



Request for Proposals (Extended) 505 Panorama Ridge Demolition and Remediation.

Revised Closing Date and Time: Tuesday July 15th, 2025, 2:30pm Local Time

Project Contact:

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The City of Quesnel is seeking proposals from qualified professionals for the removal of debris and concrete foundation of a building (dwelling) destroyed by land movement and later a subsequent fire located at 505 Panorama Ridge. The dwelling and its foundation as well as the detached garage are to be removed, and the site is to be remediated as per the attached Geotechnical Report from Thurber Engineering Ltd. dated March 24, 2025. File 64789



In the spring of 2021, the property was reported to have been subjected to land movement and was deemed unsafe for occupation. In 2023 the dwelling burned down. The existing full basement is supported on spread footings and is roughly square in shape measuring approximately 13m wide by 15m long. The dwelling was constructed in 1994. The detached garage, approximately 11m long by 8.5m wide, was not affected by the fire and is still fully intact, however affected by the land movement. This property is located on an existing deep-seated slide area.

The primary objective is to have the dwelling remains, it's foundation and the detached garage demolished and removed, and the site remediated as per the geotechnical report guidelines from Thurber Engineering Dated March 24, 2025. File 64789. To ensure safety and mitigate further damage to the property.

The contractor will be responsible for providing all personnel, equipment, and necessary materials to safely carry out and complete works as outlined below for convenience and the site remediation detailed in the Geotechnical Report from Thurber Engineering Ltd. dated March 24, 2025. File 64789;

- Not operating equipment over the slope crest or removing vegetation with a diameter greater than 100mm from areas adjacent to the building site.
- Use temporary excavation slopes no steeper than 1 horizontal to 1 vertical during removal of the building foundations.
- Backfill the excavation with the soil excavated during removal of the foundations. Place the soil in layers no more than 0.6m thick and tamp it into place using a vibratory plate compactor weighing 450kg, or a hydraulic hoe pack attachment.
- Work will be required to raise the grade to match existing grade and avoid concentrating the ponding of surface water. Use finished cut slopes no steeper than 3 horizontal to 1 vertical.
 - To avoid increasing driving stress, it is not recommended to import fill to the site. Fill is to be excavated clay from the crest of the slope west of the house to fill in the basement and for site grading.
- The excavation should be carried out to avoid concentration drainage. Do not raise the grade above existing by more than 0.3m.
- Hydroseed exposed mineral soil with an appropriate mixture of plant species to reduce the risk of erosion
- The detached garage is to be demolished and removed, and the foundation and slab left in place.

PVC pipes are visible daylighting the slope northeast of the house and west of the detached garage. Two, vertical, approximately 1 m diameter corrugated steel culverts extend above the ground surface east of the PVC pipes. A concrete vault is visible in the bottom of the one the culverts and might be associated with a septic system. These are to be filled in with low strength concrete, or other non-consolidating fill.

All building materials shall be removed and disposed of by the contractor in an appropriate manner by the Province of BC, WCB and all authorities having jurisdiction (recycling of the construction materials is encouraged). Please note landfill fees will not be waived and should be included in expected fees.

Transportation of waste materials that requires the use of the landfill scale must take place during landfill hours of operation.

All permits and licenses necessary for the completion of work including the demolition permit shall be secured by the contractor.

The contractor shall be responsible for all underground service locates prior to starting work.

The contractor will ensure no fuels, oils, sewage, water runoff, dust or other toxic materials shall enter any soils, ditch, creek, or water course.

All existing trees on or adjacent to the property shall be protected during the demolition and remediation work.

The contractor will be responsible for providing all personnel, equipment, and necessary materials to safely carry out and complete work.

The contractor is responsible for site safety including worker and public safety during all hours for the term of the project.

Work is to be completed during the dryer part of summer (ie end of July through August). Significant rainfall should be considered as it may require work to halt and affect project timeline.

3.0 Non-Mandatory Site Visit

A *non-mandatory site meeting* was held on **Tuesday June 17, 2025, at 1:30pm** (No further site meetings will be held before the end of the closing date) Each Proponent will satisfy itself of the conditions of the site, structures and their surroundings with respect to risks, contingencies and other circumstances, which may influence it's proposal, including without limiting the generality of the foregoing:

- laws and regulations;
- the nature and location of the site;
- general and local conditions of the site, particularly those bearing upon
- transportation, disposal, handling and storage of materials;
- availability of labor, water, and electric power;
- the character of equipment and facilities required prior to and during the work; and
- all other matters that can in any way affect the progress, performance or cost of work under the Contract.

The Proponent shall not claim, at any time after submission of a Proposal, that there was any misunderstanding of the terms and conditions of the Contract relating to the conditions of the site.

Proponents are advised that all persons visiting the site must provide their own safety equipment (CSA approved safety hard hats, safety boots, and safety glasses). Persons who do not have the proper safety equipment will not be permitted on site.

4.0 Pre and Post Project:

Prior to the start of on-site work, the Contractor must meet on-site with representatives of the City to review the methods, procedures, site protection and schedules related to the building demolition. The following will be discussed:

1. Inspect and discuss the condition of the buildings to be demolished and site.
2. Inspect and discuss access conditions.
3. Review and finalize the building demolition schedule.
4. Review and finalize the site protection requirements.
5. Review procedures for noise and dust control.
6. Verify that the utilities have been disconnected and capped prior to starting demolition.

Upon project completion the Proponent shall contact the **Building Department** to complete final inspection and ensure Demolition Permit requirements are met. Project is to be completed by September 26, 2025.

5.0 Definitions:

“Best Value” means the value placed upon quality, service, past performance, and price.

“Closing Date and Time” means **Tuesday July 15th, 2025, at 2:30p.m. (PT).**

“CAO” means the Chief Administrative Officer of the City of Quesnel.

“Proponent” means a person, firm, or corporation having a direct contract with the City of Quesnel to provide the services outlined in the RFP. They are party submitting a Proposal to this RFP.

“Contract” means a written agreement between the City of Quesnel and the Successful Proponent resulting from this RFP.

“City” means the City of Quesnel.

“Project” means the Demolition and Removal;

“Proposal” shall mean the Proponent’s submission to the RFP..

“RFP” means this Request for Proposal.

“Request for Proposal” includes the documents listed in the index of the Request for Proposal and any modifications thereof or additions thereto incorporated by addenda before the close of the RFP.

“Successful Proponent” means the Proponent submitting the most advantageous RFP as determined by the City of Quesnel.

6.0 Proposal Rules:

6.1 APPLICABLE LAWS

The law applicable to this RFP shall be the law in effect in the Province of British Columbia.

Except for an appeal from a British Columbia Court to the Supreme Court of Canada, no action in respect to this RFP shall be brought or maintained in any court other than in a court of the appropriate authority of the Province of BC. In carrying out its obligations hereunder, the Proponent shall familiarize itself and comply with all applicable laws, bylaws, regulations, ordinances, codes, specifications, and requirements of all regulatory authorities, and shall obtain all necessary licenses, permits and registrations as may be required by law. Where there are two or more laws, ordinances, rules, regulations, or codes applicable to the Works, the more restrictive shall apply. All references in the RFP to statutes and regulations thereto and City bylaws shall be deemed to be the most recent amendments thereto or replacements thereof.

6.2 INCONSISTENCY BETWEEN PROVISIONS

In the case of any inconsistency or conflict between the provisions of the RFP, the provisions of such documents and addenda thereto will take precedence in governing in the following order: (1) addenda; (2) RFP; (3) Special Conditions; (4) Specifications; (5) Drawings; (6) Executed Form of RFP; (7) all other documents.

6.3 HEADINGS

Headings are for convenience only: headings and titles in the RFP are for convenience only and are not explanatory of the clauses with which they appear.

6.4 PAYMENT

Method of payment is governed by City policy as well as applicable federal and provincial law.

6.5 ENTIRE AGREEMENT

The RFP, accepted proposal, and City Contract represent the entire Agreement between the City and the Successful Proponent and supersede all prior negotiations, representations, or agreements either written or oral. The Contract may be amended only by written instrument agreed and executed by the Successful Proponent and the City.

6.6 NOT A TENDER CALL

This RFP is not a tender call, and the submission of any response to the RFP does not create a tender process. This is not an offer to contract by the City.

6.7 NO OBLIGATION TO PROCEED

Though the City fully intends to proceed through the RFP, the City is under no obligation to proceed to the purchase, or any other stage. The receipt by the City of any information (including any submissions, ideas, plans, drawings, models, or other materials communicated or exhibited by any intended Proponent or on its behalf), shall not impose any obligations on the City. There is no guarantee by the City, its officers, employees, or agents that the process initiated by the issuance of this RFP will continue, or that this RFP process or any RFP process will result in a contract with the City.

6.8 ADDENDA AND SUBSEQUENT INFORMATION

Proponents are advised that all subsequent information regarding this RFP including any addendum will be posted on the City's website. Addenda may be issued up to 48 hours prior to the Closing Date and Closing Time. After this time, the RFP will be considered complete, and no further Addenda will be issued.

6.9 ELIGIBILITY

Proposals will not be evaluated if the Proponent's current or past corporate or other interest may, in the City's opinion, give rise to a conflict of interest in connection with the RFP.

