

A. INTRODUCTION

~~This The Final Environmental Impact Statement (FEIS) considers the minor modifications to the existing Two Bridges Large Scale Residential Development (LSRD) (the proposed actions) proposed by the applicants—Cherry Street Owner, LLC (an affiliate of JDS Development Group, and Two Bridges Senior Apartments LP); Two Bridges Associates, LP (a joint venture between CIM Group and L+M Development Partners); and LE1 Sub LLC—~~seek minor modifications to the existing Two Bridges Large Scale Residential Development (LSRD) to facilitate the development of three new mixed-use buildings within the Two Bridges LSRD (the proposed projects). The Two Bridges LSRD is bounded by the midblock area between Clinton Street and Montgomery Street; Cherry, Clinton, and South Streets; and midblock between Rutgers Slip and Pike Slip within the Lower East Side neighborhood of Manhattan in Community District (CD) 3 (see Figures S-1 and S-2).

As described below, the three project sites—Sites 4 (4A/4B), 5, and 6A—are located in a C6-4 zoning district ~~within the Lower East Side neighborhood of Manhattan in Community District (CD) 3,~~ within the boundaries of the Two Bridges LSRD. (The numbering of the sites in this document corresponds with that used in the Two Bridges LSRD.) Site 4 (4A/4B), controlled by Cherry Street Owner, LLC, occupies the northeast corner of Block 248, Lots 15, 70, and 76. Site 5, owned by Two Bridges Associates, LP, occupies Block 247, Lots 1 and 2. Site 6A is owned by LE1 Sub LLC and occupies Block 246, Lot 5 (see **Figures S-1 and S-2**). C6-4 zoning districts are commercial districts that permit a maximum floor area ratio (FAR) of 10.0 for commercial, community facility, or residential uses (or up to 12.0 FAR with inclusionary housing). The three proposed projects have separate developers, approvals, and financing. ~~It should be noted that; however, they all three proposed projects are being considered together for the purposes of presenting a conservative environmental review.~~ purposes—Since all of the three project sites are located within the Two Bridges LSRD and would be developed during the same construction period. ~~As such,~~ the potential environmental impacts of the three proposed projects are considered cumulatively.

Together, the three proposed projects would contain a total of approximately 2,527,727 gross square feet (gsf) of new Use Group 2 residential space, approximately 10,858 gsf of Use Group 6 retail space, and approximately 17,028 gsf of community facility space. Based on this gross residential floor area, and assuming a gross floor area of 850 square feet (sf) per residential unit,¹ the three proposed new buildings would contain a total of up to 2,775 new dwelling units, of which 25 percent or up to 694 units would be designated as permanently affordable,² including

¹ 850 sf is the area assumed for individual residential units in CEQR analyses; however, the minimum legal size of a residential unit is 640 sf. If larger units are provided, then there would be a smaller number of residential units and affordable residential units.

² A portion of the affordable units would be made permanently affordable pursuant to requirements of the “R10 Program,” set forth in Zoning Resolution Sections 23-154(a) and 23-90. The remainder of the

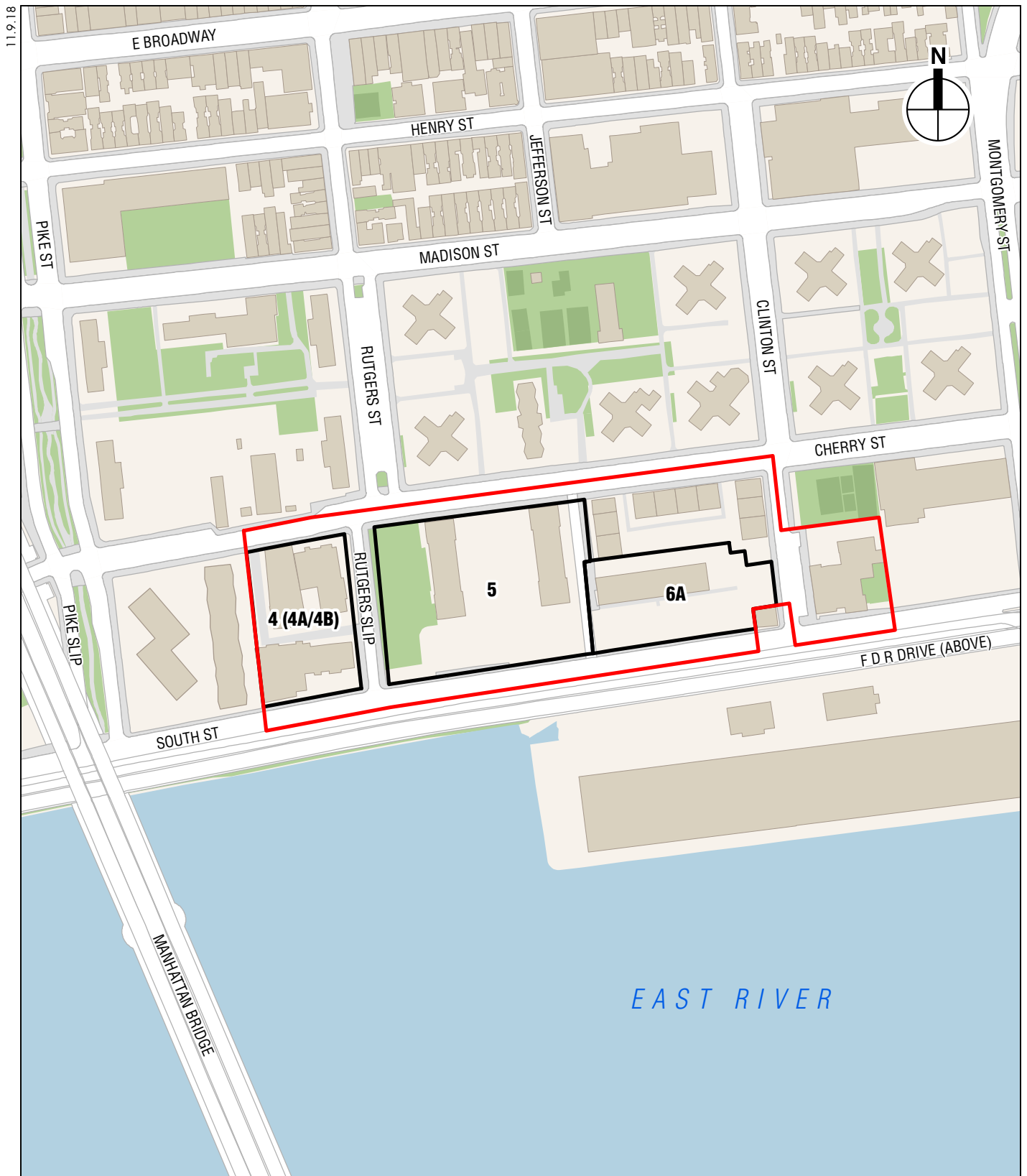


Project Sites

Boundary of Two Bridges LSRD

TWO BRIDGES LSRD

**Aerial Map
Figure S-1**



- Project Sites
- Boundary of Two Bridges LSRD

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approximately 200 new units of low-income senior housing. The Two Bridges LSRD Approvals would limit the number of new residential units on each site.

The three proposed projects would also contain a total of approximately 22,779 sf of new publicly accessible and private open space. On Site 5, the existing approximately 22,440 sf of private Rutgers Slip Open Space would be enlarged by approximately 11,110 sf, and the total of approximately 33,550 sf (approximately 0.77 acres) would be dedicated as publicly accessible open space. Across the three project sites, a total of approximately 80,020 sf of both publicly accessible and private open space would be altered with new amenities, such as new landscaping, paving, seating, and play areas. The proposed actions would also result in additional resiliency measures at each site, new landscaping, and ground floor retail. No new parking would be created with the proposed projects; the existing 103 at-grade parking spaces on Site 5 would be relocated to a below-grade facility in the proposed building on that site.

The proposed actions are subject to City Environmental Quality Review (CEQR). The New York City Department of City Planning (DCP), acting on behalf of the City Planning Commission (CPC), is the lead agency for the environmental review.

B. AREA AFFECTED BY THE PROPOSED ACTIONS

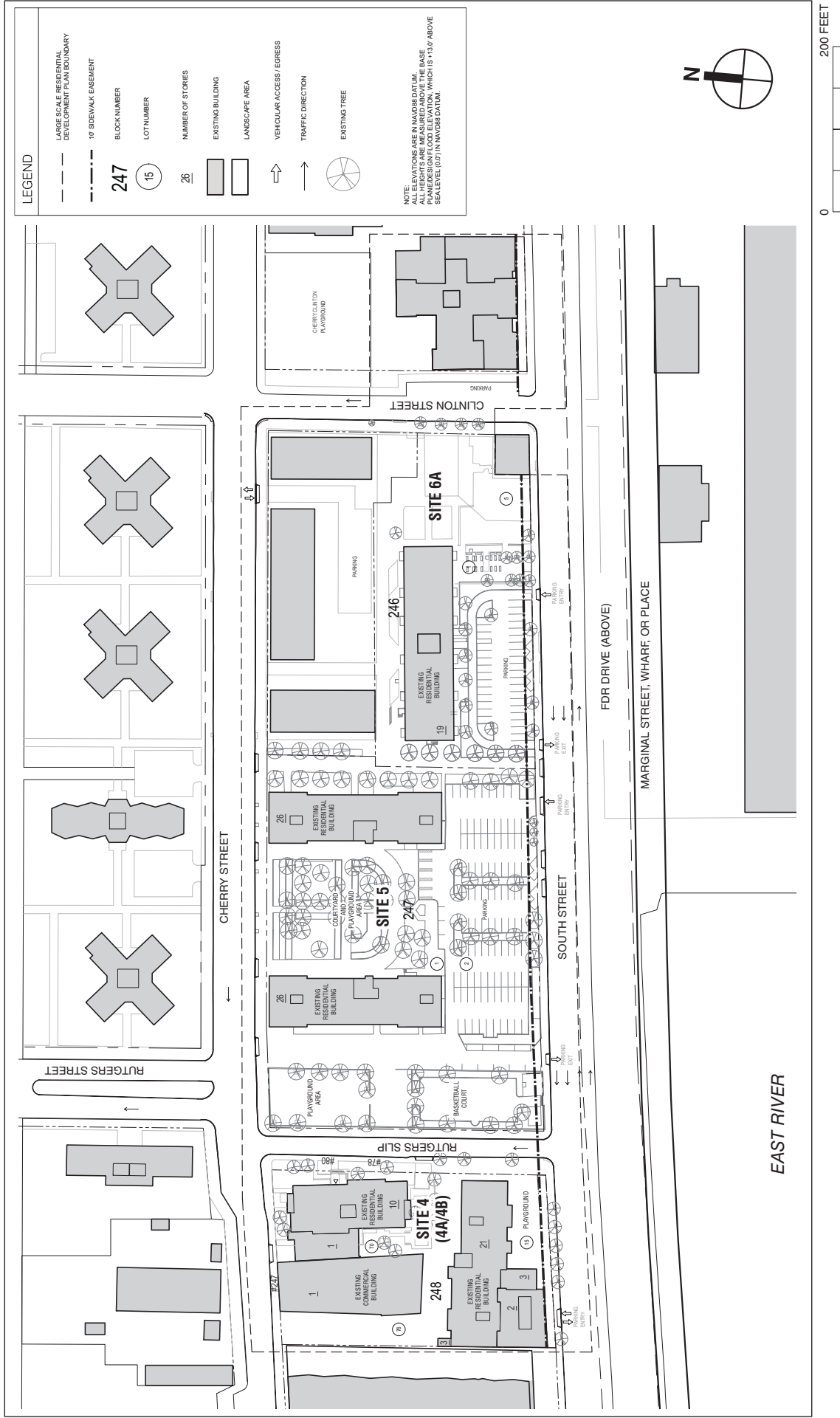
As mentioned above, the area to be affected by the proposed actions is located in the Lower East Side neighborhood of Manhattan in CD 3, within the boundaries of the Two Bridges LSRD (see **Figures S-1 through S-3**). The three project sites are Site 4 (4A/4B) on Block 248, Lots 15, 70, and 76; Site 5 on Block 247, Lots 1 and 2; and Site 6A on Block 246, Lots 1 and 5. The other sites within the Two Bridges LSRD—Site 6B on Block 246, Lots 1101-1057 and Site 7 on Block 245, Lot 1—would not be affected by the proposed actions. Site 6B is currently occupied by three 3-story buildings with a total of 57 residential units, and Site 7 is currently occupied by a 27-story residential building with 250 units and 30 parking spaces.

BACKGROUND

The former Two Bridges Urban Renewal Area (TBURA) was designated as an urban renewal area on January 15, 1961. This area covered 14 acres along the East River in Lower Manhattan bounded by Market Street to the west, South Street to the south, Montgomery Street to the east, and Cherry Street to the north. Development in the former TBURA was governed by the Two Bridges Urban Renewal Plan (TBURP), the goals of which included eliminating blight and restoring the residential character of the area; providing well-designed low, moderate, and middle income housing; providing convenient recreational, commercial, and community facility uses; achieving high quality urban design, architecture, street and open space elements; and strengthening the City's tax base by encouraging development and employment opportunities in the area. The TBURP was originally approved by the CPC and the Board of Estimate (BOE) in 1967. Over the years, the TBURP was amended and the TBURA was developed. The TBURP expired in June 2007.

The Two Bridges LSRD was originally approved by the CPC on May 17, 1972 (CP-21885) and was last amended on August 23, 2013 (M120183 ZSM). The 2013 amendment was intended to

affordable units would be made permanently affordable pursuant to Regulatory Agreements with the New York City Department of Housing Preservation and Development (HPD) as established in consultation with the applicants. For purposes herein, permanent or permanently affordable housing shall refer to units made permanently affordable both through the R10 Program and the Regulatory Agreements.



Existing Conditions Site Plan
All Projects
Figure S-3

allow for the development of a new mixed-use building on Site 5, as well as the enlargement of existing retail use and the relocation of 103 existing accessory surface parking spaces on that site. That proposed development did not occur. The Two Bridges LSRD includes six of the former TBURA parcels, which were initially developed in seven stages pursuant to the Two Bridges LSRD Approvals (see **Appendix A**). The boundaries of the Two Bridges LSRD are illustrated in **Figures S-1 through S-3**. The Two Bridges LSRD Approvals, as amended, remains in effect.

All of the project sites are located within a C6-4 zoning district, a district that has been mapped in the project area since 1961. C6 districts are commercial districts that generally permit a wide range of high-bulk commercial uses that require a central location. C6 districts permit corporate headquarters, community facilities, and high-rise residences in mixed-use buildings. C6-4 districts also permit a maximum FAR of 10.0 for commercial, community facility, or residential uses (or up to 12.0 FAR with the provision of inclusionary housing). As C6-4 districts are typically mapped in districts that are generally well served by mass transit, off-street parking is generally not required. One parking space per 4,000 zoning square feet (zsf) of new community facility or commercial space is permitted and limited to 100 spaces, or 225 spaces for mixed-use developments. All new parking spaces must be located in an enclosed building. There is no height limitation in C6-4 districts.

PROJECT SITES

SITE 4 (4A/4B)

Site 4 (4A/4B) includes Block 248, Lots 15, 70, and 76 and contains a total lot area of 69,210 sf, with approximately 335,434 of existing zsf for a built FAR of 4.85 FAR (if assumed as a single zoning lot) (see **Figure S-3**). Up to approximately 495,086 existing zsf remains unbuilt (based on a maximum of 12 FAR, with inclusionary housing). Lot 70 is owned by Two Bridges Senior Apartments LP, and Lot 76 is owned by Two Bridges Housing Development Fund Company, Inc. Lot 76 and a portion of Lot 70 are under contract for purchase by applicant Cherry Street Owner, LLC (with Two Bridges Senior Apartments LP retaining ownership of the remainder of Lot 70). Lot 70 is occupied by the Two Bridges Helen Hayes Senior Residence at 80 Rutgers Slip, an approximately 85,615-gsf (109-unit), 10-story residential (Use Group 2) building, and has four surface accessory parking spaces and 3,928 sf of open space. Lot 76 contains 235 Cherry Street, a partially vacant, approximately 11,575-gsf one-story commercial building with Use Group 6 retail and 280 sf of open space. Lot 15 is occupied by the Two Bridges Tower at 82 Rutgers Slip, an approximately 255,447-gsf (198-unit), 21-story mixed-use residential building with an 11-space enclosed accessory parking facility, and 11,660 sf of paved, private but publicly accessible open space to the north of the building, adjacent to 235 Cherry Street and 80 Rutgers Slip. The existing residential buildings on Lot 70 (80 Rutgers Slip) and Lot 15 (82 Rutgers Slip) contain affordable housing, including affordable senior housing at 80 Rutgers Slip. Site 4 (4A/4B) is located on the west side of Rutgers Slip, between Cherry Street to the north and South Street to the south. Site 4 (4A/4B) has three existing curb cuts, one each on Cherry Street, Rutgers Slip, and South Street. An as-of-right zoning lot merger would be required in order to facilitate this project. Lot 15 would be part of the zoning lot.

SITE 5

Site 5—owned by applicant Two Bridges Associates, LP—comprises Lots 1 and 2 of Block 247 and is located between Cherry Street, South Street, Rutgers Slip, and the former alignment of Jefferson Street (demapped) (see **Figure S-3**). Site 5 has approximately 615,071 of existing zsf,

for a built FAR of 4.24. Up to approximately 1,125,301 zsf remains unbuilt (based on a maximum of 12 FAR, with inclusionary housing).

The Land's End II development on Site 5 includes two 26-story rental apartment buildings for low-income households at 265 and 275 Cherry Street (634,983 gsf and 490 units total); a paved surface parking lot with 103 parking spaces on South Street; a paved area between the private Rutgers Slip Open Space and the west side of the 265 Cherry Street building; and private playgrounds and landscaped seating areas in the private courtyard area between the two buildings). The building at 265 Cherry Street includes a small amount of local retail use on the ground floor. Site 5 also includes the private Rutgers Slip Open Space along the Rutgers Slip block frontage that contains playgrounds, seating areas, and a basketball court. Site 5 has four existing curb cuts on Cherry Street and five existing curb cuts on South Street.

(E) Designations Assigned to the Site

~~Lot 2 on~~ Within the Site 5 project site, Lot 2 is assigned an (E) Designation ~~for~~ related to air quality, noise, and hazardous materials, listed in the DCP (E) Designation database as E-312, established in the 2013 *Two Bridges (Health Care Chaplaincy) Environmental Assessment Statement* (CEQR No. 12DCP157M, M120183ZSM). The hazardous materials (E) Designation requires that a Phase I of the site be submitted to the New York City Office of Environmental Remediation (OER) for review and approval, along with a soil and groundwater testing protocol. OER would make a determination regarding whether remediation is necessary based on the results of the testing. If remediation is indicated from the test results, a proposed remediation plan must be submitted to OER for review and approval. The applicant must complete such remediation as determined necessary by OER, and provide documentation that the work has been satisfactorily completed. In addition, an OER-approved construction-related health and safety plan would be implemented during excavation and construction activities.

The (E) Designation for air quality requires that the proposed building on this site use natural gas as the only fossil fuel for any on-site heating and water systems, and must be located on the tallest portion of the proposed building. The proposed building's on-site heating and hot water systems would also be designed to ensure that maximum concentrations of nitrogen dioxide do not exceed the National Ambient Air Quality Standard (NAAQS) on a 1-hour average basis. To attain this standard, the proposed building's boilers used for space heating would have low-NO_x (<16 ppm) burners, the boilers used for hot water would utilize low-NO_x (<20 ppm) burners, and the boilers would have a stack placement of a minimum of 260 feet from the lot line facing Cherry Street or a minimum of 236 feet from the lot line facing Rutgers Slip. The maximum capacity of equipment used for space heating and hot water would be 6 MMBTU/hour. Note that the air quality (E) Designation for Site 5 that would be applied through the proposed projects would supersede the existing (E) Designation on that property.

~~The (E) Designation for noise requires that future community facility uses must provide up to 38 dBA of window/wall attenuation to achieve interior noise levels of 45 dBA.~~

SITE 6A

Site 6A comprises Block 246, Lots 1 and 5, with Lot 5 owned by LE1 Sub LLC. The development site is part of a merged zoning lot that also includes Lot 1. Site 6A is located on the west side of Clinton Street at South Street. Lot 5 is currently vacant; Lot 1 is occupied by 275 South Street, a 19-story, 262,877 zsf/gsf (256-unit) residential building, and a 34-space accessory surface parking lot facing South Street (see **Figure S-3**). Site 6A contains a total lot area of 71,357 sf, with approximately 262,877 of existing zsf, for a built FAR of 3.53. Approximately 593,407 zsf

remains unbuilt (based on 12 FAR, with inclusionary housing). Two existing curb cuts provide access to this parking lot from South Street.

C. PROPOSED ACTIONS

ACTIONS NECESSARY TO FACILITATE THE PROPOSED PROJECTS

The proposed projects each require a minor modification to the previously approved Two Bridges LSRD (originally approved by CP-21885; last amended by M 120183 ZSM)³ (see **Appendix A** for a summary of previously granted LSRD certifications, authorizations, and special permits, the “LSRD Approvals.”) Because the proposed projects do not require special permits or any other action listed under New York City Charter Section 197-c, they do not require approval through the City’s Uniform Land Use Review Procedure (ULURP) process.

