



VILLAGE OF BELCARRA
Blasting and Rock-breaking Regulation
Bylaw No. 619, 2023



A bylaw for regulating and prohibiting Blasting and Rock-breaking
within the limits of the Village of Belcarra

WHEREAS section 8 (3) (d) of the *Community Charter* authorize that Council may, by bylaw, regulate, prohibit and impose requirements in relation to the use of explosives;

NOW THEREFORE, the Council of the Village of Belcarra enacts as follows:

Part 1 - Citation

- 1.1 This Bylaw may be cited for all purposes as the "Village of Belcarra Blasting and Rock-breaking Regulation Bylaw No. 619, 2023".

Part 2 - Definitions

- 2.1 In this Bylaw

"Affected Owners" means the Owners or occupiers of parcels of land to be inspected before a Blasting Permit is issued pursuant to Section 3.1.

"Application" means a written application for a Blasting Permit or Rock-Breaking Permit in the form as contained in Schedule A to this Bylaw.

"Assurance Form" means the written document from the Owner and the Blasting Engineer assuring that certain items will occur relative to the Blast as contained in Schedule C to this Bylaw.

"Blast" or "Blasting" means the use of explosives or chemicals for the purpose of moving, displacing or breaking rock or other material;

"Blaster" means the person, firm or corporation engaged by the Owner to conduct Blasting and includes an agent, contractor or employee of the Blaster;

"Blasting Area" means the full extent of potential impact from the Blasting operation and On-Site Processing of Blast Rock, including all areas of detonation, adjacent areas that may be subject to impact and the area of Maximum Peak and Particle Velocity, Frequency Response, noise and dust.

"Blasting Engineer" means a professional engineer or their designate authorized to practice by the Association of Professional Engineers and Geoscientists of British Columbia who is competent in rock mechanics and Blasting, is independent of the Blaster, who agrees to oversee a Blasting project on behalf of an Owner and is acceptable to the Building Official.

"Blasting Mat" means a mat placed over a Blast to contain the resultant fragments and suppress dust, usually made of sliced-up rubber tires bound together with ropes, cables or chains or a blanket of interwoven steel cable or interlocking steel rings;

“Blasting Permit” means the written authorization to conduct Blasting as issued by the Building Official pursuant to this Bylaw.

“Building Official” means the person appointed to that position for the Village or their delegate, or such other persons as may be duly authorized from time to time by Council to carry out the duties and responsibilities of the Building Official.

“Control Measures/Blasting Plan” means a document that complies with the requirements set out in subsection 3.1.1 j)

“Council” means the duly elected Council of Village of Belcarra.

“Fees and Charges Bylaw” means the Village’s Fees and Charges Bylaw No. 517, 2018 as amended or superseded.

“Indemnification Form” means the written document indemnifying the Village and its employees as contained in Schedule “B” to this Bylaw.

“Maximum Peak Particle Velocity and Frequency Response” is the maximum allowable peak particle velocity and frequency response as set by the Blasting Engineer in the Blast Plan;

“Neighbouring Owner” means the Owner or occupier of property within a set distance of the Blasting Area as prescribed by the Blasting Engineer from time to time;

“On-Site Processing of Blast Rock” means any mechanical processes such as, but not limited to, rock crushing, washing, screening and stockpiling that are applied to rock that has been Blasted;

“Owner” means the person registered in the Land Title Office as entitled to the fee simple of a parcel, holders of a registered right to purchase a parcel, or holders of a right of way in favour of a statutory authority and includes a person authorized in writing by the Owner to act as the Owner's agent for purposes of this Bylaw.

“Post-Blast Inspection” means an inspection by the Registered Professional Engineer, once Blasting is complete, of any area the Registered Professional Engineer deems required plus an inspection of any land or buildings on land where the Neighbouring Owner has requested a Post-Blast Inspection to determine the impact of Blasting on any Land or building on lands;

“Pre-Blast Inspection” means an inspection of the Pre-Blast Inspection Area by the Registered Professional Engineer prior to Blasting occurring to determine status of land and buildings on land prior to Blasting;

“Pre-Blast Inspection Area” means the area identified by the Blasting Engineer where land and buildings on land must be inspected to document condition prior to Blasting;

“Registered Professional Engineer” means a professional engineer or their designate authorized to practice by the Association of Professional Engineers and Geoscientists of British Columbia who is competent in the evaluation of buildings and who will undertake Pre-Blast Inspections and any required Post-Blast Inspections.

“Rock-breaking” means the removal of boulders or bedrock from land by drilling, percussive breaking (not hammering), or splitting, but excludes Blasting.

“Rock-breaking Permit” means the written authority granted by the Building Official pursuant to this Bylaw for the purposes of Rock-breaking.

