

**DRAFT SCOPE OF WORK FOR
GENERIC ENVIRONMENTAL IMPACT STATEMENT
FOR
THE PHASED REDEVELOPMENT OF GOVERNORS ISLAND**

A. PROJECT DESCRIPTION

INTRODUCTION

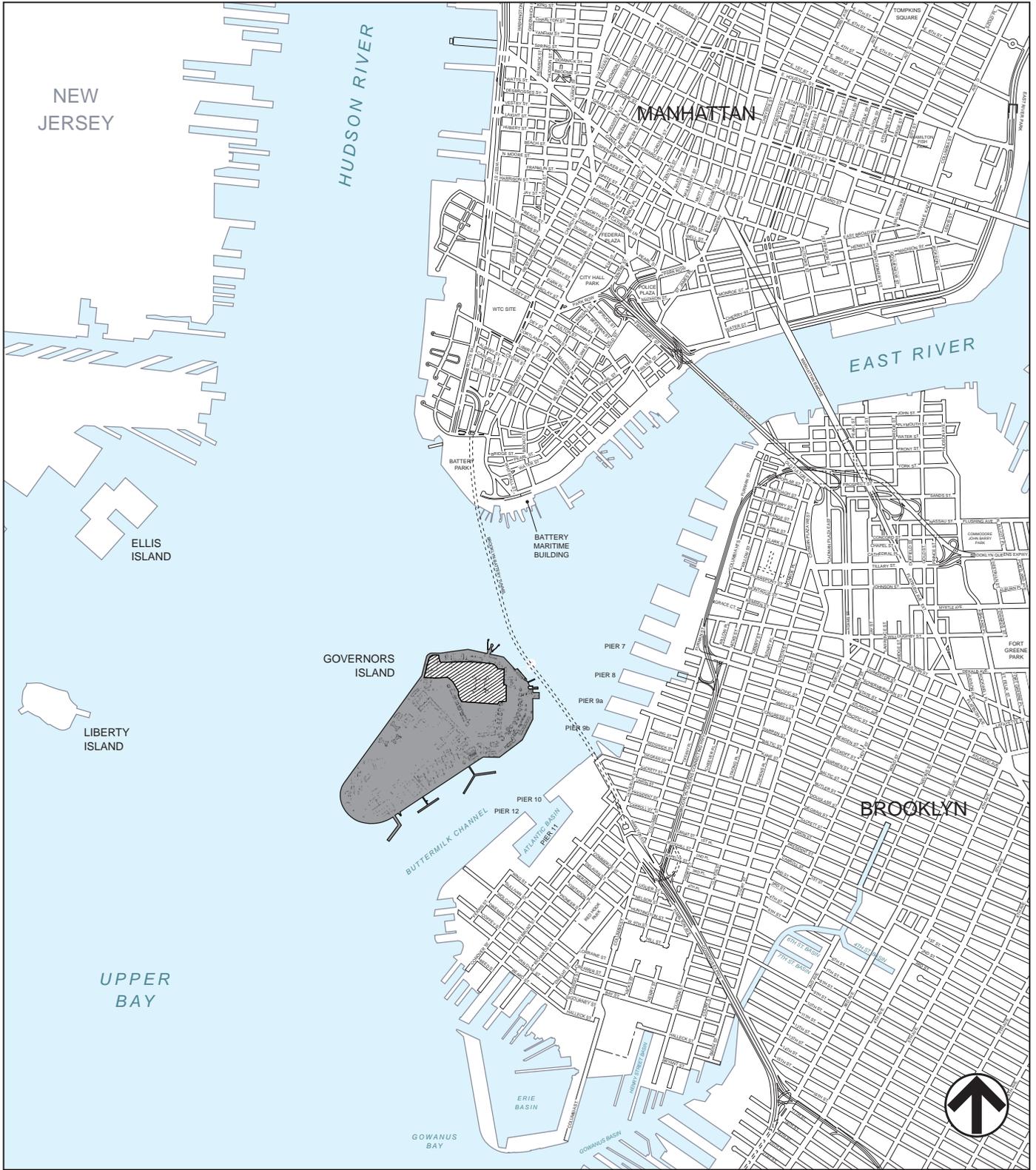
Governors Island Corporation, doing business as the Trust for Governors Island (the Trust), is a not-for-profit corporation and instrumentality of the City of New York. The Trust holds title to 150 acres of the 172-acre island (the Island) located in New York Harbor (see Figure 1). The remaining 22-acre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

BACKGROUND

To create the vibrant, mixed-use destination that is envisioned for the region, the Trust has undertaken a planning effort that would be executed over a number of years, with development and tenancy of the Island proceeding in multiple phases and depending upon financing. This redevelopment of the Island is a complex process and an overall plan for all requirements for the Island has not yet been adopted; therefore, not all the specifics of future development are known at this time. However, the initial phase will be park and open space development, with tenancies in historic buildings and new development occurring at a later date. To further the initial goal, a Park and Public Space Master Plan (the “Park Master Plan”) was developed that enumerates a set of principles, renderings, and text that depict the fundamental concepts for the design of the Island’s parks and public spaces. For the future, several scenarios were developed that could represent a reasonable range of new development that could occur in conformance with the current real estate use covenants. These include a primarily University/Research Option (URO) and a predominantly Mixed-Use Option (MUO), both of which would provide equivalent amounts of development.

Because of the phased nature of the Proposed Project, the initial discretionary action by the City is the approval of funding to begin construction of the first phase of the Park and Public Space Master Plan. While the Park and Public Space Master Plan envisions development of all the open space planned for the Island, the first phase will be limited to improvements to the Historic District including Soissons Landing, the South Battery, Liggett Terrace, and to approximately 22 acres of open space in the center of the South Island to create Hammock Grove and the Play Lawn. This phase would also include infrastructure improvements to bring potable water to the Island by constructing a 12-inch water main from Brooklyn to the Island.

The Island comprises a north section and a south section. The north section of the Island (referred to here as the North Island) is the area north of Division Road, which includes, and is co-terminus with, the Governors Island Historic District. The south section of the Island



-  Project Area
-  Governors Island National Monument

0 2000 FEET
SCALE

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(referred to here as the South Island) is the area south of Division Road, which includes landfill area with more modern buildings. The 150-acre Trust parcel includes all of the South Island as well as the portion of the North Island that is not owned by the National Park Service. The Trust also uses the slips at the Battery Maritime Building (BMB) in Lower Manhattan which is the major access point for ferries traveling to the Island.

The Trust has developed a Park and Public Space Master Plan for 87 acres of publicly accessible open space across its 150-acre parcel (see Figure 2). Plans for Phase 1 of the Park and Public Space Master Plan consist of a series of open space improvements expected to be complete by 2013. Future phases of the Park and Public Space Master Plan (referred to here as the Later Phases-Park and Public Spaces) would 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). The Park and Public Space Master Plan identifies the currently vacant North Island historic buildings (with a total of 1.35 million square feet) that would be retented; and development of new uses in two separate areas in the South Island totaling 33 acres (referred to here as the Later Phases – Island Redevelopment). Although an existing deed restriction provides specific limitations on potential new land uses on the Island (described in greater detail below), these restrictions only provide a broad outline for future development. The Trust does not have any definite schedule or plans (except for the design of the park and public space) for the full future development of the Island beyond Phase 1 of the Park and Public Space Master Plan.

Funding of Phase 1 and discretionary actions for the Proposed Project, which comprises the Park and Public Space Project and Island Redevelopment described above, are subject to City Environmental Quality Review (CEQR) and the New York State Environmental Quality Review Act (SEQRA) and will require the preparation of an Environmental Impact Statement (EIS). The proposed open space component beyond Phase 1 is largely designed. However, due to the long-term nature of the Park and Public Space Project, the schedule for completion for the remainder of the Proposed Project (including the open space component) and specific plans for the two development zones in the South Island are not yet known, the potential environmental impacts of the Proposed Project are being examined in a Generic Environmental Impact Statement (GEIS). The Office of the Deputy Mayor for Economic Development (ODMED) in the Office of the Mayor is the lead agency for the preparation of this GEIS, with the Trust for Governors Island as the applicant.

In accordance with SEQRA/CEQR, ODMED is initiating a process to define the scope of the Draft GEIS (DGEIS). As a first step in that process, the applicant has prepared this Draft Scope of Work for the DGEIS and made it available to agencies and the public for review and comment. A Final Scope of Work will be prepared after consideration of relevant public comments.

A public scoping meeting has been scheduled for Tuesday, April 5, 2011 to provide a forum for public comments on this Draft Scope of Work. The public meeting will be held at Spector Hall, 22 Reade Street, New York, New York 10007 at 6:00 P.M. Written comments on the Draft Scope of Work will be accepted until 5:00 P.M. on Friday, April 15, 2011.

BACKGROUND AND PLANNING HISTORY

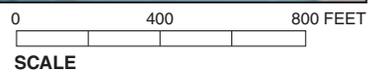
In 1997, after hundreds of years of British and American military use, the U.S. Coast Guard ceased operations on the Island, and all personnel were relocated. A 22-acre portion of the Island was designated a National Monument in 2001, and in 2003, the Federal government deeded the



GOVERNORS ISLAND	
Owned by the Trust for Governors Island	150 acres
Owned by The National Park Service (GI National Monument)	22 acres
Total	172 acres
PARK AND PUBLIC SPACE	
North Island (Historic District)	40 acres
South Island	47 acres
Total	87 acres
DEVELOPMENT ZONES	33 acres
HISTORIC DISTRICT BUILDINGS AND ROADS	30 acres



— National Monument Boundary (Owned by the National Park Service)
 - - - NYC LPC Designated Historic District



150-acre balance of the Island to the Governors Island Preservation and Education Corporation (GIPEC). In July of 2010, primary responsibility for the long-term development, funding and governance of Governors Island was transferred to New York City and is now under the direction of the Trust.

The Island is subject to deed restrictions 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. The most significant restriction 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.

Since 1996, there have been a number of ideas and overall studies for Governors Island proposing a wide range and mix of land uses: hotel and hospitality, gaming, retail, restaurant, recreational public park, university campus or other educational use, short-term or extended-stay residential, conference center, entertainment, family theme park, resort, marina, aquarium, concert venue, and cultural use. A public Request for Expressions of Interest in 2005 resulted in a similar range of ideas.

In 2006, GIPEC issued a Development Request for Proposals (RFP) for whole-island and component proposals. When developers and tenants from both commercial and not-for-profit sectors were given the opportunity to make real proposals, the resulting responses were vague, lacked financial viability, and/or were based on questionable market assumptions, and/or contained unrealistic public subsidy expectations. The RFP did yield a sound proposal from the Urban Assembly New York City Harbor School, a New York City public high school, which was subsequently selected, granted a lease and which began operation in June of 2010.

The development RFP process revealed that the future development of the Island requires the Trust to play an active master development role. Further, the Development RFP outcome demonstrated that potential developers expect infrastructure to be provided by the public sector before they will commit or build. Most significantly, both the number and nature of responses led to the conclusion that the public sector must address the open space, transportation and utility infrastructure needs of the Island in order to make the island appealing for future not for profit and commercial tenants.