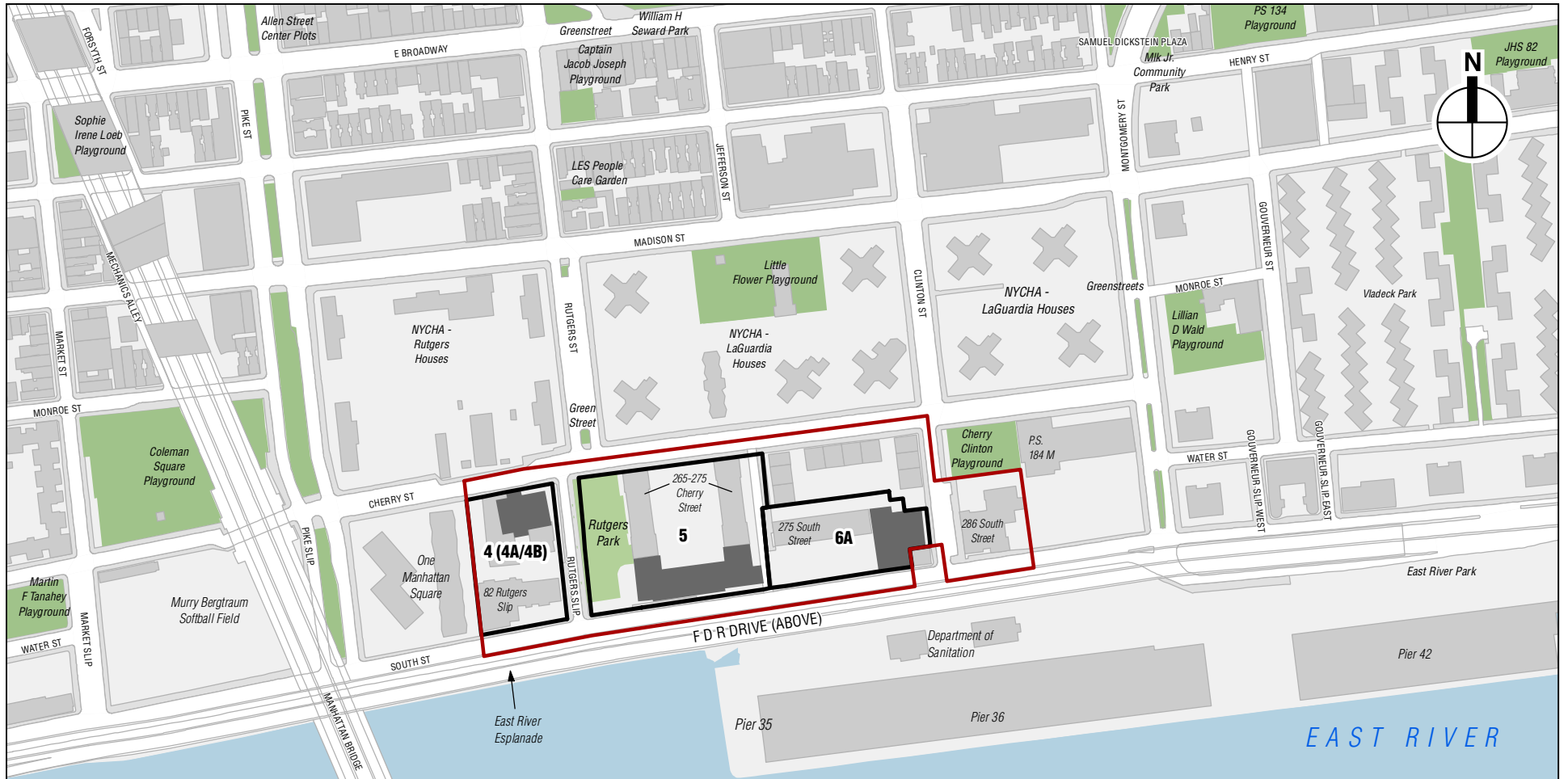
The proposed modifications to the Two Bridges LSRD Special Permit (see **Table B**, LSRD Zoning Calculations in **Appendix B**) would enable the development of three new mixed-use buildings within the Two Bridges LSRD. The new mixed-use developments on each of the three project sites would comply with the underlying C6-4 district regulations applicable to the sites under the Zoning Resolution, and no discretionary use or bulk waivers would be required to facilitate the proposed projects.

~~However, it should be noted that~~ the previously approved Two Bridges LSRD site plans restrict the maximum developable floor area, lot coverage, location of buildings, and other features of development on the Two Bridges LSRD sites as shown in **Table B**, LSRD Zoning Calculations in **Appendix B**. While the proposed actions would not change the maximum FAR, floor area, or building envelopes permitted by the underlying zoning district regulations, the requested minor modifications would modify the approved site plans to enable the proposed developments to be constructed within the Two Bridges LSRD boundary. The proposal would facilitate the utilization of existing unused floor area available within the Two Bridges LSRD. ~~Therefore, to~~ To facilitate the proposed projects ~~(also detailed described below and summarized in Table S-1),~~ modifications to the Two Bridges LSRD Approvals are being requested from the CPC.

SITE 4 (4A/4B)

The proposed minor modification for Site 4 (4A/4B) would revise the Two Bridges LSRD parcel boundaries to combine Parcels 4A and 4B into new Parcel 4 (see **Figures S-4 through S-6**). It would also revise the Two Bridges LSRD Approvals to modify the site plans to enable the use of unused existing floor area on the development site within a building envelope that is permitted by the underlying C6-4 zoning district regulations. These modifications would facilitate the development of a new approximately 1,008-foot-tall residential building with ground floor retail on a portion of Lot 70 (see **Figures S-6 through S-9**). The anticipated building and maximum building envelope are shown on **Figures S-6 and S-8**. This new building would cantilever over the existing 10-story senior housing building at 80 Rutgers Slip on Lot 70 and the 1-story ~~commercial-commercial~~ building on Lot 76. It would provide new amenities, including pavers, plantings, and seating at the existing open space on Lots 15, 70, and 76. No new parking would be provided. The existing buildings on Lots 15, 70, and 76 would be retained; ~~however,~~ the ground floor and westernmost portion of the existing building on Lot 70 (80 Rutgers Slip) would be

³ The M 120183 ZSM approval would be withdrawn upon approval of the minor modifications for the proposed projects.



- Project Sites
- Boundary of Two Bridges LSRD
- Proposed Buildings
- Publicly Accessible Open Space

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Proposed Site Plan
All Projects
Figure S-5



Site 4 (4A/4B)
 Proposed Site Plan
 Figure S-6

11.20.18

Source: SHoP Architects PC



NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

View southwest from Rutgers Slip and Cherry Street

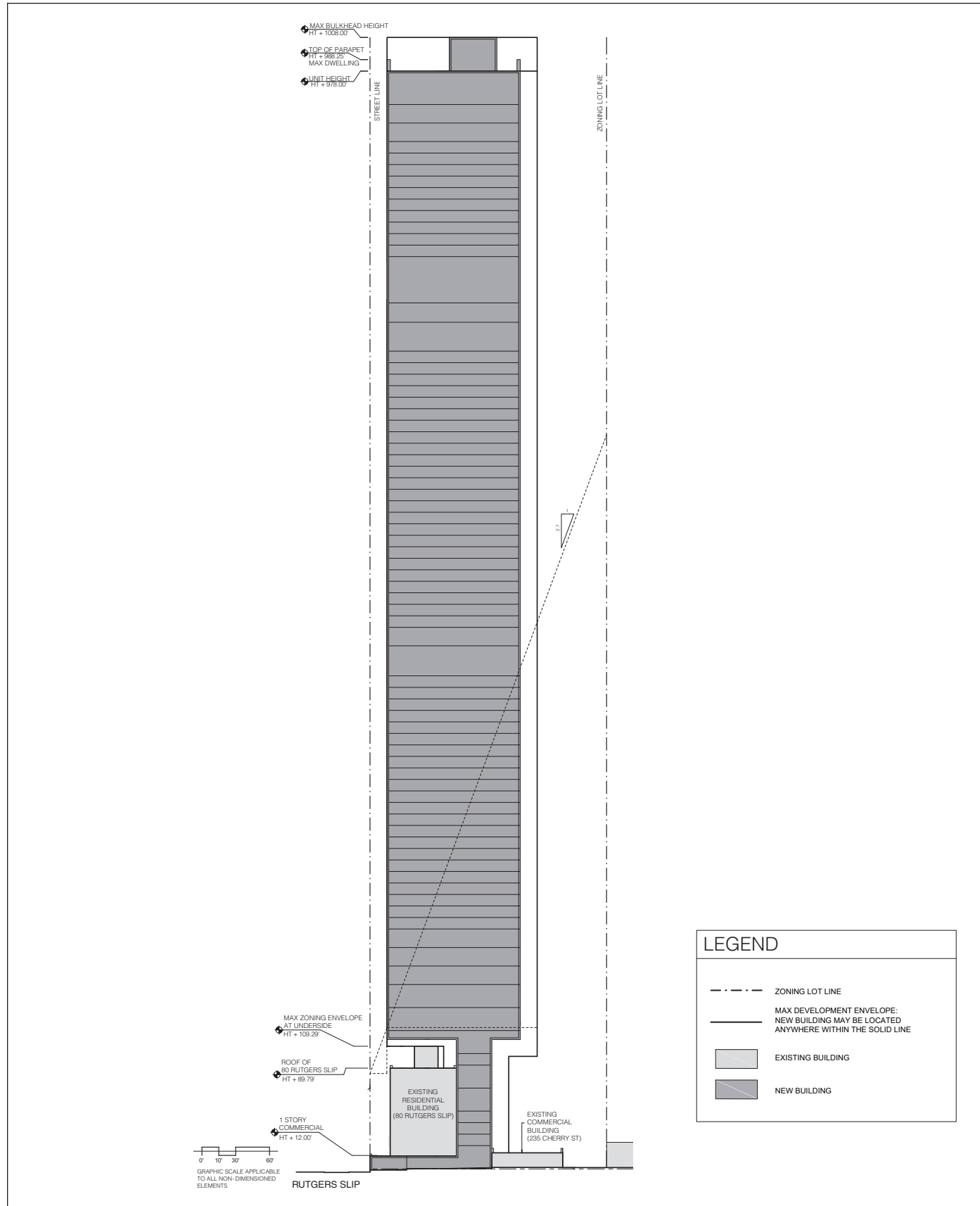
Source: SHoP Architects PC



NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

View northeast from the project site across the grove area

Site 4 (4A/4B)
Illustrative Renderings
Figure S-7



Site 4 (4A/4B)
Representative Section (East-West)
Figure S-8



Source: SHoP Architects PC

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

Site 4 (4A/4B)
Illustrative Rendering
Figure S-9

Two Bridges LSRD

reconfigured to allow for the introduction of ground floor retail and to accommodate the new development.

Table S-1
Proposed Projects

Use (GSF)	Site 4 (4A/4B) ¹	Site 5 ³	Site 6A ⁶	Total
Use Group 2 (Residential)	629,944 gsf ²	1,227,932 gsf ⁴	669,851 gsf	2,527,727 gsf
Residential Units	660 DUs	1,350 DUs (100 senior)	765 DUs (100 senior)	2,775 DUs (200 senior)
<i>Affordable Unit Count</i>	25 percent (up to 165 DUs)	25 percent (up to 338 DUs)	25 percent (up to 191 DUs)	Up to 694 DUs
Use Group 6 (Retail)	3,124 gsf	5,319 gsf	2,415 gsf	10,858 gsf
Community Facility	None	17,028 gsf	None	17,028 gsf
Accessory Parking	None	103 <i>below-grade</i>	None	103 <i>below-grade</i>
Private Open Space	None	19,579 sf ⁵	3,200 sf	22,779 sf
Maximum Building Height	±1,008'	±798'	±730'	
Maximum Building Width	±121'	±283'	±137'	
Maximum Building Depth	±85'	±110'	±150'	

Notes:

¹ Does not include the existing development on Site 4 (4A/4B) (85,615 gsf [109 units] residential, 3,928 sf open space, and 4 surface parking spaces at 80 Rutgers Slip/Lot 70; 227,895 gsf residential [198 units], 27,552 gsf community facility, 11 enclosed accessory parking spaces, and 11,660 sf open space at 82 Rutgers Slip/Lot 15; and 11,575 gsf retail and 280 sf open space at 235 Cherry Street/Lot 76). Absent the proposed projects, (the No Action condition), existing development on Site 4 (4A/4B) would remain, and the existing retail in the Lot 76 building would be re-tenanted. With the proposed projects, (the With Action condition) 10 existing units from the 80 Rutgers Slip building would be relocated into the new building, for a total of 99 remaining units at 80 Rutgers Slip and up to 670 new units in the new building (including the 10 relocated senior housing units). The existing retail at 235 Cherry Street would be re-tenanted in the With Action condition, and the 15,868 sf of existing open space on Lots 15, 70, and 76 would be altered with new amenities, including new pavers, plantings, and seating. The existing residential building with accessory parking at 82 Rutgers Slip/Lot 15 would remain in the With Action condition, but the 4 parking spaces at 80 Rutgers Slip/Lot 70 would be removed.

² For the purposes of determining the number of units to be analyzed, 8,079 gsf of community room and 5,113 gsf of ground-floor common area were subtracted from this total.

³ Does not include the existing development on Site 5 (634,983 gsf residential [490 units] and 2,024 gsf retail at 265-275 Cherry Street), which would remain the same in the No Action and With Action condition.

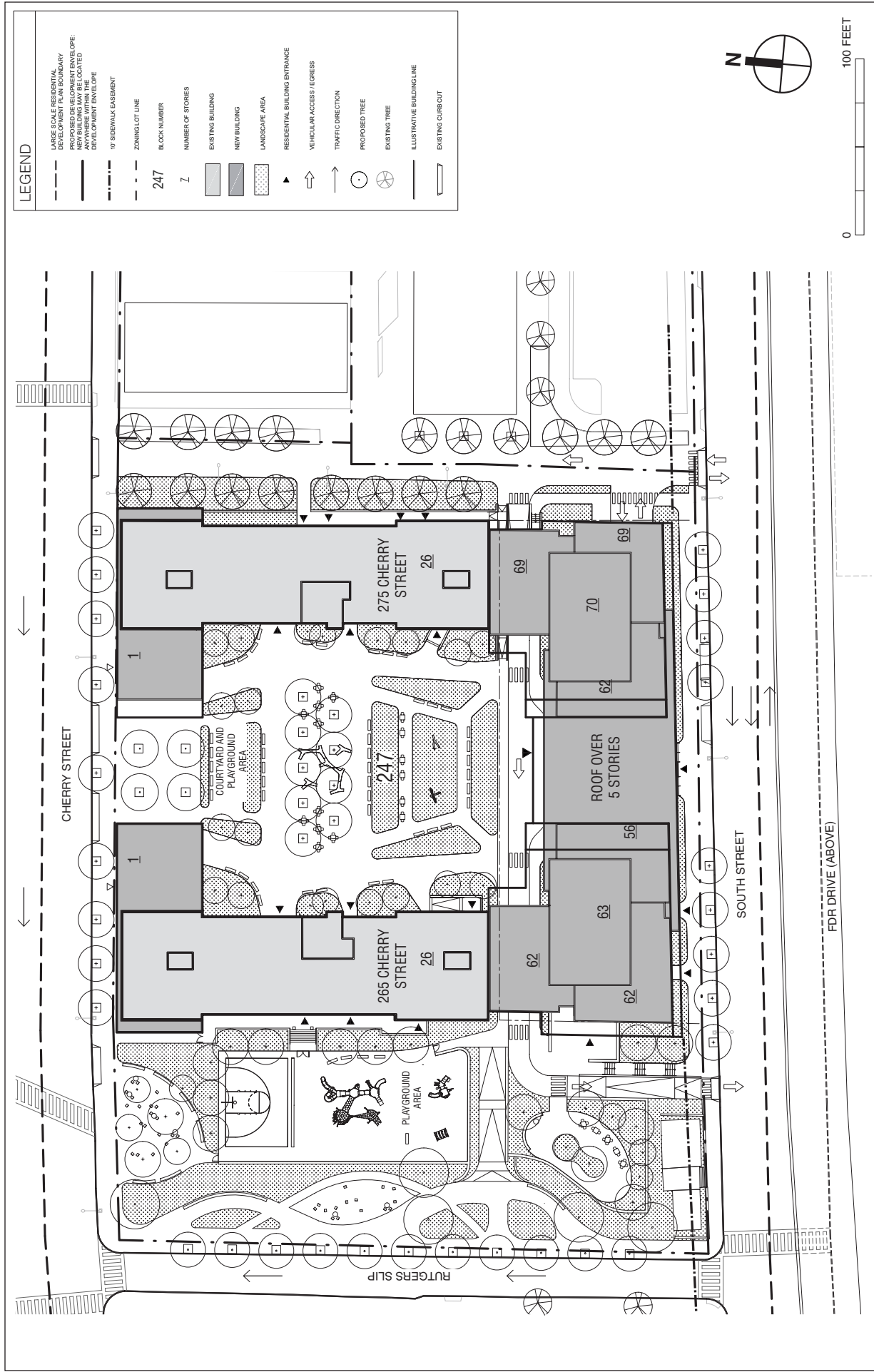
⁴ For the purpose of determining the number of units to be analyzed, 81,683 gsf of residential amenity space, which includes building amenities (±55,356 gsf) and cellar level parking (±26,327 gsf) was subtracted from the total residential gsf, resulting in 1,146,249 gsf, with ±1,350 DU at 850 sf/DU.

⁵ New open space. The existing open space on Site 5 (approx. 64,152 sf) would also be altered with new amenities, including play equipment, basketball courts, and landscaping, walking paths, and seating.

⁶ Does not include the existing development on Site 6A/Lot 1 (262,877 gsf residential [256 units] and 34 accessory surface parking spaces at 275 South Street), which would remain the same in the No Action and With Action condition.

SITE 5

The proposed minor modification for Site 5 would revise the Two Bridges LSRD Approvals to modify the site plans to enable the use of unused existing floor area on the development site within a building envelope that is permitted by the underlying C6-4 zoning district regulations (see **Figures S-4, S-5, and S-10**). The modifications would facilitate the development of a new mixed-use building with residential and community facility uses located in two towers (approximately 748 feet tall and 798 feet tall) on a shared base, replacing a paved surface parking lot (see **Figures S-11 through S-13**). The anticipated building and maximum building envelope are shown on **Figures S-10 and S-12**. The development would facilitate the relocation of the existing 103-space surface parking spaces to a new below-grade garage in the proposed building; however, No new parking would be created. The two existing 26-story residential buildings at 265 and 275 Cherry Street would be retained, and ground floor retail space along Cherry Street would be enlarged. The existing private courtyard between the 265 and 275 Cherry Street buildings would be relandscaped and the existing private Rutgers Slip Open Space would be enlarged, reconstructed with new amenities, including play equipment, basketball courts, and landscaping, walking paths, and seating and would be dedicated as publicly accessible open space.



NOTES:
CERTAIN ELEMENTS OF BUILDING DESIGN, SUCH AS THE MAXIMUM BUILDING ENVELOPE, WILL BE CONTROLLED UNDER THE PROPOSED MINOR MODIFICATIONS TO THE TWO BRIDGES LSRD APPROVALS.
OPEN SPACE DELINEATIONS AS SHOWN ARE APPROXIMATE.

Site 5
Proposed Site Plan
Figure S-10

Source: Handel Architects LLP



NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

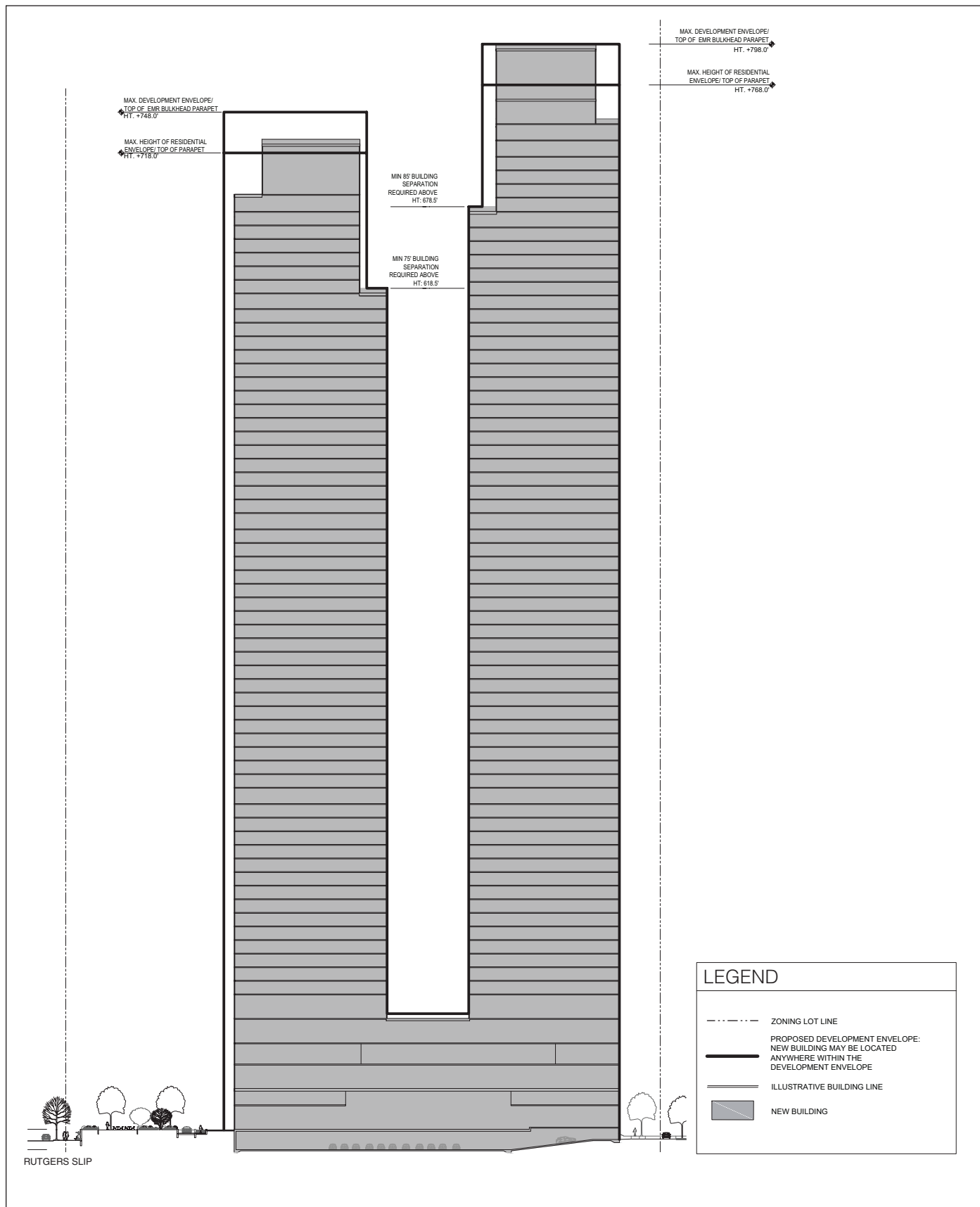
Southwest view on Cherry Street to the landscaped courtyard and ground floor retail

