

**American Museum of Natural History  
Gilder Center for Science, Education, and Innovation  
Environmental Impact Statement Draft Scope of Work**

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**A. INTRODUCTION**

The American Museum of Natural History (AMNH or the Museum) is seeking discretionary actions in connection with a proposed new building, the Richard Gilder Center for Science, Education, and Innovation (the Gilder Center). The Gilder Center would be a five-story, approximately 180,000-gross-square-foot (gsf) addition located on the Columbus Avenue side of the Museum campus. Because the building would be integrated into the Museum complex, an additional approximately 38,000 gsf of existing space would be renovated to accommodate the program and make connections into the new building, for a total of 218,000 gsf of new construction and renovation. Alterations also would be made to adjacent portions of Theodore Roosevelt Park. The Gilder Center, together with these other alterations, is the proposed project.

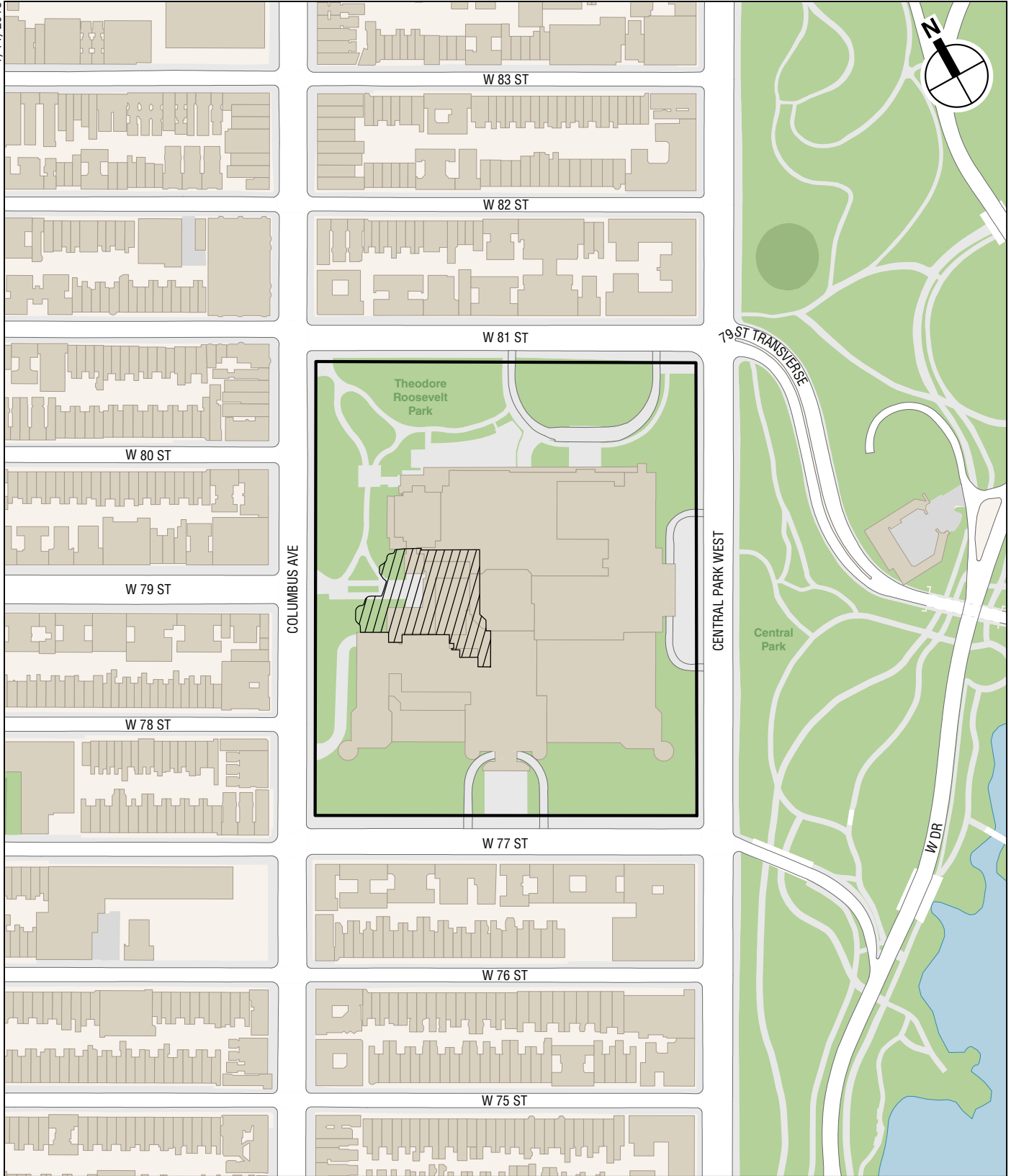
Approximately 80 percent of the square footage of the project would be located within the area currently occupied by the Museum. Three existing buildings within the Museum complex would be removed to minimize the footprint on land that is now open space in Theodore Roosevelt Park, to about 11,600 square feet (approximately a quarter acre).

The Museum is located on the superblock bounded by West 81st Street, West 77th Street, Central Park West, and Columbus Avenue, in the Upper West Side neighborhood of Manhattan (Block 1130, Lot 1). The Museum is located in Theodore Roosevelt Park, which is City-owned parkland under the jurisdiction of the New York City Department of Parks and Recreation (DPR). The site for the proposed project is on the west side of the Museum complex facing Columbus Avenue (see **Figure 1**). The site is located in Manhattan Community District 7.

AMNH, a not-for-profit educational corporation, was formed by the New York State Legislature in 1869 to establish a museum and library of natural history in New York City, to encourage the study of natural science, and to provide popular instruction and recreation with the goal of advancing general scientific knowledge. Since that time, the Museum has grown to become one of the most important centers for the study of natural history in the world. The Museum currently employs approximately 200 scientists and offers a master's degree program in teaching science and a Ph.D. program in comparative biology. With annual attendance of approximately five million people, the Museum is one of the top visitor destinations in New York City. The purpose of the proposed project is to expand and modernize the Museum's science and education programs, provide new exhibition space, improve circulation and operations throughout the Museum, and provide new visitor services.


The proposed project will require discretionary approvals from DPR and the New York City Public Design Commission (PDC) and a report and approval from the New York City Landmarks Preservation Commission (LPC). Funding for the project has been appropriated by the City of New York, through the New York City Department of Cultural Affairs (DCLA), and

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-  Theodore Roosevelt Park
-  Development Area

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by the State of New York, through the New York State Urban Development Corporation (d/b/a Empire State Development [ESD]). The New York State Office of Parks, Recreation, and Historic Preservation's Office of Historic Preservation (SHPO) will also review the proposed project.

Development of the proposed project may result in potentially significant adverse environmental impacts, requiring that an Environmental Impact Statement (EIS) be prepared. Scoping is the first step in the EIS preparation and provides an early opportunity for the public and other agencies to be involved in the EIS process. It is intended to determine the range of issues and considerations to be evaluated in the EIS. This draft EIS scope has been prepared to describe the proposed project, present the proposed framework for the EIS analysis, and discuss the procedures to be followed in the preparation of the Draft EIS (DEIS). The 2014 *City Environmental Quality Review (CEQR) Technical Manual* will serve as a general guide to the methodologies and impact criteria for evaluating the project's potential effects on the various environmental areas of analysis.

## **B. PURPOSE AND NEED**

The purpose and need for the proposed project is driven by the Museum's commitment to exploring new areas in scientific research, addressing key challenges in science education and enhancing the public understanding of and access to science at a time when science underpins so many of our most pressing societal issues—human health, climate change, and biodiversity conservation, among others.

Despite the importance of scientific knowledge for informed decision-making, our country faces challenges in STEM (Science, Technology, Engineering and Math) fields, both in educating students and in supporting teachers. Over the past two decades the Museum has partnered with the City, State, and federal departments of education, private and foundation supporters, and other science institutions to help develop and model programs that result in more STEM resources for more students and teachers.

The Museum employs approximately 200 working scientists who conduct their work through field expeditions and in laboratories using the Museum's onsite collections and state-of-the-art scientific equipment. It houses collections containing more than 33 million objects and specimens, only a very small percentage of which are on display at any given time, and one of the most comprehensive natural history libraries in the United States. These unique assets must be made available to educate the next generation of teachers, scientists, and workers to ensure a scientifically literate nation, our nation's workforce preparedness, and opportunities for young people.

The Museum administers important educational programs, such as the Urban Advantage Middle School Science Initiative, which serves over 62,000 students from more than 220 schools, making it the largest formalized science program in the country. In 2009, AMNH became the first non-university affiliated museum in the United States to grant a Ph.D., and in 2011 AMNH also became the first such museum to offer a master's degree program in teaching science. Museum attendance has grown over the past 20 years, from approximately 2.77 million annual visitors in 1994<sup>1</sup> to approximately 5 million visitors in 2014, including about 500,000 visitors in school and camp groups.

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<sup>1</sup> Fiscal Year 1994, i.e., from July 1, 1993 to June 30, 1994.

As a result of this strong growth and expansion of programs, a portion of the Museum's facilities are overcrowded and inefficient. There is a shortfall of instructional space and the current spaces are out of date, fragmented, and difficult to access. Collections need improvement in their housing and additional capacity. Visitor services are poorly located and insufficient to meet visitor demand.

Prior to making the decision to undertake the proposed project, the Museum undertook a comprehensive, multi-year space planning initiative, which included a detailed and extensive analysis of its existing spaces, highest priority needs, and alternatives for achieving some or all of those needs. The Museum made substantial investments in its facilities to renovate, reorganize, and revitalize existing space. Even with these improvements within the existing footprint of the Museum, the space planning effort identified the need for the construction of an addition to the Museum to effectively address the key deficiencies described above, as well as to meet the scientific, educational, and other programmatic needs of the Museum to continue to meet its mission. Accordingly, the proposed project has been developed to fulfill the following goals and objectives:

- Accommodate growth in science and education programming and exhibits;
- Provide multi-disciplinary and flexible space for science and education;
- Enhance and integrate the Museum's science, exhibition and educational programming;
- Provide greater access to the Museum's scientists and scientific resources;
- Provide greater access to library resources;
- Improve and expand collections storage and visibility;
- Enhance the sustainability features of the Museum;
- Improve the Museum's circulation and connections;
- Provide a new entrance that activates the Columbus Avenue side of the Museum and welcomes visitors and the neighborhood; and
- Upgrade visitor and operational services.

