

3.8 AIR QUALITY

3.8.1 Introduction

3.8.2 Standards and Criteria

Ambient air is defined by the United States Environmental Protection Agency (EPA) as that portion of the atmosphere, external from buildings, to which the general public has access. National Ambient Air Quality Standards (NAAQS) were promulgated by the EPA for the protection of public health and welfare, allowing for an adequate margin of safety. The EPA has set NAAQS for six criteria pollutants. They consist of primary standards, established to protect public health with an adequate safety margin, and secondary standards, established to protect "plants and animals and to prevent economic damage." The six major pollutants, deemed criteria pollutants, because threshold criteria can be established for determining adverse effects on human health, are described below:

- Carbon Monoxide (CO). CO is a colorless, odorless gas produced from the incomplete combustion of gasoline and other fossil fuels. The primary source of CO in urban areas is from motor vehicles. Because this gas disperses quickly, CO concentrations can vary greatly over relatively short distances.
- Inhalable Particulates, also known as Respirable Particulates because they are the ones most likely to reach the lungs. Particulate matter is a generic term for a broad range of discrete liquid droplets or solid particles of various sizes. The PM₁₀ standard covers only those particles with diameters of 10 micrometers or less (PM₁₀), and the PM_{2.5} standard covers fine particles with an aerodynamic diameter less than or equal to 2.5 µg/m³.
- Lead (Pb). Lead is a heavy metal. Emissions are principally associated with industrial sources and motor vehicles that use gasoline containing lead additives. Most U.S. vehicles produced since 1975, and all produced after 1980, are designed to use unleaded fuel. As a result, ambient concentrations of lead have declined significantly.
- Nitrogen dioxide (NO₂). Nitrogen dioxide is a highly oxidizing, extremely corrosive toxic gas. It is formed by chemical conversion from nitric oxide (NO), which is emitted primarily by industrial furnaces, power plants, and motor vehicles.
- Ozone (O₃). Ozone, a principal component of smog, is not emitted directly into the air but is formed through a series of chemical reactions between

hydrocarbons and nitrogen oxides in the presence of sunlight.

- Sulfur dioxides (SO₂). Sulfur dioxides are heavy gases primarily associated with the combustion of sulfur-containing fuels such as coal and oil. No significant quantities are emitted from mobile sources.

NAAQS further regulates concentrations of the criteria pollutants discussed above. The New York State Department of Environmental Conservation (NYSDEC), Air Resources Division, is responsible for air quality monitoring in the state. Monitoring is performed for each of the criteria pollutants to assess compliance. **Table 17** shows the National and New York State Ambient Air Quality Standards.

3.8.2.1 NYSDEC Air Toxics

New York State has established Short-Term Guideline Concentrations (SGCs) and Annual Guideline Concentrations (AGCs) for certain toxic or carcinogenic non-criteria pollutants for which the EPA has no established standards. They are maximum allowable 1-hour and annual guideline concentrations, respectively, that are considered acceptable concentrations below which there should be no adverse effects on the health of the general public. The NYSDEC guidance thresholds represent ambient levels that are considered safe for public exposure. In determining potential impacts, NYSDEC considers concentrations within ten times the AGC to be acceptable.

3.8.2.2 NYC De Minimis Criteria

For carbon monoxide from mobile sources, the City's de minimis criteria are used to determine the significance of the incremental increases in CO concentrations that would result from a proposed project. These set the minimum change in an 8-hour average carbon monoxide concentration that would constitute a significant environmental impact. According to these criteria, significant impacts are defined as follows:

- An increase of 0.5 parts per million (ppm) or more in the maximum 8-hour average carbon monoxide concentration at a location where the predicted No-Build 8-hour concentration is equal to or above 8 ppm.
- An increase of more than half the difference between baseline (i.e., No-Build) concentrations and the 8-hour standard, when No-Build concentrations are below 8 ppm.