Source: Handel Architects LLP

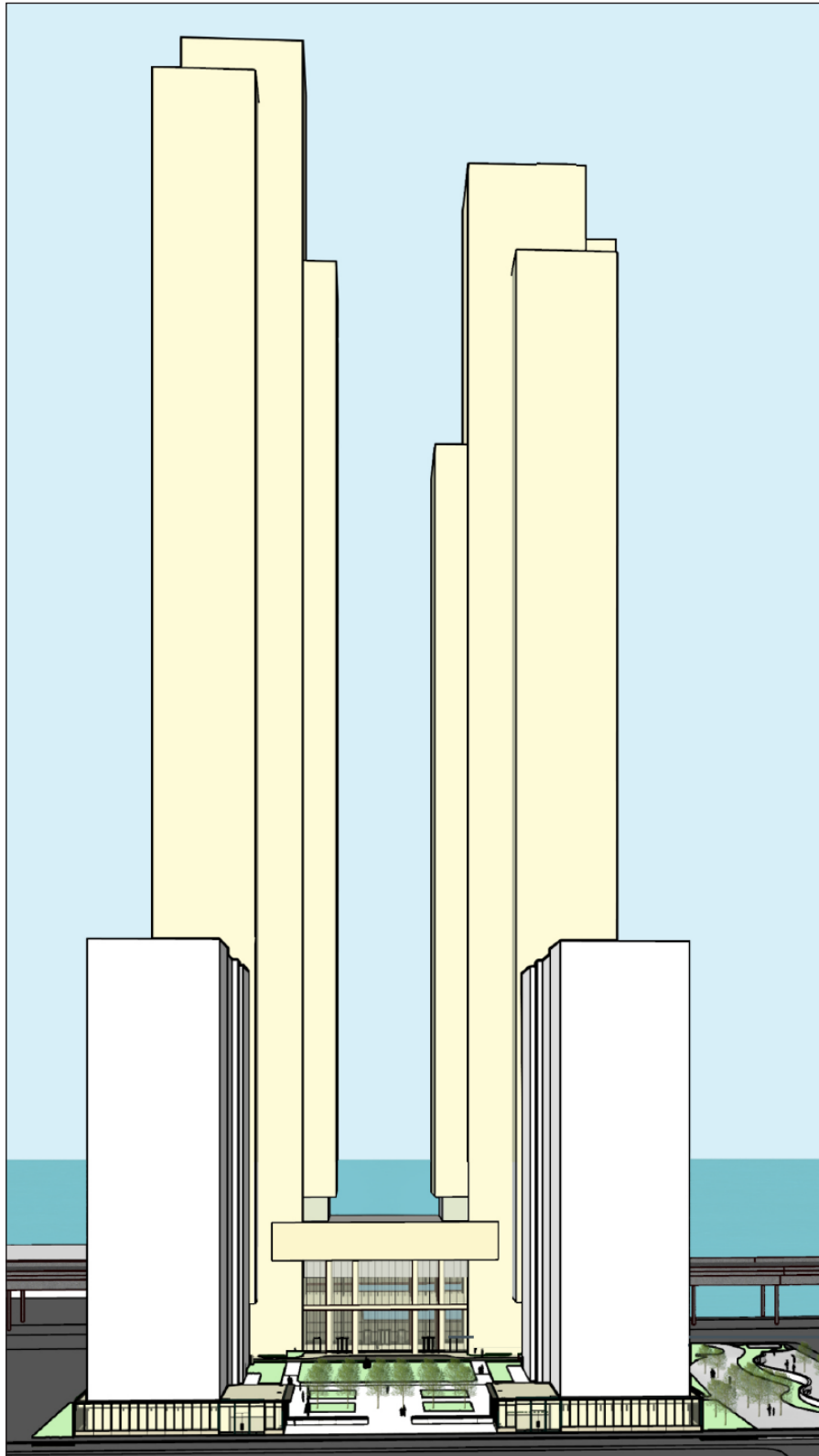


NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

View south on Rutgers Slip from Cherry Street



Source: Handel Architects LLP



NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

SITE 6A

The proposed minor modification for Site 6A would revise the Two Bridges LSRD Approvals to modify the site plans to enable the use of unused existing floor area on the development site within a building envelope that is permitted by the underlying C6-4 zoning district regulations (see **Figures S-4, S-5, and S-14**). These modifications would facilitate the development of a new 730-foot-tall building on Lot 5 with retail and residential space, replacing an existing paved surface parking lot (see **Figures S-15 through S-17**). The anticipated building and maximum building envelope are shown on **Figures S-14 and S-16**. No new parking would be provided. The existing 19-story residential building at 275 South Street on Lot 1 would remain. Separate from the minor modification, and not subject to environmental review, the Site 6A project also would require a certification pursuant to Section 32-435 of the Zoning Resolution of the City of New York to waive the ground-floor retail requirement along Clinton Street, a “wide street” as defined in the Zoning Resolution.

There will be ~~a~~ Restrictive Declarations in connection with the proposed minor modifications to the Two Bridges LSRD Approvals. The Restrictive Declarations ~~is~~ are expected to:

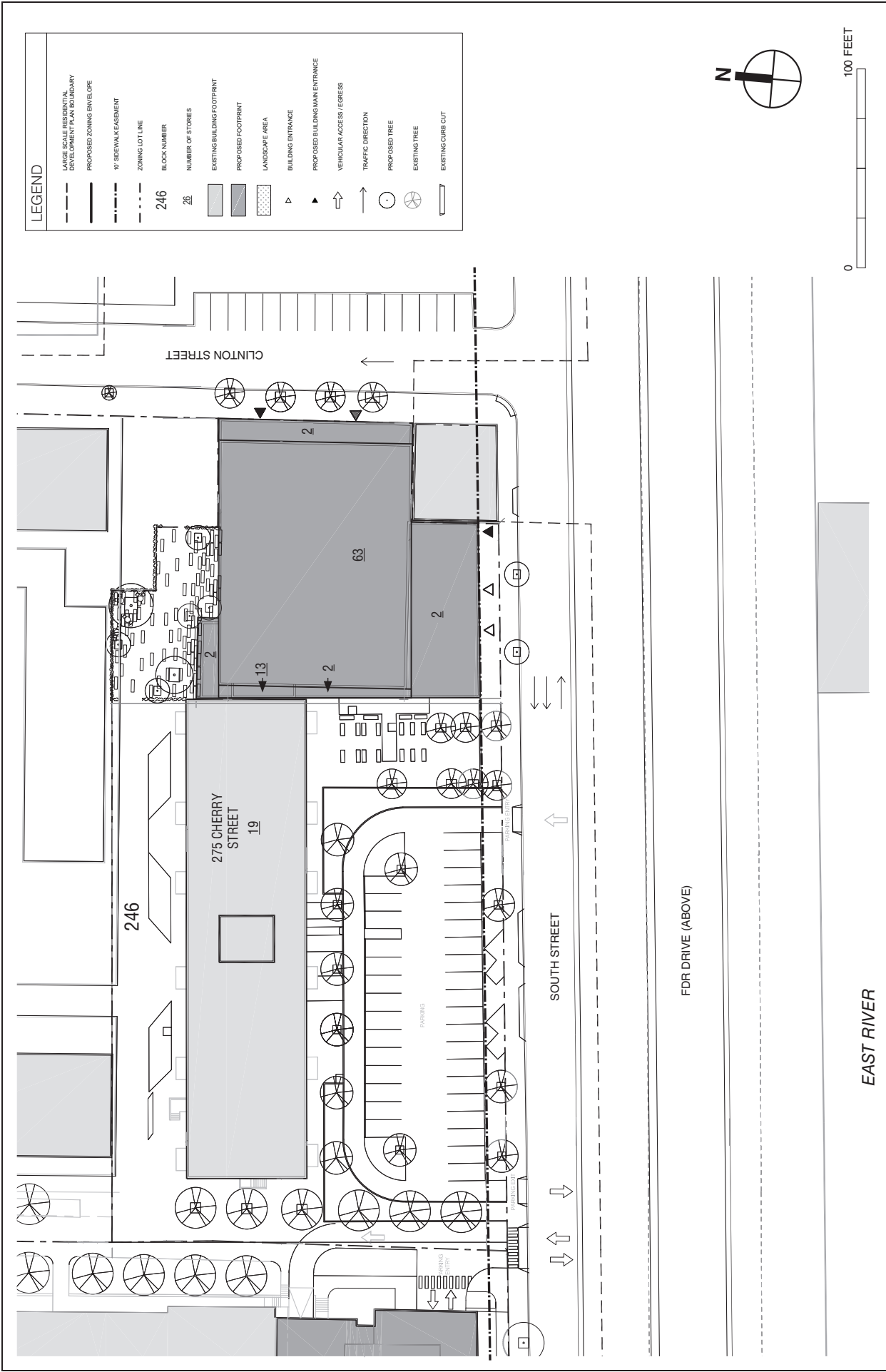
- Provide for the implementation of “Project Components Related to the Environment” (PCREs) (i.e., certain project components which were material to the environmental analysis); and
- Provide for measures necessary to mitigate any significant adverse impacts.

D. DESCRIPTION OF THE PROPOSED PROJECTS

SITE 4 (4A/4B) PROJECT

As described above, the proposed Site 4 (4A/4B) ~~project development~~ would ~~be include~~ approximately 632,376 gsf of new mixed-use, primarily residential development and would cantilever over the existing one-story retail building on Lot 76 (235 Cherry Street) and the 10-story residential building on Lot 70 (80 Rutgers Slip) (see **Figures S-5 through S-9 and Figure S-18**). The proposed new building would reach a height of approximately 80 stories (approximately 1,008 feet tall, including mechanical screen) and would provide approximately 629,944 gsf of residential use (in addition to the remaining 84,923 gsf of residential use at 80 Rutgers Slip). The new development would contain up to 660 new residential units (in addition to 10 units that would be relocated from 80 Rutgers Slip to the new building),⁴ 25 percent of which would be designated as permanently affordable (up to 165 units). Portions of the existing 80 Rutgers Slip building would be integrated into the new building, including 10 residential units (which would be allocated for senior housing). The proposed development program is expected to include a community room and ground-floor retail, which would be introduced into the existing 80 Rutgers Slip ground floor. The existing 21-story building located on Lot 15 (82 Rutgers Slip) would remain; the one-story partially vacant, approximately 11,575-gsf retail building on Lot 76 (235 Cherry Street) would also remain and be re-tenanted. An additional approximately 3,124 gsf of retail space would be introduced in the base of the 80 Rutgers Slip building. The overall development on Site 4 (4A/4B) would total approximately 985,013 gsf, of which approximately 632,376 gsf would be new development in addition to existing development. The residential units

⁴ The Two Bridges LSRD table would limit the new residential development on Site 4 (4A/4B) to 660 dwelling units, in addition to the 10 units that would be relocated from the existing building.



NOTES:
CERTAIN ELEMENTS OF BUILDING DESIGN, SUCH AS THE MAXIMUM BUILDING ENVELOPE, WILL BE CONTROLLED UNDER THE PROPOSED MINOR MODIFICATIONS TO THE TWO BRIDGES LSRD APPROVALS.
OPEN SPACE DELINEATIONS AS SHOWN ARE APPROXIMATE.

Site 6A
Proposed Site Plan
Figure S-14

TWO BRIDGES LSRD

Source: Perkins Eastman



View northeast on South Street

Source: Perkins Eastman

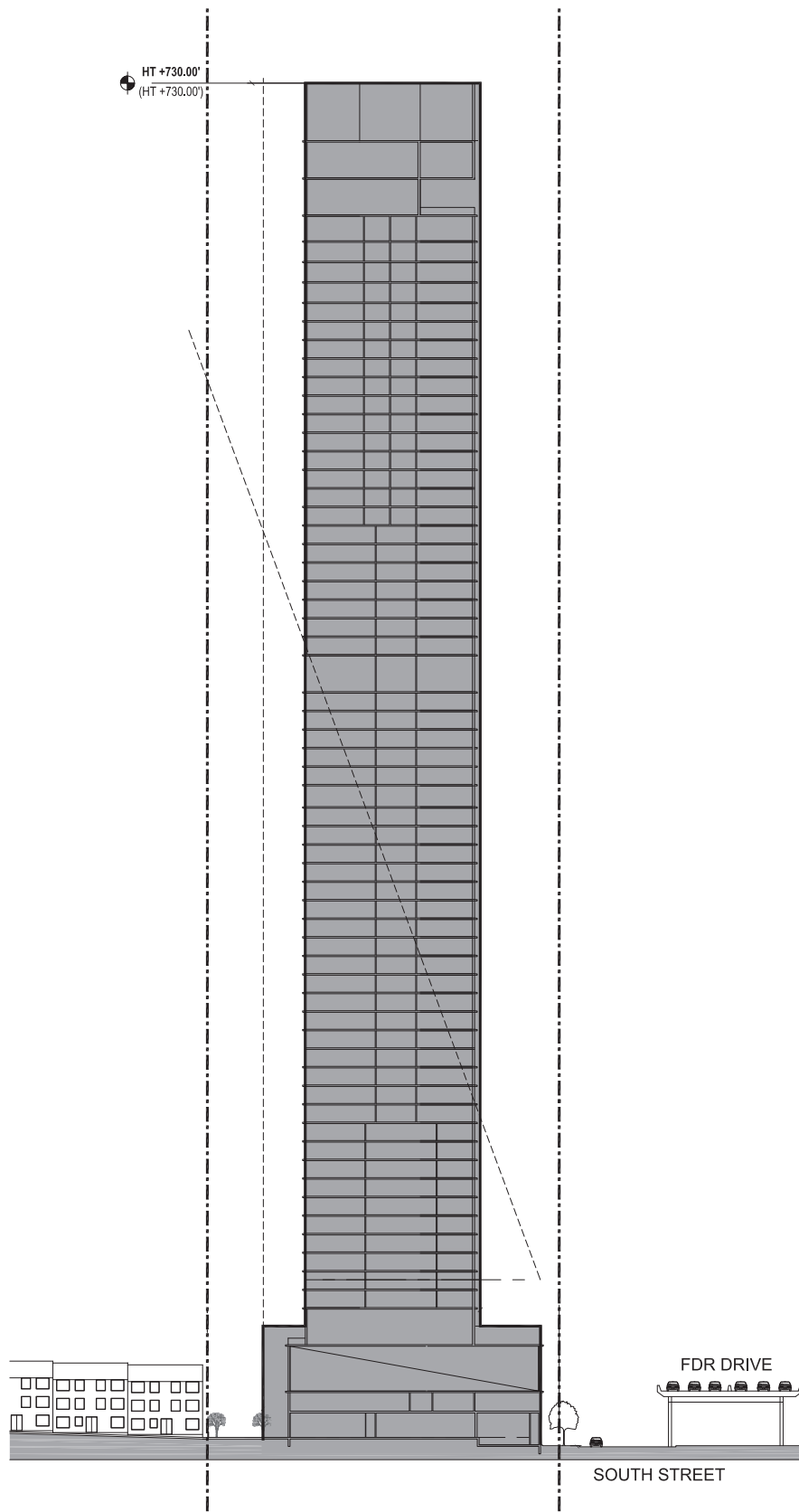


View southwest on Clinton Street

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

TWO BRIDGES LSRD

Site 6A
Illustrative Renderings
Figure S-15



NOTES:
CERTAIN ELEMENTS OF BUILDING DESIGN, SUCH AS THE MAXIMUM BUILDING ENVELOPE, WILL BE CONTROLLED UNDER THE PROPOSED MINOR MODIFICATIONS TO THE TWO BRIDGES LSRD APPROVALS.

Site 6A
Representative Section (North-South)
Figure S-16

11.20.18

Source: Perkins Eastman



NOTE: FOR ILLUSTRATIVE PURPOSES ONLY



NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

Illustrative Rendering
of Proposed Projects
Figure S-18

within the existing buildings on Lot 70 (80 Rutgers Slip) and Lot 15 (82 Rutgers Slip) would remain affordable, consistent with the existing regulatory agreements governing each building.

During construction of the proposed Site 4 (4A/4B) building, 10 dwelling units in the 80 Rutgers Slip building would be removed and replaced in the new Site 4 (4A/4B) building. An additional nine dwelling units in the 80 Rutgers Slip building would be renovated. The Site 4 (4A/4B) applicant intends to relocate the approximately 19 residents living in these units during the construction period to comparable, newly renovated units within the 80 Rutgers Slip building as they become available, or if necessary, to units in neighboring buildings. As units in 80 Rutgers Slip become available prior to construction, they would not be re-tenanted, but instead would be renovated and offered as temporary or permanent dwelling units for residents of the relocated or renovated units. There are currently nine vacant units within the building that would be renovated and made available. Because the 80 Rutgers Slip building is under a U.S. Department of Housing and Urban Development (HUD) regulatory agreement, the dwelling units and residents could only be moved under a relocation plan approved by HUD. Such approval would be granted by HUD and is not part of the proposed actions. To date, the Site 4 (4A/4B) applicant has detailed its proposed relocation plan to HUD, and HUD confirmed that the plan tentatively meets the requirements for approval. Additional filings will be required, and therefore, final approval is forthcoming. The Site 4 (4A/4B) applicant has stated that they would coordinate the project construction to minimize disruptions to these tenants and to ensure that, to the extent possible, residents of these units remain in the building throughout construction. No residents would be permanently displaced from Site 4 (4A/4B).

The proposed Site 4 (4A/4B) project would also provide additional resiliency measures at the site, with physical strategies being designed and implemented around Lot 70 that are intended to protect the existing building at 80 Rutgers Slip and the new building on Site 4 (4A/4B). As shown on the site plan (see **Figures S-5 through S-7**), new pavers, plantings, and seating would be installed on the existing approximately 15,868 sf (approximately 0.36 acres) of private open space on Lots 15, 70, and 76. The existing curb cuts on Rutgers Slip and Cherry Street would be removed and the existing curb cut on South Street would remain; no new curb cuts would be required. Separate from the proposed actions, the sidewalk on Cherry Street adjacent to Site 4 (4A/4B) would be modestly widened to accommodate the installation of Con Edison vaults. The sidewalk widening would be subject to review and approval by the Permit Management Office of DOT.

SITE 5 PROJECT

The proposed Site 5 project would ~~be~~include an approximately 1,244,960-gsf mixed-use development with two towers on a shared base. The new development, which would be oriented perpendicular to the existing buildings at 265 and 275 Cherry Street and parallel to South Street, would reach heights of approximately 63 and 70 stories (maximum heights of 748 feet and 798 feet, respectively, including mechanical screen) (see **Figures S-5, S-10 through S-13, and S-18**). The proposed project would provide up to 1,350 residential units (average size 850 sf/unit),⁵ 25 percent of which would be designated as permanently affordable (up to 338 units, including approximately 100 new units of low-income senior housing), and approximately 17,028 gsf of community facility use. The project would maintain the 103 surface accessory parking spaces that currently exist on site, relocating these spaces to a garage in the lower level of the proposed building. The proposed project would also enlarge the ground floor retail fronting Cherry Street

⁵ The Two Bridges LSRD table would limit the new residential development on Site 5 to 1,350 dwelling units.

by approximately 5,319 gsf, in one-story expansions of the 265 and 275 Cherry Street buildings. The existing buildings (634,983 gsf residential and 2,024 gsf retail at 265-275 Cherry Street) would remain. The residential use in those buildings (490 units) would remain affordable, consistent with the long-term regulatory agreement for that development.

The Site 5 project would enlarge the existing private Rutgers Slip Open Space by replacing an existing paved surface parking area between the private Rutgers Slip Open Space and the 265 Cherry Street building with open space amenities. This area, in addition to the existing private Rutgers Slip Open Space, would total approximately 33,550 sf (approximately 0.77 acres) and would be dedicated as publicly accessible open space. New amenities would be installed in the enlarged Rutgers Slip Open Space area including play equipment, basketball courts, landscaping, walking paths, and seating. In addition, the Site 5 project would enlarge the existing approximately 29,664-sf private open space between 265 and 275 Cherry Street (the “courtyard area”) by approximately 2,649 sf, totaling approximately 32,313 sf (0.74 acres) of private open space. The courtyard area would include new landscaping, seating, and play areas (see **Figures S-10 and S-11**).

The Site 5 project would provide additional resiliency measures at new building and physical strategies would be employed around the site to assist in protecting the 265 and 275 Cherry Street buildings. Two existing curb cuts north of 265 and 275 Cherry Street would be closed and replaced with a single central curb cut in this area on Cherry Street. On South Street, two existing curb cuts would be used to access the resident and visitor drop-off and the lower level parking garage in the new building. Two other existing curb cuts on South Street may be modified. The Jefferson Street walkway curb cuts would be maintained on Cherry and South Streets. No new curb cuts would be required.

SITE 6A PROJECT

The proposed Site 6A project would ~~be include~~ an approximately 672,266-gsf mixed-use development on Lot 5. Based on current plans, the building is expected to reach a height of approximately 63 stories (approximately 730 feet tall) and would provide up to 669,851 gsf of residential use (up to 765 residential units),⁶ 25 percent of which would be designated as permanently affordable (up to 191 units, including approximately 100 new units of low-income senior housing), as well as approximately 2,415 gsf of retail use (see **Figures S-5, and S-14 through S-18**). The proposed actions would also result in additional resiliency measures at the site, including locating critical infrastructure components above flood elevation and implementing physical strategies to assist in protecting the new building. The Site 6A project would also provide approximately 3,200 sf (0.07 acres) of new private open space on site. The existing building (275 South Street) and accessory surface parking lot on Lot 1 would remain. The existing curb cuts on South Street would remain; no new curb cuts would be required.

E. PURPOSE AND NEED

The goals and objectives of the proposed actions, as intended by the project applicants, are to create up to 2,775 new residential units within Manhattan CD 3, of which 25 percent or up to 694 residential units would be designated as permanently affordable, including approximately 200 new units of low-income senior housing, advancing a City-wide initiative to build and preserve 200,000 affordable units over 10 years in order to support New Yorkers with a range of incomes;

⁶ The Two Bridges LSRD table would limit the new residential development on Site 6A to 765 dwelling units.

Two Bridges LSRD

provide additional resiliency measures at each site; achieve high quality urban design, architecture, community facility space, and open space elements; enhance the surrounding streetscape and enliven the pedestrian experience, through the creation of new buildings, landscaping, and open space on the project sites, including both new and altered on-site open space (of which 33,550 sf would be dedicated as publicly accessible); add to the retail mix already located in the Two Bridges neighborhood; and strengthen the City's tax base by encouraging development and employment opportunities in the area.

The purpose and need for the minor modifications is described below for each proposed development site.