“Security Person” means a trained and certified security person holding a valid security workers license or a Blaster having a valid Blasting Certificate.

“Village” means the Village of Belcarra; and

“WorkSafeBC” means the Workers Compensation Board of British Columbia.

Part 3 – Applications and Permits

3.1 Applications for Permits Authorizing Blasting or Rock-breaking

No person shall remove or cause to be removed any rock unless a Blasting Permit or Rock-breaking Permit has been granted for such removal pursuant to subsection 3.1.1, subsection 3.1.2 and Schedule B of this Bylaw and the removal is in accordance with this Bylaw and the terms and conditions of the relevant permit. The Building Official may require additional information beyond that outlined in subsection 3.1.1 and subsection 3.1.2 in order to grant such a permit for removal.

3.1.1 Blasting Permit Application

An Owner may apply to the Building Official for a Blasting Permit within the Village. The Owner shall submit the following:

- a) a completed and signed Application;
- b) a title search conducted within the past 30 days for the property where the Blasting is to occur;
- c) a copy of a valid Blaster's Certificate issued to the Blaster by WorkSafe BC for all persons completing the Blast (the original of which must be produced for inspection if required by the Building Official);
- d) an Indemnification Form executed by the Owner, which will at a minimum provide that the Owner will:
 - a) indemnify and defend the Village from all claims and damages related to or arising from the Blasting;
 - b) waive all claims for contribution and indemnity against the Village for losses related to or arising from the Blasting; and
 - c) pay for all damage that results to third party structures and property as a result of the Blasting.
- e) a certificate of insurance acceptable to the Building Official in the minimum amount of \$5,000,000 naming as named insureds the Blaster, the Owner, and the Village providing defense and indemnity protection against all liability for property damage or personal injury arising from or relating to the proposed Blasting;
- f) a completed Assurance Form;

- g) a Blasting Plan that is prepared by or under the supervision of the Blasting Engineer that must include, without limitation, (i) a diagram of the blasting pattern; (ii) a plan indicating the full extent of the Blasting Area; (iii) the sequence of detonation and the maximum weight of explosives to be detonated per delay; (iv) the specific safety measures to be taken; (v) the specific measures taken to minimize the effect of the Blasting on third parties; (vi) Maximum Peak Particle Velocity and Frequency Response; (vii) area requiring notification to Neighbouring Owners; (viii) the Pre-Blast Inspection Area; and (ix) Placement of Blasting signage; (x) Test blasting requirements; (xi) Pre-blast survey radius; (xii) Drill log records; (xiii) Rock removal and (xiv) work sequence.;
- h) a plan indicating the Blast Area;
- i) a plan indicating the Pre-Blast Inspection Area, and should this area be less than 100 meters from the edge of the Blast area, the Blasting Engineer must provide justification for the reduction;
- j) a Control Measures/Blasting Plan, prepared by the Blaster and accepted by the Registered Professional Engineer, which shall consist of a sketch of the blasting pattern and include the sequence of detonation and the maximum weight of explosives to be detonated per delay and shall specify measures designed to minimize potential injury to any person and avoid, control, or minimize the impact of the Blasting. If Blasting is not proposed within 150 meters of any structure, utility line, railway, public or private road, street, lane, driveway, or walkway, or is not expected to produce a rock cut over 3.5 metres high, then the Building Official may waive the requirement for a Control Measures/Blasting Plan. During the continuance of the permit, the Building Official may authorize amendments to the Control Measures/Blasting Plan which are approved in writing by the Registered Professional Engineer.
- k) a report from the Blaster detailing how drill rigs and compressors are to be muffled, note the Building Official may require use of equipment or techniques to reduce or control noise and dust levels;
- l) a description of any On-Site Processing of Blast Rock that is to occur including the how noise and dust is to be controlled and a schedule for the processing work, note the Building Official may require the use of equipment or techniques to reduce or control noise and dust;
- m) a description of the purpose of the Blasting;
- n) the schedule for Blasting and any planned On-Site Processing of Blast Rock prepared in a manner that will minimize the duration of the impacts of noise and dust to the adjacent areas, note the Building Official may alter the schedule to minimize the impact to the Neighbouring Owners;
- o) a statement of the amount of material that is proposed to be removed;
- p) a report on where and how notice of Blasting, the Pre-Blast Inspections, the procedure to be used to notify Neighbouring Owners and the steps a Neighbouring Owner is to take in the event that Blasting causes any damage to land or buildings on the land;
- q) the name and contact information for the Blasting Engineer;
- r) the name and contact information for the Registered Professional Engineer; and

- s) the permit fee and damage deposit as set out in the Fees and Charges Bylaw. The damage deposit shall be security for all requirements under this Bylaw and may be used at any time by the Village to secure completion of any of these requirements. A permit extension fee will be required for all permits that exceed their permit expiry date as determined by subsection 3.1.3. Extension will be granted from permits based on the discretion of the Building Official.

