



O. NOISE

1. Existing Conditions

Existing ambient noise conditions at the Project Site reflect surrounding land uses. As described previously (see Chapter 3.A, Land Use, Zoning and Public Policy), predominant surrounding land uses include: Lutheran Care Center, a skilled nursing facility (to the west); vacant lands (to the northwest and northeast); single-family residential (to the north and south and in the middle of the Site); and a commercial business park with warehouse, an athletic center, and light industrial and manufacturing uses (to the south). The Project Site is not in the proximity of air/freight noise sources or any significant noise generating activity. Ambient noise at the Project Site comes primarily from vehicular traffic on Route 44 which bisects the Site. Current uses on the Project Site are farmland and three residential parcels. These uses do not typically generate high levels of ambient noise, although the use of diesel-engine tractors on the existing farmland is typical.

Sensitive noise receptors are facilities and uses that are dependent upon a state of serenity and quiet, or are uses that are particularly sensitive to noise levels. Land uses that are typically considered to be sensitive noise receptors include: residences, schools, hospitals, churches, libraries and certain types of outdoor recreation areas such as nature preserves.

Sensitive receptors within ¼-mile of the Project Site include Lutheran Care Center and the residential uses that are located adjacent to the north, south, and in the middle of the Site.

The Town of Poughkeepsie has a local noise ordinance (Chapter 139 of the Town Code) that regulates unreasonable and unlawful noise. Building construction is not permitted between the hours of 10:00 p.m. to 7:00 a.m. and the operation of heavy equipment which create unreasonable noise is not permitted on Sundays or legal holidays and between 8:00 p.m. to 7:00 a.m. on weekdays and between 10:00 a.m. and 6:00 p.m. on Saturdays.

2. Future without the Proposed Project

Without the Proposed Action, noise conditions on the Project Site would remain as previously described. See the No Action Alternative described in Chapter 4 for more detailed information.



3. Potential Impacts as a Result of the Proposed Project

a) Construction Noise

Local ambient daytime noise levels would temporarily increase in the vicinity of the Project Site during construction of the Proposed Project. Noise generated during construction would be primarily from diesel engines that power equipment. Exhaust noise is usually the predominant source of diesel engine noise. Since noise during construction is a temporary impact, it would cease upon completion of the project. Noise levels of construction equipment likely to be used for the project are summarized in the table below.

Table 30-1 Noise Levels of Construction Equipment

Equipment	Noise Level (dBA)				
	50 Feet	100 Feet	200 Feet	400 Feet	800 Feet
Cement Trucks	91	85	79	73	67
Front Loaders	79	73	67	61	55
Graders	85	79	73	67	61
Bulldozers	80	74	68	62	56
Pickup Trucks	60	54	48	42	36
Back hoes	85	79	73	67	61
Concrete Mixers	85	79	73	67	61
Pneumatic Rock Breaker	91	85	79	73	67
Hydraulic Rock Breaker	95	89	83	77	71

Sources: BBN, 1971, NYSDEC, 1974, NYPA, 1986

Typical site average sound levels for construction are presented in Tables 30-2 and 30-3. Table 30-2 reflects the average sound level occurring when all construction equipment is operating at the same time, and Table 30-3 reflects the average sound level when only the minimum construction equipment required is in operation. Construction noise levels are never steady in nature, but fluctuate depending upon the number and type of equipment in use at any given time.

**Table 30-2 Typical Site Average Noise Levels by Construction Activity (dBA)
All Equipment at Project Site**

Construction Phase	Noise Level (dBA)				
	50 Feet	100 Feet	200 Feet	400 Feet	800 Feet
Excavation	89	83	77	71	65
Foundation	77	71	65	59	53
Erection	84	78	72	66	60
Restoration/Finishing	89	83	77	71	65

Source: BBN, 1971



**Table 30-3 Typical Site Average Noise Levels by Construction Activity (dBA)
Minimum Amount of Equipment Required at Project Site**

Construction Phase	Noise Level (dBA)				
	50 Feet	100 Feet	200 Feet	400 Feet	800 Feet
Excavation	71	65	59	53	47
Foundation	77	71	65	59	53
Erection	72	66	60	54	48
Restoration/Finishing	74	68	62	56	50

Source: BBN, 1971

The level of impact from these construction noise sources depends upon the phase of the construction activities, the specific construction tasks and equipment used, as well as receptor distance from the construction site. The noisiest period of construction would occur during site clearing and grading activities, when sections of the Project Site are prepared for building. Such noise could be intrusive, but would have limited duration during the phases of project construction.

To the average person, an ambient noise level (Leq) increase of 2 to 3 dBA is barely perceptible; an increase of 5 dBA is noticeable; and an increase of 20 dBA or more is perceived as a dramatic change. Noise impacts are considered to be significant if the increase is more than 5 dBA, and this is likely to generate sporadic complaints from the community. An increase of more than 10 dBA is likely to generate more widespread complaints.