SITE 4 (4A/4B)

The proposed minor modification of the Two Bridges LSRD would facilitate the further development of Site 4 (4A/4B) with new permanently affordable and market-rate housing; up to 660 new residential units in total would be provided, with 25 percent designated as permanently affordable (up to 165 units). (In addition, 10 units would be relocated from 80 Rutgers Slip to the new building, and would be allocated for senior housing.) It is the Site 4 (4A/4B) applicant's intention that the proposed actions allow for the Site 4 (4A/4B) development to provide capital to two non-profit organizations in support of their ongoing efforts to provide, support, and maintain affordable housing for New Yorkers. The Site 4 (4A/4B) development would also change the streetscape and pedestrian environment with the installation of new pavers, plantings, and seating at the existing approximately 15,868 sf (approximately 0.36 acres) of private open space located on Lots 15, 70, and 76, and would provide additional local retail opportunities by increasing the ground floor retail at this site. The proposed actions would also result in additional resiliency measures at the site, with physical strategies being implemented around Lot 70 of Site 4 (4A/4B) that are being designed are intended to protect the existing building at 80 Rutgers Slip and the new building on Site 4 (4A/4B).

SITE 5

The proposed minor modification of the Two Bridges LSRD would facilitate the further development of Site 5 by replacing a surface parking lot with new permanently affordable and market-rate housing, community facility space, and retail. The new Site 5 development would provide up to 1,350 new units, 25 percent of which would be designated as permanently affordable (up to 338 units, including approximately 100 new units of low-income senior housing). In addition, the proposed Site 5 project would help address the continuing need for independent living facilities for seniors in New York City, by creating approximately 100 new units of low-income senior housing) as part of the permanently affordable housing to be provided on that site. With the proposed minor modification, the proposed development also would enlarge the existing private Rutgers Slip Open Space on Site 5 to approximately 33,550 sf (approximately 0.77 acres). The Rutgers Slip Open Space, which would be dedicated as publicly accessible, would include play equipment, basketball courts, walking paths, and seating. The Site 5 project would also enlarge the existing private open space between 265 and 275 Cherry Street and would provide new amenities, including new landscaping, seating, and play areas. The changes to the Rutgers Slip Open Space would be experienced by pedestrians along Rutgers Slip accessing the East River waterfront from the upland neighborhood. Additional ground-floor retail spaces would be provided at 265 and 275 Cherry Street. The proposed actions would also result in additional resiliency measures at Site 5. The first floor of the new building would be located above the flood plain elevation, and physical strategies would be employed around the site to assist in protecting the 265 and 275 Cherry Street buildings.

SITE 6A

The proposed minor modification of the Two Bridges LSRD would facilitate the further development of Site 6A with new permanently affordable and market-rate housing. The new Site 6A development would provide up to 765 new units in total, with 25 percent designated as permanently affordable (up to 191 units). In addition, the proposed Site 6A project would help address the continuing need for independent living facilities for seniors in New York City, by creating approximately 100 new units of low-income senior housing as part of the permanently affordable housing to be provided on that site. With the proposed minor modification, new development would replace a vacant lot and provide new ground floor retail to the streetscape and pedestrian environment along Clinton and South Streets that would add to local retail opportunities. The proposed actions would also result in additional resiliency measures at the site, including locating critical infrastructure components above flood elevation and implementing physical strategies to assist in protecting the new building. The proposed Site 6A development also would create approximately 3,200 sf (approximately 0.07 acres) of new private open space on Site 6A.

F. ANALYSIS FRAMEWORK

The 2014 *CEQR Technical Manual* serves as a general guide on the methodologies and impact criteria for evaluating the proposed projects' potential effects on the various environmental areas of analysis. In disclosing impacts, the environmental impact statement (EIS) considers the proposed projects' potential adverse impacts on its environmental setting. A future build year of 2021 is examined to assess the potential impacts of the proposed actions. Consequently, the environmental setting is not the current environment, but the future environment. Therefore, the technical analyses and consideration of alternatives include descriptions of existing conditions, conditions in the future without the proposed projects (the No Action scenario), and conditions in the future with the proposed projects (the With Action scenario). The incremental difference between the No Action and With Action conditions is analyzed to determine the potential environmental effects of the proposed projects. **Table S-2** summarizes the incremental difference between the No Action and With Action conditions for each of the three project sites. In order to understand how the cumulative impacts of the proposed projects might change if one or more of the projects is delayed indefinitely or ultimately not pursued, the EIS provides a qualitative analysis of certain permutations in a separate chapter, "Project Permutations."

Table S-2
Incremental Increases for Each Project Site

	SITE 4 (4A/4B)—INCREMENT				SITE 5—INCREMENT				SITE 6A—INCREMENT				
Land Use													
Residential	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
If yes, specify the following:													
Describe type of residential structures	+80 floors				Lots 1/2: +69 floors				Lot 5: 1 63-story building				
No. of dwelling units	+up to 660 DUs				Lots 1/2: +up to 1,350 DUs				Lot 5: +up to 765 DUs				
No. of low- to moderate-income units	+up to 165 DUs				Lots 1/2: +up to 338 DUs				Lot 5: + up to 191 DUs				
Gross Floor Area (sq. ft.)	+629,252 gsf				Lots 1/2: +1,227,932 gsf				Lot 1: No change Lot 5: +669,851 gsf				
Commercial	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
If yes, specify the following:													
Describe type (retail, office, other)	N/A				Retail				Retail				
Gross floor area (sq. ft.)	+3,124 gsf				Lot 1: +5,319 gsf				Lot 5: +2,415 gsf				
Manufacturing/Industrial	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	
If yes, specify the following:													
Type of use													
Gross floor area (sq. ft.)													
Open storage area (sq. ft.)													
If any unenclosed activities, specify													
Community Facility	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	
If yes, specify the following:													
Type	No change				Lot 1: No change				N/A				
Gross floor area (sq. ft.)	No change				Lots 1/2: General community facility use				N/A				
Vacant Land	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	
If yes, describe													
Other Land Uses	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
If yes, describe	Lot 76: No change				Lots 1/2: 19,579 gsf private open space (new); + 33,550 sf (total dedicated publicly accessible open space, including new and enhanced existing open space)				Lot 5: 3,200 sf private open space (new)				
Parking													
Garages	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	
If yes, specify the following:													
No. of public spaces	N/A				0 (No change)				N/A				
No. of accessory spaces	No change				Lot 2: +103				N/A				
Lots	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
If yes, specify the following:													
No. of public spaces	No change				0 (No change)				Lot 1: No change				
No. of accessory spaces	(4) accessory spaces				Lot 2: (103)				Lot 1: No change				
Population													
Residents	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
If “yes”, specify number	1,419				2,838				1,580				
Briefly explain how the number of residents was calculated	Average household size of 2.15 from Manhattan Community District 3 Profile (Sources: U.S. Census Bureau, 2000 and 2010 Censuses SF1 Population Division—NYC Department of City Planning [Dec 2011]). Average household size of 1.5 assumed for senior units under With Action Condition.												
Businesses	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	
If “yes”, specify the following:													
No. and type	TBD/retail, community facility				TBD				TBD/retail				
No. and type of workers by business	Approx. 42 retail, 28 community facility				Approx. 16 retail, 17 community facility				Approx. 8 retail				
No. and type of non-residents who are not workers	TBD				TBD				TBD				
Briefly explain how the number of businesses was calculated	Retail including dining: 333 sf/employee. Community facility: 1,000 sf/employee.												
Other (students, visitors, concert-goers, etc.)	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>	
If any, specify number													
Briefly explain how the number was calculated													
Zoning													
Zoning classification	C6-4												
Maximum amount of floor area that can be developed	No change				No change				No change				
Predominant land use and zoning classifications within land use study areas or a 400-foot radius of proposed project	No change				No change				No change				

BUILD YEAR

The proposed projects each would be developed in a single phase; the construction period for each is anticipated to be between 30 and 36 months. Therefore, a future build year of 2021, when the projects are anticipated to be complete and operational, is examined in the EIS to assess the potential impacts of the proposed actions.

EXISTING CONDITIONS

For each technical area assessed in the EIS, the existing conditions on the project sites and in the relevant study areas is described. The analysis framework begins with an assessment of existing conditions because these can be most directly measured and observed. The assessment of existing

conditions does not represent the condition against which the proposed actions are measured, but serves as a starting point for the projection of future conditions with and without the proposed actions and the analysis of potential impacts.

NO ACTION SCENARIO

For the No Action scenario, it is assumed that the project sites would continue in their existing conditions, including the Rutgers Slip Open Space on Site 5 remaining private open space. The existing partially vacant retail space in the Lot 76 building (235 Cherry Street) on Site 4 (4A/4B) would be re-tenanted. No new development would occur on the project sites. **Table S-3** summarizes the No Action conditions for the three project sites.

Table S-3
No Action Scenario

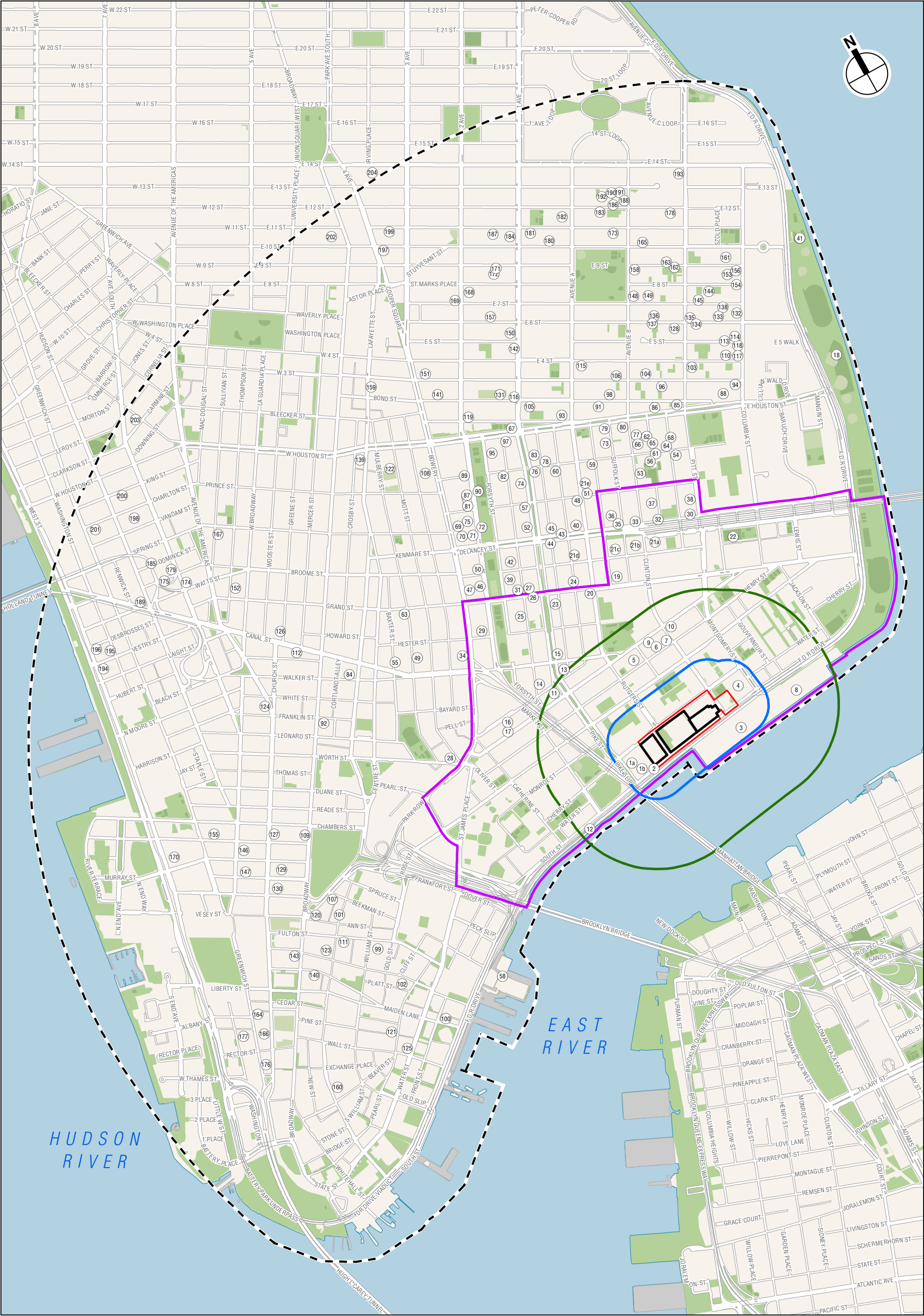
Use (GSF)	Site 4 (4A/4B) ¹	Site 5	Site 6A	Total New
Use Group 2 (Residential)	Existing: 313,510 gsf New: 0	Existing: 634,983 gsf New: 0	Existing: 262,877 gsf New: 0	0
Residential Units	Existing: 307 DUs New: 0	Existing: 490 DUs New: 0	Existing: 256 DUs New: 0	0
<i>Affordable Unit Count</i>	Existing: 307 DUs New: 0	Existing: 490 DUs New: 0	Existing: 128 New: 0	0
Use Group 6 (Retail)	Existing: 11,575 (retenanted) New: 0	Existing: 2,024 gsf New: 0	Existing: 0 New: 0	0
Community Facility	Existing: 27,552 gsf New: 0	Existing: 0 New: 0	Existing: 0 New: 0	0
Accessory Parking	Existing: 15: (4 at-grade, 11 in parking garage) New: 0	Existing: 103 at-grade New: 0	Existing: 34 at-grade New: 0	0
Private Open Space	Existing: 15,868 sf New: 0	Existing: 64,152 sf New: 0	Existing: 0 New: 0	0
Vacant	Existing: 0 New: 0	Existing: 0 New: 0	Existing: 20,177 sf New: 0	0
Note: ¹ 80 Rutgers Slip/Lot 70: 85,615 gsf [109 units] residential, 3,928 sf open space, and 4 surface parking spaces; 82 Rutgers Slip/Lot 15: 227,895 gsf residential [198 units], 27,552 gsf community facility, 11 accessory enclosed parking spaces, and 11,660 sf open space; 235 Cherry Street/Lot 76: 11,575 gsf retail and 280 sf open space.				

Appendix C and **Figure S-19** identify the No Build projects anticipated to be complete by 2021 in the study areas considered in the various technical analyses presented in this EIS.

WITH ACTION SCENARIO

In the With Action scenario, the proposed projects described above would be constructed on the project sites (see ~~also~~ **Table S-2**).

It is assumed that, in addition to modifying the amount of floor area, number of dwelling units, lot coverage, and open space available to the project sites under the Two Bridges LSRD, the minor modifications to the Two Bridges LSRD Approvals would also establish building envelope and site plan controls for each project. Because the Two Bridges LSRD site plans would provide controls with respect to the maximum building envelopes and development programs, this EIS assumes the details of the proposed programs and designs as the reasonable worst-case development scenario. For the purposes of a conservative analysis of community facilities, an alternate development scenario was considered that assumes that the 200 permanently affordable senior units may instead include households with school-aged children or children who may utilize publicly funded child care.



- Project Sites

Boundary of Two Bridges LSRD

①

No Build Projects
- Study Area (400-foot boundary)

Study Area (1/4-mile boundary)

Census Tract Study Area (1/2-mile boundary)

Study Area (1.5-mile boundary)

0 2,000 FEET

* See Appendix C for additional information about the No Build projects identified on this figure.

ANALYSIS OF PROJECT PERMUTATIONS

Where significant adverse impacts and mitigation needs have been identified under the cumulative impact analysis of all three projects, further detail is provided to identify mitigation requirements for each project. In order to understand how the cumulative impacts of the proposed projects might change if one or more of the projects is delayed indefinitely or ultimately not pursued, the EIS provides a qualitative analysis of such permutations in a separate chapter—"Project Permutations." The analysis is limited to the evaluation of specific locations or facilities for which impacts and mitigation needs have been identified under the cumulative impact analysis of all three projects. The assessments for the relevant technical areas are targeted to focus on those impacted areas.

G. PROBABLE IMPACTS OF THE PROPOSED ACTIONS

LAND USE, ZONING, AND PUBLIC POLICY

The analysis presented in this chapter concludes that the proposed actions would not result in significant adverse impacts on land use, zoning, or public policy.

The proposed minor modifications to the Two Bridges LSRD Approvals would enable the development of three new mixed-use buildings within the Two Bridges LSRD. While the proposed actions would not change the maximum allowable FAR, floor area, or building envelopes permitted by the underlying zoning district regulations, the requested minor modifications would enable larger developments than are permitted by the previously approved Two Bridges LSRD site plan. The proposal would facilitate the utilization of existing unused floor area available within the Two Bridges LSRD. With the proposed actions, the proposed buildings themselves would be larger and taller compared to existing buildings in the surrounding area. The proposed developments would include residential, community facility, retail, and new open space uses, and would not add any types of uses not already located within the Two Bridges LSRD. The proposed buildings would result in up to approximately 2,775 new dwelling units, of which 25 percent or up to 694 units would be designated as permanently affordable, including approximately 200 new units of low-income senior housing. This permanently affordable housing would support the Mayor's affordable housing programs. The proposed projects would also create new community facility uses, new retail uses, dedicated publicly accessible open space at Rutgers Slip Open Space on Site 5, and expanded and altered on-site private open space. At-grade parking on Site 5 would be relocated to a below-grade parking facility in the proposed Site 5 building.

The proposed projects are located within the City's Coastal Zone. The proposed projects would provide resiliency measures intended to support the adopted resiliency policies of New York City regarding resiliency along the waterfront areas of Manhattan, including *Housing New York: 2.0*; *OneNYC*, *Resilient Neighborhoods Initiative*, and *Vision 2020: New York City Comprehensive Waterfront Plan*. The proposed projects were reviewed for consistency with the policies of the City's Waterfront Revitalization Program (WRP). The WRP analysis concludes that the proposed projects would support the adopted resiliency policies of New York City and would be consistent with the relevant WRP policies.

SOCIOECONOMIC CONDITIONS

DIRECT RESIDENTIAL DISPLACEMENT

A screening-level assessment finds that the proposed projects would not result in significant adverse socioeconomic impacts due to direct residential displacement. The proposed projects would not directly displace any residents from the socioeconomic conditions study area.

On Site 4 (4A/4B), there are 10 DUs that would be removed from the 80 Rutgers Slip building and replaced in the new Site 4 (4A/4B) building. An additional nine DUs in the 80 Rutgers Slip building would be renovated. The Site 4 (4A/4B) applicant intends to relocate the approximately 19 residents living in these units during the construction period to comparable, newly renovated units within the 80 Rutgers Slip building as they become available, or, if necessary, to units in neighboring buildings. As units in 80 Rutgers Slip become available prior to construction, they would not be re-tenanted, but instead would be renovated and offered as temporary or permanent dwelling units for residents of the relocated or renovated units. There are currently nine vacant units within the building that would be renovated and made available. Because the 80 Rutgers Slip building is under a HUD regulatory agreement, the dwelling units and residents could only be moved under a relocation plan approved by HUD. Such approval would be granted by HUD and is not part of the proposed actions. To date, the Site 4 (4A/4B) applicant has detailed its proposed relocation plan to HUD, and HUD confirmed that the plan tentatively meets the requirements for approval. Additional filings will be required, and therefore, final approval is forthcoming. The Site 4 (4A/4B) applicant has stated that they would coordinate the project construction to minimize disruptions to these tenants and to ensure that, to the extent possible, residents of these units remain in the building throughout construction. No residents would be permanently displaced from Site 4 (4A/4B). Irrespective of the applicant's ability to provide replacement units for the residents of these 19 units within the building, this level of potential direct residential displacement is well below the 500-resident threshold warranting assessment under CEQR, and would not constitute a significant adverse environmental impact.

DIRECT BUSINESS DISPLACEMENT

A screening-level assessment finds that the proposed projects would not result in significant adverse socioeconomic impacts due to direct business displacement. There is one business on the project sites (Site 5) that may require temporary displacement during construction—the Stop 1 Food Market. The Site 5 applicant is committed to working with Stop 1 Food Market to remain in operation during construction, if determined to be feasible, and to provide an opportunity for the business to re-tenant the building when the new space is ready for occupancy. However, if Stop 1 Food Market ~~did~~ were to not re-tenant the space, its displacement would not constitute a significant adverse environmental impact as defined under CEQR. The potential loss of employment (approximately 10 workers⁷) falls well below the 100-employee threshold for assessment, and in this respect, its potential displacement would not alter the socioeconomic character of the neighborhood. In addition, while the Stop 1 Food Market is a convenient source of goods for residents of the study area and the project sites in particular, its products and services are not unique to the study area; alternative sources of similar products and services are available within

⁷ The worker estimate for the Stop 1 Food Market is based on in-person observation by an AKRF, Inc. staff member on February 21, 2017, and assumes that up to three work shifts are required to staff this 24-hour food market.

close proximity. Finally, there are no regulations or publicly adopted plans aimed at preserving a market of this size (approximately 2,100 gross square feet [gsf]) within the neighborhood.

INDIRECT RESIDENTIAL DISPLACEMENT

A preliminary assessment finds that the proposed projects would not result in significant adverse environmental impacts due to indirect residential displacement. Under CEQR, the objective of the indirect residential displacement analysis is to determine whether a project may either introduce a trend or accelerate a trend of changing socioeconomic conditions that may potentially displace a vulnerable population to the extent that the socioeconomic character of the neighborhood would change. Based on *CEQR Technical Manual* guidelines, a vulnerable population is defined as renters living in privately held units unprotected by rent control, rent stabilization, or other government regulations restricting rents, and whose incomes or poverty status indicate that they may not support substantial rent increases. In the case of the proposed projects, most study area residents are not vulnerable to displacement as defined under CEQR; it is estimated that approximately 83 percent of study area rental units are in buildings protected by rent control, rent stabilization, or other government regulations that protect rents from market influences generated by changes in market conditions. Those not vulnerable to displacement include study area residents living within the large concentration of New York City Housing Authority (NYCHA) public housing within the study area. It is reasonable to conclude that a vast majority of low- and moderate-income households in the study area live in housing that is protected by rent control, rent stabilization, or other government regulations limiting rent increases, and therefore are not vulnerable to displacement due to increased rents as defined under CEQR.

