

## **5.3 PUBLIC OPEN SPACE**

### **5.3.1 Introduction**

This section discusses the potential impacts of the Proposed Action on the quality, use, and maintenance of public open space. For the purposes of this analysis, public open space is defined as publicly owned parkland and “Greenstreets” (traffic islands that have been landscaped by the New York City Department of Parks and Recreation [NYCDPR]).

### **5.3.2 Existing Conditions**

The public open space study area is comprised of a ¼-mile radius around the site of the Proposed Action. Figure 18 indicates the study area boundary and the public open spaces within that area. Table 5-1 on the following page provides the name and location of the numbered facilities in Figure 18. The public open spaces in the study area are substantially the same as they were prior to September 11, 2001.

Battery Park, along with the South Street Seaport, Ellis and Liberty Islands, the Fulton Ferry-Empire Stores (Brooklyn) and Snug Harbor (Staten Island), comprise the state-designated Harbor Park, one of the 14 Urban Cultural Park Zones in New York. The Esplanade in Battery Park City, Battery Park, the East River Esplanade, and South Street Seaport collectively provide the public with continuous access to open space along Lower Manhattan’s waterfront.

#### **5.3.2.1 Battery Park**

The largest park in the study area, Battery Park is approximately 23 acres in size and one of the oldest parks in New York City. It is the location where Dutch settlers landed in 1623, and where the first “battery” of cannons was erected to defend New Amsterdam. By the early 1700s, the Battery’s promenade and harbor views became a popular attraction for New Yorkers. In the late 18<sup>th</sup> and early 19<sup>th</sup> century, the original fort was demolished and its remnants were used to expand the Battery by filling in the shoreline, the first of a series of park expansions via landfill. Between 1808 and 1811 a new circular fort, called West Battery, was constructed 200 feet offshore to the southwest. In 1815 it was renamed Castle Clinton, and then Castle Garden in 1824. The castle’s use continued to change over time, and beginning in 1855 it served as the federal immigration center for the east coast. In 1890 the castle was acquired by the New York City Department of Public Parks and its use changed to the New York Aquarium from 1896 to 1941.

**Table 5-1  
Open Space Resources in Study Area**

Map Number	Name	Type	Location
1	Battery Park	Park/Playground	Battery Place, State Street, Whitehall Street, Hudson River
2	Bowling Green	Park, Sitting Area	Broadway, Whitehall Street, Beaver Street
3	Greenstreets	Sitting Area	Edgar Street, Morris Street, Greenwich Street, Trinity Place
4	Robert F. Wagner, Jr. Park	Park, Pavilion, Sitting Area	Hudson River, 1 <sup>st</sup> Place, Battery Place, Pier A
5	Esplanade (in Battery Park City)	Esplanade, Sitting Area	Hudson River, north to Chambers Street, south to Pier A
6	Trinity Church Cemetery	Cemetery	Rector Street, Trinity Place, Broadway, Pine Street
7	Hanover Square Park	Park, Sitting Area	Hanover Square, Pearl Street
8	Peter Minuit Plaza*	Pedestrian Plaza	State Street, Whitehall Street, South Street
9	Vietnam Veterans Plaza	Plaza, Sitting Area	South Street, Broad Street, Old Slip
10	East River Bikeway/ Esplanade	Esplanade, Bikeway	Adjacent to the East River, beginning just north of the Battery Maritime Building

Sources: NYCDP *Selected Facilities & Program Sites in New York City*, 1999 Edition, and site visits (October 2003).

\*Peter Minuit Plaza is currently used for construction staging for the Whitehall Ferry Terminal reconstruction project. It will be reconstructed as a pedestrian plaza following completion of the South Ferry Terminal project.

From 1940 to 1952, parts of Battery Park were closed as construction of the Brooklyn Battery Tunnel and Battery Park Underpass took place beneath it. The U.S. Department of the Interior designated Castle Clinton as a National Monument in 1950, but by this time only the 19<sup>th</sup> century fort walls stood intact. The walls have since been restored to the condition of its fortification period, and in 1986 the castle began its present day use as the ticket facility for the Statue of Liberty and Ellis Island ferries.

Currently, several major transportation facilities traverse underneath Battery Park. These include the Brooklyn Battery Tunnel and the Battery Park Underpass described above, which carry vehicular traffic, and the tracks for the existing **19** and **45** subway lines at the eastern edge of the park.

Along with its landscaped pathways, gardens, and tree-canopied areas, Battery Park contains 22 monuments and memorials honoring soldiers, explorers, inventors, and immigrants. The most recent memorial placed in Battery Park is the “Sphere” sculpture salvaged from the World Trade Center site after the terrorist attacks of September 11,

2001. This temporary memorial is located at the northeast corner of the park in Eisenhower Mall, a paved pathway that runs diagonally from the corner of State Street and Battery Place to the center of the park, and features an eternal flame and dedications to the victims of the attack.

