



## **Request for Bid**

# **Demolition and Remediation Services**

Residential Demolition Project for The Town of Drumheller

Tender issued September 2, 2022 Tender closing September 22, 2022 – 2:00:00 P.M.

Colliers Doc. # P0303-1475992023-8 (1.0)

### **Table of Contents**

1	INVITATION	
1.1	Optional Site Visits	
_		
2	PROJECT INFORMATION	
2.1	Overview	
2.2	Project Objective	
2.3	Description of the Residential Properties	
2.4	Anticipated Project Schedule	7
3	DEMOLITION AND REMEDIATION SCOPE OF SERVICES	
3.1	Demolition	
3.2	Certifications and Permits	
3.3	Utility Disconnects	
3.4	Re-use of Materials	
3.5	Salvage of Materials	
3.6	Extend of Underground Demolition	
3.7	Hazardous Materials	
3.8	Expected Condition of Site at Completion of Demolition and Remediation	
3.9	Responsibility for Temporary Facilities / Utilities	
3.10		
3.11		
3.12		
3.13	•	
		4.0
4	THE TOWN'S REQUIREMENTS	
4.1	Form of Contract	
4.2	Town's Right to Award the Contract in Whole or in Parts	
4.3	Town's Right to Cancel Project and/or Terminate the Demolition Contractor(s) Engagement	
4.4	Trade Agreements	
4.5	Insurance and Bonding Requirements	
4.6	Business License	
4.7	Prime Contractor	12
5	MANDATORY BID REQUIREMENTS	
6	INFORMATION TO BIDDERS	
6.1	Contacts for Bid Information, Questions, and Addenda	
6.2	Confidentiality	
6.3	Freedom of Information and Protection of Privacy Act (FOIPP)	
6.4	Disqualification	
6.5	Closing of Tender	
6.6	Amendment of Bids	
6.7	Withdrawal of Bids	
6.8	Bids Irrevocable after Submission Deadline	
7	EVALUATION OF BIDS	15

8	BID TERMS AND CONDITIONS	15
8.1	Defined Terms	15
8.2	Bidders to Follow Instructions	16
8.3	Information in Tender	16
8.4	Bidders Shall Bear Their Own Costs	16
8.5	Bidders to Review Tender	16
8.6	Communication after Tender Issuance – Contact for Tender Information and Questions	16
8.7	All New Information to Bidders by Way of Addenda	17
8.8	Post-Deadline Addenda and Extension of Submission Date	17
8.9	Verify, Clarify and Supplement	18
8.10	All Bids Retained by the Town of Drumheller	18
8.11	Timeline for Finalizing Agreement	18
8.12	Process Rules for Agreement Negotiations	18
8.13		
8.14	Notification to Other Bidders	19
8.15	No Contract until Execution of Written Agreement	19
8.16		
8.17	Confidential Information of the Town of Drumheller	19
8.18		
8.19	Reserved Rights, Limitation of Liability, and Governing Law	20
AP	PENDIX A - SIGNATURE FORM	22
AP	PENDIX B – BID FORM	23
AP	PENDIX C – PRICING FORM	25
AP	PENDIX D – INSPECTION AND APPRAISAL REPORTS FOR RESIDENTIAL PROPERTIES	26
AP	PENDIX E – HAZMAT REPORTS	27
AP	PENDIX F – SPECIFICATIONS	28

#### 1 INVITATION

The Town of Drumheller (the Town) seeks to obtain the services of qualified and licenced Alberta Demolition Contractor(s) to submit a Bid(s) to demolish and remediate all improvements on lands of the properties described below, through the Flood Resiliency Program.

Removal of hazardous materials (hazmat) will be required in all properties prior to the planned demolition of the structures, which must be performed by competent and experienced abatement subcontractor(s) engaged by the Demolition Contractor(s). The selected Demolition Contractor(s) will work with the Town's Flood Resiliency Program and Colliers Project Leaders, the assigned Project Manager for this Project.

The demolition and remediation services for each property will be evaluated for award on an individual basis. As such, the Town has the option to select one Demolition Contractor to perform the demolition of all properties as one package, or individual Demolition Contractors to demolish one or more properties, as deemed beneficial to the Town. Furthermore, the Bidders have the option to submit a bid for the demolition of all three properties.

#### 1.1 Optional Site Visits

Optional site visits for the residential properties will be accommodated. The optional site visit is available on September 12, 2022. Bidders interested in attending the optional site visit must **confirm in writing to Gisele Leao** (gisele.leao@colliersprojectleaders.com) by the end of September 7, 2022.

Please note the property located at 1000 Hunter Drive Nacmine is currently occupied (tenant vacating on October 1, 2022), therefore the site visit will only be for the properties at 105 4 St W Lehigh and 964 Hunter Drive Nacmine.

All contractors attending this site visit must attend with the following PPE - hard hat, steel toed boots, safety vest, eye protection, mask, gloves. The Town will not supply any safety equipment and bidders without all the safety requirements will not be allowed to attend the site walkthroughs. Each bidder is responsible for their own safety while walking each site location.

#### 2 **PROJECT INFORMATION**

#### 2.1 Overview

The Town, through its Flood Resiliency Program, has acquired three residential properties, including outbuildings, that are required to be demolished. All three properties contain hazardous materials that will be required to be removed prior to demolition. Disposal of all materials, furniture, equipment, etc. remaining in the properties is included in the contractor's scope of work (referred to as the Project).

#### 2.2 **Project Objective**

The Project objective is to demolish these properties, including foundations and all utilities to the property line, and return the sites back to adjacent grades. Further, all demolition tasks must be completed to meet all authorities having jurisdiction requirements.

#### 2.3 Description of the Residential Properties

The first property is at 105 4 St W Lehigh Drumheller and was constructed in 1948. It is approximately a 1,210 square feet single-story building with an undeveloped basement and a detached garage (approximately 575 sqft) and a septic tank. Refer to Appendix D for a copy of the Appraisal Report.



Figure 1 - 105 4 St W Lehigh

The second residential property is located at 964 Hunter Drive Nacmine and was constructed in the 1963. It is approximately a 1380 square feet two-story building with a basement with a garage (approximately 200 sqft). Refer to Appendix D for a copy of an inspection report completed for this property.



Figure 2 - 964 Hunter Drive Nacmine

The third residential property is located at 1000 Hunter Drive Nacmine and was constructed in 1976. It is approximately a 960 square feet two-story building with a basement and garage. Refer to Appendix D for a copy of an inspection report completed for this property.



Figure 3 - 1000 Hunter Drive Nacmine

#### 2.4 Anticipated Project Schedule

The milestone schedule for this Project is as follows:

Milestones	Completion Date
Tender Issue Date	September 2, 2022
Notification of Interest in attending site visit	September 7, 2022
Optional Site Visit	September 12, 2022
Deadline for Questions	September 14, 2022
Deadline for Issuing Addenda	September 16, 2022
Tender Closing Date	September 22, 2022
Notification to Successful Bidder(s)	October 3, 2022
Pre-Construction Kick-Off Meeting	October 5, 2022
Demolition and Remediation Timeline	October 10 to November 30, 2022

#### **3 DEMOLITION AND REMEDIATION SCOPE OF SERVICES**

Following is the scope of services for the Demolition Contractor.

#### 3.1 Demolition

The Demolition Contractor(s) will be responsible for the demolition, removal, and proper disposal of all structures, concrete foundations, and contents situated one meter inside the property line of the properties to be demolished. The Demolition Contractor(s) will be responsible for all costs of transport and proper disposal of all demolition debris, including all waste facility fees (inclusive of tipping fees), following the Environmental Protection Act and meeting the local jurisdiction requirements.

The Demolition Contractor(s) will be responsible to set up an account for direct payment with the local waste facility, Drumheller & District Regional Landfill (403-823 -1345).

All building materials must be removed from the site. Burial of material below grade is not allowed. The Demolition Contractor (s) will be responsible for providing copies of tickets for the material sent to landfill to verify the material that is excavated is not buried on site.

#### 3.2 Certifications and Permits

The Demolition Contractor(s) will be responsible for obtaining all certifications and permits necessary for the completion of the project from the appropriate regulatory agencies.

The only exception is the Demolition Permit required for each building being demolished, which will be obtained by the Town in advance.

#### 3.3 Utility Disconnects

All services at the three properties are currently live. The Demolition Contractor(s) will be responsible for coordinating and ensuring all utility disconnects prior to commencing any demolition work, following appropriate regulatory agencies' requirements.

#### 3.4 Re-use of Materials

No materials from the project are proposed for reuse by The Town of Drumheller.

#### 3.5 Salvage of Materials

Unless referenced otherwise in an addendum, the Demolition Contractor(s) shall take ownership of all scrap/salvage materials and be permitted to recycle and reuse the items as desired at the contractor's risk.

#### 3.6 Extend of Underground Demolition

The Demolition Contractor(s) will be responsible for the demolition of the foundation system. The foundation should be removed, and the opening filled with compacted clean fill on 6-inch lifts at 90% PROCTOR density. The Demolition Contractor (s) is responsible for carrying out compaction testing after each 6-inch lifts. Parkland Geo, on behalf of the Town, will undertake final compaction testing once backfilling is completed at the three properties.

Approved and suitable material shall be placed as backfill in all excavated areas and graded to the elevation necessary to provide positive surface drainage to all areas of the site. Prior to backfilling, the Demolition Contractor (s) is responsible for providing certificates showing the chemical analysis and classification of the material proposed to use as backfill. A geotechnical consultant provided by the Town will provide final approval of the backfill material.

#### 3.7 Hazardous Materials

The Demolition Contractor(s) will be responsible to abate and dispose of, in an approved manner meeting all local jurisdiction requirements, all the hazardous materials identified in the hazmat reports provided in Appendix E. Removal of hazardous materials will be required in all properties prior to the planned demolition of the structures, which must be performed by a competent and experienced abatement subcontractor(s) engaged by the Demolition Contractor(s).

#### 3.8 Expected Condition of Site at Completion of Demolition and Remediation

It is expected that the Demolition Contractor(s) will backfill all excavated areas with suitable material and grade the area to provide for positive surface drainage for the entire site (generally, 0.5% min. slope from the highest point of the adjacent curb or sidewalk). The Demolition Contractor(s) will be responsible for the installation of silt fencing at the edge of curbs or sidewalks to prevent sediment runoff. The Demolition Contractor(s) will

be responsible for repairs of damage to any adjacent structures, and any curbing, sidewalk, or asphalt damaged during the Project.

Upon completion of the demolitions, the ultimate site condition for each site should be as prescribed below:

• The property will need to be reclaimed to grass utilizing hydroseed c/w 150mm topsoil. The Demolition Contractor(s) will be responsible to maintain the grass until the second cutting, at which time the Town will take over the maintenance of the lot.

The Demolition Contractor(s) will be further responsible for removing all content from the septic tank at 105 4 St W, remove the septic tank's top, create openings at the bottom to allow for percolation and then backfill with gravel.

#### 3.9 Responsibility for Temporary Facilities / Utilities

The Demolition Contractor(s) will be responsible for all temporary facilities necessary to successfully complete the project – including, but not limited to, portable restrooms, site fencing, site office, power, water, etc.

#### 3.10 Site Security

The Demolition Contractor(s) shall be responsible for site security for the duration of the Project and coordination of construction activities with all subcontractors on site.

The Demolition Contractor(s) is (are) responsible for emergency response coordination and for responding to site issues during non-working hours. The Demolition Contractor(s), in consultation with the Town of Drumheller, shall establish a list of contacts for responses and communication. In the event of any emergencies, the Demolition Contractor(s) shall contact the Town of Drumheller and the Project Manager immediately.

#### 3.11 Special Requirements

Caution and care must be exercised to prevent damage to adjacent property, sidewalks, pedestrians, and streetscape and to ensure that existing businesses in the area can operate normally without significant disruption during demolition activities. All required street closures shall be approved by The Town of Drumheller. Any scheduling of same and coordination will be the responsibility of the Demolition Contractor(s).

#### 3.12 Specifications

In addition to the above scope of work, please refer to Additional Specifications in Appendix F, to be read in conjunction with and to be adhered to.

#### 3.13 Safety

This Project will comply with all codes, standards, regulations, and workers' safety rules that are administered by federal and provincial agencies (WCB,, OHS, etc.), and any other local regulations and standards (i.e., building codes) that may apply.

#### 4 THE TOWN'S REQUIREMENTS

#### 4.1 Form of Contract

The services contract(s) will consist of this Tender, future addenda (if any), the proposal(s) submitted as a response to this Tender by the Successful Bidder(s) including the WCB(s) and Certificate of Insurance(s), and the Town's purchase order.

Where work is added to the Demolition and Remediation scope of services by way of a change order, the contract price shall be increased by the net cost of that change in the scope plus the following mark-ups for all overheads and profits:

.1 Contractor's mark-up for work performed by the Contactor's own forces: 10% of the net cost.

.2 Contractor's mark-up for work performed by Subcontractors: 10% of the net cost.

.3 Subcontractor's mark-up for work performed by Subcontractor's own forces: 10% of the net cost.

Credits for reduced or deleted portions of the scope of services shall be the actual cost of the services, without addition or deletion of any amounts by the Contractor, for overhead and profit and be included in the actual cost of the net change.

#### 4.2 Town's Right to Award the Contract in Whole or in Parts

The demolition and remediation services for each property will be assessed separately. As such, the Town has the option to select one Demolition Contractor to perform the demolition of all properties as one big package, or individual Demolition Contractors to demolish one or more properties, as deemed beneficial to the Town.

# 4.3 Town's Right to Cancel Project and/or Terminate the Demolition Contractor(s) Engagement

The Town reserves the right to cancel the Project and/or terminate the Demolition Contractor(s) engagement should funding or any other factors, as determined by the Town, necessitate this outcome.

In the event of project suspension or termination of the Demolition Contractor(s) engagement, the Town's only obligation to the Demolition Contractor (s) shall be to pay the Demolition Contractor (s) for all works satisfactorily performed to the effective date of suspension or termination, including disbursements incurred to the date of suspension or

termination and reasonable out-of-pocket costs incurred by the Demolition Contractor (s) directly related to the termination of this Agreement and agreed to in writing by the Town.

#### 4.4 Trade Agreements

The Town adheres to the Canadian Trade Agreements with respect to sourcing, which include the Canadian Free Trade Agreement (CFTA), the New West Partnership Trade Agreement (NWPTA), the Comprehensive Economic, and Trade Agreement (CETA).

#### 4.5 Insurance and Bonding Requirements

The Demolition Contractor(s) shall provide evidence of Comprehensive General Liability insurance for an inclusive limit of not less than \$5,000,000 liability for any one occurrence or accident for all claims arising out of bodily injury, property damage, personal injury, and non-owned automobiles. The Contractor will list both Colliers Project Leaders and the Town of Drumheller as additionally insured.

The Demolition Contractor(s) shall provide evidence of Pollution Liability insurance for an inclusive limit of not less than \$5,000,000 liability per occurrence for bodily injury, death, and damage to property. The Contractor will list both Colliers Project Leaders and the Town of Drumheller as additionally insured.

The Demolition Contractor (s) shall provide evidence of Automobile Liability insurance for an inclusive limit of not less than \$2,000,000 liability per occurrence for bodily injury and/or property damage. The Contractor will list both Colliers Project Leaders and the Town of Drumheller as additionally insured.

The Demolition Contractor(s)' insurer will endorse to provide the Town with not less than 30 days' notice in writing in advance of any cancellation or change or amendment restricting coverage.

The Demolition Contractor(s) warrants that it will assume liability for all work undertaken by its contractor team (sub-contractors).

Within three (3) days of receipt of notification of acceptance of its offer of services, the Demolition Contractor(s) shall provide the Client with Certificates of Insurance evidencing that the required insurances are in full force and effect.

The Demolition Contractor(s) shall include in their bid the cost of bonds or certified cheques. Bonds or certified cheques shall be included for the following:

- Labour and Material Bond / Certified Cheque = 50% of the proposed cost
- Performance Bond / Certified Cheque = 50% of the proposed cost

#### 4.6 Business License

The Demolition Contractor(s) shall, prior to commencement of the service, obtain a Business License from the Town of Drumheller. The Demolition Contractor(s) shall include in their bid the cost to obtain such Business License.

#### 4.7 **Prime Contractor**

The Demolition Contractor(s) shall solely and fully accept, undertake, and assume the role of Prime Contractor and all the associated responsibilities, obligations, and liabilities imposed on the Prime Contractor under Alberta Occupational Health & Safety Act for all aspects of a project, including (but not limited to) overseeing and managing the health and safety of all parties arising from all aspects of an assigned project.

The Demolition Contractor(s) must acknowledge and agree that its role as Prime Contractor is irrevocable and unlimited, unless otherwise duly agreed upon by the Town in writing, notwithstanding any use of or reliance on the Town's or any other's construction and safety procedures, protocols, criteria, or standards as minimum requirements for completion of a project.

The Demolition Contractor (s) shall notify the Town of the project completion date 5 days in advance. Upon project completion, the Demolition Contractor (s) is responsible for attending a site meeting with Colliers Project Leaders and the Town to verify work has been completed in accordance with the scope and to discuss timeline of any corrective actions. Once the works are completed to the satisfaction of the Town, the Demolition Contractor (s) will relinquish their Prime Contractor role and is responsible for sending a letter to the Town stating they are no longer acting as Prime Contractor on the project and that the site is transferred back to the Town.

#### 5 MANDATORY BID REQUIREMENTS

The mandatory requirements of a compliant Bid to this Tender, are to address and or include the following:

- Submit a certificate of insurance naming Town of Drumheller and Colliers Project Leaders named as an additional insured with the bid.
- Appendix A Completed Signature Form
- Appendix B Completed Bid Form
- Appendix C Completed Pricing Form

Bidders must fill out the Bid Form in Appendix B for any or all the proposed demolition locations to indicate their total costs for completing the works detailed in this RFB.

Bidders must also complete the pricing form attached in Appendix C for any or all the proposed demolition locations to provide a detailed project cost breakdown. This is for information purposes only and will not be used for the evaluation of bids.

Prices quoted by the Demolition Contractor (s) are to be all-inclusive, including all labour and material costs, all insurance costs, as well as all other operational, administrative, and overhead costs required for the successful completion of this Project. All fees must be expressed in Canadian dollars and not include GST.

Bidders are to clearly state all assumptions made in calculating the project cost.

The successful bidder must commence the work as per dates listed in table in Section 2.4 (expected start October 10, 2022 and shall entirely complete this work on or before November 30, 2022).

Bidders are to provide hourly rates should the Town seek additional services not defined within this proposal.

#### 6 INFORMATION TO BIDDERS

#### 6.1 Contacts for Bid Information, Questions, and Addenda

Any questions or requests for information regarding this Tender must be directed through MERX (Q&A Function).

Alterations or amendments to any of the RFB will only be effective by written notice in the form of an Addendum from the Town published on MERX.com. Amendments to the RFB in the form of an Addendum issued by the Town are incorporated and become a part of this RFB.

The Town will not be responsible for information released outside of the authorized process. Under no circumstances are inquiries related to this Tender to be directed to the Town's Council or staff or any other entity or organization affiliated with the Town. Failure to abide by the authorized process may result in disgualification of that Bidder's Bid.

#### 6.2 Confidentiality

Information pertaining to the Town obtained by the bidder, its employees, and agents because of its participation in relation to the Tender, is confidential and must not be disclosed by the Bidder except as authorized in advance by the Town.

#### 6.3 Freedom of Information and Protection of Privacy Act (FOIPP)

Bidder's responses, including the bid, become the property of the Town and, as such, may, at a future date, be subject to the protection and disclosure provisions of the Freedom of Information and Protection of Privacy (FOIPP) Act. This Act allows any person the right to access records in custody or control of a public body subject to indicated and specific exemptions. The Freedom of Information and Protection of Privacy Act and

Regulation Chapter F-18.5 can be obtained through the Queens Printer website (http://qpsource.gov.ab.ca).

It is recommended that the Bidder identify those areas of their Bid Response that they consider proprietary to their business or confidential in accordance with FOIPP.

#### 6.4 Disqualification

A Bid may be disqualified and not receive further consideration if:

- The Bid has failed to meet or has not been submitted in accordance with instructions and the procedural requirements of this Tender;
- The Bidder fails to cooperate in any attempt by the Town to verify the information contained in their Bid submission;
- The Town in its sole discretion finds that a Bidder has made an attempt to contact a person (Town official, Council Member) with respect to this Bid other than those identified within the Tender, staff or affiliated partner;
- At any time during the Tender process, it is found and at the Town's sole and absolute determination, that the Bid contains incomplete, false, or misleading information or a conflict of interest exists; and
- The Bid meets any grounds for disqualification set out elsewhere in this Tender invitation.

#### 6.5 Closing of Tender

The Bid, signed by the Bidder's authorized representative, must be received through MERX.com not later than:

#### September 22, 2022 14:00 hours

Bidders may not submit new or revised Bids after the specified deadline date. The opening of the Bid responses will be closed to the public.

#### 6.6 Amendment of Bids

Bidders may amend or withdraw their Bid prior to the closing date and time through MERX Portal.

#### 6.7 Withdrawal of Bids

Bidders may withdraw their Bid prior to the closing date and time.

#### 6.8 Bids Irrevocable after Submission Deadline

Bids shall be irrevocable for a period of 45 calendar days following the closing date.

Note – all times specified in this Tender timetable are local times in Calgary, Alberta, Canada.

The Town may change the Tender timetable at its sole and absolute discretion at any time prior to the Bid Submission Deadline.

In the event a change is made to any of the above dates, the Tender Administrator will post any such change on the MERX Online Bidding System.

The Town may amend any timeline, including the Bid Submission Deadline, without liability, cost, or penalty, and within its sole discretion. In the event of any change in the Bid Submission Deadline, the Bidders may thereafter be subject to the extended timeline.

#### 7 EVALUATION OF BIDS

It is the intent of the Town to select the lowest compliant bid. The Town may or may not conduct discussions, request further information or clarifications, either in succession or concurrently, with selected Bidders on the content of their Bid(s) without becoming obligated to clarify or seek further information from any or all other Bidders.

