Chapter 6: Open Space

A. INTRODUCTION

This chapter assesses the potential impacts of the proposed actions on open space resources. As described in Chapter 1, "Project Description," the applicants, the New York City Department of City Planning (DCP) and SJC 33 Owner 2015 LLC, are proposing a series of discretionary actions (the proposed actions) that would facilitate the redevelopment of St. John's Terminal Building at 550 Washington Street (Block 596, Lot 1) (the development site) with a mix of residential and commercial uses, and public open space (the proposed project) in Manhattan Community District 2. Open space is defined by the 2014 *City Environmental Quality Review (CEQR) Technical Manual* as publicly accessible, publicly or privately owned land that operates or is available for leisure, play, or sport, or serves to protect or enhance the natural environment. According to the *CEQR Technical Manual*, an open space assessment should be conducted if a project would have a direct effect on open space, such as eliminating or altering a public open space, or an indirect effect, such as when new population overburdens available open space. The proposed action would not directly displace or alter any existing public open space. While the proposed actions would provide 20,750 square feet (sf) of new publicly accessible open space, it would introduce a substantial new residential population of approximately 2,649 and up to 930 new workers. In addition, the proposed project may have effects on nearby open space related to air quality, noise, and shadows that may affect the use of those spaces. Therefore, an assessment of the proposed project's direct and indirect effects on open space was performed. Direct effects include the proposed project's effects on open spaces due to increased noise, air pollutant emissions, odor, or shadows. Indirect effects consist of the increase in the residential population resulting from the proposed project, which has the potential to diminish the capacity of open space in the area to serve the future population.

PRINCIPAL CONCLUSIONS

The proposed actions would not result in physical loss of or alterations (direct effect) to existing public open space resources. While the proposed project would result in new shadows falling on portions of open space resources, these shadows would not result in a significant adverse open space impact. However, based on the detailed analysis of indirect effects, the proposed actions would result in a significant adverse open space impact as a result of reduced total and active open space ratios. ~~In addition, there is a potential for temporary construction period air quality and noise impacts on the publicly accessible open space that would be built as part of the proposed project.~~

DIRECT EFFECTS

The proposed actions would not remove or alter any existing publicly accessible open spaces. While the proposed project would result in new shadows falling on portions of two open space resources—Hudson River Park and its facilities on Pier 40—these shadows would not result in a

significant adverse open space impact because portions of both open spaces would remain in direct sunlight at all times on the analysis days. Users wishing to be in direct sunlight would be able to access remaining sunny areas of the open space resources. Furthermore, during the growing season, park vegetation and landscaping would continue to receive ample durations of direct sunlight to support plant life. On Pier 40, the playing field turf is synthetic and would not be affected by a reduction in direct sunlight. Shadows on the project-generated open space would vary in extent and duration depending on the time of year. The project-generated open space would receive the most direct sunlight on the June 21 analysis day when a majority of its area would receive direct sunlight for all but an hour of the analysis day. On the December 21 analysis day, the project-generated open space would receive the least amount of direct sunlight. On this day, the open space would be completely cast in shade for approximately five hours and receive partial sunlight in the remainder of the analysis day. The design and plantings for the project-generated open space take into account these conditions, including the selection of shade-tolerant species and the provision of movable tables and chairs. As noted in the *CEQR Technical Manual*, shadows on project-generated open space are not considered significant under CEQR.

In addition, the proposed project would not result in any significant adverse operational air quality or noise impacts affecting open space resources. However, as discussed in Chapter 20, "Construction," to avoid the potential for significant adverse construction noise impacts at the proposed elevated open space, the proposed elevated open space would be closed during the demolition, excavation, and foundation construction stages at either of the adjacent building sites, i.e., the North or Center Sites. ~~there is a potential for temporary construction-period air quality and noise impacts on the publicly accessible open space that would be built as part of the proposed project.~~

INDIRECT EFFECTS

The proposed project would increase utilization of study area resources due to the introduction of a substantial new residential population. In the future with and without the proposed actions, the total and active open space ratios in the residential study area would fall below the City's planning goals. With the proposed project, the study area's total open space ratio would decrease by 5.66 percent, the active open space ratio would decrease by 6.96 percent, and the passive open space ratio would decrease by 4.91 percent. According to the *CEQR Technical Manual*, an action may result in a significant adverse open space impact if it would reduce the open space ratio by more than 5 percent in areas that are currently below the City's median community district open space ratio of 1.5 acres per 1,000 residents. Therefore, the reductions in the total and active open space ratios with the proposed project would result in a significant adverse open space impact based on quantitative analysis of indirect effects as set forth in the *CEQR Technical Manual*. The decrease in the passive open space ratio of 4.91 percent would not be considered a significant adverse impact.

According to the *CEQR Technical Manual*, projects that may result in significant quantitative impacts on open space resources are typically further assessed in a qualitative assessment to determine overall significance of the impact. Factors that are relevant in the consideration of the proposed project's potential for impacts include: improvements to Hudson River Park through funding for repairs to Pier 40's critical infrastructure that would be facilitated by the proposed actions; and the availability of nearby open space resources that are not included in the quantitative analysis. The proposed actions would facilitate the transfer of floor area from Pier 40 to the development site under the Special Hudson River Park District, which would provide

critical funding for repairs to Pier 40. Pier 40 supports existing public recreational uses, including the heavily used ballfields, and helps support the entire Hudson River Park financially.

Residents in the study area would have access to other open space resources located outside of the study area—including other portions of Hudson River Park, which extends beyond the study area to both the north and south—providing additional space for both active recreation, such as biking and running, as well as passive activities. Hudson River Park provides extensive areas for active recreational activities that are popular among adults and children, and the extended areas of Hudson River Park serve the active space needs of the study area. The continued operation of Pier 40 is particularly important given the study area's relatively high population of adults, as it provides extensive areas for active field sports, which are identified in the *CEQR Technical Manual* as an important need for this age group. A portion of the residential space (178 units on the North Site) would be for senior housing; residents of these units are less likely to seek out open spaces away from the development site, particularly active open space.

In addition, the as-of-right development in the No Action scenario is anticipated to introduce a substantial new worker population of approximately 2,788 people associated with retail, hotel, office, and event space uses. While the proposed project would increase utilization of study area open space resources due to the introduction of approximately 2,649 new residents and up to 930 workers, this increased user population would be minimally higher than the 2,788 workers introduced in the No Action condition.

Overall, while the proposed project would result in an increase in demand for open space resources, it would also provide necessary financial support to sustain open space used by the local community and the city as a whole. In addition, the proposed project is expected to address project-generated open space demand by providing a new open space that would be accessible to the public. As described above, based on the quantitative analysis, which found that the decrease in the total and active open space ratios with the proposed project would exceed the *CEQR Technical Manual* guidelines of 5 percent, the proposed project would result in a significant adverse impact on open space.