6.10 CONFLICT OF INTEREST

Any potential or perceived conflict of interest must be disclosed to the City in writing together with the proposal documents. Any conflict of interest identified will be considered and evaluated by the City. The City has the sole discretion to take the steps it deems necessary to resolve the conflict. If during the term of the Contract, a conflict or risk of conflict of interest arises, the Proponent will notify the City immediately, in writing, of that conflict or risk and take any steps that the City requires to resolve the conflict.

6.11 COST OF PREPARATION

Any cost incurred by the Proponent in the preparation of this Proposal will be borne solely by the Proponent.

6.12 CONFIDENTIALITY OF CITY'S INFORMATION

All Proponents and any other persons who, through this RFP process, gains access to the City's confidential financial information, are required to keep strictly confidential all information which in any way reveals confidential business, financial or investment details, programs, strategies, or plans learned through this RFP process. This requirement will continue with respect to such information learned by the Successful Proponent, if any, over the course of any contract for service which arises out this RFP process. Information pertaining to the City obtained by the Proponent because of participation in this process is confidential and must not be disclosed without written authorization of the City.

7.0 RFP Review and Evaluation:

7.1. INTENTION OF THE CITY

The Proponent that submits to the City the most advantageous Proposal and which represents the interests of the City, best overall, may be awarded the contract. The City reserves the right to accept or reject all or part of the RFP, however, the City is not precluded from negotiating with the Successful Proponent to modify its Proposal to best suit the needs of the City.

7.2. REJECTION OF PROPOSALS

The City reserves the right to reject, at the City's sole discretion, any, or all Proposals, without limiting the foregoing, any Proposal which:

- is incomplete, obscure, irregular, or unrealistic;
- has non-authorized (not initialled) erasures or corrections in the Proposal or any schedule thereto;
- omits or fails to include any one or more items in the Proposal for which a price is required by the RFP;
- fails to complete the information required by the RFP to be furnished with a Proposal; and /or
- fails to complete the information required whether the same purports to be completed or not.

Further, a Proposal may be rejected based on the Proponents past performance, financial capabilities, completion schedule and compliance with Federal, Provincial, and/or Municipal legislation. As it is the purpose of the City to obtain a Proposal most suitable to its interests and what it wishes to accomplish, the City has the right to waive any irregularity or insufficiency in any Proposal submitted and to accept the Proposal which is deemed to provide the best value to the City.

7.3. EVALUATION CRITERIA

Proposals will be checked against the mandatory criteria. Proposals not meeting all mandatory criteria will be rejected without further consideration. If all submissions do not meet the City's mandatory criteria, it shall remain the City's sole discretion to evaluate submissions and reject all or award to the Proponent

with the highest overall ranking.

7.4. SCORED EVALUATION CRITERIA

Proposals meeting the mandatory requirements will be further evaluated based on predetermined criteria and weighting as detailed below:

7.4.1. EXPERIENCE AND QUALIFICATIONS – 25%

- Specialties or capabilities of the Proponent.
- Provide evidence of being able to successfully perform this work.
- Credentials of staff or subcontractors assigned to this project.
- Demonstrated experience with demolition and removals of similar structures.
- Relevant references included with submission and feedback received if contacted.

7.4.2. APPROACH AND WORKPLAN – 30%

- Explanation of the approach and workplan to be used for the demolition and removals.
- Schedule and dates identifying project work phases.
- List equipment that will be used for the demolition and disposal.

7.4.3. BUDGET & FEE – 30%

- How reasonable the budget is for each aspect of the proposal and the proposed fee for the work identified?
- The fee is competitive with regards to the project budget and other proposals received.
- The breakdown of the proposed fee/budget is explained in detail.

7.4.4. PROPOSAL SUBMISSION – 15%

- Completeness and clarity of the proposal.
- Quality of the proposal.
- Proposal should be 25 pages or less.

	Points
Experience and Qualifications	25
Approach and Workplan	30
Budget & Fees	30
Proposal Submission	15
Total	100

7.5. EVALUATION COMMITTEE

Evaluation of Proposals may be made by an Evaluation Committee formed by the City.

Awards will be made based on the best value offered, and the best value will be determined by the City. The quality of the service to be supplied, the conformity with the specifications, the suitability to requirements, guarantee clauses, and references shall all be taken into consideration.

7.6. CLARIFICATION

The City reserves the right to seek Proposal clarification with the Proponents to assist in making evaluations.

The City reserves the right to:

- consider and analyze Proposal submissions;
- reject any Proposal it considers not in its best interest;
- to meet with the Proponents, either individually or collectively, to discuss the RFP and their submissions;
- after identifying the preferred Proponent, to negotiate any changes, amendments, or modifications with the preferred Proponent, without offering the other Proponents the right to amend their Proposals;
- to cancel the RFP at any time without incurring liability to any Proponent;
- to reject any or all Proposals;
- to accept any Proposal whether complete or not;
- not to accept the Proposal with the lowest fee; and/or
- to alter any aspects of the RFP in its sole discretion.

It is the nature of the RFP process that the RFP and/or the Proposal in response to the RFP will not constitute a binding Contract but will only form the basis for the Services Contract and does not mean that the Proposal is necessarily acceptable in the form submitted.

7.7. ACCEPTANCE OF PROPOSAL

The City shall not be obligated in any manner to any Proponent whatsoever until a written agreement has been duly executed relating to an approved Proposal. No act of the City other than written notice signed by the City's Corporate Officer shall constitute an acceptance of a Proposal. Such acceptance shall bind the Successful Proponent to execute in a manner satisfactory to the City.

7.8. NEGOTIATION DELAY

If a written Contract cannot be negotiated within 30 days of notification to the Successful Proponent, the City may, at its sole discretion at any time, thereafter, terminate negotiations with that Proponent and either negotiate a Contract with the next qualified Proponent or choose to terminate the RFP process and not enter into a Contract with any of the Proponents.

7.9. INQUIRIES AND CONTACT DURING THE RFP PROCESS

General inquiries related to this RFP are to be directed to:

Kristy De Vuyst, Planner, Development Services

410 Kinchant Street, Quesnel BC V2J 7J5

kdevuyst@quesnel.ca

(p) 250 992-2111.

Please use subject line: ***“RFP 505 Panorama Ridge Demolition and Remediation”***

Proponents shall carefully examine the RFP documents and shall fully inform themselves as to the intent, existing conditions and limitations which may affect their Proposal submission. No consideration will be given after submission of a Proposal to any claim that there was any misunderstanding with respect to the conditions imposed.

Proponents finding discrepancies or omissions in the Contract or RFP or having any doubts as to the meaning or intent of any provision should immediately notify the above-noted project contact.

If there are any changes, additions, deletions to the Proposal scope, conditions or closing date, an Addendum issued by the City will be posted on the City website (www.quesnel.ca). All Addenda are to become part of the Proposal documents. Verbal discussion with City staff shall not become part of the RFP or modify the RFP unless confirmed by written Addendum.

Inquiries and responses will be recorded and may be distributed to all Proponents at the City's option. Questions will not be accepted or answered within 48 hours of the Closing date and time.

7.10. SUBMITTAL DEADLINE AND INSTRUCTIONS

Delivery of Proposals to Kristy De Vuyst at kdevuyst@quesnel.ca

will be acknowledged as received through a reply e-mail confirming receipt of the proposal, stating the full document has been received in a satisfactory format.

This acknowledgement does not include any automatic replies from the receiving e-mail. The proponent is responsible for ensuring they receive confirmation of receipt. The City shall not, under any circumstances, be responsible for delays caused by failure to receive the documents. All Proposals and any amendments thereto must be acknowledged as received prior to the closing date and time.

Proposals must be received by **2:30 p.m. (local Quesnel time) on Tuesday July 15th, 2025**, by:

Kristy De Vuyst, Planner, Development Services at kdevuyst@quesnel.ca

SUBJECT LINE OF EMAIL MUST clearly state: 1) name of proponent and 2) program title.

XYZ Company “RFP 505 Panorama Ridge Demolition and Remediation”

7.11. AMENDMENTS TO PROPOSALS

A Proponent may amend or revoke a Proposal by giving written notice to the City delivered by e-mail to kdevuyst@quesnel.ca. Any amendments received after the Closing Date and Closing Time will not be considered and shall not affect a Proposal, as submitted. An amendment or revocation must be delivered by an authorised signatory of the Proponent. If a proposal amendment is not acknowledged as received by the City, it is the proponent's responsibility to contact the City to ensure the amendment is received before the Closing Date and Closing Time. The City shall not be liable to any Proponent for any reason if an email is not properly received.

8.0 Proposal Preparation:

Please follow the following format for proposal submissions:

Title page: Showing proponent's contact information.

Methods: Detailed description of proposed workplan as per section 9 above.

Timeline: Proposed timeline of project. (Project must be completed by September 26, 2025)

Budget: Proposed budget and proposed fee schedule tied to deliverables and timelines.

Personnel: A complete listing of all personnel that will be involved in the project, a brief description of their background, their role in the project, and descriptions of similar relevant work completed. Samples of similar relevant references are preferred.