#### 8 BID TERMS AND CONDITIONS

#### 8.1 Defined Terms

In this Tender, the following terms will have the meanings set out in form of agreement referenced in this Tender or as otherwise defined in this Tender or below, unless the context requires otherwise:

"**Agreement**" means the written contract to be entered into by the successful Bidder with the Town of Drumheller for the supply of Deliverables as described in this Tender.

**"Bidder**" means a person (including an individual, firm, corporation, or other legal entity) providing or submitting a Bid in response to this Tender.

"**Bid**" means a proposal or submission in response to this Tender, whether or not compliant

"**Deadline for Issuing Addenda**" means the deadline for issuing addenda date set out in Section 2.4.

"**Deadline for Questions**" means the deadline for questions date and time set out in Section 2.4.

"**Deliverables**" means the goods and/or services to be delivered under the Agreement, as more fully described in Section 3.

**"Tender**" means this Request for Bid described in Section 1, as modified, amended or supplemented from time to time, including any addenda issued in connection herewith.

"Tender Issue Date" means the date this Tender is issued as set out in Section 2.4.

"Submission Date" means the Closing of Tender, set out in Section 2.4.

#### 8.2 Bidders to Follow Instructions

Bidders should structure their Bids in accordance with the instructions in this Tender. Where information is requested in this Tender, any response made in a Bid should reference the applicable Section or subsection numbers of this Tender where that request was made.

#### 8.3 Information in Tender

The Town of Drumheller Personnel makes no representation, warranty, or guarantee as to the accuracy of the information contained in this Tender or issued by way of addenda. Any quantities shown or data provided are estimates based on historical data and information to the knowledge of the Town of Drumheller Personnel involved with this Tender. Such quantities or data are for the sole purpose of indicating to Bidders the general size and scope of the work or goods and services. The Bidder must verify all the necessary information to prepare a Bid in response to this Tender.

#### 8.4 Bidders Shall Bear Their Own Costs

Each Bidder shall bear all costs associated with or incurred in the preparation and presentation of its Bid, including, if applicable, costs incurred for interviews or demonstrations.

#### 8.5 Bidders to Review Tender

Bidders shall promptly examine all the documents comprising the Tender, and:

- a. shall report any errors, omissions, or ambiguities; and
- b. may direct questions or seek additional information in writing to the Tender Administrator. It is the responsibility of the Bidder to seek clarification from the Bid Manager on any matter it considers to be unclear. The Town of Drumheller shall not be responsible for any misunderstanding on the part of the Bidder concerning the Tender or its process.

# 8.6 Communication after Tender Issuance – Contact for Tender Information and Questions

- All questions or requests for information regarding this Tender must be through MERX Q&A Function.
- The Town of Drumheller is under no obligation to provide additional information and will not be responsible for any information provided by or obtained from any source other than through MERX.
- All questions submitted by Bidders will be categorized as questions that are of general application and that would apply to other Bidders ("General Questions"), unless the Bidder indicates that the question is commercially sensitive or

confidential and the Town of Drumheller accepts such categorization ("**Commercially Confidential Questions**").

- If the Town of Drumheller disagrees with the Bidder's categorization of a question as a Commercially Confidential Question, then the Town of Drumheller will give the Bidder an opportunity to either categorize the question as a General Question or to withdraw the question.
- If the Town of Drumheller determines, in its sole discretion, that a Bidder's categorized Commercially Confidential Question, even if it is withdrawn by the Bidder, is of general application or would provide a significant clarification of the Tender documents or the Tender process to Bidders, the Town of Drumheller may issue a clarification to Bidders that deals with the same subject matter as the withdrawn Commercially Confidential Question.
- If the Town of Drumheller agrees with the Bidder's categorization of a Commercially Confidential Question, then the Town of Drumheller will provide a response to that question to only the Bidder that submitted the Tender Question.
- The Town of Drumheller's response to questions will be provided to all prospective Bidders through MERX Online Bidding System unless it is a Commercially Confidential Question. The identity of the Bidder submitting the Tender Question Form will not be disclosed.
- Only a response to a Bidder question that has been incorporated into or issued as an addendum will modify or amend the Tender, otherwise, responses to Tender Questions will have no effect whatsoever on the Tender and must not be relied upon by any Bidders.

#### 8.7 All New Information to Bidders by Way of Addenda

This Tender may be amended only by an addendum in accordance with this Section. If the Town of Drumheller, for any reason, determines that it is necessary to provide additional information relating to this Tender, such information will be communicated to all Bidders by addendum and will be posted on the MERX Online Bidding System. Each addendum forms part of and is an integral part of this Tender. Any such addenda may contain important information, including significant changes to this Tender. Bidders are responsible for obtaining all such addenda issued by the Town of Drumheller. In the Submission and Signature Form (Appendix A), Bidders should confirm their receipt of all addenda by setting out the number of each addendum in the space provided.

#### 8.8 Post-Deadline Addenda and Extension of Submission Date

If any addendum is issued after the Deadline for Issuing Addenda, the Town of Drumheller may, in its sole discretion extend the Submission Date for a reasonable amount of time. Notice of any such extension will be posted by way of an addendum to this Tender on the MERX Online Bidding System.

#### 8.9 Verify, Clarify and Supplement

When evaluating Bids, the Town of Drumheller may request further information from a Bidder or third parties in order to verify, clarify, or supplement the information provided in the Bidder's Bid. Responses to such requests from any Bidder received by the Town of Drumheller shall, if accepted by the Town of Drumheller, form an integral part of that Bidder's Bid, and if successful in this Tender process, form part of any resulting Agreement.

#### 8.10 All Bids Retained by the Town of Drumheller

The Town of Drumheller will not return the Bid or any accompanying documentation submitted by a Bidder, nor is the Town of Drumheller obligated to do so when a Bid is withdrawn by a Bidder.

#### 8.11 Timeline for Finalizing Agreement

The Town of Drumheller intends to enter into the Agreement with the top ranked Bidder within 15 calendar days following the notice of selection to that Bidder. Any negotiations related to the Agreement are expected to be concluded within such 15-day period.

#### 8.12 Process Rules for Agreement Negotiations

Any Agreement negotiations will be subject to the process rules contained in this Terms and Conditions of the Tender Process and will not constitute a legally binding offer to enter into a contract on the part of the Town of Drumheller or the Bidder. Negotiations may include requests by the Town of Drumheller for supplementary information from the Bidder to verify, clarify or supplement the information provided as part of its Bid or to confirm the conclusions reached in the evaluation.

#### 8.13 Failure to Enter into Agreement / Post Submission Date Negotiations

The Town of Drumheller may, at any time before final contract award, negotiate the Agreement, including additional or modified terms to the Agreement, as follows:

- a. commence Agreement negotiations with the top-ranked Bidder;
- b. if negotiations with the top-ranked Bidder do not lead to financial and other terms acceptable to the Town of Drumheller within the 15-day period referred to in Section 8.11 or within such longer reasonable period of time solely determined by the Town of Drumheller, the Town of Drumheller will be entitled to reject that Bidder's Bid and seek to commence Agreement negotiations with the next ranking Bidder, and if agreement is reached with the next ranking Bidder. This process will continue until an Agreement is formalized, until there are no more Bidders remaining that are eligible for negotiations or until the Town of Drumheller elects to terminate the Tender process as contemplated in paragraph (c) below; and

c. at any time before final contract award, the Town of Drumheller will be entitled to reject all Bids and terminate the Tender process.

#### 8.14 Notification to Other Bidders

The Town of Drumheller will notify all Bidders by written notice and by notice posted on the MERX Online Bidding System of the outcome of the procurement process and the final award of contract.

#### 8.15 No Contract until Execution of Written Agreement

The procurement process under this Tender is intended to identify prospective Bidders for the purposes of entering into or negotiating a potential agreement. No legal relationship or obligation regarding the procurement of any Deliverables hereunder shall be created between any Bidder and the Town of Drumheller by this Tender process until the successful negotiation and execution of an Agreement for the acquisition of the Deliverables.

#### 8.16 Bidder Not to Communicate with Media

A Bidder may not at any time directly or indirectly communicate with the media in relation to this Tender or any contract awarded pursuant to this Tender without first obtaining the written permission of the Town of Drumheller.

#### 8.17 Confidential Information of the Town of Drumheller

As part of this Tender process, the Town of Drumheller may disclose information to the Bidder that is confidential or proprietary to the Town of Drumheller or its affiliates ("Confidential Information"). The Bidder shall not at any time reveal to any third party or use for the Bidder's own purposes, any Confidential Information, including information to which the Bidder may become privy or which the Bidder may produce or prepare in the course of this Tender process. The Bidder will use reasonable efforts to maintain the confidentiality of all Confidential Information and in any event will exercise at least the same standard of care that it uses to protect the Bidder's own confidential and proprietary information. The Bidder shall be entitled to disclose Confidential Information as required by law or by order of a court, tribunal or regulatory body having jurisdiction, provided that the Bidder shall take reasonable steps to maintain the confidentiality of the Confidential Information by such court, tribunal or regulatory body, shall promptly inform the Town of Drumheller, to the extent legally permitted, of any request for disclosure and shall cooperate with the Town of Drumheller if the Town of Drumheller chooses to challenge such a disclosure.

The Bidder's obligations under this Section shall: (a) be effective as of the earlier of (i) the date that any Confidential Information has come to the knowledge of the Bidder; and (ii) the Tender Issue Date; and (b) survive the conclusion of this Tender process.

#### 8.18 Indemnity

The Demolition Contractor(s) shall hold harmless and shall fully indemnify the Town of Drumheller and Colliers Project Leaders from and against all claims and demands which may be brought against or made upon the Town of Drumheller against all loss, liabilities, judgments, costs, damages or expenses which the Town of Drumheller may sustain, suffer or be put unto resulting from, arising from, or in any way incidental to the performance of this agreement by the Demolition Contractor(s) or any other persons engaged by the Demolition Contractor(s) in the performance of services pursuant to this agreement during the term of this agreement.

#### 8.19 Reserved Rights, Limitation of Liability, and Governing Law

The Town of Drumheller reserves the right to:

- make public the names of any or all Bidders;
- request written clarification or the submission of supplementary written information and incorporate the Bidder's response to that request for clarification or supplementary information into the Bid;
- assess a Bidder's Bid on the basis of:
  - a. financial analysis determining the actual cost of the Bid when considering factors set out in the evaluation criteria and transition costs arising from the replacement of existing goods, services, practices, methodologies and infrastructure (howsoever originally established);
  - b. the information provided by a Bidder pursuant to the Town of Drumheller exercising its clarification rights under this Tender process; and
  - c. other relevant information that arises during this Tender process until final award of contract that is covered by the evaluation criteria;
  - d. waive any minor discrepancies in a Bid;
  - e. verify with any Bidder or with a third party any information set out in a Bid;
  - f. disqualify any Bidder whose Bid contains misrepresentations or any other inaccurate or misleading information;
  - g. make changes, including substantial changes, to this Tender provided that those changes are issued by way of addenda in the manner set out in this Tender;
  - h. select any Bid that the Town of Drumheller deems to be most beneficial and advantageous to the Town of Drumheller or offers the overall best value and directly award to that Bidder irrespective of cost;

- i. cancel this Tender process at any stage (without liability), request resubmissions, and/or issue a new Tender for the same or similar Deliverables;
- j. accept any Bid in whole or in part;
- k. reject any or all Bids;
- I. depending upon the results and outcome of the Deliverables of this Tender as described herein, additional related work may come into existence whereupon the Town of Drumheller reserves the right to either utilize the services of the successful Bidder for this additional work, subject to the successful Bidder's performance, funding availability and successful negotiation of an agreement or return to the market with a new request for proposal when in the Town of Drumheller's best interest; or
- m. award to multiple Bidders;
- n. and these reserved rights are in addition to any other express rights or any other rights that may be implied in the circumstances.
- Concerning limited liability, by submitting a Bid, each Bidder agrees that:
  - a. neither the Town of Drumheller nor any Town of Drumheller Personnel will be liable, under any circumstances, for any claim arising out of this Tender process including but not limited to costs of preparation of the Bid, loss of profits, loss of opportunity or for any other claim; and
  - b. the Bidder waives any claim for any compensation of any kind whatsoever, including claims for cost of preparation of the Bid, loss of profit or loss of opportunity by reason of the Town of Drumheller's decision to not accept the Bid submitted by the Bidder, to award a contract to any other Bidder or to cancel this Tender process, and the Bidder shall be deemed to have agreed to waive such right or claim.
- The Governing Law and Interpretation shall be the terms and conditions in this section (Terms and Conditions of the Tender Process).

## **APPENDIX A - SIGNATURE FORM**

The following signature form must be included as part of your Bid. Failure to include the signature form with the response may result in the disqualification of the response.

The undersigned company represents and warrants that it is authorized to carry on business of this nature and that it is not disabled from performing the contract if awarded by any law of Canada or of the province of Alberta. The undersigned also acknowledges receipt, understanding, and has taken into consideration all the information presented in the Request for Bid. The undersigned further confirms and agrees that the person whose name is set out below is fully authorized to represent the company and to bind it to this response and contracts awarded pursuant to it and in all matters relating to or arising out of the subject matter of this response.

LEGAL CORPORATE NAME	DATE
MAILING ADDRESS	NAME AND TITLE (PLEASE TYPE)
CITY, PROVINCE, AND POSTAL CODE	E-MAIL ADDRESS
PHONE NUMBER	AUTHORIZED SIGNATURE

## ACKNOWLEDGEMENT OF ADDENDA RECEIVED (If Applicable)

We hereby acknowledge receipt of addenda and have modified our Tender accordingly.

INDICATE THE # OF ADDENDA RECEIVED (E.G. ADDENDA # 1,2,3)

COMPANY NAME

SIGNATURE, NAME AND TITLE OF AUTHORIZED COMPANY OFFICIAL

### APPENDIX B – BID FORM

The Bid is based upon all requirements set out in this Tender and will remain open for 45 days after this Tender closes. All amounts to be quoted in Canadian Funds (\$) and exclude GST.

Bidders must fill out the Bid Form for any or all the proposed demolition locations shown below to indicate the total costs to undertake the works detailed in this RFB.

Bidders are to clearly state all assumptions made in calculating the project costs for any or all the proposed demolition locations in the space provided below.

#### 1. 105 4 STREET W LEHIGH RESIDENTIAL PROPERTY BID:

For the Demolition and Remediation as described in this Tender for the **105 4 Street W** Lehigh Residential Property, the bid shall be

\_\_\_\_\_(\$\_\_\_\_\_), exclusive of GST.

Assumptions:

#### 2. 964 HUNTER DRIVE NACMINE RESIDENTIAL PROPERTY BID:

For the Demolition and Remediation as described in this Tender for the **964 Hunter Drive Nacmine Residential Property**, the bid shall be

exclusive of GST.

\_(\$\_\_\_\_),

Assumptions:

#### 3. 1000 HUNTER DRIVE NACMINE RESIDENTIAL PROPERTY BID:

For the Demolition and Remediation as described in this Tender for the **1000 Hunter Drive Nacmine Residential Property**, the bid shall be

\_(\$\_\_\_\_),

exclusive of GST.

Assumptions:

## **APPENDIX C – PRICING FORM**

Detailed Project Cost Breakdown	Cost (\$)
Task Description	
105 4 St W Lehigh	
105 4 St W Lehigh Utilities disconnects	
Mobilization	
Hazard Abatement	
Demolition	
Backfill and regrade	
Removal of material off site	
Sub-total Fees:	
964 Hunter Drive	
Utilities disconnects	
Mobilization	
Hazard Abatement	
Demolition	
Backfill and regrade	
Removal of material off site	
Sub-total Fees:	
1000 Hunter Drive	
Utilities disconnects	
Mobilization	
Hazard Abatement	
Demolition	
Backfill and regrade	
Removal of material off site	
Sub-total Fees:	
Project Total Fees	

### APPENDIX D – INSPECTION AND APPRAISAL REPORTS FOR RESIDENTIAL PROPERTIES

Attached



# **Inspection Report**

## Town of Drumheller attn: Mark Steffler

**Property Address:** 964 Hunter Drive - Nacmine Drumheller Alberta T0J 0Y0



964 Hunter Drive - Nacmine

**Bocc Home Inspections Ltd.** 

Adam Boccinfuso License# 342384 Creekside Postal Stn PO Box70036

#### Airdrie AB T4B 0V9 (403)585-6279 www.BoccInspections.com

## **Table of Contents**

Cover Page	1
Table of Contents	3
Intro Page	4
1 Roofing	5
2 Attic	10
<u>3 Exterior</u>	21
5 Interiors	25
7 Basement	53
9 Bathroom and Components	82
17 Out Building	85
General Summary	
Invoice	
Agreement	

Date: 16/12/2021	Time: 11:00 AM	<b>Report ID:</b> 964 Hunter Drive - Nacmine
<b>Property:</b> 964 Hunter Drive - Nacmine Drumheller Alberta T0J 0Y0	<b>Customer:</b> Town of Drumheller attn: Mark Steffler	Real Estate Professional:

#### **Comment Key or Definitions**

The following definitions of comment descriptions represent this inspection report. All comments by the inspector should be considered before purchasing this home. Any recommendations by the inspector to repair or replace suggests a second opinion or further inspection by a qualified contractor. All costs associated with further inspection fees and repair or replacement of item, component or unit should be considered before you purchase the property.

**Inspected (IN)** = I visually observed the item, component or unit and if no other comments were made then it appeared to be functioning as intended allowing for normal wear and tear.

**Not Inspected (NI)**= I did not inspect this item, component or unit and made no representations of whether or not it was functioning as intended and will state a reason for not inspecting.

**Not Present (NP)** = This item, component or unit is not in this home or building.

**<u>Repair or Replace (RR)</u>** = The item, component or unit is not functioning as intended, or needs further inspection by a qualified contractor. Items, components or units that can be repaired to satisfactory condition may not need replacement.

Type of building:	Temperature:	Weather:
Bungalow	-15 (C)	Sunny, Cloudy
-		
Ground/Soil surface condition:	Rain in last 3 days:	Radon Test:
Frozen	No	No

Water Test: No

# 1. Roofing

The home inspector shall observe: Roof covering; Roof drainage systems; Flashings; Skylights, chimneys, and roof penetrations; and Signs of leaks or abnormal condensation on building components. The home inspector shall: Describe the type of roof covering materials; and Report the methods used to observe the roofing. The home inspector is not required to: Walk on the roofing; or Observe attached accessories including but not limited to solar systems, antennae, and lightning arrestors. **We do not give an estimation of life span**.

CONDOMINUMS: The roof is the responsibility of the Condominium Owners Association and is subject to the Association By-Laws, rules and assessments. We recommend obtaining and reviewing the By-Laws, financial statements, the most recent reserve study and minutes of the meetings of the Association, prior to close.

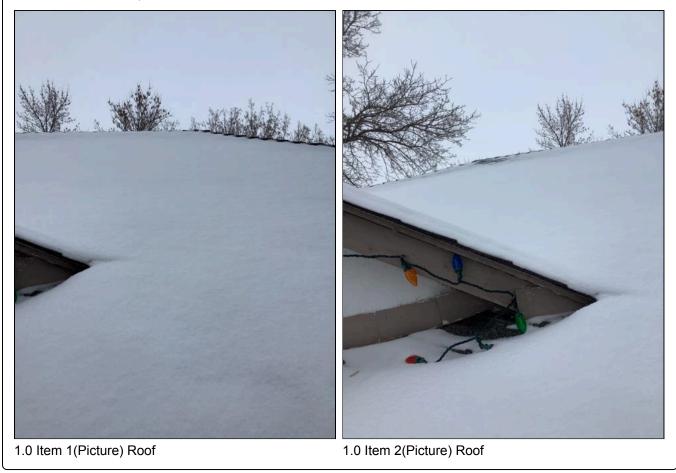
Styles & Materials		
Roof Covering:	Viewed roof covering from:	Sky Light(s):
Asphalt/Fiberglass	Ground	None
	Ladder	
	Binoculars	
Chimney (exterior):	Roof Structure:	
Metal Flue Pipe	2 X 4 Rafters	
	ltems	

#### 1.0 Roof Coverings

Comments: Inspected

#### **ROOF COVERINGS**

Roof was limited to a visual inspection with the use of binoculars and from a ladders edge as it was covered in snow, no issues to report from what was seen.







1.0 Item 10(Picture) Roof



#### 1.1 Flashings

Comments: Inspected

#### **ROOF FLASHINGS**

Flashing is fitted correctly and in serviceable condition where visible.

#### 1.2 Skylights

Comments: Not Present

#### 1.4 Roof Penetrations

Comments: Inspected

#### 1.5 Roof Drainage Systems

Comments: Inspected

#### ROOF DRAINAGE SYSTEMS

The gutters appear intact but due to the lack of recent rain, I am unable to determine if gutters leak at seams or spills water.

The roof of the home was inspected and reported on with the above information. While the inspector makes every effort to find all areas of concern, some areas can go unnoticed. Roof coverings and skylights can appear to be leak proof during inspection and weather conditions. Our inspection makes an attempt to find a leak but sometimes cannot. Please be aware that the inspector has your best interest in mind. Any repair items mentioned in this report should be considered before purchase. It is recommended that qualified contractors be used in your further inspection or repair issues as it relates to the comments in this inspection report. **We do not give an estimation of life span**.

# 2. Attic

The home inspector shall observe: Insulation and vapor retarders in unfinished spaces; Ventilation of attics; the operation of any readily accessible thermostatic control and the operation of any readily accessible attic ventilation fan. The home inspector is not required to report on: Concealed insulation and vapor retarders; or Venting equipment that is integral with household appliances. Entering attics that are insulated can be dangerous. Attics with insulation cannot be safely inspected due to limited visibility of the framing members, upon which the inspector must walk. In such cases, the attic is only partially accessed, thereby limiting the review of the attic area from the hatch area only. Inspectors will not crawl/walk the attic area when they believe it is a danger to them or that they might damage the attic insulation or cause damage. Comments made on the attic are reflected on recent weather conditions, during long periods of dry spells leak are not visible, so are excluded from the responsibility of the home inspection. We can only comment on the conditions at the time of the home inspection.