B. METHODOLOGY

The methodology of the *CEQR Technical Manual* includes a consideration of both direct and indirect effects of a proposed project. A direct effects analysis should be performed if a proposed project would directly affect open space conditions by causing the loss of public open space, changing the use of an open space so that it no longer serves the same user population, limiting public access to an open space, or increasing noise or air pollutant emissions, odor, or shadows that would temporarily or permanently affect the usefulness of a public open space. A proposed project can also directly affect an open space by enhancing its design or increasing its accessibility to the public. In addition, according to the *CEQR Technical Manual*, an indirect effects analysis should be performed if a project would add sufficient population, either residents or non-residents, to noticeably diminish the capacity of open space in an area to serve the future population. According to the *CEQR Technical Manual*, the development site is in an area identified as neither well-served nor under-served by existing open space resources. As described further below, analyses of the potential direct and indirect effects of the proposed project were performed.

As described in Chapter 2, "Analytical Framework," for the purposes of analysis, two development programs are considered in the With Action condition: the proposed project or the

proposed project with big box retail. The development program that has the greatest potential to result in significant adverse impacts is used to determine project impacts for a particular technical analysis area. The increment between the No Action and With Action conditions forms the basis for analysis in the Environmental Impact Statement (EIS). As described in Chapter 2, "Analytical Framework," in the No Action condition, an as-of-right commercial project would be built on the development site. In addition, under both of these scenarios, the South Site could contain either hotel or office use. Since the number of workers introduced in the No Action condition would be higher than the number of workers introduced by the proposed project or the proposed project with big box retail, under either scenario the proposed actions do not have the potential to result in a significant adverse open space impact due to indirect effects from a worker population. The big box retail scenario would result in the same built form as the proposed project (and would, therefore, not have any new or different direct adverse impacts on open space from shadows) and the same number of residential units (and would, therefore, not result in different indirect adverse impacts).

In addition, as described in Chapter 1, "Project Description," and discussed further below, the proposed project would include the creation of an elevated 20,750-sf publicly accessible open space extending over West Houston Street. The new publicly accessible open space that would be provided in the With Action condition is included in the indirect effects analysis; in addition, the proposed project's direct effects on the new public open space are considered in the direct effects analysis. While the No Action development is anticipated to include a similar elevated open space over West Houston Street, this space would not be publicly accessible. Therefore, the analysis of the No Action condition does not include any new public open space resources on the development site.

DIRECT EFFECTS ANALYSIS

Following *CEQR Technical Manual* guidelines, this chapter uses information from Chapter 7, "Shadows," Chapter 15, "Air Quality," Chapter 17, "Noise," and Chapter 20, "Construction," to determine whether the proposed project would directly affect any publicly accessible open space resources.

INDIRECT EFFECTS ANALYSIS

The *CEQR Technical Manual* suggests that a detailed indirect effects analysis is necessary 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. The development site is not located within an area that has been identified as either underserved or well served; therefore, the 200 resident and 500 worker thresholds were applied in this analysis. Compared to the No Action condition, the proposed project would not add more than 500 workers to the area with either hotel or office use on the South Site. However, the proposed project is anticipated to introduce a sizable new residential population above the 200-resident threshold in an area with low open space ratios; therefore, following *CEQR Technical Manual* guidance, a detailed indirect effects open space analysis was conducted, as described below.

STUDY AREA

The *CEQR Technical Manual* recommends establishing a study area as the first step in a detailed open space assessment. The study area is based on the distance that users are likely to walk to an open space. According to the C*EQR Technical Manual*, residents are assumed to walk

approximately 20 minutes, or ½ mile, to an open space. Because the proposed project would introduce a new residential population to the area, the adequacy of open space resources was assessed for a ½-mile (residential) study area. This study area was adjusted to include all census tracts with at least 50 percent of their area within the ½-mile boundary. This adjustment to the study area allows analysis of both the open spaces in the area as well as population data.

The ½-mile open space study area for this assessment contains seven census tracts according to the 2010 U.S. Census: tracts 37, 39, 47, 67, 69, 73, and 75 in Manhattan, covering an area roughly bounded by Bank Street to the north, the Avenue of the Americas to the east, Chambers Street to the south, and the Hudson River to the west; a portion of the study area (Census Tract 47) extends to further east to Broadway roughly between West Houston Street and Canal Street (see **Figure 6-1**). These Census tracts are mapped over portions of Manhattan Community District 1 (south of Canal Street) and Manhattan Community District 2 (north of Canal Street). According to the *CEQR Technical Manual*, although the project site is located in an area that is neither underserved nor well-served by open space, a portion of the study area (generally located east of the Avenue of the Americas between West Houston Street and Canal Street) is considered underserved by open space.

STUDY AREA POPULATIONS

Existing Conditions

The existing residential population in the study area was calculated using 2010 Census data.

The Future without the Proposed Actions

As described in detail in Chapter 3, "Land Use, Zoning, and Public Policy," there are several developments anticipated to be completed in the residential study area by 2024[1] in the Future without the Proposed Actions (the No Action condition). The residential population anticipated to be introduced to the study area by these projects was estimated by applying an average household size of 1.67 persons per household (the average household size of Community District 2 as of the 2010 Census) to the number of dwelling units included in the projects.