3.1.2 Rock-Breaking Permit Application

When an owner proposes to remove rock through means of Rock-breaking, the Owner shall first apply to the Building Official for a Rock-breaking Permit by fulfilling the requirements outlined in section 3.1.1. Rock-breaking permits are exempted by the Bylaw from the provision of subsection 3.1.1 c), j) and n).

3.1.3 Permit Authorizing Blasting and/or Rock-breaking

- a) If an Owner submits an Application under this Bylaw and the Building Official considers it safe and prudent to do so, the Building Official may issue a Blasting Permit or a Rock-breaking Permit in the form contained in Schedule "D" to this Bylaw upon such terms, conditions, and restrictions as the Building Official determines are appropriate
- b) Authority for Blasting under a Blasting Permit expires:
 - i. ten (10) working days after issuance of the Blasting Permit, and;
 - ii. fifteen (15) working days after issuance of the Blasting Permit.
- c) Authority for Rock-breaking under a Rock-breaking Permit expires fifteen (15) working days after issuance of the Permit for Rock-breaking.
- d) The Building Official may, upon the written application of the Owner extend the Blasting or Rock-breaking Permit for a further duration of up to 30 days, but no further extensions are permitted.

3.1.4 The Building Official may cancel or suspend a Blasting Permit or a Rock-breaking Permit or the authority to Blast under a Blasting Permit, without raising any liability for delay damages, if there are reasonable grounds to believe that:

- a) the Owner or the Blaster or their agents or employees have violated the Blasting Permit or Rock-breaking Permit or any applicable law, regulation, bylaw or ordinance; or
- b) damage to other property or a nuisance has resulted or will result from the Blasting or Rock-breaking.

Part 4 – Notifications

4.1 Blasting or Rock-breaking Notification of Neighbouring Owners

- 4.1.1 Once a Blasting or Rock-breaking Permit has been issued Blasting or Rock-breaking is not to be undertaken until written notice has been given to the Building Official and all Affected Owners at least 15 days before Blasting or Rock-breaking commences. The number of Owners to be notified or the area of notification may be increased at the discretion of the Building Official and once increased, then all subsequent notification required under this bylaw shall apply to those Owners or the increased area.

The notice must include the following:

- a) the name and business address of the Owner, the Blaster, the Blasting Engineer and the Registered Professional Engineer;
- b) the reason for the work;
- c) a description of how the work is to be completed;
- d) an illustration or computer-generated rendering of the finished Blast product to help neighbours better understand why they will have to tolerate the Blasting;
- e) a plan of the Blast Area;
- f) a plan of the Pre-Blast Inspection Area;
- g) information on who to contact and the stipulated time frames should a Neighbouring Owner wish to register a concern or submit a specific claim for damage related to Blasting;
- h) the approximate quantity of rock to be removed;
- i) any On-Site Processing of Blast Rock and how it will be addressed;
- j) dust and noise control measures to be used;
- k) the date of commencement of Blasting;
- l) the schedule for the work including Blasting and On-Site Processing of Blast Rock;
- m) a description of the methods to be used to safeguard persons and property;
- n) the Maximum Peak Particle Velocity and Frequency Response;
- o) the warning and signaling methods to be used;
- p) the name and phone number of a representative of the Blaster or Owner who will answer telephone calls and provide further information;
- q) notice of the upcoming Pre-Blast Inspection, a description of the inspection process, a request that the Neighbouring Owner voluntarily participate in this inspection, and a warning that the Registered Professional Engineer may waive the inspection if the Neighbouring Owner does not reasonably cooperate; and
- r) At least 48 hours notice shall be given of the commencement of any Blasting or Rock-breaking, and at least one week's (7 days) notice shall be given of any project expected to continue for more than two (2) days.

The Owner shall post signs at every location where vehicles or pedestrians may enter the area affected by a Blast illustrating the warning and signaling devices to be used and providing contact information for the Blaster and the Owner.