	Styles & Materi	
Attic Insulation:	Ventilation:	Method Used to Observe Attic:
Batt	Soffit Vents	Ladders Edge
Vermiculite	Roof Vents	
Attic Info:		
Attic Hatch		
No Storage		
	Items	

**Comments:** Inspected

#### ATTIC

The attic space was visually inspected with use of flashlight and thermal scanner from the ladders edge, it all appeared dry on the day of inspection.

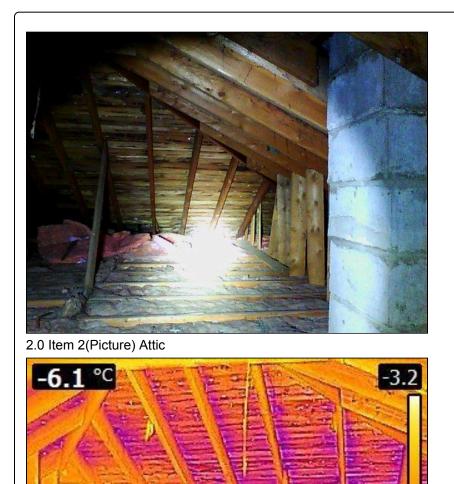
#### Maintenance Tips:

1. Recommend installation of fresh weather stripping annually at attic hatch to reduce build up of warm moist air.

2. Attic should be reviewed at least twice per year to ensure ventilation openings are clear and to ensure development of mold is kept in check. While there may be very little or no evidence of mold build-up in the attic at time of inspection, it can reproduce and spread rapidly should conditions allow it to. Mold can be potentially hazardous and will spread when moisture enters the attic cavity and is not vented to the exterior. Any area of suspected mold should be reviewed by a qualified contractor for analysis and removal.

3. Recommend monitoring performance of roof through regular attic review - water intrusion can occur at any time after the inspection, future performance unknown. It is common to see staining around attic hatch entrance and the hatch itself. This happens when heat escapes into attic hatch in winter, hot air hits the cold air and it turns to condensation. This can be helped by replacing weatherstripping. Sometimes the sheathing can also be affected and in extreme cases mold can start to form.

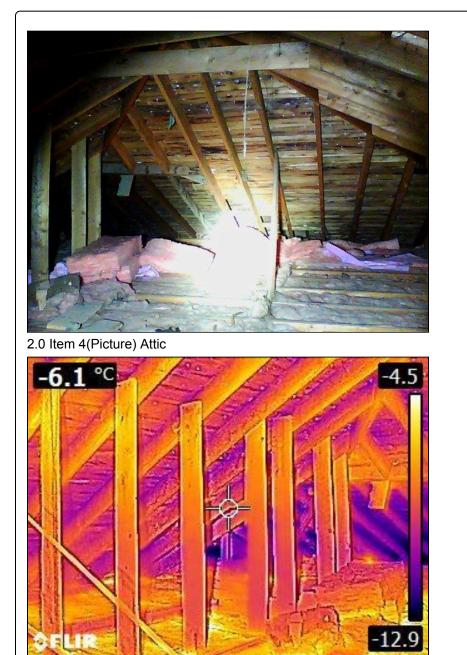




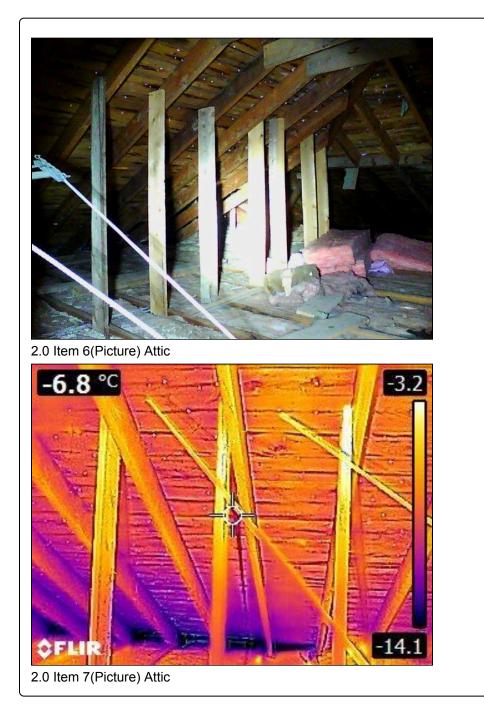
1

-13.1

2.0 Item 3(Picture) Attic

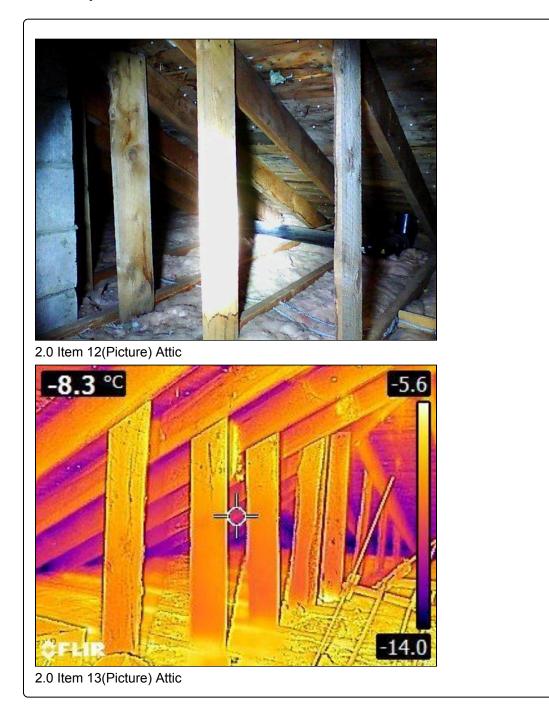


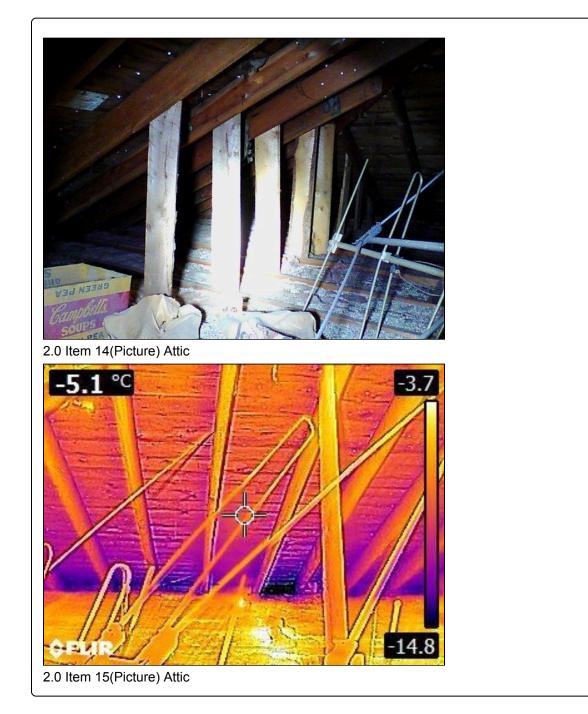
2.0 Item 5(Picture) Attic













#### 2.1 Attic Hatch

Comments: Inspected

# 2.2 Vapor Barrier

Comments: Inspected

## 2.3 Roof Structure

Comments: Inspected

## 2.4 Insulation

Comments: Inspected

## INSULATION

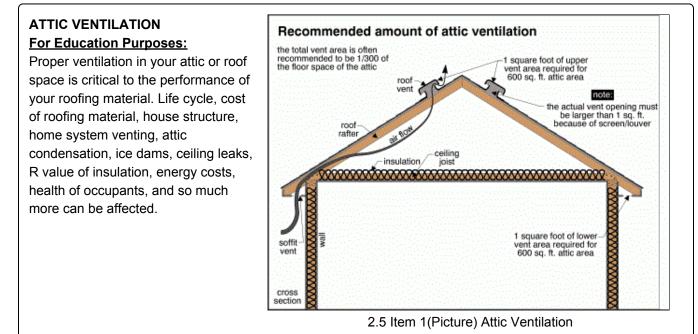
Good amount of insulation in the attic during the inspection but vermiculite was found in the attic space, samples can be taken to the lab for further analysis to confirm if it contains asbestos or not.



2.4 Item 1(Picture) Attic Insulation - vermiculite

#### 2.5 Ventilation

Comments: Inspected



The attic structure, insulation and ventilation was inspected and reported on with the above information. While the inspector makes every effort to find all areas of concern, some areas can go unnoticed. Only visible areas can be inspected. Please be aware that the inspector has your best interest in mind. Any repair items mentioned in this report should be considered before purchase. It is recommended that qualified contractors be used in your further inspection or repair issues as it relates to the comments in this inspection report.

# 3. Exterior





The home inspector shall observe: Wall cladding, flashings, and trim; Entryway doors and a representative number of windows; Garage door operators; Decks, balconies, stoops, steps, areaways, porches and applicable railings; Eaves, soffits, and fascias; and Vegetation, grading, drainage, driveways, patios, walkways, and retaining walls with respect to their effect on the condition of the building. The home inspector shall: Describe wall cladding materials; Operate all entryway doors and a representative number of windows; Operate garage doors manually or by using permanently installed controls for any garage door operator; Report whether or not any garage door operator will automatically reverse or stop when meeting reasonable resistance during closing; and Probe exterior wood components where deterioration is suspected. The home inspector is not required to observe: Storm windows, storm doors, screening, shutters, awnings, and similar seasonal accessories; Fences; Presence of safety glazing in doors and windows; Garage door operator remote control transmitters; Geological conditions; Soil conditions; Recreational facilities (including spas, saunas, steam baths, swimming pools, tennis courts, playground equipment, and other exercise, entertainment, or athletic facilities); Detached buildings or structures; or Presence or condition of buried fuel storage tanks. The home inspector is not required to: Move personal items, panels, furniture, equipment, plant life, soil, snow, ice or debris that obstructs access or visibility.

#### Styles & Materials

Siding Material:	Exterior Entry Doors:
Metal	Steel
	Items

#### 3.0 Exterior Foundation

Comments: Inspected

#### 3.1 Wall Cladding Flashing and Trim

**Comments:** Inspected, Repair or Replace

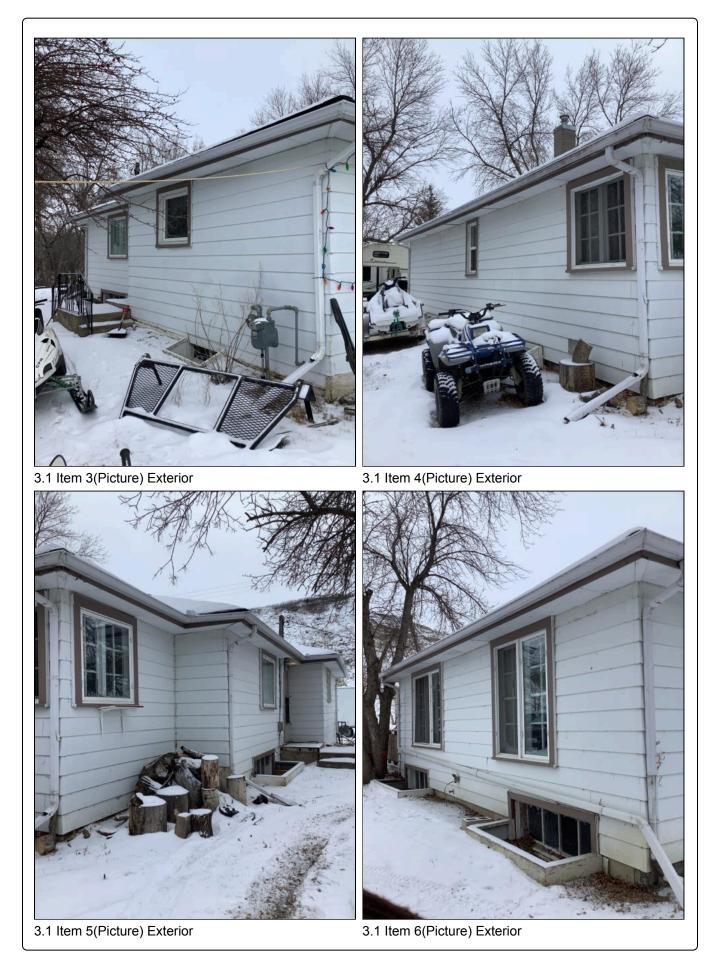
#### WALL CLADDING FLASHING AND TRIM

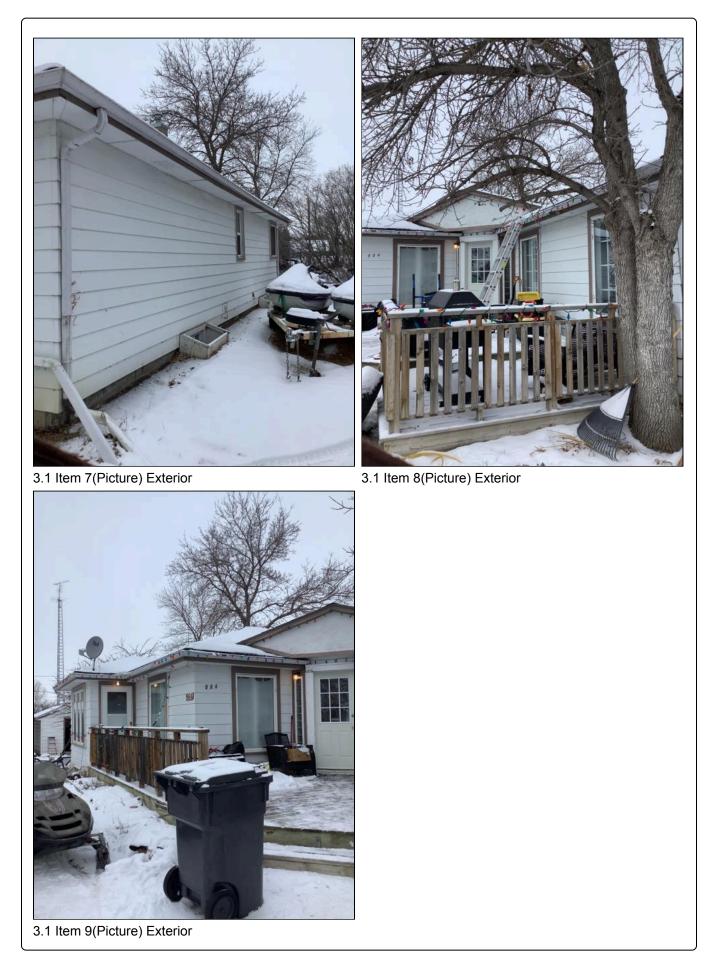
Higher levels of wall clad around the home are only visually inspected from the ground level. There was an area on the back of the house that has signs of moisture damage, recommend further review and repair as required.



3.1 Item 1(Picture) Exterior - signs of moisture damage

3.1 Item 2(Picture) Exterior





# 3.2 Doors (Exterior)

Comments: Inspected

# 3.3 Exterior Parging

Comments: Inspected

# 3.4 Windows/Frame

## Comments: Inspected

The exterior of the home was inspected and reported on with the above information. While the inspector makes every effort to find all areas of concern, some areas can go unnoticed. Please be aware that the inspector has your best interest in mind. Any repair items mentioned in this report should be considered before purchase. It is recommended that qualified contractors be used in your further inspection or repair issues as it relates to the comments in this inspection report.

# 5. Interiors

The home inspector shall observe: Walls, ceiling, and floors; Steps, stairways, balconies, and railings; Counters and a representative number of installed cabinets; and A representative number of doors and windows. The home inspector shall: Operate a representative number of windows and interior doors; and Report signs of abnormal or harmful water penetration into the building or signs of abnormal or harmful condensation on building components. The home inspector is not required to observe: Paint, wallpaper, and other finish treatments on the interior walls, ceilings, and floors; Carpeting; or Draperies, blinds, or other window treatments.

Styles & Materials			
Ceiling Materials:	Wall Material:	Floor Covering(s):	
Gypsum Board	Gypsum Board	Carpet	
		Linoleum	
Interior Doors:	Window Types:	Floor Structure:	
Hollow core	Sliders	Wood Joists	
	ltems		

## 5.0 Ceilings

Comments: Inspected

## CEILINGS

There were areas on the ceiling where there was signs of moisture damage, patching and stressed seams from shifting. Some of these are probably caused by the crooked, slanted joists and beams in the basement.



5.0 Item 1(Picture) Ceiling - signs of moisture damage, patching, stressed seams

5.0 Item 2(Picture) Ceiling - signs of moisture damage, patching, stressed seams



5.0 Item 3(Picture) Ceiling - signs of moisture damage, patching, stressed seams

5.0 Item 4(Picture) Ceiling - signs of moisture damage, patching, stressed seams



5.0 Item 5(Picture) Ceiling - signs of moisture damage, patching, stressed seams

5.0 Item 6(Picture) Ceiling - signs of moisture damage, patching, stressed seams



5.0 Item 7(Picture) Ceiling - signs of moisture damage, patching, stressed seams

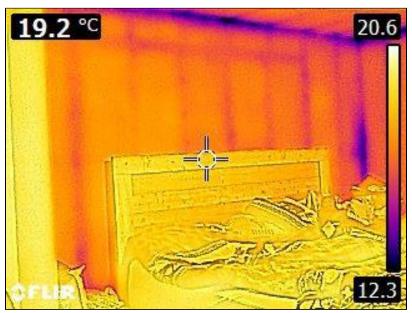
5.0 Item 8(Picture) Ceiling - signs of moisture damage, patching, stressed seams

#### 5.1 Walls

Comments: Inspected

## WALLS

All walls were in good condition and dry at the time of inspection. (Cosmetic issues are not part of the inspection.)