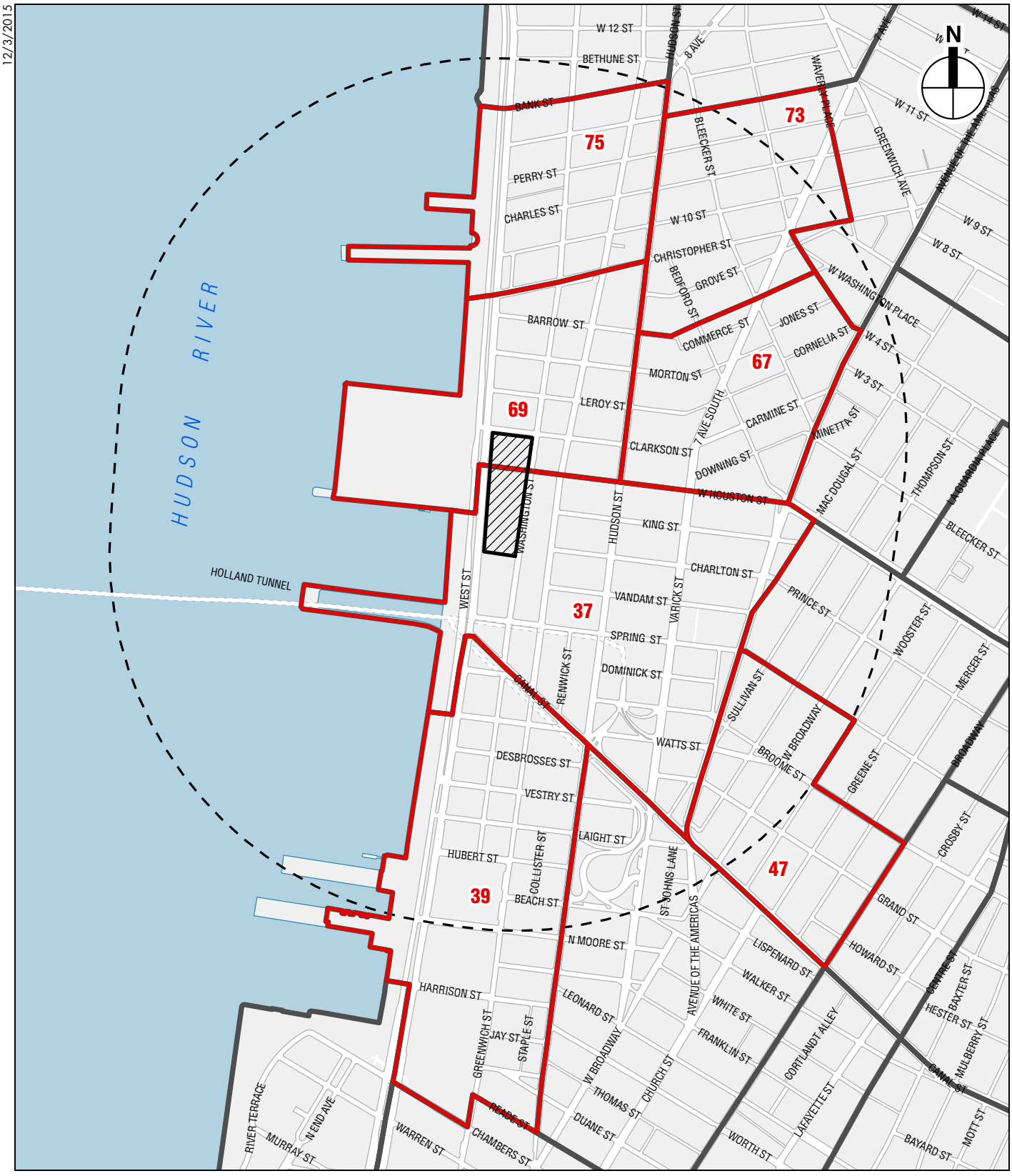
The Future with the Proposed Actions

The population introduced by the proposed project was estimated by applying an average household size of 1.67 persons per household to the number of dwelling units included in the proposed project, including all market-rate, affordable, and senior housing units.

INVENTORY OF OPEN SPACE RESOURCES

The *CEQR Technical Manual* defines public open space as open space that is publicly or privately owned and is accessible to the public on a regular basis, either constantly or for designated daily periods of time. Open spaces that are only available for limited users or are not available to the public on a regular or constant basis are not considered public open space, but are considered in a qualitative assessment of open space impacts.

[1] For the purposes of this analysis, the complete build out of the proposed project by 2024 is used as the analysis year.



Residential Study Area

Figure 6-1

All publicly accessible open space resources in the study area were inventoried through field visits conducted in August 2015. Additional data were obtained from the New York City Department of Parks and Recreation (NYC Parks), the Hudson Square Connection (a local Business Improvement District [BID], which operates open space facilities in the area), the Hudson River Park Trust (HRPT), which operates Hudson River Park, and published environmental impact statements for projects in or near the study area.

Information was gathered about the types of facilities, levels of utilization, accessibility, and condition of each of the open space resources. According to CEQR guidelines, open spaces were also described in terms of the amount of active and passive facilities present. Active open space is used for exercise, sports, or active children's play. Examples of active open space include playgrounds, athletic fields or courts, pools, and greenways (such as the Route 9A bikeway). Passive open spaces allow for activities such as strolling, reading, sunbathing, and people watching. Examples of passive open space include plazas, walking paths, gardens, and certain lawns with restricted uses. Open space may be characterized as passive, active, or a mixture of active and passive. Esplanades are an example of open space that may be used for active uses such as running and biking or passive uses such as dog walking. In addition to the open spaces located in the study area, open spaces located just outside of the study area were considered in the qualitative analysis as they are available for use by residents living within the study area.

New open space that would be created in the No Action and With Action conditions was accounted for in the analysis, including the new elevated publicly accessible garden anticipated to be introduced as part of the proposed project. Additional open space improvements that would be facilitated by the proposed project are considered qualitatively.

ADEQUACY OF OPEN SPACE RESOURCES

Comparison to City Guidelines

The adequacy of open space in the study area was quantitatively and qualitatively assessed for existing conditions, the No Action condition, and the With Action condition. According to CEQR guidelines, the quantitative assessment is based on ratios of usable open space acreage to the study area populations (the "open space ratios"). These ratios were then compared with the City's open space guidelines for residential populations. For residential populations, there is a citywide median open space ratio of 1.5 acres per 1,000 residents, which is used as a guideline. In addition to this median ratio, the city has set an open space ratio planning goal of 2.5 acres per 1,000 residents, which includes 0.50 acres of passive space and 2.0 acres of active space per 1,000 residents. It should be noted that the City's open space planning 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

The determination of significant adverse impacts is based on how a project would change the open space ratios in the study area, as well as qualitative factors not reflected in the quantitative assessment. 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 ratios fall below City guidelines, and a proposed project would result in a decrease in the open space ratio of more than five percent, it could be

considered a substantial change. However, in areas that have been determined to be extremely lacking in open space, a reduction as small as 1 percent may be considered significant.

In addition to the quantitative factors cited above, the *CEQR Technical Manual* 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 and recreational resources and improvements provided by the project, and the comparison of projected open space ratios with established City guidelines.

C. EXISTING CONDITIONS

STUDY AREA POPULATION

Based on 2010 Census data, the seven Census tracts that make up the study area have a total residential population of 29,425(see **Table 6-1).**

Table 6-1
Study Area Residential Population

Census Tract	2010 Population
37	2,447
39	5,860
47	2,524
67	5,461
69	2,759
73	6,215
75	4,159
Total	**29,425**
Source: 2010 U.S. Census	

Table 6-2 summarizes the age distribution of the study area population with a comparison to Manhattan and New York City as a whole. As shown in **Table 6-2**, the study area has relatively low populations of children and teenagers (19 years and younger) and senior citizens (65 years and older)—and a higher proportion of adults (ages 20 to 64)—compared to both Manhattan and New York City.

