

5.12 INFRASTRUCTURE AND ENERGY REQUIREMENTS

This section discusses the potential impacts of the Proposed Action relative to infrastructure and energy requirements.

5.12.1 MTA/NYCT and ISO 14001

MTA/NYCT's Department of Capital Program Management is the first public agency in the USA and the first transit entity in the world to have an Environmental Management System (EMS) certified to ISO 14001.

The primary objective of an EMS is to reduce the impact of an organization's activities, products, and services on the environment; an ISO 14001 EMS provides a structured approach to achieve the organization's environmental objectives. This is achieved by considering environmental aspects and impacts of the operations and activities at all stages of the projects, setting objectives and targets for continuous improvement in environmental performance, minimizing and eliminating adverse impacts on the employees, contractors, passengers and communities, and establishing environmental programs and procedures that prevent pollution and ensure adherence to all applicable environmental laws and regulations.

MTA/NYCT is continuously improving environmental performance by applying the latest in energy efficient technologies, building materials, and design and management techniques to:

- Reduce smog, greenhouse gas and polluting emissions – By using clean, alternative energy sources such as photovoltaic panels and fuel cells, reducing dependence on electricity generated from fossil fuels. MTA/NYCT is reducing emissions and improving the city's air quality by using ultra low sulfur diesel in construction equipment used on its projects.
- Conserve water – Water conservation measures are being built into new facilities. MTA/NYCT has designed bus and subway car washing systems that will use rain and storm water and recycle 50-80 percent of wash water.
- Recycle materials and reduce landfill needs – Waste management and material recovery are required standard practice for MTA/NYCT contractors. Recycling goals are established for steel, concrete, etc. from demolition, renovation and construction projects.
- Reduce energy consumption and lower operating costs – New facilities and systems are designed to exceed codes and go beyond New York State Executive Order 111 "*Green and Clean State Buildings and Vehicles.*"
- Provide cleaner and safer terminals, depots, facilities and offices – Both passengers and employees benefit from designs that use fresh air ventilation systems and bring natural light to platforms, foyers and workplaces.

The ISO 14001 EMS is used to monitor implementation of Sustainable Design into MTA/NYCT's projects.

5.12.2 Existing Conditions

Available records were reviewed and site visits were conducted to determine the potential for subsurface utilities and infrastructure within the project corridor. Maps were obtained from the New York City Department of Environmental Protection for sewer and water; the City's Landbase files were also reviewed, as were construction maps for projects in Battery Park.

Subsurface utilities and infrastructure are present within the project corridor including sewer, water, gas, electric, telecommunications, and the existing **1** **9** and **4** **5** subway tunnels. At the intersection of Greenwich Street and Battery Place, there is a large concentrated mix of subsurface utilities and infrastructure crowded into a relatively small area.

South of this location, within Battery Park, most of these same elements also cross over the project corridor and the existing **1** **9** tunnel to service Battery Park. There are several sewer lines along the proposed project corridor that feed into the existing main sewer line in State Street east of Battery Park. These include an eight-inch line, several six-inch lines and several four-inch lines. There are also several water lines, four-inch in diameter or smaller, that cross the park to tap existing lines on State Street. Electric conduits and several gas lines are in place for servicing the park and the **1** **9** line. Visual observation of Battery Park also revealed storm catch basins in the sidewalk area west of the project corridor. Utilities are not as dense along the project corridor within the eastern portion of Battery Park as at the intersection of Greenwich Street and Battery Place.

The existing South Ferry Station is served by all of the above-referenced utilities and infrastructure. Electric service is provided and maintained by the Consolidated Edison Company of New York (Con Ed).

5.12.3 Potential Environmental Impacts

5.12.3.1 Analysis Year 2005/2006 (Construction)

No Build Condition

Under the No Build Condition, the South Ferry Terminal Project would not be constructed. The existing station would be maintained in its current state. Minor maintenance and rehabilitation activities could occur, including typical station and transit infrastructure maintenance and repair. These activities would not have any adverse effects on infrastructure or energy requirements. Under the No Build Condition, current demand for energy, telecommunications and water, and waste output would remain the same as existing.

Proposed Action

It is anticipated that some utilities will need to be temporarily or permanently relocated or re-routed during construction of the project, resulting in the potential for short-term service disruptions associated with construction activities. In most cases, utility relocation must be completed prior to commencement of other structural activities. Utility service disruptions are considered short-term and temporary, and would not adversely affect nearby land uses. MTA/NYCT is closely coordinating utility and infrastructure work along Battery Place with NYCDOT and NYSDOT to minimize disruptions from geographically overlapping projects.

5.12.3.2 Analysis Year 2008 (Initial Operation)*No Build Condition*

Under the No Build Condition, the South Ferry Terminal Project would not be constructed. The existing station would be maintained in its current state. Minor maintenance and rehabilitation activities could occur, including typical station and transit infrastructure maintenance and repair, as well as pumping of water that may seep into the subway tunnels. These activities would not have adverse effects on infrastructure or energy requirements. Under the No Build Condition, current demand for energy, telecommunications and water, and waste output would remain the same as existing.

Proposed Action

The South Ferry Terminal Project will be served by new connections to water, sewer, telecommunications, gas, and electric facilities. Upgrading of these supply and discharge mains to accommodate the project's infrastructure needs is not anticipated. There are sufficient utility, sewer, and water services available to supply the proposed project; therefore, operation of the proposed project, including pumping of water that may enter the subway tunnels, would not be expected to overburden the existing infrastructure systems.

Electric service is provided and maintained by Con Ed. The existing South Ferry Station is not climate-controlled; the new terminal will have a new climate control system (also known as "air tempering") which requires additional energy. The new terminal would also include a new fan plant for terminal and tunnel ventilation. The existing South Ferry Station currently has a maximum load of 42 kilowatts (kW). When operational, the new terminal is anticipated to have a maximum load of 2,100 kW and the new fan plant would use 562 kW. Con Ed would provide additional power to accommodate the new expanded system. New systems include new transformers, vaults, and lines; these systems would be located below ground and would be constructed concurrently with terminal construction. It is anticipated that potential electricity demands associated with the project could be adequately met by the existing supply without adverse impact.

5.12.3.3 Analysis Year 2025 (Long Term Operation)

No Build Condition

Under the No Build Condition, the South Ferry Terminal Project would not be constructed. The existing station would be maintained in its current state. Minor maintenance and rehabilitation activities would continue to occur, including typical station and transit infrastructure maintenance and repair. These activities would not have adverse effects on infrastructure or energy requirements. Under the No Build Condition, current demand for energy, telecommunications and water, and waste output would remain the same as existing.

Proposed Action

The South Ferry Terminal Project would be fully operational in 2025. Operation of the facility would not have adverse effects on infrastructure or energy services as identified for the initial operation year of 2008. The presence of the elements of the terminal, including aboveground and subsurface structures, would not adversely impact the infrastructure or energy needs in the project vicinity.