9.0 Additional Terms:

9.1. Business License

The successful proponent must possess a City of Quesnel business license and will be required to provide evidence of same at contract start.

9.2. WorkSafeBC

The proponent must be registered and remain in good standing, throughout the terms of this contract with WorkSafeBC and will be needed to provide evidence of the same at contract start.

9.3. Insurance Protection and Damage:

The proponent shall, at their own expense, provide and maintain to the Municipality until the completion of the contract the following insurance in a form acceptable to the Municipality with an insurer licensed in British Columbia:

Commercial General Liability \$5,000,000.00

Automobile Liability Insurance \$2,000,000.00

The proponent shall be responsible for any deductibles or reimbursement clauses within the policy.

The proponent shall be responsible for ensuring that their insurance policy covers.

10.0 Reference Documents:

Appendix A - Geotechnical Report from Thurber Engineering Ltd. Dated March 24, 2025. File 64789

Appendix B – Site Photos

Appendix C – Hazardous Materials Survey

March 24, 2025

File No.: 64789

City of Quesnel
410 Kinchant Street
Quesnel BC V2J 7J5

Attention: Ms. Tanya Turner, MCIP, RPP, Director of Development Services

**GEOTECHNICAL RECOMMENDATIONS,
DEMOLITION AND REMEDIATION AT 505 PANORAMA RIDGE, QUESNEL, B.C.**

1. INTRODUCTION

City of Quesnel is planning to remove debris and concrete foundations of a building destroyed by land movement and a subsequent fire located at 505 Panorama Ridge in Quesnel, B.C. The building is located on terrain affected by a large, deep-seated landslide above Dragon Creek. Thurber Engineering Ltd. was commissioned by City of Quesnel to carry out a site visit and provide geotechnical recommendations to reduce the potential that demolition and remediation activities could contribute to additional slope movement. Our scope of work is outlined in our proposal dated November 5, 2024.

The property is located in the South Quesnel area, 260 m north of the intersection of Adrian Road and Panorama Ridge. It is bordered by the unstable, undeveloped, forested slope to the north and west, residential properties to the south, and Panorama Ridge and residential properties to the east. Images available on Google Earth dated June 2024 show the house occupies the middle of a gently northwest sloping, oblong shaped bench with a footprint of about 0.3 hectares at geodetic elevation 595 m. A detached garage or shop is located northeast of the house. The bench is below and separated from relatively level terrain to the south and east by an up to 8 m high, moderate to steep gradient slope. The unstable slope on the west and north sides is up to 115 m high, irregular, has moderate to steep gradients and overlooks Dragon Creek and Johnston Subdivision. The house has a footprint of about 335 m² and the detached garage has a footprint of 100 m². A plan showing the site location and arrangement of the house and garage within the property is on Drawing 64789-A1, attached.

This letter summarizes observations from a site visit on March 11, 2025, and presents the results of our assessment and geotechnical recommendations for site grading following demolition. The performance of Thurber's professional services is subject to the attached Statement of Limitations and Conditions.

2. BACKGROUND GEOLOGICAL INFORMATION

The surficial geology of the area that developed at the end of the last glaciation is described by Geological Survey of Canada in Bulletin 196 by H.W. Tipper (1971), with Map 1290A "Surficial Geology, Quesnel, British Columbia". During the last glacial period, which ended approximately 10,000 years before present, the Fraser and Quesnel River valleys were partly filled with glacial till, consisting of material deposited from glacial ice, followed by deposits of silt and clay from glacial lake sediments. As the glacial ice that blocked the major valleys melted, the water that accumulated in the glacial lakes drained and cut into the till and glacial lake sediments, and in some places eroded the underlying, much older clay and bedrock deposits.

Our interpretation of information provided in the Bulletin is that the site is underlain by silt and clay glaciolacustrine deposits. The steep gradient slope to the west and north of the house is the edge of large glacial meltwater or outwash channels currently occupied by Quesnel and Fraser Rivers.

Dragon Creek, a tributary to Quesnel River, is 550 m northwest of the property at the toe of the moderate to steep gradient slope. Upstream reaches of the creek cross the east wall of the Quesnel River valley from a plateau at about elevation 600 m, through a deeply incised channel. The east valley wall and the sides of the stream channel are unstable, and affected by deep-seated, slow, retrogressive landslides. The north and west sides of the bench occupied by the house are at the crest of the slide. A hill-shade image produced from Light Detecting and Ranging (LiDAR) data shows the property and the surrounding area, including Dragon Creek and the unstable slopes, is on Drawing 64789-A2, attached.

The hillshade image shows the house and garage are located on a slide block at the head of a landslide that measures approximately 250 m wide, across the slope, and 550 m long, measured down the slope. The slide is part of a nearly 4.5 km wide contiguous, slow moving slide mass that affects the east wall of the Quesnel River valley.

3. SITE VISIT

During my visit to the site I observed general site and slope stability conditions, measured slope gradients, and checked soil conditions in several hand-dug test pits. Parts of the site around the building footprint were covered with between 10 and 20 cm of snow.

The house is supported on spread footings and has a full basement except the east side which has a concrete slab slightly above the surrounding grade. The basement is roughly square in shape and measures about 13 m wide by 15 m long.

There is a relatively fresh slide scarp with about 1 m of vertical relief behind the bench occupied by the house and garage, on the south and east sides of the property. The scarp is likely a reactivation of this part of the existing deep-seated slide. Several smaller cracks were visible to the north of the main scarp, extending through the foundation of the house but the presence of snow made making observations difficult. The building site slopes radially away from the perimeter of the house at a gentle gradient to the crest of the steep gradient slope to the west and north.

PVC pipes are visible daylighting the slope northeast of the house and west of the detached garage. Two, vertical, approximately 1 m diameter corrugated steel culverts extent above the ground surface east of the PCV pipes. A concrete vault is visible in the bottom of the one the culverts and might be associated with a septic system.

The slope west and north of the house is steep and irregular with gradients steeper than 45 degrees. Hand-dug test pits encountered a layer of organic silt and roots to about 0.1 m depth, over stiff, silty clay of intermediate plasticity. The slope is vegetated mainly with birch, spruce, and occasional cottonwood trees. I did not observe seepage on the slope.

4. DISCUSSION AND RECOMMENDATIONS

Landslides in the Quesnel area are well documented and are a result of low shear strength claystone bedrock and glacial lake sediments, elevated groundwater pressures associated with regional groundwater flow toward the river valleys from the adjacent uplands, and significant slopes into the Fraser and Quesnel River valleys.

Slope instability occurs when driving forces, such as the weight of soil, groundwater pressure and surface loads exceed the resisting forces along a critical slip surface. The ratio of resisting to driving forces is defined as the factor of safety against sliding. A value of 1.0 occurs at impending slope failure. The factor of safety is reduced when weight is placed uphill of the neutral axis of the slide, when material is removed from the toe, and when groundwater levels in the slope rise.

As noted above, the building site is located on a slide block that will be subject to continued, seasonal, episodic movement that we anticipate is controlled primarily by groundwater. Given the extent of the slide, approximately 250 m wide, the presence of the buildings on the property and the demolition activity will have only a small affect on global stability conditions and future slope movement.

To reduce the potential for demolishion activity to contribute to instability we recommend the house and its foundation be removed. Removing the foundation will reduce the potential for water

to pond within fill inside the building footprint. Saturated soil and seepage will have a destabilizing affect on nearby slopes. To avoid increasing driving stress we recommend against importing fill to the site. Instead, an alternative is to excavate clay from the crest of the slope west of the house to fill in the basement and for site grading. We recommend the following:

- Do not operate equipment over the slope crest or remove vegetation with a diameter greater than 100 mm from areas adjacent to the building site.
- Use temporary excavation slopes no steeper than 1 horizontal to 1 vertical during removal of the building foundations.
- Backfill the excavation with the soil excavated during removal of the foundations. Place the soil in layers no more than 0.6 m thick and tamp it into place using a vibratory plate compactor weighing 450 kg, or a hydraulic hoe pack attachment.
- Fill will be required to raise the excavation to match existing grade and avoid concentrating and ponding of surface water. Pull back the crest of the slope on the west side of the property for use as fill. Use finished cut slopes no steeper than 3 horizontal to 1 vertical.
- The excavation should be carried out to avoid concentrating drainage. Do not raise the grade above existing by more than 0.3 m.
- Hydroseed exposed mineral soil with an appropriate mixture of plant species to reduce the risk of erosion.

The detached garage can be demolished and the foundation and slab left in place or removed and filled as noted above.

5. CLOSURE

This letter report was prepared by Thurber Engineering Ltd. for the use of City of Quesnel and their consultants. The material in it reflects Thurber Engineering's judgement in light of the information available to us at the time of preparation. Any use which Third Parties make of this report, or any reliance on decisions to be made based on it, are the responsibility of such Third Parties. Thurber Engineering Ltd. accepts no responsibility for damages, if any, suffered by any Third Party as a result of decisions made or actions based on this report.



THURBER ENGINEERING LTD.

We trust this information is sufficient for your current needs. Please contact us if you have any questions or to discuss any part of this letter in more detail.

Yours truly
Thurber Engineering Ltd.