Table 6-2
Study Area Residential Population Age Distribution

	Study Area		Manhattan		New York City	
Age Category	**Persons**	**Percent**	**Persons**	**Percent**	**Persons**	**Percent**
Under 5 Years	1,302	4.4%	76,579	4.8%	517,724	6.3%
5 to 9 Years	950	3.2%	61,323	3.9%	473,159	5.8%
10 to 14 Years	658	2.2%	58,229	3.7%	468,154	5.7%
15 to 19 Years	628	2.1%	77,462	4,9%	535,833	6.6%
20 to 64 Years	22,870	77.7%	1,098,127	69.2%	5,187,105	63.4%
65 Years and over	3,027	10.3%	214,153	13.5%	993,158	12.1%
Total	**29,425**	**100%**	**1,585,873**	**100%**	**8,175,133**	**100%**
Source: 2010 U.S. Census						

Given the range of age groups present in the study area population, the study area has a need for various kinds of active and passive recreation facilities, including open space features that can be used by children and adults. 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 4 years old or younger use traditional playgrounds that have play equipment for toddlers and preschool children. Children ages 5 through 9 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 10 through 14 typically use playground equipment, court spaces, and ball fields. Teenagers' and young adults' needs tend toward court game facilities such as basketball and field sports. Adults (ages 20 to 64) continue to use court game facilities and sports fields, along with more individualized recreation such as rollerblading, biking, and jogging that require bike paths, promenades, and vehicle-free roadways. Adults also gather with families for picnicking, active informal sports such as Frisbee, and recreational activities in which all ages can participate. Senior citizens (65 years and older) engage in active recreation such as handball, tennis, gardening, fishing, walking and swimming, as well as recreational activities that require passive facilities.

STUDY AREA OPEN SPACES

There are 19 publicly accessible open spaces that are entirely within the study area; in addition, the study area contains a large portion of Hudson River Park, which runs along the length of the Hudson River waterfront between West 59th Street and the northern edge of Battery Park City. Hudson River Park generally contains a waterfront esplanade with upland areas improved with landscaping, seating areas, lawns, courts and dog runs. The park also includes numerous piers that have been improved as recreational resources: within the study area, Piers 25, 26, 34, 40, 45, and 46 all contain recreational facilities and are accessible to the public. While these piers all feature pedestrian esplanades and seating areas, most also feature more extensive facilities, including active open space. Pier 25 features beach volleyball courts, a mini-golf range, a playground, and an adjacent skate park. Pier 26 has a non-motorized boathouse offering free kayaking and a nearby dog run. Pier 40, located immediately to the west of the development site, is the largest pier in Hudson River Park (approximately 15 acres) and features athletic fields, kayaking, rowing and fishing areas.[2] Pier 46 has an artificial turf lawn. The Hudson River Park esplanade runs along the entire length of the park, including the area within the study area and beyond, as does the adjacent Route 9A bikeway. In total, Hudson River Park and the Route 9A bikeway include 26.02 acres of open space within the residential study area (roughly three-quarters of all open space within the study area).

The remaining open spaces within the study area are a mix of publicly and privately owned parks, plazas, and seating areas. This includes several open spaces along the Avenue of the America between West Houston Street and Canal Street: these spaces are generally small seating areas such as Soho Square, Duarte Square, and Father Fagan Square, along with several active recreation areas (the Playground of the Americas and the Grand Canal Court basketball courts). Other notable open spaces within the study area include Washington Market Park, a 2.15-acre park that includes a playground, basketball courts, and tennis courts, and James J. Walker Park, which features a playground and athletic fields. The Tony Dapolito Recreation Center, located

[2] In addition, Pier 40 contains a public parking facility and the offices of the Hudson River Park Trust (HRPT); HRPT has reported that Pier 40 is in need of critical infrastructure repairs to its roof, electrical infrastructure, and supportive piles. In recent years sections of the roof have deteriorated significantly, forcing HRPT to close portions of the parking garage to ensure public safety.

within James J. Walker Park, is a recreation center operated by NYC Parks that is available to the public with a paid membership. Freeman Square is a recently introduced open space operated by the Hudson Square Connection on three parcels of land controlled by the Port Authority of New York and New Jersey (PANYNJ) near the entrance to the Holland Tunnel, which have been improved with publically accessible seating areas.

Table 6-3 summarizes the open spaces within the study area, and **Figure 6-2** shows their locations. In total, the study area contains approximately 33.97 acres of open space, with 12.45 acres of active open space and 21.52 acres of passive open space.

Table 6-3
Existing Residential Study Area Open Spaces

Ref. No.[1]	Name	Location	Owner / Agency	Features	Total Acres	Active Acres	Passive Acres	Condition/ Utilization
1	Trump SoHo Plaza	Spring Street between Varick Street and Avenue of the Americas	Private owner (Trump Organization)	Benches, landscaping and trees, tables and chairs	0.16	0.00	0.16	Excellent/ Moderate
2	Soho Square	Avenue of the Americas and Spring Street	NYC PARKS	Gen. Jose Artigas Monument, benches, trees	0.58	0.00	0.58	Fair/ Moderate
3	Duarte Square	Avenue of the Americas, Canal and Grand Streets	NYC PARKS	Statue of Juan Pablo Duarte and benches, trees, Citibike station	0.26	0.00	0.26	Fair/Low
4	Grand Canal Court	Thompson and Canal Streets, Avenue of the Americas	NYC PARKS	Basketball court	0.13	0.13	0.00	Good/Low
5	Father Fagan Park	East side of Avenue of the Americas, Prince and Spring Streets	NYC PARKS	Benches and trees	0.05	0.00	0.05	Good/ Moderate
6	Playground of the Americas	Avenue of the Americas and West Houston Street	NYC PARKS	Playground, trees, bench, landscaping	0.08	0.08	0.00	Excellent/ Low
7	Un-named Passive Open space	West Houston and Bedford Streets, Avenue of the Americas	NYC PARKS	Benches and landscaping	0.02	0.00	0.02	Excellent/ Moderate
8	Winston Churchill Square	Downing Street and Avenue of the Americas	NYC PARKS	Benches, landscaping, sculpture	0.05	0.00	0.05	Good/ Moderate
9	Downing Street Playground	Downing Street and Avenue of the Americas	NYC PARKS	Playground, spray shower, bathrooms	0.22	0.22	0.00	Good/ Moderate
10	James J. Walker Park	Hudson, Leroy, Clarkson Streets, Seventh Avenue	NYC PARKS	Benches, trees, soccer field, playground, bocce court, baseball field, handball courts	1.67	1.50	0.17	Excellent/ Low
11	Tony Dapolito Recreation Center	Carmine and Leroy Streets, Seventh Avenue	NYC PARKS	Gymnasium and swimming pool	0.21	0.21	0.00	Excellent/ Moderate
12	Father Demo Square	Avenue of the Americas, Bleecker and Carmine Streets	NYC PARKS	Fountain, landscaping, benches	0.25	0.00	0.25	Excellent/ High

