, and a monument honoring James Gordon Bennett, the founder of the New York Herald, and his son.

The 0.14-acre Greeley Square is located just south of Herald Square. The triangular park is formed by Sixth Avenue, Broadway, West 32nd Street, and West 33rd Street. Like Herald Square, Greeley Square includes seating, landscaping, trees, and a monument honoring Horace Greeley, the former publisher of the New York Tribune. The park is maintained by the 34th Street Partnership. The Partnership is a coalition of property owners, tenants, and City officials that is working to revitalize a 31-block district in midtown Manhattan.

Privately owned, publicly accessible urban plazas are located outside of several institutional and commercial buildings in the study area. 1250 Broadway Plaza is located along Broadway between West 31st and West 32nd Streets. The plaza includes an arcade with seating and planters along West 32nd Street. The plaza's seating is well-utilized throughout the day by employees and other people.

One Penn Plaza open space consists of three sections: west, mid-block, and east. These open spaces are located on the One Penn Plaza block bounded by Seventh Avenue to the east, West 33rd Street to the south, Eight Avenue to the west and West 34th Street to the north. One Penn Plaza-West fronts Eighth Avenue at the base of the One Penn Plaza office tower. Much of the plaza is set above the road grade by a series of elevated steps. One Penn Plaza-Mid-Block is located along both West 33rd and West 34th Streets. One Penn Plaza-East is an open-air rectangular through-block passage that connects West 33rd and West 34th Streets. The plaza includes seating, landscaping, and a stone fountain.

Two Penn Plaza is located between West 31st and West 33rd Street in the superblock formed by Madison Square Garden, Pennsylvania Station, and the Two Penn Plaza office tower. Much of Two Penn Plaza surrounds Madison Square Garden along Eighth Avenue. The urban plaza that is part of the development includes very little usable space, primarily ledges used as seating.

The Fashion Institute of Technology (FIT) maintains three open spaces. The open space at 230 West 27th Street includes seating, a row of trees, and other landscaping. FIT maintains two other urban plazas, both of which provide seating.

ADEQUACY OF OPEN SPACES

QUANTITATIVE ANALYSIS

As described above, the analysis focuses on passive open spaces because these are the open spaces that workers introduced by the proposed project would be most likely to use. To assess the adequacy of the open spaces in the area, the ratio of workers to acres of passive open space is compared with the City's planning guideline of 0.15 acres of passive space per 1,000 workers. The open space study area has an existing ratio of 0.016 acres of passive open space per 1,000 workers, which is lower than the City's guideline of 0.15 acres (see **Table 6-3**). The combined passive open space ratio is also 0.016 acres per 1,000 residents and workers, which is less than the recommended weighted average ratio of 0.17 acres per 1,000 residents and workers. Thus, there is a deficiency in passive open space to serve the existing combined non-residential and residential populations.

Table 6-3
Existing Conditions:
Commercial Study Area Open Space Guidelines and Ratios for Combined Residential and Worker Populations

Population	People	Guideline Ratios (Acres / 1,000)	Passive Acres Needed to Meet Guidelines	Passive Acres Present	Actual Ratios
Non-residential population	130,090	0.15	15.46[2]	2.13	0.016
Total population	135,983	0.17[1]	23.12	2.13	0.016

Notes:
[1] Weighted average combining 0.15 acres per 1,000 non-residents and 0.50 acres per 1,000 residents.
[2] Based on the number of non-residents in the study area and the guideline ratio of 0.15 acres per 1,000 non-residents.
[3] Based on the number of residents in the study area and the guideline ratio of 0.50 acres per 1,000 residents.

QUALITATIVE ANALYSIS

As shown in **Table 6-2**, the study area open spaces are mostly in good or excellent condition, and use levels are moderate at the majority of these facilities. The study area includes only passive open space with such features as seating, benches, and plazas suitable for use by the worker and other non-residential populations in the area.

Although the quantitative assessment indicates that the open space resources located within the study area do not provide sufficient open space resources to the user populations, additional open spaces located outside the ¼-mile study area supplement the study area's open space acreage.

The closest of these open spaces include several passive open spaces located within a block of the study area boundary. Because of their proximity to the study area and the development site, these

are the open spaces outside the study area that open space users are most likely to visit. The Farley Post Office stairs, located on Eighth Avenue between West 32nd and West 33rd Streets, are within ¼ mile of the project site but outside the study area and provide approximately 0.38 acres of passive open space. East of the study area, a publicly accessible plaza at the Madison Belvedere residential building at 10 East 29th Street provides 0.29 acres of passive open space with seating areas and a lawn. The Penn South residential development covers an area from West 29th to West 23rd Street between Eighth and Ninth Avenues and has a total of 1.42 acres of open space with 1.05 acres devoted to passive use. A number of passive and active open space amenities are located within the boundaries of the Penn South development, including seating and walking paths, as well as active space, including playground equipment and basketball courts.

