TOWN of GREENBURGH

Local Law No. /2018


BE IT ENACTED by the Town Board of the Town of Greenburgh:

§ 1. Title.

This law is entitled “A local law amending Chapter 140 of the Code of the Town of Greenburgh, entitled “Explosives and Blasting.”

§ 2. Legislative Findings and Intent.

The Town Board of the Town of Greenburgh finds it in the best interest of the Town to amend Chapter 140 of the Code of the Town of Greenburgh in order to update current blasting regulations and introduce legislation related to chipping.

§ 3. Amendments to Chapter 140: Explosives and Blasting.

Chapter 140 of the Code of the Town of Greenburgh is hereby amended as follows (deleted text in strikeout; new text underlined):

Chapter 140 EXPLOSIVES AND BLASTING. EXPLOSIVES, BLASTING, AND CHIPPING.

§ 140-1 Purpose.

The purpose of this chapter is to establish minimum safeguards to protect human health, safety and welfare, as well as property, by establishing reasonable regulations governing the possession and use of explosive materials. To ensure that the possession and use of explosive materials does not result in physical injury or property damage, the Town Council hereby asserts its right to designate acceptable hours for blasting operations, set
levels for the ignition and discharge of explosive materials and establish acceptable standards governing consequential vibrations resulting from all blasting conducted within the Town.

§ 140-2 Applicability; technical standards.
A. This chapter shall apply to each and every person, corporation and business engaged in the manufacture, sale, transportation, storage, handling or use of explosives in the Town. This chapter sets forth procedures for the issuance of permits, payment of fees, recordkeeping, reporting and monitoring compliance. In addition, this chapter establishes penalties for the failure to comply with these requirements.

B. The technical standards set forth in this chapter are based upon generally recognized criteria and accepted industry standards. See New York State Labor Law, Article 16; 12 NYCRR Part 39; NFPA No. 495-1973; 27 CFR 55; 49 CFR 171 through 178; and 49 CFR 390 through 397 for other additional standards that may be applicable.

§ 140-3 Exceptions; application for exemption; notification.
A. The provisions of this chapter shall not apply to the following:

(1) The military forces of the United States or its allies, the duly authorized militia of any state or any police force or Fire Department, provided that the same is acting in its official capacity and in the performance of its public duties.

(2) The transportation of explosives in interstate or intrastate commerce regulated by the United States Department of Transportation or the New York State Department of Labor.

(3) Model rocketry.

(4) Employee safety regulated under the Occupational Safety and Health Act, 29 U.S.C. § 651 et seq.

(5) Fireworks subject to regulation under Penal Law §§ 270 and 405.

(6) Small arms ammunition, including smokeless or black powder when possessed for noncommercial purposes in quantities of five pounds or less.


B. Where an individual makes a written application to the Building Inspector for an exemption, the Building Inspector may grant an exemption where it is evident that compliance would cause an undue hardship and that public safety would not be compromised by granting relief. Any exemption granted under this section must be as limited in scope and duration as possible, balancing the hardship caused by compliance versus the potential danger and threat to public safety of granting relief. If the Building Inspector grants an exemption under this section, he shall immediately notify the Chief of Police of his decision and within five business days
notify the Town Board stating the facts, the nature of the exemption and the underlying rationale.

§ 140-4 **Definitions.**
The following words and terms, when used in this chapter, shall have the following meanings, unless the context clearly indicates otherwise:

**AIR BLAST**
The airborne shock wave or acoustic transient generated by an explosion.

**APPEALS BOARD**
The Police Chief, Town Engineer and the Fire Marshal convened under § 140-7C to hear appeals regarding the revocation of any permit issued under this chapter.

**APPROVED**
Acceptable to the Building Inspector or Appeals Board.

**BLACK POWDER**
A deflagrating or low explosive compound composed of an intimate mixture of sulfur, charcoal and an earth nitrate, usually potassium nitrate or sodium nitrate.

**BLASTER**
A person who holds a valid permit to perform blasting operations.

**BLASTING**
The fracture of any heavy mass by detonation of explosive materials.

**BLASTING AGENT**
Any material or mixture consisting of a fuel and oxidizer, intended for blasting, not otherwise classified an explosive, provided that the finished product, as mixed and packaged for use or shipment, cannot be detonated by means of a No. 8 test blasting cap when unconfined.

**BLASTING CAP**
A detonator.

**BLASTING MACHINE**
An electrical or electromechanical device capable of providing electrical energy for the purpose of energizing electric blasting caps.

**BLASTING MAT**
A mat of woven steel wire, tires or other suitable material or construction to cover blast holes for the purpose of preventing fly rock missiles.

**BLAST ZONE**
The area surrounding a blast site subject to the influence of flying debris generated by the detonation of an explosive charge.

**BUILDING**
Includes, but is not limited to, any structure or assembly used for occupancy or storage and subject to the jurisdiction of the Town Building Department.