Table 6-3 (cont'd)
Existing Residential Study Area Open Spaces

Ref. No.[1]	Name	Location	Owner / Agency	Features	Total Acres	Active Acres	Passive Acres	Condition/ Utilization
13	Un-named Passive Open Space	Broome and Thompson Streets	NYC PARKS	Benches and landscaping	0.04	0.00	0.04	Good/ Moderate
14	Salomon Smith Barney Plaza	388 Greenwich Street	Private owner (Salomon Smith Barney)	Benches, trees, tables, shade structures	0.47	0.00	0.47	N/A[2]
15	Washington Market Park	Chambers Street between Greenwich Street and West Street	NYC PARKS	Playground, garden, benches, grass field, gazebo, picnic tables, spray fountain, basketball courts, tennis courts	2.15	1.72	0.43	Excellent/ Moderate
16	Duane Park	Hudson Street, Duane Street, and Thomas Street	NYC PARKS	Benches and trees	0.12	0.00	0.12	Excellent/ Moderate
17	Canal Park	Canal Street between West Street and Washington Street	NYC PARKS	Benches, trees, and landscaping	0.67	0.00	0.67	Excellent/ Low
18	McCarthy Square	Seventh Avenue, Charles Street, and Waverly Place	NYC PARKS	Flagpole, landscaping, benches	0.04	0.00	0.04	Excellent/ High
19	Freeman Plaza	Broome, Varick, Watts, and Hudson Streets	PANYNJ	Tables and chairs, lawn chairs, trees, benches	0.78	0.00	0.78	Good/ Moderate
Hudson River Park/Route 9A Bikeway								
20	Route 9A Bikeway	Harrison Street to Christopher Street	NYSDOT/ HRPT	Greenway (bike and pedestrian path)	1.57	1.57	0.00	Excellent/ High
21	Hudson River Park Upland	Harrison Street to Christopher Street	HRPT	Esplanade (pedestrian path and seating), passive lawns, tables and chairs, basketball courts, sculptures	9.07	0.84	8.23	Excellent/ High
22	Pier 25	West Street and North Moore Street	HRPT	Beach volleyball, minigolf, playground and spray fountains, Tribeca skatepark, esplanade with benches, tables and chairs, boating facility, turf field	3.45	1.37	2.08	Excellent/ High
23	Pier 26[3]	West Street and Hubert Street	HRPT	Lawn, dog run, esplanade along pier, kayaking[4]	1.29	0.00	1.29	Excellent/ Low
24	Pier 34	West Street and Spring Street	HRPT	Esplanade with benches	0.18	0.09	0.09	Good/Low
25	Hudson River Park Tennis Courts	West Street between Canal Street and West Houston Street	HRPT	Tennis and basketball courts	0.18	0.18	0.00	Excellent/ High
26	Pier 40	West Street and West Houston Street	HRPT	Dog run, fishing, kayaking, rowing, boat building, three athletic fields, perimeter esplanade	4.34	3.60	0.74	Good/High[5]

Table 6-3 (cont'd)
Existing Residential Study Area Open Spaces

Ref. No.[1]	Name	Location	Owner / Agency	Features	Total Acres	Active Acres	Passive Acres	Condition/ Utilization
27	Route 9A Bikeway and Esplanade	Christopher Street to Bank Street	NYSDOT/ HRPT	Bike path and pedestrian path	0.43	0.43	0.00	Excellent/ High
28	Hudson River Park Upland	Christopher Street to Bank Street	HRPT	Esplanade (pedestrian path and seating), passive lawns, tables	2.77	0.23	2.53	Excellent/ High
29	Pier 46	West Street and Charles Street	HRPT	Synthetic active turf lawn, fishing, benches and paths	0.73	0.29	0.43	Excellent/ High
30	Pier 45	West Street and West 10th Street	HRPT	Shade structures, seating, wood decking and passive grass lawns	2.03	0.00	2.03	Good/ Moderate
Hudson River Park/Hudson River Greenway Total					26.02	8.59	17.43	-
Residential Study Area Total					**33.97**	**12.45**	**21.52**	-

Notes: 1. See **Figure 6-2.**
2. The seating area at Solomon Smith Barney Plaza was closed at the time of surveying due to construction on the adjacent building.
3. This entry includes the completed portions of Pier 26 and its adjacent upland area.
4. The building located in the upland area near Pier 26, which contains a boathouse and restaurant, is not included in the quantified analysis because it is not open to the public. Free seasonal public kayaking programs are offered from the boathouse on Pier 26.
5. Pier 40 is in need of critical infrastructure repairs to its piles, roof, and other elements of its infrastructure, although its recreational facilities are generally in good condition.
NYC PARKS = New York City Department of Parks and Recreation
PANYNJ = Port Authority of New York and New Jersey
NYSDOT = New York State Department of Transportation
HRPT = Hudson River Park Trust
Sources: NYC PARKS; Hudson Square Connection; HRPT; *Hudson Square Rezoning FEIS*; AKRF field visits, August 2015.

ADEQUACY OF OPEN SPACES

As shown in **Table 6-4**, with a residential population of 29,425, the residential study area has a total open space ratio of 1.15 acres per 1,000 residents, which is lower than the city's median of 1.5 acres per 1,000 residents. **Table 6-4** also compares the existing open space ratios to the City's planning goal of 2.5 total acres of open space per 1,000 residents (with 2.0 acres of active open space and 0.5 acres of passive open space per 1,000 residents). The study area currently has 0.42 acres of active open space per 1,000 residents, below the City's goal of 2.0 acres per 1,000 residents, and 0.73 acres of passive open space per 1,000 residents, which exceeds the City's goal of 0.5 acres per 1,000 residents.

Table 6-4
Existing Conditions: Adequacy of Open Space Resources

		Open Space Acreage			Open Space Ratios			Open Space Goals		
Total Population		**Total**	**Active**	**Passive**	**Total**	**Active**	**Passive**	**Total**	**Active**	**Passive**
Residential (1/2-Mile) Study Area										
Residents	29,425	33.97	12.45	21.52	1.15	0.42	0.73	2.5	2.0	0.5

Notes: Ratios in acres per 1,000 people
Sources: 2010 U.S. Census; NYC PARKS; Hudson Square Connection; *Hudson Square Rezoning FEIS*; AKRF field visits, August 2015.

Development Site

Residential Study Area Boundary

❶ *Open Space Resource*

0 1,000 FEET

Study Area Open Space Resources

Figure 6-2

D. THE FUTURE WITHOUT THE PROPOSED ACTIONS

As described in Chapter 1, "Project Description," absent the proposed project (the No Action condition), the development site is anticipated to be redeveloped with a program that does not require any discretionary approvals. The No Action development is expected to include retail, hotel, office, and event space uses.

DIRECT EFFECTS ON OPEN SPACES

In the No Action condition, the hotel building on the North Site will stand approximately 630 feet to the roof and 666 feet to the top of the bulkhead and will cast shadow on Hudson River Park and Pier 40 during all seasons.

Hudson River Park and Pier 40 would receive varying amounts of new shadow at different times of the year. Hudson River Park would receive shadow on all four analysis days. The No Action development would cast shadow on Hudson River Park from between two hours and forty-five minutes on the December 21 analysis day to five hours and eight minutes on the June 21 analysis day, and on Pier 40 from forty-nine minutes on the March 21/September 21 analysis day to three hours and twenty-three minutes on the June 21 analysis day. Other areas within the park that could be expected to experience shadows from the No Action development would include the tennis courts to the south of the development site and the Leroy Street Dog Run, as well as the Route 9A Bikeway, esplanade, and landscaped areas between them. Incremental shadows would generally be most notable at the start of the analysis days and shrink in length as the sun moves higher in the sky at midday, and in the afternoon, shadows would move completely off the resources.