The proposed project would make necessary improvements to the Museum's ability to integrate scientific research, collections, and exhibition with its educational programming, and would also upgrade and revitalize the Museum's facilities to address critical needs. Thirty new connections from the Gilder Center to ten existing Museum buildings would be created, improving circulation and flow for visitors, creating pathways without dead ends, and reinforcing the intellectual links among the Museum's programmatic, exhibition, and collections areas. Utility connections and service areas, some original to the 1908 construction of the Museum's service yard—and vital to the operation of the Museum complex—would be replaced and/or improved. New state-of-the-art facilities for research, exhibition, and education would be provided.

Scientific learning is powerful when it is demonstrated and experienced and not just told. The Museum considers the co-location of science, education, and exhibition uses to be essential to achieving its mission. The educational program of the project is enveloped and fueled by the Museum's onsite assets and resources. The proposed project would serve as a platform for the partnership between scientists and educators, offering spaces where students of all levels and ages can engage in the process of scientific research and discovery.

Within the framework of these needs and objectives, the proposed project is designed—and three existing buildings will be removed—to minimize the physical expansion of the Museum on Theodore Roosevelt Park.

## **C. PROJECT DESCRIPTION**

### **PROJECT SITE**

The Museum is located within, and bounded by, Theodore Roosevelt Park, on the approximately 17.57-acre superblock formed by West 81st Street, West 77th Street, Central Park West, and Columbus Avenue.

The Museum complex consists of numerous interconnected buildings, covering an approximately 7.5-acre footprint (see **Figure 2** for a plan of the existing campus). Uses within the Museum complex include science laboratories and research space; collections storage; a library; exhibit space; theater spaces such as the LeFrak Theater and the Hayden Planetarium Space Theater; classrooms, education space, lecture halls, and support space for visiting school groups; café and food court uses; the Ross Terrace; gift shops; a parking garage; and maintenance, administrative, and operational space. Vehicular access to the Museum's parking garage is provided via a driveway that extends from West 81st Street. The main pedestrian entrance to the Museum faces Central Park West; additional entrances include the Weston Pavilion (facing Columbus Avenue), the Rose Center for Earth and Space (facing West 81st Street), and a restricted-access entrance on West 77th Street.

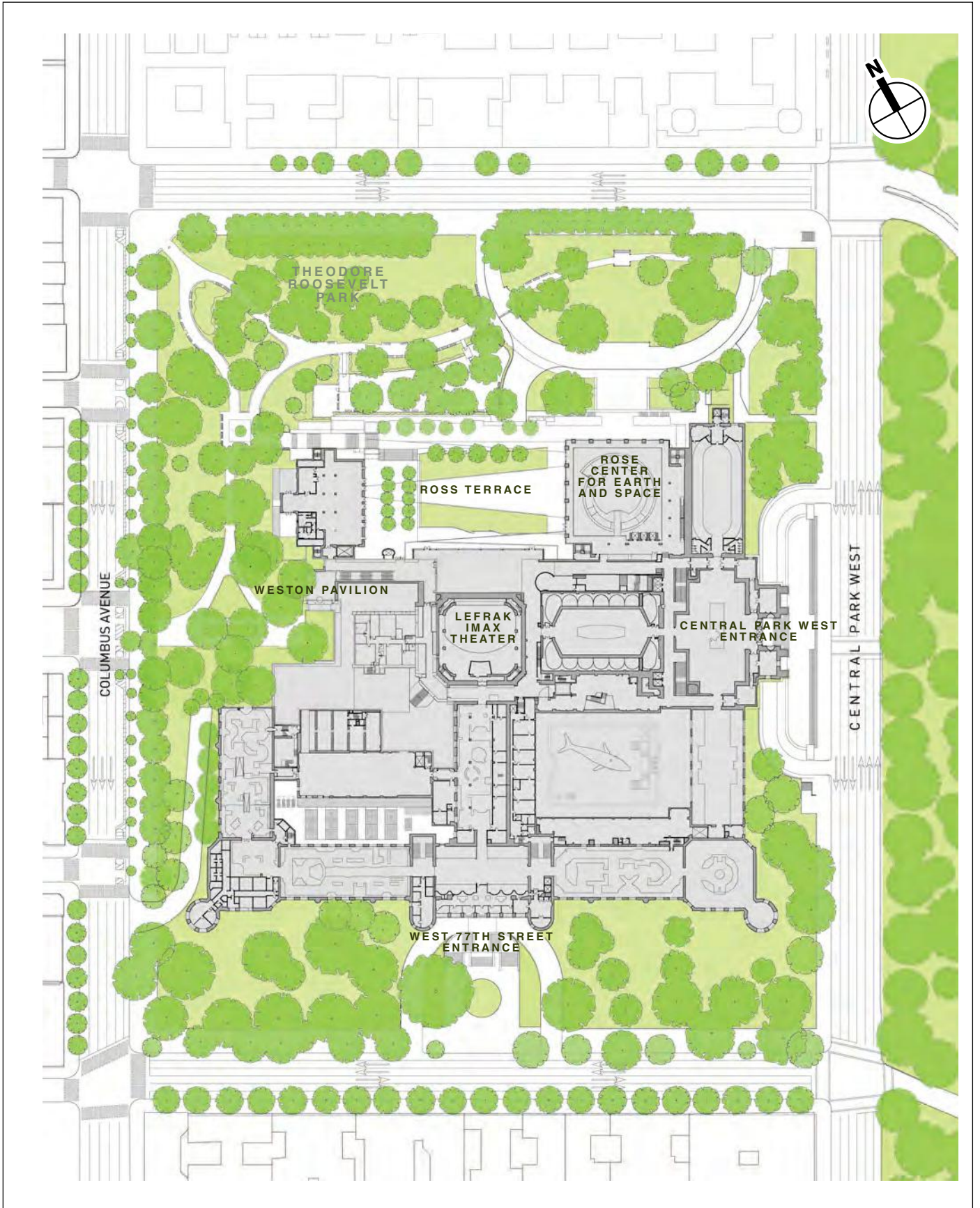
Beyond the Museum complex, open space uses in Theodore Roosevelt Park include bench-lined walking paths, fenced lawns and gardens, and a dog run. On the west side of the park, the Nobel Monument is located in a small square at the northwest corner of the Museum complex and *The New York Times* Capsule, designed by architect Santiago Calatrava, is located on a terrace adjacent to the Weston Pavilion. A protected bike lane runs along Columbus Avenue, adjacent to the western boundary of Theodore Roosevelt Park.

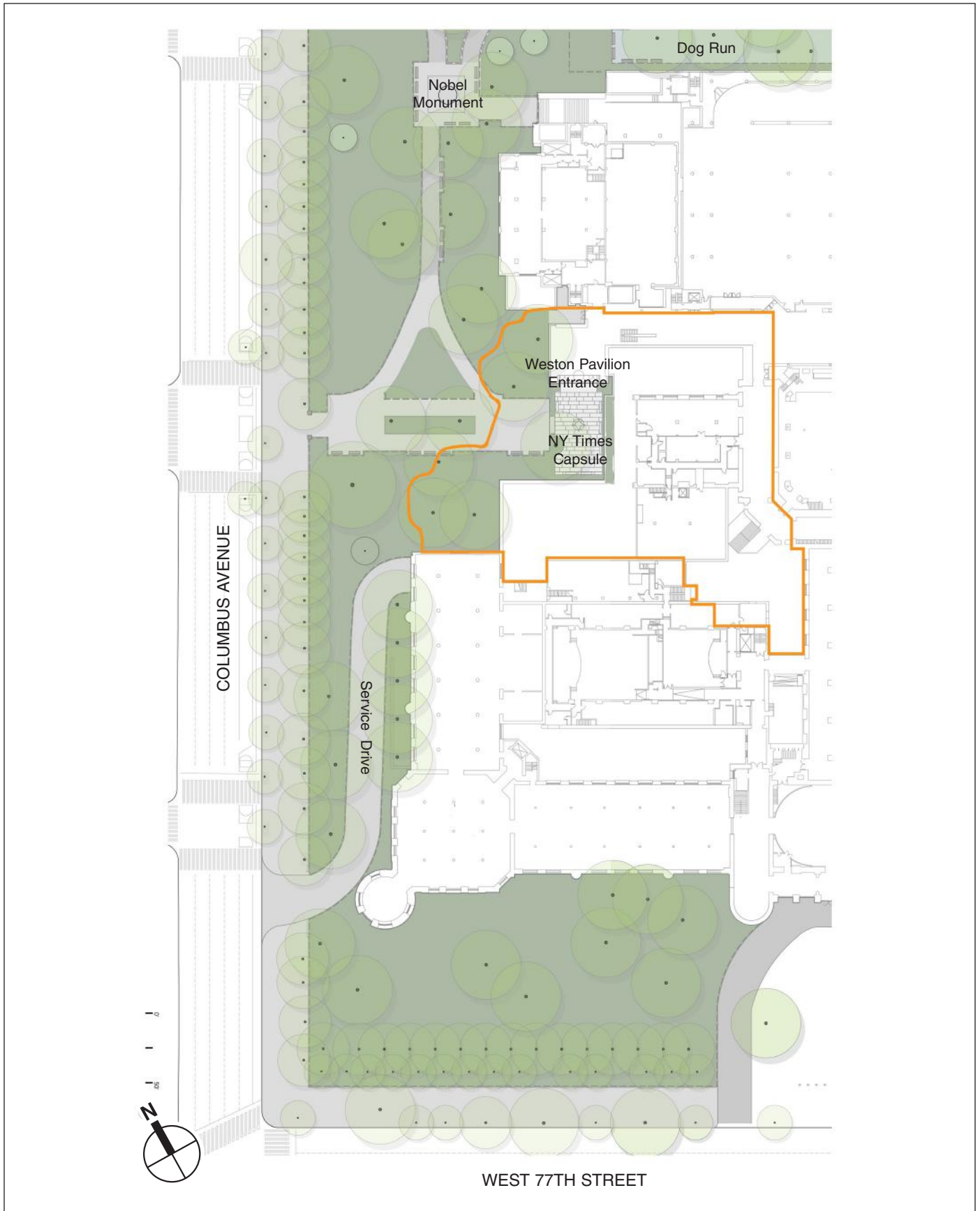
The development footprint of the proposed project is approximately 36,500 square feet below-grade, with a total footprint of approximately 44,700 square feet at grade. Of that, approximately 11,600 square feet of the at-grade footprint is outside the existing built area of the Museum (see **Figure 3**). The portion of the development area that is inside of the existing Museum footprint contains the Weston Pavilion and adjacent corridors, two other Museum buildings and adjacent corridors, and the Museum's service yard. The portion of the development area that is outside of the existing Museum footprint contains walkways, seating areas, fenced lawns, and landscaped areas.

