

**Draft Scope of Work for a
Second Supplement to the Generic Environmental Impact Statement
for the Phased Development of Governors Island:
Development of the South Island
CEQR No: 11DME007M**

A. INTRODUCTION

Governors Island Corporation, doing business as The Trust for Governors Island (The Trust), is a not-for-profit corporation and instrumentality of the City of New York. The Trust holds title to 150 acres of the 172-acre island (the Island) located in New York Harbor; the remaining 22 acres are a National Monument owned by the National Park Service (see **Figure 1**).

The Island is divided into two sections. The North Island is north of the former Division Road. It includes, and is coterminous with, the Governors Island Historic District. The South Island is south of the former Division Road and includes an area created by excavation materials from the Lexington Avenue subway construction and more modern buildings.

The Island is zoned R3-2, and the Special Governors Island District is mapped on the North Island. Typically, R3-2 districts are general residence districts that allow a variety of housing types ranging from detached single-family residences to small apartment houses. The Special Governors Island District allows a wide range of commercial, recreational, cultural, and educational uses that are consistent with the character of the Historic District and provide flexibility in the adaptive reuse of the historic buildings. As the Island is a single zoning lot and constitutes a waterfront block, it is also subject to the special waterfront zoning regulations.

The major access point for the Island is the Battery Maritime Building (BMB) in Lower Manhattan where ferries contracted by The Trust pick-up and return visitors and freight. Additional ferry service is provided from Pier 6 in Brooklyn to Yankee Pier on the Island and from Pier 11 in Manhattan to Pier 101 when the Island is open to the public (see **Figure 2**). As of 2018, the Island will be open to the public every day of the week from May 1 to October 31; by 2021, the Island is expected to be open every day of the year. The Island will continue to host various arts, cultural, and recreational programs, including food festivals, concerts, and performances. Visitors to the Island can rent bicycles and peddle-carts and can also enjoy a variety of open spaces ranging from lawns to hills.

A number of buildings on Governors Island are currently occupied by active uses, including the Urban Assembly New York Harbor School (Harbor School), a New York City public high school; artists' studios, administrative offices, and a temporary open-air entertainment facility. QC Terme, a day spa, is in construction involving three historic buildings (111, 112, and 114) and lawn areas on the waterfront of the North Island. It is expected to open in 2021.

Redevelopment of the Island was previously analyzed in two documents:



0 2,000 FEET

- Project Area
- Governors Island National Monument



GOVERNORS ISLAND - SOUTH ISLAND

Project Location
Figure 1



Source: fxcollaborative

Phased Development of Governors Island, South Island Development Zones

- *Final Generic Environmental Impact Statement for the Phased Redevelopment of Governors Island*, issued by the Office of the Deputy Mayor for Economic Development (ODMED) in December 2011 (the 2011 FGEIS). The 2011 FGEIS analyzed potential future development of the Island as follows: Phase 1 (2013), which consisted of park and open space development that has been completed and the Later Phases (through 2030), which consisted of Later Phases—Park and Public Space development and Later Phases—Island Redevelopment. The Later Phases—Park and Public Space development consisted of proposed open space development established in a Park and Public Space Master Plan (the Park Master Plan) developed by The Trust. The Later Phases—Island Redevelopment consisted of two components: redevelopment of the North Island Historic Structures and development within two South Island Development Zones
- *Final Supplemental Generic Environmental Impact Statement (2013 FSGEIS) for the Phased Redevelopment of Governors Island*, issued by the ODMED on May 23, 2013. The 2013 FSGEIS analyzed the creation of the Special Governors Island District on the North Island; the re-use and re-tenanting of approximately 1.2 million square of space on the North Island, in addition to the 176,000 square feet already in use in 2013; and the completion of the Park Master Plan. In addition, a new structure was contemplated on the open area north of Building 110, immediately west of Soissons Landing (the “Soissons Concession Site”). Ferry service seven days per week to support the uses in the re-tenanted buildings and the expanded Park and Public Space was also anticipated. The 2013 FSGEIS also considered the development of the two South Island Development Zones by 2030 based on generic development programs (a university research option and a mixed uses option including faculty and student housing and offices uses) since there were no specific development plans or proposals for those areas. The overall floor area was anticipated to be 3 million square feet for the entire Island.

As anticipated in both the 2011 FGEIS and the 2013 FSGEIS, this Second Supplemental Generic Environmental Impact Statement (SSGEIS) will consider the potential impacts of the proposed development of South Island Development Zones in the context of the previously approved and developed park and open space and the previously approved renovation and re-tenanting of the North Island.

In order to develop the South Island as anticipated, the following discretionary actions are contemplated:

- Zoning Map and Text Amendments to:
 - Expand the Special Governors Island District to the South Island and create new controls pertaining to the South Island; and
 - Change the underlying zoning on the South Island from R3-2 to a mid-density commercial district, such as C4-5.
- Approval of capital funding. The source has yet to be identified.

The underlying R3-2 zoning and Special Governors Island District controls applicable to the North Island would remain unchanged. The maximum permitted floor area ratio (FAR) on the two South Island development parcels would go from 0.5 to 3.4 under the proposed underlying C4-5 zoning district; the C4-5 zoning district and the additional controls of the special district would allow up to 4.5 million square feet of development on the South Island. New zoning text applicable to the South Island would also define parcels for development, provide design controls for open spaces with and adjacent to the development parcels, specify permitted uses, restrict base height and overall building height and length, require setbacks, provide streetwall and articulation

requirements, restrict lot coverage, govern the distribution of floor area, and provide design controls pertaining to upper portions of buildings.

In addition to commitments made in the 2011 FGEIS and the 2013 FSUGEIS to consider potential new impacts as development plans are advanced, the proposed rezoning of the South Island is subject to City Environmental Quality Review (CEQR) and the New York State Environmental Quality Review Act (SEQRA) and requires the preparation of an EIS. The Office of the Deputy Mayor for Housing and Economic Development (ODMHED, formerly ODMED) is the lead agency for the preparation of this SSGEIS, with The Trust for Governors Island as the applicant. The anticipated completion year remains 2030.

In accordance with SEQRA/CEQR, ODMHED initiated a process to define the scope of the Draft SSGEIS (DSSUGEIS). As a first step in that process, The Trust prepared this Draft Scope of Work and made it available to agencies and the public for review and comment.

A public scoping meeting has been scheduled for September 26, 2018 starting at 6:00 PM to provide a forum for public comments on the Draft Scope of Work. The public meeting will be held at the Battery Maritime Building at 10 South Street in Manhattan. Written comments on the Draft Scope of Work will be accepted until 5:00 PM on October 9, 2018.

This Draft Scope of Work is organized as follows:

- Section B, “Background and Planning History.” This section provides information on the history of Governors Island, the planning process that preceded the current plans for the Island, and recent efforts to open the Island for public access.
- Section C, “Projects Approved by Prior Environmental Reviews.” This section describes the projects previously approved which were reviewed in 2008, in the 2011 FGEIS, and in the 2013 FSUGEIS.
- Section D, “Project Description.” This section describes the Proposed Project (defined below), provides information on the approvals needed and the purpose and need for the Proposed Project, and outlines the framework for how the Proposed Project will be analyzed in the SSGEIS.
- Section E, “Scope of Work.” This section provides detail on the analysis areas that will be studied in the SSGEIS.

B. BACKGROUND AND PLANNING HISTORY

In 1997, after about two hundred years of British and American military use and nearly 30 years of use as a U.S. Coast Guard base, the U.S. Coast Guard ceased operations on the Island, and all personnel were relocated. A 22-acre portion of the Island that includes two forts—Fort Jay and Castle Williams—was designated a National Monument in 2001. The National Monument and the surrounding 70-acre campus of residential and institutional buildings dating from 1802 to 1940 and located north of Division Road are included in a coterminous National Historic Landmark District that is also a New York City Historic District and listed on the State and National Registers of Historic Places. In 2003, the Federal government deeded the 150-acre balance of the Island to the Governors Island Preservation and Education Corporation (GIPEC). GIPEC was established in 2002 as a subsidiary of the Empire State Development Corporation (ESDC) with responsibility for the Island. In July 2010, primary responsibility for the long-term ownership, development, funding, operation and governance of Governors Island was transferred to New York City and is now under the direction of The Trust. The Trust is the successor organization to GIPEC.

Phased Development of Governors Island, South Island Development Zones

The Island is subject to deed restrictions established by the Federal government as part of the transfer of the Island to GIPEC that require and prohibit certain uses. The Federal transfer deed stipulated development of public benefit uses on the Island. The most significant requirements are that at least 40 acres of the Island be developed as public open space and that 20 acres must be set aside for educational uses. The deed also prohibits certain uses, such as gaming and electrical power generation for use off-island for a period of 50 years. The most significant of these restrictions is the prohibition of residential uses, except for those residential uses associated with expressly permitted uses, such as education, hospitality, health care, and commercial uses. The residential restriction does not prohibit short-term or extended-stay accommodations.

Before Governors Island was deeded to New York State, there were a number of ideas and overall studies for Governors Island proposing a wide range and mix of land uses.

Immediately after taking control of the Island in 2003, GIPEC initiated a pre-planning effort as a first step in identifying appropriate future uses. This process, which included a broad outreach to civic groups, the public, agencies, and potential developers and tenants, developed project objectives and produced a development framework. The results of the pre-planning were incorporated into the Governors Island Land Use Improvement and Civic Project General Project Plan (GPP), which both the GIPEC and Empire State Development Corporation (ESDC) boards adopted in January 2006.

Once the GPP was adopted, GIPEC issued a Development Request for Proposals (RFP) for whole-island and component proposals in accordance with the GPP development principles. Although several developers and tenants from both commercial and not-for-profit sectors responded, no major proposals could be selected. The RFP did yield a successful proposal, which became the Urban Assembly New York Harbor School, a New York City public high school, which began operation in June of 2010 in the existing Building 550 located at the western end of Liggett Halland within the Historic District.

When control of the Island was transferred from the State to the City in 2010, the City approved a zoning override to allow existing interim uses that support the public's use and enjoyment of the park to continue.

To further The Trust's goals, a Park and Public Space Master Plan (the Park Master Plan) was developed in 2010 that established the fundamental concepts for the design of the Island's parks and public spaces. The Park Master Plan also set aside the two South Island Development Zones (see **Figure 3**) for future mixed-use development.

In 2004, a portion of the Historic District was opened to the public and received 5,000 visitors. Since then, more of the Island has been opened to the public, a greater variety of programming has been added, more frequent ferry service has been provided, and the hours of operation for the public spaces have been increased. By 2007, the entire Historic District and a 1-mile loop (for bicycles and pedestrians) were open every Saturday and Sunday in the summer and the number of visitors rose to 55,000. In 2009, the entire 2.2-mile perimeter roadway was open, along with Picnic Point—a new 8-acre open space on the southern tip of the Island—and more than 275,000 people visited the Island. In 2010, more than 443,000 visitors used the Island to picnic, bike, walk, and participate in on-Island cultural and recreational programming. In 2011, attendance reached 448,000 visitors, prior to the start of construction and partial closure of the Island in 2012, when attendance was 345,389. The Trust has made the Island available as a venue for unique and diverse programming including field and lawn sports; boating; concerts; lectures; and cultural, food, and art festivals. Visitorship continued to grow with 397,593 visitors in 2013 and 475,851 visitors in

Source: fxcollaborative



2014. Extensive landscape construction in 2015 and early 2016 allowed The Trust to open the full park to the public in the summer of 2016, and 585,567 visitors came to the Island in that summer. In 2017, the number of visitors again increased to 785,467. As of 2018, Governors Island will be open to the public seven days a week from the beginning of May to the end of October.

C. PROJECTS PERMITTED BY PRIOR ENVIRONMENTAL REVIEWS

Prior to the disposition of Governors Island from the Federal Government to New York State, a Final Environmental Impact Statement (FEIS) was prepared pursuant to the National Environmental Policy Act (NEPA), and completed in November of 1998. Additional environmental reviews were undertaken as planning for the Island has developed.

2008 ENVIRONMENTAL REVIEW

In 2008, an Environmental Assessment Form was prepared and a Negative Declaration was issued for GIPEC's Enhanced Public Access program, which included the following: the relocation of the Harbor School to the island, enhanced public access to portions of the South Island, a temporary food and entertainment facility, and conversion of Building 110 to artists' studios as well as demolition of the South Island buildings and some North Island buildings that did not contribute to the historic district. The program has been implemented.

2011 FGEIS

As discussed above, ODMED issued the FGEIS for the Phased Redevelopment of Governors Island in 2011. Because a number of aspects of the plan were yet to be determined at that time, their potential impacts were studied generically with the commitment to further analysis when more details were determined.