INDIRECT EFFECTS ON OPEN SPACES

STUDY AREA POPULATION

Development Site

The No Action development will not include any residential space. Therefore, there will be no additional residential population within the study area as a result of the No Action development.

Study Area

There are numerous development projects containing residential space anticipated to be completed within the study area by 2024; these projects are described in greater detail in Chapter 2, "Analytical Framework." Applying the Community District 2 average household size of 1.67 persons per household, these projects are expected to introduce an estimated 5,977 new residents to the study area. Therefore, with the new residents, the residential population within the study area is anticipated to increase to 35,402 in the No Action condition.

No substantial changes to the age distribution of the residential population are expected by 2024, and the anticipated development projects do not include any housing facilities (such as dormitories or senior housing) that would alter the distribution slightly toward the teenager and young adult or senior citizen cohorts. The estimated number of residents in each age cohort as shown in **Table 6-5** is based on the percent share for that age cohort at the time of the 2010 U.S. Census.

Table 6-5
No Action Condition: Study Area Residential Population Age Distribution

Age Category	Study Area	
	Persons	Percent
Under 5 Years	1,566	4.4%
5 to 9 Years	1,143	3.2%
10 to 14 Years	792	2.2%
15 to 19 Years	756	2.1%
20 to 64 Years	27,516	77.7%
65 Years and over	3,630	10.3%
Total	**35,403**	**100%**

Notes: Percent totals may not sum due to rounding.
Source: 2010 U.S. Census; AKRF, Inc.

STUDY AREA OPEN SPACES

In the No Action condition, improvements are anticipated to be made to Duarte Square Park, which is expected to be expanded with the addition of space in the demapped segment of Sullivan Street between Grand and Canal Streets. This area was the subject of agreements between the City and Trinity Church. A conceptual plan for the redesign of the park and the adjacent easement areas includes increased seating, additional trees, a water feature, and a food and drink kiosk. The improvement and opening to the public of the easement areas adjacent to Duarte Square Park in the No Action condition would result in an additional 0.23 acres of passive open space in the study area.

In addition, there are plans to redevelop Pier 26 within Hudson River Park. The upland area adjacent to Pier 26, which contains a dog run, passive lawn space, and a boathouse and restaurant building, has already been constructed. The pier itself is anticipated to be improved with various facilities, including an estuarium, lawns, and seating areas. Currently, plans and funding sources for the construction of the Pier 26 open space have not been finalized, and the completion date of the project is unknown. Therefore, the additional open space on the pier is not included in the quantified analysis.

While the No Action development would include an elevated open space over West Houston Street, this space would not be publicly accessible.

ADEQUACY OF OPEN SPACES

In the No Action condition, the residential population in the study area is expected to increase to 35,402. With the addition of the 0.23 acres of additional passive open space anticipated to be introduced at Duarte Square Park, the amount of open space in the study area will increase to 34.20 acres, with 12.45 acres of active open space and 21.75 acres of passive open space. With the additional residents and increase in open space, the total open space ratio will decrease to 0.97 acres per 1,000 residents and would remain below the city's median of 1.5 acres per 1,000 residents and the City's planning goal of 2.5 acres per 1,000 residents. The active open space ratio will decrease to 0.35 acres per 1,000 residents, and will remain below the City's planning goal of 2.0 acres per 1,000 residents, while the passive open space ratio would decrease to 0.61 acres per 1,000 residents but would remain above the City's planning goal of 0.5 acres per 1,000 residents. **Table 6-6** summarizes the open space ratios in the No Action condition.

Table 6-6
No Action Condition: Adequacy of Open Space Resources

Total Population		Open Space Acreage			Open Space Ratios			Open Space Goals		
		Total	Active	Passive	Total	Active	Passive	Total	Active	Passive
Residential (1/2-Mile) Study Area										
Residents	35,402	34.20	12.45	21.75	0.97	0.35	0.61	2.5	2.0	0.5

Note: Ratios in acres per 1,000 people
Sources: 2010 U.S. Census; NYC PARKS; Hudson Square Connection; *Hudson Square Rezoning FEIS*; AKRF field visits, August 2015; DOB; *Tribeca North FEIS*.

It should be noted that in the No Action scenario, the as-of-right redevelopment of the development site is anticipated to introduce a substantial new worker population of approximately 2,788 people associated with retail, hotel, office, and event space uses. According to the *CEQR Technical Manual*, worker populations generally use passive facilities within a ¼-mile of a site for sitting, socializing, eating lunch, and strolling. Therefore, the worker population introduced by the No Action development is expected to result in substantial demands on nearby passive open space resources that are not accounted for in the quantitative analysis.

E. THE FUTURE WITH THE PROPOSED ACTIONS

In addition to residential, retail, event, and office or hotel space, the proposed project would include a new public open space resource. As described in Chapter 1, "Project Description," the proposed project would include removal of the portion of the existing building over West Houston Street, and creation of an elevated 20,750-sf publicly accessible open space in its place. An illustrative plan for this new open space is provided as Figure 1-9. The new open space would include plantings, seating, and overlook locations, and would incorporate covered space within the adjacent second floors of the North Site and Center Site buildings. Having these open space areas recessed into the building would allow the size of the openings to West Houston Street to be the full width of the street and sidewalks. Movable tables and chairs would allow these areas to be used as open space, even in inclement weather. Adjacent retail uses would further enliven the covered open space areas.

Removing the portions of the existing building over West Houston Street would allow sunlight to reach the street, enhancing the safety and pedestrian experience of this area. The elevated public open space would have stair and elevator entrances on the south corner of Washington and West Houston Streets and on the north corner of West and West Houston Streets. The open space would be developed with whichever the North Site or Center Site is developed first, and the respective access stairway and elevator would be built at the time the building in which it is located is also built. Alternative stair access locations would also be permitted, to accommodate any changes in crosswalk configurations on surrounding streets, and to ensure that there is always at least one entrance to the elevated open space, regardless of building phasing.

The design of the elevated publicly accessible open space would include a combination of planted and paved areas, with walkways, overlook locations toward both West Street and Washington Street, and a mixture of seating types to accommodate different users. Design elements within the new open space would evoke the original rail beds and the former use of the site. Established design guidelines would ensure that the new open space would be developed with: a mix of trees, seasonal plants, and plantings that are visible from street level; a combination of fixed and moveable seating, meeting the New York City Department of City

Planning (DCP) standards for seat height, depth, and back height; adequate lighting; and clear paths for travel of at least 10 feet in width.

The publicly accessible open space would measure approximately 20,750 sf (0.48 acres), consisting of passive uses, and would be accessible to the public daily during regular set hours. This new open space on the development site is included in the quantitative assessment.