### **PROPOSED PROJECT**

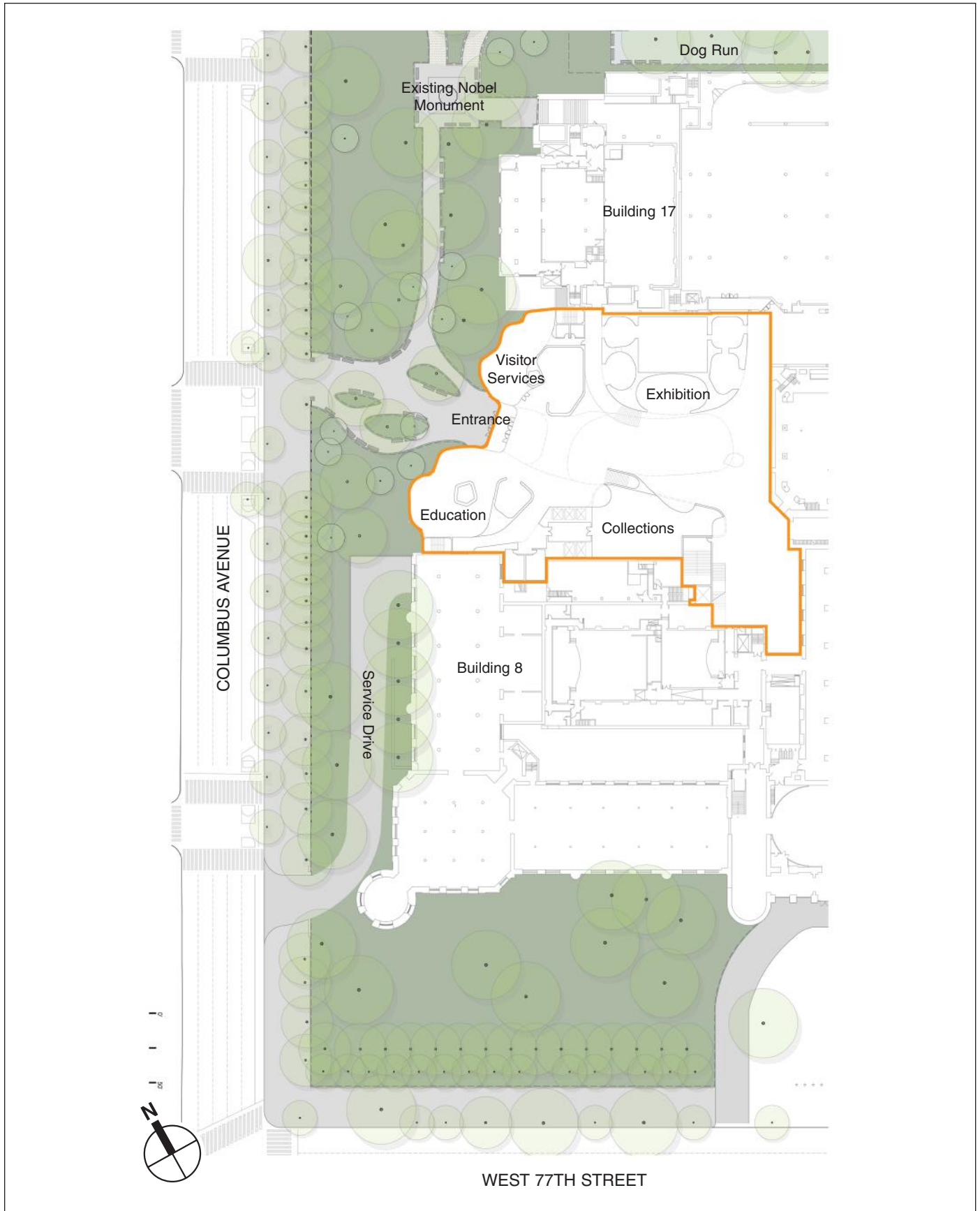
#### *BUILDING PROGRAM AND USES*

The Gilder Center would be a five-story, approximately 180,000 gsf addition to the Museum. The proposed project would also include approximately 38,000 gsf of renovations to existing space and alterations to an approximately 31,100 square-foot adjacent area of Theodore Roosevelt Park (see **Figure 4** for the proposed site plan and **Figure 5** for an elevation view of the proposed project).



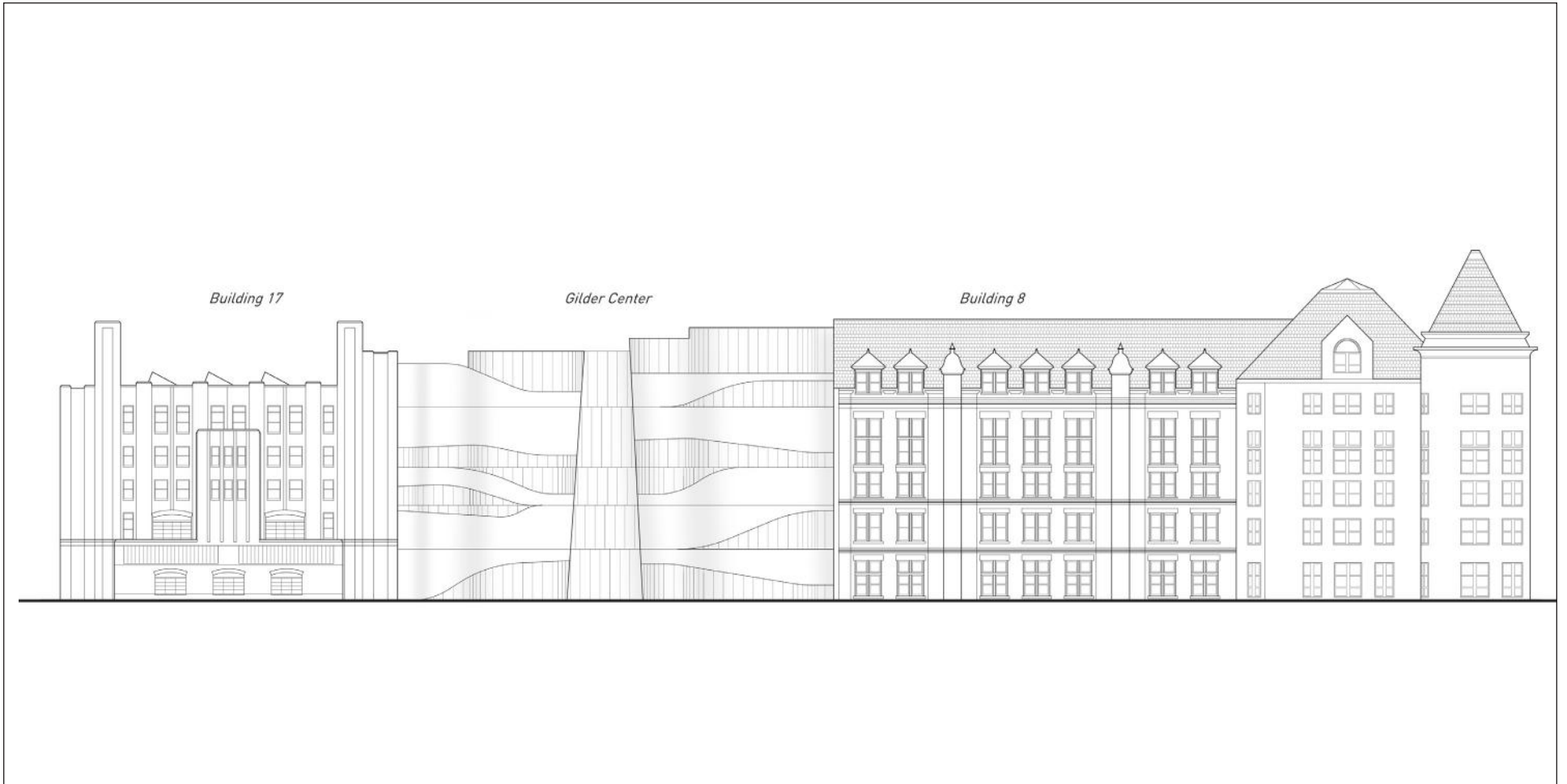


 *Development Area*



 *Development Area*





The proposed project would be designed to reveal the behind-the-scenes work of the Museum and integrate it into the visitor experience, to create an authentic and direct encounter with science. Collection storage spaces, the research library, and laboratories for gene mapping, 3D imaging, and big data assimilation would be located adjacent to immersive galleries and interactive education spaces for children and adults in family and school groups, transcending traditional boundaries between scientific research, education and exhibition.

Among the major new features that would be included in the proposed project are:

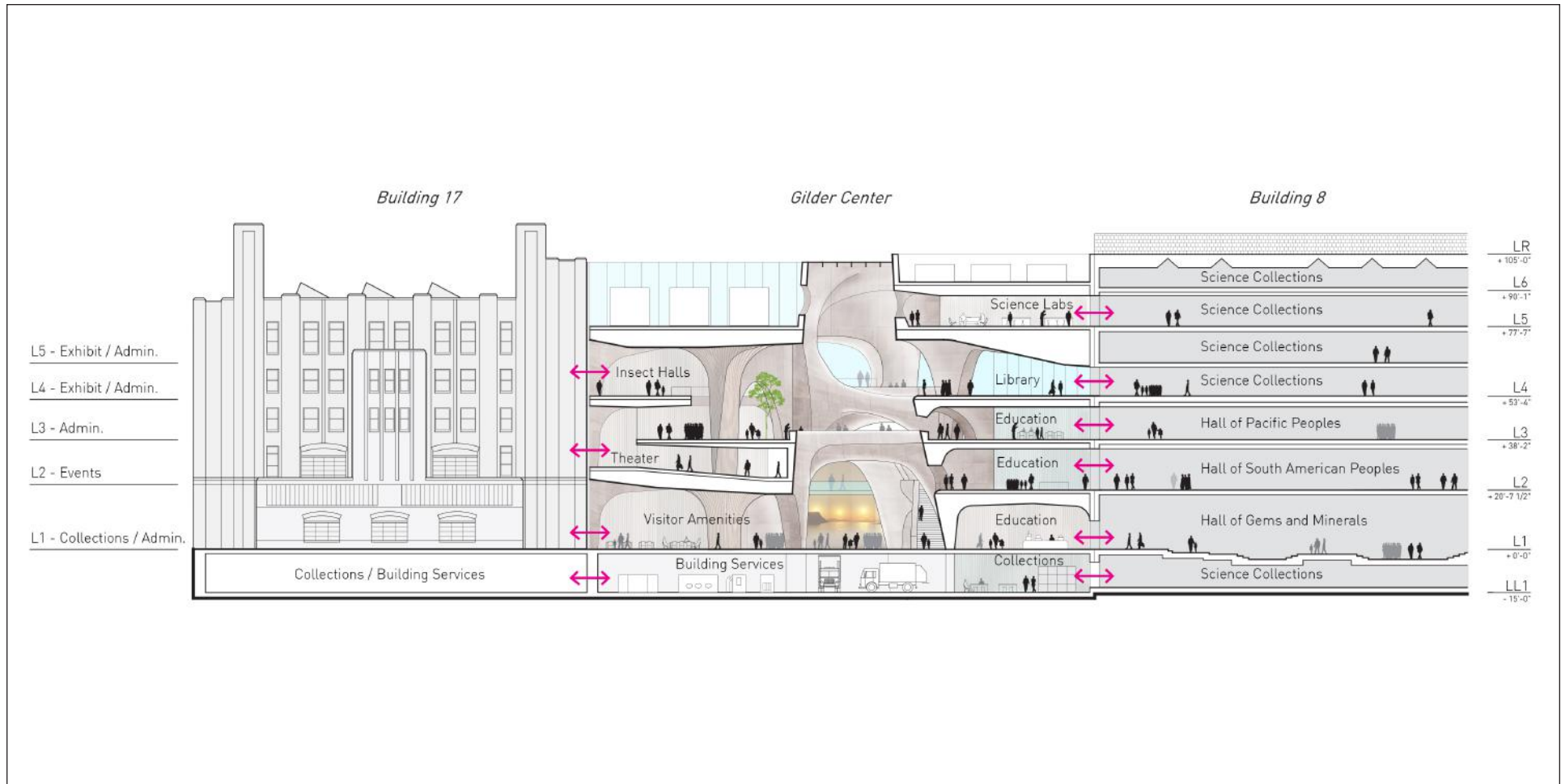
- A physical articulation of the Museum's full, integrated mission of science, education, and exhibition, that will provide visitors with cross-disciplinary exposure to the natural world;
- New kinds of exhibition and learning spaces infused with the latest digital and technological tools, connected to scientific facilities and collections;
- Innovative spaces devoted to the teaching of science—including for middle school, early childhood, family, and adult learners and teachers;
- Spaces for carrying out cutting edge scientific research—particularly in natural sciences—and facilitating public understanding of this vital scientific field;
- Increased storage capacity and greater visibility and access to the Museum's world-class collections;
- Exhibition facilities in new areas of scientific study;
- Expansion of the natural history library from a world-class repository to a place of adult and public learning;
- Thirty new connections into ten existing Museum buildings on multiple levels, improving circulation and better utilizing existing space;
- Enhanced visitor experience and services;
- Improved building services; and
- A more visible and accessible entrance on the west side of the Museum complex

#### *ARCHITECTURAL AND DESIGN PLAN*

The architecture of the Gilder Center is intended to inspire a sense of discovery, through openings and natural light that echo the types of spaces in nature that are fluid, connective, and enticing to navigate. Visitors would see—and be invited to experience—more of the Museum's collections which form an irreplaceable record of life and human culture. The design would advance crucial aspects of the Museum's original master plan while reflecting a contemporary architectural approach that is responsive to the Museum's needs and the character of the surrounding public park and neighborhood.

The Gilder Center would include five stories above grade (up to 105 feet tall), and one below-grade, situated between buildings of different heights, diverse architectural styles, and varied relationships to the surrounding park and city. The building mass and proportion would carefully respond to this multilayered context, maintaining the height and scale of the existing Museum buildings. Critical alignments—in both elevation and plan—would neatly weave the new building into its site, maximizing utility while minimizing impact on the historic surroundings (see **Figures 6 and 7**).

In developing the architectural concept, Architect Jeanne Gang worked from the inside out, seeing an opportunity to reclaim the physical heart of the Museum complex at its center and to







complete connections between and among existing Museum halls and the new space. From Columbus Avenue, visitors would access the building through the park at grade and enter a central exhibition hall that would link the west side of the Museum to all other parts of the campus, thereby enhancing accessibility and simplifying circulation. Functionally, the new building completes the east-west axis of circulation and exhibition spaces which was envisioned in the original master plan for the Museum, and only partly completed to date and creates a north-south connection on the west side of the campus for the first time. Overall, the proposed project is expected to improve the connectivity, spatial logic, and function of the Museum's interior spaces.

#### *LANDSCAPE PLAN*

As noted above, the proposed project would result in the expansion of the Museum's footprint by approximately 11,600 square feet at grade in Theodore Roosevelt Park. As part of the initial design effort, the Museum reduced the development footprint with the goal of minimizing the number of trees and the amount of public open space that would be impacted. It is expected that the proposed project would affect approximately ten trees, including nine canopy trees that would be removed and one understory tree that would be relocated. Any trees that are removed and cannot be transplanted would be replaced, consistent with DPR rules and regulations. The Museum anticipates planting eight new canopy trees and nine new understory trees in the vicinity of the development area.

Paths and landscaping in Theodore Roosevelt Park adjacent to the development area would be modified, removed, or relocated to accommodate the proposed project (see **Figure 4**). The character of the park along Columbus Avenue is anticipated to be similar to the existing paths and landscaped areas, primarily designed for walking and quiet activities. In addition, the Museum proposes to increase the number of benches in this area from seven to seventeen. The area in front of the new entrance would (as it currently does), provide an entrance point to the Museum, although with the project it would at times be more populated and active with Museum visitors. The paths and entrance would be designed to be accessible to children, strollers and the mobility-impaired.

*The New York Times* Capsule would be relocated as part of the proposed project. The existing dog run would not be altered or affected by the design, and the paths to the dog run and to the subway would remain.

#### *SUSTAINABILITY*

The proposed project is anticipated to achieve a LEED Silver rating, with state-of-the-art systems and controls, and a high-performance envelope that minimizes energy use. Alternative energy sources are under consideration and may be included in the proposed project, including photovoltaic panels, geothermal wells, storm water retention systems, and grey water recycling.

#### **PROPOSED ACTIONS**

The Museum and its original buildings were created pursuant to New York State statutes passed between 1869 and 1875; then, an 1876 State statute set aside the entire site of Theodore Roosevelt Park for the Museum and authorized the City's then Department of Public Parks to enter into a contract (the Museum's lease) granting the Museum exclusive use of the buildings erected or to be erected in the park. Thus, the Museum is a permitted park use, and no further legislative action or disposition of property is required. Since Theodore Roosevelt Park is City-

owned mapped parkland, the project site does not bear a zoning designation and is not subject to the New York City zoning resolution.

However, the proposed project requires approval from DPR pursuant to the Museum's lease, from DCLA for City funding, and from ESD for State funding. The new location of *The New York Times* Capsule requires the approval of PDC.

The Museum is a New York City Landmark (NYCL) and is listed on the State and National Registers of Historic Places (S/NR). Therefore, prior to making its determination, DPR must obtain a report and approval from LPC, and ESD is required to undertake a historic preservation review in consultation with SHPO.

## **D. ANALYSIS FRAMEWORK**

The 2014 *CEQR Technical Review Manual* will serve as a guide on the methodologies and impact criteria for evaluating the proposed project's potential environmental effects. In disclosing impacts, the EIS considers the proposed project's potential adverse impacts on the environmental setting. It is anticipated that the proposed project, if approved, would be built and operational by 2020, with its first full-year of operation in 2021. Consequently, the environmental setting for comparison is not the current environment, but the future environment in which the project is operational. Therefore, the technical analyses and consideration of alternatives includes descriptions of existing conditions, conditions in the future without the proposed project (the No Action condition), and conditions in the future with the proposed project (the With Action condition). The incremental difference between the No Action and With Action conditions is therefore the subject of analysis for evaluating the potential environmental effects of the proposed project.

### **NO ACTION CONDITION**

Absent the proposed project, the Museum would continue in its current operations. Routine growth in attendance is expected to occur absent the proposed project. Independent of the proposed project, over time AMNH anticipates undertaking various improvements to Museum facilities. No Action projects within the Museum will be identified in the EIS.

### **WITH ACTION CONDITION**

The Gilder Center would be a five-story, approximately 180,000 gsf addition. The proposed project would also include the creation of thirty new connections into ten existing Museum buildings and the renovation and reconfiguration of approximately 38,000 gsf of existing Museum space. The proposed project would result in the expansion of the Museum's footprint by approximately 11,600 square feet at grade in Theodore Roosevelt Park, impacting ten trees (one of which is expected to be replanted within the park).

Based on analysis of the Museum's historic attendance data and market penetration, it is expected that Museum annual ticketed attendance in the With Action condition would increase by approximately 500,000 people, compared to conditions without the proposed project.

The physical changes to the project site and the incremental population increase will be analyzed in the EIS for potential significant adverse impacts on the environment, consistent with the guidance of the *CEQR Technical Manual*.

## **E. ENVIRONMENTAL REVIEW PROCESS**

### **CEQR OVERVIEW**

New York City has formulated an environmental review process (CEQR) pursuant to the State Environmental Quality Review Act (SEQRA) and its implementing regulations (Part 617 of 6 New York Codes, Rules and Regulations). The City's CEQR rules are found in Executive Order 91 of 1977 and subsequent rules and procedures adopted in 1991 (62 Rules of the City of New York, Chapter 5). CEQR's mandate is to strike a balance between social and economic goals and concerns about the environment. Agencies undertaking, funding, or approving actions interject environmental considerations into their discretionary decisions by taking a "hard look" at the environmental consequences of each of those actions so that all potential significant environmental impacts of each action are disclosed, alternatives that avoid or reduce such impacts are considered, and appropriate, practicable measures to reduce or eliminate such impacts are adopted.

The CEQR process begins with selection of a lead agency for the review. The lead agency is generally the governmental agency that is most responsible for the decisions to be made on a proposed action and is also capable of conducting the environmental review. For the proposed project, DPR is the CEQR lead agency.

The lead agency, after reviewing the Environmental Assessment Statement (EAS), has determined that the proposed project has the potential for significant adverse environmental impacts and that an EIS must be prepared. A public scoping of the content and technical analyses of the EIS is the first step in its preparation, as described below. Following completion of scoping, the lead agency oversees preparation of a DEIS for public review.

