



## Request for Proposals

### 505 Panorama Ridge Demolition and Remediation.

Closing Date and Time: Wednesday June 25<sup>th</sup>, 2025, 2:30pm Local Time

Project Contact:

Kristy De Vuyst, Planner, Development Services  
410 Kinchant Street, Quesnel BC V2J 7J5  
[kdevuyst@quesnel.ca](mailto:kdevuyst@quesnel.ca)  
(p) 250 992-2111.

Date issued: Monday June 9<sup>th</sup>, 2025

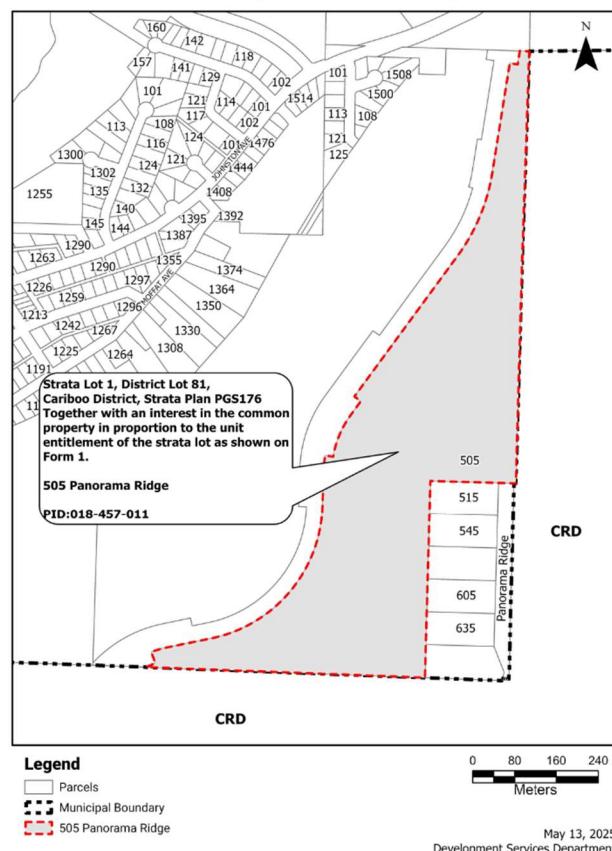
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## 1.0 Project Overview

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

**505 Panorama Ridge Location Map** CITY OF Quesnel



May 13, 2025  
Development Services Department

## 2.0 Project Goals and Objectives

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. As the dwelling was constructed in 1994, no asbestos abatement will be required. 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, its 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 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 PCV 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* will be held on Tuesday June 17, 2025, at 1:30pm

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 June 25<sup>th</sup> , 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](mailto: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](http://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](mailto: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 June 25<sup>th</sup>, 2025**, by:

Kristy De Vuyst, Planner, Development Services at [kdevuyst@quesnel.ca](mailto: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](mailto: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



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 m<sup>2</sup> and the detached garage has a footprint of 100 m<sup>2</sup>. 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 demolition 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.

### 2. COMPLETE REPORT

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.

IN ORDER TO PROPERLY UNDERSTAND THE SUGGESTIONS, RECOMMENDATIONS AND OPINIONS EXPRESSED HEREIN, REFERENCE MUST BE MADE TO THE WHOLE OF THE REPORT. THURBER IS NOT RESPONSIBLE FOR USE BY ANY PARTY OF PORTIONS OF THE REPORT WITHOUT REFERENCE TO THE WHOLE REPORT.

### 3. BASIS OF REPORT

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.

### 4. USE OF THE REPORT

The information and opinions expressed in the Report, or any document forming part of the Report, are for the sole benefit of the Client. NO OTHER PARTY MAY USE OR RELY UPON THE REPORT OR ANY PORTION THEREOF WITHOUT THURBER'S WRITTEN CONSENT AND SUCH USE SHALL BE ON SUCH TERMS AND CONDITIONS AS THURBER MAY EXPRESSLY APPROVE. Ownership in and copyright for the contents of the Report belong to Thurber. Any use which a third party makes of the Report, is the sole responsibility of such third party. Thurber accepts no responsibility whatsoever for damages suffered by any third party resulting from use of the Report without Thurber's express written permission.