Residents in the study area would have access to open space resources located outside of the study area. In particular, Hudson River Park and the Route 9A Bikeway, which extend well beyond the study area to both the north and south, would continue to provide additional opportunities for both active and passive recreation. These open spaces are destinations that serve visitors from throughout the city, including the study area, and provide extensive areas for active recreational activities that are popular among adults, such as jogging and biking. The proposed project would also include private open space resources available to residents, including fitness facilities. In addition, in connection with the transfer of 200,000 sf of floor area from Pier 40 in Hudson River Park to the development site, the proposed actions would provide funding for critical infrastructure repairs to this vital open space resource. These factors are not considered in the quantitative assessment, but are included as qualitative considerations discussed below, consistent with the guidance of the *CEQR Technical Manual*.

DIRECT EFFECTS ON OPEN SPACES

As noted above, direct effects occur when a project results in the loss of public open space, changes the use of an open space so that it no longer serves the same user population, limits public access to an open space, or results in increased noise, air pollutant emissions, odor, or shadows that would temporarily or permanently affect the usefulness of a public open space.

As discussed in Chapter 7, "Shadows," portions of Hudson River Park and its facilities on Pier 40 would be affected by new shadow from the proposed project on all four analysis days. Specifically, the athletic fields on Pier 40 would be affected by new shadow on the morning of all analysis days and over half of the rooftop athletic field would be covered in new shadow for brief periods on all analysis days. However, the proposed project would result in reduced shadows on some portions of Hudson River Park and Pier 40, as compared to the as-of-right No Action scenario buildings. In the With Action scenario, portions of both open spaces would remain in direct sunlight at all times on the analysis days. Users wishing to be in direct sunlight would be able to access the remaining sunny areas of the open space resources and would not experience a significant reduction in use of these resources. The largest extents of new shadow would occur early in the morning of the analysis days, when park utilization would presumably be lower than in the afternoon. Due to the park's location along the bank of the Hudson River, affected areas would be in the sun for most of the remaining hours of the analysis days. Within the growing season, park vegetation and landscaping would continue to receive ample durations of direct sunlight to support plant life; on Pier 40, the turf of each playing field is synthetic and would not be affected by a reduction in direct sunlight. Therefore, the proposed project would not result in significant adverse shadows impacts on open space resources.

Shadows on the project-generated open space would vary in extent and duration depending on the time of year. Portions of the open space would fall within the building footprint and would be covered and are, therefore, not considered in the analysis of shadows. The portion of the project-generated open space that would not be covered would receive the most direct sunlight on the June 21 analysis day when a majority of its area would receive direct sunlight for all but an hour of the analysis day. On the December 21 analysis day, the project-generated open space

would receive the least amount of direct sunlight. On this day, the open space would be completely cast in shade for approximately five hours and receive partial sunlight in the remainder of the analysis day. The design and plantings for the project-generated open space take into account these conditions, including the selection of shade-tolerant species and the provision of movable tables and chairs, which would allow users to choose whether they would like to sit in sunlight or shade. Overall, the design and operation of the project-generated open space reflects the fact that it would experience a mix of sunlight and shade at various times of the day and year, and shadows on the open space would not adversely affect its utilization. As noted in the *CEQR Technical Manual*, shadows on project-generated open space are not considered significant under CEQR.

In addition, as discussed in Chapter 15, "Air Quality," the proposed project would not result in any significant adverse operational air quality impacts affecting open space resources. An analysis of mobile source emissions on the proposed publicly accessible open space areas over West Houston Street determined that there would not be any significant adverse impact on air quality on these areas.

As discussed in Chapter 17, "Noise," the proposed project would not result in any significant adverse operational noise impacts affecting open space resources. The analysis of noise levels at the proposed publicly accessible open space concludes that noise levels would be greater than the 55 dBA $L_{10(1)}$ CEQR guideline, but would be comparable to other parks around New York City. Therefore, the future projected noise levels would not constitute a significant adverse noise impact to the proposed project's open space. However, as ~~there is a potential for temporary construction-period air quality and noise impacts on the open space that would be built as part of the proposed project. As~~ described in Chapter 20, "Construction," to avoid the potential for significant adverse construction noise impacts at the proposed elevated open space, the proposed elevated open space would be closed during the demolition, excavation, and foundation construction stages at either of the adjacent building sites, i.e., the North or Center Sites. Therefore, the proposed project would not result in significant adverse noise impact on the elevated open space during construction. ~~between the Draft EIS (DEIS) and the Final EIS (FEIS), detailed modeling will be conducted to quantify potential construction air quality concentrations and noise levels at the proposed open space, and, where appropriate, identify potential measures to avoid or minimize construction impacts.~~

INDIRECT EFFECTS ON OPEN SPACES

STUDY AREA POPULATION

With the proposed project, the buildings on the North and Center Sites would include new residential units. In total, the proposed project would include 1,586 dwelling units, of which 178 units would be permanently affordable senior units. Applying the Community District 2 average household size of 1.67 persons per household, the proposed project would introduce an estimated 2,649 new residents to the study area. As a result, with the proposed project the study area's residential population would increase to 38,051.

The age distribution of the residential population in the study area would be altered slightly by the proposed project, as a result of the 178 senior housing units that would be introduced as part of the project. Specifically, out of the total population of 2,649 residents that would be introduced by the proposed project, an estimated 538 residents would be in the senior citizen (65 years and older) cohort.[3] Therefore, in the With Action condition, the age distribution of the study area population would weight slightly toward senior citizens as compared to the No Action condition. However, in the With Action condition, adults (aged 20 to 64) would remain the predominant cohort in the study area, with a proportion (77.1 percent) exceeding that of both Manhattan and New York City. **Table 6-7** shows the estimated number of residents in each age cohort in the With Action condition.

Table 6-7
With Action Condition: Study Area Residential Population Age Distribution

Age Category	Proposed Project		Study Area	
	Persons	Percent	Persons	Percent
Under 5 Years	104	3.9%	1,670	4.4%
5 to 9 Years	76	2.9%	1,219	3.2%
10 to 14 Years	53	2.0%	845	2.2%
15 to 19 Years	50	1.9%	806	2.1%
20 to 64 Years	1,827	69.0%	29,343	77.1%
65 Years and over	538	20.3%	4,168	11.0%
Total	**2,648**	**100%**	**38,051**	**100%**

Notes: Percent totals may not sum due to rounding.
Source: 2010 U.S. Census; AKRF, Inc.

ADEQUACY OF OPEN SPACES

In the With Action condition, with the additional residents and open space introduced by the proposed project, the total open space ratio in the study area would decrease to 0.91 acres per 1,000 residents (from 0.97 in the No Action condition). The active open space ratio would decrease to 0.33 acres per 1,000 residents (from 0.35 in the No Action condition), and the passive open space ratio would decrease to 0.58 acres per 1,000 residents (from 0.61 in the No Action condition). **Table 6-8** summarizes the open space ratios in the With Action condition.

