

## 3.7 PUBLIC HEALTH

### INTRODUCTION

The proposed action would not result in significant adverse impacts to public health.

The *City Environmental Quality Review (CEQR) Technical Manual* states that a public health assessment may not be necessary for many proposed actions, but a thorough consideration of health issues should be documented. In determining whether a public health assessment is appropriate, the following has been considered:

***Whether increased vehicular traffic or emissions from stationary sources would result in significant air quality impacts.***

The potential for these impacts was examined in Chapter 3.5, “Air Quality” of this EIS. A total of three receptor locations were selected for carbon monoxide (CO) microscale analysis for both Non-Game Day and Game Day conditions. During Non-Game Day conditions, the highest estimated 8-hour concentration (3.2 ppm) would occur at the intersection of 161<sup>st</sup> Street and Grand Concourse under the PM peak time period. During Game Day conditions, the highest estimated 8-hour concentration (3.4 ppm) would occur at the intersection of 161<sup>st</sup> Street and Grand Concourse under the PM peak time period. The DEP CO *de minimis* criteria would not be exceeded at any of the analysis sites under either the Game Day or the Non-Game Day conditions, indicating that the Proposed Action would not have the potential to cause significant adverse impacts related CO emissions.

A PM<sub>2.5</sub> emission equivalency analysis was performed at the intersection of 161<sup>st</sup> Street and Sheridan Avenue/Concourse Village West, which has the highest project-generated vehicular trips projected for 2018, under both the Game Day and Non-Game Day conditions in the 2018 horizon year. It was determined that PM<sub>2.5</sub> emissions generated by the Proposed Action will be less than the heavy-duty diesel vehicle (HDDV) emission equivalent threshold, and therefore the Proposed Action would not cause increases above the 24-hour PM<sub>2.5</sub> significant threshold value (STV) or the annual PM<sub>2.5</sub> STV and would not result in any significant adverse impacts at any of the analysis sites based on both New York State Department of Environmental Conservation (NYSDEC) and the New York City Department of Environmental Protection (NYCDEP) criteria. The Proposed Action is not expected to have the potential to cause significant adverse impacts related to PM<sub>2.5</sub> emissions.

No exceedances of the National Ambient Air Quality Standards (NAAQS) are predicted as a result of emissions from projected and potential development site heating, ventilation and air conditioning (HVAC) systems (project-on-project impacts and impacts on existing land uses), with the implementation of (E) designations on several of the projected development sites. These (E) designations would require a specific fuel type and/or a minimum offset distance for stack locations. The result of analysis provided in Chapter 3.5, “Air Quality,” is that, with the proposed (E) designations, the heating emissions of these developments do not have the potential to significantly impact existing or future anticipated nearby land uses. In addition, the analysis

determined that heating emissions from existing land uses do not have the potential to result in significant adverse air quality impacts on projected and potential developments.

A health risk assessment analysis of the cumulative impacts of industrial sources on projected and potential development sites was also performed, as detailed in Chapter 3.5 of this EIS. The result of the cancer risk and hazard index evaluation is that no exceedance of a New York State Department of Environmental Conservation (NYSDEC) short-term guideline concentrations (SGCs) or annual guideline concentrations (AGCs) acceptable limit was predicted, and that the total hazard index impact of the non-carcinogenic toxics pollutants emitted from all of sources combined is  $0.885 \times 10^{-2}$ , which is well below the level of 1.0 that is considered by U.S. Environmental Protection Agency (EPA) to be significant. In addition, the maximum total estimated incremental cancer risk caused by carcinogenic pollutants emitted from all of the sources combined is estimated to be  $2.78 \times 10^{-1}$  per million. This value is below the level of one per million that is considered by EPA to be significant.

***Whether there is an increased potential for exposure to contaminants in soil or dust or vapor infiltration from contaminants within a building or underlying soil that may result in significant adverse hazardous materials or air quality impacts.***

As described in detail in Appendix A - Chapter 3.10, “Hazardous Materials,” the proposed action has the potential to result in an increased human exposure to potential contaminants in soil or dust during any construction and potentially during occupancy at a number of projected and potential development sites. Prior to any construction, further investigation would be performed on each development site to determine the presence and nature of contamination of concern and the proper remedial and/or health and safety measures that would be employed during redevelopment.

An assessment of potential hazardous materials impacts was performed for the projected and potential development sites for a number of reasons. For example, rezoning of manufacturing lots to a residential use can lead to exposure of future residents to hazardous materials. Therefore, as part of the process of rezoning a manufacturing zone to allow commercial or residential uses or development a hazardous materials assessment is appropriate.