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**TABLE 17
NATIONAL AND NEW YORK STATE AMBIENT AIR QUALITY STANDARDS**

Pollutant	Primary		Secondary	
	ppm	ug/m³	ppm	ug/m³
Carbon Monoxide (CO)				
Maximum 8-Hour Concentration ¹	9	(10,000)	None	
Maximum 1-Hour Concentration ¹	35	(40,000)		
Lead				
Maximum 3-month Arithmetic Mean	NA	1.5	None	
Nitrogen Dioxide (NO₂)				
Annual Arithmetic Average	0.053	(100)	0.053	(100)
Ozone				
1-Hour Average ²	0.12	(235)	0.12	(235)
8-Hour Average ³	0.08	(157)	0.08	(157)
Total Suspended Particulates (TSP)⁴				
Annual Mean	NA	75	None	
Maximum 24-Hour Concentration	NA	250		
Respirable Particulates (PM₁₀)				
Annual Arithmetic Mean	NA	Revoked ⁶	NA	Revoked ⁶
Maximum 24-Hour Concentration ⁷	NA	150	NA	150
Fine Respirable Matter (PM_{2.5})				
3-Year Arithmetic Mean ⁸	NA	15	NA	15
Maximum 24-Hour Concentration ⁵	NA	35	NA	35
Sulfur Dioxide (SO₂)				
Annual Arithmetic Mean	0.030	(80)	NA	NA
Maximum 24-Hour Concentration ¹	0.14	(365)	NA	NA
Maximum 3-Hour Concentration ¹	NA	NA	0.50	(1,300)
Notes:				
ppm=parts per million; ug/m ³ = micrograms per cubic meter				
NA-not applicable				
¹ Not to be exceeded more than once a year.				
² New York Metropolitan Air Quality Control Region is no longer subject to the 1-hour ozone standard.				
³ Three-year average of the annual fourth highest maximum 8-hour average concentration				
⁴ TSP levels are regulated by a New York State Standard only. These standards have been superseded by the PM10 standards, but may still serve as surrogates to PM10 measurements in the determination of compliance status.				
⁵ To attain this standard, the 3-year average of the 98 th percentile of 24-hour PM _{2.5} concentrations at each population-oriented monitor within an area must not exceed 35 ug/m ³				
⁶ Due to a lack of evidence linking health problems to long-term exposure to coarse particle pollution, EPA revoked the annual PM10 standard in 2006 (effective December 17, 2006).				
⁷ Not to be exceeded more than once per year on average over 3 years.				
⁸ To attain this standard, the 3-year average of the weighted annual mean PM _{2.5} concentrations from single or multiple community-oriented monitors must not exceed 15.0 ug/m ³ .				
Sources: 40 CFR Part 50-National Primary and Secondary Ambient Air Quality Standards.				
6NYCRR Part 257-Air Quality Standards				

3.8.2.3 State Implementation Plan (SIP)

The Clean Air Act requires states to submit to the U.S. Environmental Protection Agency (EPA) a SIP for attainment of the NAAQS. The 1977 and 1990 amendments require comprehensive plan revisions for areas where one or more of the standards have yet to be attained. Queens County is located in the New York Metropolitan Air Quality Control

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Region and is part of NYSDEC Region 2. Queens County meets the NAAQS for all pollutants except ozone and PM_{2.5}. Its nonattainment status for ozone is designated as Moderate for the 8-hour standard. Prior to 5/20/02, the county also was part of a nonattainment area for CO. It is now designated as a CO maintenance area and is subject to the same requirements as a CO nonattainment area. A CO maintenance area must maintain the NAAQS for 20 years by following two sequential 10-year plans. At the present time, New York is under mandate to develop SIPs to address ozone and fine particulates less than 2.5 microns in size. New York is also developing state plans for the requirements of the Clean Air Interstate Rule (CAIR), the Clean Air Mercury Rule (CAMR), New Source Review (NSR), and regional haze.

3.8.3 Existing Conditions

Table 18 shows the most recent monitored levels for CO, NO₂, SO₂, PM₁₀, and PM_{2.5}, which are based on concentrations monitored by the nearest NYSDEC ambient air monitoring station. Also shown in **Table 18** are the ambient air quality standards. All of the monitored concentrations are within the NAAQS except for ozone and PM_{2.5}.

**TABLE 18
EXISTING POLLUTANT CONCENTRATIONS**

Pollutants	Monitor Location	Averaging Period	Monitored Concentration	Ambient Standard
Carbon Monoxide (CO)	Queens College 2	1-hour	3.1 ppm	35 ppm
		8-hour	2.1 ppm	9 ppm
Nitrogen Dioxide (NO ₂)	Queens College 2	Annual	0.025 ppm	0.053 ppm
Sulfur Dioxide (SO ₂)	Queens College 2	3-hour	0.053 ppm	0.5 ppm
		24-hour	0.030 ppm	0.14 ppm
		Annual	0.006 ppm	0.03 ppm
Ozone CO ₃	Queens College 2	1-hour	NA	0.12 ppm
		8-hour	0.082 ppm	0.08 ppm
Inhalable Particulates (PM ₁₀)	IS52	24-hour ^b	49 ug/m ³	150 ug/m ³
Inhalable Particulates (PM _{2.5})	PS 219	24-hour	36 ug/m ³	35 ug/m ³
		Annual	12.7 ug/m ³	15 ug/m ³
Lead	Susan Wagner	Quarterly ^a	0.01 ug/m ³	1.5 ug/m ³
<i>Notes:</i> ^a 2003 value, which is the most recent. ^b 2005 value, which is the most recent. Source: NYSDEC-2005 Annual New York State Air Quality Report				

