

A. INTRODUCTION

This chapter summarizes the construction effects from the proposed project and identifies potential impacts that could result from these activities. Construction stages, activities, and schedule are first described, followed by the types of impacts likely to occur during construction, and an assessment of methods that may be employed to minimize those impacts.

B. CONSTRUCTION ACTIVITIES AND SCHEDULE

It is expected that the existing vacant 5-story building on the project site would be converted into a school facility. The existing penthouse would be replaced with a new, larger sixth-story addition.

Construction of the high school facility would commence in 2006 and last for approximately 12 to 15 months, with completion by 2008. Construction activities would normally take place Monday through Friday, although the delivery or installation of certain critical equipment could occur on weekend days. Construction activity would generally be conducted between 8 AM and 4 PM. Occasional overtime may be required to complete some time-sensitive tasks outside the typical work day.

C. PROBABLE IMPACTS OF THE PROPOSED PROJECT

As with most renovation and construction projects in New York City, construction of the proposed school may at times be disruptive to the surrounding area. The following analysis describes the types of construction-period impacts likely to occur on traffic and transportation, air quality, noise, and soil and groundwater conditions. Overall, construction of the proposed project would not result in any significant adverse construction impacts.

TRAFFIC AND TRANSPORTATION

The proposed project would generate trips from workers traveling to and from the area, as well as from the movement of goods and equipment. Given the typical construction hours, construction workers traveling to and from the area would be concentrated in off-peak hours and would not represent a substantial increment during peak travel periods. Truck movements would be spread throughout the day and would generally occur between the hours of 9:00 AM and 3:30 PM, depending on the period of construction. Therefore, vehicle trips associated with construction would not be likely to have any significant adverse impacts on surrounding streets. In addition, these inconveniences from the construction would not be any different from other construction projects throughout the city and would be temporary in nature.

AIR QUALITY

The principle air quality impact associated with construction activities is the generation of fugitive dust. Increases in ambient concentrations of particulate matter from construction activities are difficult to estimate because of the difficulty in determining total emissions and the wide range in size of the particulates emitted. Because most fugitive dust generated by construction activity is of a relatively large particle size, much of the fugitive dust is expected to settle to the ground within a short distance from the construction site and not significantly affect nearby areas. Dust control measures, such as watering affected areas and using dust covers on trucks, can reduce increases in ambient concentrations of particulate matter from construction to minimal levels. In addition, construction-related dust emissions are regulated by the New York City Air Pollution Control Code.

Construction should not result in any significant or permanent disruption of local traffic, so carbon monoxide levels would not be affected. In addition, emissions from diesel-powered equipment would not be enough to produce any significant local or regional impacts.

NOISE

Typical uncontrolled noise levels expected from construction equipment are shown in Table 12-1. The level of impact from these noise sources depends on the noise characteristics of the equipment and activities involved, the construction schedule (i.e., the kind and number of pieces of construction equipment being operated), the hours when construction activities are taking place, and the location of potentially sensitive noise receptors.

In general, construction noise during the early phases of construction, site clearing, and excavation would be intrusive and be readily perceptible. Typical $Leq_{(1)}$ noise levels during this phase of construction would range from a high of approximately 78 dBA to a low of approximately 65 dBA at 500 feet. However, these peak construction noise levels would persist for only a short period of time.

In addition, small increases in noise levels from the operation of trucks delivering equipment and supplies and removing debris, and worker trips to the project area are expected to occur in the immediate vicinity of the project area and near the defined truck routes. These increases would be expected to be less than 5 dBA, and significantly less than the noise due to construction equipment operations. Construction activities would generally occur between the hours of 8 AM and 4 PM, 5 days per week. The New York City Noise Control Code limits construction activities, except for special circumstances, to weekdays between these hours. It is expected that the construction of the proposed roadway improvements would follow these parameters.

CONTROL METHODS

Construction noise is regulated by the New York City Noise Code and by the U.S. Environmental Protection Agency (EPA) noise emissions standards for construction equipment. These local and federal requirements mandate that certain classifications of construction equipment and motor vehicles meet specified noise emissions standards; that, except under exceptional circumstances, construction activities be limited to weekdays between the hours of 8 AM and 4 PM; and that construction material be handled and transported in such a manner as not to create unnecessary noise. The contract documents would require that the contractor comply with both the New York City Noise Code and EPA noise emission standards for

construction equipment. In addition, appropriate low-noise emission level equipment and operational procedures would be used.

Compliance with noise control measures would be ensured by including them in the contract documents and by directives to the construction contractors.

**Table 12-1
Typical Noise Emission Levels for Construction Equipment**

Equipment Item	Noise Level at 50 feet (dBA)
Air Compressor	81
Asphalt Spreader (paver)	89
Asphalt Truck	88
Backhoe	85
Bulldozer	87
Compactor	80
Concrete Plant	83 ⁽¹⁾
Concrete Spreader	89
Concrete Mixer	85
Concrete Vibrator	76
Crane (derrick)	76
Delivery Truck	88
Diamond Saw	90 ⁽²⁾
Dredge	88
Dump Truck	88
Front End Loader	84
Gas-driven Vibro-compactor	76
Hoist	76
Jack Hammer (Paving Breaker)	88
Line Drill	98
Motor Crane	93
Pile Driver/Extractor	101
Pum	76
Roller	80
Shovel	82
Truck	88
Vibratory Pile Driver/Extractor	89 ⁽³⁾
<p>Notes: ¹ Wood, E.W. and A.R. Thompson, Sound Level Survey, Concrete Batch Plant; Limerick Generating Station, Bolt Beranek and Newman Inc., Report 2825, Cambridge, MA, May 1974. ² New York State Department of Environmental Conservation, Construction Noise Survey, Report No. NC-P2, Albany, NY, April 1974. ³ F.B. Foster Company, Foster Vibro Driver/Extractors, Electric Series Brochure, W-925-10-75-5M. Source: Patterson, W.N., R.A. Ely, and S.M. Swanson, <i>Regulation of Construction Activity Noise</i>, Bolt Beranek and Newman, Inc., Report 2887, for the Environmental Protection Agency, Washington, D.C., November 1974, except for notated items.</p>	

SOIL AND GROUNDWATER

As described in Chapter 10, “Soil and Groundwater Conditions,” a Phase I Environmental Site Assessment (ESA) and a Phase II Environmental Site Investigation (ESI) were performed to

Adams Street High School

identify any potential sources of hazardous materials resulting from previous and existing uses on the site that could pose a hazard during and after construction of the proposed project. As concluded in that report, Abestos Containing Material (ACM) and Polychlorinated Biphenyls (PCB)-containing equipment surveys would be performed for the existing building prior to construction/renovation, as warranted. Any ACM, suspect LBP, and PCB-containing equipment, if present, would be properly handled in accordance with all applicable Federal, State, and local regulations.

To minimize construction workers' exposure to Semi-Volatile Organic Compounds (SVOCs) and metals present in soil, standard industry practices for the removal of contaminated soils would be utilized. These practices include employment of an appropriate health and safety plan (HASP), including air monitoring and personal protective equipment, as warranted. Methods to minimize dust would also be employed. Any contaminated materials removed from the site would be properly handled and transported off-site, in accordance with all applicable local, State, and Federal regulations to a licensed and permitted disposal/recycling facility. A 24-inch layer of environmentally clean fill would be placed over any exposed areas of the Site during the final grading stage of the project. With these measures in place there would be no significant adverse construction-related soil and groundwater impacts. *