Per: W. J. Lanenga, P.Eng.
Geotechnical Engineer

Thurber Engineering Ltd.
Permit to Practice #1001319

Enclosures:

- Statement of Limitations and Conditions
- Site Location Plan, Drawing 64789-A1
- Hillshade Image, Drawing 64789-A2

STATEMENT OF LIMITATIONS AND CONDITIONS

1. STANDARD OF CARE

This Report has been prepared in accordance with generally accepted engineering or environmental consulting practices in the applicable jurisdiction. No other warranty, expressed or implied, is intended or made.

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All documents, records, data and files, whether electronic or otherwise, generated as part of this assignment are a part of the Report, which is of a summary nature and is not intended to stand alone without reference to the instructions given to Thurber by the Client, communications between Thurber and the Client, and any other reports, proposals or documents prepared by Thurber for the Client relative to the specific site described herein, all of which together constitute the Report.

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The Report has been prepared for the specific site, development, design objectives and purposes that were described to Thurber by the Client. The applicability and reliability of any of the findings, recommendations, suggestions, or opinions expressed in the Report, subject to the limitations provided herein, are only valid to the extent that the Report expressly addresses proposed development, design objectives and purposes, and then only to the extent that there has been no material alteration to or variation from any of the said descriptions provided to Thurber, unless Thurber is specifically requested by the Client to review and revise the Report in light of such alteration or variation.

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5. INTERPRETATION OF THE REPORT

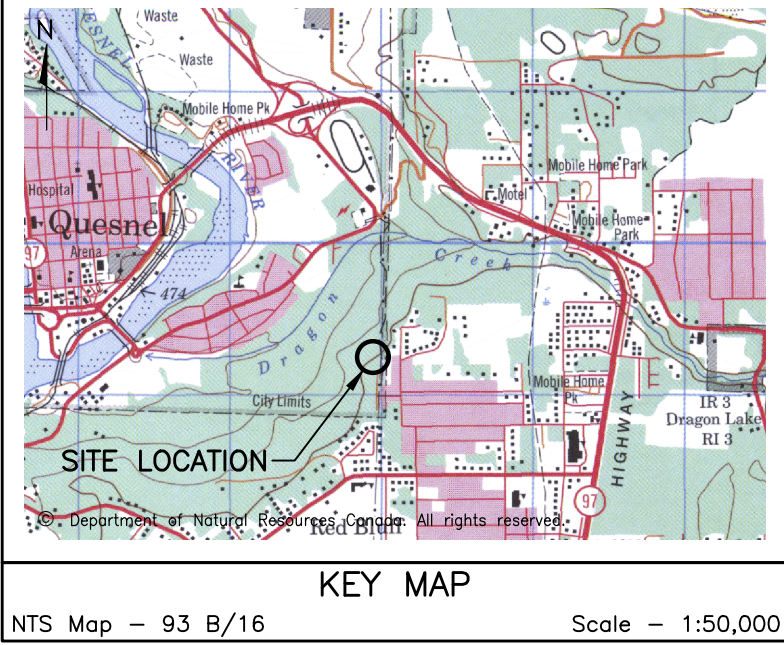
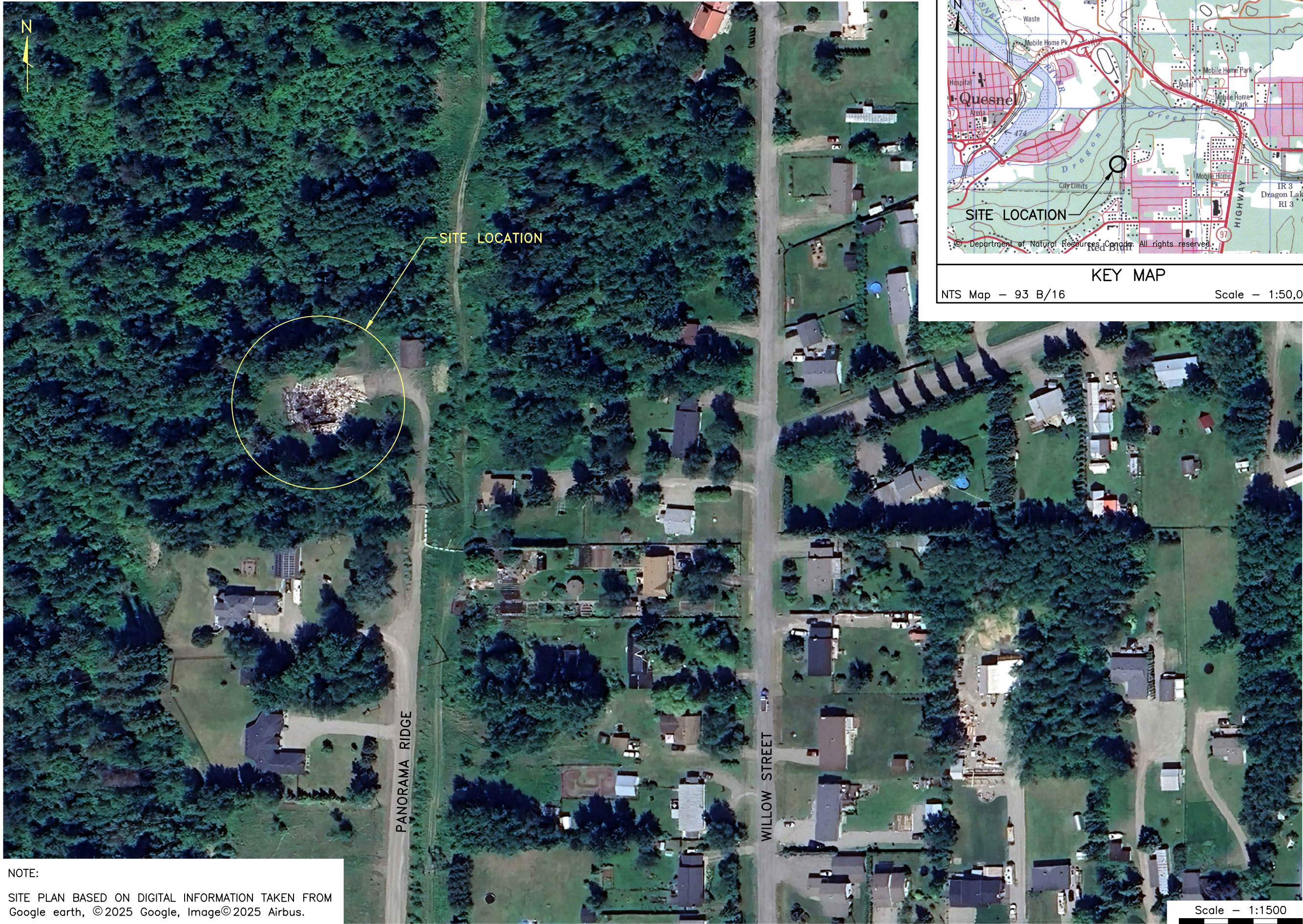
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- b) Reliance on Provided Information: The evaluation and conclusions contained in the Report have been prepared on the basis of conditions in evidence at the time of site inspections and on the basis of information provided to Thurber. Thurber has relied in good faith upon representations, information and instructions provided by the Client and others concerning the site. Accordingly, Thurber does not accept responsibility for any deficiency, misstatement or inaccuracy contained in the Report as a result of misstatements, omissions, misrepresentations, or fraudulent acts of the Client or other persons providing information relied on by Thurber. Thurber is entitled to rely on such representations, information and instructions and is not required to carry out investigations to determine the truth or accuracy of such representations, information and instructions.
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- d) Construction Services: During construction Thurber should be retained to provide field reviews. Field reviews consist of performing sufficient and timely observations of encountered conditions in order to confirm and document that the site conditions do not materially differ from those interpreted conditions considered in the preparation of the report. Adequate field reviews are necessary for Thurber to provide letters of assurance, in accordance with the requirements of many regulatory authorities.

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The information, interpretations and conclusions in the Report are based on Thurber's interpretation of conditions revealed through limited investigation conducted within a defined scope of services. Thurber does not accept responsibility for independent conclusions, interpretations, interpolations and/or decisions of the Client, or others who may come into possession of the Report, or any part thereof, which may be based on information contained in the Report. This restriction of liability includes but is not limited to decisions made to develop, purchase or sell land.