The 2011 FGEIS analyzed in detail an initial phase that consisted of park and public space development and infrastructure improvements, which were completed in 2013. The 2011 FGEIS also analyzed, generically, the "Later Phases," which included additional open space improvements identified in the Park Master Plan but not funded at the time, as well as mixed-use development on the Island, specifically, the re-tenanting of the North Island buildings and development in the two South Island Development Zones.

The initial phase involved the following improvements:

- Soissons Landing. The area upland of Soissons Dock, the arrival point for ferries from Manhattan, was regraded and repaved to enhance accessibility and to create a series of public plazas as well as landscaping, seating, orientation signage, and other visitor amenities.
- South Battery. A lawn, trees, shrubs, and seating areas that showcase the historic fort replaced an asphalt surface that had surrounded it.
- Parade Ground. The Parade Ground was improved to support both active and passive recreation. A portion of the lawn was regraded to make a flat field large enough to allow soccer and other field sports.
- Colonels Row. Limited improvements were made to this line of historic homes to support ongoing uses as a festival grounds and concert venue.
- Nolan Park. Nolan Park is a four-acre lawn with mature trees, surrounded by wooden houses dating back to 1810. This area was enhanced by resetting and reconstructing existing brick paths to improve accessibility.

Phased Development of Governors Island, South Island Development Zones

- Liggett Terrace. The former parking lot and lawn areas were replaced with a public plaza, flower beds, hedges, fountains, public art, seating areas, concession carts, and children's play areas.
- Hammock Grove. South of Liggett Terrace, a rolling terrain was created, trees were planted to create groves, and paved paths were laid to provide access and circulation.
- Play Lawn. This is the largest multi-purpose open space on the Island and provides two regulation-sized ballfields for active recreation as well as smaller open spaces with rolling topography.

In addition, the seawall was repaired, as appropriate, a number of stormwater outfalls were reconstructed and consolidated, and a 12-inch water main was constructed from Brooklyn to provide potable water to the Island.

The Later Phases were expected to comprise Park and Public Spaces and Island Redevelopment involving both reuse of existing historic buildings on the North Island and new construction in the two South Island Development Zones. Both were expected to occur over time and be complete by 2030.

The Later Phases-Park and Public Spaces were to provide 32 acres of newly designed open space through the center and perimeter of the South Island (9 acres of which would be newly opened to the public). These open spaces would include the Great Promenade at the perimeter of the Island, Liberty Terrace including the Shell, Yankee Landing, the Hills, and the South Prow.

On the North Island, the Later Phases-Island Redevelopment examined the 2011 FGEIS assumed that the approximately 1.35 million square feet of potential development space available in existing historic structures on the North Island would be re-tenanted.¹ As part of the proposed reuse, it was assumed that the historic buildings would be restored. For the South Island Development Zones, the 2011 FGEIS assumed that up to approximately 1.65 million square feet would be built on these two areas. The 1.65 million square feet reflected the built floor area that existed on the South Island when it was used as a Coast Guard base.

The 2011 FGEIS examined two development scenarios for the 3 million square feet of space available between the North Island historic structures and the South Island Development Zones. The first was a primarily University/Research Option and the second was a Mixed-Use Option. These options did not represent any existing plans or proposals for the Island; rather, they were generalized estimates based on the type and configurations of existing buildings, the underlying conditions of the Island itself, uses required and permitted under the deed, and the general level of inquiries received by The Trust for various uses on the Island. The initial phase of the Park and Public Space improvements were completed in 2013.

2013 FSGEIS

As noted above, the 2013 FSGEIS analyzed the creation of the Special Governors Island District on the North Island including; the re-use and re-tenanting of approximately 1.2 million square of space on the North Island; and the completion of the Park Master Plan. Ferry service seven days

¹ Building surveys conducted subsequent to the 2011 FGEIS identified a total of approximately 1.375 million sf of space in existing North Island structures, of which approximately 1.2 million sf was available for re-tenanting, rather than the 1.35 million identified in the 2011 FGEIS.

per week to support the uses in the re-tenanted buildings and the expanded Park and Public Space was also anticipated. This additional development was assumed to be complete by 2022.

The 2013 FSGEIS also considered the development of the two South Island Development Zones by 2030 based on generic development programs (a university research option and a mixed uses option including faculty and student housing and offices uses) since there were no specific development plans or proposals for those areas. The overall floor area for the entire Island was anticipated to be 3 million square feet. It was assumed that the redevelopment of the South Island Development Zones would require zoning and other land use actions that would be subject to future environmental review, at which time detailed analyses of the Development Zones would be conducted.

SPECIAL GOVERNORS ISLAND DISTRICT

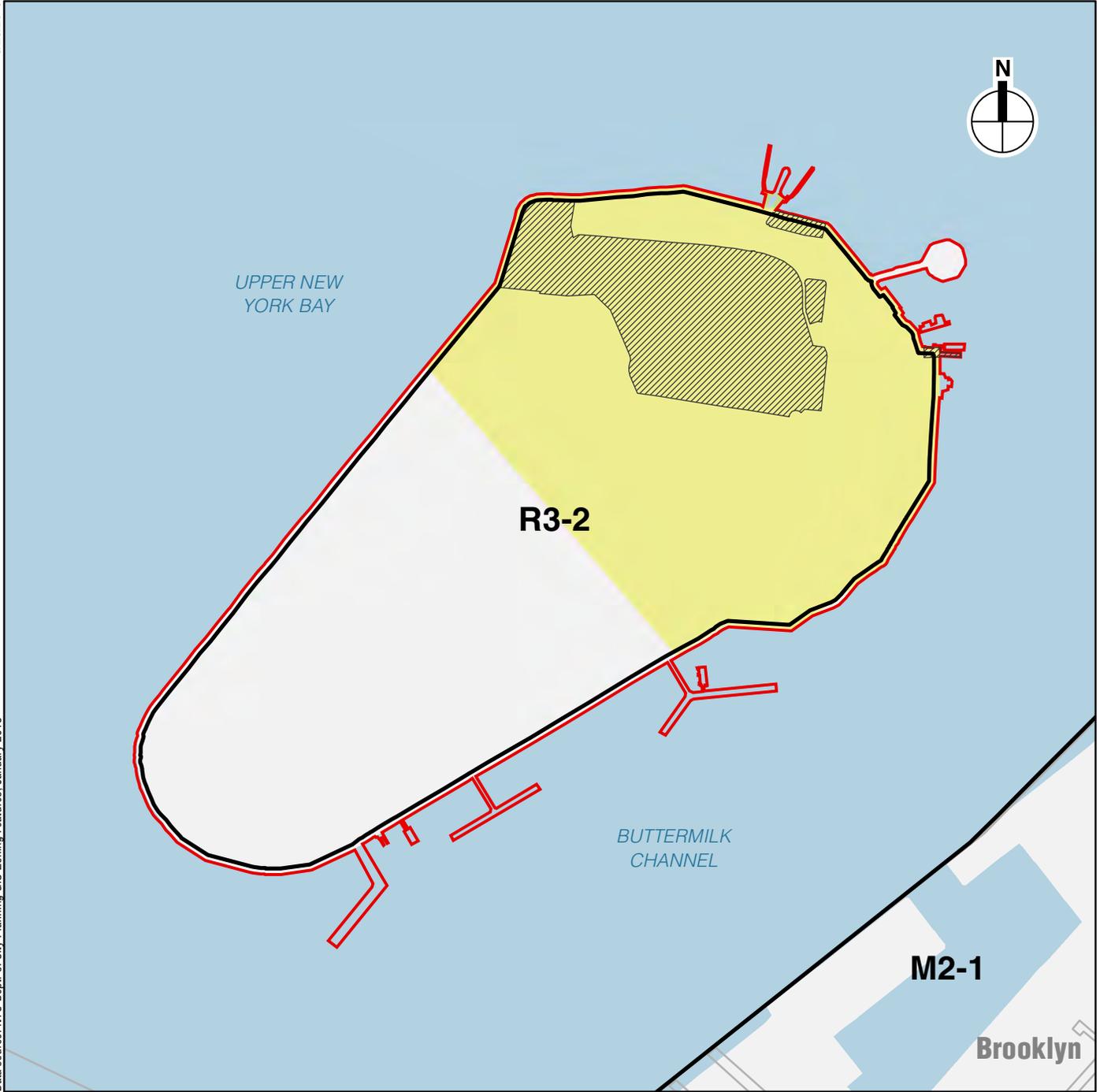
Creation of the Special Governors Island District through zoning map and text amendments on the North Island generally allowed commercial uses including, but not limited to hotels, offices, restaurants, retail, arts and crafts galleries, entertainment events and uses, and related uses compatible with the recreational, cultural, and educational resources. New commercial uses or physical, cultural, or health establishments larger than 7,500 square feet would be subject to review by Manhattan Community Board 1. The Special District was mapped as an overlay on the existing R3-2 zoning district, which remained in place (see **Figure 4**). The Special District text and mapping were intended to serve as a catalyst for the re-tenanting and reuse of the North Island's historic structures. Within the Special Governors Island District, the permitted uses are intended to promote the goals of the Special District, provide flexibility in the adaptive reuse of historic structures, and complement the character of the Historic District. There were no changes to underlying R3-2 zoning; however, the 2010 zoning override remains applicable.

RE-TENANTING OF BUILDINGS ON THE NORTH ISLAND (2022)

The reuse and re-tenanting of the approximately 1.2 million square feet of space on the North Island, in addition to the approximately 176,000 square feet that had already been re-tenanted, was an important goal of the Proposed Project as analyzed in the 2013 FSGEIS.

Since the future uses had not been specifically determined or defined, The Trust developed two scenarios for analysis purposes based on the characteristics of the historic buildings. Potential uses included university, student dormitory, hotel, movie theater, office, service retail/restaurant, artists' studio, cultural uses, and public school. As part of the re-tenanting, it is required that historic buildings be restored according to the *Governors Island Historic District Preservation and Design Manual (Preservation and Design Manual)* that was developed in connection with the disposition of the Island to GIPEC in 2003. The *Preservation and Design Manual* was developed to help guide the reuse of the Historic District and ensure preservation of the historic and architectural resources that contribute to the Island's importance. Review of the project actions in the Governors Island Historic District by LPC was conducted under the New York City Landmarks Law and/or Office of Parks, Recreation, and Historic Preservation (OPRHP) (as appropriate) pursuant to the *and Design Manual*.

A non-contributing addition to Liggett Hall as well as a non-contributing addition to the Dispensary (Building 515) were specifically allowed by the *Preservation and Design Manual* to be renovated or demolished and replaced with new structures of the same floor area and bulk. In addition, a new structure was allowed on the Soissons Concession Site, the open area north of Building 110, immediately west of Soissons Landing; this structure would provide restaurant and support space for the adjacent event space. Similar to the renovation of historic structures, design



- Project Area
- Governors Island National Monument
- Zoning District Boundaries
- Special Governors Island District

0 400 FEET

Phased Development of Governors Island, South Island Development Zones

and construction of new structures on the North Island are subject to the requirements of the *Preservation and Design Manual*.

FULL DEVELOPMENT OF THE PARK MASTER PLAN (2022)

Originally identified in the 2011 FGEIS as the “Later Phases-Park and Public Spaces.”² These open space improvements consisted of 32 acres of newly designed open space through the center and perimeter of the South Island (9 acres of which was to be newly opened to the public). Specific design elements are described below.

The Great Promenade

The Great Promenade, a 2.2-mile path around the perimeter of the Island, was to be created for walkers, bikers, runners, and limited vehicular traffic. New paving, lighting, way-finding signage, and balustrade would be consistent along the Promenade, integrating the Island’s northern and southern portions. The Promenade was designed to provide unparalleled views of the New York Harbor including the Lower Manhattan skyline, the East River and its bridges, Buttermilk Channel, Brooklyn Bridge Park, Brooklyn’s working waterfront, Red Hook, Staten Island, the Statue of Liberty, Ellis Island, and New Jersey.

The Promenade was designed to have two levels on the western side of the Island and at the southern end. At these locations, the lower level of the Promenade would allow for biking or walking near the water’s edge or wetland garden’s edge. The upper levels were to have trees and benches and other seating.

Liberty Terrace

Liberty Terrace was designed as a gathering area on the west side of the Island adjacent to the Great Promenade. A new structure, The Shell, was designed to provide protected outdoor seating and space for a food concession. A new public restroom building would be located nearby. Other amenities at Liberty Terrace would include benches, movable tables, and chairs.

Yankee Landing

Improvements to Yankee Landing on the east side of the Island were designed to welcome future tenants and visitors using the ferry to Yankee Pier, and included the construction of a new open canopy ferry shelter.