Working in consultation with civic leaders and public officials, the Trust has articulated a multi-pronged strategy to bring Governors Island back to life. The four strategic imperatives are:

- I. Expanded public access and signature early uses;
- II. Early creation of a new world-class park and public spaces;
- III. Public investment in historic stabilization and Island infrastructure;
- IV. Public and private mixed-use development over a multi-year, multi-phase process.

While the overall state of the economy, financial markets, and local real estate markets since 2008 have seriously affected the Island's short term prospects, the Island's redevelopment will take place in many phases over an extended period of time. Early phases will be focused on public access and visibility, necessary infrastructure maintenance and upgrades and the creation of exceptional public space to heighten the Island's appeal for tenants, as all described above. The Trust's development focus is on successful operations of the new long-term tenant, the

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Harbor School, and the shorter term tenants. In addition to the Harbor School, the first uses in this phased, mixed-use strategy include the Lower Manhattan Cultural Council's artist studios and exhibit space, the Water Taxi Beach entertainment and food concession, and Bike and Roll, a bicycle rental concession.

While new opportunities for tenancy will be pursued aggressively, the focus will be on laying a long-term foundation for development, investigating alternative development strategies and increasing credibility as a development site through developing strategies for public investment and an anchor use (or uses).

PURPOSE AND NEED

The purpose and need for the Proposed Project is to bring Governors 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 great new public open space would not only be an important public benefit resource of its own, but would also catalyze Island redevelopment. The later phases of mixed-use redevelopment (existing and new buildings) would fulfill the Trust's mission while ensuring the Island's financial sustainability, and meeting the transfer deed requirements.

PROPOSED PROJECT

As discussed above, the Trust for Governors Island is planning a phased redevelopment of the entire project site which will include park and public space development, infrastructure development, tenancies in historic buildings, and new development.

As noted above, implementation of the Proposed Project would be phased. It is anticipated that Phase 1 construction would begin in late 2012 and be completed by the end of 2013. Although at this time there is no schedule for funding for any portion of the Later Phases, it is assumed for purposes of analysis that construction of the Later Phases would begin after 2013 and be ongoing to 2030 as funding is obtained for portions of the park and as the development zones are constructed.

PROJECT SITE

The project site comprises the 150 acres belonging to the Trust as well as the marine slips at the BMB operated by the Trust. Although not the site of redevelopment, there will be work at the Sackett Street site in Brooklyn to tie in the new water main serving the Island.

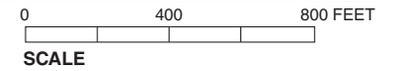
PHASE 1 (2013)

Phase 1 of the Proposed Project would involve the implementation of approximately \$78.5 million of park and public space enhancements, focusing on key locations. The Trust considered alternative sets of initial improvements and selected a Phase 1 plan that would improve the Historic District including Soissons Landing, the South Battery, Liggett Terrace, and approximately 22 acres of open space in the center of the South Island to create Hammock Grove and the Play Lawn. (see Figures 3-6).

Improvements at Soissons Landing where the majority of visitors arrive today would create a welcoming gateway, replace a portion of the pavement with lawn, add shade trees, and provide visitor information and a comfortable ferry waiting area. At the South Battery facing east, approximately 10,100 square feet of asphalt pavement would be replaced by lawn with trees.



— National Monument Boundary (Owned by the National Park Service)





a



b

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY



Parade Ground **a**



Liggett Terrace **b**

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY



Hammock Grove a



Play Lawn b

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

This would create a new resting place along the Great Promenade and provide new seating, shade, and amenities all in a location showcasing the historic fort.

The south-facing terrace of Liggett Hall would be improved to showcase the McKim, Mead and White building, remove the existing parking lot, create a lively outdoor public plaza, add flower beds, water features, and places for public art, kids to play, food and café tables and chairs.

In the Historic District, a portion of the lawn of the Parade Ground, owned by the Trust, would be smoothed and reseeded to facilitate a variety of activities from ball games to concerts. The landscapes throughout the Historic District including Nolan Park and Colonels Row also would be improved by adding new way-finding, accessible pathways, seating, furnishings, and lighting.

Hammock Grove (10 acres) has been designed to provide an area of filtered shade and light between the sunny Liggett Terrace and the open expanse of the Play Lawn. Its main features would be trees and hammocks that would be set among the trees. At 12 acres, the Play Lawn is the largest multipurpose lawn area and would contain two regulation-sized ballfields to support baseball, softball, soccer, and pick-up games.

In addition, Phase 1 would include construction of a 12-inch water main from Brooklyn to provide potable water to the Island. The water main would connect from a New York City Department of Environmental Protection vault on Sackett Street in Brooklyn under Buttermilk Channel to the existing island water infrastructure in the vicinity of Building 85 on the east side of the Island where the new main would connect with the existing water distribution system of the Island.

LATER PHASES (THROUGH 2030)

The Later Phases of the Proposed Project are expected to include the following (not necessarily in the order in which they might be implemented): (i) completion of the park and public spaces on the Island (referred to here as the Later Phases-Park and Public Spaces) (ii) reuse of more than 1.35 million square feet in existing North Island historic buildings, and (iii) development and construction of new buildings in the two future development zones on the South Island.

For analysis purposes, it is assumed that the building reuse on the North Island and new development on the South Island (referred to here as the Later Phases-Island Redevelopment) would collectively total three million square feet of development (roughly equivalent to the total square footage of development on the Island in the US Coast Guard era). The specific future uses for the Later Phases-Island Redevelopment have not yet been proposed, defined, or designed. However, for analysis purposes, it is assumed that new uses could include a variety of university, conference/hotel, office, accessory/service retail and restaurant, cultural, public school, and maintenance and support uses. The methodology for analysis of the Later Phases-Island Redevelopment in the GEIS is described below under Section B, “Framework for Environmental Review.”

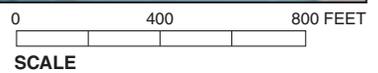
(i) Park and Public Spaces

The Later Phases-Park and Public Spaces would 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 include the creation of the Great Promenade at the perimeter of the Island, construction of Liberty Terrace including the Shell, Yankee Landing, the Hills, and the South Prow. (see Figures 7-10). The Later Phases-Park and Public Spaces would also include park maintenance facilities.



NOTE: It is expected that some or all of the existing historic structures on the North Island that are owned by the Trust (not National Park Service property) would be re-tenanted in the Later Phases-Island Redevelopment

— National Monument Boundary (Owned by the National Park Service)



Later Phases
(Later Phases-Park and Public Spaces; Later Phases-Island Redevelopment)
Figure 7



a



b



c

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY



The Shell a



Liberty Terrace b

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY



The Hills a



South Prow b

NOTE: FOR ILLUSTRATIVE PURPOSES ONLY

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The Great Promenade would provide a wide car-free path for strolling, biking, and boat watching with comfortable and plentiful seating and new paving, lighting, way-finding, and guardrails. Along the western edge of the Island, the Great Promenade would be divided into two levels: the lower for strolling and biking along the water's edge and the upper with trees and benches for visitors to enjoy the harbor views. The upper level would terminate on the viewing terrace roof of the Shell at Liberty Terrace. Liberty Terrace would be along the Great Promenade in a prime location to provide an ideal vantage point and viewing area for the Statue of Liberty and Ellis Island. It would have seating and shade, and the Shell itself, a structure integrated into the landscape, would provide protected outdoor seating and public restrooms nearby.

Improvements to Yankee Landing, which is also on the east side of the Island, would include appropriate structures to welcome future tenants and visitors from Brooklyn, Manhattan and other points using the ferry to Yankee Pier. Free bikes and sheltered ferry waiting would be provided at this location.

The Later Phases-Park and Public Spaces would also include park maintenance facilities. The open space development of the Later Phases-Park and Public Spaces would occur as funding becomes available, and one or more of these components may be developed at a time. While this new open space would serve users of the Proposed Project and also function as a destination open space for the surrounding region, the creation of the proposed park and public spaces is not dependent on the proposed development in the development zones described below.

(ii) North Island Historic Structures

More than 1.35 million square feet of potential redevelopment space is available in existing historic structures on the North Island. It is expected that some or all of this space would be re-tenanted in the Later Phases - Island Redevelopment stage of the Proposed Project, although the future uses have not yet been specifically determined or defined. As part of this proposed reuse, historic buildings—including Liggett Hall—would be carefully restored. The existing historic buildings associated with any previous housing-related and office-related uses are considered most conducive for future uses such as housing for students and faculty, as well as smaller classroom and office uses.

(iii) South Island Future Development Zones

Two future development zones totaling 33 acres have been delineated on the South Island. A development zone of 6.5 acres is located on the west side of the Island facing New York Harbor, and a 26.5-acre development zone faces Buttermilk Channel and Brooklyn.

Although the future uses in these two areas have not yet been specifically proposed, determined, or defined, potential uses on the Island are limited by deed restrictions. It is assumed that new buildings on the South Island could be designed to provide highly flexible academic (including dorms and faculty housing) and/or research institution space, lab space, or similar uses, and could become the academic and/or research institution heart of a university program or think tank. It is anticipated that a second major use could be a conference center/hotel with hotel rooms, meeting rooms, and recreation facilities. It is anticipated that Yankee Pier would be the point of access.

The remainder of the South Island development zones (as well as the North Island vacant historic buildings) are 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 Urban Assembly New York Harbor School now located in the Historic District.

PROPOSED ACTIONS

PHASE 1

In order to develop and construct Phase 1 of the Proposed Project, the City of New York is providing approximately \$78.5 million in funding to the Trust. This funding is a discretionary action subject to CEQR.

Other actions and approvals required for Phase 1 that are not subject to CEQR, include:

- Review of the project actions within the Governors Island Historic District per the guidelines of the *Governors Island Historic District Preservation and Design Manual*.
- New York City Department of Buildings (NYCDOB) building permit for public open space;
- New York City Department of Buildings (NYCDOB) review of construction within the 100-year flood plain;
- New York City Fire Department approvals for emergency and fire access and fire hydrants;
- State Pollutant Discharge Elimination System (SPDES) permits from the New York State Department Environmental Conservation (NYSDEC), for wastewater and/or stormwater discharge issues (subject to SEQRA);

LATER PHASES (LATER PHASES – PARK AND PUBLIC SPACES; LATER PHASES – ISLAND REDEVELOPMENT)

An existing deed restriction provides specific limitations on potential new land uses on the Island. It is anticipated that the future development proposed for the Later Phases-Island Redevelopment component would require rezoning all or portions of the Island. Any rezoning will be subject to CEQR, and the level of environmental review required will be determined at the time such actions are sought. Other potential future actions and approvals for the Later Phases, some of which are discretionary actions subject to CEQR, could include:

- Associated zoning approvals, including special permits, modifications, and/or authorizations (subject to CEQR);
- New York City Department of Buildings (NYCDOB) building permit for public open space;
- New York City Department of Buildings (NYCDOB) review of construction within the 100-year flood plain;
- New York City Department of Buildings (NYCDOB) building permits;
- New York City Fire Department approvals for emergency and fire access and fire hydrants;
- State Pollutant Discharge Elimination System (SPDES) permits from the New York State Department Environmental Conservation (NYSDEC), for wastewater and/or stormwater discharge issues (subject to SEQRA);
- Nationwide and/or other permits from the United States Army Corps of Engineers (USACE) for in-water work;

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- NYSDEC air permits or approvals related to potential future research/academic laboratory uses;
- Review of project actions within the Governors Island Historic District per the guidelines of the *Governors Island Historic District Preservation and Design Manual*; and
- Approval of capital funding (subject to CEQR).