**BURDEN**
That dimension of a medium to be blasted measured from the borehole to the face at right angles to the spacing. It means also the total amount of material to be blasted by a given hole, usually measured in cubic yards or in tons.

**CERTIFICATE OF COMPETENCY**

Any authorization to keep, store, transport, manufacture or use explosives issued under New York State Labor Law, Article 16.

**CFR**

The Code of Federal Regulations in effect on the date this chapter was last amended.

**CLASS A EXPLOSIVE**

An explosive possessing detonating or maximum hazard and means an explosive which is described in 49 CFR 173.53.

**CLASS B EXPLOSIVE**

An explosive possessing flammable hazard such as propellant explosives and photographic flash powders and means an explosive described in 49 CFR 173.88.

**CLASS C EXPLOSIVE**

Certain types of manufactured articles which contain Class A or Class B explosives, or both, as components but in restricted quantities, and certain types of fireworks and means an explosive described in 49 CFR 173.100.

**COMMERCIAL EXPLOSIVE**

Any explosive except a propellant and nitrocarbonitrate, including but not limited to dynamite, black blasting powder, pellet powder, initiating explosive, blasting cap, electric blasting cap, safety fuse, fuse igniter, fuse lighter, squib, cordeau detonant fuse, instantaneous fuse, igniter cord and igniter.

**COMPETENT PERSON**

A person with the requisite experience, training and education necessary to perform the duty assigned or assumed.

**DELAY INTERVAL**

The time interval in milliseconds between successive detonations of the delay devices used.

**DETONATOR**

Any device containing a detonating charge that is used for initiating detonation in an explosive. The term includes, but is not limited to, electric blasting caps of instantaneous and delay types, blasting caps for use with safety fuses, detonating-cord delay connectors and nonelectric instantaneous or delay blasting caps.

**ELECTRIC BLASTING CAP**

A blasting cap designed for, and capable of, initiation by means of an electric current.

**EXPLOSIVE**

A. Any chemical compound or mixture that is commonly used or intended for the purpose of producing an explosion that contains any oxidizing and combustible materials or other ingredients, in such proportions, quantities or packing that an
ignition by fire, by friction, by concussion or by detonation of any part of the compound or mixture may cause such a sudden generation of highly heated gases that the resultant gaseous pressure is capable of producing destructive effects on contiguous objects.

B. The term "explosive" includes, but is not limited to:

(1) A commercial explosive, propellant or nitrocarbonitrate.

(2) A high explosive or a low explosive.

(3) An explosive material, blasting agent, water gel or detonator.

C. The term "explosive," except as specifically stated herein, does not include:

(1) Small arms ammunition, including smokeless or black powder when possessed for noncommercial purposes in quantities of five pounds or less.

(2) An explosive in a form prescribed by the United States Pharmacopeia.

(3) Fireworks regulated under state law.

**FIREWORKS**
Any combustible or explosive composition or any substance or combination of substances or articles prepared for the purpose of producing a visible or audible effect by combustion, explosion, deflagration or detonation.

**FLY ROCK**
Rock propelled from the blast area by the forces of an explosion.

**FUEL**
A substance that may react with the oxygen in the air or with the oxygen or other oxidizing material yielded by an oxidizer to produce combustion.

**HERTZ**
Cycles per second.

**HIGH EXPLOSIVE**
Any explosive material which can be caused to detonate by means of a blasting cap when unconfined.

**HIGHWAY**
Any public street, road, highway, alley or part of a navigable stream which is used as a highway of commerce.

**INHABITED BUILDING**
A building regularly occupied in whole or in part as a habitation for human beings, or any church, schoolhouse, railroad station, store or other structure occupied in connection with the manufacture, transportation, storage or use of explosives.

**INITIATING PRIMER**
An explosive cartridge with a detonator or initiating agent inserted therein.
LOW EXPLOSIVE
An explosive material which can be caused to deflagrate when confined.

MAGAZINE
Any building, structure or other enclosure or container, other than an explosive manufacturing building, used for the storage of explosives.

MISFIRE
An explosive material charge that fails to detonate after an attempt at initiation.

MOTOR VEHICLE
Any self-propelled vehicle, truck, tractor, semitrailer or truck full trailer used for the transportation of explosives.

NFPA

NITROCARBONITRATE
An explosive classified as a blasting agent.

NO. 8 TEST BLASTING CAP
A cap containing two grams of a mixture of 80% mercury fulminate and 20% potassium chlorate or a cap of equivalent strength.

OXIDIZER
A substance such as a nitrate that yields oxygen or other oxidizing substance readily to stimulate the combustion of organic matter or other fuel.

OXIDIZING MATERIAL
An oxidizer.

PEAK PARTICLE VELOCITY
The peak particle velocity recorded on any one of the three mutually perpendicular components of blasting vibrations in the vertical and horizontal directions.

