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Public Health

This chapter addresses the proposed project's effect on public health. As defined by the *2020 City Environmental Quality Review (CEQR) Technical Manual*, public health is the organized effort of society to protect and improve the health and well-being of the population through monitoring; assessment and surveillance; health promotion; prevention of disease, injury, disorder, disability, and premature death; and reducing inequalities in health status. The goal of CEQR with respect to public health is to determine whether adverse impacts on human health may occur as a result of a proposed project, and if so, to identify measures to mitigate such effects.

Introduction

The *CEQR Technical Manual* states that a public health assessment is not necessary for most projects. Where no significant unmitigated adverse impact is found in other CEQR analysis areas related to public health—such as air quality, water quality, hazardous materials, or noise—no public health analysis is warranted. If, however, an unmitigated significant adverse impact is identified in any of these other CEQR analysis areas, the lead agency may determine that a public health assessment is warranted for that specific technical area.

As described in the relevant analyses of this EIS, the Proposed Actions would not result in significant adverse impacts in any of the technical areas related to public health. The relevant

analyses for the consideration of public health impacts are summarized and reviewed in this chapter.

Principal Conclusions

The Proposed Project would not result in significant adverse impacts to public health. As described in the relevant analyses of this EIS, the Proposed Project would not result in unmitigated significant adverse impacts in the areas of air quality, water quality, hazardous materials, noise, construction air quality or construction noise. An (E) designation (E-584), would be placed on the Project Site (Block 1279, Lots 23, 24, 25 and 48) for air quality and noise. An (E) designation (E-584), would also be placed on a portion of the Project Site (Block 1279, Lots 23, 24, and 48) for hazardous materials, air quality and noise. The implementation of the preventative and remedial measures required under the (E) designation would avoid the potential for significant adverse hazardous materials impacts due to the Proposed Action.

The detailed analysis on operational air quality showed that the proposed heating, ventilation and air conditioning (HVAC) system would result in acceptable emissions levels, and no adverse impacts are expected from nearby industrial sources or large sources; ~~therefore.~~ Therefore, there would be no significant adverse air quality impacts from the Proposed Project due to operational air quality. An (E) designation (E-584) would be placed on the Project Site for air quality to ensure that the Proposed Project would utilize only natural gas in any fossil fuel-fired heating and hot water system, with a maximum boiler capacity of 32 MMBtu/hr, be fitted with low NOx burners (50 ppm) and ensure that the exhaust stack(s) are located at a certain height to avoid any potential significant adverse air quality impact. An (E) designation (E-584) would also be applied on the Project Site for noise to ensure acceptable interior noise levels by specifying the appropriate amount of window/wall attenuation and a closed window condition. With these sound attenuation commitments, there would be no adverse impact due to operational noise.

An analysis of construction air quality showed that there would be no significant adverse air quality impacts during construction, as construction of the Proposed Project would not result in any concentrations of NO₂, PM₁₀, and CO that exceed the NAAQS and the maximum predicted incremental concentrations of PM_{2.5} would not exceed the City's *de minimis* criteria. This assumes that, as mandated by state and/or federal regulations, ultra-low-sulfur diesel, fugitive dust control plans, diesel equipment reduction, restrictions on vehicle idling, and equipment meeting Tier 4 standards for diesel engines, would be used in relation to construction activity.

Construction period noise would also not exceed 85 dBA at any receptor during the peak construction periods nor would there be a 15 dBA increase at any receptor assuming existing construction noise regulations, typical construction equipment, and the implementation of a Construction Noise Mitigation Plan, as required by the New York City Noise Code, as well as the use of a 12-foot perimeter construction noise barrier and acoustic enclosures around compressors and generators.

Methodology

As noted above, the *CEQR Technical Manual* states that where no significant unmitigated adverse impact is found in other CEQR analysis areas related to public health—such as air quality, water quality, hazardous materials, or noise—no public health analysis is warranted. If, however, an unmitigated significant adverse impact is identified in any of these other CEQR analysis areas, the lead agency may determine that a public health assessment is warranted for that specific technical area. Therefore, this public health assessment examines the project's potential to affect these technical areas during both operation and construction of the project.

Assessment

Operational Period

Hazardous Materials

As detailed in **Chapter 7, Hazardous Materials**, to avoid the potential for significant adverse impacts relating to hazardous materials on the Proposed Project, an (E) designation (E-584) would be placed on the sites to ensure the further investigation and remediation of any hazardous materials. Any potential remedial action that may be required would be administered as part of the (E) designation protocol under the regulatory oversight of the New York City Office of Environmental Remediation (OER). The (E) designation would be applied to Lots 23, 24, and 48, but not Lot 25 where the existing ventilation building currently under construction would remain in-place with no soil disturbance required. In addition to applying an (E) Designation to the Project Site, regulatory requirements pertaining to any identified petroleum storage tanks and/or spills, requirements for disturbance and handling of suspect lead-based paint (LBP), asbestos-containing materials (ACM) and polychlorinated biphenyl (PCB)-containing building materials would be followed. Given this, the Proposed Project would not result in any significant adverse impacts with respect to hazardous materials, and there would be no impact on public health.