The Hills

The Park Master Plan envisioned four hills rising between 28 and 82 feet above the Great Promenade, transforming the topography of the Island. The Hills were to be planted with ground cover, shrubs, plants, and trees, and to have pathways to explore and find 360-degree views of the New York Harbor.

South Prow

At the southern end of the Island, a three-acre Wetland Garden would be excavated out of the existing Island. This garden would be planted with a variety of salt-tolerant wetland plants. While the Great Promenade would follow the perimeter, another major promenade would follow the eastern edge of the Wetland Garden. This interior promenade would have two levels, a lower one

² As discussed below, these park and public space improvements were analyzed in the 2011 FGEIS and approved. The FGEIS assumed that these would be completed in 2030; however, the SGEIS anticipated their completion by 2022, and many of these open space improvements are complete as of 2018.

at the same grade as the perimeter pathway, and an upper level, the South Prow Overlook, that would be seven feet higher and provide seating.

ADDITIONAL FERRY SERVICE (2022)

To support the uses in the re-tenanted buildings and the Park and Public Space, ferry service was to be expanded to 7 days per week between Governors Island and the BMB in Manhattan and between Governors Island and Pier 6 in Brooklyn. Ferry service was expected to be provided 24 hours per day with late night operations only between Governors Island and Pier 11 in Manhattan.

SOUTH ISLAND DEVELOPMENT ZONES (2030)

Similar to the 2011 FGEIS, the 2013 FSUGEIS considered two generic development programs for the South Island Development Zones defined for the environmental analysis. The program assumed that new buildings on the South Island could be designed for academic, research, office, cultural, entertainment, and/or a conference center/hotel uses. Any remaining floor area in the South Island Development Zones was expected to be used for some combination of not-for-profit offices, such as think-tanks or small organizations affiliated with academic and/or research institution uses; for-profit commercial office uses; offices for The Trust and Island contractors; maintenance and service space for Trust and Island operations; water transportation support uses; cultural uses including small galleries or museums; entertainment uses; other commercial uses; associated retail; and educational uses similar to the Harbor School located on the North Island.

As previously analyzed, the two South Island Development Zones were anticipated to provide approximately 1.625 million square feet of active uses to support and enliven the Island.

D. PROJECT DESCRIPTION

INTRODUCTION

Changes to the Phased Redevelopment of Governors Island as most recently analyzed in the 2013 FSUGEIS that now require analysis in a SSGEIS focus on the two South Island Development Zones. The West Development Zone (approximately 6.5 acres) faces New York Harbor. The East Development Zone (approximately 26.5 acres) faces Buttermilk Channel (see **Figure 5**).

Although the two Development Zones have been anticipated development sites since 2010 and were considered in both the 2011 FGEIS and 2013 FSUGEIS, the Trust is currently proposing to enable up to 4.5 million square feet of development on the South Island within the two Development Zones (the “Proposed Project”). The proposed development on the South Island would exceed the previously anticipated development, which totaled approximately 3 million square feet, including approximately 1.375 million square feet on the North Island and approximately 1.625 million square feet on the South Island, and would require zoning changes as well as infrastructure and transportation improvements to support the occupants and uses.

The Proposed Project would continue to include university, dormitories, hotels, biotech/research laboratories, office space, cultural and accessory service retail, restaurant, and conference center uses. Two scenarios for the land use programs have been identified for analysis purposes (see **Table 1**). One is a University/Research Option in which a majority of the development area would be dedicated to university and dormitory land uses. There would also be an approximately 410,000 square foot hotel (1,363 rooms), 1.5 million square feet of biotech/research space, approximately 459,000 square feet of cultural uses, service retail and a conference center, and maintenance and support facilities. The second is a Mixed-use Option, which would dedicate approximately 1.705 million square feet to office use. This option would also have an approximately 410,000 square



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foot hotel (1,363 rooms), 1.5 million square feet of biotech/research space, service retail and a conference center, 140,000 square feet of maintenance and support facilities, while the cultural use area would be reduced to approximately 59,000 square feet. The development program for each scenario was developed to generate the maximum amount of patrons to Governors Island without exceeding the maximum passenger throughput of the BMB (approximately 9,000 passengers per hour) if vehicles and delivery trucks were no longer processed at the BMB.

The proposed density of development is needed to create a critical mass of active uses that would enliven the Island for 24/7 year-round usage and support the maintenance of the Island’s open space and landscapes as well as the historic buildings on the North Island. This increase in density would also help finance improvements to infrastructure, including additional ferry service.

The Proposed Actions include zoning text and map amendments. Specifically the Special Governors Island Special District would be expanded to cover the entire Island. The underlying zoning for the South Island would be changed to a mid-density commercial zoning district such as C4-5, while the zoning for the North Island would remain R3-2. No modifications of the deed restrictions are proposed and the Special Governors Island District controls applicable to the North Island would remain unchanged. New zoning text applicable to the South Island would define parcels for development, provide design controls for open spaces within and adjacent to the development parcels, specify permitted uses, restrict base height and overall building height and length, require setbacks, provide streetwall and articulation requirements, restrict lot coverage, govern the distribution of floor area, and provide design controls pertaining to upper portions of buildings. Additionally, new zoning text would include provisions requiring preservation of recreational open space.

**Table 1
South Island Proposed Development Options**

Land Use	University/Research Option	Mixed-use Option
University	1,170,000 sf	360,000 sf
Housing – Student Dorms	556,079 sf (1,390 beds)	136,079 sf (340 beds)
Hotel	408,832 sf (1,363 rooms)	408,832 sf (1,363 rooms)
BioTech/Research	1,500,000 sf	1,500,000 sf
Office	75,223 sf	1,705,223 sf
Cultural	459,101 sf	59,101 sf
Service Retail/Restaurant (Not destination, accessory to Island)	147,208 sf	147,208 sf
Conference Center (Not destination, accessory to Island)	43,582 sf	43,582 sf
Maintenance, Support, Other	140,000 sf	140,000 sf
Total South Island Development	4,500,025 sf	4,500,025 sf

To support the South Island Development, new infrastructure and services would be required. This will include increased ferry service and potentially the installation of an additional water main if it is determined necessary based on the use identified in the RFP and the capacity of the existing service.

To accommodate the additional population on the South Island, use of the BMB would be limited to passengers. Therefore, it is anticipated that freight transfer activities would move to the Brooklyn waterfront and may be at multiple locations. For analysis purposes, locations considered are assumed to include the Brooklyn Navy Yard, Atlantic Basin, the South Brooklyn Marine Terminal (39th Street), and the 52nd Street Pier. While specific plans for freight deliveries would

be developed in connection with the selection of future occupants of the South Island, potential locations will be identified for study in the EIS to consider the potential environmental impacts of the freight transfer operations under a reasonable worst-case development scenario. Potential location for freight handling would be identified in coordination with the New York City Economic Development Corporation (EDC) and relevant agencies, and additional land use actions may be required.

EXISTING CONDITIONS AND DESIGN CONSIDERATIONS

ISLAND DEVELOPMENT SINCE THE 2013 FSGEIS

A number of developments on Governors Island have been completed since the 2013 FSGEIS. The first 30 acres of the park opened to the public in 2014. The first phase included a sunny six-acre plaza, undulating pathways that cut through a 10-acre grove of hammocks and trees, and a 14-acre play lawn with two ballfields. The Hills on Governors Island opened in 2016. Rising up to 70 feet above sea level, the Hills are the culmination of the park and are New York's newest landmark in the Harbor. They offer lush rolling landscapes, grassy overlooks, exhilarating slides, and unforgettable views. The Parade Ground Athletic Field, a roughly 7.5-acre site located in the heart of Governors Island's Historic District, was regraded in 2017 to create a level turf (grass) field large enough to host soccer, football, rugby, lacrosse, and other sports matches and practices. A food waste composting partnership with the Department of Sanitation operates on a portion of the site. When funding becomes available, the Trust will complete the Park and Public Space Master Plan with further improvements to the areas referred to as the Great Promenade, South prom, Yankee Landing, and Liberty Terrace.

DESIGN CONSIDERATIONS

Because the two South Island Development Zones were not previously programmed or designed, studies were undertaken to establish design guidelines for zoning controls based on the following Guiding Principles:

1. Complement and enhance the park and public spaces and respond to environmental conditions.
2. Connect and establish a harmonious relationship with the park, esplanade, and Historic District.
3. Retain and frame views within the Island, and towards New York Harbor, Lower Manhattan, and the Brooklyn waterfront.
4. Activate building edges along public spaces.
5. Promote innovative design approaches to achieve a high level of resiliency and environmental sustainability.
6. Encourage flexibility to accommodate a wide range of building types and mix of uses.

The design guidelines are as follows:

Provide Access to the Island and Circulation on the Island

As noted above, the main access to the Island is provided from the BMB to Soissons Landing by ferries operated by the Trust. NYC Ferries operate to Pier 102, and ferries from Brooklyn Pier 6 bring visitors to Yankee Pier (see **Figure 2**). Currently both of these ferry services only operate on weekends. Freight deliveries and refuse/recyclables collection come from the BMB to Lima Pier. The Proposed Project would increase the number and frequency of ferries for pedestrians and bring more ferries from the BMB to Yankee Pier for easier access to the eastern of the two

Phased Development of Governors Island, South Island Development Zones

South Island Development Zones. With the increased ferries to Yankee Pier, the direct connection from Yankee Pier to Division Road would be an important access corridor to both Development Zones, as well as the southern parts of the North Island. There would be access to the western Development Zone from Soissons Landing along the west side of the Island (see **Figure 6**).

Respect Context

Respect for the context, including both the North Island historic buildings and landscapes and the existing park and open spaces in the middle of the South Island, is a key consideration for the Development Zones. It is expected that current views on the South Island will change as the recently planted trees and other landscaping materials grow, mature and become taller. Views from the park to the two Development Zones are important as are the views from Liggett Terrace and the Hills. The proposed buildings would be respectful of the existing historic district and stepped down in height when located near the existing historic buildings.

Establish Hierarchy of Paths and Nodes

Key paths would include the Great Promenade and Division Road. Another path would run parallel to the Great Promenade from the east side of Liggett Hall south to the south end of the East Development Zone and two paths would run perpendicular to the Great Promenade at the eastern edge of the Island to the park in the center of the Island. Secondary paths would run through the Eastern Development Zone to provide additional pedestrian connections between the Park and Great Promenade. Key nodes would include the junction of Yankee Pier and Division Road and the Oval Lawn adjacent to the East Development Zone (see **Figure 6**).

Promote Density Adjacent to Transportation

Since the ferries to the South Island Development Zones would operate from Yankee Pier, the greatest density of development would likely be located in the area near Yankee Pier.

Elevate Development Parcels and Establish Split-Level Promenade

This principle responds to resiliency concerns and is intended to protect contemplated development from future sea level rise and storm surges. With both Development Zones being located on the waterfront on the portion of Governors Island that was created with fill material and has no natural variation in its topography, resiliency is a key consideration and involves elevating the grade. Most of the South Island, as well as the waterfront areas of the North Island, are located within the 1 percent annual chance flood plain (100-year floodplain). Portions of the remaining Island, particularly around Liggett Hall, are located within the 0.2 percent annual chance annual flood plain (500-year floodplain). The central portion of the North Island is not located in a flood hazard area. The Park has already been elevated above the 100-year floodplain, and the Development Zones would be raised to approximately 5–8 feet above the Great Promenade to match the Park elevation. As a result, a split promenade would run along portions of the waterfront edges of both Development Zones (see **Figure 7**).

Connect Park through Development Zones

The paths identified above as perpendicular to the Great Promenade would create new pedestrian connections and view corridors from the park to the Promenade and from the Promenade to the Park in the center of the Island (see **Figure 8**).