PERMIT
Written authorization issued by the Town or other appropriate governmental agency to manufacture, sell, possess, store or use explosives.

PERSON
Any natural person, partnership, firm, association or corporation.

PROPELLANT
Any solid chemical or solid chemical mixture which functions by rapid combustion of successive layers and includes, but is not limited to, smokeless powder for small arms, smokeless powder for cannons, smokeless powder or solid propellant for rockets, jet thrust units or other devices.

SEISMOGRAPH
An instrument which records ground vibration by measuring and recording particle velocity, displacement or acceleration in three mutually perpendicular directions.

SEMICONDUCTIVE HOSE
A hose with an electrical resistance high enough to limit flow of stray electric
currents to safe levels, yet not so high as to prevent drainage of static electric
charges to ground such as those of not more than two megohms resistance over its
entire length and not less than 5,000 ohms per foot.

SENSITIVITY
A physical characteristic of an explosive classifying its ability to detonate upon
receiving an external impulse such as impact, shock, flame or other influence which
can cause explosive decomposition.

SINGLE DELAY
A delay in time of nine milliseconds or more.

SMALL ARMS AMMUNITION
A cartridge for a shotgun, rifle, pistol or revolver and a cartridge for propellant-
actuated power devices and industrial guns. Military-type ammunition containing
explosive bursting charges or any incendiary, tracer, spotting or pyrotechnic
projectile is excluded from this definition.

SMOKELESS PROPELLANT
A solid propellant, commonly called "smokeless powder" in the trade, used in small
arms ammunition, cannon, rockets or propellant-actuated power devices.

STEMMING
An inert material placed in a bore hole after the explosive for the purpose of
confining explosive materials or to separate charges of explosive material in the
same bore hole.

STRAY CURRENT
A flow of electricity outside the conductor which normally carries it.

U.S.C.
United States Code.

USDOT
United States Department of Transportation.

VIBRATION
The energy from a blast that manifests itself in earthborne vibrations which are
transmitted through the earth away from the immediate blast area.

WATER GEL
Any of a wide variety of materials used for blasting that contain substantial
proportions of water and high proportions of ammonium nitrate, some of which is in
solution in the water. Two broad classes of water gels are those which are sensitized
by a material classed as an explosive, such as TNT or smokeless powder, and those
which contain no ingredient classified as an explosive; these are sensitized with
metals such as aluminum or with other fuels. Water gels may be classified as Class
A explosives, Class B explosives or blasting agents.
§ 140-5 Permit requirements.
A. No person shall manufacture, sell, possess, store, use or detonate explosives within the Town unless a permit has been issued by the Building Inspector.

B. Permit to manufacture, sell, possess or store. An application for a permit to manufacture, sell, possess or store explosives shall require the following information, as well as any other information the Building Inspector deems necessary to ensure public health and safety:

(1) The applicant's full name, address and telephone number. If the applicant is a corporation, partnership or other business entity, the name of each officer shall be separately stated. If the applicant is an out-of-state corporation, partnership or other business entity, the applicant must submit proof of filing with the New York State Secretary of State to do business in New York. No permit may be issued unless the applicant is authorized to do business in New York.

(2) The location where applicant proposes to manufacture, sell, possess or store explosives.

(3) A statement as to the purpose and need to manufacture, sell, possess or store explosives.

(4) Where the manufacture, sale, possession or storage of explosives is subject to state or federal regulation and licensing, a copy of any state or federal license or permit shall be provided, together with the application for a local permit, unless the use is specifically exempted by § 140-3A, above.

(5) The quantity of explosives to be manufactured, sold, possessed or stored.

C. The application for a permit shall be signed by the applicant. In addition, the applicant shall sign an acknowledgment, under the penalties of perjury, stating that all information provided in the application or in support of the application is true and accurate.

D. Permit to use or detonate. An application for a permit to use or detonate explosives shall require the following information, as well as any other information the Building Inspector deems necessary to insure public health and safety:

(1) The applicant's full name and address. If the applicant is a corporation, partnership or other business entity, the name of each officer shall be separately stated. If the applicant is an out-of-state corporation, partnership or other business entity, the applicant must submit proof of filing with the New York State Secretary of State to do business in New York. No permit may be issued unless the applicant is authorized to do business in New York.

(2) A designated, on-site representative who will be present at the location during all blasting and authorized to act on behalf of the applicant for all administrative purposes.
(3) The name, address and telephone number of the person who will be conducting the blasting, and a copy of the blaster's license to purchase, own, possess, transport and use explosives and a certificate of competence.

(4) An estimate of how much blasting is anticipated and the type and amount of material to be ignited or discharged. Where more than one blast is anticipated, the applicant shall estimate how many separate blasts are expected and the approximate duration blasting activity will continue.

(5) The time, date and location blasting is scheduled to begin.

