

TORONTO  
NOISE   
COALITION

**GUIDANCE FROM THE NYC  
NOISE CODE**

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## INTRODUCTION

The lead author of New York City's noise bylaw was Charles Shamoon, Assistant Counsel, New York City Department of Environmental Protection (DEP). Mr. Shamoon is a lawyer and an engineer. On his suggestion, NYC hired two Acoustic experts; one for community noise named Eric Zwerling [Rutgers U.] and one for construction named Erich Thalheimer PB, both of whom have published many papers on the subject of noise, which can be found on the Internet. This team was responsible for writing the award winning NYC Noise Code, which was enacted in 2005 and can be found [here](#). NYC has also published a guide to the Noise Code, which highlights some of the most common sources of noise in the city and can be found [here](#).

The ABC Residents Association Noise Subcommittee, on behalf of the Toronto Noise Coalition, has consulted with Mr. Shamoon and has gathered in this document some of the advice we received from him and some of the NYC resources used to assist the industries to comply with the NYC Noise Code. These should be read in conjunction with the TNC's Position Paper.

While it is not comprehensive, we hope this information will be useful to the City and the Noise Working Group. We would be happy to facilitate an online discussion with Mr. Shamoon for City Staff or the Noise Working Group, however he has provided the following [list of international experts](#) that could be retained by the City of Toronto for advice.

### 1. GENERAL ADVICE

Mr. Shamoon said that one of the most important things that NYC accomplished was to work with the stakeholder businesses to show them that noise control was good for business. They showed industry that noise control was not extremely difficult and that they could follow the code by using the resources that the DEP provided for them. They explained that the people that complain could be potential customers.

Mr. Shamoan summarized the work as follows:

*"In New York City, we developed an effective noise bylaw that takes into account science, the concerns of residents, public health needs and city planning as a whole. We brought in all of the various stakeholders and we worked together to create a consensus around noise in NYC. And it works well."*

One basic starting point is that NYC residents are entitled to no more than 42 to 45 decibels in homes, especially at night so they can sleep. This restriction is found throughout the provisions of the NYC Noise Code. The United States Housing and Urban Development (HUD) has enacted regulations dealing with "Noise Abatement and Control" which can be found in [24 CFR Part 51 Subpart B - Environmental Criteria and Standards](#). The regulations state in Section 51.101(a) that "the HUD's general policy to provide minimum national standards applicable to HUD programs to protect *citizens* against excessive noise in their communities and places of residence." In section 9 of section 51.101(a) it states: "Interior noise goals. It is a HUD goal that the interior auditory environment shall not exceed a day-night average sound level of 45 decibels. Attenuation measures to meet these interior goals shall be employed where feasible. Emphasis shall be given to noise sensitive interior spaces such as bedrooms. Minimum attenuation requirements are prescribed in Sec. 51.104(a)."

Minimum attenuation requirements are for music, construction and HVAC outside noise that enters a home or apartment. The NYC DEP website has current tools and guidance document links for various different stakeholder industries, some of which are referred to below. They also suggest engineering controls in these documents.

As NYC can be litigious, they like to use a decibel meter especially with businesses. Training was provided for both the DEP inspectors and the NYC police department, both of who enforce the bylaw. The police always take individual complaints from homeowners, although in some cases, DEP inspectors also accompany them.

A plainly audible rule is helpful when police enforce noise regulations. **In Toronto, unless the bylaw officers and police are trained to use and are equipped with decibel meters, the plainly audible rule is likely more appropriate.**

Mr. Shamon has referred us to the following papers written by international health authorities:

- 1) [GUIDELINES FOR COMMUNITY NOISE](#) – Published by the World Health Organization, Geneva and edited by Birgitta Berglund, Thomas Lindvall and Dietrich H. Schwela. This WHO document on the Guidelines for Community Noise is the outcome of the WHO-expert task force meeting held in London, United Kingdom, in April 1999. It bases on the document entitled “*Community Noise*” that was prepared for the World Health Organization and published in 1995 by the Stockholm University and Kaolinska Institute.
- 2) [COMMUNITY NOISE](#) – Published by the World Health Organization and edited by Birgitta Berglund and Thomas Lindvall, Stockholm Sweden, 1995.