Part 5 – Blasting Regulations

5.1 Pre-Blast Inspection

- 5.1.1 Three (3) days after written notice to all Neighbouring Owners within the Blast Area has been given, the Registered Professional Engineer shall conduct a Pre-Blast Inspection of all structures and outbuildings, swimming pools, foundations, retaining walls, patios and driveways on any parcel of land in the Pre-Blast Inspection Area. The Registered Professional Engineer shall record the results

of the Pre-Blast Inspection in a written report. This report must identify with reasonable particularity, and where appropriate with photographs, all pre-existing damage to any property within the Pre-Blast Inspection Area, all conditions that are susceptible to damage from the proposed Blasting and documentation on the steps taken to inspect and secure the signature of the Neighbouring Owner on the inspection report should they fail to be able to perform an inspection or secure a signature. The Registered Professional Engineer shall sign the report and request that the Neighbouring Owner also sign the report. The Registered Professional Engineer must obtain the consent of the Neighbouring Owner before entering onto their land to conduct the Pre-Blast Inspection. The Registered Professional Engineer shall provide a copy of the Pre-Blast Inspection report to the Building Official prior to commencing Blasting.

5.1.2 If a Neighbouring Owner unreasonably refuses consent to the Registered Professional Engineer entering their property for a period of more than 3 days or does not respond to the Registered Professional Engineer's written notice, the Registered Professional Engineer may, upon 3 days written notice to the Neighbouring Owners of that property, waive the requirement for that property to be inspected. If a Neighbouring Owner unreasonably refuses to sign the inspection report for a period of more than 3 days, the Registered Professional Engineer may, upon 3 days written notice to the Neighbouring Owner, waive the requirement for their signature. The Registered Professional Engineer shall make contemporaneous records evidencing all material facts underlying any decision to waive a requirement under this paragraph and include those records in the Pre-Blast Inspection report.

5.1.3 The Owner may provide written notice to the Neighbouring Owners under this Bylaw by:

- a) mailing the notice to the address or addresses of all Owners registered with the Land Title Office; or
- b) posting the notice on the front door of each individual residence or other occupied structure on the property or leaving it with any adult person who has control of the residence or occupied structure.

Notice by mail is deemed to be received and effective five days after being placed in the mail.

5.2 Blasting

5.2.1 Blasting may commence once:

- a) the Blasting Permit has been issued;
- b) notification of all Neighbouring Owners is complete; and
- c) the Pre-Blast Inspection report has been completed and submitted to the Building Official.

The Blaster shall ensure that no material, including fly rock, and no unreasonable dust or debris leaves the site during Blasting or enters the property of any of the Neighbouring Owners.

The Blaster must ensure that Blasting Mats are used at all times when Blasting is conducted unless otherwise approved by the Blasting Engineer.

5.3 Hours of Blasting or Rock-breaking

5.3.1 Blasting or Rock-breaking may be carried out from Monday through Friday, not including holidays, from 8:30 am to 4:30 pm during the time period indicated in the schedule approved in the Permit. No person shall carry out Blasting or Rock-breaking at any other time.

5.3.2 No Blasting or Rock-breaking can be done between December 17 and January 2

5.4 Hours of On-Site Processing of Blast Rock

5.4.1 The On-Site Processing of Blast Rock may be carried out from Monday through Friday, not including holidays, from 8:30 am to 4:30 pm during the time period indicated in the schedule approved in the Permit. No person shall carry out On-Site Processing of Blast Rock at any other time.

5.5 Blasting Site Safety

5.5.1 The Owner and the Blaster shall comply with all regulations and requirements imposed by WorkSafeBC and any other applicable bylaws and laws of the Provincial or Federal Government.

5.5.2 The Blaster shall ensure that a Security Person, equipped with and trained in the use of warning and signalling devices approved by WorkSafe BC, shall be posted at every location where vehicles or pedestrians might be affected by a blast. Prior to any blast, this Security Person shall signal vehicles and pedestrians to prevent them from entering an area which may be affected by the blast. No blasting shall be done until all persons and vehicles vacate the area affected by the blast.

5.5.3 Prior to a blast adjacent to a travelled highway, the Blaster shall cause an effective warning to be given (in accordance with WorkSafe BC regulations) in sufficient time to enable persons or vehicles that may be affected by the blast to move to a safe distance from the area. When a blast is completed, the Blaster shall cause the area affected by the blast to be inspected to ensure that it is free of unexploded charges, explosive material or other material which the blasting has caused to be a danger or a potential hazard. When the Blaster's inspection is completed, the Security Person shall restore normal vehicular and pedestrian traffic as soon as reasonably practicable.

5.5.4 The Blaster shall sound an audible signal at both the commencement and cessation of each Blast.

5.5.5 While Blasting is being carried on, the Blaster shall provide at least one competent assistant and as many additional competent assistants as circumstances may require and cause them to warn and implement all reasonable precautions to safeguard the occupants of buildings who may be affected by the Blast.

5.6 Monitoring

5.6.1 The Owner shall retain a Blasting Engineer and a Registered Professional Engineer at the Owner's cost to oversee and monitor the Blasting and Pre-Blast any required Post-Blast Inspections.