(6) A list of all landowners, including name and address, within a five-hundred-foot radius of the proposed blast site.

(7) A preblast survey of the site, where one inch equals 30 feet in scale, showing all structures within a five-hundred-foot radius of the proposed blast site, together with a description of each structure within such radius. Any property owner subject to a preblast property description shall be furnished a copy of the description of his property upon request. The Building Inspector may, in his sole discretion, require that the preblast survey be accompanied with a videotape showing each building and structure and any particular features as he may direct. The Building Inspector may, in his sole discretion, waive all or any portion of the preblast survey depending on the particular characteristics of the site, the surrounding area and the type of blasting proposed. The applicant shall, upon request, make a copy of the preblast survey available to the Building Inspector. Where a preblast survey indicates electric transmission lines within 500 feet of a proposed blast site, the Building Inspector or his representative may require testing to determine the presence and level of errant electrical current in the area. If testing indicates the presence of errant electrical current in the vicinity where explosives are to be detonated at a level sufficient to pose a potential threat to public safety, the Building Inspector may require that any blasting be conducted solely by use of nonelectrical detonation.


E. Based on the application and the preblast survey, if any, the Building Inspector shall estimate the cost of monitoring compliance with this chapter and furnish such estimate, together with a basis for his calculation, to the applicant. Before any permit is issued, the estimated cost of inspection services shall be deposited with the Town, held in escrow, and applied to reimburse the Town for costs and expenses actually incurred in connection with administering compliance with this chapter. Where the estimated amount deposited is insufficient to cover the Town's costs, the property owner shall be responsible for any balance due. Where the estimated amount deposited with the Town exceeds the costs incurred, the balance shall be refunded.


F. The application for a permit to use explosives shall be signed by both the applicant and the blaster. In addition, the applicant shall sign an acknowledgment stating, under the penalties of perjury, that all information provided in the application or in support of the application is true and accurate. The blaster shall also sign an
acknowledgment stating that he has read the entire application, that in his opinion blasting at the particular location can be conducted safely, without unreasonable risk, and that, under the penalties of perjury, the blaster's state license is valid, that he is fully authorized to conduct the type of activity set forth in the application and that he agrees to abide by all state and federal safety standards.

G. A permit to conduct blasting shall be effective for a specific project and specific period of time, not to exceed one year. The Building Inspector shall have sole discretion to set the term of any permit issued under this section.

H. Expiration, revocation or cancellation of the blaster's state license shall automatically void any permit issued under this chapter.

I. No blast shall be initiated at any location within the Town unless a written permit to conduct blasting has first been obtained and signed by the Town Engineer and Building Inspector authorizing blasting at the specific location.

J. The Building Inspector may add to any permit issued under this chapter whatever terms and conditions deemed necessary to protect public health, safety and welfare.

K. No permit holder shall transfer or assign a permit issued under this chapter.

L. The failure of an applicant to provide any information requested by the Building Inspector in support of an application for a permit shall be grounds to deny an application or revoke a permit.

M. Each applicant must furnish proof of insurance as set forth in § 140-6 herein.

N. Fees. Notwithstanding any of the provisions of the Fire Code of New York State and the Building Code of New York State, the fee for permits issued under this chapter shall be set by the Building Inspector, subject to approval by Town Board resolution. All fees shall be paid at the time of filing an application and prior to any permit or certificate being issued. [Amended 12-23-2008 by L.L. No. 11-2008]

O. The Town Building Inspector or his representative may also request the applicant to supply any other, additional information that may be deemed necessary to protect the health and safety of the public or to prevent damage to property.

§ 140-6 Insurance; statement of indemnification; issuance.
A. Before any permit is issued pursuant to this chapter, the applicant shall submit proof of insurance by supplying a certificate of insurance, issued by an insurance company authorized to do business in the State of New York, stating that the applicant has insurance coverage in effect for workers' compensation, liability and property damage and a specific endorsement stating that coverage includes liability arising from handling or using explosive materials and conducting blasting activity. Insurance coverage shall be not less than $3,000,000 for general liability, including bodily injury to any one person and, subject to the same limit for each person, not less than $10,000,000 for any occurrence, plus insurance for property damage of not less than $2,000,000. The insurance certificate shall name the Town as an additional
insured. In addition, the certificate shall contain a statement that the policy or policies covering the insured will not be canceled, terminated or modified by the insurance company unless 30 days' notice is given to the Town and such change or modification is mutually agreed to.

B. The applicant shall also furnish a notarized statement agreeing to indemnify and hold the Town harmless from any and all claims, actions and proceedings brought by any person, firm or corporation for any injury to any persons or property resulting, directly or indirectly, from the applicant using, storing, handling, transporting or manufacturing explosive material or conducting blasting activity and, moreover, stating the applicant will defend and indemnify the Town against any action brought by any third parties as a result of operating under a Town permit issued under this chapter.