Three additional large open spaces—Bryant Park, Madison Square Park, and Chelsea Park—are located further outside the study area. Because of the size of these open spaces, they are likely to serve some study area open space users. However, because of their distance from the study area and development site in particular, study area open space users are unlikely to visit them on a regular basis. Bryant Park, a 9.6-acre passive open space, is located two blocks north of the study area boundary in the area bounded by West 40th Street, West 42nd Street, Fifth Avenue and Sixth Avenue. Madison Square Park is a 6.2-acre primarily passive open space located approximately three blocks south of the study area boundary, near West 26th Street and Fifth Avenue. These parks provide passive open space amenities and are heavily used by nearby workers and residents. Chelsea Park is a 3.9-acre park with a mix of passive and active features located in the block bounded by West 27th Street, West 28th Street, Ninth Avenue, and Tenth Avenue.

In addition to these open spaces, the NYCDOT Broadway Boulevard program has created new public plazas within and nearby the study area. Broadway Boulevard is a program of street design changes to Broadway between Herald Square (34th Street) and Times Square (42nd Street), aimed at creating open space ("pedestrian living rooms"), a pedestrian boulevard, and a protected bicycle path. The Broadway streetbed has been modified from four travel lanes to two travel lanes; the remainder of the streetbed has been delineated by painted areas, planters and other elements to provide passive open space. Amenities of these pedestrian living rooms include street furniture, such as benches, chairs, tables, planters, and umbrellas. The portion of the Boulevard at Herald Square is located within the study area but has not been included in the quantitative analysis because the program has not been made permanent. At this time, the Herald Square and Times Square Boulevards, along with a similar street redesign at 23rd Street and Broadway, provide another passive open space resource for study area open space users.

D. THE FUTURE WITHOUT THE PROPOSED PROJECT

STUDY AREA POPULATION

PROJECT SITE

In the No Action condition, the development site will be redeveloped with 1,319,914 gross square feet (gsf) of commercial office space and 40,600 gsf of retail uses (the No Action building). These uses will generate approximately 5,410 employees. The No Action building will displace the existing hotel uses on the project site, which currently employ approximately 400 workers. Therefore, the No Action building will result in a net increase in employment on the project site of approximately 5,010 employees.

STUDY AREA

In addition to the No Action building on the development site, there are six new developments and one rezoning currently planned for completion within the open space study area by 2014. The commercial uses introduced by these new development projects will add approximately 960 workers to the study area. In total, including No Action building on the development site, these commercial uses will add 5,970 workers to the study area. The worker population in the study area will increase to 136,060.

These projects will introduce approximately 4,290 residents[1] to the study area population. The development in the surrounding study area will increase the study area's residential population to 10,183. The total population will increase to 146,243 residents and workers.

STUDY AREA OPEN SPACES

No new open spaces are planned for the study area, and no open spaces are expected to be removed. Therefore, the total amount of public open space in the study area will remain 2.13 acres of passive space in the No Action condition.

ADEQUACY OF OPEN SPACES

QUANTITATIVE ANALYSIS

The open space ratio will also decrease in the No Action condition, and will remain below the City's recommended guideline. With a total population of 146,243 people, the passive open space ratio will decrease to 0.015 acres per 1,000 workers and residents, which would remain well below the City's recommended 0.17 acres per 1,000 workers and residents (see **Table 6-4**). The passive open space ratio will be 0.016 acres per 1,000 workers, which is also substantially below the City's recommended guidelines.

Table 6-4
2014 No Action Condition:
Commercial Study Area Open Space Guidelines and Ratios for Combined Residential and Worker Populations

Population	People	Guideline Ratios (Acres / 1,000)	Passive Acres Needed to Meet Guidelines	Passive Acres Present	Actual Ratios
Non-residential population	136,060	0.15	20.41[2]	2.13	0.016
Total population	146,243	0.17[1]	24.86	2.13	0.015

Notes:
[1] Weighted average combining 0.15 acres per 1,000 non-residents and 0.50 acres per 1,000 residents.
[2] Based on the number of non-residents in the study area and the guideline ratio of 0.15 acres per 1,000 non-residents.
[3] Based on the number of residents in the study area and the guideline ratio of 0.50 acres per 1,000 residents.

[1] This analysis assumes that the residential component of each project is fully occupied and has an average household size that matches the weighted average household size, 1.6, for the study area.

QUALITATIVE ANALYSIS

In the No Action condition, as in existing conditions, workers and residents will have access to open spaces just outside the study area. As discussed above, these open spaces will provide mainly passive open space amenities.

E. PROBABLE IMPACTS OF THE PROPOSED PROJECT

DIRECT EFFECTS ANALYSIS

No publicly-accessible open space is currently located on the development site. Therefore, the proposed project would not cause the physical loss of publicly-accessible open space. Furthermore, based on the conclusions from Chapter 7, "Shadows," Chapter 18, "Air Quality and Greenhouse Gas Emissions," and Chapter 19, "Noise," the proposed project would not cause increased shadows, air pollutant emissions, odors, or noise that would affect the usefulness of open spaces in the area, whether on a permanent or temporary basis. Finally, the proposed project would not change the use of any publicly-accessible open space so that it no longer serves the same user population or limits public access. Therefore, no significant adverse direct effects on open space would occur as a result of the proposed project.