B. FRAMEWORK FOR ENVIRONMENTAL REVIEW

SEQRA requires a lead agency to take a “hard look” at the 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.

GENERIC ENVIRONMENTAL IMPACT STATEMENT

A 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. The GEIS is useful when the details of a specific impact cannot be accurately identified, as no site-specific project has been proposed, but a broad set of further projects is likely to result from the agency’s action. The GEIS follows the same format as the EIS for a more specific project, but its content is necessarily broader.

Subsequent discretionary actions under the program studied in the GEIS may require further review under CEQR. According to 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 SEQR compliance.” Therefore, the GEIS will, where appropriate, discuss possible conditions under which further environmental review would be required (e.g., changes in the mix of uses or increases in the size of the development program). Often, the 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 reason for preparing a GEIS under the guidelines of SEQRA and CEQR is that the uses associated with the Later Phases for the North Island historic buildings and the two South Island development zones are not specifically proposed, defined, or designed and their operations have not yet been planned. Therefore, the studies contained in this GEIS for the Later Phases-Island Redevelopment component of the Proposed Project will necessarily be less detailed and will focus on identifying potential associated environmental concerns. To the extent required under CEQR/SEQRA, it is possible that further environmental review may be necessary when certain, as yet undefined components of the Later Phases are considered.

METHODOLOGY

The potential environmental impacts of the Proposed Project will be examined in two phases: 1) Phase 1 and 2) full development that includes Phase 1, Later Phases - Park and Public Spaces, and Later Phases – Island Redevelopment.

In the Future Without the Proposed Project (No Action scenario), Governors Island will continue to operate as it does today. Visitation is dependent on programming, weather, and the ability to access the Island. Public outreach and enhancements in recent years have already made Governors Island a highly visited summer weekend destination, and at peak times, ferries already operate at capacity. Visitorship is expected to continue to increase in the No Action scenario regardless of the proposed improvements.

Phase 1 of the Proposed Project will be examined in detail in the GEIS, with quantitative analyses as appropriate; however, because of the nature and scale of the proposed Phase 1 improvements, some analysis areas have been screened out in the EAS. The anticipated build year for this analysis is 2013, which corresponds to the completion of construction of Phase 1.

Phase 1 would entail improvements to many open space attractions that are currently available to Governors Island visitors. For example, the proposed project would improve the ferry arrival and departure area at Soissons Landing, rebuild and relocate existing ballfields, and provide visitor amenities throughout the existing Historic District already open to the public. Liggett Terrace would be improved but still provide the programs (food, art, childrens' play, sitting, biking, etc.) it does today. There are already a number of lawn areas available for use by the public and these would be further augmented in Phase 1.

Overall, the additional and improved open spaces planned for Phase 1, in and of themselves, are not expected to necessarily materially affect visitation to the Island. Several factors contribute to this expectation. First, the open space additions and improvements are consistent with the nature of existing Island uses and other amenities that Governors Island has added or improved upon in recent years. Governors Island, through ramped-up programming and public outreach, has achieved very high and rising levels of visitation in the past several years, contributing to a rising baseline of visitation that would be anticipated to continue without Phase 1 (the 'no action' scenario) or with Phase 1 open space improvements. Secondly, much of the open space improvements in the Historic District and South Island will affect areas already utilized by the public. Thirdly, experience has shown that visitation levels are directly affected by weather, the number of operating days and hours, ferry capacity and frequency, and programming – none of which are related to Phase 1 open space improvements. Lastly, it should be noted that at peak times, ferries already operate at capacity and increased ferry access is entirely dependent on the operating budget, which is not associated with the proposed Phase 1 improvements.

Full development of the Proposed Project is assumed for analysis purposes to be completed by 2030. The full development analysis will consider the full proposed Park and Public Spaces (including Phase 1 elements) as well as 3 million square feet of development including reuse of North Island historic structures and new buildings and uses in the development zones. Since the Later Phases would generate additional visits to the Island that would require changes in public access to the Island and would likely require new or increased transportation services and longer hours of operation, the full development analysis will account for these changes in population and access.

The Park and Public Spaces component of the Later Phases will be examined in detail in the GEIS with quantitative analyses as appropriate based on current design and construction plans.

As described above, for the purposes of this analysis, the reuse of North Island buildings and the development of the two South Island development zones would result in three million square feet of new uses on the Island. The future uses for the Later Phases-Island Redevelopment have not yet been specifically proposed, defined, or designed. Therefore, to assist in the analysis of

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this component of the Proposed Project, two potential development scenarios have been identified that represent a possible range of new development that could occur. The first is a primarily University/Research option and the second is a primarily Mixed-Use option. These options do not represent any existing plans or proposals for the island; rather, they are a generalized estimate 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 range of uses is presented below in Table 1.

The land uses identified in Table 1 would also have different population characteristics. For example, university housing uses would generate on-site residents whereas office uses would not. Other uses, including the park and open spaces, would generate workers and visitors that would access the island from the off-site ferry locations. Each chapter in the GEIS will identify a “reasonable worst-case development scenario” that could result in the worst environmental effect for that technical area. The reasonable worst-case development scenario will be based on the potential range of land uses and development presented in Table 1.

Since the potential uses for the Later Phases-Island Redevelopment component are not yet specified and their operations have not yet been planned, the analysis of the Later Phases-Island Redevelopment component will generally be less detailed than those provided for the Park and Public Spaces component. The analyses will focus on identifying potential environmental concerns associated with the potential uses identified in Table 1 to the extent required under CEQR/SEQRA; further environmental review may be necessary for as yet undefined components of the Later Phases.

Table 1:
Later Phases-Island Redevelopment Potential Development Scenarios (North Island Historic Structures and South Island Future Development Zones)

Uses	University/Research Option (sf)	Mixed-Use Option (sf)
University		
Research	400,000	0
Academic	450,000	0
Housing - Faculty Housing ¹ <i>(assumed as apartments, not dorms)</i>	200,000	1,650,000
Housing - Student Dorms ¹	850,000	450,000
Conference Center/Hotel	500,000	350,000
Office	175,000	60,000
Service Retail/Restaurant <i>(Not destination, accessory to other uses)</i>	75,000	75,000
Cultural <i>(Gallery, small museum)</i>	60,000	125,000
Public School (K-12)	150,000	150,000
Maintenance, Support, Other	140,000	140,000
TOTAL	3,000,000	3,000,000
Notes: Does not include Park and Public Spaces (For Phase 1 and Later Phases open spaces, see “Project Description” above). ¹ All academic housing: contemplated to be residential uses ancillary to educational uses on- and/or off-island.		

The analyses of both Phase 1 and full development will assume that in the future without the Proposed Project (No Build condition), no portion of the Proposed Project would be implemented and the Island would continue in its current use and configuration.

In general, the study area for the GEIS analyses will include the entire Island, including that portion of Governors Island owned by the National Park Service and not belonging to the Trust, and depending on the specific analysis, may also include the area within 400 feet of the ferry landing at Pier 6 in Brooklyn Bridge Park and the area within 400 feet of Pier 11 at the South Street Seaport.

C. SCOPE OF WORK

As described earlier, the GEIS for the Proposed Project 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 GEIS 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 GEIS document is the public scoping process. Scoping is the process of focusing the environmental impact analysis on the key issues that are to be studied in the GEIS. The proposed scope of work for each technical area to be analyzed in the Governors Island Park and Public Space Master Plan GEIS follows. The scope of work and the proposed impact assessment criteria below are based on the methodologies and guidance set forth in the 2010 *CEQR Technical Manual*.

TASK 1: PROJECT DESCRIPTION

As the first chapter of the GEIS, the Project Description will introduce the reader to the Proposed Project and set the context in which to assess impacts. The chapter will identify the Proposed Project (brief description and location of the Proposed Project) and provide the following:

- The background and/or history of the Proposed Project;
- A statement of the public purpose and need for the Proposed Project;
- Key planning considerations that have shaped the current proposal;

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- A detailed description of the Proposed Project, including a description of the development expected in Phase 1 and in the Later Phases; and
- A discussion of the approvals required, procedures to be followed, the role of the GEIS in the process, and its relationship to any other approvals.

TASK 2: ANALYTICAL FRAMEWORK

This chapter will discuss the framework for the analyses for the GEIS. It will identify the analysis years, describe No Build scenario, and explain how Phase 1 and the Later Phases of the Proposed Project will be assessed in the GEIS. It will describe how the GEIS will consider future uses for the North Island historic buildings and in the two South Island development zones in the reasonable worst-case development scenario. This chapter also will define the environmental setting expected in the No Build scenarios, including a discussion of development projects expected to be completed independent of the Proposed Project and any background growth assumed for the analyses.

TASK 3: 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 preliminary analysis of Phase 1 of the Proposed Project is provided in the EAS and concludes that Phase 1 would not result in any significant adverse impacts to land use, zoning, and public policy.

Full development of the Proposed Project would result in changes to land uses and may require future changes to zoning on Governors Island. Therefore, consistent with the guidelines of the 2010 *CEQR Technical Manual*, an assessment of potential impacts from full development of the Proposed Project on land use, zoning and public policy will be prepared for the GEIS.

The existing conditions section of this assessment will describe the existing uses, the existing R3-2 zoning and what it allows, and any inconsistencies between the two. The public policies that pertain to Governors Island or have led to the Proposed Project will also be discussed, including the City's Waterfront Revitalization Program and PlaNYC. Information sources will include field reconnaissance, the New York City Department of Buildings, and the New York City Department of City Planning.

For the Park and Public Spaces component, the analysis will consider in detail the development of the Island's open spaces. For the Later Phases-Island Redevelopment component, the analysis will describe the potential effects that could be associated with the future uses described in the reasonable worst-case development scenario. The limitations of existing zoning will be described, and the potential need for future actions such as rezoning, special permits or other potential land use approvals will be discussed. The reasonable worst-case development scenario will be considered in relation to the public policies for the Island.

The study area for the land use, zoning, and public policy analysis will comprise the Island itself; to the extent that off-Island ferry landings may be affected, a land use study of 400 feet around those sites will also be considered.

TASK 4: SOCIOECONOMIC CONDITIONS

According to the 2010 *CEQR Technical Manual*, a socioeconomic assessment should be conducted if a project may be reasonably expected to create socioeconomic changes within the area affected by the project that would not be expected to occur without the project. This chapter will examine the effects of the Proposed Project on socioeconomic conditions, including population characteristics, increase in economic activity, and the potential displacement of residents, businesses and employment. Following the guidelines of the 2010 *CEQR Technical Manual*, this analysis will address five principal issues of concern: (1) direct residential displacement, (2) direct business and institutional displacement, (3) indirect residential displacement, (4) indirect business and institutional displacement, and (5) adverse effects on specific industries. The analysis will begin with screening level assessments for the areas of concern, followed by preliminary and detailed assessments, as needed.