5.1 Item 1(Picture) Interior Walls



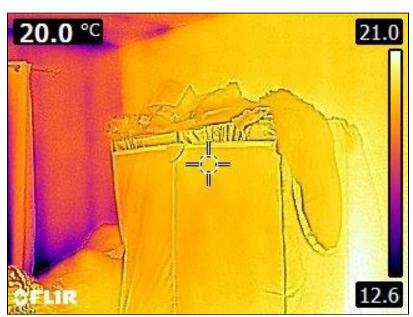
5.1 Item 2(Picture) Interior Walls



5.1 Item 3(Picture) Interior Walls



5.1 Item 4(Picture) Interior Walls



5.1 Item 5(Picture) Interior Walls

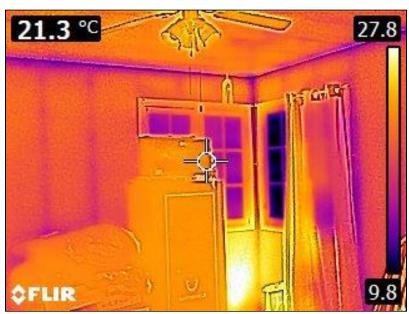


5.1 Item 6(Picture) Interior Walls

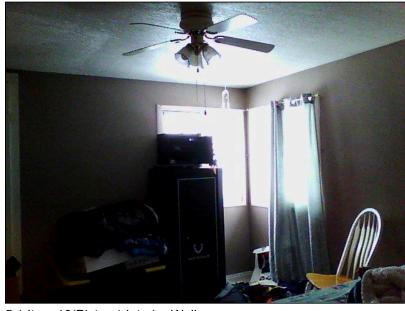


5.1 Item 7(Picture) Interior Walls

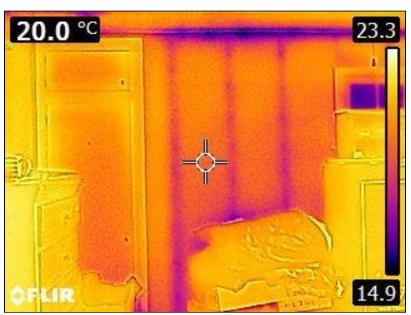




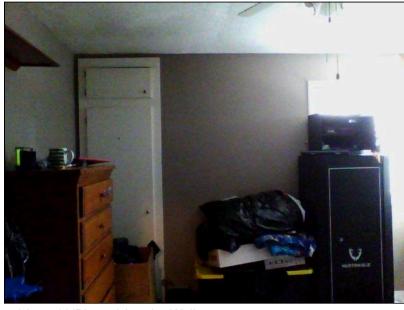
5.1 Item 9(Picture) Interior Walls



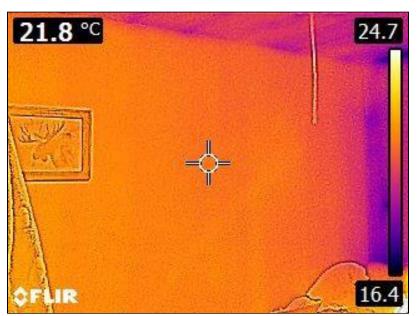
5.1 Item 10(Picture) Interior Walls



5.1 Item 11(Picture) Interior Walls



5.1 Item 12(Picture) Interior Walls



5.1 Item 13(Picture) Interior Walls



5.1 Item 14(Picture) Interior Walls

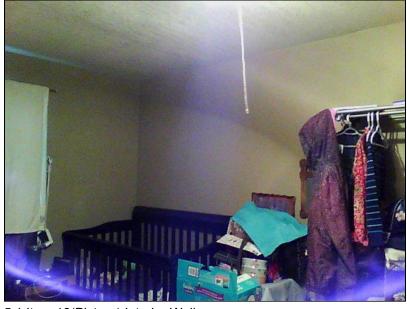


5.1 Item 15(Picture) Interior Walls





5.1 Item 17(Picture) Interior Walls



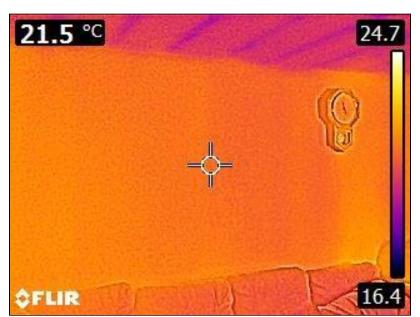
5.1 Item 18(Picture) Interior Walls



5.1 Item 19(Picture) Interior Walls



5.1 Item 20(Picture) Interior Walls



5.1 Item 21(Picture) Interior Walls

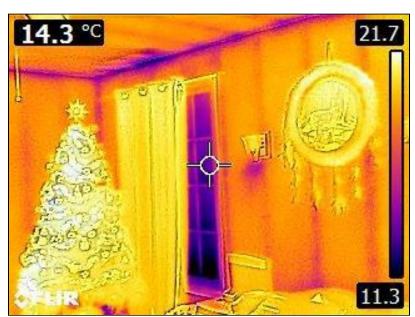




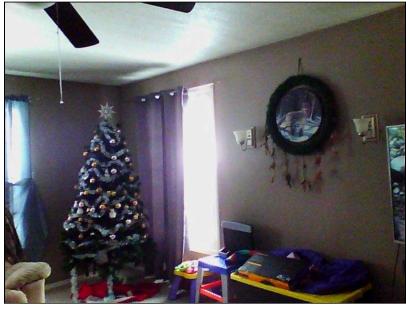
5.1 Item 23(Picture) Interior Walls



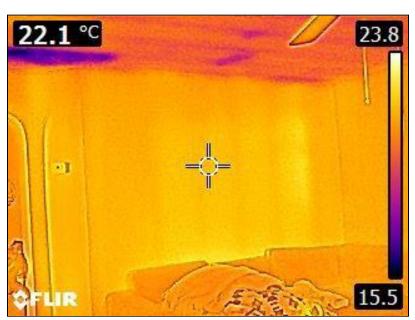
5.1 Item 24(Picture) Interior Walls



5.1 Item 25(Picture) Interior Walls



5.1 Item 26(Picture) Interior Walls



5.1 Item 27(Picture) Interior Walls



5.1 Item 28(Picture) Interior Walls



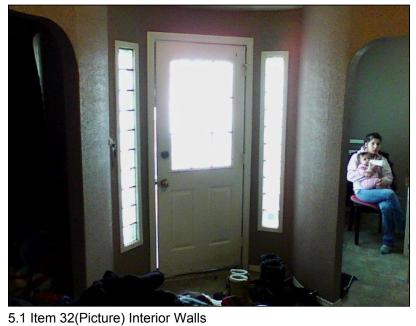
5.1 Item 29(Picture) Interior Walls



5.1 Item 30(Picture) Interior Walls



5.1 Item 31(Picture) Interior Walls

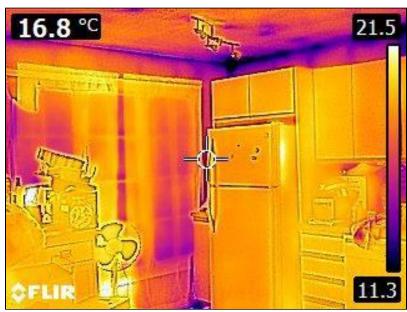




5.1 Item 33(Picture) Interior Walls



5.1 Item 34(Picture) Interior Walls



5.1 Item 35(Picture) Interior Walls



5.1 Item 36(Picture) Interior Walls



5.1 Item 37(Picture) Interior Walls



5.1 Item 38(Picture) Interior Walls



5.1 Item 39(Picture) Interior Walls



5.1 Item 40(Picture) Interior Walls



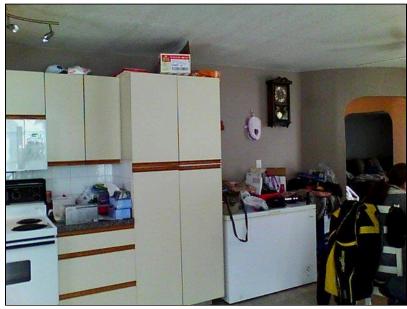
5.1 Item 41(Picture) Interior Walls



5.1 Item 42(Picture) Interior Walls



5.1 Item 43(Picture) Interior Walls



5.1 Item 44(Picture) Interior Walls



5.1 Item 45(Picture) Interior Walls



5.1 Item 46(Picture) Interior Walls



5.1 Item 47(Picture) Interior Walls



5.1 Item 48(Picture) Interior Walls

### 5.2 Floors

**Comments:** Inspected

# 5.4 Doors

#### Comments: Inspected

The interior of the home was inspected and reported on with the above information. While the inspector makes every effort to find all areas of concern, some areas can go unnoticed. The inspection did not involve moving furniture and inspecting behind furniture, area rugs or areas obstructed from view. Please be aware that the inspector has your best interest in mind. Any repair items mentioned in this report should be considered before purchase. It is recommended that qualified contractors be used in your further inspection or repair issues as it relates to the comments in this inspection report.

# 7. Basement

Inspection of the basement/crawlspace is limited to a visual review of conditions at time of inspection only. Inspections may be limited due to storage of personal property. Weather conditions, storage of personal property, changing foundation, wall conditions, wall finishes, etc. all contribute to inconclusive predictions of foundation performance. While there may not be visible evidence of water intrusion at time of inspection, the inspector CANNOT warranty this or any basement against water entry. Please note it is not the inspectors responsibility to confirm/check for permits for renovation/changes in the home. The presence of mold in concealed areas of the home does NOT fall within the scope of Home Inspection as it is not visibly accessible. If buyer has concerns about mold due to allergies, or suspects the presence of mold, he/she is advised to consult with a qualified mold inspector or contractor to agree to carry out a more invasive investigation. Air quality testing is a great option to further investigate for mold in concealed areas.

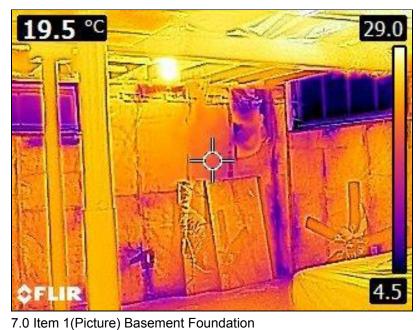
Styles & Materials		
Foundation:	Method used to observe Crawlspace:	Floor Structure:
Poured concrete	No crawlspace	Wood joists
Columns or Piers:	Insulation:	Floor Covering(s):
Wood piers	Batt	Unfinished
Steel screw jacks		
	Items	

## 7.0 Foundation

Comments: Inspected

### FOUNDATION

The basement area was dry on day of the inspection. Future conditions cannot be determined as these are changeable with the weather conditions. Recommend obtaining information from seller on any past water/moisture penetration.





7.0 Item 2(Picture) Basement Foundation







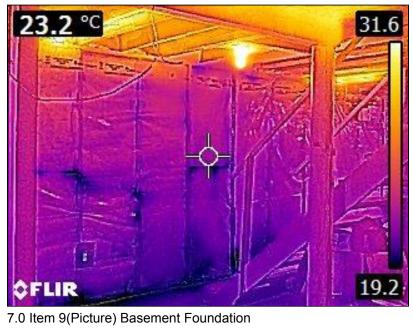


7.0 Item 6(Picture) Basement Foundation





7.0 Item 8(Picture) Basement Foundation





7.0 Item 10(Picture) Basement Foundation



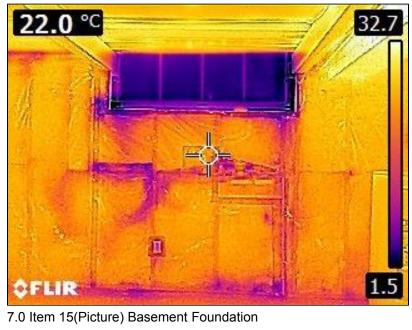


7.0 Item 12(Picture) Basement Foundation



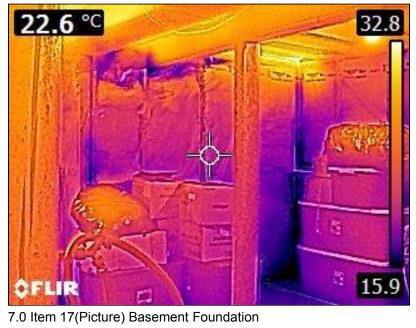


7.0 Item 14(Picture) Basement Foundation



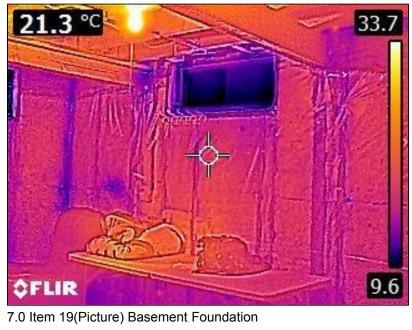


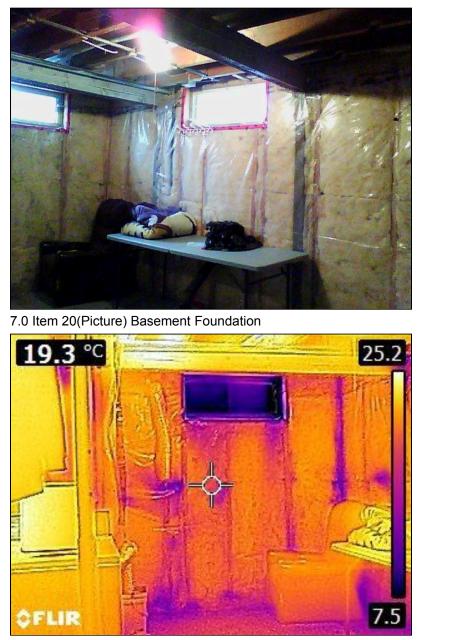
7.0 Item 16(Picture) Basement Foundation





7.0 Item 18(Picture) Basement Foundation

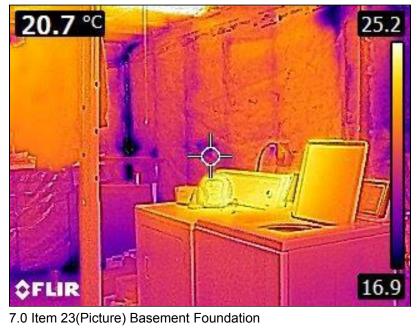




7.0 Item 21(Picture) Basement Foundation



7.0 Item 22(Picture) Basement Foundation





7.0 Item 24(Picture) Basement Foundation





7.0 Item 26(Picture) Basement Foundation





#### 7.3 Floors

Comments: Inspected

#### 7.6 Columns or Piers

Comments: Inspected

### COLUMNS or PIERS

Never remove support posts without seeking advice from structural engineer.

#### 7.9 Joists and Beams Condition

Comments: Inspected, Repair or Replace

#### JOISTS AND BEAMS

There are multiple areas in the basement where the joists and beams are slanted, crooked, notched out, bowed and split.

#### For Educational Purposes:

Floor joists are an important part of the supportive structure of a floor. They hold up the weight of a building, absorb impacts on the floor, and create structural support so that the floor will be stable secure. Suggest consulting professional prior to modification.



7.9 Item 1(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split

7.9 Item 2(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split



7.9 Item 3(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split

7.9 Item 4(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split



7.9 Item 5(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split

7.9 Item 6(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split



7.9 Item 7(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split

7.9 Item 8(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split



7.9 Item 9(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split

7.9 Item 10(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split



7.9 Item 11(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split

7.9 Item 12(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split



7.9 Item 13(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split

7.9 Item 14(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split



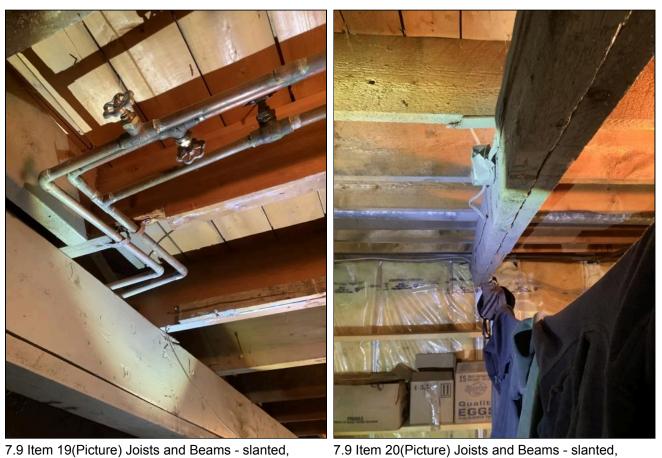
7.9 Item 15(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split

7.9 Item 16(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split



7.9 Item 17(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split

7.9 Item 18(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split



crooked, notched out, bowed, split

7.9 Item 20(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split



7.9 Item 21(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split

7.9 Item 22(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split



7.9 Item 23(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split

7.9 Item 24(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split



7.9 Item 25(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split

7.9 Item 26(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split



The basement, crawlspace or foundation of the home was inspected and reported on with the above information. While the inspector makes every effort to find all areas of concern, some areas can go unnoticed. The inspection did not involve moving furniture and inspecting behind furniture, area rugs or areas obstructed from view. Please be aware that the inspector has your best interest in mind. Any repair items mentioned in this report should be considered before purchase. It is recommended that qualified contractors be used in your further inspection or repair issues as it relates to the comments in this inspection report.

# 9. Bathroom and Components

The home inspector shall observe function of bathroom components, along with a thermal scan for hidden leaks. The inspector cannot be held responsible for future leaks. The home inspection in non-invasive. Moisture cannot be detected behind tiles and other surfaces in wet areas.

Items

#### 9.0 Walls and Ceiling

Comments: Inspected

#### WALLS AND CEILING

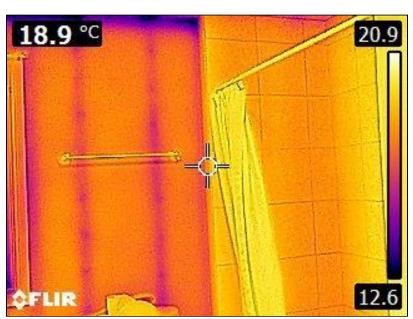
All bathroom walls and ceiling were dry at time of inspection. There was an area in the bathroom ceiling where the seam is splitting but most likely from humidity as there is no fan.





9.0 Item 2(Picture) Bathroom Walls





9.0 Item 4(Picture) Bathroom Walls



9.0 Item 5(Picture) Bathroom Walls

### 9.1 Floors

**Comments:** Inspected

# 9.3 Doors

Comments: Inspected

Please be aware that the inspector has your best interest in mind. Any repair items mentioned in this report should be considered before purchase. It is recommended that qualified contractors be used in your further inspection or repair issues as it relates to the comments in this inspection report.

# 17. Out Building

Items

# 17.4 Walls (interior and Exterior)

#### OUT BUILDING

There was 1 out building on the property that was roughly 15'x15' wood frame, vinyl siding and asphalt shingles.

# **General Summary**



**Bocc Home Inspections Ltd.** 

# Creekside Postal Stn PO Box70036 Airdrie AB T4B 0V9 (403)585-6279 www.BoccInspections.com

Customer Town of Drumheller attn: Mark Steffler

> Address 964 Hunter Drive - Nacmine Drumheller Alberta T0J 0Y0

The following items or discoveries indicate that these systems or components **do not function as intended** or **adversely affects the habitability of the dwelling;** or **warrants further investigation by a specialist,** or **requires subsequent observation.** This summary shall not contain recommendations for routine upkeep of a system or component to keep it in proper functioning condition or recommendations to upgrade or enhance the function or efficiency of the home. This Summary is not the entire report. The complete report may include additional information of concern to the customer. It is recommended that the customer read the complete report.

# 3. Exterior

# 3.1 Wall Cladding Flashing and Trim

# Inspected, Repair or Replace WALL CLADDING FLASHING AND TRIM

Higher levels of wall clad around the home are only visually inspected from the ground level. There was an area on the back of the house that has signs of moisture damage, recommend further review and repair as required.





3.1 Item 1(Picture) Exterior - signs of moisture damage

3.1 Item 2(Picture) Exterior



3.1 Item 3(Picture) Exterior

3.1 Item 4(Picture) Exterior



3.1 Item 7(Picture) Exterior

3.1 Item 8(Picture) Exterior



3.1 Item 9(Picture) Exterior

# 7. Basement

#### 7.9 Joists and Beams Condition

### Inspected, Repair or Replace

#### JOISTS AND BEAMS

There are multiple areas in the basement where the joists and beams are slanted, crooked, notched out, bowed and split.

#### For Educational Purposes:

Floor joists are an important part of the supportive structure of a floor. They hold up the weight of a building, absorb impacts on the floor, and create structural support so that the floor will be stable secure. Suggest consulting professional prior to modification.



7.9 Item 1(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split



7.9 Item 3(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split



7.9 Item 2(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split



7.9 Item 4(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split



7.9 Item 5(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split



7.9 Item 7(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split



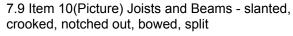
7.9 Item 6(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split



7.9 Item 8(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split



7.9 Item 9(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split





7.9 Item 11(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split



7.9 Item 12(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split



7.9 Item 13(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split



7.9 Item 15(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split



7.9 Item 14(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split



7.9 Item 16(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split



7.9 Item 17(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split



7.9 Item 19(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split

7.9 Item 18(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split



7.9 Item 20(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split



7.9 Item 21(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split



7.9 Item 23(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split



7.9 Item 22(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split



7.9 Item 24(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split



7.9 Item 28(Picture) Joists and Beams - slanted, crooked, notched out, bowed, split

crooked, notched out, bowed, split

Home inspectors are not required to report on the following: Life expectancy of any component or system; The causes of the need for a repair; The methods, materials, and costs of corrections; The suitability of the property for any specialized use; Compliance or non-compliance with codes, ordinances, statutes, regulatory requirements or restrictions; The market value of the property or its marketability; The advisability or inadvisability of purchase of the property; Any component or system that was not observed; The presence or absence of pests such as wood damaging organisms, rodents, or insects; or Cosmetic items, underground items, or items not permanently installed. Home inspectors are not required to: Offer warranties or guarantees of any kind; Calculate the strength, adequacy, or efficiency of any system or component; Enter any area or perform any procedure that may damage the property or its components or be dangerous to the home inspector or other persons; Operate any system or component that is shut down or otherwise inoperable; Operate any system or component that does not respond to normal operating controls; Disturb insulation, move personal items, panels, furniture, equipment, plant life, soil, snow, ice, or debris that obstructs access or visibility; Determine the presence or absence of any suspected adverse environmental condition or hazardous substance, including but not limited to mold, toxins, carcinogens, noise, contaminants in the building or in soil, water, and air; Determine the effectiveness of any system installed to control or remove suspected hazardous substances; Predict future condition, including but not limited to failure of components; Since this report is provided for the specific benefit of the customer(s), secondary readers of this information should hire a licensed inspector to perform an inspection to meet their specific needs and to obtain current information concerning this property.

Prepared Using HomeGauge <u>http://www.HomeGauge.com</u> : Licensed To Adam Boccinfuso



Bocc Home Inspections Ltd. Creekside Postal Stn PO Box70036 Airdrie AB T4B 0V9 (403)585-6279 www.BoccInspections.com Inspected By: Adam Boccinfuso

Inspection Date: 16/12/2021 Report ID: 964 Hunter Drive - Nacmine

Customer Info:	Inspection Property:
Town of Drumheller attn: Mark Steffler	964 Hunter Drive - Nacmine Drumheller Alberta T0J 0Y0
Customer's Real Estate Professional:	

# **Inspection Fee:**

Service	Price	Amount	Sub-Total
Custom - Home Inspection	250.00	1	250.00

# Tax \$12.50 Total Price \$262.50

Payment Method: Cash, cheque, e-transfer (Send to: payment@boccinspections.com), or credit card (2.5% surcharge applies).
Payment Status: Due at Time of Inspection
Note:



### What to Expect From a Home Inspection

Purchasing a home is a large investment for many Canadians. It is so important to familiarize yourself with all the activities related to buying a house so that you are making an informed choice. Many people get a home inspection done as part of their buying decision.

#### So what can you expect from a home inspection?

Typically inspections take 2 to 3 hours to complete. They are visual inspections which means the inspector is not expected to displace flooring and tiling, or check water or air samples. An inspector cannot look through walls or predict future performance or estimated life spans on a home. The purpose and scope of this inspection is to provide you with a better understanding of the property's condition as observed at the time of the home inspection. It will include an inspection of: Structural Components, Exterior, Roofing, Plumbing, Electrical, Heating, Central Air Conditioning, Interiors, Insulation, Ventilation and built-in kitchen appliances.

The home inspection report is an "opinion" of Bocc Home Inspections Ltd.. Our interpretation of what is good or fair, may be different than yours. You are encouraged to be present at the time of your inspection so we will both have an understanding of each others perception. Our purpose is to determine whether or not a system or component (electrical, heating, visible structure etc) is functioning for which it was intended. We are not responsible to determine all that may be wrong with that system or component, just whether or not a second opinion is needed, such as a licensed electrician or HVAC contractor, or any specialist for that field or trade. They determine what steps are necessary to correct. Their troubleshooting may reveal additional items not mentioned in this report. Any item mentioned in the report may need additional inspections by other qualified specialists. It is up to the Client who will be the person signing this contract to seek qualified specialists to investigate further any item or component that is commented on in the inspection report before closing. This inspection is to reduce the risk of finding a potential problem, not to eliminate them. The limited liability of the inspector and Bocc Home Inspections Ltd. and the inspection report to the Client, spouse, executors or heirs or administrators are limited to a refund up to the fee paid for this inspection and report.

Our inspection does not include the inspection or any part of testing or determining whether or not these conditions exist such as: Asbestos, Formaldehyde, Mold or Fungi, or bio-aerosols. Soil or geological conditions. Pools and or equipment related to pools, spas or jacuzzis. Pests or Termites or wood eating insects. Elevators, solar systems. Refrigeration units, water filtration units, security alarms, intercoms, phone, cable, satellite, window treatments or mini-blinds, oven clocks or timers or clean feature, central vacuum solar systems or lightning arrestors. Air conditioning system will not be operated by Bocc Home Inspections Ltd. in outside temperatures of 18 degrees or less. We do not inspect heat exchanger for cracks. Plumbing and electrical must be

turned "on" for the inspection of these areas and components. Well or spring systems, pressure, depth, water level or condition is not part of this inspection. Furnaces, must be "on" or capable of being turned on by using normal operating controls. Pilot lights must be "lit" in order to inspect these components or systems (i.e. gas fireplace, wall heaters). Septic fields are not inspected and are not part of this contract. Bocc Home Inspections Ltd. Inspection does not inspect for code compliance or ordinances.