C. No permit shall be issued unless and until the applicant has complied with these insurance requirements and provided an agreement indemnifying and holding the Town harmless for any and all damage and injury.

§ 140-7 Inspection, revocation and appeal.

A. Inspection. Because of the compelling and overriding public safety issues involved in the handling and use of explosives, the Town Building Inspector, Town Engineer, Fire Marshal, Code Enforcement Officer or any member of the Police Department may inspect any vehicle, structure, dwelling, construction site, workplace or other area where explosives are manufactured, sold, possessed, stored or used within the Town for the limited purpose of ascertaining and verifying compliance with this chapter.

B. Permit revocation. The Building Inspector may, on his own initiative or at the request of any other official, revoke or modify a permit issued pursuant to this chapter where it appears the permit holder has violated any local, state or federal rule or regulation, including but not limited to a false statement or representation on the application for a blasting permit or violation of any applicable safety standard or where the Building Inspector determines that public safety has been compromised. The Building Inspector may modify or revoke a permit by notifying the permit holder or his representative, orally or in writing, that the permit has been modified or revoked. Where a permit has been revoked, the Building Inspector shall send a written notice of revocation to the permit holder by first class mail without unnecessary delay, but not later than five working days after revocation, setting forth the reasons the permit was revoked. The notice of revocation shall include a statement informing the permit holder of his right to appeal such revocation by filing a notice of appeal with the Town Clerk within 20 working days. Where a permit is modified, the Building Inspector shall give the permit holder written notice of the modifications.

C. Appeals. A permit holder who has had his permit revoked or modified by the Building Inspector may appeal and seek relief from the modifications or reinstatement of the permit. An appeal pursuant to this section shall be heard by the Chief of Police, the Town Engineer and the Fire Marshal, or any of their deputies,
sitting as a board of appeals. The Building Inspector shall appear and state his findings and the reasons for revoking or modifying the permit. The permit holder and/or the blaster shall be offered the opportunity to appear and present evidence why the permit should not be modified or revoked. The appeal board may sustain the Building Inspector's decision to revoke a permit, reinstate any permit or amend any modifications imposed by the Building Inspector. Where the board reinstates a permit, the board may amend the permit by adding whatever terms and conditions it deems necessary to protect public health, safety and welfare. The decision of the appeal panel shall be final.

§ 140-8 Blasting operations.

A. No blast shall be initiated at any location within the Town limits unless a written permit has first been obtained from Building Inspector authorizing blasting at the specific location.

B. Blasting conducted within the Town must comply with the terms of the permit and, in addition, all applicable state and federal health and safety standards.

C. At least five business days prior to the scheduled start of blasting, the permit holder shall request a preblast meeting with the Building Inspector to review and finalize the proposed blasting plan. No blasting shall be conducted unless a preblast meeting has been held with the Building Inspector and the Building Inspector is satisfied that the proposed blasting plan is reasonable.

D. Each blasting permit holder shall establish and delineate a blast zone prior to detonating a blast. The blast zone must be clearly marked and adequate precautions implemented to prevent unauthorized entry into the area.

E. Prior to each blast, the blaster or his designee shall be responsible for notifying all persons in the general area that blasting operations are scheduled to begin within a specified period of time. In addition, the blaster shall sound a recognized whistle, siren or horn loud enough to be heard throughout the designated blast zone approximately three minutes prior to blasting and again 30 seconds prior to blasting, warning all persons that blasting is imminent.

F. The Building Inspector or his representative shall be permitted access to observe all aspects of the blasting operation, including but not limited to observation of all preblast preparatory site work, the explosion/detonation and access to the postblast site. The property owner shall reimburse the Town for the cost of all inspection services, including the cost of retaining an on-site inspector to monitor all aspects of blasting, where the Building Inspector deems such services necessary, by depositing the estimated cost of inspection services in a designated account to be held in escrow by the Town and applied to reimburse the Town for costs incurred in administering compliance with this chapter. The permit holder and the blaster shall, upon request, make available to the Building Inspector a copy of all seismic reading and any and all other documentation and data collected regarding any blast. [Amended 2-26-1997 by L.L. No. 1-1997]
G. The blasting permit holder shall notify the Building Inspector or his designated representative and the Police Department of an impending blast at least two hours, but not more than 12 hours, prior to the time each blast is scheduled.

H. The applicant shall be responsible for any costs incurred by the Town in providing police, emergency services or any other personnel deemed necessary to ensure public safety.

I. Notwithstanding any other regulations, no blasting shall be performed in such manner or under such circumstances as to eject debris into the air so as to constitute a hazard or danger or do harm or damage to persons or property. Before firing a blast which could cause injury to persons or damage property from fly rock, the material to be blasted shall be properly covered or screened by a buffer of sufficient mass and strength to prevent, with a margin of safety, the ejection of any material capable of causing any injury or damage.