Transition from the North Island

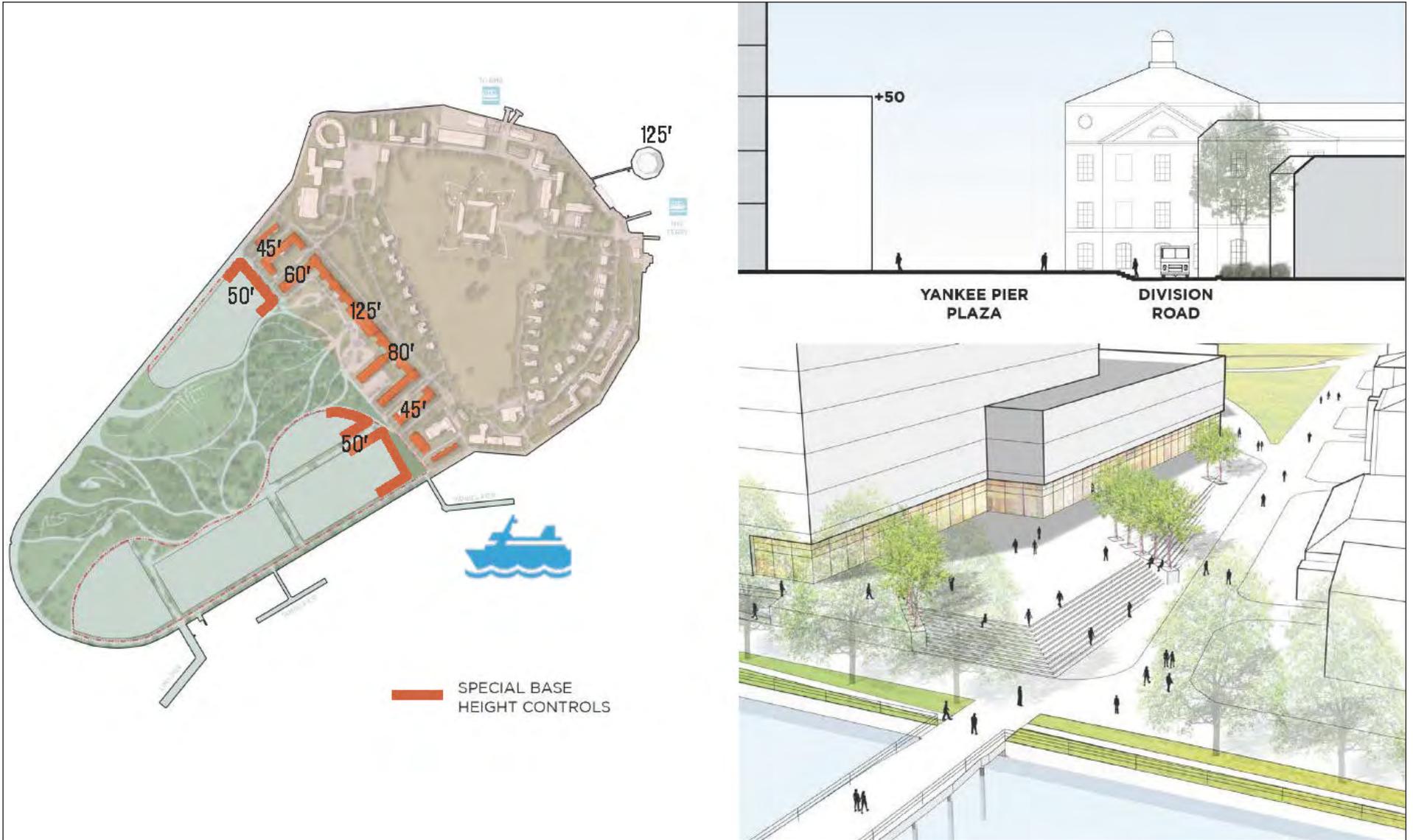
The base height of buildings facing Division Road would transition to the heights of Liggett Hall and other historic buildings that they face on the North Site of Division Road (see **Figure 9**).





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As the densest development is intended to be close to the ferry landing at Yankee Pier, where most South Island tenants are expected to arrive, Yankee Plaza would be created to accommodate the ferry passengers and the movement of pedestrians toward various sections of the Island.

Rationalize Development Zones through Parcelization

The paths through the East Development Zone would create regular and more feasible development parcels, which nevertheless allow for a variety of potential building shapes and arrangements (see **Figures 10 and 11**).

PROPOSED ACTIONS

Various discretionary approvals would be required for the Proposed Project, as follows:

- Zoning Map and Text Amendments to:
 - Expand the Special Governors Island District to the South Island and create new controls pertaining to the South Island, and
 - Change the underlying zoning on the South Island from R3-2 to a mid-density commercial district, such as C4-5.
- Approval of capital funding. The source has yet to be identified.

These actions are described in more detail below.

SPECIAL GOVERNORS ISLAND DISTRICT EXPANSION

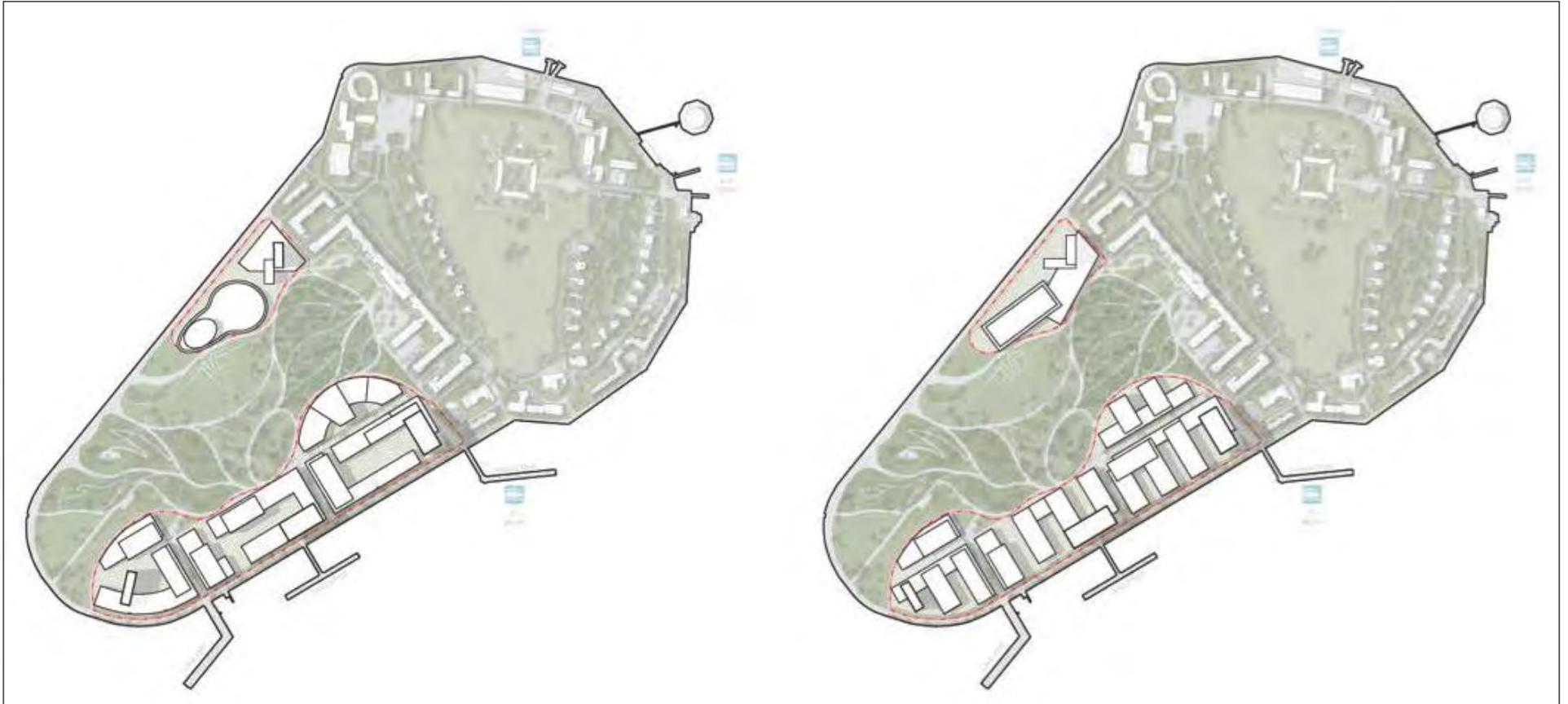
The Special Governors Island District would be expanded to cover the entire Island as part of the proposed zoning map amendment. No modifications of the deed restrictions are proposed, and the Special Governors Island District controls applicable to the North Island would remain unchanged. New zoning text applicable to the South Island would define parcels for development, provide design controls for open spaces with and adjacent to the development parcels, specify permitted uses, restrict base height and overall building height and length, require setbacks, provide streetwall and articulation requirements, restrict lot coverage, govern the distribution of floor area, and provide design controls pertaining to upper portions of buildings. Additionally, new zoning text would include provisions requiring preservation of recreational open space.

PROPOSED REZONING

The underlying zoning on the South Island would be changed from the existing R3-2 to a mid-density commercial district such as C4-5, while the underlying zoning district on the North Island is expected to remain R3-2. R3-2 districts are intended for low-density residential development from single-family houses to small apartment buildings and allow a floor area ratio (FAR) of 0.5, while C4-5 districts allow 3.4 FAR. Typically C4-5 is mapped in regional commercial centers and allows a variety of uses including dormitories, hotels, academic buildings, office buildings, research buildings and cultural institutions. The permitted uses and densities; however, would be specified by the Special Governors Island District text and limited by the Island's deed restrictions.

OTHER APPROVALS

For the South Island Development Zones, it is expected that New York City Department of Buildings (DOB) building permits would be required for any new structures and public open spaces. In addition, there would be New York City Fire Department approvals for emergency and fire access and fire hydrants.



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Phased Development of Governors Island, South Island Development Zones

Other approvals may include a Coastal Zone Consistency determination and State Pollutant Discharge Elimination System (SPDES) permits from the New York State Department of Environmental Conservation (DEC) for wastewater and/or stormwater discharge issues; DEC and USACE permits for in-water work, and DEC air permits or approvals related to potential future research/academic laboratory uses, if required. There may also be additional approvals required for the use of freight handling sites in Brooklyn.

Renovation of any historic structures on the North Island as part of the retenancing process analyzed in the 2013 SSGEIS will be subject to the *Preservation and Design Manual* and will require review and approval by the New York City Landmarks Preservation Commission (LPC) and the New York State Office of Parks, Recreation, and Historic Preservation (OPRHP).

PURPOSE AND NEED FOR THE PROPOSED PROJECT

The purpose and need for the overall Phased Redevelopment of Governors Island is to bring the Island back to life for the people of the City and State of New York, after centuries of use as a military base. The creation of new public open space is not only an important public benefit, but it is also a catalyst for Island redevelopment.

Redevelopment of the two South Island Development Zones would allow The Trust to increase transportation options and would provide revenue to support year-round public access. Rent revenues will help increase the financial resources and staff to support 24 hour/7 day a week activity on the Island. The on-going effort to activate and invest in the historic buildings on the North Island would allow further investment in preservation and maintenance. Ultimately, the Proposed Project would fulfill The Trust's mission to transform Governors Island into a vibrant resource for New York City, making the Island a destination with extraordinary public open spaces, as well as educational, not-for-profit, and commercial facilities while helping to ensure the Island's financial sustainability and meet the transfer deed requirements.

FRAMEWORK FOR ENVIRONMENTAL REVIEW

SEQRA requires a lead agency to take a "hard look" at potential environmental impacts of proposed actions and, to the maximum extent practicable, avoid or mitigate potentially significant adverse impacts on the environment, consistent with social, economic, and other essential considerations. An EIS is a comprehensive document used to systematically consider environmental effects, evaluate reasonable alternatives, and identify and mitigate, to the maximum extent practicable, any potentially significant adverse environmental impacts. The EIS provides a means for the lead and involved agencies to consider environmental factors and choose among alternatives in their decision-making processes related to a proposed action.

SECOND SUPPLEMENTAL GENERIC ENVIRONMENTAL IMPACT STATEMENT

A Generic Environmental Impact Statement (GEIS) is a broader, more general EIS that analyzes the impacts of a concept or overall plan rather than those of a specific project plan. A GEIS is useful when the details of specific impacts cannot be accurately identified, since no site-specific project has been proposed, but a broad set of further projects is likely to result from the agency's action. A GEIS follows the same format as an EIS for a more specific project, but its content is necessarily broader.

Subsequent discretionary actions under the program studied in a GEIS may require further review under CEQR. According to 6 NYCRR Section 617.10, "GEISs and their findings should set forth specific conditions or criteria under which future actions will be undertaken or approved, including requirements for any subsequent SEQRA compliance." Therefore—like with the 2011 FGEIS and

the 2013 SSGEIS—the SSGEIS will, where appropriate, discuss possible conditions under which further environmental review would be required (e.g., increases in the size of the development program, identification of additional ancillary facilities in other locations). Often, a GEIS is used as the foundation for the subsequent environmental review for a site-specific project, since it would have established the analysis framework. Therefore, the subsequent supplemental environmental review need only target the specific narrow impacts associated with the subsequent action.

In particular, the reasons for preparing the SSGEIS under the requirements of SEQRA and CEQR guidelines are that the anticipated uses of the South Island Development Zones and the proposed zoning actions are now better known, the scale of development is greater than previously anticipated and it would require expanded ferry service. The document remains generic in that neither the program associated with the South Island Development Zones nor the structures to house that development are specifically proposed. Therefore, the studies contained in the SSGEIS will necessarily be less detailed than if specific building uses and designs were available and will focus on identifying potential associated environmental concerns. To the extent required under CEQR/SEQRA in connection with future discretionary actions, it is possible that further environmental review may be necessary when certain, as yet undefined components of the Phased Redevelopment of Governors Island are identified.