Neither the Phase 1 open space improvements nor the uses contemplated under the Later Phases of the Proposed Project would result in socioeconomic changes on Governor's Island itself, because of the absence of residential and commercial uses on the Island under existing and future No Build conditions. The Proposed Project would effectively create, rather than change, socioeconomic conditions on Governor's Island. The potential for project-generated socioeconomic change is therefore limited to off-island areas surrounding the ferry landings, where increased pedestrian and vehicular activities associated with project-generated trips could result in increased commercial activity.

As described above in Section B, "Framework for Environmental Review," Phase 1 is not anticipated to result in additional ferry service for access by the public or to materially affect overall visitation to the Island. Therefore, Phase 1 is not anticipated to affect any of the socioeconomic issues of concern. A screening level analysis of the five areas of concern has been provided in the EAS for Phase 1 concludes that Phase 1 would not result in any significant adverse impacts to socioeconomic conditions.

Full development of the Proposed Project with 87 acres of park and public space, 52 reutilized historic buildings in the North Island, and 33 acres of South Island development zones with new academic, hotel/conference center, office, and cultural uses would result in increased visitation to the park and would introduce a new population associated with the future uses in the South Island development zones and the reoccupation of North Island historic buildings.

The Proposed Project would not affect most of the socioeconomic issues of concern. The Proposed Project would not directly displace any residents or businesses. Furthermore, Governors Island is physically separated from other existing residential neighborhoods, and any new academic housing on the Island would not have the potential to affect rents in existing residential areas. The Proposed Project is also not expected to adversely affect conditions within a specific industry. A screening level analysis of four areas of concern—direct residential displacement, direct business and institutional displacement, indirect residential displacement, and adverse effects on specific industries—has been provided in the EAS and concludes that the Proposed Project would not result in any significant adverse impacts to these four areas of concern.

For the remaining area of concern—indirect business displacement—a preliminary assessment will be conducted in the GEIS to identify potential socioeconomic concerns associated with the uses envisioned for full development of the Proposed Project. Based on the reasonable worst-case development scenario, this analysis will assess the Proposed Projects' potential effects on

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the socioeconomic character of the study area, which is expected to include the Island and certain areas around the ferry landings.

Indirect Business Displacement

This analysis will be conducted to determine whether the Proposed Project could increase commercial property values, and thus rents, in the areas surrounding the ferry landings off Governors Island, making it difficult for businesses to remain in those areas. At these locations, the assessment will consider whether the increase in pedestrian and vehicular traffic generated by the Proposed Project could lead to changes in existing commercial property values.

The analysis will describe and characterize conditions and trends in employment and businesses within the 400-foot study areas, using the most recent available data from public and private sources such as New York State Department of Labor, the U.S. Census Bureau, and ESRI, as well as discussions with local real estate brokers as necessary. This information will be used in a preliminary assessment to consider:

- Whether the Proposed Project would introduce enough new economic activity to alter existing economic patterns;
- Whether the Proposed Project would add to the concentration of a particular sector of the local economy enough to alter or accelerate existing economic patterns;
- Whether the Proposed Project would directly displace uses of any type that directly support businesses in the area or bring people to the area that form a customer base for local businesses; and
- Whether the Proposed Project would directly or indirectly displace residents, workers, or visitors who form the customer base of existing businesses in the area.

The GEIS will disclose whether the Proposed Project could introduce trends that make it difficult for businesses that are essential to the local economy to remain in the area.

TASK 5: COMMUNITY FACILITIES AND SERVICES

The demand for community facilities and services is directly related to the type and size of the new population generated by any proposed development. New workers tend to create limited demands for community facilities and services, while new residents create more substantial and permanent demands.

As described above under Section B, “Framework for Environmental Review,” Phase 1 of the Proposed Project is not anticipated to add a new residential population to the Island or substantially increase the worker or visitor populations. A screening analysis for Phase 1 has been provided in the EAS and concluded that Phase 1 would not result in significant adverse impacts to community facilities.

With full development of the Proposed Project, it is possible that new residents (from academic housing), worker, and/or visitor populations would be added to the Island. It is expected that these new population(s) would increase the demands for certain community services, most notably police protection and fire protection and emergency services. According to the *CEQR Technical Manual*, the ability of the city to provide such services is continually assessed by the responsible agencies, and there is no need to provide a separate impact assessment unless a project would directly affect the operations of, or access to and from, a precinct or station house. Given the potential change in the Island’s uses and number of users between the No Build

condition and Proposed Project, however, a qualitative discussion of the police protection and fire protection and health care facilities serving the Island will be provided in the analysis of the full development of the Proposed Project. The analysis of the full development of the Proposed Project will also include analyses of public schools and public libraries. The following tasks will be undertaken:

- **Public Schools:** The analysis will identify public elementary and intermediate schools serving the project site and compile data on existing enrollment, capacity, available seats and utilization rates. Conditions in the future without the Proposed Project will be projected using School Construction Authority (SCA) enrollment projections, data on planned development projects in the study area, plans for changes in capacity, new programs, capital projects, and improvements. Future conditions with the Proposed Project will then be projected by adding students likely to be generated by the project, as well as the capacity provided by the new public school that could be developed as part of the proposed project, to the projections for the future without the action. Impacts will be based on the difference between conditions without and with the Proposed Project.
- **Public Libraries:** The number of faculty housing units could exceed the CEQR threshold for an analysis of public libraries. The analysis will identify the local public library branch(es) serving the area and describe the existing population served by the branch(es). Circulation, level of utilization, and other relevant existing conditions will be based on publicly available information and/or consultation with the New York Public Library (NYPL) administration. Conditions in the future without and with the Proposed Project will be projected based on the estimated population of nearby planned development projects and the Proposed Project as well as planned changes in library services or facilities.
- **Police Protection:** Increases in the need for police protection will be discussed qualitatively. Potential park security and security associated with any institutions to be developed will also be considered.
- **Fire Protection:** The location of the fire station serving the project site will be identified, and future conditions with the Proposed Project will be qualitatively described.
- **Health Care Facilities:** The location of hospitals and public health clinics serving the project site will be identified. This section will consider the need for provision of emergency or urgent care on the Island.
- **Child Care Facilities:** According to the *CEQR Technical Manual*, if a project creates 170 or more low/moderate income housing units in Manhattan, a detailed analysis of publicly funded child care facilities is required. Because the faculty housing units are not expected to include any low/moderate income units, it is anticipated that a screening analysis for child care facilities will suffice and that a detailed analysis will not be required.

TASK 6: 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 described above under B, "Framework for Environmental Review," Phase 1 of the Proposed Project would not introduce any residents, nor is it expected to introduce new employees or visitors exceeding the CEQR threshold of 500. Therefore, a screening analysis of Phase 1 has

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been provided in the EAS that concludes that Phase 1 would not result in significant adverse open space impacts.

Full development of the Proposed Project would exceed the CEQR thresholds, but also would complete the development of 32 acres of newly designed open space, 9 acres of which would be newly opened to the public. This new open space would likely be sufficient to serve users of the Proposed Project and also function as a destination open space for the surrounding region. New uses on the North Island and in the South Island development zones would change the nature of park usage and users as compared to the park development alone.

The GEIS analysis of full development will describe the proposed open spaces to be developed as part of the park plan and will take into consideration the potential users generated by the Proposed Project, the needs of different types of users for open space (for example, university students would have different open space needs than office workers), and the potential impacts of the users on the open space.

TASK 7: SHADOWS

The *CEQR Technical Manual* requires a shadow assessment for proposed actions that would result in new structures or additions to existing structures greater than 50 feet in height and/or adjacent to an existing sunlight-sensitive resource. Such resources include publicly-accessible open spaces, important natural features, or historic resources with sun-sensitive features. Under CEQR, an adverse shadow impact may occur if a project's shadow adversely affects the use and/or important landscaping and vegetation of a publicly-accessible open space or obscures details that make a historic resource significant. For these reasons, shadow analyses are coordinated with the open space and historic resources analyses.

A preliminary screening assessment was conducted for Phase 1 and is included in the EAS. Based on the lack of construction of any new structures in Phase 1, the EAS screening analysis concludes that Phase 1 would not result in significant adverse shadow impacts.

No structures for the South Island development zones have been designed or even contemplated at this time. Therefore, the shadows analysis for full development of the Proposed Project will identify and map sensitive receptors, including open spaces, historic structures, and important natural features, and describe the distance between these receptors and the development zones; identify the potential users; and describe the proposed vegetation and consider its potential sensitivity to increased shadows.

TASK 8: HISTORIC AND CULTURAL RESOURCES

Under CEQR, the analysis of historic and cultural resources must consider whether a project could have the potential to affect archaeological and/or architectural resources, either directly through construction activities, or more indirectly through alteration of the context or visual environment of the resources.

Governors Island's potential archaeological sensitivity and significant historic structures have already been well documented in previous planning studies, environmental impact studies, and designation reports for the historic district.

Given the Island's physical isolation, the areas to be considered for historic resources for the analysis of both Phase 1 and full development will be defined as the Island itself, any off-Island site(s) where structures (i.e., piers) would be renovated or newly developed for the project, and a

400-foot area around any such off-Island development site. The areas to be considered for archaeological resources for the Proposed Project will be any on-Island and off-Island site(s) where ground-disturbing activities may be required for project development.

For the archaeological resources assessment, the first step will be to define the portions of the Island and any off-Island site(s) where in-ground disturbance is likely to occur. For the Island itself, existing data will be compiled and synthesized from previous archaeological resources reports. For any off-Island sites where excavation is planned, the New York City Landmarks Preservation Commission (LPC) will be consulted for a determination of potential archaeological sensitivity. Based on its review, LPC will determine whether further archaeological evaluation is warranted. Should a Phase 1A Archaeological Assessment be requested of any off-island areas, the conclusions of the Phase 1A will be summarized in the GEIS.

For the architectural resources assessment, any designated architectural resources within the architectural resources study area will be identified and described. Consistent with the guidance of the 2010 *CEQR Technical Manual*, designated architectural resources include: New York City Landmarks (NYCLs), Interior 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. It is noted that while there are many historic structures in the historic districts on the Island, there are a number of modern structures mostly outside the historic districts.

For any off-Island site(s), an architectural historian will survey the site and study area to identify any properties that appear to meet criteria for NYCL designation or listing on the State and/or National Registers. A list of the structures that are identified as potential architectural resources will be prepared and submitted to LPC for review. Any properties determined by LPC to be eligible for NYCL designation and/or listing on the Registers will be added to the list of architectural resources to be assessed for potential impacts. A map indicating the location of all designated and potential architectural resources within the project site(s) and study area(s) will be prepared.

The potential effects of the Proposed Project on archaeological and architectural resources will be assessed, including visual and contextual changes as well as any direct physical impacts. Potential effects will be evaluated through a comparison of the future with and without the Proposed Project. If the Proposed Project would result in any significant adverse impacts, mitigation measures for such impacts will be identified, in coordination with LPC.