J. No person shall use a quantity of explosives greater than necessary to break or move the target material or use an amount of explosives that poses a risk of injury to persons or property.

K. Unless otherwise permitted by the Town Building Inspector, all holes drilled or otherwise excavated for holding an explosive charge shall be at least six feet deep. If, however, the permit holder/blaster can demonstrate a need to use a hole less than six feet deep and that such a cavity will not endanger public safety, the Town Building Inspector or his designated representative may, in his discretion, authorize the use of blast holes less than six feet deep. [Added 2-26-1997 by L.L. No. 1-1997]

L. The blaster shall plan each blast and take every precaution in loading, delaying, initiation, confinement and stemming to control the throw of rock fragments and debris and limit ground vibrations and the effect of air concussions to the greatest extent possible. When blasting is to be conducted within 50 feet or less of a property line and the adjacent property owner is not a party to the blasting operation, the blaster shall take all precautions practicable, utilizing any combination of recognized methods, to control blasting effects to the greatest degree possible.

M. A record of each blast shall be kept by the blaster on a form approved by the Town Building Inspector. All such records shall be retained by the permit holder and blaster as prescribed by state law and made available for inspection as a matter of public record.

(1) The permit holder shall record the following information for each blast and provide the Building Inspector with a duplicate copy at the end of each day:

(a) The name and license number of the blaster.

(b) The location of the blast.

(c) The date and time of each blast.
(d) The number of blasts.
(e) The number, diameter and depth of each hole and distance between holes.
(f) The burden depth.
(g) The stemming length.
(h) The make and type of explosives.
(i) The delay make, number and period.
(j) The weather conditions, including temperature, wind direction and speed.

(2) In addition, the following seismograph information must be recorded for each blast with a duplicate copy provided to the Building Inspector:

(a) The seismograph serial number.
(b) The range/gain setting.
(c) The date of last shake table calibration and microphone calibration.
(d) The air channel low frequency limit.
(e) The exact seismograph location and location in relation to the blast.
(f) The peak over pressure readout.
(g) The peak particle velocity readout.
(h) The name of the operator.

N. Where an accident involves personal injury, the permit holder shall immediately notify the Building Inspector that an accident has occurred, and no further blasting shall be conducted until the Building Inspector has had an opportunity to review the accident report and the permit. Any injury, accident or misfire involving explosives shall be recorded, and a full written report shall be attached to the blast report filed with the Building Inspector, including the names of all participants and witnesses and remedial actions taken. The Building Inspector may require such additional, specific information from the blaster as he deems necessary and appropriate to assure the public health and safety. Following an accident involving personal injury, the Building Inspector may amend the permit by adding whatever additional restrictions are deemed necessary to assure public health and safety is maintained and another similar accident does not reoccur.

O. At no time shall a single blast greater than 4,000 pounds of total explosives ever be detonated within the Town of Greenburgh.
§ 140-9 Vibration and concussion standards.
A. The maximum allowable concussion or air blast resulting from blast operations shall not exceed 130 decibels peak, measured at a flat frequency response (PMS two decibels) over the range of at least six to 200 hertz.

B. When blasting is of a continuing nature, 124 to 130 decibels shall be the acceptable range.

C. The permit holder shall report each blast exceeding acceptable parameters to the Building Inspector within 24 hours. Following a blast exceeding acceptable parameters, the Building Inspector shall have the authority to order blasting operations to be suspended, altered or stopped.

D. When no instrument is used to measure the seismic effect of a blast, the maximum amount of explosives detonated shall not exceed the limits shown in the following table:

Table 1

Distance Versus Weight of Explosives Method*

<table>
<thead>
<tr>
<th>Distance to Nearest Building in Feet</th>
<th>Number of Pounds per Delay</th>
<th>Distance to Nearest Building in Feet</th>
<th>Number of Pounds per Delay</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 5 1/4</td>
<td>250 to 260</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td>5 to 10 1/2</td>
<td>260 to 280</td>
<td>49</td>
<td></td>
</tr>
<tr>
<td>10 to 15 3/4</td>
<td>280 to 300</td>
<td>55</td>
<td></td>
</tr>
<tr>
<td>15 to 60</td>
<td>1/4 per foot D</td>
<td>300 to 325</td>
<td>64</td>
</tr>
<tr>
<td>60 to 70</td>
<td>6</td>
<td>325 to 350</td>
<td>69</td>
</tr>
<tr>
<td>70 to 80</td>
<td>7 1/4</td>
<td>350 to 375</td>
<td>79</td>
</tr>
<tr>
<td>80 to 90</td>
<td>9</td>
<td>375 to 400</td>
<td>85</td>
</tr>
<tr>
<td>90 to 100</td>
<td>10 1/2</td>
<td>400 to 450</td>
<td>98</td>
</tr>
<tr>
<td>100 to 110</td>
<td>12</td>
<td>450 to 500</td>
<td>115</td>
</tr>
<tr>
<td>110 to 120</td>
<td>13 3/4</td>
<td>500 to 550</td>
<td>135</td>
</tr>
<tr>
<td>Distance to Nearest Building in Feet</td>
<td>Number of Pounds per Delay</td>
<td>Distance to Nearest Building in Feet</td>
<td>Number of Pounds per Delay</td>
</tr>
<tr>
<td>------------------------------------</td>
<td>---------------------------</td>
<td>------------------------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>120 to 130</td>
<td>15 1/2</td>
<td>550 to 600</td>
<td>155</td>
</tr>
<tr>
<td>130 to 140</td>
<td>17 1/2</td>
<td>600 to 650</td>
<td>175</td>
</tr>
<tr>
<td>140 to 150</td>
<td>19 1/2</td>
<td>650 to 700</td>
<td>195</td>
</tr>
<tr>
<td>150 to 160</td>
<td>21 1/2</td>
<td>700 to 750</td>
<td>220</td>
</tr>
<tr>
<td>160 to 170</td>
<td>23 1/4</td>
<td>750 to 800</td>
<td>240</td>
</tr>
<tr>
<td>170 to 180</td>
<td>25</td>
<td>800 to 850</td>
<td>263</td>
</tr>
<tr>
<td>180 to 190</td>
<td>28</td>
<td>850 to 900</td>
<td>288</td>
</tr>
<tr>
<td>190 to 200</td>
<td>30 1/2</td>
<td>900 to 950</td>
<td>313</td>
</tr>
<tr>
<td>200 to 220</td>
<td>34</td>
<td>950 to 1,000</td>
<td>340</td>
</tr>
<tr>
<td>220 to 240</td>
<td>39</td>
<td>1,000 to 1,100</td>
<td>375</td>
</tr>
<tr>
<td>240 to 250</td>
<td>42</td>
<td>1,100 to 1,200</td>
<td>435</td>
</tr>
</tbody>
</table>
Table 1  
Distance Versus Weight of Explosives Method*

<table>
<thead>
<tr>
<th>Distance to Nearest Building in Feet</th>
<th>Number of Pounds per Delay</th>
<th>Distance to Nearest Building in Feet</th>
<th>Number of Pounds per Delay</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,200 to 1,300</td>
<td>493</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*NOTE: Distances over 60 feet are based on the formula \( W = D \times 1.5/90 \), where \( W \) = weight and \( D \) = distance.
Table 2

Distance Versus Peak Particle Velocity Method

<table>
<thead>
<tr>
<th>Distance in Feet</th>
<th>Peak Particle Velocity of any One Component* in Inches-per-Second</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 100</td>
<td>1.50</td>
</tr>
<tr>
<td>100 to 200</td>
<td>1.25</td>
</tr>
<tr>
<td>200 to 500</td>
<td>1.00</td>
</tr>
<tr>
<td>500 to 1,000</td>
<td>0.50</td>
</tr>
<tr>
<td>Over 1,000</td>
<td>0.25</td>
</tr>
</tbody>
</table>

*NOTE: The measuring instrument's transducer shall be firmly coupled to the ground.

E. When an instrument is used to measure the seismic effect of a blast, the maximum peak particle velocity on any one component of an instrument measuring three-component motion shall not exceed the limits of the following table: The US Bureau of Mines Safe Vibration Criteria, with an upper allowable limit of 1.25PPV will be the governing standard. Charts plotting both the Peak Particle Velocity (in/s) and Peak Frequency (Hz) must be provided after each and every blast.

§ 140-10 Hours blasting is allowed.
Blasting may be conducted when authorized by permit Monday through Friday between the hours of 8:30 a.m. and 3:00 p.m. Blasting is prohibited Saturdays, Sundays and legal holidays, unless modified by an approving Board.

§ 140-11 Notice of intent to blast; posting.
A. Not more than 20 days nor less than three days prior to a scheduled blast, the permit holder shall serve a notice of intent to blast, stating when and where blasting activity is scheduled to occur, on each occupant or user of each structure, commercial or residential, within 300 feet of the proposed blast site and upon the owner or owners of any parcel of property immediately adjoining or abutting the parcel of property on which the blasting is to take place, regardless of the distance an adjoining owner is from the blast site. The notice shall include the blasting permit number, the permit holder's name, emergency telephone numbers for police, fire and ambulance service and the time and location of each scheduled blast. A copy of the notice of intent to blast must be submitted to the Building Inspector for his review and approval prior to distribution.
B. The notice of intent to blast may be served by either personal service or certified mail. In the event that neither personal service nor certified mail can be effected, the applicant may request authorization from the Building Inspector to serve the notice of intent to blast by posting a copy of such notice in each building or dwelling in a conspicuous place where it is reasonable to believe that persons entering or leaving the premises will see such notification.

