

**PROJECT REPORT
FOR EARTH EXCAVATION PERMIT (RENEWAL)**

PREPARED FOR

AJK, LLC

**637 & 659 WINSTED ROAD (ROUTE #800)
TORRINGTON, CONNECTICUT**

PREPARED BY

BERKSHIRE ENGINEERING & SURVEYING, LLC

**143 BANTAM LAKE ROAD
BANTAM, CONNECTICUT 06750**

November 8, 2021

A handwritten signature in blue ink, appearing to read 'Dennis S. McMorrow', written over a horizontal line.

Dennis S. McMorrow, P.E.

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Realty Securities Incorporated Report dated January 2005

PROJECT DESCRIPTION

The project consists of excavating and processing of soil and rock with the associated equipment to ultimately create developable areas on the site. The access to the project is over a 50 ft. right of way from Winsted Road. Please refer to the site plans for additional information. Per the City of Torrington Zoning Regulations, Section 6.4 – Excavations, the application shall submit the information for Section 6.4.6. Please refer to the appendix for this information. Please note that the restoration plan which was done in the prior years by South Farms Nursery is included. We are also submitting waiver requests of Sections 6.4.2 Setbacks and 6.4.4 (Excavation) Slopes. Please refer to the appendix for this waiver requests.

SITE DESCRIPTION

637 Winsted Road is a 19.818+/- acre parcel, zoned IP, located on the northwesterly side of Winsted Road. The access to the parcel is a 50' right of way opposite the on and off ramp for Route #8. In general, the site slopes down from a ridge line towards the northwesterly corner and from the ridge line towards the southeast. The existing site is principally cleared. For the 2021 renewal, the area for the quarrying activity is shown as the heavy shaded dashed line on the grading plan. This active area is 10+/- acres, including the area on 659 Winsted Road. We are requesting that the active area for the 2021 to 2023 renewal be increased to 11+/- acres. This is so the applicant can reach the back of the mine and start the benching required by the site grading plan and create the access to the back of the proposed mine per this application. The benches must begin at the top and work down towards the floor of the quarry. The floor of the existing mine will be utilized for crushing and material storage as it is currently. The blasting operation will follow the guidelines contained in the report by Mr. Richard Hosley, Realty Securities Incorporated, dated January 2005. A copy of the report in the appendix.

659 Winsted Road is a 1.158+/- acre parcel, zoned LB (Local Business), located on the northwesterly side of Winsted Road and abuts the quarry operation. The access to the parcel is from the 50' right of way on 637 Winsted Road. In general, the site slopes down to the front left corner of the property. The existing site is principally cleared.

SOILS

There are no wetlands soils on this property based on a report from Tom Stansfield, which was part of the original application in 2005.

DRAINAGE

There are no changes to the approved drainage concept. There is one temporary sediment basin proposed at the entrance of the project. This basin collects and treats the water from the front ½ acre of the project. All other runoff is collected within the mine and is absorbed into the ground. No other runoff leaves the site. Please refer to the site plans for additional information.

SANITARY

There is no proposed connection into the existing sanitary sewer main, which is located in Winsted Road. This will be part of a future site plan proposal.

DOMESTIC WATER

There is no proposed connection into the existing water main, which is located in Winsted Road. This will be part of a future site plan proposal.

EROSION AND SEDIMENTATION CONTROL NARRATIVE

Construction Sequence

1. Start and Completion Dates:
Start Date: Fall 2021
Completion Date: Fall 2023 (Application Renewal Date)
 - Obtain all permits
 - Notify "Call Before You Dig" for utility marking.
 - Notify all applicable town and state officials of start date.
 - Install sediment fence at the toe of all proposed fill slopes and as shown on the site plans and install construction entrance.
 - Clear and grub all areas of excavation. (Do not clear more than 5 acres without prior authorization from the planning commission.)
 - Remove and stockpile topsoil in all areas of excavation and fill. Stockpiles to be seeded with annual rye grass and mulched.
 - Place and compact gravel subbase.
 - Place and compact millings.
 - Place a minimum of 4" of topsoil on access driveway shoulders.
 - Topsoil to be fertilized, seeded and mulched immediately.