- 5.6.2 The Owner and the Blaster and their agents and employees shall comply with the lawful directions of the Blasting Engineer in all matters related to the Blasting.
- 5.6.3 The Blasting Engineer shall do the following:
 - a) monitor and oversee all Blasting;
 - b) review all records including drill logs and explosive use records created in relation to the Blasting in a timely fashion;
 - c) determine the requirements and schedule for on-site Inspections;
 - d) undertake either in person or through their designate on-site Inspections in accordance with the schedule;
 - e) ensure that all Blasting complies with the Blasting Plan, the Blasting Permit, this bylaw, and all other applicable laws and regulations; and
 - f) Notify the Owner, Building Official and Neighbouring Owners when Blasting is complete.
- 5.6.4 The Blasting Engineer shall immediately, and in no event less than 24 hours, notify the Building Official if the Engineer knows or reasonably suspects that any of the following has occurred:
 - a) any person has violated or contravened with the Blasting Plan, the Blasting Permit, this bylaw, and all other applicable laws and regulations with respect to the Blasting;
 - b) the Maximum Peak Particle Velocity and Frequency Response has been exceeded;
 - c) any property damage has occurred to property owned by a third party as a result of the Blasting; or
 - d) any personal injury has occurred as a result of the Blasting.
- 5.6.5 If the Blasting Engineer ceases to be retained at any time, the Blasting Engineer must immediately inform the Owner, the Blaster and the Building Official in writing. The Owner and the Blaster shall then ensure that all Blasting and related work on the project ceases until such time as:
 - a) a new registered professional is retained to act as the Blasting Engineer, and
 - b) a new letter in the form set out in Schedule "C" to Blasting and Rock-Breaking Regulation Bylaw 619, 2023 is filed with the Building Official.
- 5.6.6 The Owner and the Blaster shall cause ground vibration measurements to be made and recorded in writing during each Blast at the closest structure to the Blast and at any other structures that are sensitive to ground vibrations. The Blaster shall retain all records made under this provision for a period of six years after Blasting is complete.
- 5.6.7 The Blaster shall forthwith notify the Blasting Engineer if the ground vibration at any point exceeds the Maximum Peak Particle Velocity and Frequency Response.

5.6.8 The Registered Professional Engineer shall do the following:

- a) conduct the Pre-Blasting and any required Post-Blasting Inspections and complete the associated reports.

5.6.9 The Blaster shall do the following:

- a) maintain a log of all concerns registered from Neighbouring Owners and any specific claim submissions for damage noting: The date the concern or claim was brought forward; The date the concern or claim allegedly occurred; The nature of the concern or claim; The action taken to address the concern or claim; If a Post Blast Inspection is required; The date of the Post Blast Inspection; and The findings and recommendations from the Post Blast Inspection.

5.7 Post-Blasting Requirements and Liability for Damages

5.7.1 Within 60 days of the Blasting being completed, the Blaster, Registered Professional Engineer and the Blasting Engineer shall determine where Post-Blast Inspections shall be carried out. In making that determination they will consider the Blast records, any odd Blast occurrences, the log of Neighbouring Owners concerns and all specific claim submissions for damage from Neighbouring Owners. The Registered Professional Engineer shall complete a Post-Blast Inspection of the identified areas plus on any Land or building on land where the Neighbouring Owner has made a specific claim submission for damage. The Registered Professional Engineer must create a report which identifies with reasonable particularity, and where appropriate with photographs his findings regarding any damage caused by the Blasting or that reasonably could have been caused by the Blasting. The Registered Professional Engineer shall submit his report to the Owner, Building Official and each Neighbouring Owner that has requested a Post-Blast Inspection.

5.7.2 At any time within 45 days after notice that Blasting has been completed, a Neighbouring Owner may give notice to the Owner of a claim for sustained damage as a result of the Blasting.

5.7.3 Upon receiving notice of a claim for damage from a Neighbouring Owner, the Owner will forthwith inform the Blasting Engineer and the Registered Professional Engineer and provide both with any written documentation, photographs or other evidence received.

5.7.4 The Registered Professional Engineer shall investigate all timely reports of damage by Neighbouring Owners and any damage noted in the Post-Blasting Report and provide a written report to the Owner and the affected Neighbouring Owners setting out in detail the following:

- a) a detailed description of the extent and nature of any damage;
- b) photographs of any damage;
- c) the Registered Professional Engineer's opinion on the causation of the damage along with a reasonably particularized statement of the Registered Professional Engineer's analysis; and
- d) the Registered Professional Engineer's recommendation to repair the damage.

5.7.5 The Owner shall complete any repairs recommended by the Registered Professional Engineer to repair damage caused by the Blasting within 30 days or such other time as is agreed between the Owner and the affected Neighbouring Owners.