It is expected that when the approvals comprising the Proposed Project complete the Uniform Land Use Review Procedure (ULURP), the TGI would issue a Request(s) for Proposals (RFP) soliciting proposals for development under the approvals be issued. It is anticipated that the lease agreements would stipulate location and programming elements of the Special District Text, as well as any required mitigation measures. In order to address the potential range of responses to the RFP, the environmental review analyzes a RWCDs that conservatively considers the reasonable worst-case potential for environmental effects for each impact category. While the discretionary approvals that comprise the Proposed Project have been defined, the development program and some design specifics under the Proposed Project would be dependent on the RFP responses.

METHODOLOGY

In the Future without the Proposed Project (No Action scenario), Governors Island is assumed to continue to operate much the same as it does today. Visitation is dependent on certain factors that can be controlled, such as access the Island (number of operating days and hours, ferry capacity, and frequency). Public outreach and enhancements will continue to make Governors Island a highly visited summer weekend destination and, as of 2018, it is expected to become a highly visited seven-days-a-week destination during six months of the year as well. It is assumed that the buildings on the North Island will continue to be renovated and occupied by new uses.

However, only limited improvements are anticipated on the South Island. Existing landscaping materials and trees would mature and grow taller. It is assumed that the elements of the Later Phases Park and Open Space plan not yet built, including further improvements to Picnic Point and the completion of the 2.2-mile Promenade, will be built by 2030, completing the Park and Public Space Master Plan. However, there would be no new construction in the Development Zones due to the constraints of the existing zoning. There would be no new modern buildings and no new population working or living in those buildings, enlivening the open spaces of Governors Island.

Phased Development of Governors Island, South Island Development Zones

2030 ANALYSIS YEAR

The analysis year for the full development of Governors Island is 2030. Similar to the 2013 FSGEIS, the SSGEIS will consider the impacts of the Proposed Project based on two development options shown in **Table 1**. Where appropriate, potential impacts will be considered cumulatively by assuming development of the South Island Development Zones full development of the Parks and Open Spaces and full re-tenanting of the North Island in the No Action Condition.

REASONABLE WORST CASE DEVELOPMENT SCENARIO

The land uses identified for the South Island Development Zones have different population characteristics. For example, university housing uses would generate on-site residents whereas office or research uses would not. Other uses, including the hotel and cultural uses, would generate workers and visitors that would access the island from the off-site ferry locations and would not reside on the island full-time. Each analysis in the SSGEIS will identify a “reasonable worst-case development scenario” that could result in the worst environmental effect for that technical area. The analyses will focus on identifying potential environmental concerns associated with the two potential use options identified in **Table 1**. **Tables 2, 3, and 4** show the proposed development programs as compared to previous iterations analyzed in the 2011 GEIS and 2013 SEGIS.

The analyses will assume that in the Future without the Proposed Project (No Action condition), no portion of the South Island Development Zones would be implemented and that other than the previously approved re-tenanting of the North Island and the later Phases Park and Public Space Plan, the Island would continue in its current use and configuration.

Table 2
Total Governors Island Development – University Research Option (Existing and Proposed) – 2030

Land Use	Existing Re-Tenanted Space (sf) ¹	Previously Considered University Research Option			Previously Approved North Island Redevelopment (sf)	Proposed University Research Option: South Island Development Zones (sf)	Total Including Proposed and Previously Approved (sf)
		Approved North Island Redevelopment (sf)	South Island Development Zones (sf)	Total (sf)			
University							
Campus	0	422,000	0	422,000	422,000	1,170,000	1,592,000
Research	0	0	188,650	188,650	0	1,500,000	1,500,000
Academic	0	0	213,450	213,450	0	0	0
Housing – Faculty Housing	0	0	94,300	94,300	0	0	0
Housing – Dormitories	0	262,000	588,000	850,000	262,000	556,079	818,079
Conference Center + Hotel	0	256,250	243,750	500,000	256,250	(408,832 + 43,582)	708,664
Office	48,450	7,000	119,550	175,000	7,000	75,223	82,223
Service Retail/Restaurant (Not destination, accessory to Island uses)	0	37,800	37,200	75,000	37,800	147,208	185,008
Cultural							
General (Gallery, small museum, etc.)	0	0	0	0	0	459,101	525,301
Artist Studio	47,700	57,000	0	104,700	57,000		
Movie Theater	0	9,200	0	9,200	9,200		
Public School	79,700	148,000	0	227,700	148,000	0	148,000
Maintenance, Support, Other	0	0	140,000	140,000	0	140,000	140,000
TOTAL	175,850	1,199,250	1,624,900	3,000,000²	1,199,250	4,500,025	5,875,125²
Notes:							
¹ The existing re-tenanted North Island uses will not be assessed in the SSGEIS analyses.							
² This total includes the existing 175,850 sf of existing North Island re-tenanted space.							

Phased Development of Governors Island, South Island Development Zones

Table 3
Total Governors Island Development – Mixed Use Option (Existing and Proposed) – 2030

Land Use	Existing Re-Tenanted Space (sf) ¹	Previously Considered Mixed-Use Option			Previously Approved North Island Redevelopment (sf)	Proposed Mixed-Use Option: South Island Development Zones (sf)	Total Including Proposed and Previously Approved (sf)
		Approved North Island Redevelopment (sf)	South Island Development Zones (sf)	Total (sf)			
University							
Campus	0	0	0		0	360,000	360,000
Research	0	0	188,650	188,650	0	1,500,000	1,500,000
Academic	0	0	213,450	213,450	0	0	0
Housing – Faculty Housing	0	0	94,300	94,300	0	0	0
Housing – Dormitories	0	262,000	588,000	850,000	262,000	136,079	398,079
Conference Center + Hotel	0	256,250	243,750	500,000	256,250	(408,832+ 43,582)	708,664
Office	48,450	300,000	119,550	468,300	300,000	1,705,223	2,005,548
Service Retail/Restaurant <i>(Not destination, accessory to Island uses)</i>	0	37,800	37,200	75,000	37,800	147,208	185,008
Cultural							
General <i>(Gallery, small museum, etc.)</i>	0	128,700	0	128,700	128,700		
Artist Studio	47,700	57,000	0	104,700	57,000		
Movie Theater	0	9,200	0	9,200	9,200	59,101	254,001
Public School	79,700	148,000	0	227,700	148,000	0	148,000
Maintenance, Support, Other	0	0	140,000	140,000	0	140,000	140,000
TOTAL	175,850	1,199,250	1,624,900	3,000,000 ²	1,199,250	4,500,025	5,875,125 ²
Notes:							
¹ The existing re-tenanted North Island uses will not be assessed in the SSGEIS analyses.							
² This total includes the existing 175,850 sf of existing North Island re-tenanted space.							

Table 4
Comparison of Total Island Development: 2011 FGEIS and 2013 SGEIS vs. 2018 SSGEIS

Uses	University Research Option				Mixed-Use Option			
	2011 Park and Open Space	2013 North Island Re-tenanting	2018 South Island Development Zones	Difference ¹	2011 Park and Open Space	2013 North Island Re-tenanting	2018 South Island Development Zones	Difference ¹
University								
Campus	0	422,000	1,170,000	748,000	0	0	360,000	360,000
Research	400,000	188,650	1,500,000	1,311,350	0	0	1,500,000	1,500,000
Academic	450,000	213,450	0	-213,450	0	0	0	0
Housing – Faculty Housing <i>(assumed as apartments, not dorms)</i>	200,000	94,300	0	-94,300	1,650,000	1,120,950	0	-1,120,950
Housing – Student Dorms	850,000	850,000	556,079	-293,921	450,000	450,000	136,079	-313,921
Conference Center + Hotel	500,000	500,000	(408,832+ 43,582)	-47,586	350,000	350,000	(408,832+ 43,582)	102,414
Office	175,000	175,000	75,223	-99,777	60,000	348,750	1,705,223	1,356,473
Service Retail/Restaurant <i>(Not destination, accessory to other uses)</i>	75,000	75,000	147,208	72,208	75,000	75,000	147,208	72,208
Cultural <i>(Gallery, artist studios, movie theater)</i>	60,000	113,900	459,101	345,201	125,000	242,600	59,101	-183,499
Public School	150,000	227,700	0	-227,700	150,000	272,700	0	-272,700
Maintenance, Support, Other	140,000	140,000	140,000	0	140,000	140,000	140,000	0
TOTAL	3,000,000	3,000,000	5,875,125^{2,3}	2,875,125³	3,000,000	3,000,000	5,875,125^{2,3}	2,875,125³
Notes:								
Total Development includes existing re-tenanted space on the North Island.								
¹ The difference column calculates the difference between 2013 and 2018.								
² Includes previously approved North Island program of 1,199,250 sf.								
³ This total includes the existing 175,850 sf of existing North Island re-tenanted space.								

STUDY AREAS

In general, the study areas for the SSGEIS analyses will include the entire South Island, and depending on the specific analysis, may also include portions of the North Island, the area within 400 feet of the ferry landing at Pier 6 in Brooklyn Bridge Park and the area within 400 feet of the Battery Maritime Building. For certain areas, specifically Transportation, the expanded study areas are described in the relevant sections below.

SCREENING ANALYSES

For the socioeconomic and natural resources screening assessments, the conclusions presented in the 2011 FGEIS and 2013 SGEIS for 2030 will be summarized, and existing conditions and future conditions with and without the Proposed Project will be described.

E. SCOPE OF WORK

As described earlier, the SSGEIS will be prepared pursuant to SEQRA and CEQR. The environmental review provides a means for decision-makers to systematically consider environmental effects along with other aspects of project planning and design, to evaluate reasonable alternatives, and to identify, and mitigate where practicable, any significant adverse environmental impacts.

The SSGEIS will contain:

- A. A description of the Proposed Project and the environmental setting;
- B. A statement of the environmental impacts of the Proposed Project, including its short- and long-term effects and typical associated environmental effects;
- C. An identification of any adverse environmental effects that cannot be avoided if the project is implemented;
- D. A discussion of reasonable alternatives to the Proposed Project;
- E. An identification of irreversible and irretrievable commitments of resources that would be involved if the Proposed Project is built; and
- F. A description of measures proposed to minimize or fully mitigate any significant adverse environmental impacts.

The first step in preparing the SSGEIS document is public scoping, which is the process of focusing the environmental impact analysis on the key issues that are to be studied in the SSGEIS. The proposed scope of work for each technical area to be analyzed is set forth below. The scope of work and the proposed impact assessment criteria are based on the methodologies and guidance set forth in the 2014 *CEQR Technical Manual*.

PROJECT DESCRIPTION

The Project Description will list the proposed actions and define the purpose and need for the proposed actions and the proposed development of the South Island. The recent history of the Island including previous planning and environmental reviews (2011 FGEIS and 2013 SGEIS) will be summarized. The chapter will discuss the project site: current conditions on Governors Island, both the North Island and the South Island and specifically the two planned Development Zones. The proposed development will be described including the uses, floor areas, and bulk of the buildings that would be allowed in the Development Zones. Design guidelines will be provided, and schematic Development Zone plans will be discussed. In addition, the off-Island access points will be identified and described.

ANALYTICAL FRAMEWORK

This chapter will discuss the framework for the analyses for the SSGEIS and will contain information on CEQR and State Environmental Quality Review Act (SEQRA); the analysis year and the development programs; the use of the RWCDs by technical area; and a discussion of study areas. No Action Conditions will also be defined which are expected to include full reuse of the historic buildings on the North Island. This chapter will also contain screening analyses for any technical area (e.g., socioeconomics, child care, publicly funded health care facilities, etc.) for which detailed analyses are not required.

LAND USE, ZONING, AND PUBLIC POLICY

Under CEQR, a land use analysis characterizes the uses and development trends in the area that may be affected by a proposed project, describes the zoning and public policies that guide development, and determines whether a proposed project is compatible with those conditions and policies or whether it may affect them.