Consideration of the potential effects of the Park and Public Spaces (of Phase 1 and the Later Phases) will be described based on the design and construction plans that have been developed; the potential effects of the Island Redevelopment component will be based on the reasonable worst-case development scenario since these future uses are not yet specifically defined or designed and their operations have not yet been planned. As necessary, coordination with LPC will be undertaken to lay out any necessary processes and/or conditions for future, post-EIS treatment of any archaeological or architectural resources that could be affected by the project.

TASK 9: 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, wind, and sunlight. 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.

The GEIS will assess how the Proposed Project would change the island's urban design and visual character. In addition, the GEIS will assess the degree to which the Proposed Project would change or restrict significant views of the island that are currently available to and from Lower Manhattan, Brooklyn, and other locations.

Following the guidelines of the 2010 *CEQR, Technical Manual*, a preliminary assessment of urban design and visual resources will first be prepared for both Phase 1 and full development of the Proposed Project. The preliminary assessment will 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 preliminary assessment of urban design and visual resources would be consistent with that of the study area for the analysis of land use, zoning, and public policy. For visual resources, the study area would be extended to consider publicly-accessible views from the southern tip of Battery Park and the East River waterfront esplanade in Manhattan, the Staten Island Ferry, and publicly-accessible portions of the Brooklyn waterfront in Red Hook and the Columbia Street District, such as the Louis J. Valentino Jr. Park and Pier. Consideration of the potential effects of the Park and Public Spaces component will be more detailed to the extent that design and construction plans have been developed; the potential effects of the Later Phases-Island Redevelopment component will be based on the reasonable worst-case development scenario.

A detailed analysis will be prepared if warranted based on the preliminary assessment. Based on field visits and a review of the information available regarding the Proposed Project, the detailed analysis will describe the urban design and visual resources of the project site and study area. The analysis will describe the potential changes that could occur to urban design and visual resources based on a comparison of conditions with and without the Proposed Project, focusing on the changes that could negatively affect a pedestrian's experience of the area. If necessary, mitigation measures to avoid or reduce potential significant impacts will be identified.

The 2010 *CEQR Technical Manual* recommends an analysis of pedestrian wind conditions for projects that result in the construction of large buildings at locations that experience high wind conditions (such as along the waterfront, or other location where winds from the waterfront are not attenuated by buildings or natural features), which may result in an exacerbation of wind conditions due to "channelization" or "downwash" effects that may affect pedestrian safety. Phase 1 of the Proposed Project would involve open space improvements at various locations on Governor's Island—it would not involve the construction of any large buildings. Therefore, a pedestrian wind analysis is not warranted for Phase 1. When the Later Phases have been fully defined, including proposed building design, location, height, and orientation, a wind pedestrian wind analysis may be undertaken as part of the future environmental review.

TASK 10: NATURAL RESOURCES

A natural resources assessment is conducted when such resources are present on or near a project site, and when an action involves disturbance to natural resources. The 2010 *CEQR Technical Manual* defines natural resources as “(1) the City’s biodiversity (plants, wildlife and other organisms); (2) any aquatic or terrestrial areas capable of providing suitable habitat to sustain the life processes of plants, wildlife, and other organisms; and (3) any areas capable of functioning in support of the ecological systems that maintain the City's environmental stability.”

As described above, the project site is 150 acres of the 172-acre Island, located within Upper New York Harbor. While the completely armored shoreline of the Island eliminates the potential for vegetated tidal wetlands, the near-shore water depths around the Island’s perimeter and extending out from portions of the northwestern and southern shoreline may be less than or equal to 6 feet at Mean Low Water, resulting in these areas being considered NYSDEC littoral zone tidal wetlands. Under NYSDEC regulations, littoral zone wetlands refer to any tidal waters less than six feet in depth at Mean Low Water. The site’s terrestrial habitat has been developed with residential, institutional, and other structures and landscaped areas that include lawns maintained for recreation and substantial areas of trees along paved paths and roadways.

The GEIS will describe the existing natural and water resources on Governors Island (e.g., floodplains, wetlands, water quality, and aquatic and terrestrial habitats and biota including rare, special concern, threatened and endangered species and special habitat areas) and on the Brooklyn shoreline within the area of disturbance for the construction of a new 12-inch potable water main for the Island, at a level of detail appropriate to the Proposed Project, and the use of horizontal directional drilling (HDD) or microtunneling for the construction of the new potable water main to the Island. This description of existing natural and water resources will be developed on the basis of existing information known from literature sources and other information obtained from governmental and non-governmental agencies combined with site reconnaissance visits, with emphasis on the potential areas of disturbance. The natural resources and water quality analyses will assess the potential for the construction and operation of the Proposed Project, including the construction of the new potable water main, to impact these natural resources and water quality of the Upper New York Harbor. Natural resources impacts to be discussed could include direct or indirect impacts on aquatic resources or water quality due to construction of the new potable water main, additional stormwater input and in-water work (if any), direct or indirect impacts on terrestrial resources of the Island due to removal or enhancement of existing vegetated areas, increased levels of human activity, ferry operations, and other impacts.

The natural resources analysis will:

- Identify natural resources of concern to the Trust, state, federal and city agencies, and relevant stakeholders on the Island and within the area of disturbance on the Brooklyn shoreline for the construction of the new potable water main.
- Identify the regulatory programs that protect floodplains, wildlife, threatened or endangered species, aquatic resources, or other natural resources within the project site.
- Using existing information available from sources such as the published literature, New York-New Jersey Harbor Estuary Program (HEP), NYSDEC, the New York City Department of Environmental Protection (NYCDEP), the United States Environmental Protection Agency (USEPA), and the National Oceanic and Atmospheric Administration

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(NOAA), summarize the existing water quality of the Upper New York Harbor within the vicinity of the project sites at a level of detail appropriate to the Proposed Project.

- Use existing information available from published literature and sources such as NOAA-National Marine Fisheries Service (NMFS) Essential Fish Habitat (EFH) guidance documents; New York Natural Heritage Program on-line resources; existing NYSDEC datasets (e.g., Breeding Bird Atlas data, Herp Atlas Project, etc.); New York City Department of Parks and Recreation – Natural Resources Group data; National Park Service natural resources data; information on state and federally listed species from NYSDEC and the United States Fish and Wildlife Service (USFWS); and other resources and the results of site reconnaissance conducted in summer/fall to qualitatively describe aquatic and terrestrial habitats and biota present at the project site on the Island and on the Brooklyn shoreline within the areas of disturbance for the construction of the new potable water main, at a level of detail appropriate to the Proposed Project. The description of existing aquatic resources will be developed under the assumption of limited in-water construction activities, and the use of HDD or microtunneling for the construction of the new potable water main for the Island, within two alternative alignments.
- Assess the future conditions for water quality and natural resources within the vicinity of the project site without the Proposed Project. This assessment will take into account future improvements to water quality from ongoing regional and New York City projects in the 2013 analysis year for Phase 1, and through 2030 for full development of the Proposed Project.
- Based on the results of the infrastructure analysis (described under Task 12, below) qualitatively assess the potential effects of the Proposed Project on future water quality of the Upper New York Harbor. This analysis will consider the potential short- and long-term effects of possible stormwater discharges to the Upper New York Harbor during construction and operation of the Proposed Project, including the construction of the new potable water main, the potential need for new stormwater outfalls, and the potential for water quality impacts associated with increased discharge of sanitary wastewater from the Proposed Project. Assess the potential impacts to the projected future floodplain resources, taking into consideration projections of sea level rise generated by the New York City Panel on Climate Change (NPCC), and to aquatic and terrestrial resources, from the Proposed Project, including beneficial improvements associated with the development of new open space areas and landscaping as well as potential impacts to wildlife due to increased human activity (e.g., increased human presence, noise, and nighttime lighting) and to aquatic resources from any potential increased ferry operations.
- Identify the measures that would be developed, as necessary, to mitigate and/or reduce any of the Proposed Project’s potential significant adverse effects on water quality, natural resources, and floodplains.

TASK 11: HAZARDOUS MATERIALS

The objective of the hazardous materials assessment is to determine whether the project site may have been adversely affected by current or historical uses. Governors Island has been expanded through extensive landfilling. Fill materials may include historical material from the excavations for the Lexington Avenue subway line, ash or other waste materials from industrial processes, and demolition debris. There is information available regarding petroleum storage tank removal activities and past locations where hazardous materials may have been used. Also, since Governors Island was an active military base for over 200 years, it is possible to encounter

unexploded ordnance (note that there are a set of precautions currently undertaken during intrusive activities).

The Proposed Project has the potential to result in significant hazardous materials impacts as it could result in:

- New development in currently unused areas requiring construction activities (e.g., excavation or grading) that would disturb the soil, especially during the Later Phases, potentially releasing contaminated dust/fumes or encountering unexploded ordnance.
- Contamination (where contaminants are volatile, e.g., gasoline or solvents) migrating into new facilities or structures constructed as part of the Later Phases.
- New activities, more likely as part of the Later Phases, which could require the storage/use of hazardous materials.

The hazardous materials assessment will evaluate existing conditions sitewide and at a more local level based on the findings of a new Phase I Environmental Site Assessment (ESA) Report which will be prepared in accordance with ASTM E1527-05. This will incorporate the findings of previous ESAs and other prior subsurface, lead-based paint and asbestos investigations.

The ESA will include the following:

- A documentary search to determine previous uses on the site and in adjacent areas. Available historical maps, aerial photographs, and atlases will be reviewed.
- Visual inspection of the property for evidence of potential site contamination, such as visible spills and stains, dumped materials, the presence of drums or other containers of hazardous materials, and evidence of undocumented tanks, such as fill caps and vent pipes.
- Information on subsurface conditions from the U.S. Geological Survey and previous studies.
- Records maintained by the USEPA and NYSDEC on properties of environmental concern on the Island will be reviewed, including records of known or suspected hazardous waste disposal sites, hazardous waste generators or treatment facilities, hazardous substance releases, and chemical and petroleum storage facilities.
- Summary of the results of available prior soil and groundwater testing.

The hazardous materials assessment in the GEIS will assess potential impacts on human health and the environment both during and after construction of Phase 1 and the Later Phases. The analysis will also include a summary of the results of sampling currently being undertaken for the New York City Economic Development Corporation (EDC). As appropriate, the chapter will describe measures (potentially including additional testing and/or implementation of appropriate remedial procedures and safety measures) to avoid significant adverse impacts.

TASK 12: WATER AND SEWER INFRASTRUCTURE

Under CEQR, an analysis of water and sewer infrastructure assesses whether a Proposed Project may adversely affect the City's water distribution or sewer system. The 2010 *CEQR Technical Manual* outlines thresholds for analysis of a project's water demand and its generation of wastewater and stormwater. According to these thresholds, a preliminary analysis of a project's effects on the water supply system would be warranted if a project would result in an exceptionally large demand for water (e.g., those that would use more than 1 million gallons per day [gpd]) or would be located in an area that experiences low water pressure (e.g., Rockaway

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Peninsula or Coney Island). A preliminary analysis of a project's effects on wastewater or stormwater infrastructure is warranted depending on a project's proposed density, its location, and its potential to increase impervious surfaces.