3.8.4 Future Without the Proposed Project (No-Build)

The traffic analysis identified fourteen intersections to be analyzed for LOS¹⁰. Eleven intersections have traffic signals and the other three are controlled by stop signs. Traffic volumes, LOS, and traffic signal information for these intersections are used in the air quality screening analysis to determine whether pollutants emitted by the addition of project-generated vehicles have the potential to cause an exceedance of the NAAQS. Increases in traffic volume, as well as slower speeds and additional time idling at an intersection, may contribute to higher concentrations of carbon monoxide.

3.8.4.1 Screening Analyses for CO and PM2.5

To assess carbon monoxide caused by vehicular traffic, a preliminary evaluation of intersections was carried out to identify those with the potential to violate the NAAQS or the *CEQR Technical Manual* thresholds for CO. Based on the *CEQR Technical Manual* and subsequent revisions to its procedures, the following screening criterion is applicable to this project for identifying intersections that may warrant further analysis for CO:

- Actions resulting in 100 or more auto trips through an intersection, and
- Actions that would result in a substantial number of local or regional diesel vehicle trips.

The traffic periods evaluated for impacts include the weekday AM (7:15-8:15 am) and PM (3-4 pm) peak hours. **Table 19** shows the project volumes at key intersections within the rezoning area for 2010 No-Build and Build conditions. Where multiple intersections warrant further analysis, a subset of worst-case intersections is typically selected for modeling. If the results for the selected intersection(s) show compliance with the NAAQS and the NYC de minimis standards under Build conditions, then the remaining intersections are also presumed to be in compliance.

Among the signalized intersections with 100 or more project-generated vehicles, the Metropolitan Avenue and Selfridge Street intersection shows the highest project-generated volume of 587 vehicles. This intersection is recommended for CO modeling with MOBILE6.2 and CAL3QHC to determine whether the de minimis values would be exceeded. The peak AM period has the highest project-generated volumes and was selected as the worst case for modeling. Also recommended for modeling for the peak AM period was the intersection of Metropolitan Avenue and Woodhaven Boulevard.

¹⁰ Six categories of LOS define the traffic operations at an intersection or approach; they are described in Section 3, 7, Traffic and Transportation. The traffic level of service (LOS) is typically calculated for each intersection approach, as well as the intersection as a whole. The overall LOS is represented by a capital letter while the individual approaches may be shown in lower case letters. For unsignalized intersections, the critical movements on minor approaches are of primary concern because the major approaches are free-flow links whose traffic does not stop at the unsignalized intersection.

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This intersection has a relatively high volume compared to the other intersections, and it would experience a project-generated volume of 181 vehicles and have an LOS of E under Build Conditions.