While the proposed projects would add new population which, in the aggregate, would have a higher average household income than the average household income in the study area, the proposed projects would not introduce a new trend or accelerate the existing trend as defined under CEQR. Of the proposed projects' 2,775 new DUs, 25 percent (up 694 DUs) would be designated as permanently affordable. There is already a readily observable trend toward higher incomes and new market-rate residential development in the study area. The average monthly asking rent (lowest 10th percentile) for non-rent-protected units in the study area currently ranges from approximately \$1,900 for a studio unit to \$3,300 for a three-bedroom unit; these rents are generally not affordable to low- and moderate-income households. The proposed projects are expected to introduce a higher percentage of affordable housing than is expected from planned development projects in the future No Action condition, which are primarily market-rate. In this respect, the proposed projects would serve to maintain a study area housing stock that is affordable to households with a wider range of incomes as compared to the No Action condition, in which projects are expected to continue the trend towards market-rate development and rising residential rents in the study area.

INDIRECT BUSINESS DISPLACEMENT

A preliminary assessment finds that the proposed projects would not result in significant adverse impacts due to indirect business displacement. The proposed projects would facilitate the introduction of new residential, commercial, and community facility uses. The project sites and broader socioeconomic study area have well-established residential and retail markets such that the proposed projects would not be introducing new economic activities to the project sites or to the study area.

Although some retail stores may be indirectly displaced, their displacement would not constitute a significant adverse environmental impact under CEQR. As of 2015, Retail Trade industry stores

in the study area represent less than three percent of retail stores in Manhattan and less than one percent of retail stores in New York City. The stores that would be vulnerable to indirect displacement, while fostering economic activity in the local area, are not of substantial economic value to the City or region, and their displacement would not significantly affect neighborhood character. Storefronts that are vacated due to indirect displacement would not likely remain vacant; more likely, they would turn over to other retail or community facility uses that could better capitalize on the market. The proposed actions could generate additional local demand for neighborhood retail and services. However, the additional population resulting from the proposed projects is not so large as to substantially transform the retail character of the neighborhood. Therefore, the limited indirect retail displacement that could result from the proposed projects would not lead to major changes within nearby commercial strips, and would not result in significant adverse socioeconomic impacts.

ADVERSE EFFECTS ON SPECIFIC INDUSTRIES

A preliminary assessment finds that the proposed projects would not result in significant adverse impacts due to adverse effects on specific industries. The assessment considers whether a substantial number of residents or workers depend on the goods or services provided by the affected businesses, or if the proposed projects would result in the loss or substantial diminishment of a particularly important product or service within the industry. The proposed projects would not significantly affect the business conditions in any industry or any category of business within or outside the study area. The one business that could be temporarily displaced by the proposed projects—the Stop 1 Food Market—does not represent a critical mass of businesses within any City industry, category of business, or category of employment. Although this business is an amenity to the community, the goods and services offered can be found elsewhere within the socioeconomic study area, within a broader trade area, and within the City as a whole. The products and services offered by the potentially displaced business are not expected to be essential to the viability of other businesses within or outside the study area. Finally, the proposed projects would not result in significant indirect business displacement, and therefore would not substantially reduce employment or have an impact on the economic viability in any specific industry or category of business.

COMMUNITY FACILITIES AND SERVICES

PUBLIC SCHOOLS

The project sites are located in Community School District (CSD) 1, ~~which is a school district that has an elementary and intermediate school choice program.~~ Given the small geographic size of the district and other factors noted below, it was determined, DCP, in consultation with the New York City School Construction Authority (SCA), ~~determined~~ that a district-wide analysis that includes CSD 1 and Sub-district 1 is appropriate for the public schools analysis. It should be noted that CSD 1 has an elementary and intermediate school choice program, which means there are no zoned elementary or intermediate schools in the district and students are allowed to apply to any elementary and intermediate school within CSD 1. Out of 32 community school districts in New York City, CSD 1 is one of three that has an elementary school choice program. Given the small geographic size of the district, ~~DCP, in consultation with SCA, has determined~~ that a district-wide analysis is appropriate for assessing the significance of the impact. Accordingly, the study area includes the school district as well as Sub-district 1. Therefore, although utilization would increase at the sub-district level, the potential for significant impacts is determined based on an analysis of CSD 1 as a whole. In CSD 1 as a whole (in the scenario that conservatively assumes the 200 permanently affordable units may not be developed exclusively for seniors), the proposed projects

Two Bridges LSRD

would result in a significant adverse impact on public elementary schools, as described below. The proposed actions would not result in any significant adverse impacts to intermediate schools within the sub-district or high schools.

Elementary Schools—Sub-District 1 of Community School District (CSD) 1

In the future with the proposed projects (both scenarios), the elementary school utilization rate in CSD 1, Sub-district 1, would be greater than 100 percent, and the proposed projects would result in an increase to the collective utilization rate of more than five percentage points over the No Action condition. However, given characteristics of the district, the potential for significant impacts is determined based on an analysis of CSD 1 as a whole, as described below.

Elementary Schools—CSD 1, “Choice District”

In CSD 1, in the scenario that assumes 200 of the permanently affordable units would be for senior housing, the proposed projects would result in an increase of more than five percentage points over the No Action condition, while elementary school utilization would remain just below 100 percent, and therefore would not result in a significant adverse impact. However, in the scenario that conservatively assumes the 200 permanently affordable units may not be developed exclusively for seniors, the proposed projects would result in an increase of more than five percentage points over the No Action condition and elementary school utilization would be just over 100 percent. Therefore, in this scenario, the proposed projects would result in a significant adverse impact on public elementary schools in CSD 1 as a whole. Mitigation measures that were developed in consultation with DCP, DOE, and SCA between the issuance of the DEIS and FEIS and are described in “Mitigation.”

Intermediate Schools—Sub-District 1 of CSD 1

In the future with the proposed projects (both scenarios), while the intermediate school collective utilization rate would increase by more than five percentage points over the No Action condition, intermediate school utilization in Community School District 1, Sub-district 1, would remain below 100 percent. Therefore, the proposed projects would not result in a significant adverse impact to intermediate schools within the sub-district.

High Schools

In the future with the proposed projects (both scenarios), the utilization of public high schools would remain below 100 percent, and the proposed projects would not result in an increase of five percentage points or more in the collective utilization rates. Therefore, the proposed projects would not result in a significant adverse impact on high schools.

PUBLIC LIBRARIES

The proposed projects would not result in any significant adverse ~~libraries~~ impacts to public libraries.

For the libraries within the study area (Seward Park Library, Chatham Square Library, and Hamilton Fish Park Library), the catchment area population increases attributable to the proposed projects are below the five percent threshold cited in the *CEQR Technical Manual*. Therefore, the proposed projects would not result in a noticeable change in the delivery of library services.

PUBLICLY FUNDED CHILD CARE FACILITIES

The proposed projects would result in significant adverse impacts to publicly funded child care facilities in the scenario that conservatively assumes the 200 permanently affordable units may

not be developed exclusively for seniors and would instead be assumed to be occupied by families with children who would be eligible to enroll in publicly funded child care facilities.

In the future with the proposed projects, in the scenario that assumes 200 of the permanently affordable units would be for senior housing, publicly funded child care facilities in the study area would operate over capacity; however, the proposed projects would not result in an increase in demand of more than five percentage points over the No Action condition. Therefore, the proposed projects would not result in a significant adverse impact on child care facilities under that scenario.

~~However,~~ In the scenario that conservatively assumes the 200 permanently affordable units may not be developed exclusively for seniors, child care facilities in the study area would operate over capacity and the increase in the utilization rate would be over five percentage points. Therefore, in ~~this~~ the latter scenario, the proposed projects would result in a significant adverse impact ~~to~~ on child care facilities. Mitigation measures were developed in consultation with ACS between the DEIS and FEIS and are described in “Mitigation:” below.

OPEN SPACE

The proposed projects would not directly displace any publicly accessible open space resources. The analysis finds that the proposed projects would result in project-generated shadows significant adverse impacts on two open space resources east of the LSRD—the Cherry Clinton Playground and the Lillian D. Wald Playground—as discussed in “Shadows” and in “Mitigation.” The reductions in the total, active, and passive open space ratios in the With Action condition would result in significant adverse open space impacts based on a quantitative analysis of indirect effects, as set forth in the *CEQR Technical Manual*.

DIRECT EFFECTS

No publicly accessible open space resources would be physically displaced as a result of the proposed projects. In two cases, project-generated shadows would be substantial enough in extent and/or duration to significantly affect the use or vegetation of the open space resource: the Cherry Clinton Playground on the December 21 analysis day (use, but not vegetation), March 21/September 21 analysis day (use and vegetation), and on the May 6/August 6 analysis day (use only); and the Lillian D. Wald Playground on the March 21/September 21 analysis day (use only). Further, the active areas of these two open space resources would be less affected by shadows than the passive areas, as described in “Shadows.” The proposed measures to mitigate the project-generated shadows impacts on these two open space resources are discussed in “Mitigation,” and include dedicated funding for enhanced maintenance at these two playgrounds. The proposed projects would not result in any significant adverse operational air quality or noise impacts affecting open space resources.

INDIRECT EFFECTS

The analysis finds that the proposed projects 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 projects, the total, active, and passive open space ratios in the open space study area 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. With the proposed projects, the study area’s total open space ratio would decrease by 7.31 percent, the active open space ratio would decrease by 8.06 percent, and the passive open space ratio would decrease by 6.25 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 analysis finds that the reductions in the total, active, and passive open space ratios with the proposed projects would result in a significant adverse open space impact based on quantitative analysis of indirect effects, as set forth in the *CEQR Technical Manual*.

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. While the proposed projects would result in an increase in demand for open space resources, they would also provide new and enhanced private open spaces for building residents. These open space amenities would help meet some of the residents' passive and active open space needs. On Site 5, the existing private Rutgers Slip Open Space would be dedicated as publicly accessible open space, resulting in approximately 33,550 sf (approximately 0.77 acres) of new publicly accessible open space. The Rutgers Slip Open Space would be enlarged and reconstructed with new amenities for both active and passive use, such as play equipment, basketball courts, walking paths, and seating. While the approximately 33,550 sf of dedicated publicly accessible open space that would be developed with the proposed projects would reduce the significant adverse open space impacts, it is not sufficient to avoid significant adverse open space impacts.

As described above, based on the quantitative analysis, which found that the decrease in the total, active, and passive open space ratios with the proposed projects would exceed the *CEQR Technical Manual* guidelines of 5 percent, the proposed projects would result in a significant adverse impact on open space. Mitigation measures for the open space impacts are described in the Mitigation analysis. As partial mitigation for the open space impact, the existing approximately 15,868 sf (approximately 0.36 acres) of private open space on Site 4 (4A/4B) would be dedicated as publicly accessible open space. In addition, renovation of existing open spaces in the vicinity of the project sites has been identified as a practicable mitigation measure. Accordingly, as described in "Mitigation," the Restrictive Declarations for the proposed projects will require the applicants to undertake reconstruction of Coleman Playground, Captain Jacob Joseph Playground, and Little Flower Playground.

SHADOWS

The analysis finds that the proposed projects would result in a significant adverse shadows impact at two sunlight-sensitive open space resources.

The shadows analysis shows that incremental shadows cast by the proposed projects would reach 35 sunlight-sensitive resources. However, the majority of these new shadows would be limited in extent and duration and would typically only occur during some seasons. Therefore, no significant adverse shadows impacts would occur at 33 of these 35 sunlight-sensitive resources.

Two sunlight-sensitive resources would experience significant adverse shadows impacts—the Cherry Clinton Playground and the Lillian D. Wald Playground. These open space resources contain basketball courts, handball courts, playground/fitness equipment, seating areas, trees, and landscaping.

Project-generated shadows would fall on the Cherry Clinton Playground on the December 21, March 21/September 21 and May 6/August 6 analysis days, beginning in the early afternoon hours and remaining throughout most of the day. The long afternoon duration and large extent of incremental shadow on the Cherry Clinton Playground would significantly affect the user

experience on these analysis days, as well as the vegetation on the March 21/September 21 analysis day.

On the March 21/September 21 analysis day, the proposed projects would cast large areas of new shadow on the Lillian D. Wald Playground for an hour, including a 15-minute period when incremental shadow would eliminate virtually all the sun. Smaller incremental shadows would fall on the playground for an additional 50 minutes. Given that weather on March 21/September 21 analysis day can be cool making sunlit areas important to users, and given the large extents and long duration of the incremental shadow, the incremental shadow from the proposed projects would significantly affect the user experience in the Lillian D. Wald Playground on this analysis day.

The proposed mitigation measures for the significant adverse shadows impacts on these two open space resources were explored by the applicants in consultation with DCP and NYC Parks, and were refined between the DEIS and FEIS. The Restrictive Declarations for the proposed projects will require that the applicants fund enhanced maintenance to mitigate the significant adverse impact to the users and the trees of the Cherry Clinton Playground, and the users of the Lillian D. Wald Playground, as described in “Mitigation.”

HISTORIC AND CULTURAL RESOURCES

The analysis finds that the proposed actions would not result in any significant adverse impacts to historic and cultural resources.

ARCHAEOLOGICAL RESOURCES

The Phase 1A Archaeological Documentary Study of the three project sites, prepared by AKRF, Inc. in July 2017, determined that undisturbed portions of Site 5 and Site 6A possess moderate to high sensitivity for landfill deposits and landfill-retaining structures and low to moderate sensitivity for historic period streetbed deposits and early wooden water mains. Site 4 (4A/4B) was determined to have low sensitivity for both types of resources. The Phase 1A study recommended further archaeological analysis in the form of archaeological monitoring at Site 5 and Site 6A and the preparation of an Unanticipated Discoveries Plan for Site 4 (4A/4B). All additional archaeological analysis would be conducted in coordination with the New York City Landmarks Preservation Commission (LPC). In a comment letter dated July 19, 2017, LPC concurred with the conclusions and recommendations of the Phase 1A Archaeological Documentary Study.

In the event that archaeological monitoring confirms the presence of archaeological resources within the areas of archaeological sensitivity as identified in the Phase 1A study, then additional archaeological investigations (e.g., a Phase 2 Investigation or a Phase 3 Data Recovery as described above) would be conducted. Pursuant to CEQR, should significant (e.g., National Register-eligible) archaeological resources be identified in any of the completed archaeological investigations, the disturbance or removal of such resources through the construction of the proposed projects would constitute a significant adverse impact. However, as outlined above, at this time only the potential for archaeological resources has been identified in certain locations on the project sites. As set forth in the *CEQR Technical Manual*, a “site’s actual, rather than potential sensitivity cannot be ascertained without some field testing or excavation.”⁸ The presence of any

⁸ *CEQR Technical Manual* (March 2014): page 9-10
(http://www.nyc.gov/html/oec/downloads/pdf/2014_ceqr_tm/09_Historic_Resources_2014.pdf).

significant archaeological resources would be determined through additional archaeological investigations and consultation with LPC. With the completion of the Unanticipated Discoveries Plan for Site 4 (4A/4B), the completion of additional archaeological investigations at Sites 5 and 6A, and LPC concurrence with the conclusions of those investigations, the proposed projects would not result in significant adverse impacts to archaeological resources. The applicants would enter into ~~a Restrictive Declaration~~ requiring that these additional archaeological investigations (including any relevant Unanticipated Discoveries and Archaeological Monitoring Protocols) would be undertaken in consultation with LPC.

ARCHITECTURAL RESOURCES

There are no known or potential architectural resources on the project sites. Therefore, the proposed projects would not result in any direct or indirect effects to architectural resources on the project sites.

Portions of three architectural resources are located in the study area—the Manhattan Bridge, the FDR Drive, and the East River Bulkhead. The proposed projects would not eliminate or substantially obstruct important public views of the Manhattan Bridge or the FDR Drive, as views to all significant elements of these historic resources would be maintained and any changes to views from nearby vantage points would be consistent with the evolving nature of the built environment of New York City. Additionally, no incompatible visual, audible, or atmospheric elements would be introduced by the proposed projects to any historic resource's setting. The proposed projects would not adversely affect the portion of the East River Bulkhead located in the study area. Because the bulkhead is at and below the water's edge, it is only visible from locations immediately adjacent to the East River, and does not include any components visible from the project sites. There is no meaningful physical or visual relationship between the project sites and the East River Bulkhead.

None of the architectural resources in the study area have sunlight-sensitive features, and thus the proposed projects would not introduce significant new shadows or result in the significant lengthening of the duration of existing shadows over historic architectural resources or historic landscapes in the study area.

Construction of the new buildings on Site 5 and Site 6A would occur within 90 feet of portions of the FDR Drive, a historic resource that was designed to withstand the vibration effects of continuous vehicle usage. Between the DEIS and FEIS, ~~DCP consulted with LPC~~; LPC determined that a Construction Protection Plan (CPP) for this portion of the FDR Drive is warranted. Therefore, in consultation with LPC, the applicants for Site 5 and Site 6A would prepare a CPP, in accordance with the guidelines of the New York City Department of Buildings (DOB) *Technical Policy and Procedure Notice (TPPN) #10/88*, as well as LPC's guidance document *Protection Programs for Landmarked Buildings* and the National Park Service's *Preservation Tech Notes, Temporary Protection #3: Protecting a Historic Structure during Adjacent Construction*. With the CPP in place, construction would not be expected to result in significant adverse impacts to the portion of the FDR Drive located within 90 feet of Site 5 and Site 6A. No other architectural resources are located within 90 feet of the project sites.

Therefore, the proposed projects would not result in any significant adverse direct or indirect impacts to any historic architectural resources on the project sites or in the study area.

URBAN DESIGN AND VISUAL RESOURCES

The ~~analysis finds that the~~ proposed actions would not result in significant adverse impacts on urban design and visual resources.

The proposed actions would not result in significant adverse impacts to urban design. The proposed buildings would be consistent with the massing, materials, and forms of new development projects in the primary and secondary study areas, including the 80-story building under construction at One Manhattan Square directly west of Site 4 (4A/4B) and the multi-building, mixed-use Essex Crossing development currently under construction. With the proposed projects, all three proposed buildings would include ground floor design elements that would add active ground floor uses to the surrounding area that are intended to enliven the streetscape of the nearby study area. ~~These project components are also intended to enhance the pedestrian experience of the urban design characteristics of the project sites and surrounding area.~~

The proposed actions would not result in significant adverse impacts on view corridors or visual resources in the study area. While the proposed projects would ~~add~~ introduce three new tall buildings to the area, they would not eliminate any significant publicly accessible view corridors or completely block public views to any visual resources, result in any substantial changes to the built environment of a historic district, or result in an area-wide rezoning. Further, the proposed buildings would not obstruct any existing view corridors or views to visual resources in the primary or secondary study areas. Therefore, the proposed projects would not result in any significant adverse impacts on urban design and visual resources.

PEDESTRIAN WIND CONDITIONS

A wind tunnel assessment was undertaken to evaluate pedestrian-level wind conditions at the project sites to determine whether pedestrian-level winds could potentially exceed the safety criterion in the With Action condition. The proposed projects would result in some elevated pedestrian-level wind conditions primarily or entirely during the winter months (November to April), when there is generally less pedestrian activity. However, these conditions would be similar to those at comparable locations in the City in close proximity to the waterfront. Potential measures to reduce or minimize the effects of pedestrian-level winds in the With Action condition have been evaluated, including planting marcescent tree species (deciduous trees that retain their leaves in the winter) and implementing architectural elements such as a canopy, a parapet, and a notched segment at the podium level on the north façade. The results of the pedestrian wind analysis demonstrate that with the implementation of certain measures, no significant adverse urban design impacts would result from potential pedestrian wind conditions. The Restrictive Declarations for each of the proposed projects will contain provisions defining circumstances under which changes to the final building design or tree planting layout may be required to undergo wind tunnel analysis to confirm their effectiveness in addressing the potential for elevated pedestrian wind conditions.

~~Further Through~~ consultation with DCP and the New York City Economic Development Corporation (NYCEDC) ~~and the applicants continued between the DEIS and FEIS regarding measures for reducing elevated wind conditions at the two locations below the FDR Drive. Through this consultation,~~ NYCEDC determined that it does not support the installation of a two wind screens at the locations south of Site 5 or at the location adjacent to Site 6A, both at locations beneath the FDR Drive, because these locations conflict with the current use as a NYC Parks fitness equipment area and the City's Two Bridges Coastal Resilience project currently in design (which is part of the Lower Manhattan Coastal Resiliency [LMCR] project). For these reasons,

NYCEDC determined that it is not possible to commit to a wind screen at these locations at this time.

NATURAL RESOURCES

The analysis finds that the proposed projects would not result in any significant adverse impacts to natural resources. Although the proposed actions would result in the disturbance of certain habitats identified in the *CEQR Technical Manual* that include “paved roads/paths,” “urban vacant lots,” “mowed lawns with trees,” and “urban structure exteriors,” these four ecological communities provide limited habitat to wildlife other than species common to urban areas. Loss of this habitat area may adversely affect individual wildlife unable to find suitable available habitat in the vicinity of the study area; however, loss of individuals of these common species would not result in a significant adverse impact to populations of these species within the New York City metropolitan region. In addition, all landscaping and tree replacement and/or restitution for removed trees would occur in compliance with Local Law 3 and Chapter 5 of Title 56 of the Rules of the City of New York, and would have the potential to benefit natural resources by improving the quality of existing wildlife habitat.

Because nighttime collisions with buildings at night are relatively rare and are largely limited to sporadic episodes of mass mortality that can occur with the right mix of extremely poor weather conditions and particularly disorienting lighting characteristics; nighttime collisions with the proposed buildings would likely be a similarly rare occurrence and the proposed projects would not represent a significant nighttime collision hazard to migratory birds. The potential for daytime window collisions at the proposed buildings would depend on the architecture, and the amount, location and orientation of reflective glass as well as the location of landscaping adjacent to any reflective glass surfaces located within the first two stories. To reduce the likelihood of daytime bird collisions, the proposed projects would consider design features within the first two stories such as reducing the proportion of reflective glass to other building materials, using low reflectivity glass for vertically oriented windows, and fritting glass with dots or other shapes and patterns to further reduce reflectivity as well as transparency to enable birds to recognize glass as a solid object. Where glass materials are present within the first two stories that could reflect landscaping vegetation, vegetation would be located far enough away from buildings to not be clearly reflected by glass, or close enough to buildings such that birds would not be capable of attaining sufficient momentum to result in harmful collisions if they were to fly towards the buildings from that vegetation. With these measures in place, the proposed projects would not represent a significant collision hazard to resident or migratory birds.

Further, the proposed projects would include approximately 22,779 square feet (sf) of new open space—including both private and publicly accessible open space—and approximately 80,020 sf of existing private open space that would be altered with amenities, including new landscaping and open areas that would contain new trees and other plantings and increased permeable surfaces. In addition, on Site 5, the Rutgers Slip Open Space would be dedicated as publicly accessible, totaling approximately 33,550 sf (approximately 0.77 acres), including alterations to approximately 22,440 sf of existing open space and approximately 11,110 sf of new open space. These project components would have the potential to provide new habitat for wildlife currently found within and adjacent to the study area. Therefore, the proposed projects would not result in significant adverse impacts to wildlife.

