



## **Zoning Resolution**

**THE CITY OF NEW YORK**  
**Zohran K. Mamdani, Mayor**

**CITY PLANNING COMMISSION**  
**Sideya Sherman, Chair**

# **42-42 - Performance Standards Regulating Vibration**

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## 42-42 - Performance Standards Regulating Vibration

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LAST AMENDED

6/6/2024

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### 42-421 - Definitions

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LAST AMENDED

6/6/2024

For the purposes of this Section, the following terms are defined:

#### Frequency

A "frequency" is the number of oscillations per second of a vibration.

#### Impact vibrations

"Impact vibrations" are earth-borne oscillations occurring in discrete pulses at or less than 100 pulses per minute.

#### Steady state vibrations

"Steady state vibrations" are earth-borne oscillations that are continuous. Discrete pulses that occur more frequently than 100 times per minute shall be considered to be #steady state vibrations#.

#### Three-component measuring system

A "three-component measuring system" is a device for recording the intensity of any vibration in three mutually perpendicular directions.

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## 42-422 - Method of measurement

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LAST AMENDED

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For the purpose of measuring vibration, a #three-component measuring system# approved by the Commissioner of Buildings shall be employed.

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## 42-423 - Maximum permitted steady state vibration displacement

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LAST AMENDED

6/6/2024

In all #Manufacturing Districts#, no activity shall cause or create a #steady state vibration# at any point on any #lot line#, with a displacement in excess of the permitted #steady state vibration# displacement for the #frequencies# as set forth in the following table for the district indicated.

### MAXIMUM PERMITTED STEADY STATE VIBRATION DISPLACEMENT

(in inches)

| #Frequency#<br>(cycles per second) | District |       |       |
|------------------------------------|----------|-------|-------|
|                                    | M1       | M2    | M3    |
| 10 and below                       | .0008    | .0020 | .0039 |

|             |       |       |       |
|-------------|-------|-------|-------|
| 10 - 20     | .0005 | .0010 | .0022 |
| 20 - 30     | .0003 | .0006 | .0011 |
| 30 - 40     | .0002 | .0004 | .0007 |
| 40 - 50     | .0001 | .0003 | .0005 |
| 50 - 60     | .0001 | .0002 | .0004 |
| 60 and over | .0001 | .0001 | .0004 |

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## 42-424 - Maximum permitted impact vibration displacement

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In all #Manufacturing Districts#, no activity shall cause or create an #impact vibration#, at any point on any #lot line#, with a displacement in excess of the permitted #impact vibration# displacement for the #frequencies# as set forth in the following table for the district indicated.

### MAXIMUM PERMITTED IMPACT VIBRATION DISPLACEMENT

(in inches)

District

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| #Frequency#<br>(cycles per second) | M1    | M2    | M3    |
|------------------------------------|-------|-------|-------|
| 10 and below                       | .0016 | .0040 | .0078 |
| 10 - 20                            | .0010 | .0020 | .0044 |
| 20 - 30                            | .0006 | .0012 | .0022 |
| 30 - 40                            | .0004 | .0008 | .0014 |
| 40 - 50                            | .0002 | .0006 | .0010 |
| 50 - 60                            | .0002 | .0004 | .0008 |
| 60 and over                        | .0002 | .0002 | .0008 |

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## 42-425 - Special provisions applying along district boundaries

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Whenever an M2 or M3 District adjoins a #Residence District#, the #steady state# and #impact vibration# displacement, measured at the district boundary, shall not exceed the maximum permitted for an M1 District for the #frequencies# as set forth in the tables in Section [42-423](#) (Maximum permitted steady state vibration displacement) or Section [42-424](#) (Maximum permitted impact

vibration displacement).