The proposed development will take place in two areas on the South Island specifically set aside for development. Land use actions subject to ULURP and CEQR are required including zoning map and text amendments. In addition, the amount of development contemplated in the South Island Development Zones (4.5 million square feet) exceeds the development analyzed in the 2011 FGEIS and the 2013 SSGEIS. These factors will be considered in this chapter as well as the potential for any land use impacts at the off-Island access points. This chapter will also provide a discussion of future baseline conditions to be used in the other EIS analyses. Specifically, the assessment of land use, zoning, and public policy will:

- Describe land use in the study area, including recent park development and retenting of buildings on the North Island. The study area will include the entire Island, focusing on the areas closest to the Development Zones. Land use in the areas within 400 feet of the off-Island access points will also be described.
- Provide a zoning map and discuss existing R3-2 zoning on Governors Island, the Special Governors Island District on the North Island and existing zoning for the off-Island access points.
- Summarize other public policies that may apply to the project site and study area.
- Describe conditions on Governors Island absent the Proposed Project and development, including fully re-tenanting the North Island buildings. Identify any projects or pending zoning actions in proximity to the off-Island access points.
- Describe the proposed development and assess the impacts on Governors Island and at the off-Island access points.
- Consider the proposed development's consistency with the relevant policies of the City's Waterfront Revitalization Program.
- Consider the proposed development's consistency with the relevant policies of the City's OneNYC Plan.

COMMUNITY FACILITIES AND SERVICES

The EIS will consider the different demands for community facilities and services that are generated by the new worker and visitor population, which may differ from the demands generated by permanent residents.

Phased Development of Governors Island, South Island Development Zones

The EIS will analyze the projected police and fire needs of the Proposed Project, and the Trust will consult with the New York City Police Department (NYPD) and the New York City Fire Department (FDNY) to provide adequate services to users and residents of the Island. The results of those consultations will be reported in the EIS. Following the guidance of the *CEQR Technical Manual*, the location of stations and precincts serving Governors Island will be documented, and the No Action and With Action conditions will be considered in consultation with the NYPD and FDNY.

OPEN SPACE

The *CEQR Technical Manual* recommends performing an open space assessment if a project would have a direct effect on an area open space or an indirect effect through increased population size (typically, an assessment is conducted if the Proposed Project's population is greater than 200 residents or 500 employees).

As the Proposed Project would exceed *CEQR Technical Manual* thresholds, an open space analysis will be undertaken. It is assumed that the daytime population analysis will consider a study area within ¼-mile of the Development Zones for workers and a residential analysis will consider an area within ½-mile of anticipated dormitories and any faculty housing locations. Workers on the North Island and park visitors will be accounted for as part of No Action conditions.

SHADOWS

The *CEQR Technical Manual* requires a shadows assessment for proposed actions that would result in new structures greater than 50 feet in height or located adjacent to a sunlight-sensitive resource. Such resources include publicly accessible open spaces, sunlight-dependent natural resources, and historic resources with sunlight-sensitive features.

The South Island Development Zones are surrounded by public park areas, historic resources, and the New York Harbor.

In order to account for the wide range of potential development configurations and bulk that could be built under the contemplated zoning, two representative bulk arrangements will be used to analyze shadows on the sun-sensitive resources surrounding the zones.

The shadows analysis would be coordinated with the open space and historic resources analyses and would include the following tasks:

- Develop a base map illustrating the Development Zones in relation to project generated publicly accessible open spaces, historic resources with sunlight-dependent features, and natural features in the area.
- Determine the longest possible shadows that could result from the two potential development configurations to determine the study area.
- Research the sensitivity of the various elements and features of the open spaces and landscaping materials and historic resources in the study area.
- Develop a three-dimensional computer model of the elements of the base map including the two development configurations.
- Using modeling software, determine the extent and duration of new shadows that would be cast on sunlight-sensitive resources as a result of the Proposed Project on four representative days of the year, for each of the two reasonable worst case developments.

- Document the analysis with graphics, with incremental shadow highlighted in a contrasting color. Include a summary table listing the entry and exit times and total duration of incremental shadow on each applicable representative day for each affected resource.
- Assess the significance of any shadow impacts on sunlight-sensitive resources, including historic resources with sunlight-sensitive features.
- A qualitative discussion of how shadows would affect project-generated open space.

HISTORIC AND CULTURAL RESOURCES

Governors Island’s potential archaeological sensitivity and significant historic structures have already been well documented in the 2013 FSGEIS and 2011 FGEIS, as well as other previous planning studies, environmental impact studies, and designation reports for the historic district. This EIS will present a summary of these conditions.

Given the Island’s physical isolation, the study areas to be considered for historic resources will be defined as the Island itself, and a 400-foot area around any off-Island access points. The areas to be considered for archaeological resources for the Proposed Project will include the Development Zones. Previous studies have determined that the South Island is not sensitive for archeological resources. LPC will be consulted to reconfirm this determination.

Architectural resources on the Island that would be affected by the Proposed Project will be identified and described. Consistent with the guidance of the *CEQR Technical Manual*, architectural resources include: New York City Landmarks, Scenic Landmarks, New York City Historic Districts; resources calendared for consideration as one of the above by LPC; resources listed on or formally determined eligible for inclusion on the State and/or National Registers of Historic Places, or contained within a district listed on or formally determined eligible for listing on the Registers; resources recommended by the New York State Board for listing on the Registers; and National Historic Landmarks.

The potential effects of the proposed modifications to the project on archaeological and architectural resources will be compared to those disclosed in the 2011 FGEIS and 2013 FSGEIS, including visual and contextual changes as well as any direct physical impacts. The applicability of policies and procedures already in place, including coordination with and oversight by LPC (as appropriate) will be discussed. If the proposed modifications to the project would result in any significant adverse impacts, mitigation measures for such impacts will be identified in coordination with LPC.

URBAN DESIGN AND VISUAL RESOURCES

Under CEQR, urban design is defined as the totality of components that may affect a pedestrian’s experience of public space. These components include streets, buildings, visual resources, open spaces, natural resources, and wind. An urban design assessment under CEQR must consider whether and how a project may change the experience of a pedestrian in a project area. The *CEQR Technical Manual* guidelines recommend the preparation of a preliminary assessment of urban design and visual resources, followed by a detailed analysis, if warranted based on the conclusions of the preliminary assessment.

Following the guidelines of the *CEQR Technical Manual*, a preliminary assessment of urban design and visual resources will be prepared to determine whether the Proposed Project would create a change to the pedestrian experience that is sufficiently significant to require greater explanation and further study. The study area for the assessment of urban design and visual

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resources will be consistent with the study area for the analysis of land use, zoning, and public policy.

This chapter will focus on how the additional development now proposed for the South Island Development Zones would change the Island's urban design and visual character, in comparison to the No Action Condition. For visual resources, important publicly accessible views and view corridors (such as the view from Liggett Terrace or the view of the Statue of Liberty) will be identified, and the potential for the proposed development to affect those elements will be discussed and compared to the conclusions of the 2013 FSGEIS and 2011 FGEIS. As with the 2013 FSGEIS and 2011 FGEIS, which considered views to the Island from Lower Manhattan, Brooklyn, and the Staten Island Ferry, this SSGEIS will also consider off-Island viewing locations. If necessary, mitigation measures to avoid or reduce potential significant impacts will be identified.

NATURAL RESOURCES

The modifications to the 2030 development program would not alter the findings of the 2011 FGEIS or 2013 FSGEIS with respect to natural resources. As analyzed in the 2011 FGEIS and 2013 FSGEIS, the South Island Development Zones largely overlap with currently or formerly developed areas, and the location of these development zones would not change under the Proposed Project. Therefore, little existing open space habitat would be modified or lost by future construction activities within these areas. The assessment will summarize the previous conclusions of the 2011 FGEIS and the 2013 FSGEIS regarding natural resources.

HAZARDOUS MATERIALS

As part of the previous environmental reviews, hazardous materials conditions on the Island were thoroughly investigated, including the Development Zones. The previous findings and the requirements of the Remedial Action Plan that will apply to future redevelopment under the Proposed Project will be summarized.

WATER AND SEWER INFRASTRUCTURE

The *CEQR Technical Manual* outlines thresholds for analysis of a project's water demand and its generation of wastewater and stormwater.

An analysis of the project's effects on wastewater and stormwater infrastructure is warranted since redevelopment of the South Island Development Zones would exceed the *CEQR Technical Manual* threshold. Therefore, this chapter will include an analysis of the Proposed Project's potential effects on wastewater and stormwater infrastructure.

To describe existing conditions and conditions in the Future without the Proposed Project:

- The existing stormwater drainage system and surfaces (pervious or impervious) on the project site will be described. The amount of stormwater currently draining from the site will be estimated for each drainage area using DEP's volume calculation worksheet.
- The existing sewer system serving the project site will be described using information obtained from the Trust and DEP. The capacity of the existing pump station will be an important consideration. The existing flows to the Red Hook wastewater treatment plant (WWTP) that serves the project site will be obtained for the latest 12-month period, and the average dry weather monthly flow will be presented.

- Any changes to the site's stormwater drainage system and surface area expected in the Future without the Proposed Project will be described.
- Any changes to the sewer system expected to occur in the Future without the Proposed Project will be described based on information provided by the project team and by DEP.

The analysis of project impacts will identify and assess the effects of the incremental sanitary and stormwater flows on the capacity of the sewer infrastructure as follows:

- Future stormwater generation from the Proposed Project will be estimated. Any changes to the site's proposed surface area (pervious or impervious) will be described, and runoff coefficients and runoff volumes for each surface type/area will be presented. Volume and peak discharge rates of stormwater from the site will be determined based on the DEP volume calculation worksheet.
- Sanitary sewage generation for the project will be estimated. The effects of the incremental demand on the system will be assessed to determine the impact on operations of the pump station and Red Hook WWTP.
- Based on the analyses of future stormwater and wastewater generation, the change in flows and volumes to the sewer system and/or waterbodies due to the Proposed Project will be determined, and any improvements necessary to support the Proposed Project will be disclosed.
- The assessment will discuss any planned sustainability elements that are intended to reduce storm water runoff and/or to reduce water consumption and sanitary sewage generation.
- The assessment will discuss the potential installation of an additional water main, as studied and determined to be unnecessary in the 2013 FSGEIS, if additional study is determined to now be necessary based on the use identified in the RFP and the capacity of the existing service.

If warranted, a detailed infrastructure analysis will be prepared following the guidelines of the *CEQR Technical Manual*.

SOLID WASTE AND SANITATION

A solid waste assessment determines whether an action has the potential to cause a substantial increase in solid waste production that may overburden available waste management capacity or otherwise be inconsistent with the City's Solid Waste Management Plan or with State policy related to the City's integrated solid waste management system. The Proposed Actions would induce new development that would require sanitation services. According to the *CEQR Technical Manual*, if a project's generation of solid waste in the With Action condition would not exceed 50 tons per week, it may be assumed that there would be sufficient public or private carting and transfer station capacity in the metropolitan area to absorb the increment, and further analysis generally would not be required. As the Proposed Actions are expected to result in a net increase of more than 50 tons per week compared to No Action conditions, an assessment of solid waste and sanitation services is warranted. This chapter will provide an estimate of the additional solid waste expected with the potential development scenario that generates more solid waste and assess its effects on the City's solid waste and sanitation services. This assessment will:

- Describe existing and future New York City solid waste disposal practices.
- Estimate solid waste generation by the potential development scenario that generates more solid waste.

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- Describe existing solid waste pickup and carting practices and how these may shift in the future With Action conditions due to the proposed development.
- Assess the impacts of the Proposed Actions' solid waste generation on the City's collection needs and disposal capacity. The Proposed Actions' consistency with the City's Solid Waste Management Plan will also be assessed.

ENERGY

According to the *CEQR Technical Manual*, a detailed assessment of energy impacts is limited to projects that may significantly affect the transmission or generation of energy. However, as recommended, the projected amount of energy consumption during long-term operation will be disclosed in the environmental analysis.

TRANSPORTATION

The *CEQR Technical Manual* states that quantified transportation analyses may be warranted if a Proposed Project results in 50 or more vehicle-trips, 200 or more transit trips, or 200 or more pedestrian trips during a given peak hour. The framework assumptions and transportation scope of work is outlined below.

TRAVEL DEMAND PROJECTIONS AND SCREENING ASSESSMENTS

The evaluation of potential transportation-related impacts will begin with the preparation of travel demand estimates and transportation analysis screening assessments. Detailed trip estimates will be prepared using standard sources, including the *CEQR Technical Manual*, U.S. census data, approved studies, and other references.

The trip estimates (Level-1 screening assessment) will be summarized by peak hour (weekday AM, midday, PM and weekend peak hours), mode of travel, and person vs. vehicle trips for the Proposed Project. The trip estimates will also identify the number of peak hour person trips made by transit and the numbers of pedestrian trips traversing the area's sidewalks, corner reservoirs, and crosswalks. The results of these estimates will be summarized in a Travel Demand Factors (TDF) memorandum for review by the lead agency, the New York City Department of Transportation (NYCDOT), and New York City Transit (NYCT).

In addition to the trip estimates, detailed vehicle, transit, and pedestrian trip assignments (Level-2 screening assessment) will be prepared, to determine the study areas requiring quantified operational analyses.