The incremental shadows from the proposed projects would not adversely affect aquatic resources (plankton or fish) in the East River. Therefore, project-generated shadows would not result in any

significant adverse impacts to aquatic biota of the East River. Therefore, the proposed actions would not result in significant adverse impacts related to natural resources.

HAZARDOUS MATERIALS

The analysis finds that with the assignment of an (E) Designation (E-489) that sets forth requirements related to hazardous materials, the proposed projects would not result in any significant adverse impacts related to hazardous materials. All three project sites are approximately 10 feet above sea level. The original shoreline in the vicinity of the project sites roughly extended east–west across the middle of the current project sites, so all three project sites contain fill (of unknown origin). Additionally, the three project sites historically included automotive repair facilities and petroleum storage tanks. Although these site histories indicate the potential for subsurface contamination (and such contamination was found at Site 5, the only one of the sites where a subsurface investigation has been performed), the hazardous materials assessment concluded that no significant adverse impacts related to hazardous materials would be expected to occur, either during or following the construction of the proposed projects, given the construction requirements associated with the Hazardous Materials (E) Designations (E-489) which would be applied to each of the project sites (Lot 2 of Site 5 already was already given this designation during a prior environmental review). Construction activities would be performed in accordance with the following measures:

- Complying with the Hazardous Materials (E) Designation requirements, i.e., prior to any new construction entailing subsurface disturbance, the applicants would submit to OER, for review and approval, a Phase I ESA and sampling protocol (for any additional subsurface investigation) for each of the three project sites. A report documenting the subsurface investigation findings along with a RAP setting out procedures to be followed prior to, during, and following construction (e.g., for soil management, dust control, air monitoring for workers and the community, health and safety, and vapor controls for each new building) is then submitted for OER review and approval. For each project site, documentation that the RAP procedures were properly implemented is required by OER before New York City building permits allowing occupancy can be issued.
- During excavation for the proposed projects on each project site, any known or unexpectedly encountered tanks would be properly closed and removed along with any contaminated soil and would be registered with DEC and/or the New York City Fire Department, if applicable. Any evidence of a petroleum spill would be reported to DEC and addressed in accordance with applicable requirements.
- If dewatering were to be required for construction at any of the three project sites, testing would be performed to ensure that the groundwater would meet the New York City Department of Environmental Protection (DEP) sewer discharge requirements. If necessary, the water would be pretreated prior to discharge to the City's sewer system, as required by DEP permit/approval requirements.
- Prior to and during any demolition or renovation of any structures on the project sites, City, State, and Federal requirements relating to asbestos-containing materials (ACM) and lead-based paint (LBP) would be followed. The existing one-story community room on the eastern portion of Lot 70 of Site 4 (4A/4B), which was constructed in approximately 2004, would not be expected to include LBP or significant quantities of ACM, although ACM can sometimes be present in recent roofing components.

With these measures, no significant adverse impacts related to hazardous materials would be expected to occur as a result of the proposed projects.

WATER AND SEWER INFRASTRUCTURE

The analysis finds that the proposed actions are not anticipated to result in any significant adverse impacts on the City's water supply or wastewater and stormwater conveyance and treatment infrastructure. The proposed projects would result in an increase in water consumption and sewage generation on the project sites as compared with the No Action condition. While the proposed projects would result in an incremental water demand of 1,022,347 gallons per day (gpd), based on results of two hydrant flow tests conducted by DEP in the vicinity of the project sites and confirmation by DEP, the proposed projects are expected to be adequately served by the existing infrastructure. Therefore, the proposed projects would not be anticipated to result in any significant adverse impacts to the City's water supply.

While the proposed projects would generate 588,010 gpd of sanitary sewage more than in the No Action condition, this incremental increase in sewage generation would be approximately 0.12 percent of the average daily flow at the Newtown Creek Waste Water Treatment Plant (WWTP) and would not result in an exceedance of the plant's permitted capacity. This incremental increase in volume would not be anticipated to result in a significant adverse impact on the City's sanitary sewage treatment system, and would not exceed the capacity of the Newtown Creek WWTP.

The overall volume of stormwater runoff and the peak stormwater runoff rate from the project sites is anticipated to remain approximately the same as in existing conditions. With the incorporation of selected best management practices (BMPs), the peak stormwater runoff rates would be reduced from the future without the proposed actions and therefore would not be anticipated to have a significant impact on the downstream City combined sewer system or the City sewage treatment system.

SOLID WASTE AND SANITATION SERVICES

The analysis finds that the proposed projects would not result in a significant adverse impact related to ~~on~~ solid waste and sanitation services. The proposed projects would not directly affect a solid waste management facility. The proposed projects would collectively generate approximately 58 tons per week of solid waste over the No Action condition, of which approximately 98 percent (57.00 tons) would be handled by the New York City Department of Sanitation (DSNY), and approximately two percent (1.30 tons) would be handled by private carters. This correlates to approximately five additional truckloads per week of solid waste handled by DSNY. The amount of commercial waste estimated to be produced in the With Action condition represents a decrease compared to the existing and No Action conditions, therefore the number of truckloads per week handled by private carters would be reduced. The additional 58 tons of solid waste resulting from the proposed projects, to be handled by DSNY, would be a relatively negligible insignificant increase relative to the approximately 12,260 tons of solid waste handled by DSNY every day, or the 9,000 tons handled by private carters.⁹ As such, the proposed projects would not result in an increase in solid waste that would overburden available waste management capacity. Furthermore, the proposed projects would not conflict with, or require any amendment to, the City's solid waste management objectives as stated in SWMP.

⁹ About DSNY: <http://www1.nyc.gov/assets/dsny/about/inside-dsny.shtml>, accessed July 2017.

ENERGY

The preliminary analysis concludes~~d~~ that the proposed projects would not result in any significant adverse energy impacts. The proposed projects are projected to generate an incremental demand for approximately 326,881 million British thermal units (BTUs) of energy per year. This energy demand represents the total incremental increase in energy consumption between the future without the proposed projects (the No Action condition) and the future with the proposed projects (the With Action condition). As explained in the *CEQR Technical Manual*, the incremental demand produced by most projects would not create a significant impact on energy capacity, and detailed assessments are only recommended for projects that may significantly affect the transmission or generation of energy. The proposed projects would generate an incremental increase in energy demand that would be negligible when compared to the overall demand within Consolidated Edison's (Con Edison's) New York City and Westchester County service area. Therefore, the proposed projects would not result in any significant adverse ~~energy impacts~~ energy impacts related to energy.

TRANSPORTATION

The analysis finds that the proposed projects would result in significant adverse traffic, transit (subway station elements), and pedestrian impacts. The proposed projects would not result in significant adverse impacts on subway and bus line haul or parking availability.

TRAFFIC

Based on a detailed assignment of project-generated vehicle trips, 31 intersections were identified as warranting detailed analysis for the weekday AM, midday, and PM peak hours. The detailed analysis concluded that in the future with the proposed projects, there would be significant adverse impacts at six intersections during the weekday AM peak hour, five intersections during the midday peak hour, and 10 intersections during the PM peak hour.

Table S-4 provides a summary of the impacted locations by lane group and analysis time period. Potential measures to mitigate the projected traffic impacts are described in the Mitigation analysis.

Table S-4

Summary of Significant Adverse Traffic Impacts

Intersection		Weekday AM Peak Hour	Weekday Midday Peak Hour	Weekday PM Peak Hour
EB/WB Street	NB/SB Street			
South Street	Pike Slip			SB-L
South Street	Clinton Street			EB-LT
South Street (North)	Montgomery Street	SB-TR		WB-LTR NB-LT
South Street (South)		SB-LT		SB-LT
Madison Street	Pike Street (East)	EB-LT		EB-LT
Madison Street	Montgomery Street			NB-LTR
East Broadway	Pike Street (East)	NB-L	NB-L	EB-L NB-L
	Pike Street (West)	EB-TR	EB-TR	EB-TR
Division Street	Market Street		NB-L	
Canal Street	Allen Street			EB-LTR
Delancey Street	Allen Street		WB-L	WB-L
Division Street	The Bowery	WB-L		
East Broadway	Chatham Square		SB-L	NB-R SB-L
Worth Street/Oliver Street	Chatham Square	EB-L (Worth Street) EB-LTR (Worth Street)	EB-L (Worth Street) EB-LTR (Worth Street)	EB-L (Worth Street) EB-LTR (Worth Street) WB-R SB-TR
		SB-TR	SB-TR	
Worth Street	Centre Street	WB-T		
Total Impacted Intersections/Lane Groups		6/10	5/8	10/18

Notes: L = Left Turn, T = Through, R = Right Turn, DefL = Defacto Left Turn, EB = Eastbound, WB = Westbound, NB = Northbound, SB = Southbound.

TRANSIT

The preliminary transit screening assessment concluded that a detailed analysis of station circulation elements and control areas is warranted for the East Broadway-Rutgers Street Station (F line) for the weekday AM and PM peak hours. A subway line-haul (F line) analysis was also conducted for the weekday AM and PM peak hours.

The line-haul analyses showed that the proposed projects would not result in a significant adverse subway line-haul impact. The subway station analysis identified significant adverse stairway impacts for the S1 stairway during the weekday AM and PM peak hours, and the P3 stairway for the weekday AM peak hour. Discussions with New York City Transit (NYCT) to identify feasible mitigation measures are presented in “Mitigation.”

PEDESTRIANS

Weekday peak period pedestrian conditions were evaluated at key area sidewalk, corner reservoir, and crosswalk locations. Based on the detailed assignment of pedestrian trips, 18 sidewalks, 16 corner reservoirs, and 12 crosswalks were selected for detailed analysis for the weekday AM, midday, and PM peak hours. As summarized in **Table S-5**, significant adverse impacts were identified for one sidewalk during the weekday AM and PM peak hours, two crosswalks during the weekday AM peak hour, one crosswalk during the weekday midday peak hour, and two crosswalks during the weekday PM peak hour. Potential measures (i.e., crosswalk widenings, signal timing adjustments, etc.) were identified to mitigate the pedestrian impacts, as described in the Mitigation analysis.

Table S-5
Summary of Significant Adverse Pedestrian Impacts

Pedestrian Element	Weekday AM Peak Hour	Weekday Midday Peak Hour	Weekday PM Peak Hour
North Sidewalk of Madison Street between Rutgers Street and Pike Street	Impacted		Impacted
Rutgers Street and Madison Street North Crosswalk	Impacted		
Rutgers Street and Madison Street West Crosswalk	Impacted		Impacted
Rutgers Street and Cherry Street South Crosswalk		Impacted	Impacted

VEHICULAR AND PEDESTRIAN SAFETY

Crash data for the study area intersections were obtained from NYSDOT for the time period between November 1, 2013 and October 31, 2016. During this period, a total of 278 injuries, and 96 pedestrian/bicyclist-related accidents occurred at study area intersections. A rolling total of accident data identified three high crash locations in the 2013 to 2016 period, Allen Street and Canal Street, the Bowery and Canal Street at the Manhattan Bridge, and Chatham Square/Park Row at Worth Street/Mott Street. A summary of the identified high crash locations, prevailing trends, project-specific effects, and recommended safety measures is provided in **Table S-6**.

Table S-6
Summary of High Crash Locations

High Crash Intersections	Prevailing Trends	Peak Hour Project-Specific Effects	Recommended Safety Measures
Allen Street and Canal Street	None	Incremental trips: 54 vehicles	Install pedestrian countdown timers on all crosswalks
The Bowery and Canal Street	None	Incremental trips: 62 vehicles	Install pedestrian countdown timers on the east crosswalk
Chatham Square/Park Row and Worth Street/Mott Street	None	Incremental trips: 61 vehicles	No recommendations
Source: NYSDOT crash data; November 1, 2013 to October 31, 2016			

PARKING

The With Action public parking utilization is expected to increase to 113, 132, 116, and 112 percent of the ½-mile off-street parking capacity during the weekday morning, midday, evening, and overnight time periods, respectively. These utilization levels represent parking shortfalls of 293, 755, 373, and 274 spaces during the corresponding weekday peak periods. It is expected that excess parking demands resulting from the proposed projects during the weekday peak periods would need to be accommodated by on-street parking or off-street parking beyond ½-mile walk from the project sites. Alternatively, motorists could choose alternate modes of transportation. As stated in the *CEQR Technical Manual* and discussed in the parking analysis methodology section below, a parking shortfall resulting from a project located in Manhattan does not constitute a significant adverse parking impact, due to the magnitude of available alternative modes of transportation.

AIR QUALITY

The analysis finds that the proposed actions would not result in significant adverse air quality impacts. Concentrations of particulate matter less than 10 microns in diameter (PM₁₀) due to the

proposed projects would not result in any violations of NAAQS at intersections in the study area, and incremental concentrations of particulate matter less than or equal to 2.5 microns in diameter (PM_{2.5}) would not exceed the City's *de minimis* criteria for PM_{2.5}. In addition, concentrations of CO and PM_{2.5} from the parking facility associated with the proposed projects would not result in any significant adverse air quality impacts.

An analysis was performed of the emissions and dispersion of nitrogen dioxide (NO₂) and PM₁₀ from heating and hot water systems for the proposed projects, as well as potential combined heat and power (CHP) systems sources associated with the proposed Site 5 building, which determined that such emissions would not result in a violation of NAAQS. Emissions of PM_{2.5} were analyzed in accordance with the City's current PM_{2.5} *de minimis* criteria, which determined that the maximum predicted PM_{2.5} increments from the proposed projects would be less than the applicable annual average criterion of 0.3 µg/m³ for local impacts and 0.1 µg/m³ for neighborhood-scale impacts. The air quality modeling analysis also determined the highest predicted increase in 24-hour average PM_{2.5} concentrations would not exceed the applicable *de minimis* criterion. To ensure that there are no significant adverse impacts resulting from the proposed actions due to heating and hot water and CHP emissions, certain restrictions would be required for the proposed projects.

The analysis of the emissions from heat and hot water systems from the existing building at 80 Rutgers Slip determined that there would be no significant adverse air quality impacts on the proposed residential uses on Site 4 (4A/4B).

As described in the Air Quality analysis, (E) Designations for air quality would be applied to each project site. Note that the air quality (E) Designation for Site 5 that would be applied through the proposed projects would supersede the existing (E) Designation on that property.

GREENHOUSE GAS AND CLIMATE CHANGE

GREENHOUSE GAS EMISSIONS

The analysis finds that the proposed projects would be consistent with the City's emissions reduction goals, as defined in the *CEQR Technical Manual*.

The building energy use and vehicle use associated with the proposed projects would result in up to approximately 21 to 22 thousand metric tons of carbon dioxide equivalent (CO₂e) emissions per year. Total greenhouse gas (GHG) emissions associated with the construction, including direct emissions and upstream emissions associated with construction materials, would be approximately 250 thousand metric tons.

The *CEQR Technical Manual* defines five goals by which a project's consistency with the City's emission reduction goal is evaluated: (1) efficient buildings; (2) clean power; (3) sustainable transportation; (4) construction operation emissions; and (5) building materials carbon intensity.

The applicants have stated that they are currently evaluating the specific energy efficiency measures and design elements that may be implemented, and are required at a minimum to achieve the energy efficiency requirements of the New York City Building Code. In 2016, as part of the City's implementation of strategies aimed at achieving the OneNYC GHG reduction goals, the City substantially increased the stringency of the building energy efficiency requirements. In 2016, the City also published a pathway to achieving the GHG reduction goals in the building sector. Should the measures identified as part of that pathway or other measures not yet implemented be adopted by the City in the future, they may apply to the proposed projects similar to any new building (if prior to building approval) or existing building (after construction), and the proposed projects would implement any measures required under such programs. Therefore, the proposed

projects would support the goal identified in the *CEQR Technical Manual* of building efficient buildings.

The inclusion of a cogeneration system is under consideration for Site 5. If included, the system would produce electricity on-site while providing heat as a byproduct, and would reduce the electricity demand from the grid while burning natural gas on-site. The heat produced would offset some or all of the natural gas required to provide heat and hot water for Site 5. Although the potential cogeneration system under consideration for Site 5 could decrease the net building energy consumption (electricity and fuel use combined), based on the current carbon intensity of electricity in New York City, the cogeneration could increase building energy GHG emissions for Site 5 by approximately 10 percent, representing approximately 3 percent of the total potential GHG emissions for the proposed projects.

Overall, the proposed projects would support the goal identified in the *CEQR Technical Manual* of building efficient buildings. The proposed projects also would support the other GHG goals as defined by the *CEQR Technical Manual* by virtue of their proximity to public transportation, reliance on natural gas, commitment to construction air quality controls, and the fact that as a matter of course, construction in New York City uses recycled steel and includes cement replacements. All of these factors demonstrate that the proposed projects would support the GHG reduction goal.

Therefore, based on the commitment to energy efficiency and by virtue of location and nature, the proposed projects would be consistent with the City's emissions reduction goals, as defined in the *CEQR Technical Manual*.

RESILIENCE TO CLIMATE CHANGE

The new construction for the proposed projects would be designed to provide flood resilience to the potential conditions projected through the 2050s, and the designs would be adaptive such that enhancements could be implemented in the future to further protect uses up to the potential flooding conditions projected for the end of the century, if necessary, based on future adjustments to end-of-century potential flood elevations estimates. This would include protecting all critical infrastructure up to potential flood conditions projected out to the year 2100, elevating all residential units above those levels, and designing non-critical uses located below the potential flood elevations projected for 2050 to either be protected from flood waters via stand-alone deployable barriers or to flood and quickly recover from severe flooding events. Nothing in the projects' designs would structurally or otherwise preclude the introduction, at a later date, of additional flood protection measures (such as flood barriers) to protect project elements up to potential flood elevations projected for 2100. As discussed in Chapter 9, "Natural Resources," the floodplain at the project sites is affected by coastal flooding, which is controlled by astronomic tides and meteorological forces and is unaffected by occupancy of the floodplain. As such, the proposed projects would not affect the floodplain or result in increased risk of flooding of areas adjacent to the study area. Similarly, the flood resilience measures incorporated into the proposed projects to address flood risk through the 2050s and any adaptations for end-of-century potential flood elevations at the sites of the proposed projects would not have the potential to increase flood risk to of adjacent properties.

NOISE

The analysis finds that with the assignment of an (E) Designation (E-489) that sets forth requirements related to noise, the proposed projects would not result in any significant adverse noise impacts. The proposed projects would not generate sufficient traffic to have the potential to

cause a significant noise impact (mobile source). It is assumed that the proposed buildings' mechanical systems (i.e., heating, ventilation, and air conditioning [HVAC] systems) would be designed to meet all applicable noise regulations (i.e., Subchapter 5, §24-227 of the New York City Noise Control Code) and to avoid producing levels that would result in any significant increase in ambient noise levels. Therefore, the proposed projects would not result in any significant adverse noise impacts related to building mechanical equipment (stationary sources).

Due to existing high levels of ambient noise in the area, building attenuation would be required to ensure that interior noise levels meet the CEQR criteria. The proposed designs for the three proposed buildings include acoustically rated windows and central air conditioning as alternate means of ventilation. The proposed buildings would provide sufficient attenuation to achieve the CEQR interior $L_{10(1)}$ noise level guideline of 45 dBA or lower for residential or community facility uses and 50 dBA or lower for retail uses. The window/wall attenuation and alternate means of ventilation requirements will be codified in a Noise (E) Designation as follows:

To ensure an acceptable interior noise environment, the building façade(s) or future development at the project sites must provide minimum composite building façade attenuation as shown in Table 17-9 of the *Two Bridges LSRD EIS* in order to ensure an interior L_{10} noise level not greater than 45 dBA for residential and community facility uses or not greater than 50 dBA for commercial uses. To maintain a closed-window condition in these areas, an alternate means of ventilation that brings outside air into the buildings without degrading the acoustical performance of the building façade(s) must also be provided.

NEIGHBORHOOD CHARACTER

The analysis finds that the proposed actions would not result in significant adverse impacts associated with neighborhood character. The project sites and surrounding area encompass the entirety of the Two Bridges section of the Lower East Side neighborhood of Manhattan and adjacent portions of Chinatown. The project sites contain residential buildings, retail uses, community facility spaces, private open spaces, parking lots, and some underutilized areas. Defining features of the study area include the Manhattan Bridge, the FDR Drive, the East River, and the prevalence of affordable mixed-income and public housing complexes. As described in the relevant chapters of this EIS, the proposed actions would not result in significant adverse impacts to land use, zoning, and public policy; socioeconomic conditions; historic and cultural resources; urban design and visual resources; or noise. Although significant adverse impacts would occur with respect to increased utilization of open space, shadows on two open spaces, and increased traffic, pedestrians, and transit riders, these impacts would be at least partially mitigated and would not result in a significant overall change to the determining elements of neighborhood character as defined in the *CEQR Technical Manual*.

~~Further, it is the applicants' intent that the proposed actions would result in benefits to neighborhood character.~~ New development on the project sites would replace underdeveloped sites with new mixed-use buildings with ground floor design elements that would contribute active ground floor uses to the surrounding area that are intended to enliven the streetscape. These project components—in addition to the enlarged and dedicated publicly accessible Rutgers Slip Open Space and the new and altered private open space on the project sites—are intended by the applicants to enhance the urban design conditions of the project sites and surrounding area, thereby contributing to the neighborhood character. In addition, mitigation measures would minimize or eliminate anticipated project impacts to open spaces in the study area and to the East Broadway-Rutgers Street subway station.

CONSTRUCTION

The analysis finds that construction of the proposed project would have the potential to result in significant adverse construction-period traffic impacts, a parking shortfall during peak construction, and construction-period noise impacts.

ENVIRONMENTAL PERFORMANCE

- An emissions reduction program would be implemented during construction to minimize the effects on air quality and would include to the extent practicable measures such as the use of dust control, ultra-low sulfur diesel (ULSD) fuel, best available technologies, and newer and cleaner equipment;
- A report documenting the subsurface investigation findings along with a Remedial Action Plan (RAP) establishing procedures to be followed prior to, during, and following construction (e.g., for soil management, dust control, air monitoring for workers and the community, health and safety, and vapor controls for each new building). These reports would be submitted to the NYC Office of Environmental Remediation (OER), for review and approval;
- Construction of the proposed projects would not only include noise control measures as required by the *New York City Noise Control Code*, but may also include measures such as the use of quieter equipment, where practicable; and
- In consultation with LPC, the applicants for Site 5 and Site 6A would prepare a CPP to protect the portion of the Franklin Delano Roosevelt (FDR) Drive located within 90 feet of Sites 5 and 6A.