General Requirements

- Erosion and sedimentation control measures to be installed at the toe of slopes or as shown on the plans.
- All measures to be installed prior to ground disturbance.
- Topsoil to be stripped, stockpiled and seeded in all areas of proposed grading.
- Erosion control measures to be maintained throughout the construction process until disturbed areas are stabilized.
- Additional control measures may be necessary.
- The owner of record / contractor shall be responsible for the installation and maintenance of erosion controls.
- The responsible person in charge is: Mr. Daniel Stoughton 860-307-7157
- All erosion and sedimentation controls to be installed in accordance with the 2002 CT Guidelines for Soil Erosion and Sediment Control handbook.

Maintenance of Erosion Controls

- Erosion controls to be maintained throughout the construction process.
- All measures to be checked weekly and / or prior to predicted rainfall.
- All measures to have silt removed prior to predicted rainfall or as required.
- All silt to be disposed of outside of any construction areas such as roadways, driveways, and buildings.
- All silt to be disposed of in a proper manner.

Dust Control

The purpose of dust control is to prevent blowing and movement of dust from exposed soil surfaces and reduce the presence of dust which may cause off-site damage.

Possible Methods:

- a. Water
The exposed soil surface should be moistened periodically with adequate water to control dust.
- b. Calcium Chloride
Place loose dry granules through a spreader at a rate that will keep the surface moist. This method to be used when other methods are not practical.

Maintenance

Temporary methods to be repeated as needed to accomplish control.

APPENDIX

Information for Section 6.4.6 of the Zoning Regulations

June 20, 2007
Revised – June 27, 2007
Revised – Sept. 3, 2009
Revised - Nov. 28, 2011
Revised - Oct. 17, 2013
Revised - Nov. 11, 2015
Revised – Aug. 1, 2017
Revised – Dec. 3, 2019
Revised – Nov. 8, 2021

Information for 6.4.6

A. Hours of Operation:

1. Operations are proposed between the hours of 7:00 a.m. and 5:30 p.m. Monday through Friday. Routine maintenance may be performed Monday-Friday with no hourly restrictions and on Saturdays. The quarry shall not operate on Sundays or on any of the following holidays: New Year's, Memorial Day, July 4th, Labor Day, Thanksgiving, Christmas and Good Friday.

2. No blasting is to occur on Saturdays, Sundays, on any of the above holidays, or on any six weekdays designated by the Elks Club. Blasting is to occur only between the hours of 9:30 a.m. and 4:30 p.m.

B. Proposed Processing:

1. The operation shall consist of drilling, blasting and hammering (for oversized rocks) then transported to the crusher for processing. (crushing and screening). The crushing operation will employ water spray technology to suppress dust.

C. Location:

1. Site Grading Plan for the period of 2021 through 2023.

D. Methods of Excavation:

1. Excavation methods for the rock will include drilling, blasting and hammering. The shot rock will be transported to the crusher by front end loaders and/or off road dump trucks. Excavators will be used for the sorting of rock and loading the crushers. Loaders will be used for moving material from plants. Excavators with hydraulic hammers will be used to break oversized rocks.

E. Location/Frequency of Blasting:

1. All blasting for the 2021 to 2023 permit will be in the area shown on the Site Grading Plan. Blasting will occur one (1) to two (2) times a week, unless market and/or weather conditions dictate otherwise.

June 20, 2007
Revised – June 27, 2007
Revised – Sept. 3, 2009
Revised - Nov. 28, 2011
Revised - Oct. 17, 2013
Revised - Nov. 11, 2015
Revised – Aug. 1, 2017
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Revised – Nov. 8, 2021

- F. Entrance of Proposed Driveways, Fences, Gates and Topsoil Storage Areas:**
1. Please refer to Site Plan for details of proposed driveways, fences, and topsoil storage area.
 2. Entrance will be a cable or gate closing off access on the road side of the scale and trailer.
- G. Proposed Location of Equipment:**
1. All machinery on site will be mobile.
- H. Truck Frequency:**
1. The gravel pit/quarry facility is expected to generate 100 trips a day with a maximum of 10 trucks (20 trips) utilizing the access road during peak use hours.
- I. Duration of Project:**
1. The estimated duration of the project will be an additional three (3) years based on the current economy. Anticipated amount of material will be 350,000 cubic yards. For estimated depth of excavation below existing grade please refer to Site Plan.