5.7.6 Within 15 days of the date that the Owner is to complete the repairs, the Owner shall provide written documentation to the Neighbouring Owner that repairs have been completed to the satisfaction of the Registered Professional Engineer.

5.8 Post-Rock Removal Notification Requirements

5.8.1 The Owner shall notify or cause to be notified the Building Official and each Affected Owner, in writing, when the rock removal to be carried out under the permit has been completed. Security deposit release will not be processed until sixty days after the letter is received.

5.8.2 At any time within sixty days after the date of notice given under Section 15.1, an Affected Owner may give notice to the Owner or the Blaster, with a copy to the Village, that the Affected Owner's property has sustained damage as a consequence of the blasting. Upon receipt of such notice, the Owner or the Blaster shall conduct a post-blast inspection of the property. The Affected Owner or an authorized agent shall be given notice and a reasonable opportunity to be present during the post-blast inspection. If the Affected Owner doesn't permit entry to the property within two weeks of the notice being given, or cooperate in the post-blast inspection, then it shall be presumed that the Affected Owner's allegation of damage has been satisfied. The Owner or Blaster shall complete the post-blast inspection without delay and submit a report of the inspection to the Affected Owner with a copy to the Building Official.

5.8.3 The amount of any loss or damage within the scope of an indemnity under Section 7.2.3 that remains unpaid to the Village (6) months after the date of the post-blast inspection shall be deemed to be a debt due to the Village which shall be recovered by the Village in the same manner as taxes due on the parcel of land where the Blasting was carried out.

5.8.4 No operation by which soil or rock is removed or deposited shall cause a dust or dirt nuisance affecting any neighbouring property, highway or right of way.

5.9 Exemptions

5.9.1 Notwithstanding the provisions hereof, Blasting shall be exempt from all provisions of this Bylaw:

- a) if the Blasting is specifically authorized by a statute or regulation other than the *Local Government Act* or the *Community Charter*;
- b) if the Blasting is, in the Building Official's opinion, required on an urgent basis to lessen or eliminate an imminent threat to life, safety, property damage or damage to water, sanitary sewer, storms sewer and electrical systems, public transportation routes, or communication systems, and the Building Official provides a written exemption allowing the Blasting;
- c) less than 10 cubic meters of rock or other material is to be blasted by means of detonating not more than 0.3 kilograms of explosive per delay; or
- d) the rock to be blasted consists entirely of boulders separate from bedrock.

5.10 Penalty

- 5.10.1 Every person who violates a provision of this Bylaw, or who consents, allows or permits an act or thing to be done in violation of a provision of this Bylaw, or who neglects to or refrains from doing anything required to be done by a provision of this Bylaw, is guilty of an offence and is liable, upon summary conviction, to a fine not exceeding \$10,000 and not less than \$2,500.
- 5.10.2 Each day that a violation continues or exists under this Bylaw is a separate offence.

Part 6 – Schedules

Schedule A – Application for a Blasting Permit or Rock-Breaking Permit

Schedule B – Indemnification Form

Schedule C – Assurance Form

Schedule D – Blasting Permit and Rock-Breaking Permit

Part 7 – Severability


- 7.1 In the event that any section of this Bylaw is for any reason held invalid by a decision of a court, the invalid section shall be severed from and not affect the remaining provisions of this Bylaw.

READ A FIRST TIME on December 4, 2023

READ A SECOND TIME on December 4, 2023

READ A THIRD TIME on January 22, 2024

ADOPTED by the Council on February 5, 2024



Jamie Ross
Mayor



Amanda Seibert
Corporate Officer

This is a certified a true copy of
Village of Belcarra Blasting Regulation Bylaw No. 619, 2023

Chief Administrative Officer



VILLAGE OF BELCARRA

SCHEDULE "A" TO BLASTING REGULATION BYLAW NO. 619, 2023

APPLICATION FOR A BLASTING PERMIT OR ROCK-BREAKING PERMIT

1. Date: _____

2. This application is for a (check one)

Blasting Permit

Rock Breaking Permit

3. I, _____, of
(Print full name of Owner)

(Address)

(Daytime Phone)

am the registered Owner of the following lands:

(street address)

(legal description)

4. I hereby authorize _____
(Print full name of Owner's Agent)

of _____
(company name) (phone no.)

to act as my agent pursuant to this bylaw.