Phase 1 of the Proposed Project would not exceed the thresholds for analyses of water supply or wastewater and stormwater infrastructure. The usage during this phase has been disclosed in a screening analysis in the EAS, which concludes that Phase 1 would not result in significant adverse impacts to water supply and wastewater and stormwater infrastructure.

For full development, the analysis will be based on completion of the proposed open space improvements and the reasonable worst-case development scenario. Although no specific development program or site plan has been proposed for the Island Redevelopment, estimates of water usage, sanitary flows, and stormwater flows will be identified based on the reasonable worst-case development scenario and the current design for the park and public open spaces. Thus, the GEIS will consider the potential impacts of full development on water supply and wastewater and stormwater infrastructure. The following tasks will be undertaken:

WATER SUPPLY

- Describe conditions in the future without the Proposed Project. Any changes to the Island's water supply system expected in the future without the Proposed Project will be described.
- Describe the installation of a water main connection from Brooklyn to provide potable water to the Island as part of Phase 1.
- Discuss the potential for full development of the Proposed Project to result in an increase in water usage on the Island. The analysis will describe the relative water demand of potential uses based on the rates presented in Table 13-2 of the *CEQR Technical Manual*.

WASTEWATER AND STORMWATER INFRASTRUCTURE

- Describe existing conditions. The existing stormwater drainage system and surfaces (pervious or impervious) within Governors Island will be described, and the amount of stormwater generated on the Island will be estimated. The existing sewer system serving the Island will also be described based on records obtained from NYCDEP and the Trust. The existing flows to the wastewater treatment plant (WWTP) that serves the island (the Red Hook WWTP) will be obtained for the latest 12-month period, and the average dry weather monthly flow will be presented. Existing capacity information for pump stations, regulators, etc. within the affected drainage area will be presented.
- Describe conditions in the future without the Proposed Project. Any changes to the Island'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.
- Assess the potential for impacts from the Proposed Project. This section will begin with a screening analysis to determine whether the Later Phases would have the potential to result in adverse effects on wastewater or stormwater infrastructure. This section will use the existing sewer system capacity information to determine the potential increases in sanitary flows that could be accommodated by the existing infrastructure. For stormwater flows, the analysis will discuss the potential for the Later Phases to result in changes to the Island's surface area (pervious or impervious), and runoff coefficients for each surface type/area will be presented.

TASK 13: SOLID WASTE AND SANITATION SERVICES

Under CEQR, an analysis of solid waste and sanitation services assesses whether a Proposed Project has the potential to cause a substantial increase in solid waste production that may overburden available waste management capacity or be inconsistent with the City's Solid Waste Management Plan or with other state policy related to the City's integrated solid waste management system.

Phase 1 of the Proposed Project would not exceed the thresholds for analysis of solid waste and sanitation services. The amount of solid waste generated during this phase is disclosed in a screening analysis in the EAS and concluded that Phase 1 would not result in significant adverse impacts to solid waste and sanitation services.

Full development of the Proposed Project would introduce new development that would require sanitation services. Estimates of solid waste generation would be based on the reasonable worst-case development scenario and the proposed open space improvements. The following tasks will be undertaken:

- Describe existing and future New York City solid waste disposal practices;
- Estimate solid waste generation under existing conditions and in the future No Build condition;
- Disclose the potential for additional solid waste generation and discuss the solid waste management practices that would apply to the collection and disposal of the Island's solid waste. The Proposed Project's consistency with the City's Solid Waste Management Plan will also be assessed.

TASK 14: ENERGY

According to the *CEQR Technical Manual*, because all new structures requiring heating and cooling are subject to the New York State Energy Conservation Code, which reflects State and City energy policy, actions resulting in new construction would not create significant energy impacts, and as such would not require a detailed energy assessment. For CEQR purposes, an energy impact analysis focuses on an action's consumption of energy. Therefore, the potential energy demand of Phase 1 has been disclosed in the EAS, and the GEIS will provide a screening analysis disclosing the potential energy demand resulting from full development of the Proposed Project.

TASK 15: TRANSPORTATION

The *CEQR Technical Manual* states that if a Proposed Project is expected to generate fewer than 50 peak hour vehicle trips at an intersection, 200 peak hour subway, bus, or railroad riders on a transit facility, and 200 peak hour person trips on a pedestrian element, it is unlikely to result in significant adverse impacts and further analyses would not be warranted. As described above under Section B, "Framework for Environmental Review," the additional and improved open spaces planned for Phase 1 (2013), in and of themselves, are not expected to necessarily materially affect overall visitation. Several factors contribute to this expectation. First, the open space additions and improvements are consistent with the nature of existing Island uses and other amenities that Governors Island has added or improved upon in recent years. Governors Island, through ramped-up programming and public outreach, has achieved very high and rising levels of visitation in the past several years, contributing to a rising baseline of visitation that would be anticipated to continue without Phase 1 (the 'no action' scenario) or with Phase 1 open

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space improvements. Secondly, much of the open space improvements in the Historic District and South Island will affect areas already utilized by the public. Thirdly, experience has shown that visitation levels are directly affected by weather, the number of operating days and hours, ferry capacity and frequency, and programming – none of which are related to Phase 1 open space improvements. Lastly, it should be noted that at peak times, ferries already operate at capacity and increased ferry access is entirely dependent on the operating budget, which is not associated with the proposed Phase 1 improvements. Therefore, a screening level analysis of Phase 1 has been provided in the EAS and concluded that Phase 1 would not result in significant adverse impacts to transportation.

In the Later Phases of the Proposed Project (2030), however, there would be prominent park improvements, new park uses, and specific uses that do not currently exist on Governors Island. These uses are expected to result in changes in transportation operations and the attraction of new trips to the Island. The tasks outlined below describe how transportation-related issues will be addressed in this GEIS:

TRAVEL DEMAND AND SCREENING ASSESSMENTS

- Conduct travel surveys. Currently, Governors Island is open to the public only during the summer months (early June to mid-October) on Friday, Saturday, and Sunday, with ferry service available at the BMB in Lower Manhattan and at Pier 6 in Brooklyn Bridge Park. Additional service from Pier 11 in Lower Manhattan is at times provided to accommodate large weekend events on the Island. Travel surveys during the summer of 2010 were conducted at the BMB and at Pier 6 in Brooklyn Bridge Park to gather representative existing weekday and weekend travel characteristics of patrons visiting Governors Island. These surveys involved performing control counts of patrons arriving and departing these ferry terminals and interviewing a reasonable sample size of random patrons on their trip origin, mode of travel, group size, trip purpose (i.e., general recreation, bike riding, taxi beach, event, combination thereof), and trip linkage, etc. The results of these surveys will be used to develop trip-making assumptions for some of the Proposed Project's development components.
- Prepare travel demand estimates for the proposed development components based on trip-making assumptions from the *CEQR Technical Manual*, standard references, established reports, and trip-making and travel demand assumptions provided by the Trust and via the above travel surveys. As stated above, the programming of the Phase 1 development is not expected to necessarily materially affect overall visitation to the Island. However, the Later Phases (Parks and Public Spaces and Island Redevelopment) would generate additional visits during times which the Island is open to the public currently and require changes in access to the Island during other times. These changes would require new or increased transportation services and longer hours of operation. The potential trip-making of the Later Phases will be estimated separately for the Parks and Public Spaces and for the reasonable worst-case development scenario for Island Redevelopment, based on off-island portal trip patterns (i.e., at the BMB in Lower Manhattan, Pier 6 in Brooklyn Bridge Park, and other possible ferry landings) and described quantitatively to the extent practicable. At the present time, there are no definitive plans to construct any other new ferry landings. Hence, it is assumed that public access to the Island would continue to be provided solely at the BMB in Lower Manhattan and at Pier 6 at the foot of the Brooklyn Bridge Park in Brooklyn.

- Perform transportation screening analyses and determine detailed analysis needs. Based on the above travel demand estimates, it is expected that the need for detailed transportation analyses would not be required for the 2013 Phase 1 open space improvements. Because full development of the Proposed Project would generate additional trips on days and times of year when the Island is currently open to the public and new trips year round on other days, detailed transportation analyses will be performed to the extent practicable for portal access locations where there is a potential for significant adverse transportation-related impacts. It is expected that these analyses will detail the potential impacts from the opening of the Later Phases-Park and Public Spaces, combined with the Phase 1 open space improvements, for a future build year 2030. The results of the travel demand estimates will be summarized in a Travel Demand Factors memo. For traffic, a detailed vehicle trip assignment will be prepared to determine the appropriate intersections for analysis of potential traffic impacts. The trip estimates also will identify the numbers of peak hour person trips made by transit and the numbers of pedestrian trips traversing the portal locations' sidewalks, corner reservoirs, and crosswalks. As recommended by the *CEQR Technical Manual*, the appropriate transit and pedestrian elements will be selected for analysis. Based on the results of the above analyses and trip estimates and as described at the end of this section, potential impacts from additional trips associated with the Later Phases-Island Redevelopment will be assessed qualitatively.
- Prepare travel demand estimates for No Build projects. For the detailed analyses of various transportation elements, the projection of future traffic, transit, and pedestrian volume levels will incorporate trips from known No Build projects near the portal locations. The projection of these trips will be based on the approved set of travel demand factors and other appropriate references.

TRAFFIC

- Define the study areas for the Later Phases. The traffic study areas will include intersections surrounding the two portals in Lower Manhattan and Brooklyn. The selection of analysis locations will be based on the detailed assignments of projected vehicle trips associated with the combined Phase 1 and Later Phases-Park and Public Spaces. Since the Island is currently open to the public only during the summer (June to October) Fridays, Saturdays, and Sundays, any incremental impacts from the completion of all proposed park uses (Phase 1 and Later Phases-Park and Public Spaces) and changes in transportation services would be assessed most conservatively for the typical spring or fall seasons on a weekday when there is currently no or minimal travel to the Island. Detailed traffic analyses will be undertaken for the weekday AM, midday, and PM peak hours at up to 6 intersections near the BMB portal and at up to 8 intersections near the Pier 6 portal.
- Perform traffic data collection. Traffic volumes and relevant data at the study area intersections will be collected as per *CEQR Technical Manual* guidelines via a combination of manual and machine counts. Information pertaining to street widths, traffic flow directions, lane markings, parking regulations, 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 the New York City Department of Transportation (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

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the *2000 Highway Capacity Manual (HCM)* methodology with the latest approved *Highway Capacity Software (HCS)*. The existing volume-to-capacity (v/c) ratios, delays, and levels of service (LOS) for the weekday AM, midday, and PM peak hours will be determined.