## 2. CONSTRUCTION

The NYC construction noise rules that were written in coordination with the NYC Noise Code have been effective since July 1, 2007. These rules establish a unique noise mitigation plan for each construction site, offering alternatives for contractors to continue their important construction tasks while having less noise impact on the surrounding environment.

[Construction Noise Rules \(PDF\)](#)

### VENDOR GUIDANCE DOCUMENT FOR SMALLER CONSTRUCTION JOBS

The following is intended to provide guidance to construction contractors with respect to finding and selecting suitable noise control products used on smaller construction jobs. These products and vendors are helpful to contractors for achieving compliance with the New York City Noise Regulations.

[Vendor Guidance Document for Smaller Construction Jobs \(PDF\)](#)

## MINIMAL NOISE RULE

The minimal noise rule sets out a list of construction activities with minimal noise impact and specific noise mitigation measures applicable to such activities. Pursuant to that section, these rules set out a list and prescribe the methods and procedures that must be used whenever any one or more of the construction activities with minimal noise impact are employed or performed.

[Minimal Noise Rules \(PDF\)](#)

## CONSTRUCTION NOISE CONTACT SHEET

All contractors must have the attached contact sheet posted on a fence outside their construction site.

[Construction Contact Sheet](#)

## CONSTRUCTION NOISE MITIGATION PLAN – SAMPLE FORM

In accordance with Section 24-220 of the NYC Noise Code, any individual or entity performing construction work in the city must adopt and implement a noise mitigation plan for each construction site when any device or activity is conducted as defined in Section 24-219. The attached sample form of a noise mitigation plan is intended to inform the user of the required plan elements that a responsible party must include when the listed devices are being used on site, and the mitigation strategies and best management practices that are being employed as defined in Title 15 of the Rules of the City of New York (15RCNY) in Section 28-102.

[Construction Noise Mitigation Sample Form \(PDF\)](#)

[Utility Noise Mitigation Sample Form \(PDF\)](#)

## CONSTRUCTION NOISE ALTERNATIVE MITIGATION PLAN – SAMPLE FORM

When required by Section 24-221 of the NYC Noise Code and of 15RCNY Section 28-104, a complete and accurate Alternative Noise Mitigation Plan ["ANMP"] must be filed when strict compliance with the noise mitigation rules is not possible. After review by DEP's technical staff, and when approval of this plan is warranted, such plan must be conspicuously posted at the job site. When an ANMP is required, no construction activities covered by such plan can take place until such plan is filed and subsequently approved by the DEP.

[Construction Noise Alternative Mitigation Sample Form \(PDF\)](#)

## CONSTRUCTION NOISE CONTROL PRODUCTS AND VENDOR GUIDANCE SHEETS

The following document provides guidance to construction contractors with respect to findings and selecting suitable noise control products. These products and vendors are helpful to contractors for achieving compliance with the New York City Noise Regulations. These items are provided only as suggestions for contractors to consider and are not to be construed as an official endorsement of any product and/or vendor by the City of New York. Contractors are free to choose other products/vendors that meet the requirements of the Noise Code. This sheet is updated from time to time as new noise control technologies gain acceptance.

[Construction Noise Control Products and Vendor Guidance Sheet \(PDF\)](#)

Attached are two photos of a very large construction site in NYC. What is shown is very large hammering equipment in a 50-foot deep foundation ditch with plywood fencing on the sidewalk level. There are many gray noise-absorbing blankets facing the loud tools. On the sidewalk you would hear a small fraction of the noise escaping the site. This is a requirement of all NYC construction using this type of heavy equipment. The plywood panels are relatively inexpensive.