Air Quality

As detailed in **Chapter 10, Air Quality**, the detailed analysis showed that the proposed HVAC system would result in nitrogen dioxide (NO₂) and PM concentrations below respective ambient air quality standards and CEQR *de minimis* criteria—thus, not significantly affecting the air quality levels at nearby existing and future developments. In order to ensure that there are no significant adverse impacts from the HVAC system as part of the Proposed Project, an (E) designation would be placed on the Project Site (Block 1270, Lots 23, 24 and 48) to ensure that any commercial development must utilize natural gas in any fossil fuel-fired heating and hot water system, with a maximum boiler capacity of 32 MMBtu/hr, be fitted with low NO_x burners and ensure that exhaust stacks are located at a certain height. Industrial sources would not emit any carcinogenic air toxic pollutants and the analysis of non-carcinogenic non-criteria pollutants resulted in concentrations below guideline levels and demonstrated the hazard index below the threshold. Analysis of the potential impacts from existing large source on the Proposed Project showed that emissions from this facility would result in concentrations below the appropriate ambient air quality thresholds.

Therefore, there would no significant adverse air quality impacts on the Proposed Project from large sources. Overall, there would be no significant adverse air quality impacts from the Proposed Project due to air quality and there would be no impact on public health.

Noise

As detailed in **Chapter 12, Noise**, analyses were conducted on mobile sources, the ventilation building within the Project Site, building mechanical equipment, and ambient noise. Noise levels would not increase by 3 dBA under the With-Action condition and there would not be significant adverse noise impact due to mobile sources. There is potential for additional noise from the ventilation buildings relationship with the proposed development, however it would still meet applicable noise codes and no significant impact would occur. The design and specifications for the proposed building's mechanical equipment would incorporate sufficient noise reduction devices that would comply with applicable noise regulations and standards. Finally, an (E) designation would be placed on the Project Site (Block 1279, Lots 23, 24 and 48) to ensure that the appropriate closed-window environment and attenuation requirements are met; with these requirements, there would be no significant adverse impacts with respect to noise, and there would be no impact on public health.

Construction Period

Hazardous Materials

As discussed above and detailed in **Chapter 7, Hazardous Materials**, to avoid the potential for significant adverse impacts relating to hazardous materials on the Proposed Project, an (E) designation would be placed on the sites to ensure the further investigation and remediation of any hazardous materials. As detailed in **Chapter 15, Construction**, a Remedial Action Plan (RAP) and Construction Health Safety Plan (CHASP) ~~with~~will be reviewed by the New York City Department of Environmental Protection (NYCDEP) and New York State Department of Environmental Conservation (NYSDEC regulates the disposal of hazardous materials. In conjunction with the (E) designation, this construction oversight ensures that there would be no significant adverse impacts to public health due to hazardous materials during the construction period.

Air Quality

As detailed in **Chapter 15, Construction**, construction of the Proposed Project would not result in any concentrations of NO₂, PM₁₀, and CO that exceed the NAAQS. In addition, the maximum predicted incremental concentrations of PM_{2.5} would not exceed the City's *de minimis* criteria.

A combination of emission reduction measures that are mandated by law and are common practice in large-scale New York City construction projects was assumed for the construction emissions analysis. This assumes that, as mandated by state and/or federal regulations, ultra-low-sulfur diesel, fugitive dust control plans, diesel equipment reduction, restrictions on vehicle idling, and equipment meeting Tier 4 standards for diesel engines, would be used in relation to construction activity. The maximum predicted 24-hour and annual PM_{2.5} incremental concentration (for a discrete receptor location) would not exceed the City's *de*

minimis criteria. Additionally, the predicted annual incremental PM_{2.5} concentration was modeled using a one-kilometer grid of receptors for comparison with the City's *de minimis* neighborhood-scale criteria; the analysis results found no exceedance of the threshold.

The finding of the air quality analysis in **Chapter 15, Construction**, demonstrate that there would be no significant adverse impact due to air quality, therefore, further assessment is not warranted and there would be no impact on public health.

Noise

As detailed in **Chapter 15, Construction**, construction of the Proposed Project would not involve any unusual or exceptional construction activities or practices for buildings in New York City. Construction at the Proposed Project would be subject to government regulations and oversight, including the New York City Noise Control Code, which sets forth requirements for construction noise control measures. Specific noise control measures would be incorporated in noise mitigation plan(s) required under the New York City Noise Code. These measures could include a variety of source controls (i.e., reducing noise levels at the source or during the most sensitive construction time periods) and path controls (e.g., placement of equipment, implementation of barriers or enclosures between equipment and sensitive receptors).

The analysis presented in **Chapter 15, Construction**, found that, with the implementation of the above noise control measures, typical construction equipment, and the use of a 12-foot perimeter wall with acoustical absorption on the Madison Avenue and East 44th Street sides, predicted noise due to construction-related activities would not result in noise levels above recommended thresholds at any of the receptors during any phase of construction. Furthermore, construction noise levels would not exceed 85 dBA during excavation, foundation, or superstructure phases.

There would not be chronic exposure to high levels of noise due to the Proposed Actions. Construction-period noise identified and described in **Chapter 15, Construction**, would not constitute chronic exposure to high levels of noise for either the No-Action or With-Action condition because of the temporary and intermittent nature of construction-period noise. The maximum predicted construction noise levels associated with the proposed actions would occur over a limited duration during the construction period based on the amount and type of construction work occurring in the construction work areas. Furthermore, there would not be prolonged exposure to noise levels above 85 dBA. The maximum short-term noise impact resulting from construction of the Proposed Project would not exceed 85 dBA during peak construction periods at any of the analyzed receptors. Finally, based on the predicted noise levels in **Chapter 15, Construction**, construction associated with the Proposed Project is not expected to result in unpredictable exposure to short-term impacts of noise at high decibel levels, as per the *CEQR Technical Manual*. The maximum short-term noise impact resulting from construction of the Proposed Project would not exceed 85 dBA during peak construction periods at any of the analyzed receptors. Therefore, significant adverse impacts to public health are not expected as a result of construction period noise, and further analysis is not warranted.