Table 6-8
With Action Condition: Adequacy of Open Space Resources

Total Population		Open Space Acreage			Open Space Ratios			Open Space Goals		
		Total	Active	Passive	Total	Active	Passive	Total	Active	Passive
Residential (1/2-Mile) Study Area										
Residents	38,051	34.68	12.45	22.23	0.91	0.33	0.58	2.5	2.0	0.5

Note: Ratios in acres per 1,000 people
Sources: 2010 U.S. Census; NYC PARKS; Hudson Square Connection; *Hudson Square Rezoning FEIS*; AKRF field visits, August 2015; DOB; *Tribeca North FEIS*.

[3] The estimated age distribution assumes 100 percent of the residents of the senior housing units would fall in the age 65 and older cohort and that the age distribution of the residents in the 1,408 general housing units would be the same as the existing age distribution in the study area, shown on **Table 6-2.**

INDIRECT EFFECTS ASSESSMENT

Quantitative Assessment

As in the No Action condition, in the With Action condition the total open space ratio would remain below the City's median of 1.5 acres of total open space per 1,000 residents and the City's planning goal of 2.5 acres of total open space per 1,000 residents. Similarly, the study area would remain below the City's planning goal of 2.0 acres of active open space per 1,000 residents, but would continue to meet the City's planning goal of 0.5 acres of passive open space per 1,000 residents. As noted in the *CEQR Technical Manual*, these ratios are not feasible for many areas of the City and are not considered impact thresholds.

As shown in **Table 6-9**, in the With Action condition the study area's total open space ratio would decrease by 5.66 percent, while the active open space ratio would decrease by 6.96 percent and the passive open space ratio would decrease by 4.91 percent.

Table 6-9
Open Space Ratios Summary

Ratio	City Goal (acres per 1,000 non-residents)	No Action Condition	With Action Condition	Percent Change
Total	2.5	0.97	0.91	-5.66%
Active	2.0	0.35	0.33	-6.96%
Passive	0.5	0.61	0.58	-4.91%

According to the *CEQR Technical Manual*, an action may result in a significant adverse open space impact if it would reduce the open space ratio by more than 5 percent in areas that are currently below the City's median community district open space ratio of 1.5 acres per 1,000 residents. As noted in **Table 6-8**, the open space ratios for the study area are below the City's open space goal and the median community district ratio. In addition, as noted in **Table 6-9**, the proposed project would result in a decrease in the total and active open space ratios of 5.66 and 6.96 percent, respectively. Therefore, based on the *CEQR Technical Manual* guidelines, the proposed project would result in a significant adverse impact to open space due to the decreases in the total and active open space ratios. The decrease in the passive open space ratio of 4.91 percent would not be considered a significant adverse impact.

In addition to this quantitative assessment approach to determine overall impact significance, a qualitative assessment of the proposed actions is provided below.

Qualitative Assessment

Based on the quantitative analysis the proposed project would have a significant adverse impact to open space due to indirect effects. Following *CEQR Technical Manual* guidelines, in addition to a quantitative analysis, a qualitative assessment of a project's effects on open space should be considered. Therefore, a qualitative assessment of the proposed actions is provided below.

Although the total and active open space ratios in the study area would fall below the City's planning goals in both the No Action and With Action conditions, residents in the study area would have access to other open space resources located outside of the study area. In particular, Hudson River Park and Route 9A Bikeway, which extend well beyond the study area to both the north and south, provide additional space for both active and passive recreation. These open spaces are destinations that serve local residents in the study area as well as visitors from

throughout the city, and provide extensive areas for active recreational activities that are popular among adults, such as jogging, biking, boating, and other courts and fields. In particular, given the relatively high proportion of the study area population who are adults (aged 20 to 64) rather than children, teenagers, or senior citizens, the extended Hudson River Park, inclusive of the Hudson River Park Esplanade and the Route 9A Bikeway, serves many of the active open space needs of the area. Furthermore, the boating facilities throughout the park provide unique active recreational features for visitors that are only available at limited locations along the city's waterfront.

In the No Action scenario, the as-of-right redevelopment of the development site is anticipated to introduce a substantial new worker population of approximately 2,788 people, associated with the expected retail, hotel, office, and event space uses. According to the *CEQR Technical Manual*, worker populations generally use passive facilities within a ¼-mile of a site for sitting, socializing, eating lunch, and strolling. Therefore, the worker population introduced by the No Action development is expected to result in substantial demands on nearby open space resources that are not accounted for in the quantitative analysis. While the proposed project would increase utilization of study area open space resources due to the introduction of approximately 2,649 new residents and up to 930 workers, this increased user population would be minimally higher than the 2,788 workers introduced in the No Action condition.

The proposed project would support open spaces within the study area by providing an opportunity for critical repairs to Pier 40, located directly across from the development site. Pier 40 is one of the most popular destinations within Hudson River Park, featuring highly used athletic fields and other active recreational facilities that attract local residents from the study area as well as visitors from throughout the city. Furthermore, Pier 40 is a critical component of Hudson River Park's operations, as under the terms of the Hudson River Park Act, Pier 40 was intended as a revenue-generating site to support the park financially. The parking garage on the pier is a particularly valuable revenue-generating resource for the Park.

Due to the structural deterioration of the pier's roof, portions of the parking garage have been closed to ensure public safety, which has affected the revenue generated for the park's operation. In addition, underwater assessments of the pier have determined that the steel piles supporting the pier must also be repaired. Absent additional funding for the repair of the piles, the pier would continue to deteriorate and would eventually need to be closed to the public for safety. As a result, Hudson River Park would likely lose one of its key public facilities as well as a key revenue source, which would endanger the continued operation of the park as a whole.

The transfer of floor area from Pier 40 to the development site under the Special Hudson River Park District as part of the proposed project would provide critical funding for repairs to Pier 40. The continued operation of Pier 40 is particularly important given the study area's relatively high population of adults, as it provides extensive areas for active field sports, which are identified in the *CEQR Technical Manual* as an important need for this age group. Furthermore, the proposed project would support the operation of Hudson River Park, as repairs to Pier 40 would preserve a key revenue source for the park, as well as HRPT's offices and park operations center. In particular, maintaining Pier 40 as a revenue source would allow for the continued upkeep of Hudson River Park, which is currently in generally excellent condition. The proposed project would be supportive of a key destination open space resource, with unique features such as boating facilities, serving residents in the study area and throughout the city. Therefore, the proposed project would also provide necessary support for open space used by study area residents, as well as the city as a whole.

Nevertheless, in accordance with the guidelines of the *CEQR Technical Manual*, the proposed project would result in a significant adverse open space impact due to the decrease in the total and active open space ratios. ~~Potential mitigation measures are discussed in Chapter 22, "Mitigation." Additional consideration of mitigation measures will be undertaken between the DEIS and FEIS, and will be presented in the FEIS.~~Potential mitigation measure including those explored between the DEIS and FEIS are discussed in Chapter 22, "Mitigation." ✷