Traffic

The trips generated by the Proposed Project will be assigned to two ferry terminals to access the Island: the BMB in Manhattan and Pier 6 in Brooklyn. Given the scale of the Proposed Project, a detailed analysis of traffic operations will be required for the AM, midday, PM and Saturday peak hours at the following 42 intersections:

Manhattan

1. Route 9A / Canal Street
2. Route 9A / Vestry Street
3. Route 9A / Laight Street
4. Route 9A / Albany Street
5. Route 9A / West Thames

6. Route 9A / Hugh Carey Tunnel
7. Route 9A / Battery Park Underpass
8. Battery Place / West Street (E)
9. Battery Place / Washington Street
10. Battery Place / Greenwich Street
11. Battery Place / Broadway / State Street
12. Broadway / Liberty Street
13. Broadway / Cedar Street
14. Broadway / Pine Street
15. Broadway / Wall Street
16. Broadway / Rector Street
17. Broadway Split near Morris Street
18. State Street / Bridge Street
19. State Street / Pearl Street
20. State Street / Water Street / Peter Minuit Plaza
21. Whitehall Street / Water Street
22. Whitehall Street / South Street
23. Moore Street / Water Street
24. Broad Street / Water Street
25. Broad Street / South Street
26. Hanover Square / Old Slip / Water Street
27. Old Slip / South Street
28. Hanover Street / Pearl Street
29. Wall Street / Water Street
30. Wall Street / South Street
31. Maiden Lane / South Street
32. John Street / South Street

Brooklyn

33. Old Fulton Street / Furman Street
34. Joralemon Street / Furman Street
35. Atlantic Avenue / Furman Street
36. Atlantic Avenue / Columbia Street
37. Atlantic Avenue / BQE Ramps
38. Atlantic Avenue / Hicks Street
39. Atlantic Avenue / Henry Street
40. Atlantic Avenue / Clinton Street
41. Atlantic Avenue / Court Street
42. BQE Ramps / Columbia Street

The quantified analysis of traffic intersections will be undertaken as outlined below.

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- Traffic data collection. Traffic volumes and relevant data at the study area intersections will be collected following CEQR guidelines via a combination of intersection and machine counts. Intersection turning movement and vehicle classification counts will be conducted for the weekday AM, midday, and PM as well as Saturday afternoon analysis peak periods. These counts will be supplemented by continuous (nine-day) automatic traffic recorder (ATR) counts at key locations to identify temporal and daily traffic variations. Information pertaining to street widths, traffic flow directions, lane markings, parking regulations and maneuvers, vehicle queues and bus stop locations at study area intersections will be inventoried. Traffic control devices (including signal timings) in the study area will be recorded and verified with official signal timing data from NYCDOT.
- Conduct existing conditions analysis. Balanced peak hour traffic volumes will be prepared for the capacity analysis of study area intersections. This analysis will be conducted using the 2000 Highway Capacity Manual (HCM) methodology with the latest approved Highway Capacity Software (HCS) or the Synchro software. The existing volume-to-capacity (v/c) ratios, delays, and levels of service (LOS) for the weekday AM, midday, and PM, and Saturday afternoon analysis peak hours will be determined.
- Develop the future No Action condition. Future No Action traffic volumes will be estimated by adding a background growth, in accordance with CEQR guidelines, to existing traffic volumes, and incorporating incremental changes in traffic resulting from other projects in the area. Future No Action volumes will be developed for the full build year condition. Physical and operational changes that are expected to be implemented independent of the Proposed Project, if any, will also be incorporated into the future traffic analysis network. The No Action v/c ratios, delays, and LOS at the study area intersections will be determined.
- Perform traffic impact assessment for the Proposed Project. Incremental project-generated vehicle trips will be overlaid onto the future No Action traffic network. The traffic assessment will be conducted for the full build year condition. The potential impact on v/c ratios, delays, and LOS will then be evaluated in accordance with *CEQR Technical Manual* criteria. Where impacts are identified, feasible improvement measures, such as signal retiming, phasing modifications, roadway restriping, addition of turn lanes, revision of curbside regulations, turn prohibitions, and street direction changes, etc. will be explored for NYCDOT approval and implementation.

Delivery Vehicles

The proposed redevelopment would require the Battery Maritime Building to be available to maximize passenger throughput. Therefore, it is anticipated that delivery truck trips generated by both the North and South Island developments would be relocated from the BMB ferry terminal and distributed to the following locations along the Brooklyn waterfront: Brooklyn Navy Yard, Atlantic Basin, South Brooklyn Marine Terminal, and the 52nd Street Pier.

It is assumed that quantified analysis of traffic intersections will need to be undertaken. The methodology is outlined below.

- Define traffic study area. It is anticipated that up to four potential freight terminal locations would be identified and analyzed in the DEIS. The traffic study areas will include the following 12 intersections surrounding potential freight terminal locations that would experience an increase of 50 or more vehicle trips:
 1. Imlay Street/Bowne Street
 2. Van Brunt Street/Bowne Street

3. Van Brunt Street/Hamilton Avenue (southbound)
 4. Van Brunt Street/Hamilton Avenue (northbound)
 5. 1st Avenue/39th Street
 6. 1st Avenue/41st Street
 7. 1st Avenue/42nd Street
 8. 1st Avenue/43rd Street
 9. 1st Avenue/52nd Street
 10. 2nd Avenue/39th Street
 11. 3rd Avenue/39th Street
 12. 3rd Avenue/60th Street
- Traffic data collection. Traffic volumes and relevant data at the study area intersections will be collected following CEQR guidelines via a combination of intersection counts, machine counts, and available turning movement counts. New intersection turning movement and vehicle classification counts will be conducted for the weekday AM peak period. These counts will be supplemented by continuous (nine-day) automatic traffic recorder (ATR) counts at key locations to identify temporal and daily traffic variations. Information pertaining to street widths, traffic flow directions, lane markings, parking regulations and maneuvers, vehicle queues, and bus stop locations at study area intersections will be inventoried. Traffic control devices (including signal timings) in the study area will be recorded and verified with official signal timing data from NYCDOT.
 - Conduct existing conditions analysis. Balanced peak hour traffic volumes will be prepared for the capacity analysis of study area intersections. This analysis will be conducted using the 2000 Highway Capacity Manual (HCM) methodology with the latest approved Highway Capacity Software (HCS) or the Synchro software. The existing volume-to-capacity (v/c) ratios, delays, and levels of service (LOS) for the weekday AM peak hour will be determined.
 - Develop the future No Action condition. Future No Action traffic volumes will be estimated by adding a background growth, in accordance with CEQR guidelines, to existing traffic volumes, and incorporating incremental changes in traffic resulting from other projects in the area. Future No Action volumes will be developed for the full build year condition. Physical and operational changes that are expected to be implemented independent of the Proposed Project, if any, will also be incorporated into the future traffic analysis network. The No Action v/c ratios, delays, and LOS at the study area intersections will be determined.
 - Perform traffic impact assessment for the Proposed Project. Incremental project-generated vehicle trips will be overlaid onto the future No Action traffic network. The traffic assessment will be conducted for a full build year condition. The potential impact on v/c ratios, delays, and LOS will then be evaluated in accordance with *CEQR Technical Manual* criteria. Where impacts are identified, feasible improvement measures, such as signal retiming, phasing modifications, roadway restriping, addition of turn lanes, revision of curbside regulations, turn prohibitions, and street direction changes, etc. will be explored for NYCDOT approval and implementation.

Transit

As the projected peak hours of project-related trip generation overlap with typical weekday transit peak hours, the analysis of potential impacts to subway stations will consider only the weekday AM and PM peak periods. For the Proposed Project, a detailed analysis of control areas and

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pedestrian circulation elements will be prepared for the Bowling Green (No. 4 and 5 lines), the South Ferry and Whitehall Street South Ferry (No. 1, R, and W lines), and the Borough Hall and Court Street (No. 2, 3, 4, 5, and R lines) subway stations. In addition, line-haul analyses will be conducted, as warranted, for these seven subway lines and the nearby bus and select bus routes (i.e., M15/M15 SBS, M20, M55, B61, and B63). The detailed subway line haul analysis will be performed for any affected line and at any time period in which at least 200 trips are generated in one direction. This may potentially include weekend peak periods, in particular the Saturday afternoon time period. Though overall volumes at that time are lower than those of weekday peak hours, due to the less frequent weekend train service (which is necessarily less frequent due to the need to accommodate system maintenance), many subway lines throughout the system carry passenger volumes in excess of capacity. Where significant adverse impacts are identified, improvement measures will be recommended to mitigate the impacts to the extent practicable. If mitigation measures are needed for station elements, they will be developed in consultation with NYCT.

Pedestrians

A quantified pedestrian analysis will be performed for key sidewalks, corner reservoirs, and for the weekday AM, midday, and PM, as well as the Saturday afternoon peak periods. Where appropriate, measures to avoid or mitigate potential significant adverse pedestrian impacts will be examined. It has been assumed that up to eight pedestrian full- intersection equivalents would require detailed analysis (one pedestrian full-intersection equivalent includes four crosswalks, eight sidewalks, and four corner reservoirs). The pedestrian data will be collected per *CEQR Technical Manual* guidelines.

Vehicle/Pedestrian Safety

Examine vehicular and pedestrian safety issues. Crash data for the study area intersections and other nearby sensitive locations from the most recent three-year period will be obtained from the New York City Department of Transportation. These data will be analyzed to determine if any of the studied locations may be classified (using CEQR criteria) as high vehicle crash or high pedestrian/bike accident locations and whether trips and changes resulting from the Proposed Project would adversely affect vehicular and pedestrian safety in the area. If any high accident locations are identified, feasible improvement measures will be explored to alleviate potential safety issues.

Parking

Analyze current and future parking conditions. Off-street public parking supply and utilization and an inventory of on-street parking regulations for a ¼-mile surrounding the Battery Maritime Building in Manhattan and Pier 6 in Brooklyn will be collected. Future incremental parking demand projections due to the Proposed Project during the full build year will be compared to the available supply in the area to determine whether there is a potential for a parking shortfall.

AIR QUALITY

The number of project-generated vehicle and ferry trips will likely exceed the *CEQR Technical Manual* carbon monoxide (CO) and fine particulate matter (PM_{2.5}) analysis screening thresholds in the peak hour at a number of locations in the transportation study area. Assuming this to be the case, a microscale analysis of CO and PM mobile source emissions at affected intersections will be necessary.

For stationary sources, while screening studies can be usefully employed for some sites, the potential number, size and location of buildings within the Development Zones are such that refined modeling will likely be necessary to demonstrate compliance with NAAQS and other relevant impact criteria. Therefore, a detailed stationary source analysis will be performed using the U.S. Environmental Protection Agency (EPA) AERMOD dispersion model.

An analysis of potential air quality impacts associated with the proposed increased ferry service will also be performed.

A description of the specific tasks follows.

MOBILE SOURCES

- Existing ambient air quality data for the study area published by the New York State Department of Environmental Conservation (NYSDEC) will be compiled and summarized for the analysis of existing and future conditions.
- Critical intersection locations in the traffic study areas will be selected, representing locations with the highest potential total and incremental pollution impacts, based on data obtained from the Proposed Project's traffic analysis. At each intersection, multiple receptor locations will be analyzed in accordance with CEQR guidelines.
- EPA's first-level CAL3QHC intersection model will be used to predict the maximum change in CO concentrations. The refined EPA CAL3QHCR intersection model will be used to predict the maximum change in PM_{2.5} concentrations.
- Vehicular cruise and idle emissions for the dispersion modeling will be computed using EPA's MOVES model. Re-suspended road dust emission factors will be calculated based on CEQR guidance and the EPA procedure defined in AP-42.
- At each microscale receptor site, calculate for each applicable peak period the maximum 1- and 8-hour average CO concentrations and maximum 24-hour and annual average PM_{2.5} concentrations for No Action and With Action conditions. Concentrations will be determined for up to four peak periods for CO.
- Future pollutant levels with and without the Proposed Project will be compared with the CO NAAQS, and the City's CO and PM_{2.5} *de minimis* guidance criteria, to determine the impacts of the Proposed Project.
- For locations where significant adverse air quality and/or traffic impacts are predicted, identify and analyze appropriate mitigation measures.

Heating and Hot Water Systems Analysis

- A refined modeling analysis will be performed using the AERMOD model and based on conceptual designs developed with the project team. For this analysis, five recent years of meteorological data from La Guardia National Weather Service station and concurrent upper air data will be utilized for the simulation program. Concentrations of nitrogen dioxide (NO₂), sulfur dioxide (SO₂) (if assuming fuel oil), and particulate matter (PM₁₀ and PM_{2.5}) will be determined at the development sites and nearby receptor locations, if any. Predicted concentrations will be compared with NAAQS and PM_{2.5} CEQR *de minimis* criteria. In the event that exceedances of standards and/or criteria are predicted, examine design measures to reduce pollutant levels to within standards.

