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## CHAPTER 23: PUBLIC HEALTH

The 2001 *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 for the Proposed Action, the following *CEQR* concerns have been analyzed and considered:

- Whether increased vehicular traffic or emissions from stationary sources results in significant air quality impacts. The potential for these impacts was examined in Chapter 20, “Air Quality.” The results of the analysis show that the development that would occur as a result of the Proposed Action would not result in any significant adverse air quality impacts from mobile sources for carbon monoxide (CO) and particulate matter (PM<sub>2.5</sub>). The analysis also determined that the two prototypical accessory parking facilities associated with projected development sites would not result in significant adverse impacts. At certain sites, an (E) designation would be mapped as part of the zoning proposal to ensure the developments would not result in any significant air quality impacts from HVAC emissions due to individual or groups of development sites. An analysis of the cumulative impacts of emissions from industrial sources in combination with emissions from HVAC cluster sources on projected and potential development sites was also performed, as detailed in Chapter 20. At all sites, the maximum concentration levels were below the guideline levels and health risk criteria established by regulatory agencies. As a result, the Proposed Action would not result in significant adverse impacts related to air quality.

Cumulative impacts were also determined for the combined effects of air contaminants affecting a proposed development site. The maximum hazard index and total cancer risk were determined using the AERMOD (American Meteorological Society/Environmental Protection Agency Regulatory Model) results with the applicable reference concentrations and unit risk factors discussed in Chapter 20 “Air Quality.” As presented in Chapter 20, for non-carcinogenic compounds, the U.S. EPA’s Hazard Index Approach resulted in a calculated value of 0.318, which is less than 1.0, which is considered to be insignificant. For carcinogenic compounds, the maximum total estimated cancer risk is 3.05 E-07 or 0.305 per million, which is below the EPA threshold value of one in one million (1.0 E-06), and is considered to be negligible. Therefore, based upon the cumulative air toxics analysis, the Proposed Action would not result in a significant cancer risk.

- Whether there is an increased potential for exposure to heavy metals (e.g., lead) or other contaminants in soil/dust or if vapor infiltration from contaminants within a building or underlying soil (e.g., contamination originating from gasoline stations or dry cleaners) may result in significant adverse impacts. The hazardous materials assessment presented in Chapter 13, “Hazardous Materials,” identified that each of the projected and potential development sites has some associated concern regarding environmental conditions. Prior to 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.

The mapping of an (E) designation for hazardous materials on the zoning map for all privately-owned development sites is recommended as part of the Proposed Action. 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 or adjacent to these sites. The (E) designation would require that the fee owner of such a site conduct a Phase I Environmental Site Assessment (ESA) in accordance with the American Society of Testing Materials (ASTM) E1527-05, a subsurface testing and sampling protocol where appropriate, and remediation where appropriate, to

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the satisfaction of NYCDEP. The (E) designation also includes a mandatory Construction Health And Safety Plan (CHASP) which must be approved by NYCDEP prior to construction activities. Detailed measures to avoid impacts from hazardous materials will be required, as applicable, and are described in Chapter 13 “Hazardous Materials.” This would include subsurface investigations to determine the nature and extent of contamination and prescribed construction measures to manage contaminated materials prior to and/or during construction.

Zoning Resolution § 11-15 provides that the New York City Department of Buildings (NYCDOB) may not issue a building permit for work on a tax lot labeled with an (E) designation due to potential hazardous materials contamination, if the building permit would allow: (1) a development; (2) an enlargement, extension or change of use involving a residential or community facility use; or (3) an enlargement that disturbs the soil, unless the NYCDOB is provided with a report from the NYCDEP stating that the hazardous materials requirements for the lot have been satisfied. The mapping of (E) designations precludes the potential for significant adverse hazardous materials impacts that could result from the Proposed Action.

For city-owned development sites, or sites that are proposed for acquisition by the City (for subsequent disposition to a developer), (E) designations are not recommended. Since development of these sites would occur through disposition to a private entity, similar mechanisms would be required through the Land Disposition Agreement (LDA) between HPD and a private entity. The provisions would be similar to an (E) designation and would ensure that further investigative and/or remedial activities (as well as health and safety measures) prior to and/or during construction would be required under the City’s contract of sale with the private entity selected to develop the site.