With the implementation of the measures described above, the construction effects of the proposed projects on the surrounding area would be substantially reduced. As described below, an emissions reduction program and source and path control measures would be memorialized in ~~a Restrictive Declaration~~ to minimize the effects of construction activities on the surrounding community and to ensure appropriate implementation during construction. The Restrictive Declarations for the proposed projects will require that an independent monitor oversee, on behalf of DCP, the implementation and performance of the construction phase commitments. The Restrictive Declarations will also require the establishment of a community construction task force in order to provide, on a regular basis, a forum for communications relating the construction schedule and community outreach and to respond to concerns of members of the community relating to the construction activities. Although the implementation of these measures would reduce some effects of construction, as described below, construction activities associated with the proposed projects would result in temporary significant adverse temporary impacts in the areas of transportation and noise. ~~However, as described in detail below, even with these measures in place, construction activities associated with the proposed projects would result in significant adverse transportation and noise impacts during the construction period.~~ Additional information for key technical areas is summarized below.

TRANSPORTATION

Subsequent to the publication of the DEIS, detailed construction traffic and pedestrian analyses were prepared to identify specific temporary impacts that may occur during construction. For these impacts, mitigation measures akin to those recommended to address the anticipated operational impacts upon the full build-out of the proposed projects were also identified. Based on the analysis of projected peak construction activities, the proposed projects would have the potential to result

in significant adverse traffic impacts, and the potential for a parking shortfall during peak construction, as summarized below.

Traffic

During peak construction, project-generated vehicle trips would be less than what would be realized with the full build-out of the proposed projects in 2021. However, temporary significant adverse impacts would still be expected at a subset of intersections that were identified to incur impacts with the full build-out of the proposed projects. For the early morning construction peak hour, significant adverse impacts were identified for two study area intersections, one of which requires the early implementation of proposed operational mitigation. At the other impacted intersection, a temporary change in off-peak signal timing would mitigate the construction impact. For the mid-afternoon construction peak hour, significant adverse impacts were identified for five study area intersections. The temporary construction traffic impacts at three of the five intersections could be mitigated with the early implementation of the traffic engineering measures identified in “Mitigation.” For the remaining two intersections, South Street and Montgomery Street and Chatham Square and Worth Street/Oliver Street, no practicable measures were found to mitigate either the operational or the construction period impacts. The construction traffic impacts at these two intersections would, therefore, also remain unmitigated.

Parking

The anticipated construction activities are projected to generate a maximum parking demand of 355 spaces during peak construction. Conservatively assuming the parking utilization under the No Action condition where there would be a total parking shortfall of 646 spaces during the weekday midday period, the construction worker demand of 355 spaces would result in a parking shortfall of 1,001 spaces during the peak construction period. The parking demand associated with construction workers commuting via auto would be temporary in nature. It is expected that excess parking demand resulting from the proposed projects during the weekday peak periods would need to be accommodated by limited on-street parking spaces, or in off-street parking facilities located more than a ½-mile walk from the project sites. Alternatively, motorists could choose to use alternate modes of transportation. As stated in the *CEQR Technical Manual*, a parking shortfall resulting from a project located in Manhattan does not constitute a significant adverse parking impact, due to the magnitude of available alternative modes of transportation.

Transit

During peak construction, project-generated transit trips would be less than those with the full build-out of the proposed projects in 2021. In addition, construction worker trips would occur outside of typical commuter peak periods (when transit ridership is typically higher). Nonetheless, since significant adverse stairway impacts were identified for the commuter peak periods in the “Transportation” analysis, additional counts and analyses for the East Broadway F train station were undertaken for the construction peak hours, which verified that construction of the proposed projects is not expected to result in the potential for any significant adverse transit impacts.

Pedestrians

During peak construction, the project-generated pedestrian trips would be less than those with the full build-out of the proposed projects in 2021. Although significant adverse pedestrian impacts were identified in the operational Transportation analysis for one sidewalk and three crosswalk locations during peak periods for the full build-out of the proposed projects, the construction worker trips would be made outside of these peak periods when background pedestrian levels

would be lower. Analysis results showed that there would not be a potential for any significant adverse pedestrian impacts during peak construction.

AIR QUALITY

An emissions reduction program would be implemented at each of the projects sites to minimize the effects of construction activities on the surrounding community. Measures would include, to the extent practicable, dust suppression measures, use of ULSD fuel, idling restrictions, diesel equipment reduction, best available tailpipe reduction technologies, and the utilization of newer equipment. With the implementation of these emission reduction measures, the dispersion modeling analysis of construction-related air emissions for both nonroad and on-road sources determined that PM_{2.5} and PM₁₀, annual-average NO₂, and carbon monoxide (CO) concentrations would be below their corresponding *de minimis* thresholds or NAAQS, respectively. Therefore, construction of the proposed projects would not result in significant adverse air quality impacts due to construction sources.

NOISE

The detailed modeling analysis concludes~~ed~~ that construction of the proposed projects has the potential to result in construction-period noise levels that exceed *CEQR Technical Manual* noise impact criteria for an extended period of time at the façades of residences facing the project sites on Cherry Street; the eastern, southern, and western façades of 64 Rutgers Street; 80 Rutgers Slip; the northern, eastern, and a portion of the southern façades of 82 Rutgers Slip; a portion of the northern façade and the eastern and western façades of 265 and 275 Cherry Street; residences immediately adjacent to Site 6A; portions of the northern and western façades of 286 South Street; and portions of the northern and eastern façades of the residences west of Site 4 (4A/4B). Construction-period noise levels of this magnitude for such an extended duration would constitute a significant adverse impact.

At other receptors near the project construction areas—including open space, residential, and institutional receptors—noise resulting from construction of the proposed projects may at times be noticeable, but would be limited to the construction period and would generally not exceed typical noise levels in the nearby area, and therefore, would not be considered a significant adverse noise impact.

VIBRATION

The buildings of most concern with regard to the potential for structural or architectural damage due to vibration are the existing residential buildings immediately surrounding the project construction areas. At the buildings and other structures immediately adjacent to the project construction areas, vibration due to construction of the proposed projects within 25 feet may result in PPV levels between 0.50 and 2.0 in/sec, which is generally considered acceptable for a non-historic building or structure.

In terms of potential vibration levels that would be perceptible and annoying, the equipment that would have the most potential for producing levels that exceed the 65 VdB limit is the pile driver. The pile driver has the potential to produce perceptible vibration levels (i.e., vibration levels exceeding 65 VdB) at receptor locations within a distance of approximately 550 feet depending on soil conditions. However, the operation of the pile driver would only occur for limited periods of time at a particular location and therefore would not result in any significant adverse impacts. Therefore, there is no potential for significant adverse vibration impacts from the proposed projects.

ALTERNATIVES

In accordance with the *CEQR Technical Manual*, an analysis of alternatives to the proposed projects ~~is included in the EIS~~ ~~was prepared~~. The purpose of an analysis of alternatives is to provide the decision makers with the opportunity to consider reasonable alternatives that could avoid or minimize significant adverse environmental impacts identified in the EIS. Three alternatives were analyzed—a No Action Alternative, a No Unmitigated Significant Adverse Impacts Alternative, and, in response to comments received following issuance of the DEIS, a Reduced Height Alternative. In addition, a Lesser Density Alternative was considered which would eliminate both the mitigated and unmitigated significant adverse impacts of the proposed projects by reducing the density of each proposed project. ~~However, this alternative would require density reductions of a magnitude that would significantly reduce the amount of permanently affordable housing that could be provided by the proposed projects and would substantially compromise the proposed projects' stated goals and objectives. Therefore, a Lesser Density Alternative was determined infeasible and was not considered further.~~

This Lesser Density Alternative was determined to require density reductions of a magnitude that would significantly reduce the amount of permanently affordable housing that could be provided by the proposed projects and would substantially compromise the proposed projects' stated goals and objectives. The Lesser Density Alternative was determined infeasible and was not considered in detail.

NO ACTION ALTERNATIVE

The No Action Alternative assumed that in the future without the proposed projects (the No Action condition), the project sites would continue as in the existing conditions except that the partially vacant retail building on Site 4 (4A/4B) would be re-tenanted. No new development would occur on the project sites. The No Action Alternative also considers approved or planned development projects within the appropriate study area that are likely to be completed by the analysis year.

Under this alternative, the significant adverse impacts related to elementary schools, child care, open space, shadows, transportation, and construction-period transportation and noise would not occur. As compared to the proposed actions, the intended public benefits associated with the proposed projects—the provision of a substantial amount of new permanently affordable housing, urban design improvements, including an enlivened streetscape with new retail spaces, and new and improved publicly accessible and private open spaces—would not occur in the No Action Alternative.

NO UNMITIGATED SIGNIFICANT ADVERSE IMPACTS ALTERNATIVE

The No Unmitigated Significant Adverse Impact Alternative considered the full range of impacts identified for the proposed projects to determine what avoidance measures would be required for the different types of impacts. The proposed projects would result in significant adverse impacts to public elementary schools, publicly funded child care, open space, shadows, pedestrians, and construction-period pedestrians, all of which could be partially or fully mitigated as described in the Mitigation analysis. The proposed projects are anticipated to result in unmitigatable significant adverse impacts in the areas of traffic, transit, and construction-period traffic and noise. The traffic, transit, and construction-period traffic and noise analyses concluded that no reasonable alternative could be developed to eliminate the proposed projects' unmitigated significant adverse impacts without substantially compromising the proposed projects' stated goals.

REDUCED HEIGHT ALTERNATIVE

A Reduced Height Alternative, which is based on comments received during the DEIS public review period, considers a maximum building height of 350 feet. This would reduce the maximum number of residential units in the overall development from 2,775 to 1,023. Under this Alternative, the retail and community facility space as well as the parking on Site 5 would be the same as with the proposed actions. However, the Rutgers Slip Open Space and Site 4 (4A/4B) open space would remain private and no affordable housing would be provided.

As described in the EIS Reduced Height Alternative, there is a limited footprint available within the LSRD for the development of each of the proposed buildings. Accordingly, the Reduced Height Alternative would result in 1,023 dwelling units, but no affordable housing, as compared to the 2,775 dwelling units with the proposed projects, of which approximately 694 dwelling units would be affordable. The applicants have advised that given the land costs, construction costs, and the cost of the transit mitigation measures, it would not be financially feasible to provide affordable units under the Reduced Height Alternative. As such, the Reduced Height Alternative would not meet the goals and purposes of the proposed action to provide a significant number of affordable units in furtherance of the Mayor's *Housing New York* program.

Neither the Reduced Height Alternative nor the proposed actions would be expected to result in significant adverse impacts to land use, zoning, and public policy; socioeconomic conditions; public libraries; historic and cultural resources; urban design and visual resources; natural resources; hazardous materials; water and sewage infrastructure; solid waste; energy; noise; neighborhood character; or greenhouse gas emissions and climate change.

Similar to the proposed actions (in the With Action Scenario that accounts for with 200 senior affordable units), the Reduced Height Alternative would avoid a significant adverse impact on public schools and publicly funded child care. With the open space user population reduced by 63 percent and the open space supply reduced by approximately 0.77 acres, the Reduced Height Alternative would avoid the significant adverse impact on open space that would occur with the proposed action. However, the Reduced Height Alternative would not dedicate the Rutgers Slip Open Space as publicly accessible and no mitigation measure would be required dedicating the Site 4 open space as publicly accessible. The Reduced Height Alternative would remove the significant adverse shadow impact on Lillian D. Wald Playground and reduce the incremental shadows on the Cherry Clinton Playground.

The Reduced Height Alternative's 1,023 dwelling units would generate fewer transportation trips than the 2,775 dwelling units with the proposed projects. However, the Reduced Height Alternative would still result in significant adverse impacts to traffic, transit, and pedestrians, and there would be an off-street parking shortfall in the surrounding area. As with the proposed projects, all significant adverse transportation-related impacts for the Reduced Height Alternative could be fully mitigated except for traffic impacts at two study area intersections.

Neither the proposed actions nor the Reduced Height Alternative would result in a significant adverse mobile source air quality impact. In terms of stationary sources, the Reduced Height Alternative would have lower stack heights, and some of the proposed restrictions identified for Site 5 and Site 6A required for the proposed actions may not be required for the Reduced Height Alternative. Since the Site 4 (4A/4B) building would be lower in height than the One Manhattan Square tower, potential air quality effects from Site 4 (4A/4B) under the Reduced Height Alternative may require additional restrictions to avoid impacts on the One Manhattan Square tower.

While the Reduced Height Alternative would involve less construction overall, all of the excavation, foundation work and construction work up to the 350 foot level would be the same as or similar to the construction with the proposed actions. Given that the duration of construction would be shorter, the duration of potential construction impacts would be reduced. In particular the duration of construction-period noise levels that would constitute potential construction-period noise impacts would be reduced making the Reduced Height Alternative less likely to result in significant adverse public health impacts. Like the proposed projects, the Reduced Height Alternative would also need to undertake measures to minimize construction-period effects on the nearby community, including those related to communication with the community, community safety, and environmental performance.

MITIGATION

COMMUNITY FACILITIES AND SERVICES—PUBLIC ELEMENTARY SCHOOLS

As described above, in the With Action condition that conservatively assumes the 200 permanently affordable units may not be developed exclusively for seniors, the proposed projects would result in an increase of more than five percentage points over the No Action condition and elementary school utilization would be just over 100 percent. Therefore, in this scenario, the proposed projects would result in a significant adverse impact on public elementary schools in CSD 1.

Mitigation measures for this significant adverse impact were explored by the applicant in consultation with DCP, the New York City Department of Education (DOE), and SCA between the DEIS and the FEIS. As mitigation, the Restrictive Declarations for the proposed projects will require the applicants to fund the increase in school seat capacity in CSD 1, if required. The mitigation measures reflect the nature and scope of the elementary school impact, taking into account the assessment in “Community Facilities.” DOE and SCA would continue to monitor trends in demand for school seats in the area. With the funding provided by the applicants, DOE and SCA responses to identified demand could take place in stages and include administrative actions and/or enlargement of existing schools. The *CEQR Technical Manual* lists potential mitigation measures for public school impacts, which may be implemented with these funds. These measures may include, but are not limited to, relocating administrative functions to another site, thereby freeing up space for classrooms; making space within the buildings in the school study area available to DOE; and/or restructuring or reprogramming existing school space within a district. Absent the implementation of such measures, if needed, the proposed projects would have an unmitigated significant adverse impact on public elementary schools.

COMMUNITY FACILITIES AND SERVICES—PUBLICLY FUNDED CHILD CARE FACILITIES

In the With Action condition that conservatively assumes the 200 permanently affordable units may not be developed exclusively for seniors, child care facilities in the study area would operate over capacity and the increase in the utilization rate would be over five percentage points. Therefore, in this scenario, the proposed projects would result in a significant adverse impact on child care facilities.

Mitigation measures for this significant adverse impact have been developed in consultation with the New York City Administration for Children’s Services (ACS) and will, if required, include the provision of funding to support adding capacity to existing or new facilities or the provision of a new child care facility within the project sites. The Restrictive Declarations for the proposed projects would require the applicants to work with ACS to consider the need for additional

capacity within the ½-mile study area and the implementation of measures to provide additional capacity, if required, to mitigate the significant adverse impact to publicly funded child care facilities. Absent the implementation of such mitigation measures, if needed, the proposed projects would have an unmitigated significant adverse impact on publicly funded child care facilities.

OPEN SPACE

The proposed projects would increase utilization of study area open space resources due to the introduction of a substantial new residential population. The reductions in the total, active, and passive open space ratios in the With Action condition would result in a significant adverse open space impact based on a quantitative analysis of indirect effects, as set forth in the *CEQR Technical Manual*.

The *CEQR Technical Manual* lists potential mitigation measures for open space impacts. These measures include, but are not limited to, creating new open space within the study area; funding for improvements, renovation, or maintenance at existing local parks; or improving existing open spaces to increase their utility or capacity to meet identified open space needs in the area, such as through the provision of additional active open space facilities. With the proposed projects, on Site 5, the existing approximately 22,440-sf private Rutgers Slip Open Space would be enlarged to approximately 33,550 sf (0.77 acres), dedicated as publicly accessible open space, and reconstructed with amenities for both active and passive use, such as play equipment, basketball courts, walking paths, and seating. While the approximately 33,550 sf of dedicated publicly accessible open space that would be developed with the proposed projects would reduce the significant adverse open space impacts, it is not sufficient to avoid significant adverse open space impacts.

Potential mitigation measures for the open space impacts were explored by the applicants in consultation with DCP and the New York City Department of Parks and Recreation (NYC Parks) between the DEIS and FEIS. As partial mitigation for the open space impact, the existing approximately 15,868 sf (approximately 0.36 acres) of private open space on Site 4 (4A/4B) would be dedicated as publicly accessible open space. In addition, the renovation of existing open spaces in the vicinity of the project sites has been identified as a practicable mitigation measure. Coleman Playground, Captain Jacob Joseph Playground, and Little Flower Playground have been proposed as potential resources to be reconstructed.

Reconstruction of these three open space resources could provide for up to 3.5 acres of revitalized open space. Representative examples of types of features that could be improved or integrated into the reconstruction parks are described below:

- **Coleman Playground**—Comprehensive reconstruction of the various park features; installation of synthetic turf and field lighting; reprogramming of the playground and interior asphalt path components to make better use of underutilized paved areas for public recreation and to create a more integrated park experience; and improvement of the edge treatments along the park's street frontages. This could include the installation of new play equipment, spray showers, lighting, seating, paving, and safety surfaces; improvements to seating and pathways; and sidewalk replacements.
- **Captain Jacob Joseph Playground**—Comprehensive reconstruction of the playground, including improved perimeter conditions, water service, lighting; new landscape and enhanced greening of the site; replacement of playground equipment and safety surface; and enhanced seating.

- **Little Flower Playground**—Comprehensive reconstruction of the playground to repair and replace deteriorated features and revitalize underutilized areas, including refurbishment of comfort station; repair or replacement of benches, play equipment safety surface, and fencing; court renovations; installation of new plantings and ground cover for enhanced greening of the site; and installation of BBQ units, new picnic tables, drinking fountains, and garbage receptacles.

These mitigation measures for the open space impacts have been explored by the applicants in consultation with DCP and NYC Parks and were refined between the DEIS and FEIS. Given that these improvements would improve the quality but not quantity of open space available in the study areas, the significant adverse impacts on open space would not be fully mitigated and therefore, the proposed projects would result in unmitigated significant adverse impacts on open space. Because of the ongoing planning and future development of the Lower Manhattan Coastal Resiliency (LMCR) and East Side Coastal Resiliency (ESCR) projects, which include components in close proximity to the Two Bridges LSRD project sites, alternative improvements of the same scope may be required by DCP with NYC Parks if the aforementioned reconstruction projects are not deemed feasible at the time that their implementation is required.

SHADOWS

Incremental shadows cast by the proposed projects would be substantial enough in extent and/or duration to significantly affect two sunlight-sensitive open space resources—the Cherry Clinton Playground and the Lillian D. Wald Playground.

The *CEQR Technical Manual* identifies several measures that could mitigate significant adverse shadow impacts on open spaces, including modifying the height, shape, size or orientation of a proposed development in order to eliminate or reduce the extent and duration of incremental shadow on the resource; relocating sunlight-sensitive features within an open space to avoid sunlight loss; relocating or replacing vegetation; and undertaking additional maintenance to reduce the likelihood of species loss. Potential mitigation measures for the shadows impacts were explored by the applicants in consultation with DCP and NYC Parks, and were refined between the DEIS and FEIS. The proposed mitigation measures include dedicated funding for enhanced maintenance at the Cherry Clinton Playground and the Lillian D. Wald Playground to mitigate the significant adverse shadows impacts to the users and the trees of the Cherry Clinton Playground, and the users of the Lillian D. Wald Playground. With the implementation of these mitigation measures, the impacts would be considered partially mitigated. As the significant adverse shadows impacts would not be fully mitigated, the proposed projects would result in unmitigated significant adverse shadows impacts to these resources.

TRANSPORTATION

Traffic

As discussed in the Transportation analysis, traffic conditions were evaluated at 31 intersections for the weekday AM, midday, and PM peak hours. In the With Action condition, there would be the potential for significant adverse traffic impacts at 6 intersections during the weekday AM peak hour, 5 intersections during the weekday midday peak hour, and 10 intersections during the weekday PM peak hour, as summarized above in **Table S-4**.

The majority of the locations where significant adverse traffic impacts are predicted to occur could be fully mitigated with the implementation of standard traffic mitigation measures (e.g., signal

timing changes and lane restriping), as described below. The proposed traffic mitigation measures have been reviewed by NYCDOT and deemed impracticable for future implementation.

The significant adverse traffic impacts at the South Street and Montgomery Street intersection and at the Chatham Square and Worth Street/Oliver Street intersection could not be mitigated; these intersections are projected to experience unmitigated significant adverse traffic impacts.

Transit

As described in the Transportation analysis, subway station circulation elements and control areas were analyzed for the East Broadway-Rutgers Street station (F line) for the weekday AM and PM peak hours. In the With Action condition, the proposed projects are expected to result in significant adverse subway stairway impacts at this station's S1 stairway at the northwest corner of Rutgers Street and Madison Street during both the weekday AM and PM peak hours, and the P3 platform stairway for the weekday AM peak hour. Several potential options were explored in consultation with DCP and New York City Transit (NYCT) to mitigate the identified impacts. The mitigation measures considered for the proposed projects include building a new subway entrance (street-level stairway S2) at the northeast corner of Rutgers Street and Madison Street and widening the street-level stairway (P3) and adjoining mezzanine level stairway (ML7). These measures would fully mitigate the identified significant adverse impacts. Coupled with these stairway improvements would be two new elevators that would make the station ADA-compliant for vertical circulation. These elevators would be located at the north end of the station as the platform at the south end has a column structure that precludes the elevators from being built next to the new street and mezzanine stair. NYCT has performed studies which confirm the feasibility of the mitigation measures at a conceptual engineering level.