### 5. INTERPRETATION OF THE REPORT

- a) Nature and Exactness of Soil and Contaminant Description: Classification and identification of soils, rocks, geological units, contaminant materials and quantities have been based on investigations performed in accordance with the standards set out in Paragraph 1. Classification and identification of these factors are judgmental in nature. Comprehensive sampling and testing programs implemented with the appropriate equipment by experienced personnel may fail to locate some conditions. All investigations utilizing the standards of Paragraph 1 will involve an inherent risk that some conditions will not be detected and all documents or records summarizing such investigations will be based on assumptions of what exists between the actual points sampled. Actual conditions may vary significantly between the points investigated and the Client and all other persons making use of such documents or records with our express written consent should be aware of this risk and the Report is delivered subject to the express condition that such risk is accepted by the Client and such other persons. Some conditions are subject to change over time and those making use of the Report should be aware of this possibility and understand that the Report only presents the conditions at the sampled points at the time of sampling. If special concerns exist, or the Client has special considerations or requirements, the Client should disclose them so that additional or special investigations may be undertaken which would not otherwise be within the scope of investigations made for the purposes of the Report.
- 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.
- c) Design Services: The Report may form part of design and construction documents for information purposes even though it may have been issued prior to final design being completed. Thurber should be retained to review final design, project plans and related documents prior to construction to confirm that they are consistent with the intent of the Report. Any differences that may exist between the Report's recommendations and the final design detailed in the contract documents should be reported to Thurber immediately so that Thurber can address potential conflicts.
- 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.

### 6. RELEASE OF POLLUTANTS OR HAZARDOUS SUBSTANCES

Geotechnical engineering and environmental consulting projects often have the potential to encounter pollutants or hazardous substances and the potential to cause the escape, release or dispersal of those substances. Thurber shall have no liability to the Client under any circumstances, for the escape, release or dispersal of pollutants or hazardous substances, unless such pollutants or hazardous substances have been specifically and accurately identified to Thurber by the Client prior to the commencement of Thurber's professional services.