**TABLE 19
PROJECTED TRAFFIC VOLUMES AND LOSs**

Intersection	No-Build	Build	In-crease	LOS			Comments
				No-Build	Build	Build w/Mit.	
2008 Peak AM Period							
Metropolitan Ave./Woodhaven Blvd.	4,942	5,123	181	D	E	D	Modeling recommended
Metropolitan Ave./Trotting Course Lane	1,320	1,500	180	B	B	C	Good LOS
Metropolitan Ave./Selfridge St.	1,271	1,858	587	A	C	C	Modeling recommended
Metropolitan Ave./69 th Ave.	1,271	1,644	373	A	B	B	Good LOS
Metropolitan Ave./69 th Rd.	1,245	1,569	324	c	c	B	Unsignalized intersection
Metropolitan Ave./70 th Ave. South	1,185	1,509	324	A	A	A	Good LOS
Metropolitan Ave./70 th Ave. North	1,186	1,510	324	A	A	NA	Good LOS
Metropolitan Ave./70 th Rd.	1,196	1,471	275	a	b	NA	Unsignalized intersection
Metropolitan Ave./Continental Ave.	1,555	1,783	228	B	B	B	Good LOS
Metropolitan Ave./Ascan Ave.	1,445	1,604	159	B	B	B	Good LOS
71 st St. /Union Turnpike.	1,556	1,584	28	B	B	B	Good LOS
Woodhaven Blvd./Union Turnpike	4,519	4,745	226	E	D	NA	Not worst case
Metropolitan /Union	3,090	3,200	110	E	E	E	Not worst case
Sybilla/71st Ave.	386	414	28	a	a	a	Unsignalized intersection
2008 Peak PM Period							
Metropolitan Ave./Woodhaven Blvd.	5,036	5,194	158	D	E	D	Not worst case
Metropolitan Ave./Trotting Course Lane	1,720	1,880	160	F	F	D	Not worst case
Metropolitan Ave./Selfridge St.	1,432	1,997	565	C	C	C	Good LOS
Metropolitan Ave./69 th Ave.	1,481	1,858	377	C	F	B	Good LOS
Metropolitan Ave./69 th Rd.	1,380	1,710	330	c	c	B	Unsignalized intersection
Metropolitan Ave./70 th Ave. South	1,335	1,665	330	B	C	A	Good LOS
Metropolitan Ave./70 th Ave. North	1,382	1,711	329	B	D	A	Good LOS
Metropolitan Ave./70 th Rd.	1,413	1,695	282	b	c	NA	Unsignalized intersection
Metropolitan Ave./Continental Ave.	1,764	2,046	282	E	F	D	Not worst case
Metropolitan Ave./Ascan Ave.	1,386	1,540	154	B	C	C	Good LOS
71 st St. /Union Turnpike.	1,586	1,630	44	B	B	B	Good LOS
Woodhaven Blvd./Union Turnpike	5,696	5,898	202	D	B	NA	Good LOS
Metropolitan /Union	3,000	3,106	106	E	E	D	Not worst case
Sybilla/71st Ave.	490	532	42	a	c	c	Unsignalized intersection

Note: Upper case letters denote overall LOS for the signalized intersections and lower case letters denote the worst-case approach LOS for unsignalized intersections.

Source: Sandstone Environmental Associates, Inc., and Urbitran Associates, Inc.

NYCDEP has developed a screening analysis for potential PM2.5 impacts based on the 2002 emissions for 21 diesel-powered vehicles. If the proposed action would add 21

diesel vehicles to an intersection during a peak period, then a more detailed analysis is required to determine whether the emissions would exceed 21 diesel vehicles using 2002 emission factors. In addition, if a proposed project would induce many vehicles of other classes, and the total PM_{2.5} emissions from all of the induced vehicles are equivalent to twenty-one 2002 diesel trucks, the screen is exceeded. NYCDEP has not determined a specific number of light duty gasoline vehicles (LDGV) or background traffic that would be equivalent to heavy duty diesel vehicles (HDDV), as this ratio would vary with the future year of analysis. Therefore, the ratio must be determined for each project.

The proposed action would add 14 bus trips, 2 medium truck trips, and 571 auto trips to the peak hour AM period. The MOBILE6.2 emissions model was run for 2002 and 2010 to determine whether the project-generated vehicles would have PM_{2.5} emissions equivalent to 21 diesel vehicles (selected speed is not important as PM₁₀ and PM_{2.5} emissions are independent of speed). The emission factors included exhaust, brake, tire, and fugitive dust emissions. The calculations indicated that the project-generated vehicles would generate 88.79 grams/mile, whereas 21 diesel trucks using 2002 emissions would generate 105.6 grams/mile. Therefore, no further analysis of particulate matter (PM_{2.5}) is required.

CO Modeling Method

The CAL3QHC model was used to determine CO concentrations. CAL3QHC is a Gaussian dispersion model that determines pollutant concentrations at specified receptor points. It accounts for CO from both free-flowing vehicles and vehicles idling at signalized intersections. Inputs to the model include Cartesian coordinates for receptors, free-flow approach, and departure links, as well as the approach links for queued vehicles at intersections. Peak hour traffic volumes, signal cycle information, composite vehicular emission factors, and adjusted saturation flow rate are also inputs to the model.

Traffic volumes were obtained from the traffic analysis, which includes volumes, by approach, for key links and intersections within the study area. Vehicular speeds, also obtained from the traffic study, were based on field observations.