Pedestrians

Pedestrian conditions were evaluated at 18 sidewalks, 16 corners, and 12 crosswalks for the weekday AM, midday, and PM peak hours. In the With Action condition, the proposed projects would result in significant adverse pedestrian impacts at one sidewalk during the weekday AM and PM peak hours, two crosswalks during the weekday AM peak hour, one crosswalk during the weekday midday peak hour, and two crosswalks during the weekday PM peak hour, as summarized above in **Table S-5**.

As discussed above, the new S2 stairway is expected to result in a shift of pedestrian paths leading to/from the East Broadway-Rutgers Street subway station. As a result, the identified significant adverse impacts at the north sidewalk of Madison Street between Rutgers Street and Pike Street, and the north and west crosswalks of the Rutgers Street and Madison Street intersection would also be mitigated. To accommodate the new S2 stairway, the north sidewalk on Madison Street between Rutgers Street and Jefferson Street would need to be widened. With increased pedestrian flow on the east side of Rutgers Street to/from the new S2 stairway, a new significant adverse impact was identified for the east crosswalk of the Rutgers Street and Madison Street intersection. The potential pedestrian mitigation measures consist of signal timing changes and crosswalk widening that are generally considered practicable, and widening the width of the north sidewalk at the northeast corner of Rutgers Street and Madison Street (in connection with the proposed subway station mitigation) to facilitate increased pedestrian space. Similar to traffic, the proposed pedestrian mitigation measures have been reviewed by NYCDOT and deemed practicable for future implementation.

CONSTRUCTION

Construction of the proposed projects would result in some temporary disruptions in the surrounding area. Construction activities associated with the proposed projects would result in temporary significant adverse impacts in the areas of transportation and noise. ~~Potential~~ Measures to partially or fully mitigate these temporary significant adverse impacts are described below.

Transportation

During peak construction, the project-generated traffic, transit, and pedestrian trips would be less than what would be realized with the full build-out of the proposed projects in 2021. Nonetheless, the proposed projects would have the potential to result in significant adverse traffic impacts during peak construction at a subset of intersections that have been identified to incur significant adverse impacts with the full build-out of the proposed projects (With Action condition). The same or similar traffic mitigation measures identified to mitigate the operational impacts could be implemented early at the discretion of NYCDOT to mitigate the temporary impacts during construction.

Noise

No feasible and practicable mitigation measures have been identified that would fully mitigate the construction-period noise impacts. As described below, the identified the construction-period noise impacts would remain unmitigated.

Based on field observations, the buildings where construction-period noise impacts have been identified appear to have insulated glass windows and an alternative means of ventilation (through-the-wall air conditioning units, PTAC units, and window air conditioning units). The provision of replacement windows is not anticipated to provide substantial improvement in the amount of façade attenuation or reduction in interior noise levels at all impacted receptor locations at buildings with existing through-the-wall air conditioning units, PTAC units, or window air conditioning units. These air conditioning units, which are necessary to maintain the closed-window condition, would remain as a pathway for construction noise to enter the building. Therefore, there are no feasible and practicable mitigation measures that could further reduce or fully eliminate the potential significant adverse construction-period noise impacts at these locations. The provision of replacement windows at the residences west of Site 4 (4A/4B) is not anticipated to be practicable as these buildings are currently under construction and would be expected to be provided with high-quality double glazed windows.

Between the DEIS and FEIS, further measures to reduce or eliminate the potential for these significant construction-period noise impacts were considered and evaluated, such as the use of quieter construction equipment, changes to the construction logistics plans, and alternative noise barriers or other shielding methods. It was found that there are no further reasonable means to ensure measures be employed that would mitigate, partially or fully, the significant adverse construction-period noise impacts. Therefore, the construction-period noise impacts would be considered partially mitigated resulting in unmitigatable adverse construction-period noise impacts.

PROJECT PERMUTATIONS

Table S-7 summarizes the anticipated impacts of the proposed projects if one or more of the proposed projects is delayed indefinitely or ultimately not pursued.

Table S-7
Project Permutations Impacts Summary

	Future with Proposed Projects— Site 5 and Site 6A Projects Only	Future with the Proposed Projects— Site 4 (4A/4B) and Site 6A Projects Only	Future with the Proposed Projects— Site 4 (4A/4B) and Site 5 Projects Only	Future with Site 4 (4A/4B) Project Only	Future with Site 5 Project Only	Future with Site 6A Project Only
Public Elementary Schools	No	No	No	No	No	No
Publicly Funded Child Care	Yes	No	No	No	No	No
Open Space	Yes	No	Yes	No	No	No
Shadows—Cherry Clinton Playground December 21	Yes	Yes	No	No	No	Yes
Shadows—Lillian D Wald Playground March 21/September 21	Yes	No	No	No	No	No
Shadows—Cherry Clinton Playground March 21/September 21	Yes	Yes	No	No	No	Yes
Shadows—Cherry Clinton Playground May 6/August 6	No	No	No	No	No	No
Traffic	Yes, except at South Street/Pike Slip, Division/Pike Streets, and Worth/Centre Streets	Yes, except at South Street/Pike Slip, Division/Market Streets, Allen/Delancey Streets, Chatham Square/East Broadway, and Worth/Centre Streets	Yes, except at South Street/Pike Slip, Division/Pike Streets, and Worth/Centre Streets	Yes, except at South Street/Pike Slip, Madison/Pike Streets, East Broadway/Pike Street, Canal/Allen Streets, Division/Market Streets, Allen/Delancey Streets, Bowery/Division/Doyers Streets, Chatham Square/East Broadway, and Worth/Centre Streets	Yes, except at South Street/Pike Slip, Division/Market Streets, Allen/Delancey Streets, Chatham Square/East Broadway, and Worth/Centre Streets	Yes, except at South Street/Pike Slip, Madison/Pike Streets, East Broadway/Pike Street, Canal/Allen Streets, Division/Market Streets, Allen/Delancey Streets, Bowery/Division/Doyers Streets, Chatham Square/East Broadway, and Worth/Centre Streets
Subway Station	Yes	Yes	Yes	Yes	Yes	Yes
Pedestrians	Yes	Yes	Yes	Yes, except at Rutgers/Madison Street E crosswalk	Yes	Yes
Construction—Traffic	Yes, except at South Street/Pike Slip, Division/Pike Streets, and Worth/Centre Streets	Yes, except at South Street/Pike Slip, Division/Market Street, Allen/Delancey Streets, Chatham Square/East Broadway, and Worth/Centre Streets	Yes, except at South Street/Pike Slip, Division/Pike Streets, and Worth/Centre Streets	Yes, except at South Street/Pike Slip, Madison/Pike Streets, East Broadway/Pike Street, Canal/Allen Streets, Division/Market Streets, Allen/Delancey Streets, Bowery/Division/Doyers Streets, Chatham Square/East Broadway, and Worth/Centre Streets	Yes, except at South Street/Pike Slip, East Broadway/Market Street, Allen/Delancey Streets, and Worth/Centre Streets	Yes, except at South Street/Pike Slip, Madison/Pike Streets, Madison/Montgomery Streets, East Broadway/Pike Street, Canal/Allen Streets, Division/Market Streets, Allen/Delancey Streets, Bowery/Division/Doyers Streets, Chatham Square/East Broadway, and Worth/Centre Streets

S-7 (cont'd)

Project Permutations Impacts Summary

	Future with Proposed Projects— Site 5 and Site 6A Projects Only	Future with the Proposed Projects— Site 4 (4A/4B) and Site 6A Projects Only	Future with the Proposed Projects— Site 4 (4A/4B) and Site 5 Projects Only	Future with Site 4 (4A/4B) Project Only	Future with Site 5 Project Only	Future with Site 6A Project Only
Construction-Noise	Yes, at a portion of the northern façade and the eastern and western façades of 265 and 275 Cherry Street; the façades of residences facing the project sites on Cherry Street; the residences immediately adjacent to Site 6A; and portions of the northern and western façades of 286 South Street	Yes, at the eastern, southern, and western façades of 64 Rutgers Street; 80 Rutgers Slip; the northern, eastern, and a portion of the southern façades of 82 Rutgers Slip; and portions of the northern and eastern façades of the residences west of Site 4 (4A/4B); and the façades of residences facing the project sites on Cherry Street; the residences immediately adjacent to Site 6A; and portions of the northern and eastern façades of 286 South Street	Yes, at the eastern, southern, and western façades of 64 Rutgers Street; 80 Rutgers Slip; the northern, eastern, and a portion of the southern façades of 82 Rutgers Slip; portions of the northern and eastern façades of the residences west of Site 4 (4A/4B); and a portion of the northern façade and the eastern and western façades of 265 and 275 Cherry Street	Yes, at the eastern, southern, and western façades of 64 Rutgers Street; 80 Rutgers Slip; the northern, eastern, and a portion of the southern façades of 82 Rutgers Slip; and portions of the northern and eastern façades of the residences west of Site 4 (4A/4B)	Yes, a portion of the northern façade and the eastern and western façades of 265 and 275 Cherry Street	Yes, at the façades of the residences facing the project site on Cherry Street; the residences immediately adjacent to Site 6A; and the northern and western façades of 286 South Street

PUBLIC HEALTH

The analyses presented in this FEIS conclude that the proposed projects would not result in unmitigated significant adverse impacts ~~in the categories of~~ air quality, water quality, hazardous materials, or operational noise. The analysis presented in the construction analysis determined that construction activities could potentially result in unmitigated significant adverse construction-period noise impacts at receptors in the vicinity of the proposed projects' work areas. However, construction of the proposed projects would not result in chronic exposure to high levels of noise, prolonged exposure to noise levels above 85 dBA, or episodic and unpredictable exposure to short-term impacts of noise at high decibel levels, as per the *CEQR Technical Manual*. Consequently, construction of the proposed projects would not result in a significant adverse public health impact.

UNAVOIDABLE ADVERSE IMPACTS

Following the 2014 *City Environmental Quality Review (CEQR) Technical Manual*, ~~the~~^{this} ~~chapter~~ EIS summarizes unavoidable significant adverse impacts that may result from the proposed actions. Unavoidable significant adverse impacts are defined as those would occur if a proposed project or action is implemented regardless of the mitigation employed, or if mitigation is impossible.

As described in the Mitigation analysis, a number of the potential impacts identified for the proposed project could be mitigated. However, as described below, in some cases, impacts from the proposed project would not be fully mitigated.

COMMUNITY FACILITIES AND SERVICES

Public Elementary Schools

As discussed in the Community Facilities assessment and the Mitigation analysis, in the With Action condition scenario that conservatively assumes the 200 permanently affordable units may not be developed exclusively for seniors, the proposed projects would result in a significant adverse impact on public elementary schools in CSD 1.

Mitigation measures for this significant adverse impact were explored by the applicant in consultation with the DCP, DOE, and SCA, between the DEIS and the FEIS. As mitigation, the Restrictive Declarations for the proposed projects will require that the applicants fund the expansion of school seat capacity, if required. The mitigation measures reflect the nature and scope of the elementary school impact, taking into account the assessment in Community Facilities. DOE and SCA would continue to monitor trends in demand for school seats in the area. With the funding provided by the applicants, DOE and SCA responses to identified demand could take place in stages and include administrative actions and/or enlargement of existing schools. The *CEQR Technical Manual* lists potential mitigation measures for public school impacts, which may be implemented with these funds. Such measures may include, but are not limited to, relocating administrative functions to another site, thereby freeing up space for classrooms; making space within the buildings in the school study area available to DOE; and/or restructuring or reprogramming existing school space within a district. Absent the implementation of such measures, if needed, the proposed projects would result in unavoidable adverse impacts on public elementary schools.

Publicly Funded Child Care Facilities

As detailed in the Community Facilities assessment and the Mitigation analysis, in the With Action condition scenario that conservatively assumes the 200 permanently affordable units may not be

developed exclusively for seniors, the proposed projects would result in a significant adverse impact on child care facilities.

Mitigation measures for this significant adverse impact have been developed in consultation with ACS and will include, if required, the provision of funding to support adding capacity to existing or new facilities or the provision of a new child care facility within the project sites. As a city agency, ACS does not directly provide new child care facilities, instead it contracts with providers in areas of need. ACS is also working to create public/private partnerships to facilitate the development of new child care facilities where there is an area of need. As part of that initiative, ACS may be able to contribute capital funding, if it is available, towards such projects to facilitate the provision of new facilities.

The Restrictive Declarations for the proposed projects will require the applicants to work with ACS to consider the need for additional capacity within the 1½-mile study area and the implementation of measures as listed above to provide additional capacity, to mitigate the significant adverse impact to publicly funded child care facilities. Based on the analysis presented in the Community Facilities assessment, which accounts for the current inventory of publicly funded child care facilities and conservative future background projections, to avoid a significant adverse impact, the number of permanently affordable units introduced by the proposed projects would need to be reduced to 508 permanently affordable residential units, which would generate approximately 58 children eligible for public child care services. An increase of 58 eligible children would increase child care facility utilization in the study area by less than five percent. With the assumption of 694 permanently affordable residential units, none of which would be dedicated as senior units, the proposed projects would generate 80 eligible children and would need to provide 20 child care slots to reduce the increase in the utilization rate to less than 5 percent. Mitigation measures for this significant adverse impact have been developed in consultation with ACS and will, if required, include the provision of funding to support adding capacity to existing or new facilities or the provision of a new child care facility within the project sites. The Restrictive Declarations for the proposed projects will require the applicants to implement the required mitigation measures. Although the applicants will be obligated to provide funding for these additional child care slots, absent In the event that ACS does not utilize this ACS's utilization of the funding, if needed, to increase child care capacity, the proposed projects would result in unavoidable adverse impacts on publicly funded child care facilities.

OPEN SPACE

As discussed in the Open Space and Mitigation analyses, the reductions in the total, active, and passive open space ratios in the With Action condition would result in a significant adverse open space impact based on the quantitative analysis of indirect effects, as set forth in the *CEQR Technical Manual*. With the proposed projects, on Site 5, the existing approximately 22,440-sf private Rutgers Slip Open Space would be enlarged to approximately 33,550 sf (approximately 0.77 acres), dedicated as publicly accessible open space, and reconstructed with amenities for both active and passive use, such as play equipment, basketball courts, walking paths, and seating. While the approximately 33,550 sf of dedicated publicly accessible open space that would be developed with the proposed projects would reduce the significant adverse open space impacts, it is not sufficient to avoid significant adverse open space impacts.

Potential mitigation measures for the open space impacts were explored by the applicants in consultation with DCP and NYC Parks between the DEIS and FEIS. As partial mitigation for the open space impact, the existing approximately 15,868 sf (approximately 0.36 acres) of private open space on Site 4 (4A/4B) would be dedicated as publicly accessible open space. As shown on

site plan Figures 1-5 through 1-7, new pavers, plantings, and seating would be installed at the Site 4 (4A/4B) open space.

Renovation of existing open spaces in the vicinity of the project sites has been identified as a practicable mitigation measure. Accordingly, the Restrictive Declarations for the proposed projects will require the applicants to undertake reconstruction of Coleman Playground, Captain Jacob Joseph Playground, and Little Flower Playground, as described in the Mitigation analysis. However, because of the ongoing planning and future development of the LMCR and East Side Coastal Resiliency (ESCR) projects, which include components in close proximity to the Two Bridges LSRD project sites, alternative improvements of the same scope may be required by DCP with NYC Parks if the aforementioned reconstruction projects are not feasible at the time that their implementation is required.

Given that these improvements would improve the quality but not quantity of open space available in the study areas, the significant adverse impacts on open space would not be fully mitigated, and therefore the proposed projects would result in unavoidable significant adverse impacts on open space.

SHADOWS

As discussed in the Shadows and Mitigation analyses, the proposed projects' buildings would result in project-generated incremental shadow at the Cherry Clinton Playground and the Lillian D. Wald Playground that would be substantial enough in extent and/or duration to significantly affect the use or vegetation of the resource, as described below:

- Cherry Clinton Playground on the December 21 analysis day (use, but not vegetation), March 21/September 21 analysis day (use and vegetation) and on the May 6/August 6 analysis day (use only); and
- Lillian D. Wald Playground on the March 21/September 21 analysis day (use only).

Measures to mitigate the significant adverse shadows impacts on these two open space resources were explored by the applicants in consultation with DCP and NYC Parks, and were refined between the DEIS and FEIS. The Restrictive Declarations for the proposed projects will require that the applicants fund enhanced maintenance to mitigate the significant adverse impact to the users and the trees of the Cherry Clinton Playground, and the users of the Lillian D. Wald Playground. Upon construction of the proposed projects, the Department of Parks and Recreation will utilize the enhanced maintenance funds to monitor the effects of shadows and to undertake appropriate measures. Such measures may include, for example, the relocation sunlight-sensitive elements within the open space, relocating or replacing vegetation, and undertaking additional maintenance to reduce the likelihood of species loss. With the implementation of these mitigation measures, the impacts would be considered partially mitigated. As the significant adverse shadows impacts would not be fully mitigated, the proposed projects would result in unavoidable significant adverse shadows impacts to these resources.

TRANSPORTATION

As discussed in the Transportation and Mitigation analyses, the significant adverse traffic impacts at the intersections of South Street and Montgomery Street during the weekday AM and PM peak hours, and Chatham Square and Worth Street/Oliver Street during the weekday AM, midday, and PM peak hours could not be mitigated; these intersections are projected to experience unmitigated significant adverse traffic impacts.

CONSTRUCTION

Traffic

During peak construction, project-generated vehicle trips would be less than what would be realized with the full build-out of the proposed projects in 2021. Subsequent to publication of the DEIS, detailed construction traffic and pedestrian analyses were prepared to identify specific temporary impacts that may occur during construction. As summarized in Chapter 19, “Construction,” most of the construction traffic impact could be mitigated with early implementation of standard traffic engineering measures. However, at the South Street and Montgomery Street and the Chatham Square and Worth Street/Oliver Street intersections, there would similarly be the potential for unmitigated significant adverse traffic impacts during construction.

Noise

As discussed in the Construction and Mitigation analyses, the detailed analysis of construction-period noise determined that construction of the proposed projects has the potential to result in construction-period noise levels that would constitute significant adverse construction-period impacts at certain noise receptor locations.

Based on field observations, the buildings where construction-period noise impacts have been identified appear to have insulated glass windows and an alternative means of ventilation (through-the-wall air conditioning units, packaged terminal air conditioning (PTAC) units, and window air conditioning units). The provision of replacement windows is not anticipated to provide substantial improvement in the amount of façade attenuation or reduction in interior noise levels at all impacted receptor locations at buildings with existing through-the-wall air conditioning units, PTAC units, or window air conditioning units. These air conditioning units, which are necessary to maintain the closed-window condition, would remain as a pathway for construction noise to enter the building. Therefore, there are no feasible and practicable mitigation measures that could further reduce or fully eliminate the potential significant adverse construction-period noise impacts at these locations. The provision of replacement windows at the residences west of Site 4 (4A/4B) (including One Manhattan Square) is not anticipated to be practicable as these buildings are currently under construction and would be expected to be provided with high-quality double glazed windows.

Between the DEIS and FEIS, further measures to reduce or eliminate the potential for these significant construction-period noise impacts were considered and evaluated. It was found that there are no ~~further reasonable means to ensure~~ practicable measures beyond those to be employed that would mitigate, partially or fully, the significant adverse construction-period noise impacts. Therefore, the significant adverse construction-period noise impacts would be considered partially mitigated, resulting in unavoidable significant adverse construction-period noise impacts.

GROWTH-INDUCING ASPECTS OF THE PROPOSED PROJECT

The proposed projects are not expected to induce any significant additional growth beyond that identified and analyzed in this EIS.

The proposed projects would be limited to the project sites, which consist of Block 248, Lots 15, 70, and 76 (Site 4 [4A/4B]); Block 247, Lots 1 and 2 (Site 5); and Block 246, Lot 5 (Site 6A), in the Lower East Side neighborhood of Manhattan. The proposed projects would increase the density of the project sites by introducing up to 2,775 new dwelling units, of which 25 percent or up to 694 units would be designated as permanently affordable, including approximately 200 units

of new low-income senior housing; approximately 10,858 gsf of new retail space; approximately 17,028 gsf of additional community facility space; and approximately 22,779 sf of new open space—including both publicly accessible and private open space. On Site 5, the existing approximately 22,440 sf of private Rutgers Slip Open Space would be enlarged by approximately 11,110 sf, and the total of approximately 33,550 sf (approximately 0.77 acres), would be dedicated as publicly accessible open space. Across the three project sites, a total of approximately 80,020 sf of both publicly accessible and private open space would be altered with new amenities, such as new landscaping, paving, seating, and play areas, compared to existing conditions. These uses would be consistent with the existing uses in the surrounding area. As discussed in the Socioeconomic Conditions assessment, while the proposed projects would add new population which, in the aggregate, would have a higher average household income than the average household income in the study area, there is already a readily observable trend toward higher incomes and new market-rate residential development in the study area. The proposed projects are expected to introduce a higher percentage of affordable housing than is expected from planned development projects in the future No Action condition, which are primarily market-rate. In this respect, the proposed projects would serve to maintain a study area housing stock that is affordable to households with a wider range of incomes as compared to the No Action condition, in which projects are expected to continue the trend towards market-rate development and rising residential rents in the study area. Therefore, the proposed projects are not expected to introduce or accelerate a trend of changing socioeconomic conditions.

In addition, it was found that the proposed projects would not include the introduction or expansion of infrastructure capacity (e.g., sewers, central water supply) that would result in indirect development; any proposed infrastructure improvements would be made to support development of the project sites themselves.

IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

As indicated in the EIS, Resources/resources, both natural and built, would be expended in the construction and operation of the proposed projects. These resources include the materials used in construction; energy in the form of fuel and electricity consumed during construction and operation of the projects; and the human effort (i.e., time and labor) required to develop, construct, and operate various components of the projects.

The resources are considered irretrievably committed because their reuse for some purpose other than the proposed projects would be highly unlikely. The proposed projects constitute an irreversible and irretrievable commitment of the project sites as land resources, thereby rendering land use for other purposes infeasible, at least in the near term.

These commitments of land resources and materials are weighed against the benefits of the proposed projects. As described in the project description, the proposed projects would create up to 694 permanently affordable housing units on the project sites, including approximately 200 new units of low-income senior housing. This permanently affordable housing would make a substantial contribution to the housing production goals of the Mayor's *Housing New York: A Five-Borough, Ten-Year Plan*. The proposed actions would also result in additional resiliency measures at each site and changes to the surrounding streetscape and pedestrian experience through the creation of new landscaping and both dedicated publicly accessible and private open space on the project sites. In addition, new ground floor retail at the project sites would add to the retail mix already located in the Two Bridges neighborhood. *