Chapter 18: Public Health

A. INTRODUCTION

This chapter assesses the Proposed Actions' effect on public health. As defined by the 2020 *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.

The *CEQR Technical Manual* states that a public health assessment is not necessary for most projects. Where no significant adverse unmitigated impacts are found in other CEQR analysis areas—such as air quality, water quality, hazardous materials, or noise—no public health analysis is warranted. If, however, an unmitigated 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. This assessment represents a distinct layer of inquiry; its criteria are informed by public health considerations and are therefore different from the criteria that triggered the need to conduct a public health assessment.

PRINCIPAL CONCLUSIONS

The Proposed Actions would not result in any significant adverse public health impacts. The Proposed Actions would not result in unmitigated significant adverse impacts in the areas of air quality, operational noise, water quality, or hazardous materials. While the Proposed Actions could result in unmitigated construction noise impacts as defined by *CEQR Technical Manual* thresholds, a public health assessment was conducted and it was determined that the construction noise impact would not generate a significant adverse public health impact.

B. PUBLIC HEALTH ASSESSMENT—CONSTRUCTION NOISE

As described in Chapter 20, "Construction," the *CEQR Technical Manual* specifies that the construction noise analysis consider the potential for construction of a project to create high noise levels (the "intensity"), whether construction noise would occur for an extended period of time (the "duration"), and the locations where construction has the potential to produce noise ("receptors") in evaluating potential construction noise effects.

Construction noise associated with the Proposed Actions would be required to follow the requirements of the New York City Noise Control Code (NYC Noise Code) for construction noise control measures. Specific noise control measures will be described in noise mitigation plans required under the NYC Noise Code. These measures could include a variety of source and path controls. Even with these measures, the analysis presented in Chapter 20, "Construction," found that predicted noise levels due to construction-related activities would result in noise levels that

may exceed the *CEQR Technical Manual* impact criteria during two or more consecutive years at receptors within and in the vicinity of the Project Area.

ASSESSMENT

The *CEQR Technical Manual* construction noise impact thresholds are based on quality of life considerations. These differ from public health considerations, which employ distinct criteria that are appropriate in the public health context. Significance is assessed in terms of the magnitude of noise level and duration of exposure rather than incremental change in noise level. As stated in Chapter 20 of the *CEQR Technical Manual*, these criteria are appropriate because they more closely relate to public health concerns. For example, chronic noise exposure may raise blood pressure and has been suggested to contribute to myocardial infarctions and to interfere with language development in children. Additionally, prolonged exposure to levels above 85 dBA will eventually harm hearing. Moreover, episodic and unpredictable exposure to short-term impacts of noise at high decibel levels may also affect health. Accordingly, it is appropriate to evaluate magnitude of noise level and duration of exposure when examining public health.

Although the *CEQR Technical Manual* thresholds for significant adverse impacts are predicted to be exceeded at certain locations during construction, the criteria used for public health, (i.e., the magnitude and duration of these exceedances) would not constitute a significant adverse public health impact. As discussed above, the *CEQR Technical Manual* thresholds for construction noise are based on quality of life considerations and not on public health considerations. An impact found pursuant to a quality of life framework does not imply that an impact will exist when the analysis area is evaluated in terms of public health. The predicted absolute noise levels would be below the health-based noise threshold of 85 dBA at all receptors except for residential windows immediately adjacent to and overlooking pile driving activities with a direct line of sight. At such locations, maximum $L_{eq(1)}$ noise levels may reach 90 dBA during pile driving at the nearest point. However, outdoor terraces are not common within the Project Area and do not exist along lot lines facing areas where pile driving would occur. As such, residents at these receptors would not experience exterior levels of construction noise. Because the buildings at these receptors would provide approximately 25 dBA window/wall attenuation for locations with insulated glass windows and alternate means of ventilation or approximately 15 dBA at locations without insulated glass windows, interior noise levels would be below the health-based noise threshold of 85 dBA. Accordingly, neither the magnitude nor the duration of the construction noise reaches the public health impact threshold. Since these are the appropriate criteria for the public health assessment, it follows that the Proposed Actions would not result in significant adverse public health impacts due to construction noise. ✷