5. The purpose of the blasting and the rock removal is (check all relevant)

road and utilities

utility connections

house or garage

coach house

power pole

driveway or parking area

other (describe)

6. Estimated total volume of rock to be Blasted _____ m³
7. Expected date of starting of drilling _____
8. Estimated start date of Blasting _____
9. Estimated end date of Blasting _____
10. Estimated start date of On-Site Processing of Blast Rock _____
11. Estimated end date of On-Site Processing of Blast Rock _____
12. The fee as required by the Village of Belcarra Fees and Charges Bylaw is enclosed.
13. The following documentation is provided in support of this application:
 - a) a completed and signed Application;
 - b) a title search conducted within the past 30 days for the property where the Blasting is to occur;
 - c) a copy of a valid Blaster's Certificate issued to the Blaster by WorkSafe BC for all persons completing the Blast (the original of which must be produced for inspection if required by the Building Official);
 - d) an Indemnification Form executed by the Owner, which will at a minimum provide that the Owner will:
 - i. indemnify and defend the Village from all claims and damages related to or arising from the Blasting;
 - ii. waive all claims for contribution and indemnity against the Village for losses related to or arising from the Blasting; and
 - iii. pay for all damage that results to third party structures and property as a result of the Blasting.
 - e) a certificate of insurance acceptable to the Building Official in the minimum amount of \$5,000,000 naming as named insureds the Blaster, the Owner, and the Village providing defense and indemnity protection against all liability for property damage or personal injury arising from or relating to the proposed Blasting;
 - f) a completed Assurance Form;
 - g) a Blasting Plan that is prepared by or under the supervision of the Blasting Engineer that must include, without limitation, (i) a diagram of the blasting pattern; (ii) a plan indicating the full extent of the Blasting Area; (iii) the sequence of detonation and the maximum weight of explosives to be detonated per delay; (iv) the specific safety measures to be taken; (v) the specific measures taken to minimize the effect of the Blasting on third parties; (vi) Maximum Peak Particle Velocity and Frequency Response; (vii) area requiring notification to Neighbouring Owners; (viii) the Pre-Blast Inspection Area; and (ix) Placement of Blasting signage; (x) Test blasting requirements; (xi) Pre-blast survey radius; (xii) Drill log records; (xiii) Rock removal and (xiv) work sequence.;

- h) a plan indicating the Blast Area;
- i) a plan indicating the Pre-Blast Inspection Area, and should this area be less than 100 meters from the edge of the Blast area, the Blasting Engineer must provide justification for the reduction;
- j) a Control Measures/Blasting Plan, prepared by the Blaster and accepted by the Registered Professional Engineer, which shall consist of a sketch of the blasting pattern and include the sequence of detonation and the maximum weight of explosives to be detonated per delay and shall specify measures designed to minimize potential injury to any person and avoid, control, or minimize the impact of the Blasting. If Blasting is not proposed within 150 meters of any structure, utility line, railway, public or private road, street, lane, driveway, or walkway, or is not expected to produce a rock cut over 3.5 metres high, then the Building Official may waive the requirement for a Control Measures/Blasting Plan. During the continuance of the permit, the Building Official may authorize amendments to the Control Measures/Blasting Plan which are approved in writing by the Registered Professional Engineer.
- k) a report from the Blaster detailing how drill rigs and compressors are to be muffled, note the Building Official may require use of equipment or techniques to reduce or control noise and dust levels;
- l) a description of any On-Site Processing of Blast Rock that is to occur including the how noise and dust is to be controlled and a schedule for the processing work, note the Building Official may require the use of equipment or techniques to reduce or control noise and dust;
- m) a description of the purpose of the Blasting;
- n) the schedule for Blasting and any planned On-Site Processing of Blast Rock prepared in a manner that will minimize the duration of the impacts of noise and dust to the adjacent areas, note the Building Official may alter the schedule to minimize the impact to the Neighbouring Owners;
- o) a statement of the amount of material that is proposed to be removed;
- p) a report on where and how notice of Blasting, the Pre-Blast Inspections, the procedure to be used to notify Neighbouring Owners and the steps a Neighbouring Owner is to take in the event that Blasting causes any damage to land or buildings on the land;
- q) the name and contact information for the Blasting Engineer;
- r) the name and contact information for the Registered Professional Engineer; and
- s) the permit fee and damage deposit as set out in the Fees and Charges Bylaw. The damage deposit shall be security for all requirements under this Bylaw and may be used at any time by the Village to secure completion of any of these requirements. A permit extension fee will be required for all permits that exceed their permit expiry date as determined by subsection 3.1.3. Extension will be granted from permits based on the discretion of the Building Official.

