

3.11 CONSTRUCTION IMPACTS

3.11.1 Construction Traffic

The proposed project would be constructed over a period of approximately three years, with construction work scheduled to end in 2010. The typical construction shift is from 8 a.m. to 4 p.m. on weekdays. Based on other school construction projects, it is projected that a maximum of 90 to 115 construction workers would be on site at any given time. Assuming that 75 percent of these workers will drive, with an average occupancy of 1.2 persons per vehicles, approximately 72 car trips per day would be generated. Construction-related truck activity would peak during the excavation and foundation phases, when up to 35 trucks would travel to and from the site on a given day.

Based on the levels of service and existing traffic volumes in the study area, the projected volume of car and truck traffic to be generated during the construction phase of the proposed school would not result in any significant traffic impacts on the surrounding roadway network. All construction-related activities, including the storage of materials, siting of noise-generating equipment, etc., must be continuously aware of the presence of the residences that adjoin the site to the east.

3.11.2 Construction Noise

Construction noise impacts would be caused by the operation of construction equipment on or near the site, and by the travel of construction-related car and truck traffic through the community. Construction noise levels are typically highest during any excavation and foundation phases, when several large pieces of construction equipment would operate on the construction site.

Construction noise from on-site equipment depends on the type and number of the machinery, which pieces of equipment are operating at any one time, how frequently those equipment operate throughout the work day, and how far removed they are from the site boundaries and from the nearest sensitive receptors (e.g., residences, schools, etc.). Peak noise levels from impact equipment (e.g., pile drivers, pavement breakers, etc.) can be 100 dBA or higher at 50 feet from the equipment. Locating noisy equipment away from site boundaries, would help reduce these temporary noise impacts.

As with most projects in the city, construction of the proposed development would result in significant short-term impacts on adjacent properties. These temporary construction noise impacts would occur during the 8 a.m. to 3 p.m. period on weekdays. Construction noise is regulated by the New York City Noise Code and by the U.S. Environmental Protection Administration noise emission standards for construction equipment. These

local and federal controls require that certain types of construction equipment and vehicles meet specific noise emission standards. Except under exceptional circumstances, City regulations limit construction activity to weekdays between the hours of 7 a.m. and 6 p.m., and construction materials must be handled and transported in a manner that avoids the generation of unnecessary noise.

3.11.3 Air Quality Impacts

Construction of the proposed facility would result in increases in particulate matter from construction activity (primarily fugitive dust). Since the majority of the particles within construction-related fugitive dust are relatively large in size, much of the fugitive dust would settle to the ground within a short distance from the site and would not significantly affect nearby land uses. The most sensitive nearby land uses are the residences that adjoin the project site to the east.

To insure that the increases in ambient concentrations of particulate matter caused by construction would be reduced to minimal levels, dust control measures, such as watering of affected areas and the use of dust covers on trucks, would be used. In addition, all necessary measures would be implemented to insure compliance with the New York City Air Pollution Control Code regulating construction-related dust emissions. If these measures are implemented and sufficiently enforced by contractors, no significant air quality impacts due to fugitive dust emissions would be anticipated.

The carbon monoxide (CO) emissions from construction workers driving to the site and construction equipment operating at the site would not substantially change air quality conditions in the area. Heavy construction vehicles are typically diesel-powered and therefore emit relatively low amounts of CO. Other emissions from this equipment would not be sufficient to cause any significant problems in adjacent areas. However, every effort should be made to avoid placing equipment close to the adjacent residential buildings to further minimize the potential nuisance or health problems.

All construction at the site would be coordinated through the Mayor's Transportation and Construction Coordination Council to insure that traffic lanes and pedestrian pathways are maintained to the maximum extent practicable. This issue is particularly important given the surrounding community's residential character and associated safety issues that require careful and constant attention.