Notwithstanding the foregoing provisions, no improvements or proposed improvements shown on a site plan for residential property which has been approved prior to the effective date of a change in the zoning regulations or zoning classification and filed or recorded with the Union Town Clerk shall be required to conform to such change.

Section 2.06.00 PERFORMANCE AND ENVIRONMENTAL STANDARDS

Section 2.06.01 Statement of Purpose

In accordance with the purposes described in Section 1.01 of these regulations, and more specifically to promote and protect the public health, safety and welfare by minimizing noise, glare, odors, heat and vibrations, and by minimizing the discharge of toxic substances and other pollutants into the air, surface water, soil and groundwater, the following Performance and Environmental Standards are hereby established to apply to all buildings, structures and uses in all zones within the town of Union. No permit shall be issued for a building, structure or use under these regulations unless the Commission determines that such building, structure or use would comply with these standards. If the Commission determines that any building, structure or use established after the effective date of these regulations is or has been in violation of these standards, the Commission may issue any order or seek any remedy or penalty provided by state or municipal law for the violation of zoning regulations.

Section 2.06.02 General Standards

a. No building, structure or use shall be allowed which creates an unreasonable risk of fire or explosion, or which emits or causes to be emitted into the air dust, dirt, fly ash, smoke, particulates, fumes, noxious gases, waste or refuse materials, heat or glare, or offensive odors, except to the extent such emissions are related to-and are the normal result of processes customary for the provision of heat to a building, structure or use.

b. No treated or untreated sewage, hazardous or industrial materials or wastes, or other waste or refuse shall be discharged into any watercourse or wetland, or onto the soil. All methods of sewage and waste treatment and disposal shall comply with regulations of the State of Connecticut and the Town of Union for maximum protection of groundwater. No effluent shall contain acids, oils, dust, toxic metals, corrosive or other toxic substances, grease or phosphates,
in solution or suspension, which would create odors, or which would discolor, poison, or otherwise pollute a watercourse, wetland or groundwater.

c. No operation or activity shall be carried on which would produce heat perceptible from any property line of the lot on which the operation is located.

d. No vibration shall be transmitted outside the property where it originates.

e. No exterior lighting shall be used in a manner which produces a bloom or a direct glare on neighboring property, or which produces an objectionable visual disturbance to obstruct scenic views.

f. No operation or business shall use nuclear fuel.

g. No mining, extracting, filling or soil-stripping operations shall be allowed except as provided in Section 3.03.

h. No construction, excavation or other use of land shall be allowed which is unreasonably or unnecessarily destructive to sites having historical or archaeological significance.

i. No use of a building, structure or land shall cause unreasonable interference with radio or television reception in the vicinity of the use.

Section 2.06.03 Noise Standards

Section 2.06.03(a) Definitions

The following definitions are applicable to the Noise Standards set forth in Section 2.06.03:

Background noise: Noise which exists at a point as a result of the combination of distant sources, individually indistinguishable.

Construction: The assembly, erection, substantial repair, alteration, demolition, or site preparation for or of public or private rights-of-way, buildings or other structures, utilities, or property.

Daytime hours: The hours between 7:00 a.m. and 9:00 p.m., Monday through Saturday, and the hours between 9:00 a.m. and 9:00 p.m. on Sunday.

Decibel: A unit of measurement of the sound level.
Emergency: Any occurrence or set of circumstances which involves actual or imminent physical trauma or property damage and which demands immediate action.

Emitter: The zone from which the sound is created or sent, or the person or thing creating the sound.

Excessive noise: Any sound, the intensity of which exceeds the standards set forth in section 2.06.03(b) of these regulations.

Impulse noise: Sound of short duration, usually less than one second, with an abrupt onset and rapid decay.

Mobile source: Non-stationary sources of sound, including, but not limited to, moving aircraft, automobiles, trucks, and boats.

Motor vehicle: A vehicle as defined in subdivision (30) of Section 14-1, Connecticut General Statutes, as amended.

Nighttime hours: All hours not listed as being "daytime hours".

Receptor: The zone in which sound is received, or the person or thing receiving the sound.

Sound: A transmission of energy through solid, liquid, or gaseous media in the form of vibrations which cause alterations in pressure or position of the particles in the medium and which, in air, evoke physiological sensations, including, but not limited to, an auditory response when impinging on the ear.

Sound level: A frequency-weighted sound pressure level as measured with a sound level meter using the A-weighting network. The level so read is designated dBA.

Sound level meter: An instrument used to measure sound levels. A sound level meter shall conform, at a minimum, to the American National Standards Institute's operational specifications for Sound Level Meters S1.4-1971 (Type S2A).

Sound pressure level: A number equal to twenty (20) times the logarithm to the base ten (10) of the ratio of the pressure of a sound to the reference pressure of twenty microneutons per square meter (20x10⁻⁶ Newtons/m²). The number is expressed in decibels (dB).
Section 2.06.03(b) Standards

No sound shall be emitted beyond the boundaries of the lot or parcel on which such sound originates which exceeds the sound levels specified below.