### 7. INDEPENDENT JUDGEMENTS OF CLIENT

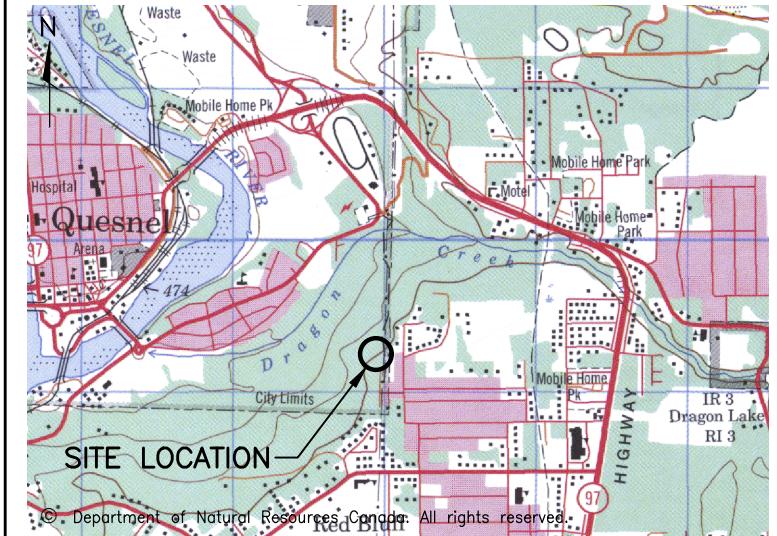
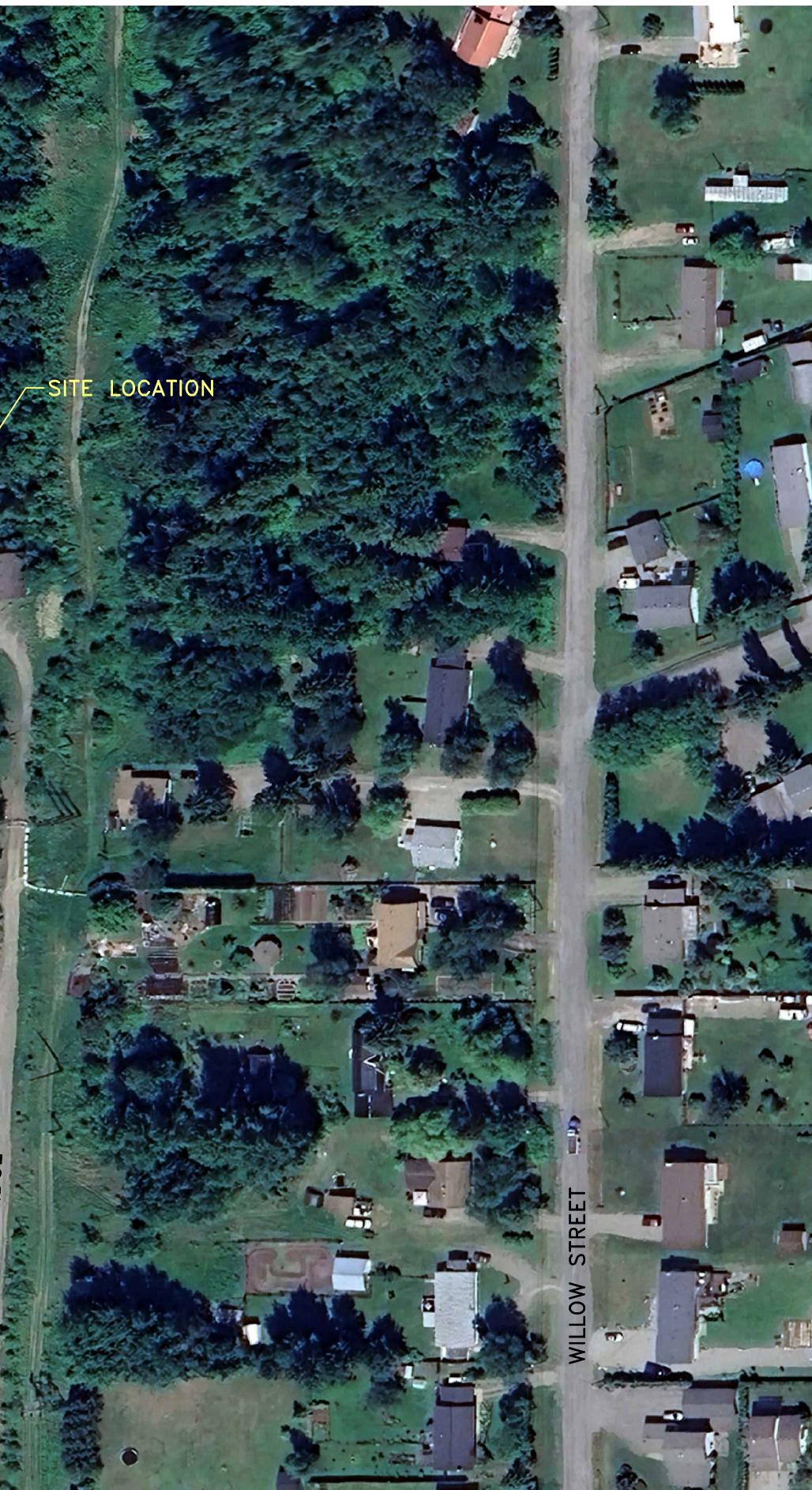
The information, interpretations and conclusions in the Report are based on Thurber's interpretation of conditions revealed through limited investigation conducted within a defined scope of services. Thurber does not accept responsibility for independent conclusions, interpretations, interpolations and/or 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.



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.



