3.9 Air Resources - Noise

3.9.1 Existing Conditions

Government Standards

The United States Department of Housing and Urban Development (HUD) has adopted environmental standards, criteria and guidelines for determining the acceptability of federally assisted projects and proposed mitigation to ensure that activities assisted by HUD will achieve the goal of attaining a suitable living environment. Although the Yorktown Farms subdivision project is not subject to HUD guidelines, these guidelines do represent valid and useful goals for virtually any contemporary project. Table 3.9-1 below summarizes HUD Site Acceptability Standards based on external noise levels.

Table 3.9-1
HUD Site Acceptability Standards

	Outdoor Ldn (dBA)
Acceptable	Not exceeding 65
Normally Unacceptable	65 to 75
Unacceptable	Above 75

Source: Title 24, Code of Federal Regulations, Part 5l.103 (c), Exterior Standards.

These standards reflect the EPA goal of not having continuous external noise levels exceed 65 decibels (dBA). This goal is not a mandated standard and does not account for cost or feasibility. The 65 dBA criterion is more restrictive than the criteria used by the Federal Highway Administration (FHWA) related to standards for noise for roadway design. The FHWA uses 67 decibels as a noise threshold criteria for residential uses.

Existing On-Site Noise Levels and Critical Receptors

Existing On-site Noise Levels

Existing noise conditions detected on the Yorktown Farms subdivision site are influenced by surrounding land uses. The highest levels of detected noise on the site presently are generated by the vehicular traffic on US Route 6, which runs along the northern border of the property. Noise receptors within the site would be most sensitive to truck and larger vehicular traffic on US Route 6. However, these noise levels are not unusual and do not extend into the site to a significant degree. The adjacent subdivisions of Gay Ridge Road, Jennifer Court, Timberlane Court, Stonewall Court, and Jefferson Court do not produce substantial amounts of noise, nor do noise levels from existing commercial uses along US Route 6 appear to be problematical for the future residents of the proposed Yorktown Farms subdivision.

Critical Receptors

Critical noise receptors are facilities and uses that are dependent on a state of serenity and quiet, or are uses that are particularly sensitive to noise energy and decibel levels. As examples, there are some types of industrial facilities whose equipment is sensitive to noise and vibration, particularly in electronics. Other land uses that are typically considered to be

sensitive to noise would be schools, hospitals, churches, cemeteries, libraries, nature preserves, outdoor recreation areas, and other uses. There do not appear to be any of these sensitive receptors in the project area.

3.9.2 Potential Impacts

Short Term Noise Impacts During Construction

Local daytime ambient noise levels will increase both on and off of the project site during construction of the proposed roadways, utility lines, homes and lots. Construction activities and the operation of construction equipment are an expected and required consequence of any new residential, commercial or industrial project, and cannot be avoided. Thus, some noise impacts would be expected. It is important to note that noise impacts as a result of construction activities are a temporary impact, and will cease upon completion of the project. The following table shows representative maximum sound levels for diesel powered equipment and activities at a range of receptor distances.

Table 3.9-2
Construction Noise Levels (dBA)

	Maximum Sound Level			
Equipment/Activity	**50 feet**	**200 feet**	**500 feet**	**1000 feet**
Backhoe	82-84	70-72	62-64	56-58
Blasting	93-94	81-82	73-74	67-68
Concrete Pump	74-84	62-72	54-64	48-58
Generator	71-87	59-75	51-67	45-61
Hauler	83-86	71-74	63-66	57-60
Loader	86-90	74-78	66-70	60-64
Rock Drill	83-99	71-87	63-79	57-73
Trucks	81-87	69-75	61-67	55-61

Source: Compiled from various sources by Tim Miller Associates, Inc.

To the average person, a noise level increase of one to two dBA is barely perceptible; an increase of 5 dBA is definitely noticeable; an increase of 10 dBA is a large increase; and an increase of 20 dBA or more is perceived as a dramatic change. Annoyance to people frequently results from increases of 10 dBA or more, depending upon the frequency and duration of the noise events.

The level of impact from these construction noise sources depends upon the type and number of pieces of construction equipment being operated, the duration of the construction activities, as well as the distances from the construction sites. The noisiest periods of construction will occur during site clearing and grading activities, when sections of the site are prepared for the new roadways, utilities and building foundations, although all site-generated construction activities will produce increased on-site noise levels.