The lead agency is expected to hold a CEQR hearing following the completion of the DEIS. That hearing record is held open for a minimum of 10 days following the open public session, at which time the public review of the DEIS ends. The lead agency then oversees preparation of a Final EIS (FEIS), which incorporates all relevant comments made during public review of the DEIS. The FEIS is the document that forms the basis of CEQR Findings, which the lead agency and each involved agency must make before taking any action within its discretion on the proposed project.

### **SCOPING**

The CEQR scoping process is intended to focus the EIS on potentially significant adverse impacts in order that relevant issues are identified early and studied properly and by eliminating consideration of those impacts that are irrelevant or non-significant. At the same time, the process allows other agencies and the public to have a voice in framing the scope of the EIS. During the period for scoping, parties interested in reviewing the Draft Scope of Work may do so and give their comments in writing to the lead agency or at the public scoping meeting.

The period for comments on the Draft Scope of Work will remain open for 10 days following the meeting, at which point the scope review process will be closed. The lead agency will then oversee preparation of a Final Scope of Work, which incorporates all relevant comments made on the scope and revises the extent or methodologies of the studies, as appropriate, in response to comments made during scoping. The DEIS will be prepared in accordance with the Final Scope of Work.



## **F. ENVIRONMENTAL IMPACT STATEMENT SCOPE OF WORK**

The scope of the EIS will conform to all applicable laws and regulations and will follow the guidance of the *CEQR Technical Manual*.

The EIS will contain:

- A description of the proposed project and its environmental setting;
- A statement of the environmental impacts of the proposed project, including its short- and long-term effects;
- An identification of any adverse environmental effects that cannot be avoided if the proposed project is implemented;
- A discussion of alternatives to the proposed project;
- An identification of any irreversible and irretrievable commitments of resources that would be involved in the proposed project should it be implemented; and
- A description of mitigation measures proposed to minimize significant adverse environmental impacts.

The analyses for the proposed project will be performed for the first expected year of operation, which is 2021. The incremental difference between the No Action and With Action conditions will form the basis for the EIS analyses. Based on the preliminary screening assessments outlined in the *CEQR Technical Manual* and as described in the EAS, the following environmental areas would not require analysis for the proposed project in the EIS: socioeconomic conditions; community facilities; water and sewer infrastructure; solid waste; energy; and greenhouse gas emissions.

Below are descriptions of the environmental categories in the *CEQR Technical Manual* that will be analyzed in the EIS, with a description of the tasks to be undertaken.

### **PROJECT DESCRIPTION**

The first chapter of the EIS introduces the reader to the project and sets the context in which to assess impacts. This chapter will contain a project identification (brief description and location of the project site); the background and/or history of the project site and proposed project; a statement of purpose and need for the proposed project; a detailed description of the proposed project, its programming, and project siting and design; and a discussion of the approvals required, the procedures to be followed, and the role of the EIS in the process. The chapter will also describe the analytic framework for the EIS. This chapter is key to understanding the proposed project, and gives the public and decision-makers a base from which to evaluate the With Action condition against both the No Action condition and alternative options, as appropriate.

The project description will include a discussion of key project elements, such as the site plan, access and circulation, and other project features. The section on required approvals will describe all public actions required to develop the project. The role, if any, of any other public agency in the approval process will also be described. The role of the EIS as a full-disclosure document to aid in decision-making will be identified and its relationship to any other approval procedures will be described.

## LAND USE, ZONING, AND PUBLIC POLICY

A land use analysis characterizes the uses and development trends in the area that may be affected by a proposed project. The analysis also considers a project's compliance with and effect on the area's zoning and other applicable public policies. Even when there is little potential for an action to be inconsistent or affect land use, zoning, or public policy, a description of these issues is appropriate to establish conditions and provide information for use in other technical areas.

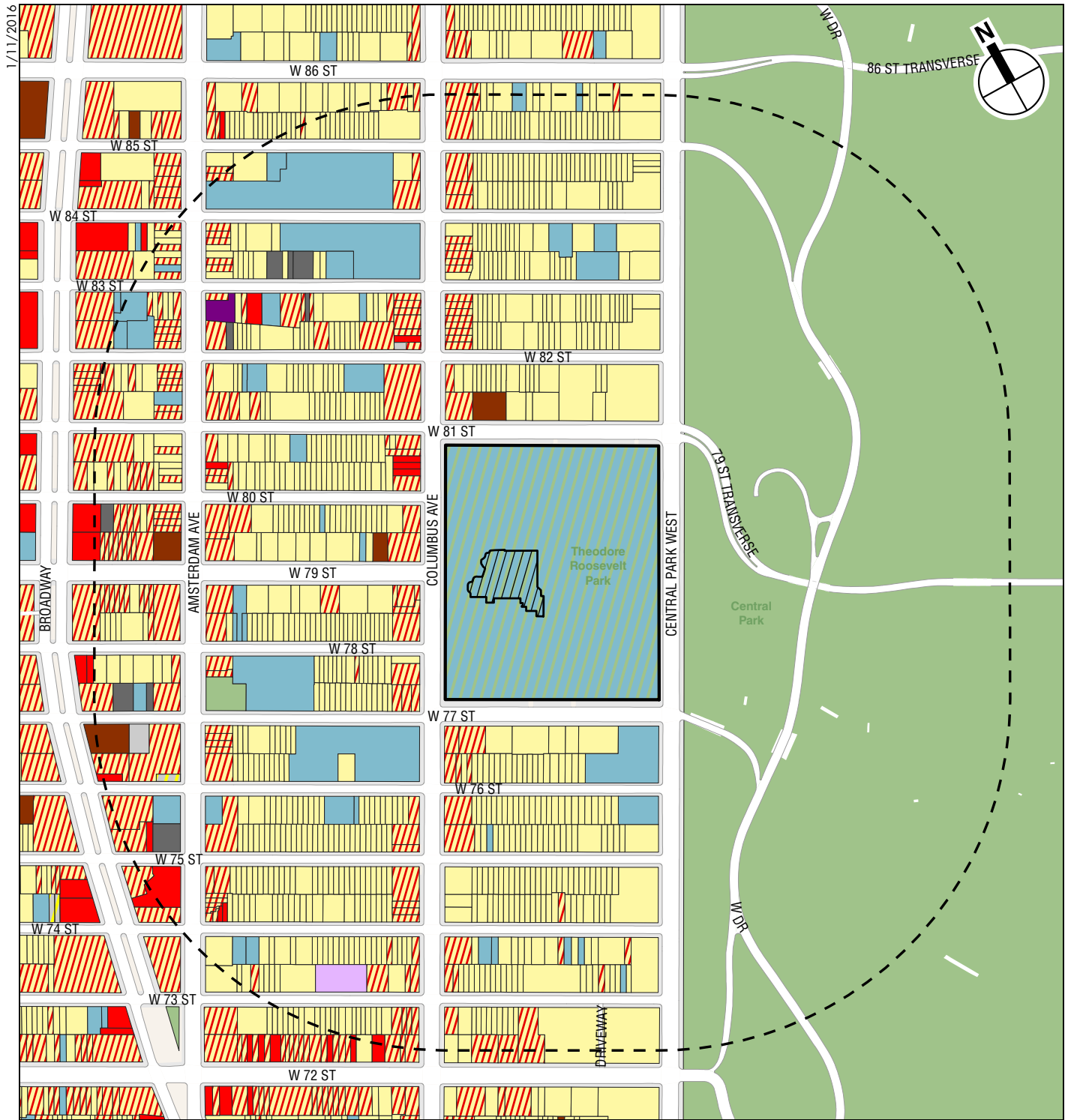
The EIS will include a detailed assessment of the proposed project's consistency with land use, zoning, and public policy, which will consist of the following tasks:

- Provide a brief development history of the project site and study area.
- Describe existing conditions in the Museum superblock, including existing uses and visitor levels.
- Describe predominant land use patterns in the study area, including recent development trends. The study area will include the blocks immediately surrounding the Museum block and land uses within approximately ¼ mile (see **Figure 8**).
- Provide a clear zoning map and discuss existing zoning. The discussion will explain that the proposed project, because it is on parkland, is not subject to the New York City zoning resolution.
- Summarize other public policies that may apply to the project site and study area, including any applicable formal neighborhood or community plans.
- Prepare a list of other projects expected to be built in the study area that would be completed before or concurrent with the proposed project (No Action projects). Describe the effects of these No Action projects on land use patterns and development trends. Also, describe any pending zoning actions or other public policy actions that could affect land use patterns and trends in the study area, including plans for public improvements.
- Describe the proposed project and provide an assessment of the impacts of the proposed project on land use and land use trends, zoning, and public policy. Consider the effects related to issues of compatibility with surrounding land use, consistency with public policy initiatives, and the effect of the project on development trends and conditions in the area.

## OPEN SPACE

Open space is defined as publicly- or privately-owned land that is publicly accessible and operates, functions, or is available for leisure, play, or sport, or set aside for the protection and/or enhancement of the natural environment. An analysis of open space is conducted to determine whether a proposed project would have direct effects resulting from the elimination or alteration of open space, and/or indirect effects resulting from overtaxing available open space due to an increased user population generated by the project.

According to the *CEQR Technical Manual*, an assessment of a project's potential direct effects may be appropriate if the project would result in a physical loss of publicly-accessible open space (by encroaching on an open space or displacing an open space); change the use of an open space so that it no longer serves the same user population (e.g., elimination of playground equipment); limit public access to an open space; or cause increased noise or air pollutant emissions, odors, or shadows on public open space that would affect its usefulness, whether on a



- |                                   |                                    |
|-----------------------------------|------------------------------------|
| Theodore Roosevelt Park           | Public Facilities and Institutions |
| Development Area                  | Residential                        |
| Commercial and Office Buildings   | Residential with Commercial Below  |
| Hotels                            | Transportation and Utility         |
| Industrial and Manufacturing      | Vacant Land                        |
| Open Space and Outdoor Recreation | Vacant Building                    |
| Parking Facilities                | Under Construction                 |
|                                   | Parkland with Museum               |

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permanent or temporary basis. An assessment of indirect effects may be appropriate if a substantial population would be introduced that could overburden existing open space resources.

The proposed project would involve the construction of an addition to the Museum within a City park. While the proposed project would result in a reduction and change in existing open space, this change would not require State alienation legislation because of existing statutes permitting Museum uses within the park. However, because the proposed project would directly affect existing parkland, an assessment of direct effects and indirect effects will be provided in the EIS. The analyses will consider the number of park users that would be affected as well as the type, quantity, and quality of displaced publicly-accessible open spaces. The assessment will also consider the availability of public open spaces within a ½-mile of the project site and provide a comparison of open space conditions in the No Action and With Action conditions. The chapter will assess the potential impacts of the proposed project, based on quantified ratios and qualitative factors.