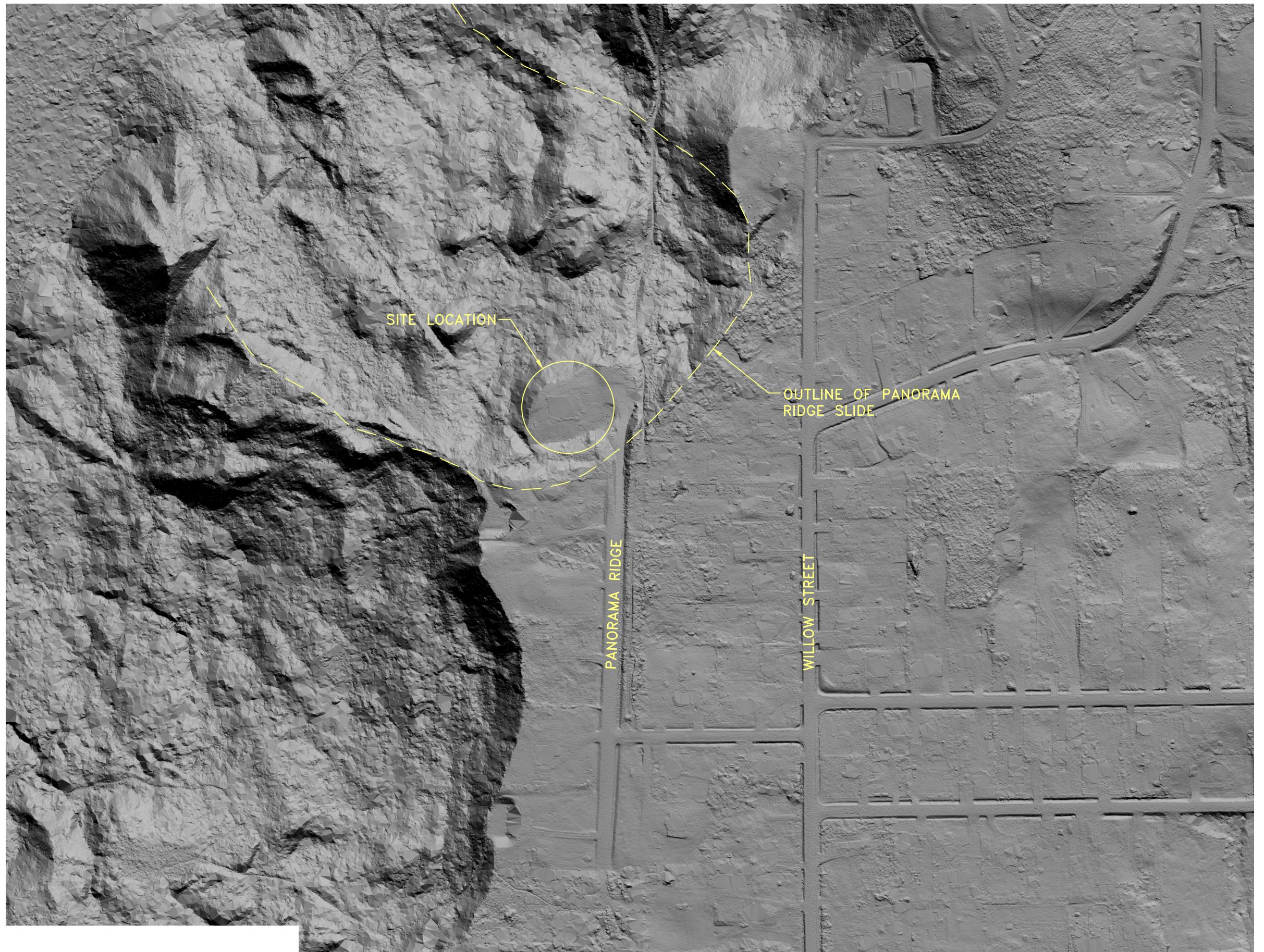
KEY MAP  
NTS Map - 93 B/16      Scale - 1:50,000

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

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

Scale - 1:1500  
0 10 20 30 40 50

**THURBER**



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  
0 20 40 60 80 100

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

CITY OF QUESNEL  
DEMOLITION AND REDICTION 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