Waiver Requests for Sections 6.4.2 and 6.4.4 of the Zoning Regulations

November 8, 2021

To: Planning & Zoning Commission
City of Torrington

RE: Wavier Requests
AJK, LLC
Earth Excavation Permit
Winsted Road
Torrington, CT

The applicant hereby requests waivers from the following zoning regulations:

Sec. 6.4.2

Setbacks: Small area in the southeast corner of the site, the rock broke back into the 50' buffer. Per 6.4.2.c the commission may allow this if it would allow for better future development. This area is noted on the site plan and additional plantings are proposed on the restoration plan.

There was also a mistake made in the field where the applicant filled an area on the Elk's property. This area is shown along the southwest property line adjoining the Elk's. The adjoining property owner has been notified and the applicant will remove the material and restore the property during this 2 year renewal period. The area is noted on the site plans and on the restoration plan.

Sec. 6.4.4

(Excavation) Slopes: Finish slopes to exceed the maximum one foot vertical to two feet horizontal when in rock cuts as shown on the site plans.

Realty Securities Incorporated Report dated January 2005



REALTY SECURITIES INCORPORATED
Explosive Engineering, Consulting & Exports



PRESENTS

**A FOCUS ON THE EXECUTION AND IMPACT OF BLASTING RELATIVE
TO THE SITE GRADING PLANS PREPARED BY AJK, LLC FOR THE
WINSTED ROAD, TORRINGTON, CONNECTICUT INDUSTRIAL PARK SITE**

PREPARED AT THE REQUEST OF THE APPLICANT

JANUARY 2005

Richard M. Hosley, Jr.

OVERVIEW

Realty Securities, Inc. was contracted by AJK, LLC to assess the effects of utilizing explosives as a means of removing bedrock for site work development at the Industrial Park Site, Winsted Road, Torrington, Connecticut. The scope of this assessment is to focus on the effects of blasting to ensure protection of the adjacent properties, the property owner, and individuals working or residing on or adjacent to the site.

LOCATION

As shown on the "Preliminary Site Grading Plan" prepared by Berkshire Engineering & Surveying, the proposed excavation includes construction and site work for an industrial park located in Torrington, Connecticut. The location is off Winsted Road, (Route 800), an area south and east of the Paugnut State Forest and west of the Torrington Elks Lodge property. The property slopes to the north and northeast toward the State of Connecticut property, Paugnut State Forest.

PRE-BLAST PLANNING

The primary emphasis of Blast Planning for the "Winsted Road Industrial Site" will be the safety of all parties involved. Review of the blasting area and its surroundings are necessary to identify unique hazards. A Blast Planning Guideline is attached. A notice of blasting, distributed to residences and business adjacent to the "Winsted Road Industrial Site" will help to keep neighbors informed. An example of blasting notification is also included for reference. The distances to all the structures within the blast design proximity will be noted. When blasting in the vicinity of structures, a Pre-blast Survey should be conducted by an independent third party, not by the blasting contractor or developer. The fee for conducting the Pre-blast Survey is not charged to the homeowner, but is part of the development costs. The Pre-blast Survey serves two purposes:

1. To improve communication between the developer, the explosives engineer and the community.
2. To provide a record of the condition of a structure for use in developing and assessing the blast design and its effects

The structures within the radius to be surveyed prior to blasting are generally identified by the blast design and the public relations team. Based on the estimate of blasting and the guidelines of the United States Bureau of Mines and Office of Surface Mining, structures within 200 feet of the blasting areas shall be surveyed. Within this distance, other structures may require special attention, i.e. wells, cisterns and other water systems. The condition of the Goodwin Pond Dam, specifically should be surveyed.