Construction related sound levels experienced by the sensitive noise receptors, Lutheran Care Center and adjacent residential uses, would be a function of distance and topographic changes which can re-direct soundwaves. As such, no one existing receptor would be exposed to the same sound levels over an extended period of time, as equipment is utilized on different portions of the Project Site. Occasional noise levels at the site property line are projected to range between 65 dBA and 90 dBA, depending on the actual location of construction equipment at any given time. These elevated noise occurrences would be sporadic during the construction period. Noise levels actually experienced on a nearby property would be expected to be lower, accounting for distance from the noise source and other attenuating factors such as building mass; topography, and landscaping

It is anticipated that nearby properties would experience temporary elevated noise levels at occasional periods during construction of the Proposed Project. This is a temporary, construction-related, unavoidable impact.



b) Significant New Noise Sources

The new uses proposed on the Project Site would not generate significant new noise sources. The proposed development would result in a combination of residential, commercial, and open space uses on currently mostly vacant land. The Proposed Project would introduce a new source of noise (compared with vacant land), but the proposed uses are consistent with the intended uses for the Project Site as well as with surrounding land uses. The primary source of new noise would be automobiles and traffic, as well as periodic use of landscaping equipment. The Proposed Project would not increase vehicular trips or operations to such an extent as to significantly increase ambient noise levels within the vicinity of sensitive receptors.

The new residences on the Project Site, which are themselves sensitive receptors, would be constructed to attenuate exterior noise levels in accordance with the New York State Building Code. Construction would include insulation and walls designed to reduce noise.

Delivery trucks, recycling and solid waste functions are proposed to be interior functions, not a significant new noise source. Even though this would be a change from the existing conditions, it is not anticipated to be a significant adverse impact.

c) Adherence to Town Noise Ordinance

The following are unlawful noises, as per Section 139-4 of the Town Code, that would potentially pertain to temporary and permanent conditions on the Project Site during and after construction. The Proposed Project would adhere to all local noise regulations.

139-4.B. Building construction. Operating or permitting the operation of any tool or equipment used in construction, drilling or demolition work, including excavation, and the alteration or repair of any building between the hours of 10:00 p.m. and 7:00 a.m., except in the case of an emergency or the interests of public safety and then only with the permit of the Building Inspector, which permit may be issued for a maximum period of three days and may be renewed once for a maximum period of three days during the existence of the emergency period.

139-4.C Refuse compacting. The operation of a refuse compacting vehicle in the process of compacting or collecting refuse contained in a dumpster or similar receptacle between the hours of 10:00 p.m. and 7:00 a.m. or the operation of a refuse compacting vehicle in the process of compacting or collecting refuse contained in individual garbage cans between the hours of 10:00 p.m. and 7:00 a.m.

139-4.I. Heavy equipment. The operation of any pile driver, bulldozer, pneumatic hammer, grinder or other construction equipment which creates unreasonable noise, except between 7:00 a.m. and 8:00 p.m. on weekdays, and between 10:00 a.m. and 6:00 p.m. Saturdays, except



as may otherwise be permitted by the Building Inspector in cases of urgent necessity in the interest of public safety. The operation or use of such heavy equipment on Sundays and legal holidays is prohibited.

139-4.J Machinery. The operation of any machinery, equipment, pump, fan, air-conditioning apparatus or other mechanical device in such a manner as to create unreasonable noise.

139-4.Q Air-conditioning and air-handling devices.

(1) Except as provided by Subsection Q(4) of this section, the operation of an air-conditioning or air-handling device that exceeds the maximum sound-level limitations provided in this section. All measurements would be made on the A-weighted sound level of a sound-level meter with a slow response.

(2) In areas zoned residential, continuous sound in air which has crossed a property line shall not exceed any of the following sound levels:

(a) Fifty-five dBA at any point; or

(b) Fifty dBA outside of a living area window with the microphone not more than three feet from the window opening.

(3) In areas zoned for multiple dwellings or apartments, continuous sound shall not exceed 50 dBA outside any living area window with the microphone not more than three feet from the window opening.

(4) The provisions of this section shall not apply if the sound from the air-conditioner or air-handling device produces less than a five-decibel increase on the sound level that exists in the absence of such sound.

139-4.R. Places of public entertainment. The operation of a place of public entertainment, including but not limited to a restaurant, bar, cafe, discotheque or dance hall, in which the sound level is equal to or exceeds 95 dBA sustained for more than 30 seconds measured at the location of the spectators. All measurements would be made on the A-weighted sound level of a sound-level meter with a slow response.

4. Proposed Mitigation

Construction noise impacts would be temporary, and would be eliminated when construction is complete. The Proposed Project would comply with the Town's noise ordinance (Section 139-4 of the Town Code), as well as using best management practices during construction. Construction activities and the operation of construction equipment are an expected and required consequence of any new construction project and cannot be avoided. During the



construction phases of development, to minimize or eliminate adverse impacts due to equipment noise, all construction equipment used on site would be inspected periodically to ensure that properly functioning muffler systems are used on all equipment in accordance with the NYSDEC Best Management Practice (BMP) for reducing noise. While on the site, equipment should not idle unnecessarily, and construction activities should be limited to hours described in the Town Code. Based on these measures, the temporary increases in noise levels due to construction equipment usage and construction traffic would be minimized.

Post-construction, the Proposed Project is not anticipated to increase vehicular trips or operations to such an extent as to significantly increase ambient noise levels in the vicinity. Temporary noise impacts from landscaping equipment, refuse collection and delivery trucks, if they were to occur, would be regulated by adhering to the hours permitted in the Town's noise ordinance (Section 139-4 of the Town Code).