As discussed in Chapter 7, "Shadows," both scenarios would add approximately an hour-and-a-half of new shadow on late spring and summer afternoons at Herald Square. Much of the square is already shaded by existing buildings at this time of day. At times during the affected period, the incremental shadow in both scenarios would remove the small remaining area of sunlight. At other times during the affected period, the extent of new shadow would be very small. The square would continue to experience direct sunlight from late morning through mid-afternoon during the late spring and summer, and the increased shadow on Herald Square would not affect the landscaping or usability of this open space.

INDIRECT EFFECTS ANALYSIS

STUDY AREA POPULATION

As described in Chapter 2, "Procedural and Analytical Framework," the Single-Tenant Office Scenario would result in the redevelopment of the development site with commercial, trading floor, and retail uses, and would introduce a total of approximately 9,950 workers to the project site. Compared to the No Action Building, the proposed project would result in a net addition of 4,540 workers to the project site. With the proposed project, the worker population in the study area would increase to 140,600, and the total population would increase to 150,783.

STUDY AREA OPEN SPACES

No new open spaces are planned for the study area. Therefore, the passive open space acreage in the study area would remain 2.13 acres.

ADEQUACY OF OPEN SPACES

Quantitative Analysis

In the future with the proposed project, both open space ratios within the study area would remain well below the City's recommended guidelines. The ratio of passive open space per 1,000 workers

would decrease to 0.015 acres from 0.016 acres in the No Action condition (see **Table 6-5**). This ratio would remain well below DCP's recommended 0.15 acres per 1,000 workers. The ratio of passive open space for the total population (workers and residents) in the study area would decrease by approximately 3 percent to 0.014. This ratio would be substantially lower than the recommended weighted average ratio of 0.17 acres per 1,000 residents and workers. These ratios indicate that both the worker and combined populations would remain severely underserved by the available passive open space resources in 2014.

As noted above, the Broadway Boulevard program has not currently been made permanent. If the program is made permanent between the Draft and Final EIS, the quantitative analysis will be updated to include the additional open space at the Herald Square Broadway Boulevard.

Qualitative Analysis

As in the No Action condition, workers and residents would continue to have access to open spaces just outside the study area. As discussed above, these open spaces will provide mainly passive open space amenities.

Table 6-5
2014 Future With the Proposed Project:
Commercial Study Area Open Space Guidelines and Ratios
for Combined Residential and Worker Populations

Population	People	Guideline Ratios (Acres / 1,000)	Passive Acres Needed to Meet Guidelines	Passive Acres Present	Actual Ratios
Non-residential population	140.600	0.15	21.09[2]	2.13	0.015
Total population	150,783	0.17[1]	25.63	2.13	0.014

Notes:
[1] Weighted average combining 0.15 acres per 1,000 non-residents and 0.50 acres per 1,000 residents.
[2] Based on the number of non-residents in the study area and the guideline ratio of 0.15 acres per 1,000 non-residents.
[3] Based on the number of residents in the study area and the guideline ratio of 0.50 acres per 1,000 residents.

IMPACT ASSESSMENT

As discussed above, the study area would continue to be underserved in terms of passive open space. The *CEQR Technical Manual* acknowledges that even a small change in the open space ratio in areas underserved by open space may result in a potential significant adverse impact. In this case, the proposed project would introduce a substantial new worker population but would not introduce any new open space resources. The passive open space ratios for workers and for the combined population of residents and workers would be below the guideline ratios and would decrease by approximately 3 percent each (see **Table 6-6**).

As discussed above, the open space ratios do not take into consideration the availability of additional open space resources just beyond the study area, including several small passive open spaces and the public plazas created along Broadway at 23rd Street, 34th Street, and Times Square. Nonetheless, the proposed project is located in an area that is underserved by open space resources and would result in a decrease of approximately 3 percent in the passive open space ratios. Therefore, the proposed project would result in a significant adverse open space impact.

As noted above, if the Broadway Boulevard program is made permanent between the Draft and Final EIS, the quantitative analysis will be updated to include the additional open space at the Herald Square Broadway Boulevard.

Table 6-6
Open Space Ratio Summary

Ratio	DCP Guideline	Existing Ratio	No Action Ratio	Future With the Proposed Project Ratio	Change from No Action to Future with the Proposed Project	
					Absolute Change	Percent Change
Passive/workers	0.15	0.016	0.016	0.015	0.001	-3.2
Passive/total population	0.17*	0.016	0.015	0.014	0.001	-3.0

Notes:
* Weighted average combining 0.15 acres per 1,000 non-residents and 0.50 acres per 1,000 residents. The weighted average guideline remains the same for existing, No Action, and future with the proposed project conditions.

CONCLUSION

As shown above, the proposed project would not result in the physical loss of open spaces, nor would it result in other direct effects that would affect the usefulness of open spaces in the area. However, the proposed project is located in an area that currently is underserved by open space resources and would result in a decrease of approximately 3 percent in the passive open space ratios. As such, the proposed project would result in a significant adverse impact on open space resources. Potential mitigation measures are described in Chapter 22, "Mitigation." ✷