The vehicular mix used for the analysis was based on field classification counts obtained from the traffic analysis for the site and adjusted to match the vehicular mixes for the MOBILE6.2 categories. Vehicular mix represents the proportions of vehicles falling into the 28 MOBILE6.2 categories. Based on NYCDEP guidelines, taxis and sport utility vehicles are treated as special categories of vehicles. Sport utility vehicles (SUVs), were included with light duty gasoline trucks in the LDGT1 category as recommended by NYCDEP. Taxis are counted as a category separate from autos. The mixture of vehicular

types, which may vary by time of day and type of roadway, is used to obtain composite emission factors from MOBILE6.2.

Carbon monoxide emission factors for 2010 were obtained from EPA's MOBILE6.2 model. The ambient temperature used in the model was 43 degrees Fahrenheit, as recommended by NYCDEP. Inputs pertaining to inspection/maintenance, anti-tampering programs, etc., were obtained from NYCDEP. The resulting MOBILE6.2 emission factors were combined with the average vehicular mix for the intersection to calculate the composite emission factors, by speed, for use in the CAL3QHC model.

Free-flowing traffic links are set up separately from intersection queue links. Free-flow links were modeled for a distance for 1,000 feet from the intersection in each direction. The mixing zone for free-flow links was equal to the width of the traveled way plus an additional 10 feet (3 meters) on each side of the roadway. For queue links, the mixing zone was limited to the width of the traveled way. CAL3QHC calculates the length of the queue links.

Sensitive receptors are homes, parks, schools, or other land uses where people congregate and which would be sensitive to air quality impacts. For the purposes of the air quality analysis, any point to which the public has continuous access can be deemed a sensitive receptor site. Numerous receptor points are typically modeled at each intersection to identify the points of maximum potential CO concentration. To analyze CO levels, receptor points were modeled on the corners of the intersection, and additional points were modeled at 20-foot intervals for a distance of 100 feet along both sides of each intersection leg. Receptors were placed at mid-sidewalk and outside the air quality mixing zone.

Typical worst-case meteorological conditions were incorporated into the CAL3QHC inputs. These included a mixing layer height of 1,000 meters, a wind speed of 1 meter per second, and an atmospheric stability class of D (neutral stability). Settling and deposition velocities were assumed to be 0. Each computer run covered wind angles from 0 to 360 degrees and identified the worst-case wind angle for each receptor point.

To obtain 8-hour concentrations, the modeled CO values were multiplied by a persistence factor of 0.70, and then added to the 8-hour background values to determine total CO concentrations during that period. The same worst-case wind angle would apply to both the 1-hour and 8-hour averaging periods. Only the 8-hour CO and background values are presented in the report. If no violation of the 8-hour standard occurs, no violation of the 1-hour CO standard is likely.

3.8.4.2 CO Background Concentrations

Mobile source modeling of CO concentrations at sidewalk locations accounts solely for emissions from vehicles on the nearby streets, but not for overall pollutant levels. Therefore, background pollutant concentrations must be added to modeling results to obtain total pollutant concentrations at a given receptor site. The background CO level recommended by NYCDEP for the 8-hour averaging period in the borough of Queens for 2010 is 2.0 ppm.

3.8.4.3 CO from Motor Vehicles (No-Build)

Table 20 shows the results of the CO modeling for 2010 No-Build conditions at both of the modeled intersections using CAL3QHC and MOBILE6.2. For the Metropolitan Avenue and Selfridge Street intersection, the modeled 1-hour concentration of 1.5 ppm is equivalent to an 8-hour concentration of 1.05 ppm. When added to the background value of 2.0 ppm, the worst-case CO concentration under No-Build conditions for the Metropolitan Avenue and Selfridge Street intersection is 3.05 ppm. This would occur at Receptor 31, which is on the northeast corner of the intersection, at a wind angle of 262

**TABLE 20
EIGHT-HOUR CO CONCENTRATIONS (PPM)**

Intersection	2010 No Build Conditions		2010 Build Conditions		Difference (Build - No-Build)
Metropolitan Ave./Selfridge St.	Receptor 31 (NE Corner)		Receptor 6 (SW Corner)		0.42
	Wind Angle	262°	Wind Angle	88°	
	Modeled CO	1.05	Modeled CO	1.47	
	Background CO	2.00	Background CO	2.00	
	Total CO	3.05	Total CO	3.47	
Metropolitan Ave./Woodhaven Blvd.	Receptor 28 (NE Corner)		Receptor 28 (NE Corner)		0.07
	Wind Angle	188°	Wind Angle	188°	
	Modeled CO	2.45	Modeled CO	2.52	
	Background CO	2.00	Background CO	2.00	
	Total CO	4.45	Total CO	4.52	

Source: Sandstone Environmental Associates, Inc.

degrees. The CO concentration of 3.05 ppm is within the NAAQS. For the Metropolitan Avenue and Woodhaven Boulevard intersection, the modeled 1-hour concentration of 3.5 ppm is equivalent to an 8-hour concentration of 2.45 ppm. When added to the background value of 2.0 ppm, the worst-case CO concentration under No-Build conditions for the Metropolitan Avenue and Woodhaven Boulevard intersection is 4.45 ppm. This would occur at the Receptor 28, which is on the northeast corner of the

intersection, at a wind angle of 188 degrees. The CO concentration of 4.45 ppm is within the NAAQS.

