

Appendix J
BLASTING PROTOCOL

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Stateline Retail Center

February 2007

Blasting is expected to be necessary at several locations along the southern boundary of the property, adjacent to Interstate 84, for the construction of some of the several building pads on the property. This protocol is prepared as an outline specification for blasting operations as mitigation to potential impacts associated with blasting. A Final Blasting Plan will be completed by the blasting contractor and would be based on site specific blasting requirements.

Where rock removal is required, every attempt will be made to remove the rock to the desired grade by mechanical means such as hammering and ripping. Such methods would utilize machinery like bulldozers, backhoes, grade-alls, and rock hammers. All blasting will be conducted pursuant to a written blasting plan and in accordance with the following general requirements.

- Blasting operations will be conducted only by a licensed, experienced, and insured blasting contractor.
- Title 12 of the New York State Code of Rules and Regulations (12 NYCRR Part 39) governs the statewide handling, transportation, and storage of explosives used for blasting. Blasting operations must comply with all applicable Federal, State, and Local regulations regarding the use, transport and storage of explosives.
- Contractors shall obtain a blasting permit from the Town prior to commencement of on-site blasting operations.
- Blasting will only occur between 8:00 AM and 5:00 PM Monday through Saturday.
- Appropriate advance notification of blasting to Town authorities and adjacent properties is required.
- Pre- and post-blast surveys are to be conducted by the blasting contractor.
- Blasting charges should be limited to the minimum extent practicable.
- Use of protective measures, such as blasting mats, should be used where appropriate.
- Blasting will be performed in accordance with Chapter 71 of the Town of Southeast code further described below.

Town Regulations

Blasting would comply with local regulations regarding blasting, including the technical requirements excerpted from Chapter 71, Explosives and Blasting of the Town of Southeast, below.

§ 71-2. Permit required; application; insurance

A. No person shall blast or cause to be blasted any rock or other substance with any explosive in the Town of Southeast, as defined in this chapter, without having first obtained a permit from the Building Inspector covering the specific blasting operation, upon written application. Such blasting operations shall be conducted under the direct control and supervision of competent and licensed persons and in accordance with the provisions of New York State laws and regulations and the provisions of this chapter.

B. The application for a blasting permit shall be on a form approved by the Building Inspector and contain such information as is required by the Building Inspector, accompanied by the fee as required. As part of the application for a blasting permit, the applicant shall also submit a description of all structures, including residential dwellings located within three hundred (300) feet of the blast site and a list of the names and addresses of the owner or owners of any parcel of property on which the blasting is to take place, as shown on the most recent tax rolls of the Town of Southeast.

C. Before such permit is issued, the person shall submit evidence, in the form of a certificate of insurance issued by an insurance company authorized to do business in the State of New York, guaranteeing that the applicant has in full force and effect a policy of public liability insurance, including a specific endorsement covering the liabilities arising from blasting and providing bodily injury coverage of not less than five hundred thousand/one million dollars (\$500,000/\$1,000,000) and property damage insurance of not less than five hundred thousand/one million dollars (\$500,000/\$1,000,000). Such policy shall also provide to save the town harmless from all claim, action and proceedings brought by any person, firm or corporation for injury to person or property resulting from or occasioned by such blasting operations. Such policy shall contain the provision that the policy shall not be canceled, terminated, modified or changed by the company unless thirty (3) days' prior written notice is sent to the town by certified mail. No permit shall be valid unless such insurance is in full force and effect.

§ 71-3. Issuance or permits; fee; revocation.

A. Such permit, when approved and signed by the Building inspector and upon payment of a fee of one hundred fifty dollars (\$150) to the Building Inspector or such other fee as may be fixed from time to time by the Town Board, shall be issued and signed by the Building Inspector, who shall keep a record thereof. Each permit shall specify the name of the permittee, the date of expiration [which shall be no later than six (6) months from the date of issue] and the particular place where the blasting is to be done.

B. The Town Board may revoke any permit issued hereunder at any time for good cause shown. If permit revocation occurs, a hearing shall be conducted by the Town Board upon written notification of the permittee of the time and place of any reason for such hearing.

§ 71.-5. Precautions required.

All blasts within two hundred (200) feet of any roadway or structure, before firing, shall be covered with metal rope or metal matting, heavy timbers chained together or other suitable screens of sufficient size, weight and strength to prevent the escape of broken rock or other material in a manner liable to cause injury or damage to persons or property. All blasts not within two hundred (200) feet of any roadway or structure shall have a suitable screen so as not to cause injury or damage to persons or property.

§ 71-6. Warning Flags.

No person shall fire or explode or direct or cause to be fired or exploded any blast in or near any highway or public place in the Town of Southeast unless competent persons carrying a red flag shall have been placed at a reasonable distance on all sides of the blast to give proper warning thereof at least three (3) minutes in advance of firing.

§ 71-7. Hours of operations.