New York City owns and maintains Battery Park through the Department of Parks and Recreation. The U.S. government owns and maintains Castle Clinton through the National Park Service. It is estimated that approximately four million people visit Battery Park annually. While most park visitors are tourists, over 350,000 people work within walking distance of The Battery, and over 20,000 residents live in the surrounding area (Battery Conservancy, 2003). Free seasonal lunchtime concerts take place on the lawn and free evening concerts at Castle Clinton occur during the month of July. The park is also the site for special events throughout the year.

The Battery Conservancy (Conservancy) was created in 1994 as a 501(c) (3) non-profit corporation to rebuild and revitalize Battery Park and Castle Clinton. The Conservancy has developed a Master Plan for Battery Park (see Figure 19), which includes redesigning sections of the park. Their vision is “to return the Battery to its historic role as the center of cultural life in the Harbor and Downtown New York” (Conservancy 2003). To date, The Conservancy has raised \$32 million in public and private funds for various improvements to the park.

There are four main principles guiding the Battery Park Master Plan: 1) *The Water’s Edge* principle includes extending the green of the park closer to the water’s edge, thus giving the Battery a more park-like character; 2) *The City Edge* concept reinforces the park edge via the creation of a broad new walkway and new park entrance; 3) *The Park Interior* principle involves opening up the park interior for improved physical and visual access through the park to the water, and reducing the amount of pavement; 4) *The Town Green* notion entails the transformation of the existing Eisenhower Mall into an open, expansive lawn that would serve as a “Town Green” for numerous new uses and special events. The Conservancy’s revitalization plan for Battery Park allocates the areas in which South Ferry project construction would occur as the “Town Green” and “The Lawn.” An area designated as the “Bosque” is for passive recreation along the waterfront; the Bosque would offer picnic areas and gardens, in addition to specialized horticulture. This area of the park currently contains approximately 50 mature London Plane trees.

Thus far, improvements to Battery Park include the restoration of the Upper Promenade; reconstruction of the seawall and Admiral Dewey Promenade; completion of the first design phase for the Battery Bikeway Perimeter, which will follow along Battery Place and State Street and link the Hudson River Park Esplanade/Bikeway to the East River Esplanade/Bikeway; installation of the first permanent public art piece along the new seawall railing, *River That Flows Two Ways*; new and improved food and vendor carts, maps and directional signage, gardens, and garbage bins; and improvements to overall park maintenance, the general horticulture and arboreal upkeep of park, and trash pickup. Plans for Castle Clinton include its adaptive reuse as a transportation hub, performing arts

venue, and educational center (National Park Service and Federal Highway Administration, April 2003).

Battery Park contains large, tree-canopied areas. A tree survey of the anticipated construction corridor was conducted in December 2001 (Parsons Brinckerhoff, 2001). Most of these trees are deciduous, although a few evergreen species are also present. Two discrete types of deciduous were identified: large and flowering. Large deciduous trees include: London Planetree, Pin Oak, Willow Oak, Sweet Gum, Scholar-tree, Linden, Ginkgo, Elm, and Norway maple. Flowering deciduous trees include: Crabapple, Cherry, Kousa Dogwood, and Magnolia. The large deciduous trees were classified as being in generally good physical condition. Some of the trees exhibited damage to the trunks. The flowering trees were classified as being near the limit or end of their life expectancies; many of them exhibited signs of age, physical damage, and insect/pest presence.

### **5.3.2.2 Peter Minuit Plaza**

Peter Minuit Plaza is mapped parkland situated between State, Whitehall, and South Streets, just north of the Whitehall Ferry Terminal. This parkland consists of five small traffic islands that presently serve as a construction staging area for the Whitehall Ferry Terminal and Peter Minuit Plaza reconstruction project (see Figure 21). The largest of the islands is roughly shaped like a right triangle, with the Whitehall Ferry Terminal situated at its base and its hypotenuse extending northward along State Street. There is no vegetation in Peter Minuit Plaza, with the exception of three London Plane trees (measuring between 22 and 26 inches diameter at breast height, DBH) at the northeast corner of the Plaza. The Jewish Tercentenary Flagpole is located near these trees.

According to the Whitehall Ferry Terminal EA and Section 4(f) Statement (FTA 1999), the reconstructed Whitehall Ferry Terminal will be accompanied by a reconfigured Peter Minuit Plaza featuring 1.3 acres of open space and pedestrian amenities. A new street, Peter Minuit Place, will be created for use as a bus turnaround lane (a function presently provided by the State Street Extension as it connects to Whitehall Street). An approximate 5,500 square foot addition has also been given to Battery Park as a part of the project, and the new Whitehall Ferry Terminal itself will provide approximately 26,000 square feet of outdoor public open space on its three levels. The reconfigured Peter Minuit Plaza (see Figure 34 in Section 5.15) will provide a more unified open space and a separation between vehicular and pedestrian movements, thus improving passenger safety and circulation between the Ferry Terminal, transit system, and the Financial District street network.