## **SHADOWS**

The *CEQR Technical Manual* requires a shadows assessment for proposed actions that would result in new structures (or additions to existing structures) greater than 50 feet in height or located adjacent to, or across the street from, a sunlight-sensitive resource. Such resources include publicly-accessible open spaces, important sunlight-sensitive natural features, or historic resources with sun-sensitive features.

The proposed project would result in a new structure greater than 50 feet in height that would be located within Theodore Roosevelt Park, a publicly-accessible open space. Therefore, a preliminary assessment of shadows is warranted and will be provided in the EIS. The shadow assessment will be coordinated with the tasks for open space and historic resources. The preliminary assessment will include the following tasks:

- Develop a base map illustrating the proposed project in relation to publicly accessible open spaces, historic resources with sunlight-dependent features, and natural features in the area.
- Perform a screening assessment to ascertain those seasons and times of day during which shadows from the proposed project could reach any sunlight-sensitive resources.

Since new shadows reaching sunlight-sensitive resources are expected, the EIS will include a detailed analysis. This will include the following tasks:

- Develop a three-dimensional computer model of the elements of the base map developed in the preliminary assessment.
- Develop a “worst-case” three-dimensional representation of conditions in the With Action scenario.
- Develop three-dimensional representations of the No Action condition.
- Determine the extent and duration of new shadows that would be cast on sunlight-sensitive resources as a result of the proposed project on four representative days of the year.
- Document the analysis with graphics comparing shadows resulting from the No Action condition with shadows resulting from the proposed project, with incremental shadow highlighted in a contrasting color.
- Include a summary table listing the entry and exit times and total duration of incremental shadow on each applicable representative day for each affected resource.
- Assess the significance of any shadow impacts on sunlight-sensitive resources.

- If any significant adverse shadow impacts are identified, identify and assess potential mitigation strategies.

## **HISTORIC AND CULTURAL RESOURCES**

According to the *CEQR Technical Manual*, a historic and cultural resources assessment is required if there is the potential for a proposed project to affect either archaeological or architectural resources. The Museum is a NYCL and is individually listed on the S/NR. The project site is also located within the Upper West Side/Central Park West Historic District (NYCHD and S/NR eligible) and the S/NR listed Central Park West Historic District. Central Park, located directly east of the project site, is a National Historic Landmark (NHL), listed on the S/NR, and a designated New York City Scenic Landmark. The proposed project will require review and approval by LPC pursuant to the City's Landmarks Law. As the proposed project will also be seeking state financing through ESD, the project will also be subject to review by SHPO pursuant to the New York State Historic Preservation Act (SHPA) of 1980, as set forth in Section 14.09 of the New York State Parks, Recreation and Historic Preservation Law.

Therefore, an analysis will be undertaken to examine the effect of the proposed project on historic and cultural resources. The following tasks will be undertaken as part of the archaeological and architectural resources analyses:

- Consult with LPC and SHPO regarding the project site's potential archaeological sensitivity. If it is determined that all or part of the area that would be disturbed in order to construct the proposed project may be sensitive for archaeological resources, a Phase 1A Archaeological Documentary Study of the affected area will be prepared as directed by LPC and/or SHPO.
- Prepare a map of the 400-foot study area and describe known architectural resources within the study area. These comprise NHLs, S/NR and S/NR-eligible properties, and NYCLs and NYCHDs.
- Based on planned development projects, qualitatively discuss any impacts on historic and archaeological resources that are expected in the No Action condition.
- Assess the proposed project's potential impacts on architectural resources, including visual and contextual impacts as well as any direct physical impacts. This analysis will include a summary of LPC's review of the proposed project pursuant to the Landmarks Law and the results of the consultation with SHPO.

## **URBAN DESIGN AND VISUAL RESOURCES**

According to the methodologies of the *CEQR Technical Manual*, if a project requires actions that would result in physical changes to a project site beyond those allowable by existing zoning, and which could be observed by a pedestrian from street level, a preliminary assessment of urban design and visual resources should be prepared. Although the project site is not subject to zoning, the proposed project would result in physical changes to the project site that would be visible to pedestrians from public areas including Theodore Roosevelt Park and Columbus Avenue.

Therefore, a preliminary analysis will be undertaken as follows:

- Prepare a concise narrative of the existing conditions of the project site and a study area of approximately ¼ mile. The study area for the preliminary assessment of urban design and visual resources will be consistent with the study area for the analysis of land use, zoning,

and public policy. The analysis will draw on information from field visits to the project site and study area.

- Based on planned and proposed development projects and using the information gathered above for existing conditions, assess whether and how urban design conditions are expected to change in No Action condition.
- Assess qualitatively how the proposed project would affect the pedestrian's experience of the built environment, and determine the significance of those changes. The preliminary assessment will present photographs, building heights, project drawings and site plans, and view corridor assessments, as appropriate.

## **NATURAL RESOURCES**

According to the *CEQR Technical Manual*, a natural resource is defined as a plant or animal species and any area capable of providing habitat for plant and animal species or capable of functioning to support environmental systems and maintain the City's environmental balance. Such resources include surface and groundwater, wetlands, dunes and beaches, grasslands, woodlands, landscaped areas, gardens, and built structures used by wildlife. An assessment of natural resources is appropriate if a natural resource exists on or near the site of the proposed action, or if an action involves disturbance of that resource.

The project site is within Theodore Roosevelt Park, a landscaped park adjacent to Central Park, under the jurisdiction of DPR. Construction of the project will result in the displacement of vegetation and trees within the park. In accordance with the *CEQR Technical Manual*, the EIS will provide an assessment of natural resources. Existing natural resources within and in the vicinity of the project site will be characterized, including terrestrial plants and wildlife. The proposed project's potential impacts to natural resources will be assessed, including short-term construction effects, and long-term effects associated with any changes in landscaping and human activity due to the proposed project, as well as any impacts associated with the building expansion. A discussion of any related permits (e.g., DPR tree-replacement requirements) that may be required will be provided.

The analysis will include the following tasks:

- On the basis of site reconnaissance and existing information on and in the vicinity of the project site, including terrestrial resources, threatened or endangered species from resource agencies such as the U.S. Fish and Wildlife Service (USFWS) and the New York State Department of Environmental Conservation (NYSDEC), characterize the existing natural resources within and adjacent to the project site. This will include an inventory of the number, type, and size of directly affected trees and other vegetation.
- Assess potential effects to natural resources in the No Action condition, accounting for any changes in the study area that may alter natural resources.
- Assess potential impacts to terrestrial resources in the With Action condition by considering tree removal and other vegetation disturbance, visual and noise disturbances to wildlife, risk of daytime bird collision due to the building expansion, and any benefits from landscaping or other improvements that would be implemented as part of the proposed project. Related permits such as the DPR tree-replacement requirements will be described.

## **HAZARDOUS MATERIALS**

The EIS will address the potential presence of hazardous materials on the project site. The EIS will summarize a Phase I Environmental Site Assessment (ESA) for the project site, and will include any necessary recommendations for additional testing or other activities that would be required prior to or during construction and/or operation of the project, including a discussion of any necessary remedial or construction health and safety measures, as appropriate.

## **TRANSPORTATION**

The proposed project is expected to result in an incremental increase in Museum attendance and a change in access/egress patterns attributable to the Gilder Center entrance along Columbus Avenue. According to guidelines provided in the *CEQR Technical Manual*, if a project's travel demand (Level 1) is expected to show fewer than 50 peak hour vehicle trips and fewer than 200 peak hour transit or pedestrian trips, further quantified analyses are typically not warranted. When these thresholds are exceeded, detailed trip assignments (Level 2) are performed to estimate the incremental trips that could be incurred at specific transportation elements and to identify potential locations for further analyses. If the trip assignments show that a project would generate 50 or more peak hour vehicle trips at an intersection, 200 or more peak hour subway trips at a station, 50 or more peak hour bus trips in one direction along a bus route, or 200 or more peak hour pedestrian trips traversing a pedestrian element, then further quantified analyses are warranted to assess the potential for significant adverse impacts.

### *TRAVEL DEMAND PROJECTIONS AND SCREENING ASSESSMENTS*

The Museum already influences conditions in the area due to its generation of substantial levels of traffic by all modes, including private autos and taxis, tour buses, school buses, subways, local buses, bicycles (including those using the Columbus Avenue bike lane), and walking. In conjunction with construction of the Rose Center for Earth and Space and the Museum's parking garage, AMNH prepared an internal operational plan to manage the Museum's transportation (the Transportation Management Plan [TMP]). The TMP addressed a range of issues generated by visitor travel to and from the Museum, including congestion on the blocks around the Museum and the need to manage school buses bringing children to the Museum. The Museum actively encourages the use of public transportation. The TMP was updated in 2015 to reflect current bus and visitation levels as well as changes to local traffic conditions.