- Develop the future baseline and Build conditions and analyze study area intersections. Future baseline traffic volumes will be estimated by adding a background growth, in accordance with *CEQR Technical Manual* guidelines, to existing traffic volumes, and incorporating incremental changes in traffic resulting from other projects in the area. Physical and operational changes that are expected to be implemented independent of the Proposed Project also will be incorporated into the future traffic analysis network. For the weekday peak hour analyses, representative trip-making for the park uses currently experienced for the summer Fridays will be used as the basis for layering the recreational trips that could also occur on other weekdays once expanded daily access to the Island becomes available. These recreational trips will be the subject of the weekday impact assessment. Analysis results of the study area intersections will be evaluated to identify potential significant adverse traffic impacts. Where these impacts are identified, feasible 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 to mitigate the traffic impacts.

PARKING

- Analyze current and future parking conditions. A parking survey will be performed to gather curbside regulations and record off-street parking supply and utilization within ¼-mile of the two off-island portals. Future parking demand projections will be compared to the available supply to determine whether project-generated demand could be accommodated and if there is a potential for a parking shortfall.

TRANSIT

- Conduct transit analyses. The BMB portal is served by the No. 1, 4, 5, and R subway lines and the M5, M15, and M20 bus routes, whereas, the Pier 6 portal is served by the B61 and B63 bus routes, both connecting to various subway stations in downtown Brooklyn. A transit trip assignment of the projected demand will be performed for the weekday AM and PM peak commuter hours to determine if and what transit elements would warrant a detailed analysis. For the BMB portal, it is expected that a detailed analysis will be required for key elements of the Whitehall (R train) and South Ferry (No. 1 train) stations, and potentially one or more of the three nearby bus routes. For the Pier 6 portal, it is likely that subway trips would be adequately dispersed to the numerous downtown Brooklyn subway stations, such that a detailed analysis of these stations would not be warranted. However, the two connecting bus routes, B61 and B63, will need to be analyzed in detail. Existing data will be collected at the affected subway station stairways and control area elements, and along the analyzed bus routes. The analysis of existing, No Build, and Build weekday AM and PM peak hour conditions will be conducted following the procedure outlined in the *CEQR Technical Manual*. Where appropriate, feasible mitigation measures will be explored to alleviate any potential significant adverse transit impacts.

PEDESTRIANS

- Conduct pedestrian analyses. A pedestrian trip assignment will be performed for the weekday AM, midday, and PM peak hours to determine the pedestrian elements that would warrant a detailed analysis. For the two portal locations, it is assumed that a detailed analysis will be prepared for up to 4 intersections (corner reservoirs and crosswalks) and their adjoining sidewalks for the weekday AM, midday, and PM peak periods. This analysis will include quantitative studies of the existing, No Build, and Build conditions following the procedure outlined in the *CEQR Technical Manual*. Where appropriate, feasible mitigation measures will be explored to alleviate any potential significant adverse pedestrian impacts.

VEHICULAR AND PEDESTRIAN SAFETY

- Examine vehicular and pedestrian safety issues. Accident data for the traffic study area intersections and other nearby sensitive locations from the most recent three-year period will be obtained from the New York State Department of Transportation. These data will be analyzed to determine if any of the studied locations may be classified per 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 at the study area locations. If high accident locations are identified, feasible mitigation or improvement measures would be recommended to alleviate potential safety impacts.

ASSESSMENT OF POTENTIAL NEW FERRY LANDINGS

- Although there are no current plans to provide additional access to Governors Island at other off-island ferry landings, it is possible that as the Proposed Project evolves over time, proposals or concepts of potential off-island locations may be developed to supplement the current service provided at the BMB and Pier 6. Where appropriate, a qualitative discussion of the potential impacts and dispersion of projected trips to these other landing locations will be included.

LATER PHASES-ISLAND REDEVELOPMENT COMPONENT

- Assess the cumulative potential transportation-related impacts of the Later Phases-Island Redevelopment component for the above subject areas qualitatively and/or semi-quantitatively. Since the components and programming of the Later Phases-Island Redevelopment have not been defined at this time, a reasonable worst-case development scenario will be used to prepare the trip estimates described above. These trips will be assigned to the transportation network for the weekday AM, midday, and PM peak hours in a similar manner as would be done for the Later Phases-Park and Public Spaces assessment. This effort would likely show that the completion of development components in the Later Phases could affect larger areas and more transportation facilities than those identified for the analysis of the park and public spaces component. However, based on the analysis results for the Later Phases-Park and Public Spaces component and trip projections for the Later Phases-Island Redevelopment component, it is expected that the potential impacts of the overall Project could be determined qualitatively. Furthermore, because the Later Phases-Island Redevelopment component would also contribute to additional trip-making on weekend days, however at likely smaller increments than identified for the weekday peak hours, the potential impacts to the transportation system on weekend days will also be identified qualitatively.

TASK 16: AIR QUALITY

Under CEQR, an air quality analysis determines whether a Proposed Project would result in stationary or mobile sources of pollutant emissions that could have a significant adverse impact on ambient air quality, and also considers the potential of existing sources of air pollution to impact the proposed uses.

In terms of mobile sources, the assumption for traffic, as stated above, is that there will not be enough additional traffic to warrant a quantified analysis of mobile source emissions in Phase 1. A screening analysis will be performed to assess the potential for air quality impacts from fossil fuel-fired heating, ventilation and air conditioning (HVAC) equipment (e.g., boilers, space heaters), if any. The HVAC screening analysis will use the procedures outlined in the 2010 *CEQR Technical Manual*. The procedure involves determining the distance (from the exhaust point) within which potential significant impacts may occur, on elevated receptors (e.g., open windows) that are of an equal or greater height when compared to the height of the Proposed Project's heating system exhaust. The distance within which a significant impact may occur is dependent on a number of factors, including the height of the discharge, type(s) of fuel burned and development size.

Consideration of potential emissions for full development of the Proposed Project would be based on the reasonable worst-case development scenario and would consist of a discussion of potential emissions sources and the potential for such sources to result in a significant adverse impact on air quality. For full development of the Proposed Project, there would likely be increases in ferry traffic, auto traffic to ferry locations off the Island, and truck access to the Island for deliveries and service. The potential increases in emissions from these mobile sources also would be considered qualitatively. The potential buildings could be expected to have fossil-fuel-fired heating systems. Since the buildings have not been designed, the potential impacts of the fossil-fuel-fired heat and hot water systems would be discussed qualitatively based on the reasonable worst-case development scenario, providing information on the types of emissions that would be associated with the consumption of various fuel types, and describing the analysis that would be needed when the potential development for the Later Phases is more definitely planned and designed. Potential measures typically employed to avoid or minimize impacts of HVAC systems on air quality would be discussed.

Academic and/or research institution buildings are contemplated as part of the reasonable worst-case development scenario. A discussion of potential laboratory fume hood emissions typically associated with such uses will be provided. Because the plans for the academic and/or research institution use are in such a preliminary stage, the GEIS consideration of potential impacts would consist of a discussion of issues from laboratory buildings at other academic and/or research institutions and a description of the analyses needed when and if such uses are more definitely planned and designed.

TASK 17: GREENHOUSE GAS EMISSIONS

In accordance with the 2010 *CEQR Technical Manual*, a greenhouse gas (GHG) emissions analysis discloses the GHG emissions that could result from a large-scale Proposed Project, and assesses the consistency of the Proposed Project with the City's goals to reduce GHG emissions.

Although not required to be examined during CEQR, because the project site is an island surrounded by the waters of New York Harbor, the GEIS will discuss possible measures to

increase climate resilience and adaptive management strategies to allow for uncertainties in environmental conditions resulting from climate change.

The development that would result from full development of the Proposed Project would exceed the CEQR analysis threshold for GHG emissions. Therefore, GHG emissions that would be generated by the reasonable worst-case development scenario will be quantified and an assessment of consistency with the City's established GHG reduction goal will be performed. Emissions will be estimated for the 2030 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 their respective global warming potentials (GWP). If the extent and duration of construction or the expected use of materials is found to be potentially significant, construction-related emission would be quantified for the duration of construction. Relevant measures to reduce energy consumption and GHG emissions will be discussed. The potential for those measures to reduce GHG emissions from the Later Phases will be assessed to the extent practicable.

The GHG analysis would consist of the following subtasks:

- Direct Emissions—emissions from on-site boilers used for heat and hot water and on-site electricity generation, if any, would be quantified. Since fuel types are not known, emissions will be based on the carbon intensity factors specified in Table 18-3 of the *CEQR Technical Manual*.
- Indirect Emissions—emissions from purchased electricity generated off-site and consumed on-site during operation will be estimated, also using the information provided in Table 18-3 of the *CEQR Technical Manual*.
- Indirect Mobile Source Emissions—emissions from ferry trips to or from the project site will be estimated based on available information on the number of ferry trips, fuel type, ferry fuel efficiency, and trips distances. Emissions from project-generated vehicle trips to and from the ferry terminals will also be accounted for using trip distances provided in the *CEQR Technical Manual* and vehicle emission factors from the MOVES model.
- Emissions from 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. If found to be a potentially significant component of overall emissions, embodied GHG emissions from the use of construction materials, including concrete and steel, will be determined.
- Potential measures to reduce energy use and GHG emissions will be discussed and quantified to the extent that information is available.
- Consistent with the guidelines of the *CEQR Technical Manual*, the benefits or drawbacks of the Proposed Project will be qualitatively discussed in relation to the achievement of the City's GHG reduction goal.

TASK 18: NOISE

Under CEQR, a noise analysis determines whether a Proposed Project would result in increases in noise level that could have a significant adverse impact on nearby sensitive receptors, and also considers the effect of existing noise levels at the project site on proposed uses.

The amount of vehicular and ferry traffic generated as a result of Phase 1 of the Proposed Project is not expected to be large enough to necessitate an analysis of noise due to such traffic. In

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addition, Phase 1 is not expected to result in any new sources of stationary noise, and therefore it would not warrant an analysis of stationary-source noise impacts. Further, since Phase 1 would not create any new noise-sensitive uses, there is no need for a building attenuation analysis or an analysis of noise at new open space areas. A screening analysis of the noise effects of Phase 1 is provided in the EAS and concludes that there would be no significant adverse noise impacts due to Phase 1 of the Proposed Project.

The noise analysis for full development of the Proposed Project would be divided into three sections:

- Identification of potential impacts resulting from noise due to transportation to and from the Island,
- Determination of the necessary window/wall attenuation to achieve acceptable interior noise levels according to CEQR criteria, and
- Examination of noise due to any school playgrounds that may be constructed.

Each section would have a separate methodology, each of which is described below.

Transportation Noise Analysis

A screening analysis will be used to determine whether vehicular and ferry traffic generated by full development of the Proposed Project would be sufficiently large to result in potential significant noise impacts. At locations where the screening analysis shows the potential for 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. 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 and/or future sensitive uses near ferry landings on the Island. .
- Noise monitoring and data collection. At the identified locations, existing noise readings will be determined by performing one-hour equivalent (20 minutes readings as per *CEQR Technical Manual* guidelines) continuous noise levels (L_{eq}) and statistical percentile noise levels. 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. Specifically, these will be the weekday AM, midday, and PM peak hours, as well as the Saturday midday and afternoon peak hours.
- Determine future noise levels. Following procedures outlined in the *CEQR Technical Manual* for assessing stationary and mobile source noise impact, future No Build and Build noise levels will be estimated at the proposed sensitive land uses. Existing noise levels and mathematical models based on acoustic fundamentals will be used to determine future No Build and Build noise levels.
- Review noise criteria. CEQR air-borne noise criteria will be followed while determining project impacts at the future sensitive sites in the project area. The criteria will take into consideration the indoor and outdoor areas at the monitored sites, which are representative of future sensitive land uses in the area.
- Determine noise impacts. Noise impacts will be determined by comparing future project noise levels with future No Build noise levels following the CEQR methodology.