# **INSPECTION CONTRACT**

# Address to be inspected: 964 Hunter Drive - Nacmine, Drumheller, Alberta TOJ 0Y0

# Inspection Date: 16/12/2021 Time Start: 11:00 AM

# Client(s) Name(s):Town of Drumheller attn: Mark Steffler

# **Mailing Address:**

### Phone #: (403) 660-3507 Client E-mail Address: msteffler@drumheller.ca

### Client UserName: TDrumhellerattnMarkSte286

I/We, the above named client(s) request an inspection of the inspection address above. The inspection is to be performed by the below inspection company (firm) in accordance with the InterNACHI Standards of Practice which includes roofing, flashing or chimney; exterior, including lot grading, walkways, driveways, retaining walls, patios and decks; structure; electrical; heating; heat pumps and cooling; insulation; ventilation; plumbing; and interior.

It is important for the client(s) to understand that the inspection is based on the limited visual inspection of the readily accessible aspects of the building. The report is representative of the inspector's opinion of the observable conditions on the day of the inspection. While the inspection may reduce your risks of home ownership, it is not an insurance policy, warranty or guarantee on the home. This report is for the exclusive use of the contracted parties and may not be used by third parties without prior written permission from the inspector/ inspection firm. Also, this inspection does not include and inspection of any outbuildings or other structures not attached to the dwelling other than a garage or carport. This inspection will not be testing for mold or asbestos unless otherwise indicated in other writings.

I/we have read, understand and accept the terms and conditions as outlined here and on the page entitled " What To Expect From Your Inspection."

### Inspection Company: Bocc Home Inspections Ltd.

1060 Windsong Dr SW, Airdrie AB, T4B 0P2 (403) 585-6279

#### License #342384

### **Inspectors Name: Thomas Adam Boccinfuso**

#### Inspector's License # 342385

If applicable, CLIENT agrees that all or a portion of the inspection will be performed by the above named Inspection Business.

The Client(s) and Inspector(s), by signing below, agree, to have read, understand and accept the terms and contract.

Town of Drumheller attn: Mark Steffler 16/12/2021

Clients(s) Representative Signature (If signed in person)

\_\_\_\_Adam Boccinfuso 16/12/2021

Inspector Signature (If Signed in person)

Inspection Fee: 250.00

# Total Fee for Inspection (including GST): 262.50

Payment Method: Cash, cheque, e-transfer (Send to: payment@boccinspections.com), or credit card (2.5% surcharge applies).

# Payment Status: Due at Time of Inspection

THIS AGREEMENT made on DATE by and between Thomas Adam Boccinfuso (Hereinafter "INSPECTOR") and the undersigned (hereinafter "CLIENT"), collectively referred to herein as "the parties." The Parties Understand and Voluntarily Agree as follows:

1. INSPECTOR agrees to perform a visual inspection of the home/building and to provide CLIENT with a written inspection report identifying the defects that INSPECTOR both observed and deemed material. INSPECTOR may offer comments as a courtesy, but these comments will not comprise the bargained-for report. The report is only supplementary to the seller's disclosure.

2. Unless otherwise inconsistent with this Agreement or not possible, INSPECTOR agrees to perform the inspection in accordance to the current Standards of Practice of the National Association of Certified Home Inspectors posted at http://www.nachi.org/sop.htm. CLIENT understands that these standards contain certain limitations, exceptions, and exclusions.

3. The inspection and report are performed and prepared for the use of CLIENT, who gives INSPECTOR permission to discuss observations with real estate agents, owners, repairpersons, and other interested parties. INSPECTOR accepts no responsibility for use or misinterpretation by third parties. INSPECTOR'S inspection of the property and the accompanying report are in no way intended to be a guarantee or warranty, express or implied, regarding the future use, operability, habitability or suitability of the home/building or its components. Any and all warranties, express or implied, including warranties of merchantability and fitness for a particular purpose, are expressly excluded by this Agreement.

4. INSPECTOR assumes no liability for the cost of repair or replacement of unreported defects or deficiencies either current or arising in the future. CLIENT acknowledges that the liability of INSPECTOR, its agents, employees, for claims or damages, costs of defense or suit, attorney's fees and expenses and payments arising out of or related to the INSPECTOR'S negligence or breach of any obligation under this Agreement, including errors and omissions in the inspection or the report, shall be limited to liquidated damages in an amount equal to the fee paid to the INSPECTOR, and this liability shall be exclusive. CLIENT waives any claim for consequential, exemplary, special or incidental damages or for the loss of the use of the home/building even if the CLIENT has been advised of the possibility of such damages. The parties acknowledge that the liquidated damages are not intended as a penalty but are intended (i) to reflect the fact that actual damages may be difficult and impractical to ascertain; (ii) to allocate risk among the INSPECTOR and CLIENT; and (iii) to enable the INSPECTOR to perform the inspection at the stated fee.

5. INSPECTOR does not perform engineering, architectural, plumbing, or any other job function requiring an

# 964 Hunter Drive - Nacmine

occupational license in the jurisdiction where the inspection is taking place, unless the inspector holds a valid occupational license, in which case he/she may inform the CLIENT that he/she is so licensed, and is therefore qualified to go beyond this basic home inspection, and for additional fee, perform additional inspections beyond those within the scope of the basic home inspection. Any agreement for such additional inspections shall be in a separate writing or noted here:

6. In the event of a claim against INSPECTOR, CLIENT agrees to supply INSPECTOR with the following: (1) Written notification of adverse conditions within 14 days of discovery, and (2) Access to the premises. Failure to comply with the above conditions will release INSPECTOR and its agents from any and all obligations or liability of any kind.

7. The parties agree that any litigation arising out of this Agreement shall be filed only in the Court having jurisdiction in the County in which the INSPECTOR has its principal place of business. In the event that CLIENT fails to prove any adverse claims against INSPECTOR in a court of law, CLIENT agrees to pay all legal costs, expenses and fees of INSPECTOR in defending said claims.

8. If any court declares any provision of this Agreement invalid or unenforceable, the remaining provisions will remain in effect. This Agreement represents the entire agreement between the parties. All prior communications are merged into this Agreement, and there are no terms or conditions other than those set forth herein. No statement or promise of INSPECTOR or its agents shall be binding unless reduced to writing and signed by INSPECTOR. No change or modification shall be enforceable against any party unless such change or modification is in writing and signed by the parties. This Agreement shall be binding upon and enforceable by the parties and their heirs, executors, administrators, successors and assignees. CLIENT shall have no cause of action against INSPECTOR after one year from the date of the inspection.

9. Payment of the fee to INSPECTOR (less any deposit noted above) is due upon completion of the on-site inspection. The CLIENT agrees to pay all legal and time expenses incurred in collecting due payments, including attorney's fees, if any. If CLIENT is a corporation, LLC, or similar entity, the person signing this Agreement on behalf of such entity does personally guarantee payment of the fee by the entity.

10. HOLD HARMLESS AGREEMENT: CLIENT agrees to hold any and all real estate agents involved in the purchase of the property to be inspected harmless and keep them exonerated from all loss, damage, liability or expense occasioned or claims by reason of acts or neglects of the INSPECTOR or his employees or visitors or of independent contractors engaged or paid by INSPECTOR for the purpose of inspecting the subject home.

11. PRIVACY POLICY: In providing the property inspection and inspection report, information about the client, inspector, real estate professional, and property will be collected and input into HomeGauge inspection software and services, which inspector uses to produce the inspection report. This information may include personally-identifiable information about the client, inspector and real estate professional. This information may subsequently be used by the provider of HomeGauge, as set out in the HomeGauge Privacy Policy found at <a href="https://www.HomeGauge.com/privacy.html">https://www.HomeGauge.com/privacy.html</a>.

12. CANCELLATION FEE: We understand sometimes financing does not go through, though we please ask you provide as much notice as possible when cancelling or rescheduling. CLIENT agrees to pay a cancellation fee of fifty percent if the inspection is cancelled with less than 24 hours notice.

# CLIENT HAS CAREFULLY READ THE FOREGOING, AGREES TO IT, AND ACKNOWLEDGES RECEIPT OF A COPY OF THIS AGREEMENT.

Bocc Home Inspections Ltd. must recieve a copy of this agreement signed by the client before the inspection

# can begin (either electronically or physically).

If viewing this online, click on the I AGREE button below if you agree to the terms and conditions spelled out in this agreement.

Adam Boccinfuso

FOR INSPECTOR

Town of Drumheller attn: Mark Steffler

CLIENT(S) OR REPRESENTATIVE



# **Inspection Report**

# Town of Drumheller attn: Mark Steffler

**Property Address:** 1000 Hunter Drive Nacmine Drumheller Alberta T0J 0Y0



1000 Hunter Drive Nacmine

**Bocc Home Inspections Ltd.** 

Adam Boccinfuso License# 342384 Creekside Postal Stn PO Box70036

# Airdrie AB T4B 0V9 (403)585-6279 www.BoccInspections.com

# **Table of Contents**

Cover Page1
Table of Contents
Intro Page4
<u>1 Roofing</u> 5
<u>2 Attic</u>
<u>3 Exterior</u>
<u>4 Garage</u>
5 Interiors
7 Basement
9 Bathroom and Components
General Summary
Invoice
Agreement

Date: 12/16/2021	Time: 09:30 AM	<b>Report ID:</b> 1000 Hunter Drive - Nacmine
<b>Property:</b> 1000 Hunter Drive Nacmine Drumheller Alberta T0J 0Y0	<b>Customer:</b> Town of Drumheller attn: Mark Steffler	Real Estate Professional:

#### **Comment Key or Definitions**

The following definitions of comment descriptions represent this inspection report. All comments by the inspector should be considered before purchasing this home. Any recommendations by the inspector to repair or replace suggests a second opinion or further inspection by a qualified contractor. All costs associated with further inspection fees and repair or replacement of item, component or unit should be considered before you purchase the property.

**Inspected (IN)** = I visually observed the item, component or unit and if no other comments were made then it appeared to be functioning as intended allowing for normal wear and tear.

**Not Inspected (NI)**= I did not inspect this item, component or unit and made no representations of whether or not it was functioning as intended and will state a reason for not inspecting.

**Not Present (NP)** = This item, component or unit is not in this home or building.

**<u>Repair or Replace (RR)</u>** = The item, component or unit is not functioning as intended, or needs further inspection by a qualified contractor. Items, components or units that can be repaired to satisfactory condition may not need replacement.

Type of building:	Temperature:	Weather:
Bungalow	-16 (C)	Sunny, Cloudy
Ground/Soil surface condition:	Rain in last 3 days:	Radon Test:
Frozen	No	No

Water Test: No

# 1. Roofing

The home inspector shall observe: Roof covering; Roof drainage systems; Flashings; Skylights, chimneys, and roof penetrations; and Signs of leaks or abnormal condensation on building components. The home inspector shall: Describe the type of roof covering materials; and Report the methods used to observe the roofing. The home inspector is not required to: Walk on the roofing; or Observe attached accessories including but not limited to solar systems, antennae, and lightning arrestors. **We do not give an estimation of life span**.

CONDOMINUMS: The roof is the responsibility of the Condominium Owners Association and is subject to the Association By-Laws, rules and assessments. We recommend obtaining and reviewing the By-Laws, financial statements, the most recent reserve study and minutes of the meetings of the Association, prior to close.

Styles & Materials			
Roof Covering:	Viewed roof covering from:	Sky Light(s):	
Asphalt/Fiberglass	Walked roof	None	
Chimney (exterior):	Roof Structure:		
Metal Flue Pipe	Stick-built		
	Items		

#### 1.0 Roof Coverings

Comments: Inspected, Repair or Replace

#### **ROOF COVERINGS**

The roof was walked for assessment, could only inspect some of the roof as it was covered in snow. No visual sign of structural concern but shingles are aged and will require replacement.



1.0 Item 1(Picture) Roof - shingles are aged and will require replacement

1.0 Item 2(Picture) Roof - shingles are aged and will require replacement



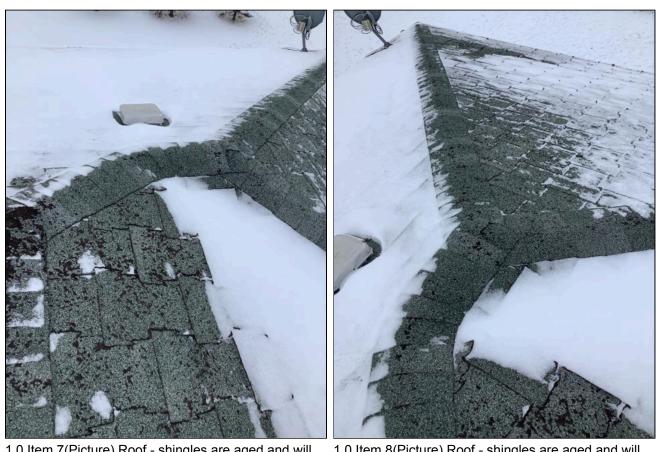
1.0 Item 3(Picture) Roof - shingles are aged and will require replacement

1.0 Item 4(Picture) Roof - shingles are aged and will require replacement



1.0 Item 5(Picture) Roof - shingles are aged and will require replacement

1.0 Item 6(Picture) Roof - shingles are aged and will require replacement



1.0 Item 7(Picture) Roof - shingles are aged and will require replacement

1.0 Item 8(Picture) Roof - shingles are aged and will require replacement



1.0 Item 9(Picture) Roof - shingles are aged and will require replacement

1.0 Item 10(Picture) Roof - shingles are aged and will require replacement

#### 1.1 Flashings

Comments: Inspected

#### **ROOF FLASHINGS**

Flashing is fitted correctly and in serviceable condition where visible.

#### 1.2 Skylights

Comments: Not Present

#### 1.3 Chimneys

Comments: Inspected

#### **1.4 Roof Penetrations**

**Comments:** Inspected

#### 1.5 Roof Drainage Systems

**Comments:** Inspected

#### **ROOF DRAINAGE SYSTEMS**

The gutters appear intact but due to the lack of recent rain, I am unable to determine if gutters leak at seams or spills water.

# attn: Mark Steffler

The roof of the home was inspected and reported on with the above information. While the inspector makes every effort to find all areas of concern, some areas can go unnoticed. Roof coverings and skylights can appear to be leak proof during inspection and weather conditions. Our inspection makes an attempt to find a leak but sometimes cannot. Please be aware that the inspector has your best interest in mind. Any repair items mentioned in this report should be considered before purchase. It is recommended that qualified contractors be used in your further inspection or repair issues as it relates to the comments in this inspection report. We do not give an estimation of life span.

# 2. Attic

The home inspector shall observe: Insulation and vapor retarders in unfinished spaces; Ventilation of attics; the operation of any readily accessible thermostatic control and the operation of any readily accessible attic ventilation fan. The home inspector is not required to report on: Concealed insulation and vapor retarders; or Venting equipment that is integral with household appliances. Entering attics that are insulated can be dangerous. Attics with insulation cannot be safely inspected due to limited visibility of the framing members, upon which the inspector must walk. In such cases, the attic is only partially accessed, thereby limiting the review of the attic area from the hatch area only. Inspectors will not crawl/walk the attic area when they believe it is a danger to them or that they might damage the attic insulation or cause damage. Comments made on the attic are reflected on recent weather conditions, during long periods of dry spells leak are not visible, so are excluded from the responsibility of the home inspection. We can only comment on the conditions at the time of the home inspection.

	Styles & Materi	als
Attic Insulation:	Ventilation:	Method Used to Observe Attic:
Blown	Soffit Vents	Ladders Edge
	Roof Vents	
Attic Info:		
Attic Hatch		
No Storage		
	Items	

**Comments:** Inspected

#### ATTIC

The attic space was visually inspected with use of flashlight and thermal scanner from the ladders edge, it all appeared dry on the day of inspection.

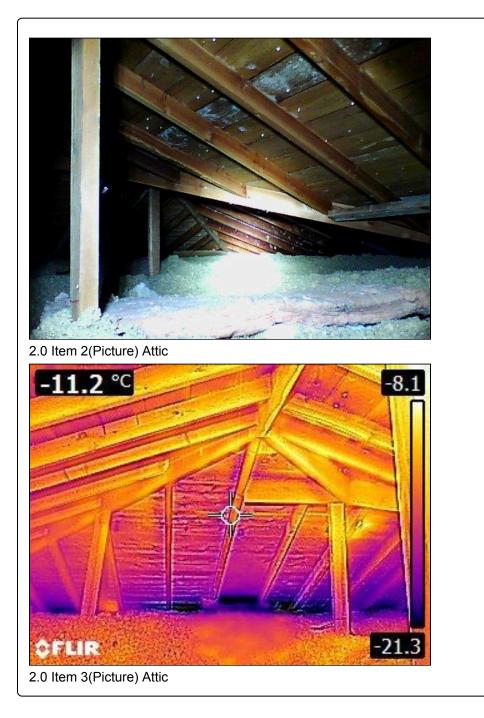
#### Maintenance Tips:

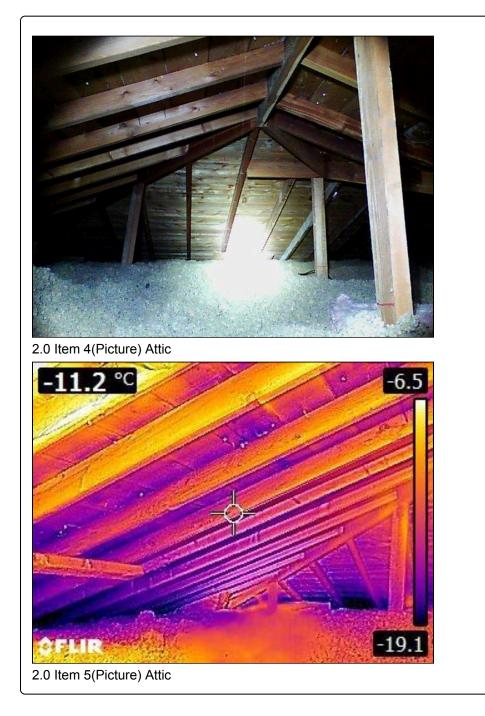
1. Recommend installation of fresh weather stripping annually at attic hatch to reduce build up of warm moist air.

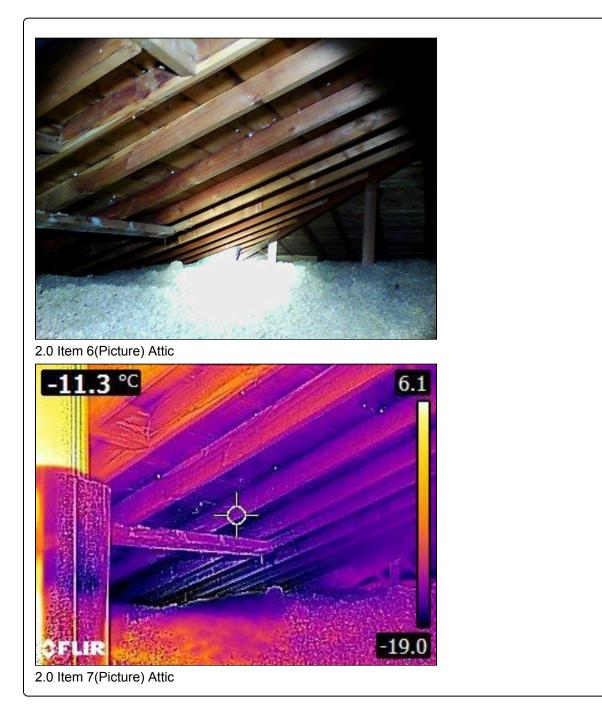
2. Attic should be reviewed at least twice per year to ensure ventilation openings are clear and to ensure development of mold is kept in check. While there may be very little or no evidence of mold build-up in the attic at time of inspection, it can reproduce and spread rapidly should conditions allow it to. Mold can be potentially hazardous and will spread when moisture enters the attic cavity and is not vented to the exterior. Any area of suspected mold should be reviewed by a qualified contractor for analysis and removal.

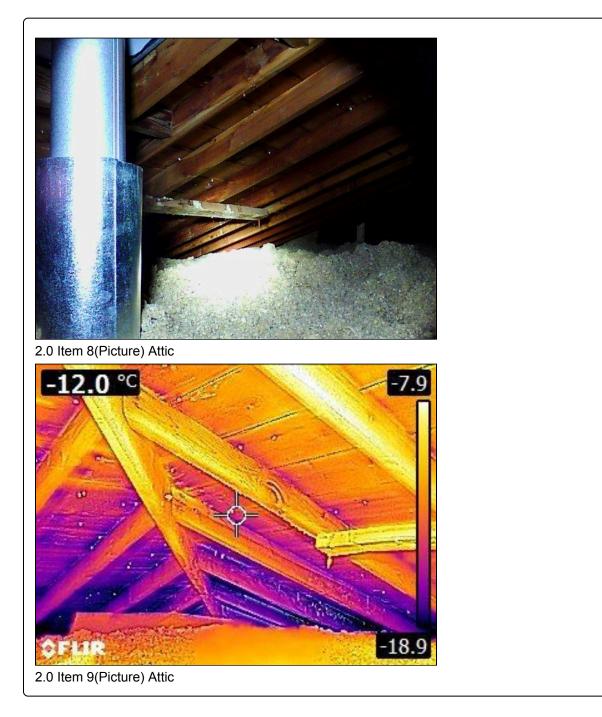
3. Recommend monitoring performance of roof through regular attic review - water intrusion can occur at any time after the inspection, future performance unknown. It is common to see staining around attic hatch entrance and the hatch itself. This happens when heat escapes into attic hatch in winter, hot air hits the cold air and it turns to condensation. This can be helped by replacing weatherstripping. Sometimes the sheathing can also be affected and in extreme cases mold can start to form.