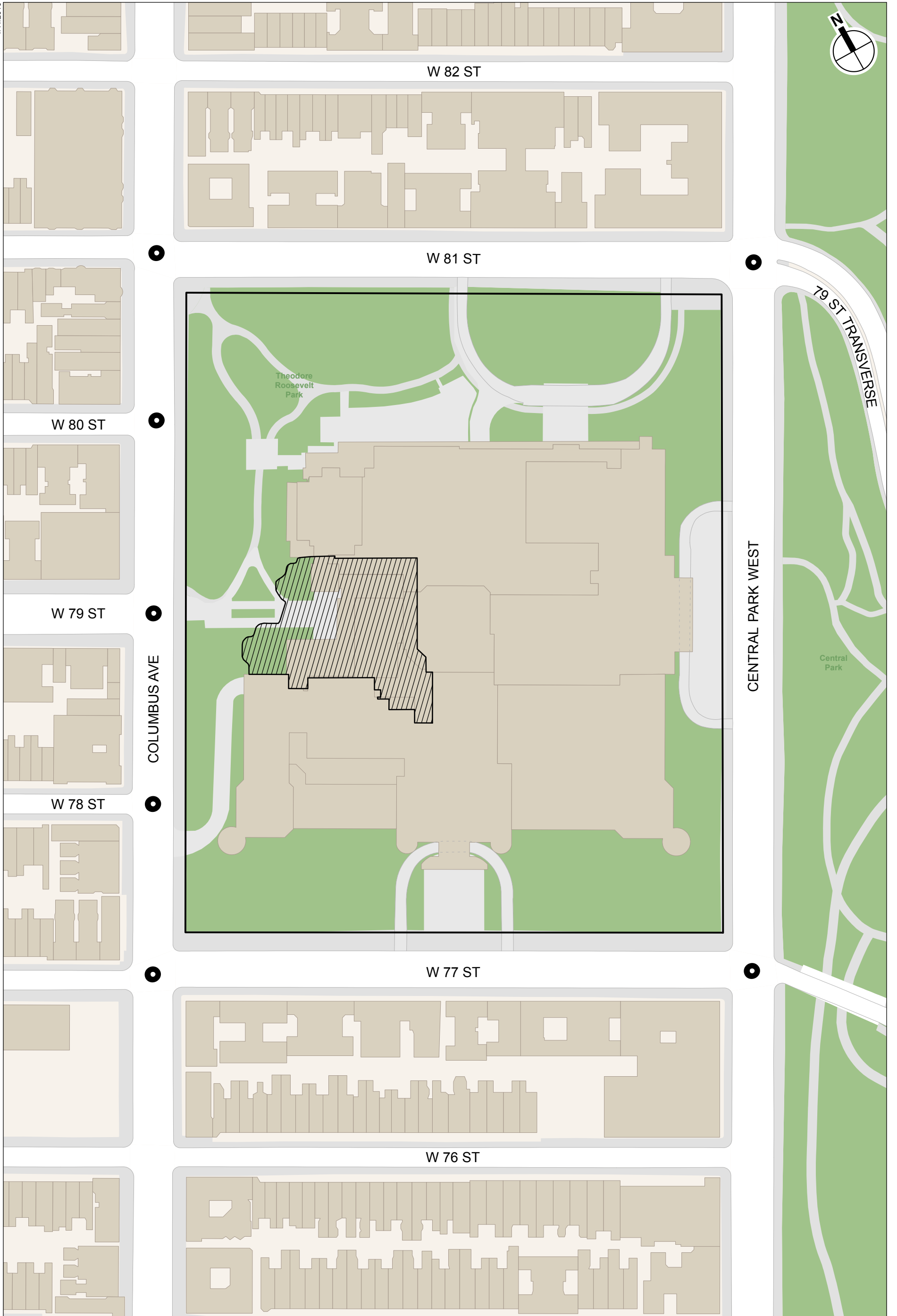
Future travel demand estimates for the proposed project have been prepared using visitation projections and recent travel characteristics provided by the Museum. The estimates were compared to the above screening thresholds to identify transportation elements that would be subject to further detailed analyses. The results of these estimates were summarized in a Travel Demand Factors (TDF) memorandum for review and concurrence by the lead agency and involved expert agencies, including the New York City Department of Transportation (DOT) and/or New York City Transit (NYCT). Although subject to change based on comments and questions raised during this review, the current trip estimates would not exceed the above analysis thresholds. Nonetheless, due to substantial existing traffic and pedestrian levels in the area and those contributed by the Museum, a transportation scope has been identified, as follows, to assess potential transportation-related impacts associated with the proposed project.

*TRAFFIC*

Vehicle travel to the Museum includes use of private auto, taxis, tours buses, and school buses. Based on the travel demand estimates described above, the proposed project is expected to yield minimal incremental vehicular traffic during weekday peak hours. Therefore, a detailed traffic impact study would be conducted for only the weekend (Saturday) afternoon peak period. If significant adverse traffic impacts are identified, feasible traffic mitigation measures will be evaluated for recommendation. The following tasks will be undertaken:

- Define traffic study area: Based on the findings of the TDF memo, the following seven intersections have been identified for a detailed analysis for the Saturday peak period, as shown on **Figure 9**.
  - 1) Central Park West and West 77th Street;
  - 2) Central Park West and West 81st Street;
  - 3) Columbus Avenue and West 77th Street;
  - 4) Columbus Avenue and West 78th Street;
  - 5) Columbus Avenue and West 79th Street;
  - 6) Columbus Avenue and West 80th Street; and
  - 7) Columbus Avenue and West 81st Street.
- Traffic data collection: Traffic volumes and relevant data at the study area intersections will be collected following CEQR guidelines via a combination of manual, video, and machine counts. Turning movement and vehicle classification counts (including, autos taxis, buses and trucks) will be conducted for the Saturday analysis peak period. These counts will be supplemented with continuous automatic traffic recorder (ATR) counts at key locations to identify temporal and daily traffic variations. Information pertaining to street widths, traffic flow directions, lane markings, parking regulations, and bus stop locations at study area intersections will be inventoried; this task will account for the condition created by the bike lanes and parking along the east side of Columbus Avenue. Traffic control devices (including signal timings) in the study area will be recorded and verified with official signal timing data from DOT.
- Conduct existing conditions analysis: Balanced peak hour traffic volumes will be prepared for the capacity analysis of study area intersections. This analysis will be conducted using the 2000 *Highway Capacity Manual* (HCM) methodology with the latest approved Highway Capacity Software (HCS)—HCS+, version 5.5. The existing volume-to-capacity (v/c) ratios, delays, and levels of service (LOS) for the peak hours will be determined.
- Develop the future No Action condition: No Action traffic volumes in the 2021 analysis year will be estimated by adding a background growth factor to existing traffic volumes, in accordance with CEQR guidelines, and incorporating incremental changes in traffic resulting from other projects in the area. The analysis will also account for increased attendance at the Museum expected to occur independent of the proposed project. Physical and operational changes that are expected to be implemented independent of the proposed project, if any, will also be incorporated into the future traffic analysis





-  Theodore Roosevelt Park
-  Development Area
-  Traffic Analysis Intersection - Saturday

0 200 FEET

network. The No Action v/c ratios, delays, and LOS at the study area intersections will be determined.

- Perform traffic impact assessment for the proposed project: Incremental project-generated vehicle trips (including diverted trips due to the Gilder Center entrance location) will be overlaid onto the future No Action peak hour traffic networks. The potential impact on v/c ratios, delays, and LOS will then be evaluated in accordance with *CEQR Technical Manual* criteria. In addition, changes in truck access and circulation at the Columbus Avenue receiving area will be described. Where impacts are identified, feasible improvement measures, such as signal retiming, phasing modifications, roadway restriping, addition of turn lanes, revision of curbside regulations, turn prohibitions, and street direction changes, etc. will be explored for DOT approval and implementation.

### *TRANSIT*

Public transportation near the project site includes subway service along Central Park West at the 81st Street-Museum of Natural History (B and C lines) and along Broadway at the 79th Street (No. 1 line) subway stations. The Museum is also accessible via area local bus service, including the north-south M7 and M11 routes along Amsterdam Avenue (northbound) and Columbus Avenue (southbound), the north-south M10 route along Central Park West, and the crosstown M79 and M86 routes that traverse Central Park north of the Museum.

#### *Subway Station Analysis*

Based on the screening assessments described above, a detailed study is expected to be warranted for the key circulation and control area elements at the 81st Street-Museum of Natural History subway station. This effort will be conducted using similar data collection and analysis procedures described above for the traffic impact analysis. Considering that the Museum does not open until 10 AM, this analysis will be prepared only for the midday and PM peak periods on a weekday and the afternoon peak period on a Saturday. Where impacts are identified, feasible improvement measures will be explored for NYCT approval and implementation.

#### *Subway and Bus Line-Haul Analyses*

Based on the screening assessments described above, the incremental increases in subway and local bus riders associated with the proposed project are expected to be below the CEQR analysis thresholds of 200 subway riders per subway line or 50 bus riders per route in a single direction of travel during the weekday peak hours. Subway and bus line haul analyses are typically conducted during the peak weekday commuting hours when system-wide transit ridership is at its highest. Therefore, detailed subway and bus line-haul analyses would not be warranted.

### *PEDESTRIANS*

Project-generated pedestrian trips are expected to be concentrated at the project site and along primary routes to area transit facilities. A quantified pedestrian analysis will be conducted for a study area of pedestrian elements determined by the Level 2 screening assessment. With the proposed Museum entrance from Columbus Avenue, it is expected that there will be a redistribution of existing trips to the new entrance, in addition to new project-generated trips. Pedestrian elements identified to incur 200 or more incremental peak hour trips as well as other

sensitive locations will be analyzed for the weekday midday and PM peak periods, as well as the Saturday afternoon peak period, in accordance with procedures outlined in the *CEQR Technical Manual*. Based on the screening assessments described above, selective pedestrian elements (sidewalks, corner reservoirs, and crosswalks) along Columbus Avenue, as depicted in **Figure 10**, have been identified for analysis. Where impacts are identified, feasible improvement measures will be explored for DOT approval and implementation.

#### *VEHICULAR AND PEDESTRIAN SAFETY*

Crash data for the study area intersections and other nearby sensitive locations from the most recent three-year period will be obtained from the New York State Department of Transportation (NYSDOT). The data will be analyzed to determine if any of the studied locations may be classified (under 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, school bus, and pedestrian safety at these locations. If any high accident locations are identified, feasible improvement measures will be explored to address potential safety issues.

#### *PARKING*

Currently, parking is available in an on-site garage and other off-street parking resources in the area. An assessment of existing and future parking supply and demand will be conducted to determine if the proposed project has the potential to result in a parking shortfall. This assessment will involve evaluating existing utilization and current user characteristics of the on-site parking facility, and the off-street parking supply and utilization within ¼ mile of the project site. Parking demand projections will be developed using the proposed project's travel demand estimates and overlaid onto the existing/future baseline parking utilization to determine if future parking demand can be accommodated within the on-site and study area parking resources.