<table>
<thead>
<tr>
<th>Emitter</th>
<th>Industrial</th>
<th>Commercial and Retail Trade</th>
<th>Residential and all other zones: Daytime hours</th>
<th>Residential and all other zones: Nighttime hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial</td>
<td>70 dBA</td>
<td>66 dBA</td>
<td>61 dBA</td>
<td>51 dBA</td>
</tr>
<tr>
<td>Commercial and Retail Trade</td>
<td>62 dBA</td>
<td>62 dBA</td>
<td>55 dBA</td>
<td>45 dBA</td>
</tr>
<tr>
<td>Residential and all other zones</td>
<td>62 dBA</td>
<td>55 dBA</td>
<td>55 dBA</td>
<td>45 dBA</td>
</tr>
</tbody>
</table>

Measurements shall be taken at a point which is located beyond the boundary of the emitter's lot or parcel and approximately one (1) foot within the receptor's lot or parcel.

Section 2.06.03(c) High Background Noise Levels and Impulse Noise

1. In those individual cases where the background noise caused by sources not subject to these regulations exceeds the standards contained herein, a source shall be considered to cause excessive noise only if the sound emitted by such source exceeds the background noise levels by 5 dBA, provided that no source subject to the provisions of these regulations shall emit sound in excess of 80 dBA at any time; and provided that this Section does not decrease the permissible levels of other sections of this ordinance.

2. No impulse noise shall be caused or allowed in excess of 80 dB peak sound pressure level during nighttime hours in any Residential Zone.

3. The emission of impulse noise shall not be caused or allowed in excess of 100 dB peak sound pressure level at any time in any zone.

Section 2.06.03(d) Exclusions

These standards shall not apply to unamplified sounds emitted by or related to the human voice, natural phenomena,
or wild or domestic animals; bells or chimes from a clock
in any building or from a school or church; a public emergency
sound signal; and sounds created by farming equipment or
farming activity, any emergency, snow removal, and mobile
sources.

Section 2.06.03(e) Exemptions

The following shall be exempt from the provisions of
Section 2.06.03 subject to the special conditions noted:

1. Noise created by the operation of property maintenance
equipment during daytime hours.

2. Noise generated by any construction equipment operated
during daytime hours.

3. Noise created by any recreational activities which
are sanctioned by the Town, including, but not limited to,
parades, sporting events, concerts, firework displays, and
local public celebrations.

4. Noise created by blasting, provided that the blasting
is conducted between 8:00 a.m. and 5:00 p.m. local time and
provided that a permit for such blasting has been obtained
from appropriate state or local authorities.

5. Noise created by refuse and solid waste collection
and disposal, provided that such activity is conducted between
6:00 a.m. and 10:00 p.m.

6. Noise created by a fire alarm or intrusion alarm.

7. Noise created by public facility maintenance during
daytime hours and snow plowing whenever necessary.

Section 2.06.03(f) Noise Level Measurement Procedures

For the purpose of determining sound levels as set forth
in these standards, the following guidelines shall be applicable:

1. A person conducting sound measurements shall have
been trained in the techniques and principles of sound measur-
ing equipment and instrumentation.

2. Instruments used to determine sound level measurements
shall be sound level meters as defined under Section 2.06.03(a).

3. The following steps shall be taken when preparing
to take sound level measurements:
a. The instrument manufacturer's specific instructions for the preparation and use of the instrument shall be followed.

b. Measurements to determine compliance with these standards shall be taken at a point that is located about one foot beyond the boundary line of the lot or parcel on which the sound is emitted and within the lot or parcel on which the sound is received.

Section 2.07 PROTECTION OF SITES HAVING HISTORICAL OR ARCHAEOLOGICAL SIGNIFICANCE

If, during the course of any construction, excavation, removal or filling activities any sites or materials are discovered which appear to have been made, used or handled by persons, or which otherwise suggest the past use or habitation of the site, and which may reasonably be suspected of having historical or archaeological significance, such discovery shall be immediately reported to the Commission. The Commission may order a suspension of all or any portion of the activities for a period not to exceed four months for the purpose of allowing further investigation of any such discovery.

If within such four-month period the Commission determines that the site has historical or archaeological significance, the Commission may revoke any existing permit or site plan pertaining to the property. If the Commission does revoke any permit or site plan pursuant to this section, it shall issue an amended permit and, if a site plan was involved, approve a modified site plan which will allow the work specified in the original permit and/or site plan to proceed subject only to such restrictions or conditions as the Commission may reasonably deem necessary to protect the historical or archaeological value of the site.

Section 2.08 BUILDABLE LAND CRITERIA

Section 2.08.01 Statement of Purpose

The following standards and limitations are intended to promote the purposes described in Section 1.01 of these regulations and, more specifically, to facilitate development and to preclude post-development problems, such as septic system failures, by assuring that each lot approved for development contains an adequate area of dry, usable land.