- Identify the need for any noise abatement. At locations where noise abatement may be required, appropriate mitigation measures will be considered in accordance with the CEQR guidelines and recommendations for their implementation will be made (*CEQR Technical Manual*, Table 19-3).

Building Attenuation Analysis

Structures with noise sensitive uses constructed as part of the Proposed Project would be required to provide sufficient window/wall attenuation to ensure acceptable interior $L_{10(1)}$ noise levels to comply with CEQR criteria. The *CEQR Technical Manual* recommended L_{10} descriptor will be used to characterize noise in this analysis. The following tasks would be performed for the building attenuation analysis in compliance with guidelines contained in the *CEQR Technical Manual*:

- Selection of noise measurement locations. Representative noise measurement sites will be selected in the areas where historic buildings could be re-tenanted or new construction could take place (development zones). This would focus on areas of potentially high ambient noise.
- Noise monitoring and data collection. At the identified locations, existing noise readings will be determined by performing one-hour equivalent (20 minutes readings as per *CEQR Technical Manual* guidelines) continuous noise levels (L_{eq}) and statistical percentile noise levels. 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. Specifically, these will be the weekday AM, midday, and PM peak hours, as well as the Saturday midday and afternoon peak hours.
- Determine future noise levels. Following procedures outlined in the *CEQR Technical Manual* for assessing stationary and mobile source noise impact, future No Build and Build noise levels will be estimated at the proposed sensitive land uses. Existing noise levels and mathematical models based on acoustic fundamentals will be used to determine future No Build and Build noise levels.
- Determine the required amount of building attenuation. The level of building attenuation necessary to satisfy CEQR requirements is a function of the exterior noise levels. Predicted values will be compared to appropriate standards and guideline levels. As necessary, attenuation measures will be recommended for buildings associated with the Proposed Project.

School Playground Analysis

Since the Later Phases could include a public school, the GEIS will consider the noise generated by any potential school playground and describe the range of noise levels that it may generate. Based upon the measurements that will be performed at the same receptor sites listed above and acoustic principles, hourly noise levels would be calculated based on a previous playground noise study performed for the School Construction Authority. Future noise levels would be calculated based on existing noise levels, acoustic fundamentals, and mathematical models. These levels would be compared to CEQR noise impact criteria.

TASK 19: PUBLIC HEALTH

According to the guidelines of the *CEQR Technical Manual*, a public health assessment may be warranted if an unmitigated significant adverse impact is identified in other CEQR analysis

areas, such as air quality, water quality, hazardous materials, or noise. If unmitigated significant adverse impacts are identified in any one of these technical areas and the lead agency determines that a public health assessment is warranted, an analysis will be provided for that specific technical area.

TASK 20: NEIGHBORHOOD CHARACTER

Neighborhood character is determined by a number of factors, including land use, socioeconomic conditions, open space, historic and cultural resources, urban design, visual resources, shadows, transportation, and noise. According to the guidelines of the 2010 *CEQR Technical Manual*, an assessment of neighborhood character is generally needed when a Proposed Project has the potential to result in significant adverse impacts in one of the technical areas presented above, or when a project may have moderate effects on several of the elements that define a neighborhood's character. While it is unlikely that Phase 1 would meet this threshold, full development of the Proposed Project is expected to require analysis. Therefore, if warranted based on an evaluation of the Proposed Project's impacts, an assessment of neighborhood character would be prepared following the methodologies outlined in the 2010 *CEQR Technical Manual*. The analysis would begin with a preliminary assessment, which would involve identifying the defining features of the area. If the preliminary assessment establishes that the Proposed Project would affect a contributing element of neighborhood character, a detailed assessment will be prepared to examine the potential neighborhood character-related effects of the project through a comparison of future conditions both with and without the Proposed Project.

TASK 21: CONSTRUCTION IMPACTS

Construction impacts, though temporary, can have a disruptive and noticeable effect on the adjacent community, as well as people passing through the area, and can result in significant adverse impacts. Construction impacts are usually important when construction activity could affect transportation conditions, archaeological resources and the integrity of historic resources, community noise patterns, air quality conditions, and mitigation of hazardous materials.

Phase 1 of the Proposed Project would involve construction of open space improvement projects in various locations on the island, and would be completed in approximately 14 months. The construction analysis for Phase 1 will consider potential impacts of the construction on nearby park users. Measures to protect the park users from construction noise, dust, and emissions will be described. In addition, typical physical barriers and operational procedures to separate the construction sites from the adjoining areas open to the public and to provide for the safety of the park users will be discussed.

Construction of the Later Phases-Park and Public Spaces component can be defined and is expected to last several years. Therefore, a quantified analysis of potential construction impacts is warranted. The *CEQR Technical Manual* calls for an assessment of construction-related impacts, with a focus on transportation, air quality, and noise, as well as consideration of other technical areas such as historic and cultural resources, hazardous materials, and natural resources. The GEIS will include quantitative analyses of potential transportation, air quality, and noise impacts during construction of the public spaces.

Because much of the materials to be used are shipped in bulk, a nearby land base may be used to stage and stock pile materials, which would be delivered to the Island by barge and other water borne vessels. Therefore, a likely stock pile area on the waterfront, such as South Brooklyn

Marine Terminal, will be selected and the technical analyses will assess the potential impacts at the stock pile and transshipment location as well as on the Island.

The analysis will include a schedule of construction activities, estimates of the number of workers on-site, the number of truck trips to and from the site by type of truck, and the number and types of equipment being used on-site. The analysis will account for the various types of equipment, the size and type of the engines, the time of use, and any unusual features of the equipment. Construction impacts will be evaluated according to the *CEQR Technical Manual* guidelines and methodologies. The construction assessment will focus on areas where construction activities may result in specific environmental impacts. Measures to mitigate potential impacts will also be included. Technical areas that will be the focus of the analysis include:

- *Transportation Systems.* This assessment will consider the increase in person and vehicle trips from construction workers and deliveries. Any temporary modifications to street operations will be identified and assessed. Potential temporary impacts to the transportation systems serving the stock pile location and the project site will be evaluated, and if needed, mitigation developed.
- *Air Quality.* An air quality analysis will be conducted to determine the potential for air quality impacts due to construction activities and project generated traffic (mobile sources) on local roadways near the stockpile locations. If traffic volumes exceed the screening thresholds defined in the *CEQR Technical Manual*, detailed dispersion analysis will be prepared. The pollutants of concern include carbon monoxide (CO) and particulate matter (PM). A dispersion analysis of construction activities will also be performed to determine the potential for air quality impacts on sensitive off-site receptors. Air pollutant sources include combustion exhaust associated with non-road engines (e.g., excavators) and on-road engines operating on-site, as well as on-site activities that generate fugitive dust (e.g., excavation, demolition). The pollutants of concern include CO, PM, and nitrogen dioxide (NO₂). The ambient concentrations of each pollutant will be determined for peak construction periods based on an emissions profile. The potential for significant impacts will be determined by a comparison of model predicted total concentrations to the National Ambient Air Quality Standards, and by comparison of the predicted increase in concentrations to applicable CEQR thresholds. The air quality analysis will also include a discussion of strategies to reduce project related air pollutant emissions associated with construction activities and potential mitigation measures which can be applied during the construction period
- *Noise.* Noise generated from the construction activity on nearby sensitive receptors will be determined utilizing the CadnaA model. Based on a review of construction plans, sensitive receptor locations will be identified for impact assessment. At each location, reasonable worst-case noise from construction activities will be determined. Construction noise impacts will be assessed using relevant CEQR criteria. Potential impacts will be analyzed at both the stock pile location and the Island.
- *Historic and Cultural Resources.* Potential construction-period impacts on historic resources will be considered. Historic resources within and adjacent to the project site would be evaluated for their sensitivity to potential adverse impacts from construction vibrations.
- *Hazardous Materials.* In coordination with the work performed for hazardous materials, above, summarize actions to be taken during project construction to limit exposure of construction workers to potential contaminants.

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Other Technical Areas. As appropriate, discuss the other areas of environmental assessment for potential construction-related impacts. Other issues, if any, may include neighborhood character, socioeconomic conditions, infrastructure, and rodent control.

Because the size, exact location, and types of buildings to be constructed at full development of the Proposed Project would not be sufficiently defined to conduct detailed quantified construction analyses, the EIS will provide qualitative construction assessments of relevant technical areas where construction activities may pose specific environmental problems. The technical areas to be considered qualitatively include:

- Transportation;
- Air Quality;
- Noise;
- Vibration;
- Hazardous Materials; and
- Historic Resources

TASK 22: MITIGATION

Where significant adverse project impacts have been identified for the Proposed Project, measures to mitigate those impacts will be identified and described. The mitigation chapter will address the anticipated impacts requiring mitigation, likely mitigation measures, and the timing of the mitigation measures. Where impacts cannot be practicably mitigated, they will be disclosed as unavoidable adverse impacts. Mitigation for the Later Phases would be implemented if and when the Later Phases are developed, subject to revision and adjustment pursuant to any further environmental review which may be necessary.

TASK 23: 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 actions. As noted above, Governors Island has been the subject of an extended public planning process that has identified and considered many alternatives for the redevelopment of the island. This chapter will discuss the public planning process and previously considered alternatives that have been discarded. In addition, the GEIS will include an analysis of the following alternatives:

- A No Action Alternative, which is analyzed through the GEIS as the No Build condition;
- Another set of park and open space improvements for Phase 1;
- An alternative that reduces any unmitigated significant adverse impacts; and
- Other possible alternatives that may be developed during the GEIS preparation process.

The specifics of these alternatives will be finalized as project impacts become clarified. The description and evaluation of each alternative will be provided at a level of detail sufficient to permit a comparative assessment of each alternative discussed.

TASK 24: EIS SUMMARY CHAPTERS

In accordance with *CEQR Technical Manual* guidelines, the GEIS will include the following three summary chapters, where appropriate to the Proposed Project:

- A. Unavoidable Adverse Impacts—which summarizes any significant adverse impacts that are unavoidable if the Proposed Project is implemented regardless of the mitigation employed (or if mitigation is impossible);
- B. Growth-Inducing Aspects of the Proposed Project—which generally refers to “secondary” impacts of a Proposed Project that trigger further development; and
- C. Irreversible and Irretrievable Commitments of Resources—which summarizes the Proposed Project and its impacts in terms of the loss of environmental resources (loss of vegetation, use of fossil fuels and materials for construction, etc.), both in the immediate future and in the long term.

TASK 25: EXECUTIVE SUMMARY

The executive summary will utilize relevant material from the body of the GEIS to describe the Proposed Project, its significant and adverse environmental impacts, measures to mitigate those impacts, and alternatives to the Proposed Project. *