A site visit was conducted for the rezoning area. The site visit consisted of a visual inspection from the adjacent sidewalks and publicly accessible areas. The intent of the inspection was to identify and verify those facilities within and adjacent to the rezoning area’s boundary (e.g., dry cleaners, gasoline stations, auto repair facilities, electrical sub-stations, etc.) that represent potential environmental concerns to any of the lots included in the proposed rezoning. Each site was observed in the field, in order to verify literature and data records, and to identify existing environmental conditions and note any potential evidence of historic conditions. Observations were often made from the exteriors of buildings and lots, and each site was observed with attention toward environmental conditions of concern.

Historic and current Sanborn maps were reviewed to assess site activities and operations from specific years for the period of 1891 through 1989. A number of databases of potential sources of hazardous materials were reviewed. The database search yielded 208 results. Due to their regulatory status, relative hydraulic gradient and distance, 24 database results represent an environmental concern to the rezoning area.

In the future with the proposed action, 36 lots within the proposed rezoning area would most likely be redeveloped. The analysis in Appendix A - Chapter 3.10, "Hazardous Materials," examines projected and potential sites where it could be expected that development in the future, with the proposed actions, would have the potential for environmental impacts due to potential presence of hazardous materials. These impacts could include the potential for impacts to the health and safety of workers during construction, the potential for the transport of contaminated soil, or the potential for impact on future residents or employees of individual buildings on these sites.

For all privately owned sites, (E) designations are recommended as part of the proposed zoning. Recommendations for (E) designations are based on whether the projected and potential development sites may have been adversely affected by current or historical uses at, adjacent to, or within 400 feet of these sites. By placing (E) designations on sites where there is a known or suspect environmental concern, the potential for an adverse impact to human health and the environment resulting from the proposed action is avoided. The (E) designation provides the City with the mechanism for addressing environmental conditions so that significant adverse impacts do not occur as a result of site development.

The (E) designation requires that pre-development activities at each site include a Phase 1 environmental site investigation, and, if necessary, a sampling protocol and remediation to the satisfaction of NYCDEP before the issuance of a building permit

***Whether solid waste management practices could attract vermin and result in an increase in pest populations would occur as a result of the Proposed Action.***

No solid waste management practices are proposed beyond those that occur at most residential and commercial uses found in the City. These practices would include all contemporary solid waste collection and containment practices and conformance with the laws of the New York City Board of Health. Development pursuant to the proposed action would occur in an area which is currently served by the NYC Department of Sanitation residential trash and recycling pickups. As discussed in Appendix A - Chapter 3.13, "Solid Waste and Sanitation Services," the proposed action would not affect the delivery of these services or place a significant burden on the City's solid waste management system. The resulting net increase in solid waste to be picked up by the New York City Department of Sanitation (DSNY) is relatively small at less than two tons per day, when compared to the estimated 12,000 tons of residential and institutional refuse and recyclables already collected by DSNY per day. In addition, due to the proposed action, non-residential waste serviced by private carters would increase by approximately two tons per day,

an insignificant amount compared to the estimated 13,000 tons of commercial/industrial waste currently removed by private carters.

***Whether potentially significant adverse impacts to sensitive receptors from noise would occur as a result of the Proposed Action.***

As described in Chapter 2.0, “Project Description,” the proposed action would generate new residential and commercial development along the 161<sup>st</sup> street corridor in the civic heart of the Bronx. As part of the proposed action, (E) designations would be placed on the zoning map for all projected and potential development sites where there is the potential for significant adverse noise impacts. Residential and community facility development on lots mapped with an (E) designation would be required to provide sufficient noise attenuation to maintain interior noise levels of 45 dBA or lower.

An analysis was therefore performed to evaluate the potential effect of the Proposed Action on noise levels at existing and potential future noise sensitive locations in the surrounding area. Future noise sensitive locations include areas that may be redeveloped for residential and commercial facility uses. The analysis was conducted that considered traffic-induced noise under both Non-Game Day and Game Day conditions for two analysis years: 2008 and 2018. The predicted increase in noise levels would potentially affect the proposed introduction of sensitive receptors into an area with existing ambient noise levels classified as “Marginally Unacceptable” and “Clearly Unacceptable,” as defined in the *CEQR Technical Manual*. The noise analysis addresses two factors: 1) the change in noise levels in the year 2008 and in the year 2018 for non-game day and game day conditions from Future No-Action Conditions in the area as a result of the Proposed Action; and 2) the location of new sensitive receptors and the degree to which window/wall attenuation would provide acceptable interior noise levels.