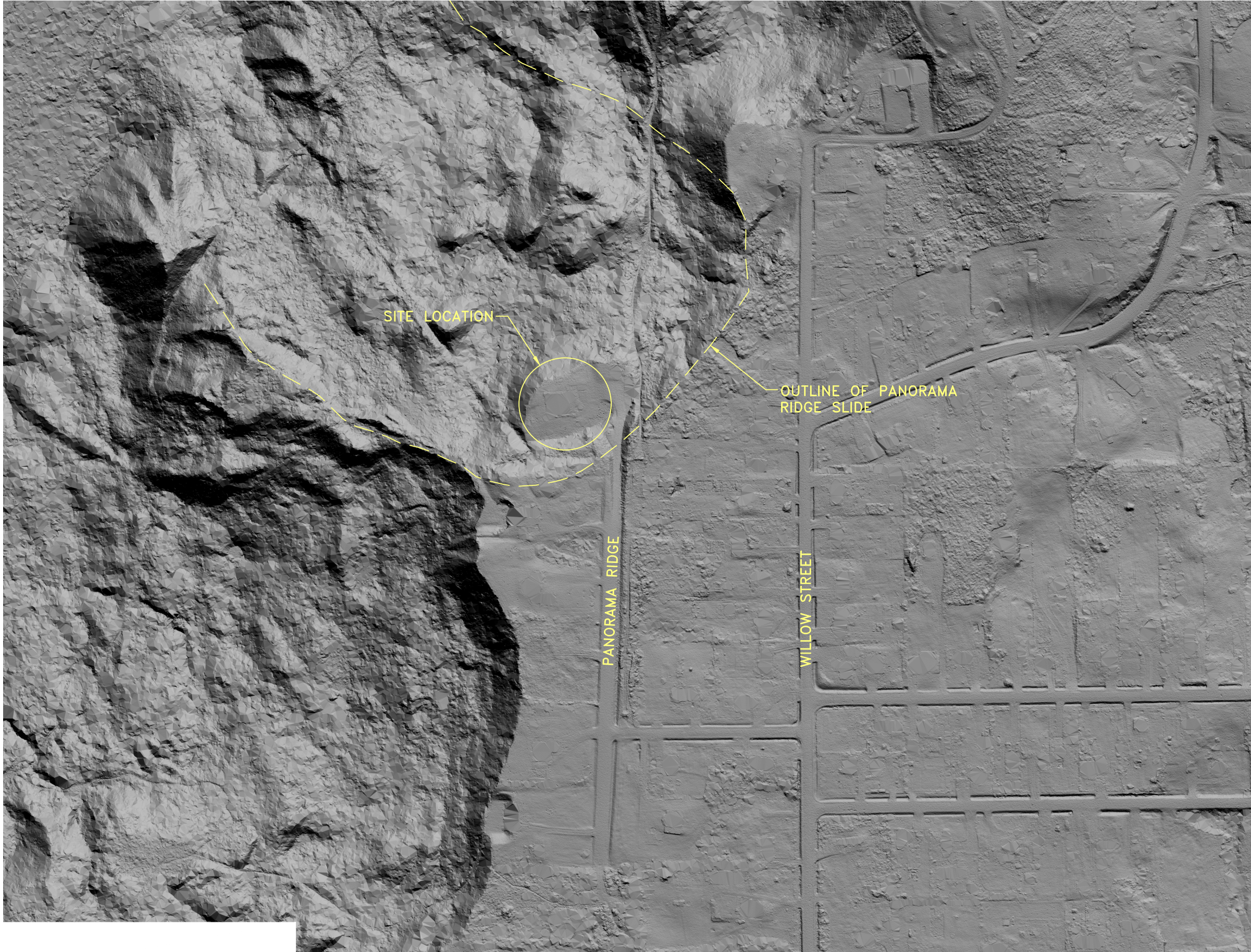


CITY OF QUESNEL
DEMOLITION AND REDIATION AT
505 PANORAMA RIDGE, QUESNEL, B.C.
SITE LOCATION PLAN

NOTE:
SITE PLAN BASED ON DIGITAL INFORMATION TAKEN FROM
Google earth, © 2025 Google, Image© 2025 Airbus.

Note: Drawing is included for information purposes only and is to be interpreted with the corresponding Geotechnical Report.

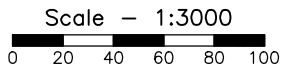
SCALE: 1:1500	APPROVED:	
DATE: 2025/03/21		
DRAWN BY: LU		
REVIEWED BY: WJL		
DRAWING NO: 64789-A1	REVISION: -	PROJECT NO: 64789



NOTE:

SITE PLAN BASED ON DIGITAL INFORMATION FROM
LidarBC WEBSITE. ACCURACY CANNOT BE GUARANTEED.

Note: Drawing is included for information purposes only and is to be interpreted with the corresponding Geotechnical Report.



SCALE: 1:3000	APPROVED:		
DATE: 2025/03/21			
DRAWN BY: LU			
REVIEWED BY: WJL			
DRAWING NO: 64789-A2	REVISION: —	PROJECT NO: 64789	

CITY OF QUESNEL
DEMOLITION AND REDIATION AT
505 PANORAMA RIDGE, QUESNEL, B.C.
SITE PLAN SHOWING HILLSHADE IMAGE



Appendix B – Site Photos

Driveway access



Front view of garage



Side view of garage



Dwelling remains



Dwelling remains



Culverts



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Pre-Demolition Hazardous Materials Survey Report

City of Quesnel

505 Panorama Ridge, Quesnel, BC



June 13, 2025

Apex File Number: COQU25-001

EXECUTIVE SUMMARY

Apex EHS Services (Apex) was retained by City of Quesnel to undertake a Pre-Demolition Hazardous Materials survey at the residential building located at 505 Panorama Ridge, Quesnel, BC. This survey was conducted for due diligence and regulatory compliance purposes as required by Section 20.112 of the BC Occupational Health and Safety (WorkSafeBC) Regulation.

As per BC Assessment, we understand as per the client, the building may have been constructed prior 1990, a period where hazardous materials were incorporated into building finishes and structures.

WorkSafeBC defines Hazardous Materials as:

- asbestos-containing material,
- lead or any other heavy metal, or
- toxic, flammable or explosive material

Other hazardous materials included in this assessment comprised ozone depleting substances (ODS), crystalline silica, mould growth and radioactive materials.

FINDINGS

Hazardous Material	Type / Location
Asbestos-containing Building Materials (ACMs)	Asbestos was identified within the following materials: - Grey mastic (S04) applied to windows within the Debris Pile (Loc. 1); and, - Black mastic (S05) applied to windows within the Debris Pile (Loc. 1).
Lead in Paints	Lead was not identified within any of the paint samples collected.
Lead products	Glazing applied to surface finish of ceramic tile within the Debris Pile (Loc.1) is assumed to contain lead.
Mercury	Products containing mercury were not identified.
Polychlorinated Biphenyls (PCBs)	Products containing PCBs were not identified.
Crystalline Silica	Drywall, asphalt, concrete, cement, ceramic tile, brick, masonry and mortar within the Debris Pile (Loc.1) are assumed to contain crystalline silica.
Ozone Depleting Substances	Ozone depleting substances were not identified.
Radioactive Materials	Radioactive materials were not identified.
Mould	No significant areas of suspect visible mould were identified.
Flammable and Explosive Materials	Flammable and explosive materials were not identified.
Fire Damaged Debris	A significant amount of partially combusted residue was noted throughout the Debris Pile (Loc.1). This residue can be contaminated by dioxins, furans, polyaromatic hydrocarbons (PAHs) PCBs carbon and oxygen centred radicals. Exposure to these contaminants through inhalation, ingestion, skin contact and absorption through mucous membranes (nose, throat and eyes) can cause serious adverse health effects.

RECOMMENDATIONS

- Due to the presence of asbestos-containing window mastic debris, the Debris Pile (Loc. 1) should be treated as an asbestos-contaminated environment. Entry into the debris pile should be limited to workers following moderate risk asbestos work procedures (1/2 face respirator with p-100 filters, Tyvek suit, rubber boots, wash-up station). All porous contents should be disposed of as asbestos waste. Non-porous contents may be decontaminated by wet wiping and/or HEPA vacuuming following asbestos work procedures.
- Safe work practices must be followed when handling materials which have been impacted by the fire. Personal protective equipment including impervious coveralls, gloves, respiratory protection and eye protection should be worn and workers must thoroughly decontaminate after handling these materials
- All asbestos-containing material must be removed using safe work procedures and practices prior to/ in conjunction with demolition activities.
- An asbestos risk assessment must be performed by a qualified professional prior to demolition work occurring to determine the exposure risk to workers and other persons.
- Proper procedures and documentation such as safe work practices, an exposure control plan, and/or other controls must be developed prior to disturbing materials that contain crystalline silica and lead glazing.
- If a suspect hazardous material not identified in this report is discovered during demolition work, this material must not be disturbed until a qualified person has collected a sample (if required) and determined whether the material is hazardous.
- A copy of this report must be posted on site.
- A visual assessment must be conducted by a qualified person and a written report must be prepared confirming the removal or safe containment of all hazardous materials identified in this report prior to commencement of demolition work.

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1.0 INTRODUCTION

Apex EHS Services (Apex) were retained by City of Quesnel to undertake a Pre-Demolition Hazardous Materials survey (HMS) at 505 Panorama Ridge, Quesnel, BC. This survey was conducted for due diligence and regulatory compliance purposes as required by Section 20.112 of the BC Occupational Health and Safety (WorkSafeBC) Regulation.

As per BC Assessment, we understand as per the client, the building may have been constructed prior 1990, a period where hazardous materials were incorporated into building finishes and structures.

WorkSafeBC defines Hazardous Materials as:

- asbestos-containing material,
- lead or any other heavy metal, or
- toxic, flammable or explosive material

Other hazardous materials included in this assessment comprised ozone depleting substances (ODS), crystalline silica, mould growth and radioactive materials.