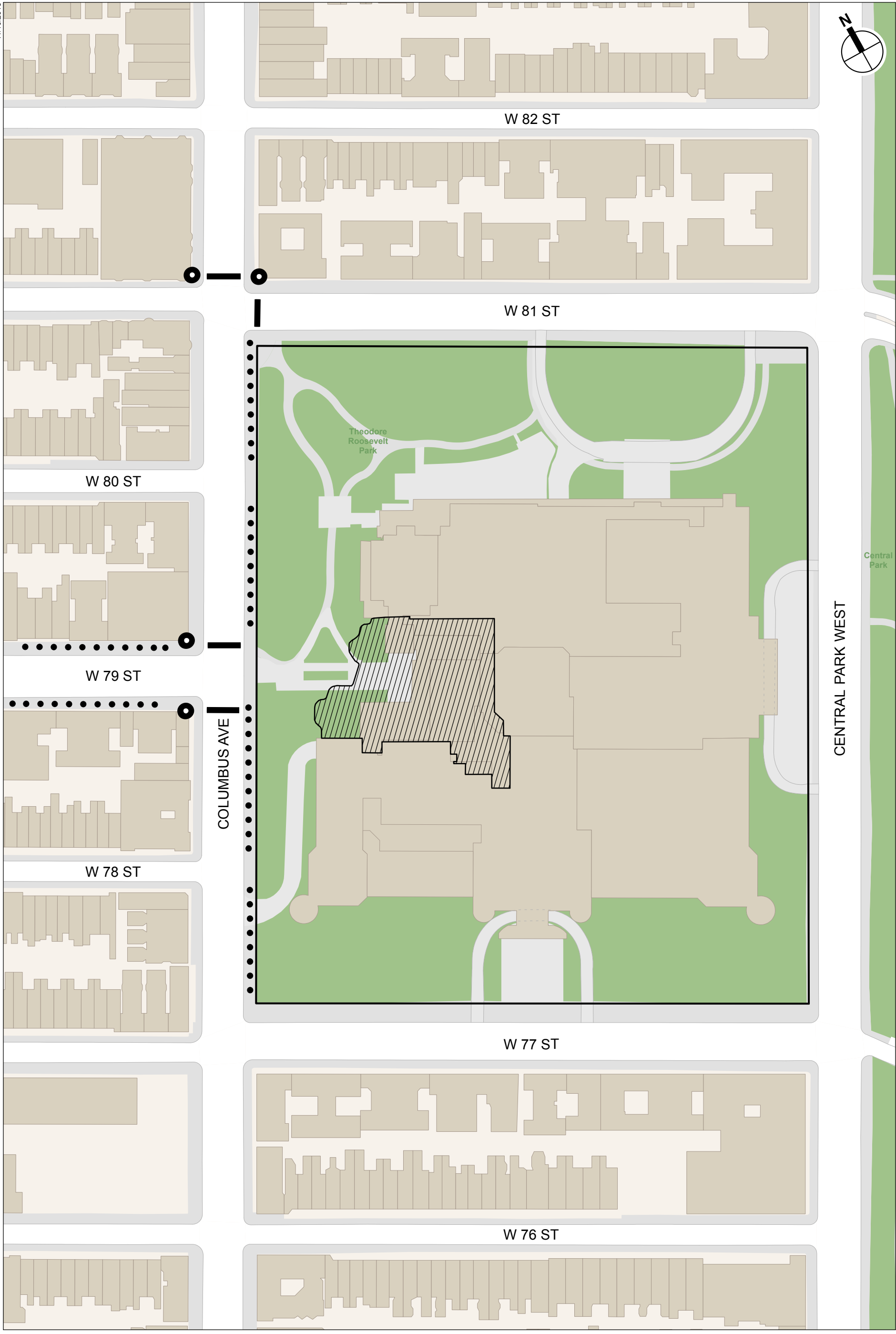
#### **AIR QUALITY**

Based on the preliminary travel demand forecast, the proposed project is unlikely to exceed the 170-vehicle-trip screening threshold for conducting a quantified analysis of carbon monoxide (CO) emissions from mobile sources, as well as the fine particulate matter (PM<sub>2.5</sub>) emission screening threshold discussed in Chapter 17, Sections 210 and 311 of the *CEQR Technical Manual*. Therefore, a mobile source air quality analysis is not anticipated to be required. In the event that—based on the project's traffic studies—the CO and/or PM<sub>2.5</sub> screening threshold is exceeded, a detailed analysis of pollutant emissions from mobile sources will be performed to assess the potential impacts on air quality.

The proposed project is expected to use the Museum's existing Con Edison steam service connection for the project's heating, ventilation, and air conditioning (HVAC) system needs. If new fossil-fuel-fired HVAC systems are proposed, a stationary source air quality impact analysis will be performed, using the screening procedure outlined in the *CEQR Technical Manual*. In addition, a screening level analysis will be conducted to determine the potential for significant adverse impacts from large or major emission sources, as defined in the *CEQR Technical Manual*, within a distance of 1,000 feet.

In the event that the stationary source screening analysis identifies a potential significant adverse air quality impact, a detailed analysis will be performed using the EPA-approved AERMOD model to determine maximum concentrations for the pollutant(s) of concern.

11/10/2015



- Theodore Roosevelt Park
- Sidewalk (Weekday and Saturday)
- Development Area
- Crosswalk (Weekday and Saturday)
- Corner (Weekday and Saturday)

0 200 FEET

## NOISE

Under *CEQR Technical Manual* guidelines, a noise analysis determines whether a proposed project would result in increases in noise levels 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 noise analysis for the proposed project would be undertaken in four sections:

- Identification of potential impacts due to traffic generated by the proposed project,
- Identification of potential impacts due to the proposed project's mechanical equipment, and
- Determination of the necessary window/wall attenuation to achieve acceptable interior noise levels according to CEQR criteria.

### *NOISE DUE TO TRAFFIC GENERATED BY THE PROPOSED PROJECT*

The amount of vehicular traffic generated as a result of the proposed project is not expected to be large enough to necessitate a detailed analysis of noise due to traffic—i.e., it is unlikely that the proposed project would result in a doubling of Noise PCEs, which would result in a 3 dBA increase in noise levels. Therefore, the EIS will present a screening analysis to determine whether a detailed mobile source noise analysis is warranted.

### *NOISE DUE TO BUILDING MECHANICAL EQUIPMENT*

The building mechanical systems (i.e., heating, ventilation, and air conditioning systems) associated with the proposed project would be required to meet all applicable noise regulations (i.e., Subchapter 5, §24-227 of the New York City Noise Control Code and the New York City Department of Buildings Code). Consequently, noise associated with the proposed project's building mechanical systems will be discussed qualitatively based on these applicable code requirements.

### *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. Measurement sites will be selected at the project site. These measurement sites would be placed in areas to be analyzed for building attenuation. This would focus on areas of potentially high ambient noise at the project site.
- Determine existing noise levels. 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. The monitoring periods will coincide with the expected peak periods of use of the project. These would be the weekday AM, midday, PM time periods.
- 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. Measured

values will be compared to appropriate standards and guideline levels. As necessary, attenuation measures will be recommended for the proposed project.

### **PUBLIC HEALTH**

Following the guidelines presented in the *CEQR Technical Manual*, this task will examine the proposed project's potential to significantly impact public health concerns related to air quality, noise, hazardous materials, and construction. Drawing on other EIS sections, this task will assess and summarize the potential for significant adverse impacts on public health from project activities.

### **NEIGHBORHOOD CHARACTER**

The character of a neighborhood is established by numerous factors, including land use patterns; residential, worker, and visitor populations; the scale of its development; the design of its buildings; the presence of notable landmarks; and a variety of other physical features. According to CEQR criteria, a neighborhood character assessment is conducted if the action would result in a significant impact in the areas of land use, zoning, and public policy; urban design; visual resources; historic resources; socioeconomic conditions; traffic; or noise. In addition, if the action falls below the thresholds for significant adverse impacts in these categories but would result in moderate changes in the elements that contribute to neighborhood character, thereby potentially resulting in a significant impact, an analysis of neighborhood character is required. Since most of these elements will already be covered in other EIS sections, this section will essentially represent a summary of the key conclusions of these other analyses.

The neighborhood character analysis will include the following tasks:

- Drawing on other EIS sections, describe the predominant factors that contribute to defining the character of the neighborhood, focusing primarily on the area within ¼ mile of the project site.
- Based on planned development projects, public policy initiatives, and planned public improvements, summarize changes that can be expected in the character of the neighborhood in the No Action condition.
- The analysis of impacts on various EIS sections will serve as the basis for assessing and summarizing the action's impacts on neighborhood character.

### **CONSTRUCTION**

Construction impacts, though temporary, can have a disruptive and noticeable effect on the adjacent community, as well as people passing through the area. The construction analysis will describe the likely construction program and schedule for the proposed project. This section will assess the potential for impacts during the construction period based on preliminary construction information for the proposed project, including schedules, phasing plans, staging plans, and construction practices (e.g., public safety measures and rodent control measures). The construction assessment for the proposed project would generally be qualitative, focusing on areas where construction activities may pose specific environmental problems; technical areas to be analyzed include:

- Open Space. This assessment will document the potential effects of construction staging and construction activities on the quality (including potential construction air quality,

construction noise, and other safety concerns) and access to public open space in the vicinity of the project site.

- Transportation Systems. This assessment will consider losses in lanes, construction worker parking, and effects on other transportation services, if any, during the construction of the proposed project, and identify the increase in vehicle trips from construction workers and trucks. It will also account for temporary changes in Museum access and park circulation and operations of the receiving area.
- Air Quality. The construction air quality impact section will qualitatively review both mobile source emissions from construction equipment and worker and delivery vehicles, and also fugitive dust emissions. It will discuss measures to reduce impacts.
- Noise and Vibration. The construction noise analysis will quantitatively assess potential noise impacts due to construction-related stationary and mobile sources. Existing noise levels will be determined by noise measurements performed at grade-level receptor locations, and by use of a combination of measurements and mathematical models for elevated receptor locations. During the most representative worst-case time period(s), noise levels due to construction activities at each sensitive receptor will be predicted. The construction vibration assessment will determine critical distances at which various pieces of equipment may cause damage or annoyance to nearby buildings based on the type of equipment, the building construction, and applicable vibration level criteria. Should it be necessary for certain construction equipment to be located closer to a building than its critical distance, vibration mitigation options will be proposed.
- Hazardous Materials. In coordination with the hazardous materials summary, this section will determine whether the construction of the project has the potential to expose construction workers to contaminants.
- Natural Resources. In coordination with the work performed related to natural resources, as described above, this section will determine whether the proposed project's construction activities will significantly impact existing natural resources within the project area. If appropriate, relevant mitigation measures will be discussed.
- Other Technical Areas. As appropriate, other areas of environmental assessment for potential construction-related impacts will be assessed.

## **ALTERNATIVES**

The purpose of an alternatives analysis is to examine reasonable and practicable options that avoid or reduce project-related significant adverse impacts and achieve the stated goals and objectives of the proposed actions, considering the capabilities of the project sponsor.

The specific alternatives to be analyzed will be finalized with the lead agency as project impacts become clarified. However, they must include the No Action Alternative and an alternative that reduces any identified significant adverse impacts. The alternatives analysis will be qualitative, except where significant adverse impacts of the proposed project have been identified.

## **MITIGATION**

Where significant adverse impacts attributable to the proposed project have been identified in the analyses discussed above, measures will be assessed to mitigate those impacts. Where impacts cannot be mitigated, they will be described as unavoidable adverse impacts.

## SUMMARY CHAPTERS

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

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