The Blast Planning Guidelines (attached) can be updated with a concurrent review of the blast design, test blast and implementation results. Focus shall be centered on the existing elevation of Goodwin Pond relative to excavations of the Winsted Road Industrial Park Site. Upon review of the proposed site, in conjunction with a review of the "Preliminary Site Grading Plan", it appears that desired excavation elevations will be above the elevation of the Goodwin Pond. Coordination of the construction of detention basins, for water quality monitoring and sedimentation control, prior to site work excavation, will help to document run off conditions. Rock blasting starting at the lower elevation and progressing higher in elevation will direct flow and control water run off into basin for monitoring and filtering.

CONCURRENT REVIEW OF THE BLAST DESIGN

Detailed documentation of the blasting and blast design will be maintained by the licensed explosives engineer and the blasting contractor. Detailed documentation, above and beyond all applicable local, state and federal regulations concerning blasting, shall be made available for review by the local and state fire marshals.

Seismic monitoring is the best method for documenting blast vibrations and sound levels generated from blasting. Seismograph records provide a history of information regarding vibration events relative to potential damage thresholds. Seismograph records also describe at which point during the blast the greatest environmental effects (sound, vibration) take place. By altering explosive detonation time intervals and charge weights, an explosives engineer can significantly reduce ground motion and hence, overbreak. Communication between the public and the explosives engineer will help to inform the engineer of specific concerns so the he/she can modify the blast design accordingly, therefore decreasing the potential of post-blast complaints.

GEOLOGIC CONDITIONS

The AJK, LLC., proposed Winsted Road Industrial Park site is underlain primarily by metamorphic bedrock classified as gneiss, including locations of overlaid till. The common name for this geologic unit is The Highlands Gneiss. These rock formations are of common occurrence in Connecticut and are representative of rocks which have undergone a change (from their original state); a change in mineral content, texture or both due to subjection to high temperatures and great pressure from deep within the Earth. Over 400 million years in age, this geologic unit is revealed due to erosion and glaciation of what was an ancient mountain range.

The Highland Gneiss found on this property is described as a light pink to gray medium grained layered to well layered gneiss. This unit found on the "Winsted Road Industrial Park Site" has an approximate specific gravity of 2.4 - 2.9. In a processed form, this rock will make an excellent material for road or construction base. The medium grained texture, crystal alignment, and geologic structure allows for good fragmentation within areas of confined explosives distribution. In areas with little or no explosives confinement, prominent horizontal jointing contributes to oversize boulders, which required additional breakage by mechanical means (i.e. hydraulic hammer). Gneisses of this texture and structure are typically effective in the attenuation (or reduction) over distance of ground motion generated from blasting.

Vibration generated from blasting is site specific, and will vary with topography. Blasting and the processing of rock on the site is not only an example of recycling but will reduce the amount of truck traffic, which would be necessary, if rock was hauled off the site and processed (or crushed) and brought in. Continuous attention must be given to storm water run off site relative to siltation during stone processing operations.

Controlled blasting methods shall be specified, including limits of charge weights per blast delay, to control overbreak at areas outside and below excavation areas. Surficial oversize cannot cost effectively be addressed with conventional drilling and blasting methods and therefore should be alleviated by utilizing track mounted hydraulic hammers. Overbreak can be controlled with line drilling, pre splitting or in some cases placing blast rounds relative to pre-existing geologic structure (i.e. joints, beds). The drilling superintendent should pay close attention to drilling depth and perimeters relative to desired excavation limits. Initial blasting in a "Critical area", a test blast in a "safe area" can be performed and reviewed. Test shots should be sized on standard scaled distance relationships and monitored for performance and vibrations beyond the area of desired excavation.

CONCLUSION

In conclusion, based on my experience as an explosive engineer, blasting for the "Winsted Road Industrial Park Site" of AJK LLC. can realistically be conducted without causing damage to the adjacent properties. The degree of assurance of safety on this site is directly proportional to the qualifications, insight and direct involvement of those responsible for the Pre-Blast Plan, Blast Design and review during implementation and execution of the blasting operations.

Respectfully submitted;


RM Hensley, Jr.
President