The HMS was conducted by Bryant Lowe (WorkSafeBC Asbestos Certificate Number 10007181) of Apex on June 11 & 12, 2025. The objective of the HMS was to identify specified hazardous building materials in preparation for building demolition, which were determined by systematic visual assessment, selective sampling and laboratory analysis. Specific methodology employed during the HMS is included in Appendix 1. The regulatory framework pertaining to hazardous materials is included in Appendix 2. The terms of reference for this report are included in Appendix 7.

2.0 LIMITATIONS

This HMS was limited to construction materials and components. The analytical results of visually homogenous materials were extrapolated throughout the structure dependant on visual indications or other available information on estimated phases of construction. Some materials such as painted drywall surfaces and plaster finishes cannot be extrapolated with certainty. No below-grade water drainage or plumbing systems or sub-surface investigation of materials was included in the scope of this HMS.

Limited destructive testing was completed to the extent practicable. It's not possible to comprehensively evaluate all hidden spaces such as behind wall surfaces, within pipe chases and chimneys during a survey with removing all finishes that cover such areas. As such, if hidden suspect asbestos materials are identified during demolition work, these should not be disturbed until further evaluation can be made.

Materials assumed not to contain asbestos during this HMS included wood and wood composite materials, fiberglass, carpet, synthetic plastics, metals and concrete.

3.0 FINDINGS

Sample location drawings are included in Appendix 3. Photographs of hazardous materials are included in Appendix 4.

Hazardous material sample results and visually identified hazardous materials are shown in tables 1 to 3. Laboratory analytical results are included in Appendix 5. Asbestos health effects and WorkSafeBC asbestos risk assessment requirements are included in Appendix 6.

Table 1 - Asbestos					
Sample #	Material	Description	Location	Asbestos Content / Type	Approximate Quantity (Square Feet)*
S01(a-g)	Drywall Joint Compound	Applied to Drywall Debris	Debris Pile (Loc.1)	Not Detected	-
S02(a-e)	Texture Coat	Present as Debris	Debris Pile (Loc.1)	Not Detected	-
S03(a-c)	Brick Mortar	Applied to Bricks, Present as Debris	Debris Pile (Loc.1)	Not Detected	-
S04(a-c)	Window Mastic	Grey, Applied to Windows	Debris Pile (Loc.1)	0.5-5% / Chrysotile	300
S05(a-c)	Window Mastic	Black, Applied to Windows	Debris Pile (Loc.1)	0.5-5% / Chrysotile	300
S06	Vinyl Sheet Flooring	Blue and White Pattern, Present as Debris	Debris Pile (Loc.1)	Not Detected	-
S07	Asphalt Shingle	Brown and Black, Present as Debris	Debris Pile (Loc.1) & Shed (Loc. 1)	Not Detected	-
S08	Asphalt Shingle	Grey and Black, Present as Debris	Debris Pile (Loc.1)	Not Detected	-

Asbestos-containing materials are bolded.

*Quantities are an estimate and should not be used as an exact measurement.

Ceiling insulation within the Shed (Loc. 2) was observed to be fiberglass insulation therefore can be treated as non-asbestos containing material.

Table 2 - Lead Paint			
Sample #	Substrate / Colour	Location	Lead Content (%)
L01	Drywall / Burnt Paint	Debris Pile (Loc.1)	<0.0085%
L02	Drywall / Beige	Debris Pile (Loc.1)	<0.0085%
L03	Wood Trim / Off-white	Debris Pile (Loc.1)	<0.0085%
L04	Wood Paneling / Off-White	Shed (Loc.2)	<0.0085%
L05	Wood Trim / White	Shed (Loc.2)	<0.0085%
L06	Drywall / Off-White	Debris Pile (Loc.1)	<0.0085%

Lead was not identified within any of the paint samples collected.

Table 3 – Other Hazardous Materials	
Material	Locations
Mercury	Products containing mercury were not identified.
Polychlorinated Biphenyls (PCBs)	Products containing PCBs were not identified.
Crystalline Silica	Drywall, asphalt, concrete, cement, ceramic tile, brick, masonry and mortar within the Debris Pile (Loc.1) are assumed to contain crystalline silica.
Ozone Depleting Substances	Ozone depleting substances were not identified.
Radioactive Materials	Radioactive materials were not identified.
Mould	No significant areas of suspect visible mould were identified.
Flammable and Explosive Materials	Flammable and explosive materials were not identified.
Fire Damaged Debris	A significant amount of partially combusted residue was noted throughout the Debris Pile (Loc.1). This residue can be contaminated by dioxins, furans, polyaromatic hydrocarbons (PAHs) PCBs carbon and oxygen centred radicals. Exposure to these contaminants through inhalation, ingestion, skin contact and absorption through mucous membranes (nose, throat and eyes) can cause serious adverse health effects.
Mercury	Products containing mercury were not identified.

4.0 RECOMMENDATIONS

- Due to the presence of asbestos-containing window mastic debris, the Debris Pile (Loc. 1) should be treated as an asbestos-contaminated environment. Entry into the debris pile should be limited to workers following moderate risk asbestos work procedures (1/2 face respirator with p-100 filters, Tyvek suit, rubber boots, wash-up station). All porous contents should be disposed of as asbestos waste. Non-porous contents may be decontaminated by wet wiping and/or HEPA vacuuming following asbestos work procedures.
- Safe work practices must be followed when handling materials which have been impacted by the fire. Personal protective equipment including impervious coveralls, gloves, respiratory protection and eye protection should be worn and workers must thoroughly decontaminate after handling these materials
- All asbestos-containing material must be removed using safe work procedures and practices prior to/ in conjunction with demolition activities.
- An asbestos risk assessment must be performed by a qualified professional prior to demolition work occurring to determine the exposure risk to workers and other persons.
- Proper procedures and documentation such as safe work practices, an exposure control plan, and/or other controls must be developed prior to disturbing materials that contain crystalline silica and lead glazing.
- If a suspect hazardous material not identified in this report is discovered during demolition work, this material must not be disturbed until a qualified person has collected a sample (if required) and determined whether the material is hazardous.
- A copy of this report must be posted on site.
- A visual assessment must be conducted by a qualified person and a written report must be prepared confirming the removal or safe containment of all hazardous materials identified in this report prior to commencement of demolition work.

5.0 CLOSURE

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Appendix 1 – Methodology

ASBESTOS-CONTAINING MATERIALS (ACMs)

An initial walk-through inspection was conducted throughout the structure and observations were made of the wall, ceiling, floor, and other materials including any machinery or equipment to make a preliminary determination if asbestos could be present.

To confirm or discount the presence of asbestos, representative bulk samples were collected. The sample location in the building was identified with a unique sample number. The number of representative bulk samples collected was consistent with recognized industry standards and principles of good occupational hygiene practice. The approximate quantity, location and sample locations of suspect ACMs were recorded.

Surveys are conducted and samples are collected in accordance with the WorkSafeBC Guideline to Section 20.112 of the BC Occupational Health and Safety Regulation and outlined in Safe Work Practices for Asbestos. Flooring mastic/adhesive and leveling compounds are only sampled and analyzed if present on the underside of flooring samples (vinyl floor tile and vinyl sheet flooring).

Bulk samples were submitted for analysis in accordance with PLM: Bulk Asbestos Building Materials EPA 600 R 93 / 116. 1993. The asbestos analysis was completed using a stop positive approach. Stop positive means samples in a homogenous material sample set were analyzed consecutively and when a sample was identified as asbestos-containing, further sample analysis within that sample set was not completed.

A homogenous material is defined by the US EPA as material that is uniform in texture and appearance, was installed at one time, and is unlikely to consist of more than one type or formulation of material. The homogenous materials are determined by visual examination and available information on the phases of construction and prior renovations.

Samples containing $\geq 0.5\%$ asbestos were identified as asbestos-containing materials. The labs measurement of uncertainty is 0.5%, the decision rule is to ignore the measurement of uncertainty if 0.5-1% of asbestos is detected. Vermiculite insulation was identified as being an asbestos-containing material if any trace of asbestos was found. The labs measurement of uncertainty is 0.5%, the decision rule is to ignore the measurement of uncertainty if any trace of asbestos is detected within vermiculite insulation.

LEAD PAINTED MATERIALS

During the walk-through inspection a visual review of the painted surfaces was conducted for paints and coatings. Apex personnel collected representative bulk samples from the building structure. The number of representative bulk samples collected was consistent with recognized industry standards and principles of good occupational hygiene practice.

Bulk samples were submitted for lead analyses in accordance with ASTM D3335-85A "Standard Method to Test for Low Concentrations of Lead in Paint by Atomic Absorption Spectrophotometry". Chain-of-custody protocol was observed during handling and transportation of the bulk samples.

Samples containing any detectable amounts of lead were identified as lead paints.

OTHER HAZARDOUS MATERIALS

Lead products, mercury-containing thermostats, mercury-containing fluorescent tube/lamps, potentially flammable materials and potentially explosive materials were confirmed or discounted by visual inspection only, no samples were collected.

If the building was constructed prior to 1980, all fluorescent light ballasts were assumed to potentially contain PCBs unless additional information was provided. All smoke detectors were assumed to contain small quantities of radioactive materials unless additional information was provided. If present, Drywall, asphalt roofing material, concrete, cement, ceramic tile, brick, masonry and mortar were assumed to contain crystalline silica.