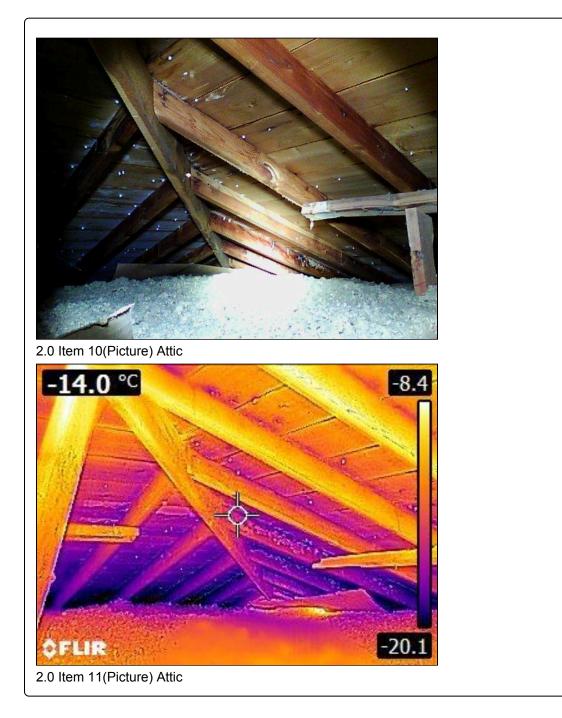














2.0 Item 12(Picture) Attic





# 2.1 Attic Hatch

Comments: Inspected

# 2.2 Vapor Barrier

Comments: Inspected

# 2.3 Roof Structure

Comments: Inspected, Repair or Replace

### **ROOF STRUCTURE**

One of the rafters has split where the two are nailed together and the cross support is bowed, both are signs of movement/settling and should be further reviewed and repaired as required.



2.3 Item 1(Picture) Rafter - split, cross support bowed 2.3 Item 2(Picture) Rafter - split, cross support bowed

### 2.4 Insulation

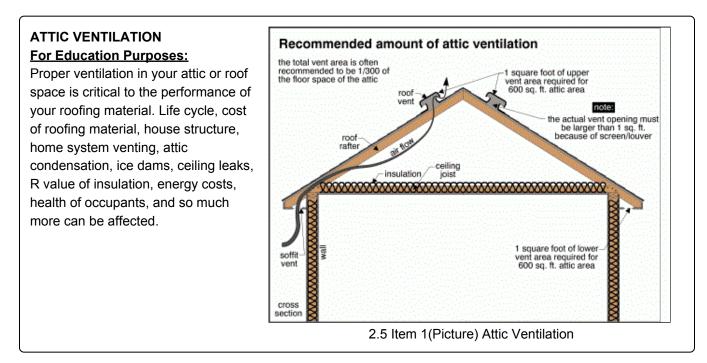
Comments: Inspected

## INSULATION

Good amount of insulation in the attic during the inspection.

### 2.5 Ventilation

Comments: Inspected



# 2.6 Ventilation Fans and Thermostatic Controls in Attic Comments: Inspected

The attic structure, insulation and ventilation was inspected and reported on with the above information. While the inspector makes every effort to find all areas of concern, some areas can go unnoticed. Only visible areas can be inspected. Please be aware that the inspector has your best interest in mind. Any repair items mentioned in this report should be considered before purchase. It is recommended that qualified contractors be used in your further inspection or repair issues as it relates to the comments in this inspection report.

# 3. Exterior





The home inspector shall observe: Wall cladding, flashings, and trim; Entryway doors and a representative number of windows; Garage door operators; Decks, balconies, stoops, steps, areaways, porches and applicable railings; Eaves, soffits, and fascias; and Vegetation, grading, drainage, driveways, patios, walkways, and retaining walls with respect to their effect on the condition of the building. The home inspector shall: Describe wall cladding materials; Operate all entryway doors and a representative number of windows; Operate garage door manually or by using permanently installed controls for any garage door operator; Report whether or not any garage door operator will automatically reverse or stop when meeting reasonable resistance during closing; and Probe exterior wood components where deterioration is suspected. The home inspector is not required to observe: Storm windows, storm doors, screening, shutters, awnings, and similar seasonal accessories; Fences; Presence of safety glazing in doors and windows; Garage door operator remote control transmitters; Geological conditions; Soil conditions; Recreational facilities (including spas, saunas, steam baths, swimming pools, tennis courts, playground equipment, and other exercise, entertainment, or athletic facilities); Detached buildings or structures; or Presence or condition of buried fuel storage tanks. The home inspector is not required to: Move personal items, panels, furniture, equipment, plant life, soil, snow, ice or debris that obstructs access or visibility.



Siding Material: Exterior Entry Doors:		rs:
Vinyl	Steel	
		ltems

### 3.1 Wall Cladding Flashing and Trim

Comments: Inspected, Repair or Replace

## WALL CLADDING FLASHING AND TRIM

Higher levels of wall clad around the home are only visually inspected from the ground level. At the back of the house the top row of siding is bowed over the sliding patio door, recommend that it be further reviewed and repaired as required.





**Bocc Home Inspections Ltd.** 



# 3.2 Doors (Exterior)

Comments: Inspected

# 3.4 Windows/Frame

Comments: Inspected

The exterior of the home was inspected and reported on with the above information. While the inspector makes every effort to find all areas of concern, some areas can go unnoticed. Please be aware that the inspector has your best interest in mind. Any repair items mentioned in this report should be considered before purchase. It is recommended that qualified contractors be used in your further inspection or repair issues as it relates to the comments in this inspection report.

# 4. Garage

Items

# 4.4 Garage Clading, Flashing and Trim

Comments: Inspected, Repair or Replace

# GARAGE CLADING, FLASHING AND TRIM

The back of the garage is heavily bowed, replacement of the garage is recommended.



4.4 Item 1(Picture) Back of Garage - heavily bowed

4.4 Item 2(Picture) Garage Exterior



# 5. Interiors

The home inspector shall observe: Walls, ceiling, and floors; Steps, stairways, balconies, and railings; Counters and a representative number of installed cabinets; and A representative number of doors and windows. The home inspector shall: Operate a representative number of windows and interior doors; and Report signs of abnormal or harmful water penetration into the building or signs of abnormal or harmful condensation on building components. The home inspector is not required to observe: Paint, wallpaper, and other finish treatments on the interior walls, ceilings, and floors; Carpeting; or Draperies, blinds, or other window treatments.

Styles & Materials				
Ceiling Materials:	Wall Material:	Floor Covering(s):		
Gypsum Board	Gypsum Board	Hardwood T&G		
Interior Doors:	Window Types:	Floor Structure:		
Solid	Sliders	Wood Joists		
	ltems			

# 5.0 Ceilings

Comments: Inspected

# CEILINGS

All ceilings were dry at time of inspection but had multiple cracks throughout the house some common from settling and some from shifting.



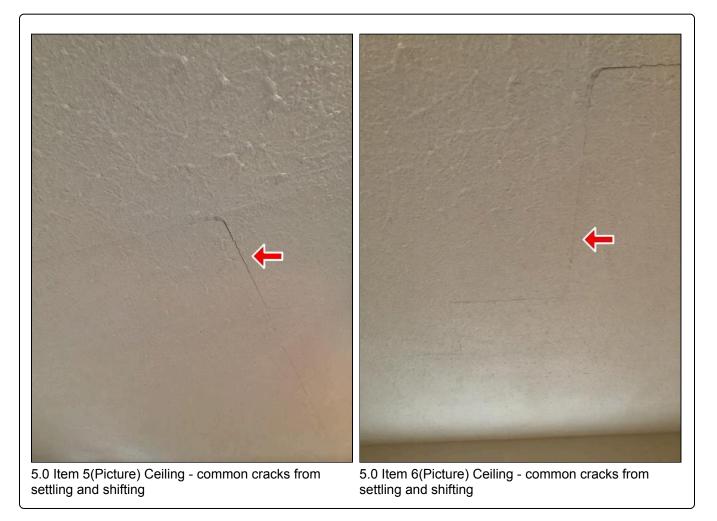
5.0 Item 1(Picture) Ceiling - common cracks from settling and shifting

5.0 Item 2(Picture) Ceiling - common cracks from settling and shifting



5.0 Item 3(Picture) Ceiling - common cracks from settling and shifting

5.0 Item 4(Picture) Ceiling - common cracks from settling and shifting



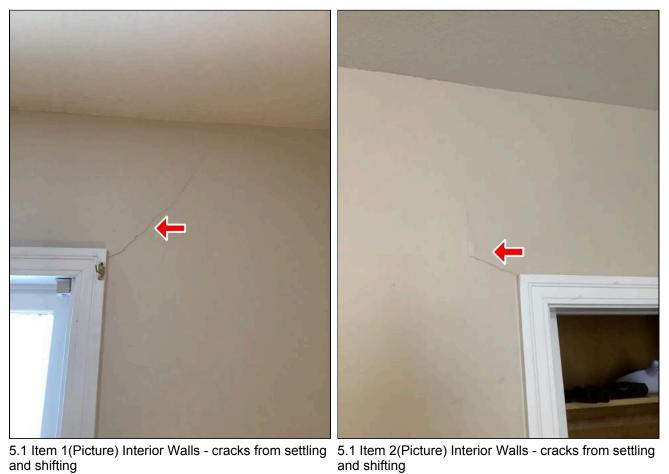


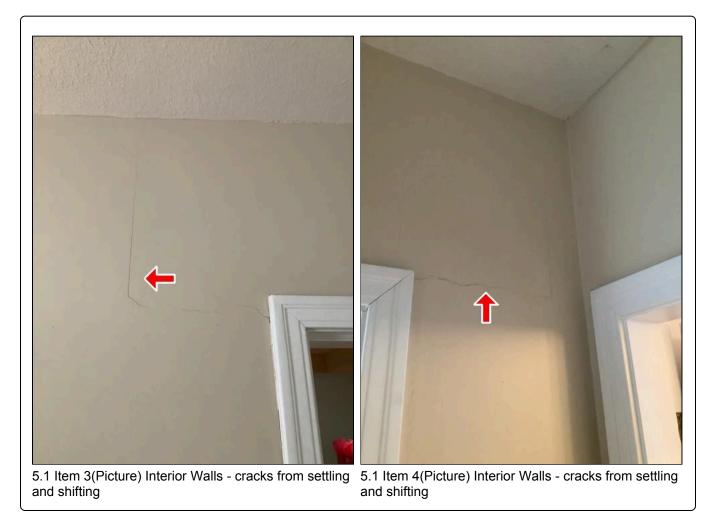
#### 5.1 Walls

Comments: Inspected

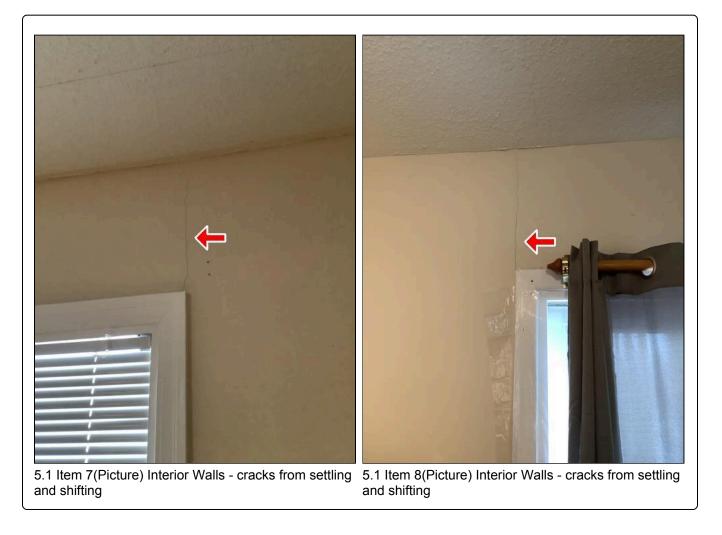
## WALLS

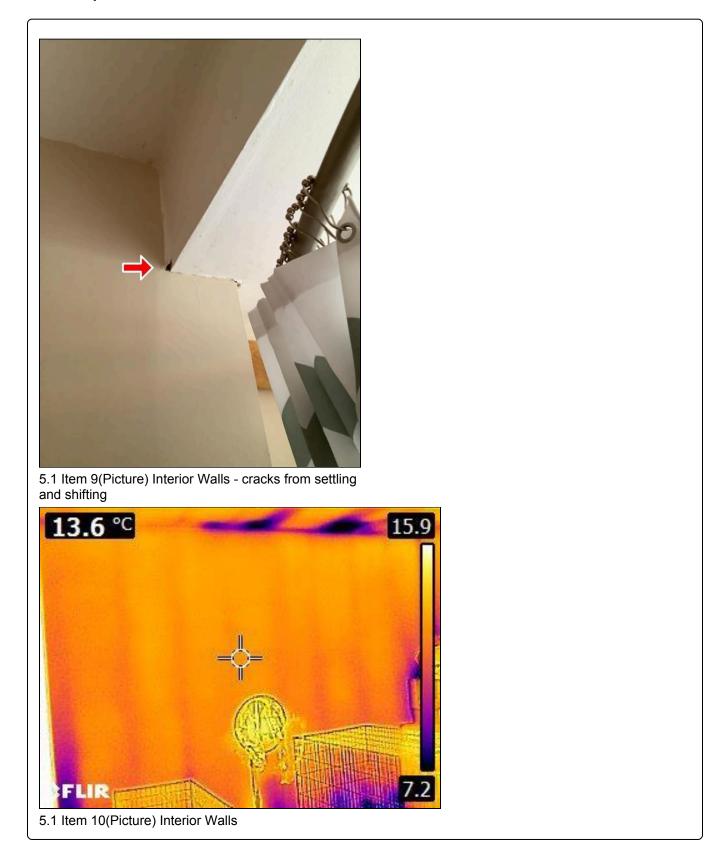
All walls were dry at time of inspection but had multiple cracks throughout the house some common from settling and some from shifting.







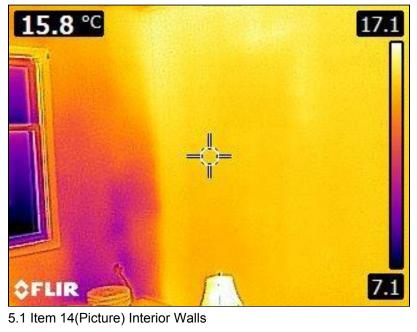


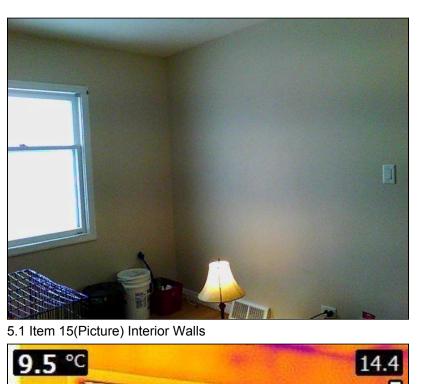


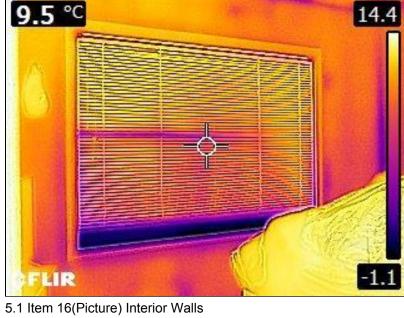




5.1 Item 13(Picture) Interior Walls

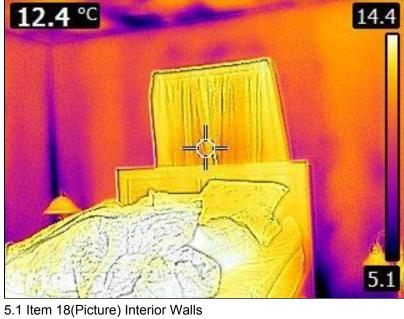


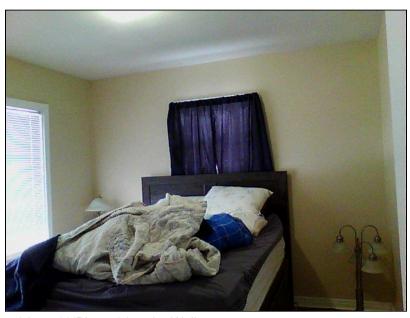




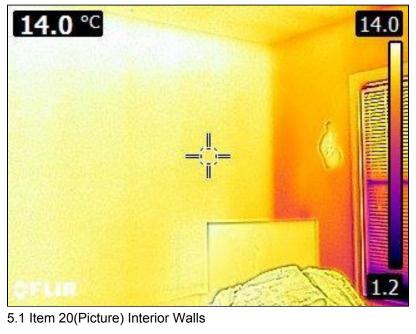


12.4 °C

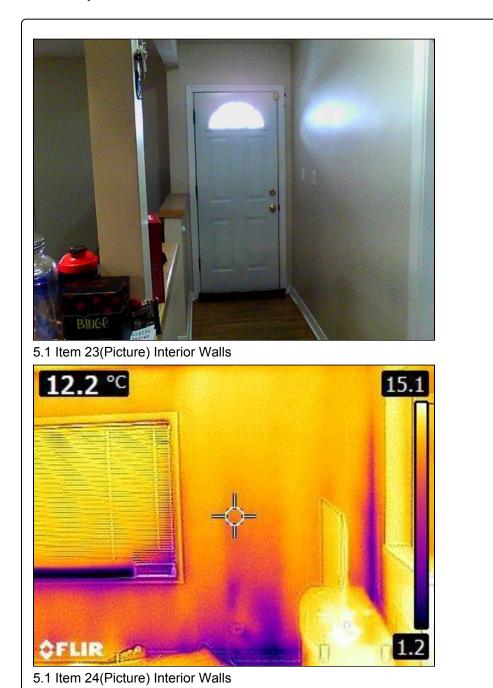




5.1 Item 19(Picture) Interior Walls

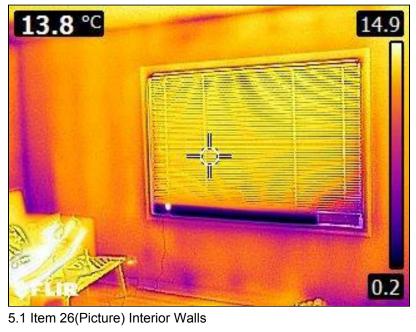






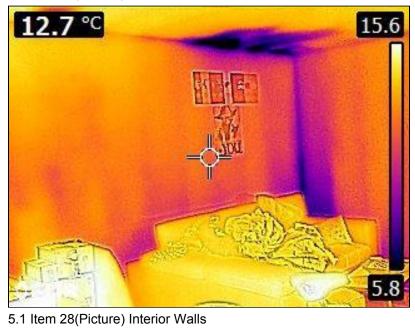


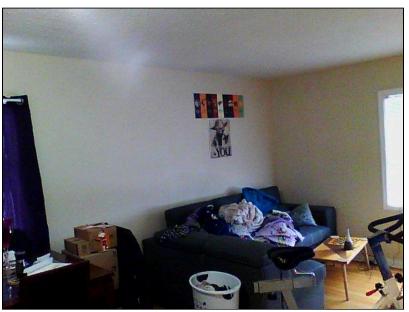
5.1 Item 25(Picture) Interior Walls



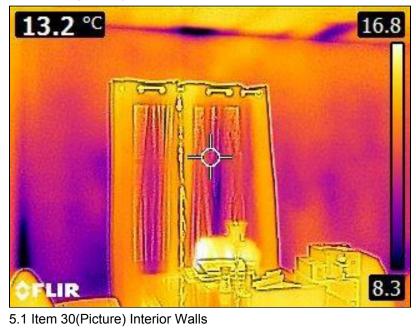


5.1 Item 27(Picture) Interior Walls



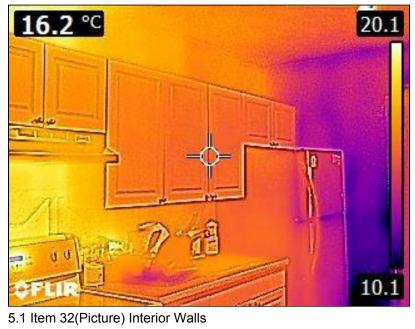


5.1 Item 29(Picture) Interior Walls



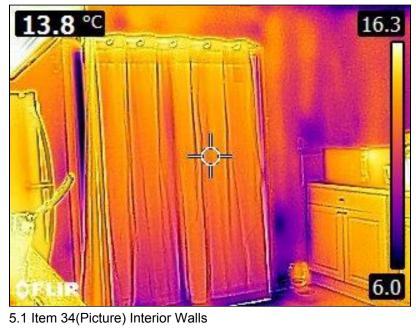


5.1 Item 31(Picture) Interior Walls



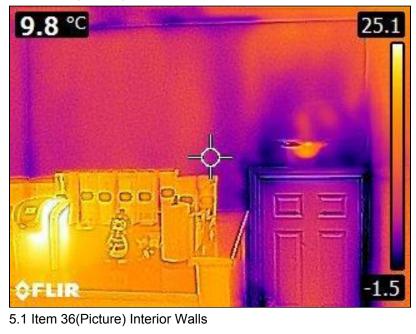


5.1 Item 33(Picture) Interior Walls



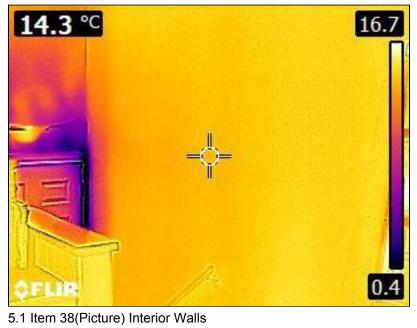


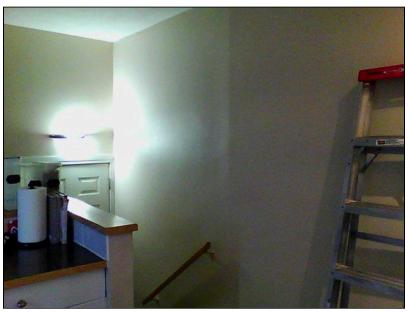
5.1 Item 35(Picture) Interior Walls



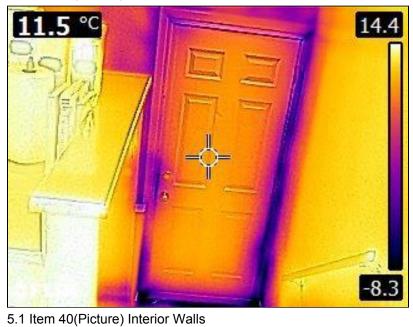


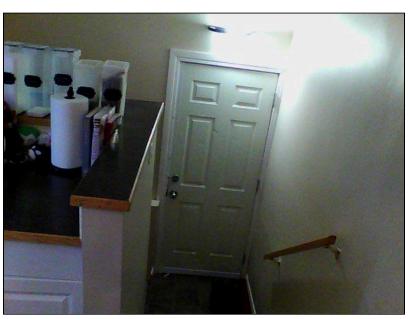
5.1 Item 37(Picture) Interior Walls





5.1 Item 39(Picture) Interior Walls





5.1 Item 41(Picture) Interior Walls





### 5.2 Floors

Comments: Inspected

### 5.4 Doors

Comments: Inspected

### DOORS

Doors were all inspected and two had signs of rubbing which aligns with the settlement the house experienced.