Noise levels due to construction activities will vary widely, depending on the phase of construction activities. These activities will include clearing and excavations, drilling, grading activities, delivery of construction materials, and the actual construction of the various components of the proposed project. 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. During construction, noise levels at the various property lines of the subject site will vary, depending upon the distances to the noise generator that are involved. The more sensitive receptors will be the residential uses along the western and southern property lines.

It is anticipated that nearby residences on surrounding local roads would experience temporary elevated noise levels at occasional periods during the construction of the proposed subdivision. The heaviest volume of construction traffic is expected to occur at the beginning of the construction, as grading and tree clearing occur.

Blasting Impacts

Blasting may be necessary around the area of the site driveway south of Route 6 and for the construction of the detention basin near the northwestern corner of the site. Subsurface investigations will be conducted prior to construction to confirm the actual depths to bedrock. If bedrock is found, other construction methods will be evaluated, such as cutting, ripping, or chipping, that can be used in lieu of blasting. As described in section 3.2 of this DEIS, any blasting that is required will be done in full conformance with New York State Code and the Town of Yorktown Blasting and Explosives regulations §124. Blasting operations will be conducted under the direct control and supervision of competent and licensed persons. The blasting contractor performing the work will be fully insured in accordance with §124. Once any required blasting sites have been identified, a general blasting schedule will be developed and a blasting permit will be obtained from the Building Inspector covering the specific blasting operation. Blasting will not be conducted between the hours of 5:00 PM and 8:00 AM, nor on Sundays, in accordance with §124.

Potential Impacts - Site-Generated Project Noise

No significant adverse noise impacts are anticipated as a result of the proposed project. After construction and occupancy of the proposed residences, noise levels can be expected to be similar to the surrounding and existing occupied areas, as the subject site will contain a residential use similar to those found in many sections of the surrounding area.

Seasonal use of the proposed soccer field will result in some elevated noise levels beyond those typically associated with residences. These effects would occur near the northwestern property line only during times when the field is in use. Three existing homes at the end of Jennifer Court and Gay Ridge Road are located at a distance of approximately 250 feet from the proposed soccer field. Existing homes further to the south at the end of Timberlane Court are separated from the proposed soccer field by over 300 feet, including by an existing wooded lot that has been dedicated to the Town of Yorktown as parkland. Noise effects from the proposed soccer field would be limited by intervening vegetation, with forested wetland areas situated between these homes and the proposed field. As such, upon completion of construction, the proposed project is not expected to produce significant adverse noise impacts on the areas surrounding the project site.

Project noise levels will be associated with a variety of site-generated and off-site factors, which will include the following:

- normal vehicular traffic;

- normal household noises, such as conversational speech, lawn care and maintenance, music from radios and boom-boxes, property repairs and upgrades, outdoor activities and parties, barking dogs, and children playing;
- snow plowing and shoveling;
- truck deliveries for fuel, mail parcels, moving, deliveries and other items; and,
- noise generated by the activities in the proposed Town Park parcel and soccer field.

As stated above, and in consideration of these analyses, no significant adverse, long-term noise impacts are anticipated as a result of the proposed project.

3.9.3 Proposed Mitigation Measures

Construction activity will be limited to hours between 8:00 AM and 6:00 PM, Monday through Saturday, exclusive of Sundays and national holidays. Typically, construction activities will cease prior to 6:00 PM. All construction vehicles and equipment will be well maintained and operated in an efficient manner.

As described in Section 3.2 of this DEIS, should the need arise for blasting, any blasting would be done in full conformance with New York State Code and the Town of Yorktown Blasting and Explosives regulations §124. Blasting operations will be conducted under the direct control and supervision of competent and licensed persons. Once any required blasting sites have been identified, a general blasting schedule will be developed and a blasting permit will be obtained from the Building Inspector covering the specific blasting operation. Blasting will not be conducted between the hours of 5:00 PM and 8:00 AM, nor on Sundays.

As the Build Condition is not anticipated to result in any long-term significant adverse noise impacts, no additional mitigation measures are proposed.