### **5.3.2.3 Bowling Green**

Bowling Green is the oldest green park in the City and is located where Broadway begins, at the intersection of State and Whitehall Streets in Lower Manhattan. The area began as a cattle market and parade grounds in the 17<sup>th</sup> and early 18<sup>th</sup> centuries. In 1733 it was converted into a bowling green, hence its name. Its small scale gives the visitor a

sense of the modest size of the early settlement of New Amsterdam. During the early 19<sup>th</sup> century, the park was largely the private domain of residents who lived in elegant townhouses around Bowling Green. The simple iron fence surrounding the park was erected in 1771 to protect a statue of King George III. In July 1776, after a public reading of the Declaration of Independence, patriots toppled the statue. The iron fence remains and is a designated New York City Landmark. Today the park features a central water fountain, walkways and landscaping, mature trees, sitting areas and musical concerts during the summer months.

### **5.3.3 Potential Environmental Impacts**

#### **5.3.3.1 Analysis Year 2005/2006 (Construction)**

##### *No Build Condition*

Under the No Build Condition, the South Ferry Terminal Project would not be constructed, and there would not be any change in existing conditions in the study area associated with the project. It is anticipated that Peter Minuit Plaza would be reconstructed as a pedestrian plaza by this time, as part of the Whitehall Ferry Terminal project. It is possible that improvements to Battery Park could also be underway during this time, including redevelopment of Castle Clinton.

##### *Proposed Action*

Under the Proposed Action, the South Ferry Terminal Project would be constructed as described in Chapter 4: Construction Methods and Activities. A portion of the new approach tunnels to the terminal would be located underneath the eastern edge of Battery Park, west of the existing ①⑨ approach tunnel. It is anticipated that the tunnels would be constructed using mostly traditional cut and cover methods, and that construction within the limits of Battery Park would occur for approximately nine months. Construction would likely occur sequentially through the park, and the construction zone could result in temporary closure of certain park areas. For the purposes of this analysis, construction impacts are separated into impacts to park vegetation and impacts to park facilities and use. These are described below.

##### Construction Impacts to Park Vegetation

As indicated previously, the project corridor through the eastern edge of Battery Park contains large deciduous trees, which are in varying physical conditions. The diameter at breast height (DBH, measured at 54 inches above the ground) for the park's large deciduous trees typically range from 14 to 26 inches; an elm with a 44-inch DBH and a 75-foot crown spread was recorded as being in good condition in the project corridor. The DBH for the park's flowering deciduous trees typically range from 4 to 13.5 inches, with canopy spreads typically ranging from 12 to 27 feet.

Approximately 50 trees in Battery Park would be potentially impacted from construction of the proposed approach tunnels (see Figure 20); that is, trees in or very near the construction zone would be removed entirely, removed and relocated within the park, or saved in place, as prudent and feasible. Prior to construction, the disposition of each tree

would be determined through a tree survey by a landscape architect or arborist, in collaboration with New York City Parks and Recreation (NYCDPR) and the Battery Conservancy under an agreement between NYCDPR and MTA/NYCT. Such factors such as age, health, size, species, and location would be considered in determining the disposition of each tree. MTA/NYCT is evaluating construction methods and techniques related to saving trees in place and through relocation, including root pruning and root ball binding, followed by insertion of cross beams under the root ball to enable the tree to be hydraulically lifted and either supported in place while excavation occurs under the root ball or relocated.

The temporary construction zone in Peter Minuit Plaza would be approximately 1.8 acres. The three London Plane trees in Peter Minuit Plaza would be removed during construction of the South Ferry Terminal. According to discussions between MTA/NYCT and NYCDPR, it would not be prudent and feasible to save them in place or to relocate them. Removal of these trees would be addressed in an agreement between NYCDPR and MTA/NYCT. It is possible that the Jewish Tercentenary Flagpole would also need to be temporarily removed and stored during the construction period.

#### Construction Impacts to Park Use and Facilities

As indicated previously, Peter Minuit Plaza currently does not function as a park or open space; it is used as a construction staging area for the Whitehall Ferry Terminal reconstruction project and will continue to be used in this manner for the South Ferry Terminal construction. Therefore, this section discusses construction impacts to Battery Park.