C. In the case of multi-occupancy structures, residential and commercial, located within 300 feet of the blast site, the notice of intent to blast shall be conspicuously and continuously posted at all commonly used entrances to the structure at least 20 and not less than three days prior to blasting. It shall be the blaster's responsibility to ensure that notice is unobstructed and remains posted at the structure.

§ 140-12 Rules and regulations.
The Police Chief, Town Engineer and Fire Marshal, sitting as a Board of Standards, may supplement this chapter by promulgating whatever additional rules and regulations are deemed necessary or desirable to protect the public health, safety and welfare. No rule or regulation may be effective unless approved by the Building Inspector. A copy of all rules and regulations promulgated under this section are to be provided with each application for a permit.

§ 140-13 Applicant responsible for costs.
Any person applying to use explosives to demolish any structure in excess of 25 feet in height must agree to assume the cost of any engineering analysis, public safety survey, environmental review or other technical study deemed necessary by the Building Inspector to determine if and how blasting can be conducted safely.

§ 140-14 Penalties for offenses; enforcement.
A. Any person, including any owner or agent or corporation, who shall violate any of the provisions of this chapter or fail to comply with any provision shall, following conviction, be guilty of a misdemeanor.

B. The first violation shall be punishable by a fine not to exceed $2,500 $5,000 and subject to a period of incarceration not to exceed 10 days 20 days.

C. A second and each subsequent offense shall be punishable by a fine not to exceed $5,000 $10,000 and subject to a period of incarceration not to exceed 20 days 40 days.

D. Any person, including any owner or agent or corporation, who supplies false information to the Building Inspector in support of a blasting permit shall, upon conviction, be guilty of a misdemeanor and subject to a fine not to exceed $5,000 and subject to a period of incarceration not to exceed 20 days.

E. The provisions of this chapter may be enforced by either the Building Inspector or the Town police.

§ 140-15 Chipping/Blasting of Rock.
A. If the applicant (or successor in interest) intends to remove rock by means other than blasting, a High Resolution Seismic Refraction Survey must be performed. A licensed, certified, geotechnical engineer shall interpret the results of the survey and will determine whether or not all of the rock can be removed by means other than blasting. The geotechnical engineer will submit a written report on the site to the Building Department.

B. If the report reveals that all of the rock cannot be removed by means other than blasting, then no removal of overburden shall take place with the exception of tree stumps, top soil or materials rendered inconsequential by the blaster.

C. If the report reveals that all of the rock can be safely hammered/chipped, a temporary, solid barrier no less than 8'-0” high shall be installed for the duration of the chipping activities, to the satisfaction of, and if required by the Building Inspector.

D. The applicant (or successor in interest) shall be limited to the hours of 8:30 AM to 3:00 PM, Monday through Friday, for all rock chipping. Rock chipping is prohibited on Saturdays, Sundays and all legal holidays, unless modified by an approving Board.

E. The applicant (or successor in interest) shall conduct a preconditioned/preconstruction survey of all adjacent structures located within 50 feet of the limits of disturbance on the subject property. The survey shall be submitted to the Town’s Blasting Inspector and the Town Building Inspector for review.

F. The applicant (or successor in interest) shall install seismic graphs, set in histogram mode, on the property, outside the area of rock removal, that are to be monitored once an hour to ensure the vibrations from the site do not cause damage to adjacent structures of the property. The number of seismic graphs shall be determined by the geotechnical engineer and agreed to by the Town Building Inspector, or his designee. A daily report of the seismic graph readings must be submitted to the Town Building Inspector. The report shall use the USBM Vibration limit curve developed from RI8507. Should a seismic reading exceed the Town of Greenburgh limitations, the work must cease immediately, and written notification must be provided to the Town Building Inspector.

G. Prior to any rock chipping/hammering activities, appropriate dust control measures must be installed to the satisfaction of the Town Building Inspector.

H. The maximum decibel level for rock chipping/hammering activities must not exceed 110db(A), as measured from any property line.

I. All rock chipping/hammering must be completed within forty-five (45) business days of commencement of such activities. Thereafter, the applicant (or successor in interest) must cease such activities and seek additional approval from the Planning Board to resume rock chipping/hammering activities.
§ 5. **Supersession:**

Pursuant to New York Municipal Home Rule Law Section 22, this law is intended to supersede any other inconsistent provision of law.

§ 6. **Severability:**

If any clause, sentence, paragraph, subdivision, section or part of this law or the application to any person or circumstance shall be adjudged by any court of competent jurisdiction to be invalid or unconstitutional, such order or judgment shall not affect, impair or invalidate the remainder thereof, but shall be confined in its operation to the clause, sentence, paragraph, subdivision, section or part of this law, or its application to the person or circumstance directly involved in the controversy in which such order or judgment shall be rendered.

§ 7. **Effective Date:**

This law shall take effect immediately upon filing with the Secretary of State.