In order to predict noise levels in the Future with the Proposed Action, the additional increase in traffic noise associated with the Proposed Action in year 2018 was added to the future year 2018 Future No-Action traffic noise condition for non-game day and game day conditions, for the six selected monitoring sites. The results of the analyses show that there would be no perceptible increases in traffic noise levels at any development sites as a result of increases in traffic associated with the Proposed Action. On non-game days, the increase in noise level conditions at Site #3 in the Future Action condition compared to noise levels under the 2018 Future No-Action condition is predicted to be 1.8 dBA. At the remaining monitoring sites (#1, #2, #4, #5 and #6 ), the increase in Future Action traffic volumes over the Future No-Action Condition would result in increased incremental noise levels ranging between 0.1 to 1.4 dBA, which is insignificant and imperceptible. On game days, during either the studied weekday PM peak hour or the Saturday midday peak hour, the maximum increase in noise levels in the Future Action condition over the year 2018 Future No-Action Condition, noise levels would be 1.2 dBA at Site #4 and less than 1 dBA at all other monitoring sites. These increases are less than the 3 dBA CEQR impact threshold at any of the receptor sites. Therefore, significant adverse traffic noise impacts are not predicted to occur.

However, the Proposed Action would introduce new sensitive receptors into an area with high existing ambient noise levels. The existing noise levels at the six monitoring sites and the future noise levels at all of the proposed residential sites would exceed 70 dBA. The proposed (E) designation for these sites would preclude the potential for significant adverse noise impacts. These sites would be suitable for residential uses only by providing window-wall attenuation ranging from 30 dBA to 50 dBA for the exterior facade of the affected residences in order to achieve a 45 dBA interior noise level. Window attenuation requirements for the six noise monitoring sites are shown in the following bulleted items. The closed window condition at these sites can be maintained only by providing an alternate means of ventilation for the interior spaces. Details of window insulation are the following:

- Sound attenuation of 30 dBA would be needed for sites in the area of noise monitoring Site #4 where future L10 noise levels would be between 70 and 75 dBA. This can be achieved through installing ¼ inch laminated single glazed window or double-glazed windows with 1/8 inch glass panes with ¼ inch air space between them mounted in a heavy frame.
- Sound attenuation of 35 dBA would be required for sites in the area of noise monitoring Sites #3, #5 and #6 where future noise levels would be between 75 and 80 dBA. This can be achieved through installing double glazed windows on a heavy frame in masonry structures or windows consisting of laminated glass.
- Sound attenuation of 40 dBA would be required for sites in the area of noise monitoring Site #2 where future noise levels would be between 80 and 85 dBA. This mitigation requires the use of measures that typically exceed standard practice for new construction. Achieving the 40 dBA attenuation would require the placement of acoustically well-sealed ¼” laminated storm sash 1.5” to 3” from single glazed window on wood or metal frame.
- Sound attenuation of 50 dBA would be required for sites in the area of noise monitoring Site #1 where future noise levels would be between 90 and 95 dBA. This mitigation requires the use of measures that typically exceed standard practice for new construction. Achieving the 45 dBA attenuation would require the placement of acoustically well-sealed ¼” laminated storm sash 4.75” from single glazed window on wood or metal frame.

To ensure an interior noise environment of 45 dBA or less, an (E) designation for noise will be placed on the zoning map. The text of the (E) designation would be as follows:

“In order to ensure an acceptable interior noise environment, new residential/commercial development must provide a closed window condition with a minimum of 30, 35, 40 OR 45dBA window/wall attenuation on all facades in order to maintain an interior noise level of 45 dBA. In order to maintain a closed-window condition, an alternate means of ventilation includes, but is not limited to, central air conditioning or air conditioning sleeves containing air

conditioners. Alternate means of ventilation includes, but is not limited to, central air conditioners or HUD approved fans.”

***Whether potentially significant adverse impacts to sensitive receptors from odors would occur as a result of the Proposed Action.***

No new odor sources would be created as a result of the Proposed Action.

**CONCLUSION**

No activities are proposed that would exceed accepted City, State or federal standards with respect to public health or result in activities which result in significant public health concerns. For the reasons stated above, a full assessment of potential impacts on public health is not necessary and no significant adverse impacts related to Public Health are expected as a result of the proposed action.