Although areas of the eastern edge of Battery Park would require closure during the nine-month construction period, MTA/NYCT is working closely with the Conservancy and NYCDPR to ensure that public access to the park is maintained. The proposed construction period of September through May is intended to coincide with the off-peak use season of the park; most of the large annual events in the park occur during the summer months. Construction would occur in only the northeast corner of the park, affecting entrance to the park from the existing path at the corner of State Street and Battery Place; the remainder of the park would not be affected. Walkways would be maintained over the excavation to the extent possible. As indicated previously, Battery Park is approximately 23 acres in area. The proposed construction zone in the park would be approximately one acre, representing less than five percent of the total park area. Appropriate signage for alternative access to the park and its facilities would be provided in this location. MTA/NYCT is actively coordinating with other projects in and around Battery Park during planning to ensure that disruption and impacts to the park are minimized. The temporary WTC memorial and Sphere may need to be relocated during the construction period. It is important to note that the temporary WTC memorial was placed in the northeast corner of Battery Park temporarily, and its present location conflicts with not only the South Ferry Terminal Project, but also with the Battery Park Master Plan and the NYCDOT Bike Path project. Because the South Ferry Terminal Project is the first project scheduled that would impact the temporary memorial location, MTA/NYCT is actively coordinating with LMDC, PANYNJ, and NYCDPR for the

relocation of the memorial, but is not the lead agency responsible for its relocation. MTA/NYCT is also looking at ways to maintain the sphere in place during the construction period.

#### Land and Water Conservation Fund Act

Battery Park is designated as a 6(f) property under the Land and Water Conservation Fund Act because it received a federal grant under this fund in 1981. MTA/NYCT is in consultation with the New York State Office of Parks, Recreation, and Historic Preservation (NYSOPRHP), the liaison for the National Park Service (NPS) on 6(f) matters in New York State, regarding the temporary construction period in Battery Park (expected construction duration of nine months) and the permanent use of a portion of the sidewalk between the eastern edge of Battery Park and State Street (sidewalk in this location is part of Battery Park) for one of the terminal's entry/exit points. NYSOPRHP responded to MTA/NYCT in a letter dated November 7, 2003 (included in Appendix G) requesting a formal submittal of project information. MTA/NYCT is currently preparing this submittal.

MTA/NYCT is working with NYCDPR and NYSOPRHP to identify approaches and project features that can be incorporated into the project design and construction methods to address construction-related impacts to Battery Park. The following approaches and features will be incorporated into the Proposed Action:

- Salvage and replanting of as many trees in the construction corridor as is prudent, and replacement of unsalvageable trees after construction.
- Recovery and curation of archaeological artifacts.
- Post-construction restoration of construction-related impacts, consistent with the Conservancy's Master Plan for Battery Park.

#### **5.3.3.2 Analysis Year 2008 (Initial Operation)**

##### *No Build Condition*

Under the No Build Condition, the South Ferry Terminal Project would not be constructed and there would not be any impacts on open space resources in the study area associated with the project. The existing South Ferry Station would operate as it currently does, with one entry/exit point in Peter Minuit Plaza near the entrance to the Whitehall Ferry Terminal. No new aboveground structures would be constructed. Open space resources within the study area are expected to remain similar to existing conditions, except that Battery Park improvements may occur under the Conservancy's Master Plan, and the NYCDOT bike path may be completed. The reconstruction of Peter Minuit Plaza would be completed under the Whitehall Ferry Terminal project.

##### *Proposed Action*

In 2008, the South Ferry Terminal facilities would be operational, and both Battery Park and Peter Minuit Plaza would have been restored and/or reconstructed. Because the majority of these facilities would be located below ground, they are not anticipated to have operational impacts to aboveground park facilities. The Proposed Action would

involve the acquisition of approximately 0.07 acre of mapped parkland for three surface entry/exit features to the new terminal, and for the vent structure and personnel hatches. The approximate locations of these structures are shown in plan view in Figure 22 and in schematic view in Figure 23. A permanent subsurface easement of approximately 40,000 cubic yards would be required in Peter Minuit Plaza for the terminal and approach tunnel. A permanent subsurface easement of approximately 25,000 cubic yards in Battery Park would be required for the approach tunnel.

### **5.3.3.3 Analysis Year 2025 (Long Term Operation)**

#### *No Build Condition*

Under the No Build Condition, the South Ferry Terminal Project would not be constructed and there would not be any impacts on open space resources in the study area associated with the project. The existing South Ferry Station would operate as it currently does, with one entry/exit point in Peter Minuit Plaza near the entrance to the Whitehall Ferry Terminal. No new aboveground structures would be constructed. Open space resources within the study area are expected to remain similar to existing conditions, except that Battery Park improvements would continue to occur under the Conservancy's Master Plan,

#### *Proposed Action*

In 2025, operation of the South Ferry Terminal would not have any adverse impacts on open space resources, as described for the 2008 operational year. The project would not place any additional demands on existing public open spaces in the area.