No person shall conduct blasting operations within the Town of Southeast after the hour of 5:00 PM and before 8:00 AM nor at any time on Sunday, except in the case of emergency or necessity, and then only with permission of the Building Inspector or Fire Inspector.

§ 71-8. Notice of Intent to blast.

A. Not more than thirty (30) days nor less than seventy-two (72) hours prior to the intended blasting, a notice of intent to blast shall be served upon:

(1) The inhabitants or users of any structure, including residential dwellings, located within three hundred (300) feet of the blast site.

(2) The owner of owners of any parcel of property immediately adjoining or abutting the parcel of property on which the blasting is to take place.

B. The notice of intent to blast shall be delivered to the inhabitants or users set forth in Subsection A (1) or (2) of this section. In the event that personal delivery of the notice of intent to blast cannot be effected, the notice of intent to blast may be left or posted at the structure or dwelling in a conspicuous place, or a certified letter, return receipt requested, may be sent to the affected structure or dwelling. The addresses of property owners shall be obtained from the Tax Assessor's office.

C. The notice of intent to blast shall also be delivered to the Town Clerk, New York State Police, and Putnam County Sheriff's Department no less than seventy-two (72) hours prior to blasting.

D. Delivery of the notice of intent to blast, as required by this section, shall be the sole responsibility of the applicant for the blasting permit.

Blasting Survey

The purpose of a pre-blast survey is to identify all potentially sensitive or impacted structures and other facilities in proximity to the blasting site.

A pre-blasting survey of each structure and facility located within 300 feet of the blasting area will be conducted, when authorized by the property owner. Pre-blasting inspections will be conducted by the blasting contractor or its representative and will include written, photographic or video documentation of the physical conditions of each structure and facility. Existing "defects" as well as features without "defects" may be recorded for the purpose of comparison with post-blasting conditions. A written log will accompany the photo or video record. The owner may be asked to sign and date the written log.

A post-blasting survey of each structure and facility surveyed prior to blasting will be conducted when blasting is finalized. This survey may be performed in the company of the owner or owner's representative. Areas of potential damage due to the blasting operation will be inspected, evaluated, and recorded. The blasting contractor will be responsible for any and all damage, to the structures and facilities surveyed, resulting from the blasting activities on the property.

Precautions

Storage of any and all explosive materials on the project site shall be in locations approved by the blasting contractor. Caps and other detonating devices will not be stored with Class A explosives. The blasting contractor shall provide security for explosives and blasting materials stored on the site.

The delivery and transportation of explosives from the powder magazines to the blast areas will be by vehicles specifically designed or approved for this usage by the criteria set forth in the referenced safety regulations. Only authorized personnel will transport and handle the explosives as designated by the authority of those individuals licensed for blasting activities.

Federal, State and local ordinances will be followed at all times with respect to the handling, transportation and storage of explosives.

Prior to blasting, necessary precautions for the protection of persons, adjoining property and completed work shall be established, which will include the following:

- Appropriate signage shall be erected and used in the areas of blasting activities.
- Adjoining property owners, within 300 feet of the property where blasting is planned to occur, shall be given or mailed notification of the anticipated blasting schedule via certified letter, return receipt requested.
- Notifications of blasting at the site shall be given to the Town Clerk, New York State Police and Putnam County Sheriff's Department prior to the scheduled blasting.
- An air horn will be sounded in a manner to give proper warning to nearby persons: once at least three (3) minutes in advance of firing, and two (2) times at the conclusion of the blast.
- Mats must be used for all blasts. Charges will be staggered to avoid high energy impacts.
- When blasting is to occur within 300 feet of existing off-site residences/structures, the contractor may conduct test blasting and seismographic monitoring, if necessary, prior to any other blasting to determine appropriate on-site blasting techniques.
- A storm alert monitoring device shall be used by the blasting contractor to detect any electrical buildup in the atmosphere at the blasting areas while using electrical caps.
- Special precautions and care shall be taken with the detonation cords and connectors to protect from the impact of falling rocks and other debris.
- Vehicles equipped with radio transmitters and portable two-way radios will not be permitted within 250 feet of blasting operations.

Monitoring

If required by the permitting agency, the blasting contractor shall monitor the blasting operation with a seismograph as follows:

- The blasting contractor shall provide the services of a consulting seismologist to monitor all blasting on the site.
- When conducting blasting within 300 feet of existing off-site residences/structures, seismographic monitoring will continue throughout the period of blasting at the site, and daily logs of seismographic data, explosive use and field conditions will be maintained.
- Sufficient electronic delays will be utilized to minimize air blast and vibration impacts. Peak particle velocity will be limited to 2.0 inches per second, with an air blast not to exceed 135 dB at the property line. Blasting in close proximity to residences will be monitored for vibration and sound pressure levels at the property line.
- A seismograph will be placed at the property line or closest occupied structure to the blast site during at least one (preferably the initial) blast. The seismic record of subsequent blasts will be compared to that of the initial recorded blast(s) and appropriate modifications to the blasting plan made, if necessary, to minimize off-site effects.