3.8.5 Probable Impacts of the Proposed Project (Build)

3.8.5.1 CO from Motor Vehicles

Modeling for Build conditions followed the same procedures that were described under No-Build conditions. Because the project-generated vehicles are dropping off or picking up students, all are assumed to be operating with engines in hot stabilized mode. **Table 20** shows the results of CO modeling for 2010 Build Conditions for both of the modeled intersections. The worst case 1-hour CO concentration for the Metropolitan Avenue and Selfridge Street is 2.1 ppm. An equivalent 8-hour concentration, based on the 0.70 persistence factor, would be 1.47 ppm. This would occur at the Receptor 6, which is on the southwest corner of the intersection, at a wind angle of 88 degrees. The change in the location of the highest CO concentration from the northeast corner of the intersection to the southwest corner can be attributed to increase in the amount of traffic on entrance road to the site. The total CO concentration of 3.47 ppm, which includes the background value of 2.0 ppm, is within the NAAQS. The worst case 1-hour CO concentration, for the Metropolitan Avenue and Woodhaven Boulevard is 3.6 ppm. An equivalent 8-hour concentration, based on the 0.70 persistence factor, would be 2.52 ppm. The receptor location on the northeast corner also is identical to that of the modeling for No-Build conditions with the same worst-case wind angle of 188 degrees. The total CO concentration of 4.52 ppm, which includes the background value of 2.0 ppm, is within the NAAQS.

3.8.5.2 Stationary Source Screening Analysis

Fuel combustion associated with HVAC systems for the proposed schools may generate pollutant emissions that would have adverse impacts on existing residential buildings. Using the methodology described in the *CEQR Technical Manual*, a screening analysis was performed to assess potential air quality impacts. The CEQR methodology determines the threshold of development size below which the action would not have a significant impact. Information used in the screening procedures includes the type of fuel to be burned, the maximum anticipated development size in square feet, the exhaust stack height, and the distance to the nearest building of similar or greater height to evaluate whether a significant impact is likely. The screening assumes that either natural gas or No. 2 fuel oil would be used in the HVAC systems, and that the stacks would extend three feet above roof height (as per the *CEQR Technical Manual*). If a source does not pass the screening analysis for oil or natural gas, a more refined analysis using the ISC3 dispersion model would be carried out. Otherwise, if the source passes the screening

analysis, no further analysis is required. The screening methodology extends to 400 feet from a given site. If no buildings of similar or greater height are within 400 feet of the proposed school, no impacts are projected. The schools would use natural gas fuel and would be five stories high. No other buildings within 400 feet of the site are of similar height. Therefore, no stationary source impacts are projected as a result of the school.

Actions that would result in sensitive uses, such as schools, within 1,000 feet of a large emission source may result in significant air quality impacts. No major existing commercial, institutional, or large-scale residential developments are within a 1,000 radius of the proposed school.

3.8.5.3 Air Toxics

For air toxics, pollutants emitted from the exhaust vents of existing permitted industrial facilities were examined to identify potential adverse impacts to the future development sites. Permitted facilities within the rezoning area and within 400 feet of the rezoning area boundaries were identified from, NYSDEC's Air Permit Facilities registry, EPA's Facility Registry System, and field observations. No permitted sources of concern were identified.

3.8.5.4 Odors

The *CEQR Technical Manual* states that actions that would result in potentially significant odors may require an air quality stationary source assessment. No unpleasant odors were experienced during field work.

3.8.5.5 Construction Impacts

Air quality impacts associated with construction activities may include fugitive dust, exhaust, and emissions from construction equipment, as well as from increased traffic on local roadways. These impacts are temporary in nature. The construction traffic added to the roadways will result in lower volumes than would be experienced under Build conditions. In addition, the construction activities would be of a low intensity character. Thus, no significant adverse impacts to air quality are anticipated due to construction activities.

3.8.6 References

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