The potential presence of ODS in refrigeration equipment and fire suppression systems was determined by visual inspection of manufactures labels and maintenance records only.

This survey included a visual inspection of surface materials for larger areas of suspect visible mould (>10 square feet) only. Samples were not collected to confirm the presence of mould growth nor was an intrusive inspection performed for mould growth.

Appendix 2 – Regulatory Framework

1. BC Occupational Health and Safety Regulation
2. Safe Work Practices for Handling Asbestos, WorkSafeBC, 2020
3. Hazardous Waste Regulation, BC Ministry of Environment and Climate Change Strategy
4. Ozone Depleting Substances and other Halocarbons Regulation, B.C. Reg. 220 / 2006, Environmental Management Act.
5. PCB Regulations, SOR / 2008-273, Canadian Environmental Protection Act.
6. Safe Work Practices for Handling Lead, WorkSafeBC, 2020
7. Transportation of Dangerous Goods Regulations SOR / 2008-34, Transportation of Dangerous Goods Act.

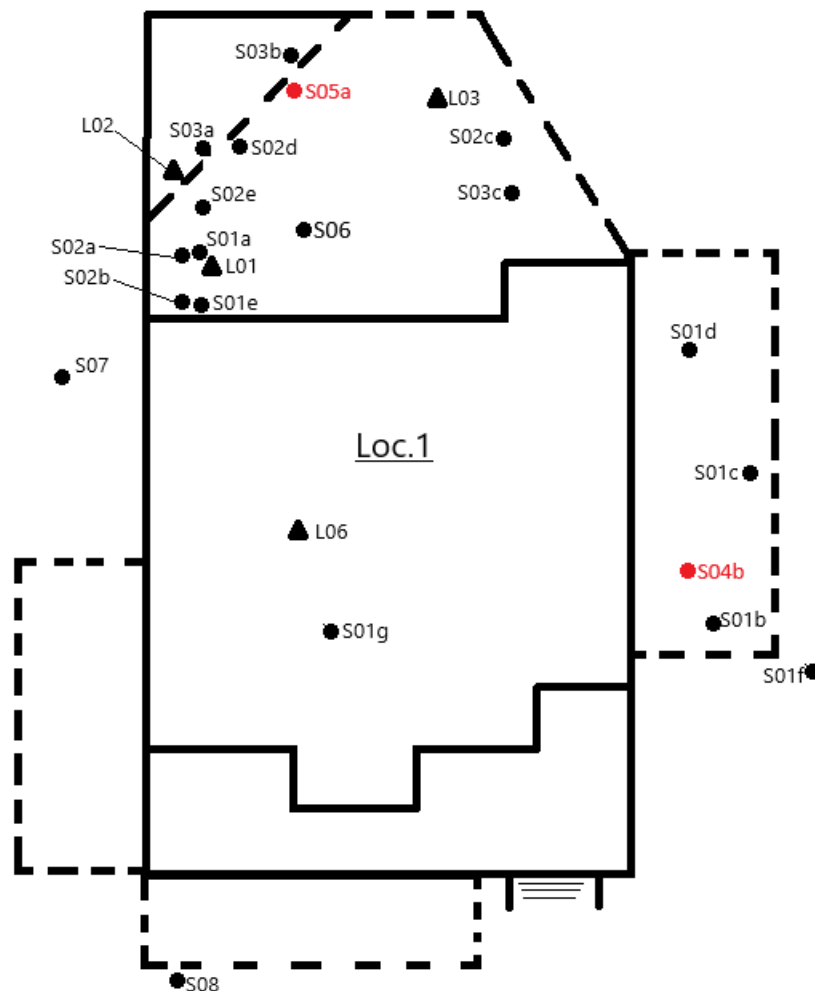
Appendix 3 – Drawing



Locations

1. Debris Pile
2. Shed

--- Approximate
Edge of Debris



LEGEND	PROJECT NAME: Pre-Demolition Hazardous Materials Survey Report	DATE: June 13, 2025
● Asbestos Sample Location - Positive Result ▲ Lead Sample Location	PROJECT ADDRESS: 505 Panorama Ridge, Quesnel, BC	PROJECT NO.: COQU25-001
	CLIENT: City of Quesnel	SCALE: NTS
		DRAWN BY: HT

NOTE: DRAWING IS COLOUR DEPENDENT. NON-COLOUR COPIES MAY ALTER INTERPRETATION.

Appendix 4 – Photographs



Asbestos was not identified within the drywall joint compound (S01) present as debris within the Debris Pile (Loc. 1).



Asbestos was not identified within the texture coat (S02) present as debris within the Debris Pile (Loc. 1).



Asbestos was not identified within the brick mortar (S03) applied to bricks and present as debris within the Debris Pile (Loc. 1).



Asbestos was identified within the grey window mastic (S04) applied to windows within the Debris Pile (Loc. 1).



Asbestos was identified within the black window mastic (S05) applied to windows within the Debris Pile (Loc. 1).



Asbestos was not identified within the blue and white pattern vinyl sheet flooring (S06) present as debris within the Debris Pile (Loc. 1).



Asbestos was not identified within the brown and black asphalt shingles (S07) present as debris within the Debris Pile (Loc. 1) and present on the roof of the Shed (Loc. 2).



Asbestos was not identified within the grey and black asphalt roof shingles (S08) present as debris within the Debris Pile (Loc. 1).



Lead was not identified within the off-white paint (L03) applied to wood panelling within the Shed (Loc. 2).

Lead was not identified within the white paint (L03) applied to wood trim within the Shed (Loc. 2).

Appendix 5 – Analytical Results

ASBESTOS ANALYSIS REPORT

Client:	City of Quesnel	Apex Report No.:	COQU25-001
Project Location:	505 Panorama Ridge, Quesnel, BC	Client Project No:	-
Samples Received:	24	Client Project Name:	-
Samples Analyzed:	21	Date Reported:	2025/06/13
		Date Analyzed:	2025/06/13

Notes:

Sample No.	Lab No.	Sample Description	Client Sample ID	Result
S01a	143432	Single - White Compound	Drywall Joint Compound / Location 1	Asbestos Fibres Not Detected 99.5-100% Non-Fibrous
S01b	143433	Single - White Compound	Drywall Joint Compound / Location 1	Asbestos Fibres Not Detected 99.5-100% Non-Fibrous
S01c	143434	Single - White Compound	Drywall Joint Compound / Location 1	Asbestos Fibres Not Detected 99.5-100% Non-Fibrous
S01d	143435	Single - White Compound	Drywall Joint Compound / Location 1	Asbestos Fibres Not Detected 99.5-100% Non-Fibrous
S01e	143436	Single - White Compound	Drywall Joint Compound / Location 1	Asbestos Fibres Not Detected 99.5-100% Non-Fibrous
S01f	143437	Single - White Compound	Drywall Joint Compound / Location 1	Asbestos Fibres Not Detected 99.5-100% Non-Fibrous
S01g	143438	Single - White Compound	Drywall Joint Compound / Location 1	Asbestos Fibres Not Detected 99.5-100% Non-Fibrous
S02a	143439	1st Layer - White Compound	Texture Coat / Location 1	Asbestos Fibres Not Detected 99.5-100% Non-Fibrous
S02a	143439	2nd Layer - White Compound	Texture Coat / Location 1	Asbestos Fibres Not Detected 99.5-100% Non-Fibrous
S02b	143440	1st Layer - White Compound	Texture Coat / Location 1	Asbestos Fibres Not Detected 99.5-100% Non-Fibrous
S02b	143440	2nd Layer - White Compound	Texture Coat / Location 1	Asbestos Fibres Not Detected 99.5-100% Non-Fibrous

Method: US EPA 600/R-93/116 by Polarized Light Microscopy

Apex EHS Services Inc.