14. The information provided in Schedule "A" is certified to be correct:

(Owner's name(s))

(Owner's signature(s) or Authorized Signatory if a Corporation)

(Date)

(Owner's Agent's Signature)

(Date)



VILLAGE OF BELCARRA



SCHEDULE "B" TO BLASTING AND ROCK-BREAKING REGULATION BYLAW NO. 619, 2023

INDEMNIFICATION FORM

1. Date: _____

To: The Building Official
The Village of Belcarra
4084 Bedwell Bay Road
Belcarra, BC
V3H 4P8

Re: _____
(Address or Description of Project Location)

The Owner hereby agrees to indemnify and defend the Village of Belcarra and its agents and employees with respect to all actions, causes of actions, claims, demands, awards, judgments, costs and expenses (including legal fees) arising from or in any way relating to the Blasting or Rock-breaking and related activities on the above referenced property or location for which a Blasting Permit or a Rock-Breaking Permit is applied for pursuant to Blasting and Rock-Breaking Regulation Bylaw No. 619, 2023 including without limitation any acts or omissions of the Owner, the Blasting Engineer, the Blaster, the undersigned agent or the employees and agents or any of them . The Owner further undertakes to pay for any and all damage that results to third party structures and property as a result of the Blasting.

(Owner's name(s))

(Owner's signature(s) or Authorized Signatory if a Corporation)

(Date)

(Owner's Agent signature)

(Date)



VILLAGE OF BELCARRA



SCHEDULE "C" TO BLASTING AND ROCK-BREAKING REGULATION BYLAW NO. 619, 2023

ASSURANCE FORM

CONFIRMATION OF COMMITMENT BY OWNER AND BY BLASTING ENGINEER

1. Date: _____

To: The Building Official
The Village of Belcarra
4084 Bedwell Bay Road
Belcarra, BC
V3H 4P8

Re: Verification of Control Measures/Blasting Plan and Monitoring of Blasting by a Blasting Engineer at:

(Address or Description of Project Location)

Dear Sir:

The undersigned Owner has retained _____ as a Blasting Engineer to review a Control Measures/Blasting Plan and to monitor the Blasting as required by Blasting and Rock-breaking Regulation Bylaw No. 619, 2023 (the "Bylaw").

The Owner and the Blasting Engineer have read the Bylaw. The Owner and the Blasting Engineer acknowledge their responsibilities to each other and to notify the Building Official if the Blasting Engineer ceases to be retained by the Owner either before the date the Blasting Engineer ceases to be retained or, if that is not possible, then as soon possible.

The Owner and the Blasting Engineer understand that where the Blasting Engineer ceases to be retained at any time during the project, Blasting and related work on the above project will cease until such time as:

- a) a new Blasting Engineer is retained, and
- b) a new letter in the form set out in Schedule "C" to Blasting and Rock-breaking Regulation Bylaw No. 619, 2023 is filed with the Building Official.

The Blasting Engineer hereby gives assurance that the Blasting Plan reviewed by this registered professional in support of the application for the Blasting Permit substantially complies with Blasting and Rock-breaking Regulation Bylaw No. 619, 2023 and other applicable enactment's respecting safety and meets all reasonable criteria for safety of life and property and will provide the further written assurance required by Section 3, and Section 5.6 of Blasting and Rock-breaking Regulation Bylaw No. 619, 2023.

The Blasting Engineer hereby undertakes to be responsible for field reviews of the Blasting and all other obligations required in the Bylaw.

The Blasting Engineer also undertakes to notify the Building Official in writing as soon as possible if the Blasting Engineer's contract for field review is terminated at any time.

The undersigned Blasting Engineer certifies that he or she is licensed to practice as a registered professional engineer under the Engineers and Geoscientists Act of B.C. and is specialized in rock mechanics.

Registered Professional

Owner

Registered Professional's Name (print)

Owner's Name (print)

(Registered Professional's Signature)

(Owner's or Owner's appointed agent's signature (If Owner is a corporation the signature of a signing officer must be given here))

(Address)

(affix Registered Professional's Seal above)

If the Registered Professional is a member of a firm, complete the following:

I am a member of the firm:

(Name of firm) and I sign this letter on behalf of the firm.



VILLAGE OF BELCARRA



SCHEDULE "D" TO BLASTING AND ROCK-BREAKING REGULATION BYLAW NO. 619, 2023

BLASTING AND ROCK-BREAKING PERMIT

BLASTING PERMIT NO. _____ ROCK-BREAKING PERMIT NO. _____

This permit authorizes the Blaster working for the Owner

Blaster

Owner

(Blaster's Name)

(Owner's Name)

(Blasting Firm)

(Address)

(Address)

(Daytime phone number)

(Daytime phone number)

To Blast at the following location:

(Address or Description of Project Location)

for a period of _____ calendar days from the date of issue of this Blasting Permit in accordance with:

Blasting Engineer Name: _____

Daytime contact #: _____

Registered Professional Engineer Name: _____

Daytime contact #: _____

Changes from the specifications referred to in the application are listed below and are part of this Permit:

Permit Approved: _____ Date of Permit: _____
Building Official

Extension Approved: _____ Date of Extension: _____
Building Official