The interior of the home was inspected and reported on with the above information. While the inspector makes every effort to find all areas of concern, some areas can go unnoticed. The inspection did not involve moving furniture and inspecting behind furniture, area rugs or areas obstructed from view. Please be aware that the inspector has your best interest in mind. Any repair items mentioned in this report should be considered before purchase. It is recommended that qualified contractors be used in your further inspection or repair issues as it relates to the comments in this inspection report.

## 7. Basement

Inspection of the basement/crawlspace is limited to a visual review of conditions at time of inspection only. Inspections may be limited due to storage of personal property. Weather conditions, storage of personal property, changing foundation, wall conditions, wall finishes, etc. all contribute to inconclusive predictions of foundation performance. While there may not be visible evidence of water intrusion at time of inspection, the inspector CANNOT warranty this or any basement against water entry. Please note it is not the inspectors responsibility to confirm/check for permits for renovation/changes in the home. The presence of mold in concealed areas of the home does NOT fall within the scope of Home Inspection as it is not visibly accessible. If buyer has concerns about mold due to allergies, or suspects the presence of mold, he/she is advised to consult with a qualified mold inspector or contractor to agree to carry out a more invasive investigation. Air quality testing is a great option to further investigate for mold in concealed areas.

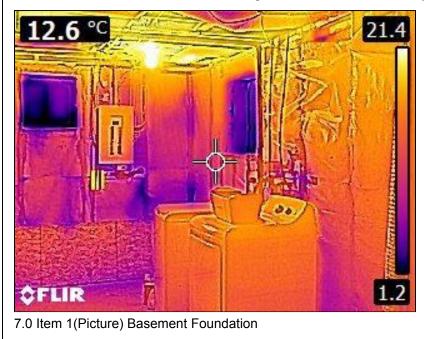
	Styles & Materials	
Foundation:	Method used to observe Crawlspace:	Floor Structure:
Poured concrete	No crawlspace	Wood joists
Columns or Piers:	Insulation:	Floor Covering(s):
Steel screw jacks	Batt	Unfinished
	Items	

### 7.0 Foundation

Comments: Inspected

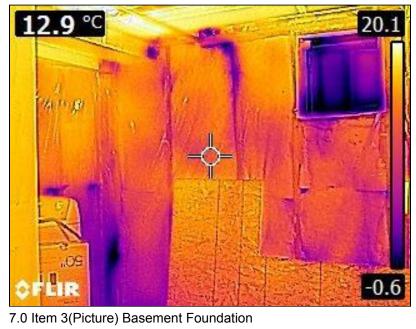
### FOUNDATION

The basement area was dry on day of the inspection. Future conditions cannot be determined as these are changeable with the weather conditions. Recommend obtaining information from seller on any past water/moisture penetration.





7.0 Item 2(Picture) Basement Foundation



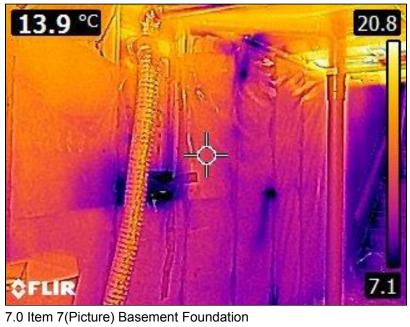


7.0 Item 4(Picture) Basement Foundation





7.0 Item 6(Picture) Basement Foundation



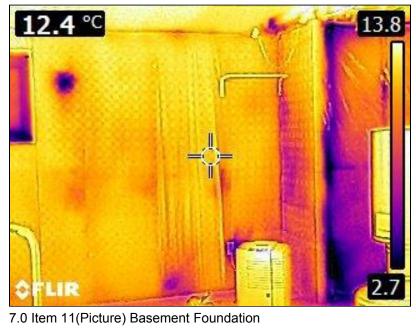


7.0 Item 8(Picture) Basement Foundation



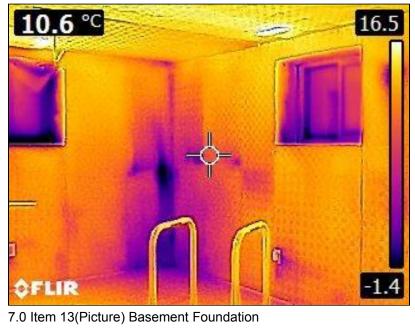


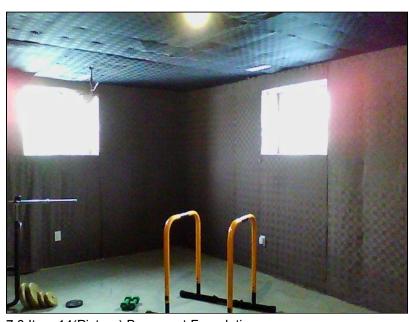
7.0 Item 10(Picture) Basement Foundation



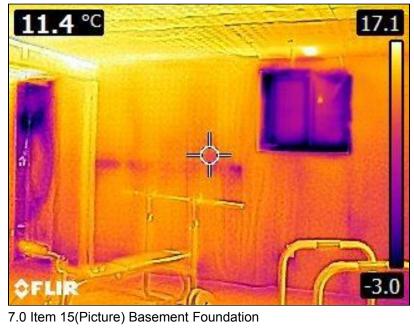


7.0 Item 12(Picture) Basement Foundation





7.0 Item 14(Picture) Basement Foundation





### 7.3 Floors

Comments: Inspected

### 7.6 Columns or Piers

Comments: Inspected, Repair or Replace

### COLUMNS or PIERS

The plate on the steel screw jack was bowed, recommend that it be further reviewed. Never remove support posts without seeking advice from structural engineer.



7.6 Item 1(Picture) Plate - bowed

### 7.9 Joists and Beams Condition

Comments: Inspected, Repair or Replace

#### JOISTS AND BEAMS

The end of the one beam is broken and there is sagging in the joists by the split beam, recommend that the beam and joists be further reviewed and repaired as required.

#### For Educational Purposes:

Floor joists are an important part of the supportive structure of a floor. They hold up the weight of a building, absorb impacts on the floor, and create structural support so that the floor will be stable secure. Suggest consulting professional prior to modification.



7.9 Item 1(Picture) Beam - end is broken

7.9 Item 2(Picture) Joist - sagging

The basement, crawlspace or foundation of the home was inspected and reported on with the above information. While the inspector makes every effort to find all areas of concern, some areas can go unnoticed. The inspection did not involve moving furniture and inspecting behind furniture, area rugs or areas obstructed from view. Please be aware that the inspector has your best interest in mind. Any repair items mentioned in this report should be considered before purchase. It is recommended that qualified contractors be used in your further inspection or repair issues as it relates to the comments in this inspection report.

## 9. Bathroom and Components

The home inspector shall observe function of bathroom components, along with a thermal scan for hidden leaks. The inspector cannot be held responsible for future leaks. The home inspection in non-invasive. Moisture cannot be detected behind tiles and other surfaces in wet areas.

Items

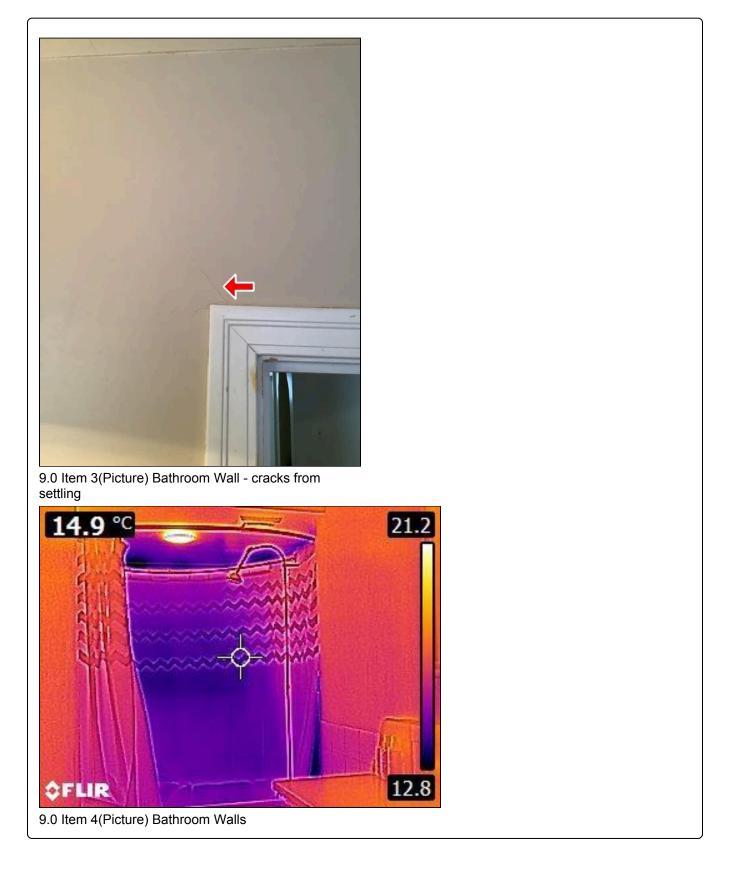
### 9.0 Walls and Ceiling

Comments: Inspected

### WALLS AND CEILING

All ceilings were dry at time of inspection but had cracks, some common from settling and some from shifting.







### 9.1 Floors

Comments: Inspected

### 9.3 Doors

#### **Comments:** Inspected

Please be aware that the inspector has your best interest in mind. Any repair items mentioned in this report should be considered before purchase. It is recommended that qualified contractors be used in your further inspection or repair issues as it relates to the comments in this inspection report.

## **General Summary**



**Bocc Home Inspections Ltd.** 

### Creekside Postal Stn PO Box70036 Airdrie AB T4B 0V9 (403)585-6279 www.BoccInspections.com

Customer Town of Drumheller attn: Mark Steffler

> Address 1000 Hunter Drive Nacmine Drumheller Alberta T0J 0Y0

The following items or discoveries indicate that these systems or components **do not function as intended** or **adversely affects the habitability of the dwelling;** or **warrants further investigation by a specialist**, or **requires subsequent observation.** This summary shall not contain recommendations for routine upkeep of a system or component to keep it in proper functioning condition or recommendations to upgrade or enhance the function or efficiency of the home. This Summary is not the entire report. The complete report may include additional information of concern to the customer. It is recommended that the customer read the complete report.

### 1. Roofing

### 1.0 Roof Coverings

Inspected, Repair or Replace ROOF COVERINGS

The roof was walked for assessment, could only inspect some of the roof as it was covered in snow. No visual sign of structural concern but shingles are aged and will require replacement.



1.0 Item 1(Picture) Roof - shingles are aged and will require replacement

1.0 Item 2(Picture) Roof - shingles are aged and will require replacement



1.0 Item 3(Picture) Roof - shingles are aged and will require replacement



1.0 Item 4(Picture) Roof - shingles are aged and will require replacement



1.0 Item 5(Picture) Roof - shingles are aged and will require replacement



1.0 Item 7(Picture) Roof - shingles are aged and will require replacement

1.0 Item 6(Picture) Roof - shingles are aged and will require replacement



1.0 Item 8(Picture) Roof - shingles are aged and will require replacement



1.0 Item 9(Picture) Roof - shingles are aged and will require replacement

1.0 Item 10(Picture) Roof - shingles are aged and will require replacement

### 2. Attic

### 2.3 Roof Structure

### Inspected, Repair or Replace ROOF STRUCTURE

One of the rafters has split where the two are nailed together and the cross support is bowed, both are signs of movement/settling and should be further reviewed and repaired as required.



2.3 Item 1(Picture) Rafter - split, cross support bowed 2.3 Item 2(Picture) Rafter - split, cross support bowed

### 3. Exterior

3.1 Wall Cladding Flashing and Trim

#### Inspected, Repair or Replace WALL CLADDING FLASHING AND TRIM

Higher levels of wall clad around the home are only visually inspected from the ground level. At the back of the house the top row of siding is bowed over the sliding patio door, recommend that it be further reviewed and repaired as required.



**Bocc Home Inspections Ltd.** 



3.1 Item 5(Picture) Exterior

3.1 Item 6(Picture) Exterior



3.1 Item 7(Picture) Exterior



3.1 Item 8(Picture) Exterior



3.1 Item 9(Picture) Exterior Siding - bowed

### 4. Garage

4.4 Garage Clading, Flashing and Trim

Inspected, Repair or Replace GARAGE CLADING, FLASHING AND TRIM The back of the garage is heavily bowed, replacement of the garage is recommended.



### 7. Basement

### 7.6 Columns or Piers

## Inspected, Repair or Replace COLUMNS or PIERS

The plate on the steel screw jack was bowed, recommend that it be further reviewed. Never remove support posts without seeking advice from structural engineer.



7.6 Item 1(Picture) Plate - bowed

### 7.9 Joists and Beams Condition

## Inspected, Repair or Replace JOISTS AND BEAMS

The end of the one beam is broken and there is sagging in the joists by the split beam, recommend that the beam and joists be further reviewed and repaired as required.

### For Educational Purposes:

Floor joists are an important part of the supportive structure of a floor. They hold up the weight of a building, absorb impacts on the floor, and create structural support so that the floor will be stable secure. Suggest consulting professional prior to modification.



7.9 Item 1(Picture) Beam - end is broken

7.9 Item 2(Picture) Joist - sagging

Home inspectors are not required to report on the following: Life expectancy of any component or system; The causes of the need for a repair; The methods, materials, and costs of corrections; The suitability of the property for any specialized use; Compliance or non-compliance with codes, ordinances, statutes, regulatory requirements or restrictions; The market value of the property or its marketability; The advisability or inadvisability of purchase of the property; Any component or system that was not observed; The presence or absence of pests such as wood damaging organisms, rodents, or insects; or Cosmetic items, underground items, or items not permanently installed. Home inspectors are not required to: Offer warranties or guarantees of any kind; Calculate the strength, adequacy, or efficiency of any system or component; Enter any area or perform any procedure that may damage the property or its components or be dangerous to the home inspector or other persons: Operate any system or component that is shut down or otherwise inoperable; Operate any system or component that does not respond to normal operating controls; Disturb insulation, move personal items, panels, furniture, equipment, plant life, soil, snow, ice, or debris that obstructs access or visibility; Determine the presence or absence of any suspected adverse environmental condition or hazardous substance, including but not limited to mold, toxins, carcinogens, noise, contaminants in the building or in soil, water, and air; Determine the effectiveness of any system installed to control or remove suspected hazardous substances; Predict future condition, including but not limited to failure of components; Since this report is provided for the specific benefit of the customer(s), secondary readers of this information should hire a licensed inspector to perform an inspection to meet their specific needs and to obtain current information concerning this property.

Prepared Using HomeGauge http://www.HomeGauge.com : Licensed To Adam Boccinfuso



Bocc Home Inspections Ltd. Creekside Postal Stn PO Box70036 Airdrie AB T4B 0V9 (403)585-6279 www.BoccInspections.com Inspected By: Adam Boccinfuso

Inspection Date: 12/16/2021 Report ID: 1000 Hunter Drive - Nacmine

Customer Info:	Inspection Property:
Town of Drumheller attn: Mark Steffler	1000 Hunter Drive Nacmine Drumheller Alberta T0J 0Y0
Customer's Real Estate Professional:	

### **Inspection Fee:**

Service	Price	Amount	Sub-Total
Custom - Home Inspection	250.00	1	250.00

### Tax \$12.50 Total Price \$262.50

Payment Method: Cash, cheque, e-transfer (Send to: payment@boccinspections.com), or credit card (2.5% surcharge applies).
Payment Status: Due at Time of Inspection
Note:



### What to Expect From a Home Inspection

Purchasing a home is a large investment for many Canadians. It is so important to familiarize yourself with all the activities related to buying a house so that you are making an informed choice. Many people get a home inspection done as part of their buying decision.

### So what can you expect from a home inspection?

Typically inspections take 2 to 3 hours to complete. They are visual inspections which means the inspector is not expected to displace flooring and tiling, or check water or air samples. An inspector cannot look through walls or predict future performance or estimated life spans on a home.

### After the home inspection is completed?

When the inspector has completed the examination of your potential home, you should receive a written report which outlines the findings from the inspection. If you have questions about the report, it is important to speak with the inspector to clarify the findings.

It is a good idea to read through the association's <u>standards</u> and <u>code of ethics</u> to help you understand precisely what to expect from your inspection.

**Generally Speaking** 

Reports should describe the major home systems, their crucial components, and their operability. Deficiencies and defects should be adequately described, and the report should include recommendations.

Reports should also disclaim portions of the home not inspected.

# INDUSTRY STANDARDS OF PRACTICE ARE DESIGNED TO IDENTIFY BOTH THE REQUIREMENTS OF A HOME INSPECTION AND THE LIMITATIONS OF AN INSPECTION.

The client is strongly advised to clarify anything that they don't understand.

### **INSPECTION CONTRACT**

Address to be inspected: 1000 Hunter Drive Nacmine Drumheller Alberta T0J 0Y0

### Inspection Date: 12/16/2021 Time Start: 09:30 AM

**1000 Hunter Drive Nacmine** 

Client(s) Name(s): Town of Drumheller attn: Mark Steffler

### Mailing Address: Town/City: Postal Code:

### Phone #: (H) (C) (403) 660-3507

### Client E-mail Address: msteffler@drumheller.ca

### Client UserName: TDrumhellerattnMarkSte286

I/We, the above named client(s) request an inspection of the inspection address above. The inspection is to be performed by the below inspection company (firm) in accordance with the InterNACHI Standards of Practice which includes roofing, flashing or chimney; exterior, including lot grading, walkways, driveways, retaining walls, patios and decks; structure; electrical; heating; heat pumps and cooling; insulation; ventilation; plumbing; and interior.

It is important for the client(s) to understand that the inspection is based on the limited visual inspection of the readily accessible aspects of the building. The report is representative of the inspector's opinion of the observable conditions on the day of the inspection. While the inspection may reduce your risks of home ownership, it is not an insurance policy, warranty or guarantee on the home. This report is for the exclusive use of the contracted parties and may not be used by third parties without prior written permission from the inspector/inspection firm. Also, this inspection does not include any inspection of any outbuildings or other structures not attached to the dwelling other than a garage or carport, unless otherwise agreed upon.

### BY SIGNING THIS AGREEMENT YOU ARE ACKNOWLEDGING THAT YOU UNDERSTAND THIS INSPECTION WILL NOT BE TESTING FOR MOLD OR ASBESTOS UNLESS OTHERWISE INDICATED IN OTHER WRITINGS.

I/we have read, understand and accept the terms and conditions as outlined here and on the page entitled " What To Expect From Your Inspection."

### Inspection Company: Bocc Home Inspections Ltd. Creekside Postal Stn PO Box 70036 Airdrie AB T4B 0V6 (403) 585-6279

### Inspectors Name: Adam Boccinfuso Inspectors License: License# 342384

If applicable, CLIENT agrees that all or a portion of the inspection will be performed by the above named Inspection Business.

The Client(s) and Inspector(s), by signing below, agree, to have read, understand and accept the terms and contract.

Town of Drumheller attn: Mark Steffler 12/16/2021

Clients(s) Representative Signature

\_\_\_\_Adam Boccinfuso 12/16/2021

Inspector Signature

### Total Fee for Inspection: 262.50

Payment Method: Cash, cheque, e-transfer (Send to: payment@boccinspections.com), or credit card (2.5% surcharge applies).

### Payment Status: Due at Time of Inspection

The home inspection business shall provide the client with a copy of this contract at the time the contract is signed.

THIS AGREEMENT made on 12/16/2021 by and between Adam Boccinfuso (Hereinafter "INSPECTOR") and the undersigned (hereinafter "CLIENT"), collectively referred to herein as "the parties." The Parties Understand and Voluntarily Agree as follows:

1. INSPECTOR agrees to perform a visual inspection of the home/building and to provide CLIENT with a written inspection report identifying the defects that INSPECTOR both observed and deemed material. INSPECTOR may offer comments as a courtesy, but these comments will not comprise the bargained-for report. The report is only supplementary to the seller's disclosure.

2. Unless otherwise inconsistent with this Agreement or not possible, INSPECTOR agrees to perform the inspection in accordance to the current Standards of Practice of the National Association of Certified Home Inspectors posted at <a href="http://www.nachi.org/sop.htm">http://www.nachi.org/sop.htm</a>. CLIENT understands that these standards contain certain limitations, exceptions, and exclusions.

3. The inspection and report are performed and prepared for the use of CLIENT, who gives INSPECTOR permission to discuss observations with real estate agents, owners, repairpersons, and other interested parties. INSPECTOR accepts no responsibility for use or misinterpretation by third parties. INSPECTOR'S inspection of the property and the accompanying report are in no way intended to be a guarantee or warranty, express or implied, regarding the future use, operability, habitability or suitability of the home/building or its components. Any and all warranties, express or implied, including warranties of merchantability and fitness for a particular purpose, are expressly excluded by this Agreement.