1519 Keehn Road, Kelowna, BC, V1X 5T5

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Sample No.	Lab No.	Sample Description	Client Sample ID	Result
S02c	143441	Single - White Compound	Texture Coat / Location 1	Asbestos Fibres Not Detected 99.5-100% Non-Fibrous
S02d	143442	Single - White Compound	Texture Coat / Location 1	Asbestos Fibres Not Detected 99.5-100% Non-Fibrous
S02e	143443	Single - White Compound	Texture Coat / Location 1	Asbestos Fibres Not Detected 99.5-100% Non-Fibrous
S03a	143444	Single - Grey Compound, Granular	Brick Mortar / Location 1	Asbestos Fibres Not Detected 0.5-5% Mica 95-99.5% Non-Fibrous
S03b	143445	Single - Grey Compound, Granular	Brick Mortar / Location 1	Asbestos Fibres Not Detected 0.5-5% Mica 95-99.5% Non-Fibrous
S03c	143446	Single - Grey Compound, Granular	Brick Mortar / Location 1	Asbestos Fibres Not Detected 0.5-5% Mica 95-99.5% Non-Fibrous
S04a	143447	Single - Grey Mastic	Window Mastic (Grey) / Location 1	Asbestos Fibres Not Detected 99.5-100% Non-Fibrous
S04b	143448	1st Layer - Grey Mastic	Window Mastic (Grey) / Location 1	Asbestos Fibres Not Detected 99.5-100% Non-Fibrous
S04b	143448	2nd Layer - Black Mastic, Fibrous	Window Mastic (Grey) / Location 1	0.5-5% Chrysotile Asbestos 95-99.5% Non-Fibrous
S04c	143449	-	Window Mastic (Grey) / Location 1	Stop Positive - Sample Not Analyzed
S05a	143450	Single - Black Mastic, Fibrous	Window Mastic (Black) / Location 1	0.5-5% Chrysotile Asbestos 95-99.5% Non-Fibrous
S05b	143451	-	Window Mastic (Black) / Location 1	Stop Positive - Sample Not Analyzed
S05c	143452	-	Window Mastic (Black) / Location 1	Stop Positive - Sample Not Analyzed
S06	143453	1st Layer - Blue & White Vinyl	Vinyl Sheet Flooring (Blue & White) / Location 1	Asbestos Fibres Not Detected 99.5-100% Non-Fibrous
S06	143453	2nd Layer - White Foam	Vinyl Sheet Flooring (Blue & White) / Location 1	Asbestos Fibres Not Detected 99.5-100% Non-Fibrous

Method: US EPA 600/R-93/116 by Polarized Light Microscopy

Analyst: C. Gauthier Reviewer: M. Summers

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Apex EHS Services Inc.

1519 Keehn Road, Kelowna, BC, V1X 5T5

Phone:250-868-0667 Email:apex@apexehs.ca



Sample No.	Lab No.	Sample Description	Client Sample ID	Result
S06	143453	3rd Layer - Grey Compound, Fibrous	Vinyl Sheet Flooring (Blue & White) / Location 1	Asbestos Fibres Not Detected 60-70% Cellulose Fibres 0.5-5% Glass Fibres 25-39.5% Non-Fibrous
S07	143454	1st Layer - Black Compound, Brown & Black Granules	Asphalt Shingle (Brown & Black) / Location 1	Asbestos Fibres Not Detected 99.5-100% Non-Fibrous
S07	143454	2nd Layer - Black Compound, Fibrous	Asphalt Shingle (Brown & Black) / Location 1	Asbestos Fibres Not Detected 30-40% Glass Fibres 60-70% Non-Fibrous
S07	143454	3rd Layer - Black Compound	Asphalt Shingle (Brown & Black) / Location 1	Asbestos Fibres Not Detected 99.5-100% Non-Fibrous
S07	143454	4th Layer - Black Compound, Black, Grey, & Brown Granules	Asphalt Shingle (Brown & Black) / Location 1	Asbestos Fibres Not Detected 99.5-100% Non-Fibrous
S07	143454	5th Layer - Black Compound, Fibrous	Asphalt Shingle (Brown & Black) / Location 1	Asbestos Fibres Not Detected 30-40% Glass Fibres 60-70% Non-Fibrous
S07	143454	6th Layer - Black Compound	Asphalt Shingle (Brown & Black) / Location 1	Asbestos Fibres Not Detected 99.5-100% Non-Fibrous
S08	143455	1st Layer - Black Compound, Black, Grey, & Brown Granules	Asphalt Shingle (Grey & Black) / Location 1	Asbestos Fibres Not Detected 99.5-100% Non-Fibrous
S08	143455	2nd Layer - Black Compound, Fibrous	Asphalt Shingle (Grey & Black) / Location 1	Asbestos Fibres Not Detected 30-40% Glass Fibres 60-70% Non-Fibrous
S08	143455	3rd Layer - Black Compound	Asphalt Shingle (Grey & Black) / Location 1	Asbestos Fibres Not Detected 99.5-100% Non-Fibrous

Samples analyzed in accordance with US EPA 600/R-93/116 by Polarized Light Microscopy and Apex EHS Services SOP: ASB-1 American Industrial Hygiene Association (AIHA) BAPAT Program Laboratory Number 224210

Quantification of $\geq 0.5\%$ by volume is possible with this method.

Apex EHS Services will not accept any responsibility as to the manner of interpretation or application of these results.

Authorized by:

A handwritten signature in black ink, appearing to read "Amanda Copp".

Amanda Copp, M.Sc., EP.
Laboratory Manager



Method: US EPA 600/R-93/116 by Polarized Light Microscopy

Analyst: C. Gauthier Reviewer: M. Summers

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LEAD ANALYSIS REPORT

Client:	City of Quesnel	Apex Report No.:	COQU25-001
Project Location:	505 Panorama Ridge, Quesnel, BC	Client Project No:	-
Samples Received:	6	Client Project Name:	-
Samples Analyzed:	6	Date Reported:	2025/06/13

Sample No.	Lab No.	Client Sample ID	Weight (g)	Lead Concentration
L01	27119	Burnt on Drywall / Location 1	0.2482 g	<0.0085 % wt
L02	27120	Beige on Drywall / Location 1	0.2493 g	<0.0085 % wt
L03	27121	Off-White on Wood Trim / Location 1	0.2479 g	<0.0085 % wt
L04	27122	Off-White on Wood Paneling / Location 2	0.2496 g	<0.0085 % wt
L05	27123	White on Wood Trim / Location 2	0.2499 g	<0.0085 % wt
L06	27124	Off-White on Drywall / Location 1	0.2492 g	<0.0085 % wt

Samples analyzed in accordance with EPA Method 200.7/7000B and Apex EHS Services SOP of Lead Paint Analysis by FAAS.

American Industrial Hygiene Association (AIHA) ELPAT Program Laboratory Number 224210.

Reporting limit is 0.0085 % wt based on the minimum required sample weight per Apex SOP.

Apex EHS Services will not accept any responsibility as to the manner of interpretation of these results.

Authorized by:

A handwritten signature in black ink, appearing to read "Amanda Copp".

Amanda Copp, M.Sc., EP.
Laboratory Manager

Appendix 6 – Asbestos Health Effects & Risk Assessment Requirements

Health Hazards from Asbestos Exposure

Exposure to any type of asbestos increases the risk of cancer of the lung, larynx, and ovary, as well as mesothelioma (cancer of the lining around the outside of the lungs), and non-malignant lung and pleural disorders, including asbestosis, pleural plaques and pleural effusions.¹ There have also been positive associations between asbestos exposure and cancer of the pharynx, stomach, and colorectum.² Asbestos has been labelled a Group 1 carcinogen, a known human carcinogen, by the International Agency for Research on Cancer.²

Exposure occurs when asbestos fibres become airborne and workers inhale those fibres. Asbestos fibres are commonly small enough to be inhaled deep into the lungs. It is known that cutting, breaking, drilling, or abrading asbestos-containing materials can release asbestos fibres into the air.

When exposure to asbestos is combined with cigarette smoking, it presents a much greater risk of developing lung cancer.

WorkSafeBC Asbestos Risk Assessment Requirements

The Occupational Health and Safety Regulations (OHSR) contains legal requirements that must be met by all workplaces under the inspectional jurisdiction of WorkSafeBC. This includes most workplaces in B.C., except mines and federally chartered workplaces such as banks, interprovincial and international transportation, telephone systems, and radio, television, and cable services.

Section 6.6 of the OHSR under subsection (3), that before a work activity that involves working with or in proximity to asbestos-containing material begins, the employer must ensure that a qualified person assesses the work activity and classifies it as a low-risk work activity, a moderate risk work activity or a high-risk work activity.

The WorkSafeBC Occupational Health and Safety Guidelines section G6.6-1 outlines the risk assessment process. Section G6.8 of the Guidelines outlines ten common renovation and demolition scenarios for handling and removing asbestos-containing materials during demolition and renovation. These can be found on the WorkSafeBC website at:

<https://www.worksafebc.com/en/law-policy/occupational-health-safety/searchable-ohs-regulation/ohs-guidelines>

¹ Canadian Centre for Occupational Health and Safety. Asbestos: Health Effects. 2012. Available from: <http://www.ccohs.ca/oshanswers/chemicals/asbestos/effects.html>

² International Agency for Research on Cancer. Monograph 100C: Asbestos (Chrysotile, amosite, crocidolite, tremolite, actinolite, and anthophyllite). 2012. Available from: <http://monographs.iarc.fr/ENG/Monographs/vol100C/mono100C-11.pdf>

Appendix 7 – Terms of Reference

- This report has been prepared in accordance with generally accepted consulting practices and the level of care for hazardous materials and occupational health and safety consulting services. No other warranty, expressed or implied, is made.
- This report should be read in conjunction with all other communication between Apex EHS Services and the client with respect to the subject site.
- This report has been prepared in response to the specific objectives of the client as stated when Apex EHS Services was retained to carry out this project.
- This report has been prepared for the sole use of the client and no other party may rely on this report or any component of this report.
- This report remains the copyright of Apex EHS Services.
- Apex EHS Services accepts no responsibility for any damages to a third party resulting from the use of this report.
- This report is based on the conditions observed at the date of the assessment and is limited specifically to the areas defined in the report.
- Apex EHS Services has relied on any information provided by the client regarding the subject site and has assumed this information is accurate and truthful.
- This report in written or digital format must not be altered in any way by the client.