The city of New York gets a lot of good publicity about how it handles noise. Here are a few examples:

[A Sweeter-Sounding Jackhammer](#)

[NYC Considers Pushing a Quieter Jackhammer on Construction Crews](#)



### 3. MUSIC

#### REQUIREMENTS AND STANDARDS FOR COMMERCIAL MUSIC

Among the many changes the NYC Noise Code brought into effect was the establishment of standards and procedures to reduce noise from commercial music. The rules set out the requirements for avoiding imposition of a penalty for a first violation of the commercial music laws as well as the procedure to obtain a variance from the decibel limits in the NYC Noise Code for commercial music establishments and enterprises. In addition, as nightclubs, restaurants, bars and cafes play an important role in the City's economic development, the DEP developed a guidance document intended to assist those establishments that play music with information on a range of acoustical products, vendors, and professional services available to help control sound and vibration in their establishments and buildings. When applied properly, these acoustical tools result in a reduction of sound and vibration, and in achieving compliance with the NYC Noise Code, rules and regulations.

[Commercial Music Mitigation Rules](#)

[Noise Control Guidance for Nightlife Industry](#)

This short video for the Nightlife Music Industry was distributed to all the Nightlife stakeholders to encourage their compliance. If a venue plays music from a restaurant, nightclub, café, bar, or establishment, it needs to comply with the NYC Noise Code. Please watch this video for an explanation of methods to mitigate nightlife musical noise and measure decibels:

[Methods to Mitigate Nightlife Musical Noise and Measure Decibels](#)

### 4. OUTDOOR CONCERTS

Mr. Shamon stressed that NYC does not exempt outdoor concerts that are near residences (the 42 dBA limit in residence applies). He pointed out that there are many ways to dampen the noise using technology. See the following article about the Forest Hills Concert venue.

[Forest Hills Concert Organizers Invest \\$500,000 to Address Noise, Light Issues](#)

## 5. HVAC

### NOISE CONTROL FOR BUILDING INTERIOR HEATING, VENTILATION AND AIR CONDITIONING EQUIPMENT GUIDANCE SHEET

The following document provides guidance and example resources for noise control inside buildings stemming from the operation of heating, ventilation and air conditioning (HVAC) equipment in NYC. HVAC equipment involves rotating machinery and air moving devices, all of which can generate noise and vibration levels that easily transfer into and transmit through a building's interior. This is particularly true if the HVAC equipment is centrally located inside a building or on its roof as opposed to being in its basement.

[Noise Control for Building Interior Heating, Ventilation and Air Conditioning Equipment Guidance Sheet \(PDF\)](#)

### NOISE CONTROL FOR BUILDING EXTERIOR HEATING, VENTILATION AND AIR CONDITIONING EQUIPMENT GUIDANCE SHEET

The following document provides guidance and example resources for noise control of building exterior heating, ventilation and air conditioning (HVAC) equipment in NYC. HVAC equipment involves rotating machinery and air moving devices, which generate noise that can propagate through the open air to nearby noise sensitive locations. This is particularly true if the HVAC equipment is located on the roof of one building in close proximity or with a direct line of sight to an adjacent building.

[Noise Control for Building Exterior Heating, Ventilation and Air Conditioning Equipment Guidance Sheet \(PDF\)](#)

## 6. NOISE CONSULTANTS

### REQUIREMENTS AND STANDARDS TO BE A NOISE CONSULTANT FORM

The NYC Noise Code sets out the requirements and standards to be a noise consultant. The rules are authorized by section 1043 of the Charter of the City of New York as well as section

24-231 of the NYC Noise Code. NYC also publishes a list of noise consultants for commercial music mitigation who have been approved under the Noise Code.

[Requirements and Standards to be a Noise Consultant Form \(PDF\)](#)

[DEP-Approved Noise Consultant List \(PDF\)](#)