Ferry Service

- A microscale analysis of CO, NO₂, and PM impacts from the proposed increased ferry activities will be performed. Emissions of PM_{2.5} and PM₁₀ and nitrogen oxides (NO_x) from ferry vessels will be estimated using information on existing ferries and anticipated ferry service schedules. Pollutant concentrations from the ferry vessel activity that would result from the Proposed Project will be analyzed at nearby sensitive receptors. Dispersion modeling will be performed using the EPA AERMOD model, with five years of recent meteorological data. PM_{2.5} concentration increments will be compared to the City's *de minimis* criteria thresholds. Future PM₁₀ and NO₂ pollutant levels will be added to representative background concentrations and compared with the NAAQS to determine compliance with standards.
- Potential increases in ferry emissions with the Proposed Project will be evaluated on a regional basis.

GREENHOUSE GAS AND CLIMATE CHANGE

In accordance with the *CEQR Technical Manual*, greenhouse gas (GHG) emissions generated by the Proposed Project will be quantified and an assessment of consistency with the City's established GHG reduction goal will be prepared. Emissions will be estimated for the analysis year and reported as carbon dioxide equivalent (CO₂e) metric tons per year. GHG emissions other than carbon dioxide (CO₂) will be included if they would account for a substantial portion of overall emissions, adjusted to account for the global warming potential.

Relevant measures to reduce energy consumption and GHG emissions that could be incorporated into the Proposed Project will be discussed, and the potential for those measures to reduce GHG emissions from the Proposed Project will be assessed to the extent practicable.

Since the Proposed Project area is located in the current and future flood hazard zone, the potential impacts of climate change on the Proposed Project will be evaluated. The discussion will focus on sea level rise and changes in other climate parameters projected to result from global climate change and the potential future impact of those changes on project infrastructure and uses.

The analysis will consist of the following subtasks:

CLIMATE CHANGE RESILIENCY ASSESSMENT

- The potential effects of climate change on the proposed development will be evaluated based on the best available information. The evaluation will focus on potential future sea and storm levels, on potential increases in precipitation, and the interaction with project infrastructure and uses. The discussion will focus on early integration of climate change considerations into the project design to allow for uncertainties regarding future environmental conditions resulting from climate change.

GREENHOUSE GAS EMISSIONS EVALUATION

- Direct Emissions—GHG emissions from any on-site boilers used for heat and hot water, natural gas used for cooking, and/or fuel used for on-site electricity generation, if any, will be quantified. Emissions will be based on available carbon intensity factors specified in the *CEQR Technical Manual* and other similar information as necessary.
- Indirect Emissions—GHG emissions from purchased electricity and/or steam generated off-site and consumed on-site during the project's operation will be estimated.

- Direct and Indirect Mobile Source Emissions—GHG emissions from vehicle trips and ferry trips associated with the Proposed Project will be quantified using trip distances and vehicle emission factors provided in the *CEQR Technical Manual* and supplemental information as necessary.
- Emissions from project construction and emissions associated with the extraction or production of construction materials will be qualitatively discussed. Opportunities for reducing GHG emissions associated with construction will be considered.
- Design features and operational measures to reduce the Proposed Project’s energy use and GHG emissions will be discussed.
- Consistency with the City’s GHG reduction goal will be assessed. While the City’s overall goal is to reduce GHG emissions by 30 percent below 2005 level by 2025 and 80 percent below 2005 levels by 2050, individual project consistency is evaluated based on building energy efficiency, proximity to transit, on-site renewable power and distributed generation, efforts to reduce on-road vehicle trips and/or to reduce the carbon fuel intensity or improve vehicle efficiency for project-generated vehicle trips, and other efforts to reduce the project’s carbon footprint.

NOISE

The *CEQR Technical Manual* requires that the noise study address the effects of increased noise due to the introduction or rerouting of transportation sources such as vehicular traffic, aircraft, or trains (particularly at sensitive land uses such as residences or open space). The noise analysis for the South Island development will include quantified analyses of noise generated by vehicular traffic and ferry service associated with the Proposed Project, as well as consideration of the necessary building attenuation to provide acceptable interior noise levels at project buildings. Each would have a separate methodology and is described below.

VEHICULAR TRAFFIC NOISE ANALYSIS

A screening analysis will be used to determine whether the full development of the Island would have the potential to result in a doubling of Noise Passenger Car Equivalents (Noise PCEs), which would be sufficiently large to result a 3 dBA increase in noise levels at existing roadways.

If the screening analysis identifies locations that would have the potential to experience a doubling of Noise PCEs or if new roadways are proposed, a detailed mobile source noise analysis would be performed at up to four locations. The detailed analysis would consist of the following tasks, performed in compliance with guidelines contained in the *CEQR Technical Manual*:

- Selection of noise receptor locations. Noise monitoring locations, if any, will be selected based on the results of the screening analysis. Selected sites will be representative of existing sensitive uses near ferry landings off the Island.
- Noise monitoring and data collection. At the identified locations, existing noise readings will be determined by performing 20-minute noise measurements (representative of one-hour equivalent continuous noise levels as per *CEQR Technical Manual* guidelines). The noise levels will be measured in units of “A” weighted decibels (dBA) as well as one-third octave bands. Noise monitoring will be performed during the peak vehicular and ferry traffic periods.
- Determine future noise levels. Following procedures outlined in the *CEQR Technical Manual* for assessing mobile source noise impacts, future No Action and With Action noise levels will

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be calculated using the Federal Highway Administration's (FHWA's) Traffic Noise Model (TNM) version 2.5.

- Determine noise impacts. Noise impacts will be determined by comparing future project noise levels with future No Build noise levels following methodology in the *CEQR Technical Manual*.

FERRY SERVICE NOISE ANALYSIS

A quantified analysis will be used to determine whether noise generated by ferry operations associated with the full development of the Proposed Project would have the potential to result in potential significant noise impacts. A detailed analysis consisting of the following tasks will be performed in compliance with guidelines contained in the *CEQR Technical Manual*:

- Selection of noise receptor locations. Selected sites will be representative of existing sensitive uses near ferry landings off the Island and/or future sensitive uses near ferry landings on the Island.
- Noise monitoring and data collection. At the identified locations, existing noise levels will be determined by performing 20-minute noise measurements (representative of one-hour equivalent continuous noise levels as per *CEQR Technical Manual* guidelines). The noise levels will be measured in units of "A" weighted decibels (dBA) as well as one-third octave bands. Noise monitoring will be performed during the time of expected peak weekday and weekend ferry service.
- Determine ferry noise emission levels. The level generated by existing ferry operations was determined as part of the ferry noise analysis in the 2013 FSGEIS and would be expected to remain unchanged.
- Determine future noise levels. Following procedures outlined in the *CEQR Technical Manual*, Future No Build and Build noise levels will be estimated at the noise receptor locations. Existing noise levels, measured noise levels associated with existing ferry operations, proposed future ferry schedules, and mathematical models based on acoustic fundamentals will be used to determine Future No Build and Future Build noise levels.
- Determine noise impacts. Noise impacts will be determined by comparing future project noise levels with future No Build noise levels following methodology in the *CEQR Technical Manual*.

BUILDING ATTENUATION ANALYSIS

If future noise levels at any project buildings calculated as part of the ferry service noise analysis would be greater than those expected based on the FGEIS noise analysis, such that more attenuation would be required to ensure acceptable interior $L_{10(1)}$ noise levels to comply with CEQR criteria, the building attenuation analysis would be updated to reflect the calculated future noise levels. Furthermore, at project buildings proximate to public school playground areas, the prescribed level of building attenuation will account for noise from use of the proposed playgrounds.

PUBLIC HEALTH

According to the *CEQR Technical Manual*, public health is the organized effort of society to protect and improve the health and well-being of the population through monitoring; assessment and surveillance; health promotion; prevention of disease, injury, disorder, disability and premature death; and reducing inequalities in health status. The Proposed Project's ferry

operations has the potential to result in localized effects on air quality and noise on sensitive areas, particularly waterfront residential areas. Therefore, a qualitative assessment will be prepared to consider the potential impacts of ferry operations on public health. If the qualitative assessment identifies significant adverse impacts on public health in any of these technical areas and the lead agency determines that a detailed public health assessment is warranted, a detailed analysis will be provided for the specific technical area or areas.

NEIGHBORHOOD CHARACTER

Neighborhood character is determined by a number of factors, such as land use, urban design, visual resources, historic resources, socioeconomic conditions, traffic, and noise. Methodologies outlined in the *CEQR Technical Manual* will be used to provide an assessment of neighborhood character. Work items for this task are as follows:

- Based on other technical analyses, describe the predominant factors that contribute to defining the character of the neighborhood surrounding the project site.
- Based on background development, planned public policy initiatives, and other public improvements, summarize changes that can be expected in the character of the area in the Future without the Proposed Project.
- Assess and summarize the Proposed Project's effects on neighborhood character using the analysis of impacts as presented in other pertinent analyses.

CONSTRUCTION

Construction impacts, though temporary, can have a disruptive and noticeable effect on the surrounding area. The 2011 FGEIS analyzed the potential construction impacts of the development of Phase 1 and the South Island Development Zones. However, because the activities at the South Island Development Zones had not yet been specifically proposed, defined, or designed at the time of the 2011 FGEIS, construction analyses for that component of the Proposed Project were deferred for future environmental review. This construction assessment will provide updated information on construction phasing and activities, a description of typical construction means and methods including the use of barges to support construction, and the assessment of potential construction impacts, including those on the Harbor School and its annex, that could result from the Proposed Project.

Technical areas to be analyzed include:

- **Transportation Systems.** This assessment will identify the increase in person and vehicle trips due to construction activities, identify potential routes for the construction workers and deliveries, and analyze potential temporary impacts to the transportation systems during the construction period. Based on the trip projections of activities associated with peak construction for the Proposed Project and those from project components that would have been completed and operational during peak construction, a Level-1 (Trip Generation) and where necessary a Level-2 (Trip Assignment) assessment will be provided to determine if the analysis thresholds will be exceeded. Construction worker parking will also be addressed. This section will also discuss the effect of construction activities on marine traffic in the New York Harbor.
- **Air Quality.** The construction air quality impact section will contain a detailed qualitative discussion of emissions from construction equipment, worker and delivery vehicles, as well as fugitive dust emissions. The analysis will qualitatively review the projected activity in the context of intensity, duration, and location of emissions relative to nearby sensitive locations

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and identify any project-specific control measures required to further reduce the effects of construction and to ensure that significant impacts on air quality do not occur.

- **Noise.** The construction noise impact section will contain a detailed qualitative discussion of noise from construction of the Proposed Project in the context of intensity, duration, and location of emissions relative to nearby sensitive locations and identify any project-specific control measures required to reduce construction noise. Appropriate recommendations will be made to comply with DEP Rules for Citywide Construction Noise Mitigation and the New York City Noise Control Code.
- **Natural Resources.** Determine whether the construction of the Proposed Project has the potential to result in impacts on terrestrial and aquatic natural resources and floodplains near the project site.
- **Other Technical Areas.** As appropriate, discuss other areas of environmental assessment for potential construction-related impacts.

ALTERNATIVES

The purpose of an alternatives analysis is to examine reasonable and feasible options that avoid or reduce project-related significant adverse impacts and achieve the stated goals and objectives of the Proposed Project. The EIS will include an analysis of the following alternatives:

- A No Action Alternative (without the proposed actions) will be required, which in this case assumes that the proposed actions are not implemented;
- An alternative that reduces any unmitigated significant adverse impacts; and
- Other possible alternatives that may be developed during the EIS preparation process.

MITIGATION

Where significant impacts have been identified in the analyses discussed above, measures will be described to mitigate those impacts. The EIS will include a chapter describing these mitigation measures.

SUMMARY CHAPTERS

Several summary chapters will be prepared, focusing on various aspects of the EIS, as set forth in the regulations and the *CEQR Technical Manual*. They are as follows:

1. *Executive Summary.* Once the EIS technical sections have been prepared, a concise executive summary will be drafted. The executive summary will utilize relevant material from the body of the EIS to describe the proposed project and actions, their environmental impacts, measures to mitigate those impacts, and alternatives to the proposed development and actions.
2. *Unavoidable Adverse Impacts.* Those impacts, if any, that could not be avoided and could not be practicably mitigated, will be listed in this chapter.
3. *Growth-Inducing Aspects of the Proposed Project.* This chapter will focus on whether the proposed project has the potential to induce new development within the surrounding area.
4. *Irreversible and Irrecoverable Commitments of Resources.* This chapter focuses on those resources, such as energy and construction materials, that would be irretrievably committed if the project is built. *