

BLASTING PLAN
DOLLEY FARM SUBDIVISION, WINDHAM
APPLICANT/OWNER – 25 RIVER ROAD LLC

1.0 INTRODUCTION

25 River Road, LLC is the owner of a 30-acre parcel of land in the Town of Windham that they are proposing to develop into a 42-unit residential neighborhood that is called Dolley Farm Subdivision. The project will require the construction of approximately 1,600 linear feet of roadway with underground utilities and stormwater ponds. Based on the results of test pits conducted by the landowner, blasting may be required in some areas of the proposed project to break up bedrock for development of the roadways, installation of building foundations, installation of utilities and/or construction of the stormwater ponds. Any and all blasting will be performed by properly licensed and trained professionals who will handle, transport, store, and use all explosive materials according to the provisions for safety, notification, planning and documentation set out in this Blasting Plan and in accordance with all local, state and federal regulations. Blasted bedrock, to the greatest feasible extent, will be broken down into a well-graded mixture according to specifications from the Maine Department of Transportation and used on-site as riprap stabilization, level spreaders and embankment fills.

2.0 PERMIT REQUIRED FROM THE TOWN OF WINDHAM

The person responsible for a blast shall notify the Code Enforcement Officer indicating intent to perform blasting, and obtain any permits that are required from the Town of Windham Code Enforcement Office prior to initiating work associated with a blast.

3.0 PRE-BLAST SURVEYS AND NOTIFICATIONS

Pre-blast surveys will be offered to all property owners with structures or wells located within a 500 ft radius of the proposed blast site. Landowners within that range who desire a survey will be appropriately notified. The results of those surveys will be documented via video, still photographs, and appropriate narration or written reports.

The Town of Windham Code Enforcement Officer shall be notified that a blast is planned at least 24 hours prior to the planned detonation and shall give the time (within 2 hours), location where the blasting is to be done, the amount of explosives to be used and the name and business address of the person responsible for the blasting operation. Additional notification shall be given at least one hour prior to the planned detonation to Windham dispatch. The notification may be given orally over the telephone; however, the burden of proof as to whether the notification was in fact received rests with the person responsible for the blasting operation.

The person responsible for a blast shall notify the Code Enforcement Officer in the event of any misfires and the proposed corrective action.

Prior to any blast, the person responsible for the blast shall inform all property owners who have requested in writing to be so informed of the impending blast. Such notification shall be given by telephone at least 24 hours prior to the blast stating the time of the blast. The burden of proof as to whether the notification was in fact received rests with the person responsible for the blasting operation.

Blasting operations immediately adjacent to overhead power lines, towers, communications lines, utility services or other structures will not be carried on until the operators and/or owners have been notified and measures for safe control have been taken.

4.0 HOURS OF DETONATION

Hours of detonation shall be limited to daylight hours, no earlier than 8:00 a.m. or later than 6:00 p.m., Monday through Friday inclusive, except in case of any misfires, excluding the following legal holidays: New Year's Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving and Christmas.

5.0 BLAST MONITORING

All blasts will be monitored by a representative who is properly trained in seismic monitoring equipment. There will be at least one seismograph in use at all times and monitoring equipment will be placed at the structure with closest proximity to the blast site. Ground vibration at offsite structures may not exceed the limits shown in Figure B-1 of Appendix B, U.S. Bureau of Mines report of Investigations 8507. Air overpressure offsite may not exceed the limits provided at Maine Department of Environmental Protection Rules Chapter 375.10(C)(4)(C) and 38 MRS §490-Z(14)(H). Access to the blasting area will be regulated to prevent unauthorized entry before each blast and following the blast until it is determined that no unusual circumstances exist following the blast.

6.0 DRILLING AND LOADING

All drill holes will be sufficiently large to freely allow for the insertion of the explosives. Drilling and loading operations will not be carried on in the same area. The loading or loaded area will be kept free of any equipment, operations or persons not essential to loading. No vehicle traffic will be permitted over loaded holes. No holes will be loaded except those to be fired in the next round of blasting. After loading, all remaining explosive materials and detonators will be immediately returned to an authorized magazine. No explosive materials or loaded holes will be left unattended at the blast site at any time. Cartridges will be primed only in the number required for a single round of blasting.

7.0 FIRING

Prior to firing of a shot, all persons in the danger area will be warned of the blast and ordered to a safe distance from the area. Blasts will not be fired until it is certain that every person has retreated to a safe distance and no one remains in a dangerous location.

Blasting machines will be tested prior to use and periodically thereafter as prescribed by the manufacturer. Blasting machines will be operated, maintained, and inspected as prescribed by the manufacturer.

All loading and firing will be directed and supervised by one designated person who is licensed to handle explosives. The contractor or its subcontractor will use sufficient stemming, matting, or natural protective cover to prevent fly rock from leaving property owned or under control of the permittee or operator or from entering protected natural resources or natural buffer strips. Crushed rock or other suitable material will be used for stemming when available. Native gravel, drill cuttings, or other material may be used for stemming if no other suitable material is available.

8.0 SECURITY AND WARNING WHISTLES

Warning and "all clear" signals will be sounded within an audible range of one-half mile from the blasting operation. All applicable persons within the permit area will be notified through appropriate instructions and posted signs.

All blasting operations will use the following safety signals:

- (1) WARNING SIGNAL – a one-minute series of long audible signals 5 minutes prior to blast signal.
- (2) BLAST SIGNAL – a series of short audible signals 1 minute prior to the shot.
- (3) ALL CLEAR SIGNAL – a prolonged audible signal following the inspection of blast area.

9.0 POST-BLASTING

Following blasting operations, no explosive materials will be abandoned. A record of each blast, including seismographic data, will be kept for at least one year from the date of the last blast by the general contractor, its subcontractor (if appropriate) and the Applicant, and will be available for inspection during normal business hours. The blast record must be generally consistent with the requirements of 38 MRS §490-Z(14)(L) and will contain, at a minimum, the following data:

- Name of blasting contractor or company
- Location, date and time of blast
- Name, signature and social security number of blaster
- Type of material blasted
- Number and spacing of holes and depth of burden or stemming

- Diameter and depth of holes
- Type of explosives used
- Total amount of explosives used
- Maximum amount of explosives used per delay period of 8 milliseconds or greater
- Maximum number of holes per delay period of 8 milliseconds or greater
- Method of firing and type of circuit
- Direction and distance in feet to the nearest structure (both owned and not owned by the project developer)
- Weather conditions, including such factors as wind direction and cloud cover
- Height or length of stemming
- Amount of mats or other forms of protection used
- Type of detonators used and delay periods used
- The exact location of each seismograph and the distance of each seismograph from the blast
- Seismographic readings
- Name and signature of the person operating each seismograph
- Name of the person and the firm analyzing the seismographic data

At the completion of blasting, a post-blast survey will be conducted of the same facilities (structures, foundations, water supply wells, utilities, etc.) as documented during the pre-blast survey. Findings inconsistent with those reported during the pre-blast survey will immediately be provided to the contractor/subcontractor/applicant and will be documented in writing and photographs. Depending on the nature and source of the inconsistency, specific corrective actions will be developed in consultation with the affected party, and will set forth the method, procedures, and timing of implementation.