In 2005, HPD submitted Phase II Investigation Reports to NYCDEP for the city owned properties within the Broadway Triangle URA, located on Blocks 2266, 2269, and 2272. The Phase II Investigation Reports for the above referenced parcels revealed elevated concentrations of contaminants including VOCs, SVOCs, and Heavy Metals in soil and/or groundwater. Following review of these reports, NYCDEP recommended various site-specific measures related to remediation at these sites should future development take place. These measures are described in Chapter 13 “Hazardous Materials” and the correspondence from NYCDEP outlining these recommendations is included for reference in Appendix A. Measures similar to those recommended for the City-owned properties above are anticipated for the other City-owned lots on projected and potential development sites in the Project Area. These measures would be required as part of the Proposed Action through provisions contained in the LDA between HPD and a private entity.

All demolition or rehabilitation on development sites would be conducted in accordance with applicable requirements for disturbance, handling and disposal of suspected lead-paint and asbestos-containing materials. In addition, the New York State Department of Environmental Conservation (NYSDEC) may have jurisdiction over some or all activities should petroleum tanks and/or spills be identified.

As discussed above, the potential for significant adverse impacts related to hazardous materials resulting from the Proposed Action would be precluded through the placement of (E) designations on the zoning map for all privately owned potential and projected development sites in the Project Area, and through the provisions contained in the LDA between HPD and a private entity for all City-owned sites.

- Whether there is contamination from historic spills or hazardous substance releases that might have impacted or might impact groundwater that is used as a source of drinking water. As noted in Chapter 13, “Hazardous Materials,” groundwater in Brooklyn is not used as a source of potable water.
- Whether there are solid waste management practices that could attract vermin and result in an increase in pest populations (e.g., rats, mice, cockroaches, and mosquitoes). No solid waste management practices are proposed beyond what occurs at most residential, commercial, and community facility uses found in the city. These practices would include all contemporary solid waste collection and containment practices and would conform to applicable City laws. Development pursuant to the Proposed Action would occur in an area which is currently served by the New York City Department of Sanitation residential trash and recycling pickups. The Proposed Action would not affect the delivery of these services or place a significant burden on the City’s solid waste management system. In addition, due to the Proposed Action, nonresidential waste serviced by private carters would decrease in the area and as such would not overburden the private system.
- Whether potentially significant adverse impacts to sensitive receptors from noise or odors would occur. As discussed in Chapter 21, “Noise,” and Chapter 24, “Mitigation,” the Proposed Action would facilitate residential and commercial development in an area with moderate to high ambient noise levels that are typical of an urban environment. No new significant sources of noise would be generated by the Proposed Action. Traffic generated by the proposed action would not produce any significant adverse noise impacts.

Based upon the  $L_{10}$  values measured and projected at monitoring locations in the Project Area, a maximum of either 30 or 35 dBA of window/wall attenuation would be necessary for the projected and potential developments located within the Project Area to comply with CEQR guidelines. As described in Chapter 21, the  $L_{10}$  represents the sound pressure level that was exceeded 10 percent of the time during each 20-minute measurement period.

To achieve the level of noise attenuation necessary to comply with CEQR guidelines, an (E) designation will be recommended to be placed on the New York City zoning map for parcels specified in Chapter 24 as part of the Proposed Action. The (E) designation text will state that in order to ensure an acceptable interior noise environment at the specified sites, future uses on the parcels must provide a minimum window/wall attenuation of 25, 30 or 35 dBA, depending on the particular site. Prior to development on these sites, the New York City Department of Buildings will receive a NYCDEP report stating that the environmental requirements related to the (E) designation have been met. Therefore, the placement of (E) designations for noise on the City’s zoning map, for the parcels listed in Chapter 24, will ensure that the Proposed Action would not result in significant adverse impacts due to noise.

To achieve the required building attenuation, double glazed windows with good sealing properties can be used provided that alternate means of ventilation, such as well sealed through-the-wall air conditioning or central air conditioning are included in the building design plans. In addition, mechanical equipment such as heating, ventilation, and air conditioning (HVAC) and elevator motors would utilize sufficient noise reduction devices to comply with applicable noise regulations and standards. With the attenuation measures specified above, the Proposed Action would not have any significant adverse noise impacts, and would meet CEQR guidelines.

For city-owned development sites, or sites that are proposed for acquisition by the City (for subsequent disposition to a developer), (E) designations for noise are not recommended. Since development of these sites would occur through disposition to a private entity, similar mechanisms would be required through the Land Disposition Agreement (LDA) between HPD and a private entity.

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- No new odor sources would be created as a result of the Proposed Action.
- No activities are proposed that would exceed accepted city, state, or federal standards with respect to public health.

For the reasons stated above, a full assessment of potential impacts on public health is not necessary and no significant adverse impacts on public health are expected as a result of the Proposed Action.