4. Except under circumstances of negligence or breach of contract on the part of the home inspection business or the home inspector, INSPECTOR assumes no liability for the cost of repair or replacement of unreported defects or deficiencies either current or arising in the future.

5. INSPECTOR does not perform engineering, architectural, plumbing, or any other job function requiring an occupational license in the jurisdiction where the inspection is taking place, unless the inspector holds a valid occupational license, in which case he/she may inform the CLIENT that he/she is so licensed, and is therefore qualified to go beyond this basic home inspection, and for additional fee, perform additional inspections beyond those within the scope of the basic home inspection. Any agreement for such additional inspections shall be in a separate writing or noted here:

6. In the event of a claim against INSPECTOR, CLIENT agrees to supply INSPECTOR with the

### **Bocc Home Inspections Ltd.**

following: (1) Written notification of adverse conditions within 14 days of discovery, and (2) Access to the premises. Failure to comply with the above conditions will release INSPECTOR and its agents from any and all obligations or liability of any kind. This clause is not intended in any way to limit the time for CLIENT to make a claim against the home inspection business or home inspector but rather, is intended to provide for timely discovery and disclosure of the adverse conditions which will permit the home inspector to facilitate a timely resolution to the issue.

7. The parties agree that any litigation arising out of this Agreement shall be filed only in the Court having jurisdiction over the City of Airdrie in which the INSPECTOR has its principal place of business. In the event that CLIENT fails to prove any adverse claims against INSPECTOR in a court of law, CLIENT agrees to pay all expenses and fees of INSPECTOR in defending said claims, including legal costs on a solicitor-client basis.

8. If any court declares any provision of this Agreement invalid or unenforceable, the remaining provisions will remain in effect. This Agreement represents the entire agreement between the parties. All prior communications are merged into this Agreement, and there are no terms or conditions other than those set forth herein. No statement or promise of INSPECTOR or its agents shall be binding unless reduced to writing and signed by INSPECTOR. No change or modification shall be enforceable against any party unless such change or modification is in writing and signed by the parties. This Agreement shall be binding upon and enforceable by the parties and their heirs, executors, administrators, successors and assignees. CLIENT shall have no cause of action against INSPECTOR after one year from the date of the inspection.

- 9. Payment of the fee to INSPECTOR (less any deposit noted above) is due upon completion of the onsite inspection. The CLIENT agrees to pay all legal and time expenses incurred in collecting due payments, including solicitor-client costs, if any. If CLIENT is a corporation, LLC, or similar entity, the person signing this Agreement on behalf of such entity does personally guaranty payment of the fee by the entity.
- 10. HOLD HARMLESS AGREEMENT: CLIENT agrees to hold any and all real estate agents involved in the purchase of the property to be inspected harmless and keep them exonerated from all loss, damage, liability or expense occasioned or claims by reason of acts or neglects of the INSPECTOR or his employees or visitors or of independent contractors engaged or paid by INSPECTOR for the purpose of inspecting the subject home.
- 11. PRIVACY POLICY: In providing the property inspection and inspection report, information about the client, inspector, real estate professional, and property will be collected and input into HomeGauge inspection software and services, which the inspector uses to produce the inspection report. This information may include personally identifiable information about the client, inspector, and real estate professional. This information may subsequently be used by the provider of HomeGauge, as set out in the HomeGauge Privacy Policy found at <a href="https://www.HomeGauge.com/privacy.html">https://www.HomeGauge.com/privacy.html</a>.

12. CANCELLATION FEE: We understand sometimes unforeseen circumstances arise. We ask that you please provide as much notice as possible when cancelling or rescheduling. CLIENT agrees to pay a cancellation fee of fifty percent of the total cost of services if the inspection is cancelled with less than twenty-four hours' notice.

CLIENT HAS CAREFULLY READ THE FOREGOING, AGREES TO IT, AND ACKNOWLEDGES RECEIPT OF A COPY OF THIS AGREEMENT.

FOR INSPECTOR

CLIENT OR REPRESENTATIVE

REFE	RENCE: 214962 RESIDENT	<b>F1/</b>	AL APPR	AISA	L REF	POR	T		FILE NO.:	214962		
	CLIENT: DRFM Office		AIC MEMBER:	Rob	ert Irw	in				214002		
		<u>،</u>	- · · · · · · · · · · · · · · · · · · ·		Apprai		l td				- ()	
₽	ADDRESS: 702 Premier Way	APPRAISER	ADDRESS:		Box 7						•	
CLIENT	Drumbeller AD TO LOVO	RA	ADDITEOU.								1	
Ö	Drumheller, AB T0J 0Y0	PP	E MAIL.				R 1B7				Appr	aisal Institute
	L'INIAIL.						aisals.com					of Canada
	PHONE: FAX:		PHONE:		362-	6992						
	PROPERTY ADDRESS: 105.4 Street W		CITY:	Lehigh			PR0	VINCE:	AB	POSTAL CO	DDE:	ГОЈ 1ВО
F	LEGAL DESCRIPTION: PLAN 9611501 BLOCK 12											
SUBJECT								Source:	Assessr	nent / Tit	le Sea	irch
SUB	MUNICIPALITY AND DISTRICT: Drumheller		<u></u>							<u></u>		
	ASSESSMENT:		Assess	ment Date	Jul.	1, 202	0 (2021 Assmt)			Year	r 	2021
	EXISTING USE: Residential Single Family		OCCUP	PIED BY:	Own	ner						
	NAME: Ginger						Name Type:	Ow	ner			
	PURPOSE: X To estimate market value To estimate market rent											
	INTENDED USE: First mortgage financing only Second mortgage financing only C	onve	entional 🗙	Acquis	ition/F	xpro	priation only	v (all	other use	es are de	nied)	
	INTENDED USERS (by name): DRFM Office		<b>—</b>				P					
	REQUESTED BY: X Client above Other											
Ι.		rosd	ective									
ASSIGNMENT	Update of original report completed on		with an effective	date of					File No			
MN	PROPERTY RIGHTS APPRAISED: K Fee Simple Leasehold Condominium/Strata	 a										
SIG	MAINTENANCE FEE (if applicable) \$:		└┘									
AS	CONDO/STRATA COMPLEX NAME (if applicable):											
	· · · · · · · · · · · · · · · · · · ·	X		es (if yes, se	e commente	 c)						
				63 (ii y63, 30	o commone	3)						
	EXTRAORDINARY ASSUMPTIONS & LIMITING CONDITIONS	1										
				netical cond	nion requires	s an ext	raordinary assumptior	1)				
			addendum)							<b>F</b>		т-
	NATURE OF DISTRICT: Residential Commercial Industrial Agricultu							(		From		То
	TYPE OF DISTRICT: Urban Suburban Rural Recreation						NGE OF PROPERTIES	. ,	<b>.</b>			
	TREND OF DISTRICT: Improving Stable Transition Deteriora	ating					RANGE OF PROPERTI		\$		\$	
	BUILT-UP:         Over 75%         25 - 75%         Under 25%         Rural			Ranges do not apply (see comments be								
臣	CONFORMITY: Age: Newer Similar Older See cor			<u> </u>					Avera		Low	
UB N	Condition: Superior Similar Inferior See cor						Der	mand:	High	X Avera		Low
HBOURHOOD	Size: Larger Similar Smaller 🔀 see cor	mme	ents below			PRICE	TRENDS:		Increasing	X Stable	)	Declining
NEIGI	COMMENTS: Detrimental Conditions Observed											
z	-											
	-											
	-											
	SITE DIMENSIONS: Irregular		UTILITIES:	X	Telephone	)	Natural Gas		Storm Sewer	Sanita	iry Sewer	Open Ditch
	LOT SIZE: 1.33 Unit of Measurement Acre(s)				Septic		Holding Tank				,	
	Source: Assessment & G.I.S. Map		WATER SUPP		Municipal		Private Well					
	TOPOGRAPHY: Mostly level or gently sloping down to river.											
	Mostly level of genity sloping down to river.		FEATURES:	×	Gravel Ro	 ad	Paved Road	· · · · · · · · · · · · · · · · · · ·	Lane	Sidew	 alk	Curbs
	configuration: Irregular (see plot map in addendum)			-	Street Ligi		Cablevision		Luno		un	
	the guar (see plot map in addendum)		 ELECTRICAL:		Overhead		Underground					
	ZONING: CSD - Countryside District		DRIVEWAY:		Private		Mutual			Single		Double
					Undergrou	und .			NULLE			Double
							Laneway					
SITE	OTHER LAND USE CONTROLS (see comments) USE CONFORMS: X YES NO (see comments)				face: <u>G</u>	ave						
0,			PARKING:		Garage		Carport		Driveway	Street		
	ASSEMBLAGE: NO YES (see comments)				Good		Average		Fair	Poor Door		
	TITLE SEARCHED: YES NO (see comments and limiting conditions)		CURB APPEAL		Good		X Average		Fair	Poor		
	COMMENTS: Detrimental Conditions Observed											
	Lawn area surrounding the home with mature trees. Small fe	nc	ed off yard	l area r	next to	the	house. Prop	perty	use confo	orms to tl	he zon	ing.

Image: Instance         Bigg: Family Dougling         Roote (at 100 bits)         Roote (at 100 bits) <throote (at="" 100="" bits)<="" th="">         Roote (at 100 bits)</throote>		NCE: 214962					RES	IDENTI	AL A	PPRAIS	AL RE	PORT	•		FILE NO.: 2	14962		
Impreciate       40       ymm       Wood         BBL ESCANCELE       30       ymm       Wittents:       Page 2000         Impreciate       30       ymm       Wittents:       Page 2000         Impreciate       Status:       Page 2000       Status:       Page 2000         Impreciate       Status:       Page 2000       Status:       Page 2000         Impreciate       Status:       Page 2000       Page 2000       Page 2000         Impreciate       Status:       Page 2000       Page 2000       Page 2000       Page 2000         Impreciate       Status:       Page 2000       Page 2000       Page 2000       Page 2000       Page 2000         Impreciate       Page 2000				1948	J PRO	PERTY TYPE:	Single	Family	Dwelli	ng			ROOFING:	Vletal				
All TOXIDAR LIFE     30     40     4054067     Partial / Undeveloped     Control     Control	Y	EAR of ADDITIONS (est	iimated)		DES	GN/STYLE:	Bunga	alow					Condition:	Good	X Avera	ige Fa	ir Poor	
STARENTS:       Partial / Undeveloped       Different mask:       Stucco         STARENTS:       Starkets Starkets       Starkets       Starkets       Starkets         STARENTS:       Starkets Starkets       Starkets       Starkets       Starkets       Starkets         STARENTS:       Starkets       Starkets       Starkets       Starkets       Starkets       Starkets       Starkets         Starkets       Sta	E	FFECTIVE AGE:		40	years CON	STRUCTION:		L										
State:	R	EM. ECONOMIC LIFE:	;	30	-*													
Image: control in the image: contro	C	OMMENTS:						I/Undev	/elope		····-						·····	
RUNDANINK WALLS       Concrete         BETRUIK (#)       Authetion (#)       Interfere market       User       Index (#)       Index (#)       Interfere market         2. Average       3-Average       Sourd       Control       Sourd       Overage       Interfere market       Interfere market         2. Average       3-Average       Sourd       For       Developed       Interfere market       Interfere market </td <td></td> <td>Sq. Ht.</td> <td> Sq. m.</td> <td>Condition:</td> <td> G000</td> <td>Avera</td> <td>ige 🔄 ra</td> <td></td> <td></td>											Sq. Ht.	Sq. m.	Condition:	G000	Avera	ige 🔄 ra		
BERKOW (#)       BATHROOK (#)       NITERON PROSE       Name       Cutore       Down       Development       PostMan       Development       Development       PostMan       Development       Dev					+					<u> </u>								
Large       2-Price       Cond       Dynall       Millet       Inscrete       Contrageon         2.       Average       3-Price       X       Average       Torres       Value       Inscrete       Inscretee       Inscretee<		5000M (#)							2-11000		<u></u>	<u></u>	<b>N</b> A			<u></u> Г	□/\ ana	
2. Average       1.4Pace       Year       Important	D	. ,		. ,	Good				- 1									
Smith       1. + Prece       Fair       Pauling														ans	Dao		Ulawispace	
SPACE OF MALE AND										-					Info Source:	limited vis	ual inspectio	 n
Income:       Vinyl & Laminate       Income:       Incom						•	9	$\square$	$\exists$									<u>'1</u>
PLOUND       Virunt & Laminate       Swinty & Laminate       Swinty & Laminate       Swinty & Laminate         Baseria       Swinty & Laminate         Baseria       Swinty & Laminate         Baseria       Contrast / Ref       Swinty & Laminate       Swinty & Laminate       Swinty & Laminate       Swinty & Laminate         How Works Winty & Laminate       Contrast / Ref       Swinty & Laminate       Swinty & Laminate       Swinty & Laminate       Swinty & Laminate         How Works Winty & Laminate       Contrast / Ref       Swinty & Laminate       Swinty & Swinty & Laminate       Swinty &																		
LECTRICAL Level Level Attext to an	F	LOORING: Vinvl	& Lamir	nate						Vacuum		Security Sys	stem 🗌 Fi	replace			Solarium	
STIMUTED RATED CAPACITY OF MARE PARTE:   HOUR BASTER:   FORCE ALL MIT: COND:   HOUR BASTER:   FORCE ALL MIT: COND:   CONTALL CATION      VERALL MIT: COND:   LEVE:   BUTRANCE   BUTRANCE   LEVE:   BUTRANCE   BUT				Draskara								Central Air			Sau	ina 🕨	Jetted tub	
HATING SYSTEM       Forced Air       Four Type       Natural Gas         WILLE HATTING       40-Callon (estimated size)       0/0/2010       600d       Arrage       Far       Poor         ROMALICATION       ENTRANCE       LIVING       DIMING       RTICHEN       FARMUY       BEDROMUS       DEM       FULL BATH       PART BATH       LIVING       SUMROOM       UTILITY       ROOM 101A       AREA         MAIL       X       1       area       1       2       1       in bath       1       5       1,210         MAIL       X       1       area       1       2       1       in bath       1       5       1,210         MAIL       X       1       area       1       2       1       in bath       1       5       1,210         MAIL       X       1       area       1	E			-			100			Garage Ope	ner	Swimming F	- loo					
WITER HEATER:       40-Gallon (estimated size)       IVERALL NT COUR:       Good       Iverage       Pair       Proc         ROMALLOCATION       Iverage       Iverage       Iverage       Pair       Proc         INVERTIGATION       Iverage       Iverage       Iverage       Iverage       Proc         In bath       I       Iverage       Iverage       Iverage       Proc         MAN       X       I       area       I       2       I       In bath       I       5       1,210         MAN       X       I       area       I       2       I       In bath       I       5       1,210         MAN       X       I       area       I       2       I       In bath       I       Iverage       Ive	Н	EATING SYSTEM:	Forced /	Air					as									
LiveL:         ENTRANCE         LIVEL         AREA           MAM         X         1         area         1         2         1         in bath         1         5         1,210           MAN         X         1         area         1	W	-								OVERALL INT. CO	IND:	Good	A X	verage	Fair		Poor	
MAIN       x       1       area       1       2       1       in bath       1       5       1,210         SECOND       I </td <td>R</td> <td>OOM ALLOCATION</td> <td></td>	R	OOM ALLOCATION																
SECOND       Image: Control in the image: Contro	L	EVEL:	ENTRANCE	LIVING	DINING	KITCHEN	FAMILY	BEDROOMS	DEN	FULL BATH	PART BATH	LAUNDRY	Y SUNROOM	UTILITY		ROOM TOTAL	AREA	
THRD       Image: Control of the construction (see comments)         OUNT OF MEASUREMENTS       Newer 24' x 24' detached double garage, gravel floor, insulated and lined with plywood. Power and garage.         GARAGES.CARPORT/FARMING FACULTIES:       Newer 24' x 24' detached double garage, gravel floor, insulated and lined with plywood. Power and garage.         GORAGES.CARPORT/FARMING FACULTIES:       Newer 24' x 24' detached double garage, gravel floor, insulated and lined with plywood. Power and garage.         GORAGES.CARPORT/FARMING FACULTIES:       Newer 24' x 24' detached double garage, gravel floor, insulated and lined with plywood. Power and garage.         GORAGES.CARPORT/FARMING FACULTIES:       Newer 24' x 24' detached double garage, gravel floor, insulated and lined with plywood. Power and garage.         COMMENTS:       Detimental Conditions Observed       Newer screened wood deck at the front of the house.         COMMENTS:       Detimental Conditions Observed       Imample Construction (see comments)         Older home that has been generally well maintained and updated over the years. Updated bathroom and kitchen. In average condition of	N	IAIN	Х	1	area	1		2		1		in bat	<u>h 1</u>	Ţ	[	5	1,2	210
ABOVE GRADE TOTALS: ROOMS: 3 BEDROOMS: 2 BATHROOMS: 1  TOTAL AREA 1,210  BASEMENT ABOVE GRADE TOTALS: ROOMS: 3 BEDROOMS: 2 BATHROOMS: 1  TOTAL AREA 1,210  TOTAL AREA 1,210  UNIT OF MEASUREMENT: MEASUREMENT: MEASUREMENT: Measured  BASEMENT RNISH Partial basement is undeveloped with no development potential. Good for utility/storage room only.  GRARGES/CARPORT/PARKING FACULTIES: Newer 24' x 24' detached double garage, gravel floor, insulated and lined with plywood. Power and garage door openers.  STE IMPROVEMENTS (INCLUDING DECKS, PATIOS, OUTBULLINGS, LANDSCAPING, etc): Newer screened wood deck at the front of the house.  COMMENTS: Detimental Conditions Observed Incomplete Construction (see comments) Older home that has been generally well maintained and updated over the years. Updated bathroom and kitchen. In average condition of	S	ECOND			ļ							<u> </u>		<u> </u>	<u> </u>	<u> </u>		
BASEMENT       1<	T	HIRD										<u> </u>			<u> </u>			
BASEMENT       1<										_ <u> </u>		<u> </u>	_					-
BASEMENT       1<					2500		2 04										4.0	240
UNIT OF MEASUREMENT: Measured UNIT OF MEASUREMENT: Measured BASEMENT FINISH Partial basement is undeveloped with no development potential. Good for utility/storage room only.  BASEMENT FINISH Partial basement is undeveloped with no development potential. Good for utility/storage room only.  GARAGES/CARPORT/PARKING FACILITIES: Newer 24' x 24' detached double garage, gravel floor, insulated and lined with plywood. Power and garage door openers.  SITE IMPROVEMENTS (INCLUDING DECKS, PATIOS, OUTBUILDINGS, LANDSCAPING, etc): Newer screened wood deck at the front of the house.  COMMENTS: Detrimental Conditions Observed Incomplete Construction (see comments) Older home that has been generally well maintained and updated over the years. Updated bathroom and kitchen. In average condition of			RUUW	S: <u>3</u>	BEUN	JOMS:	2 ва	THROUMS:	1		[	1		1	Т		∠, וֹ	210
GARAGES/CARPORT/PARKING FACILITIES:       Newer 24' x 24' detached double garage, gravel floor, insulated and lined with plywood. Power and garage door openers.         SITE IMPROVEMENTS (INCLUDING DECKS, PATIOS, OUTBUILDINGS, LANDSCAPING, etc):       Newer screened wood deck at the front of the house.         COMMENTS:       Detrimental Conditions Observed       Incomplete Construction (see comments)         Older home that has been generally well maintained and updated over the years. Updated bathroom and kitchen. In average condition of	NTS P	ASEIVIENT	[]			+					[	+			+	1		
										int potoniti								1
		ARAGES/CARPORT/PA door openers ite improvements (ii omments: Dider home ti	NCLUDING DEC	CKS, PATIOS, C ental Condition been ge	OUTBUILDING as Observed enerally		4' detach IG, etc):	Nev Construction (see	wer so	age, grave creened wo	I floor, ii	k at the	e front of f	the hous	olywood ee.			
		ARAGES/CARPORT/PA door openers ite improvements (ii omments: Dider home ti	NCLUDING DEC	CKS, PATIOS, C ental Condition been ge	OUTBUILDING as Observed enerally		4' detach IG, etc):	Nev Construction (see	wer so	age, grave creened wo	I floor, ii	k at the	e front of f	the hous	olywood ee.			
		ARAGES/CARPORT/PA door openers ite improvements (ii omments: Dider home ti	NCLUDING DEC	CKS, PATIOS, C ental Condition been ge	OUTBUILDING as Observed enerally		4' detach IG, etc):	Nev Construction (see	wer so	age, grave creened wo	I floor, ii	k at the	e front of f	the hous	olywood ee.			
		ARAGES/CARPORT/PA door openers ite improvements (ii omments: Dider home ti	NCLUDING DEC	CKS, PATIOS, C ental Condition been ge	OUTBUILDING as Observed enerally		4' detach IG, etc):	Nev Construction (see	wer so	age, grave creened wo	I floor, ii	k at the	e front of f	the hous	olywood ee.			
		ARAGES/CARPORT/PA door openers ite improvements (ii omments: Dider home ti	NCLUDING DEC	CKS, PATIOS, C ental Condition been ge	OUTBUILDING as Observed enerally		4' detach IG, etc):	Nev Construction (see	wer so	age, grave creened wo	I floor, ii	k at the	e front of f	the hous	olywood ee.			
		ARAGES/CARPORT/PA door openers ite improvements (ii omments: Dider home ti	NCLUDING DEC	CKS, PATIOS, C ental Condition been ge	OUTBUILDING as Observed enerally		4' detach IG, etc):	Nev Construction (see	wer so	age, grave creened wo	I floor, ii	k at the	e front of f	the hous	olywood ee.			
		ARAGES/CARPORT/PA door openers ite improvements (ii omments: Dider home ti	NCLUDING DEC	CKS, PATIOS, C ental Condition been ge	OUTBUILDING as Observed enerally		4' detach IG, etc):	Nev Construction (see	wer so	age, grave creened wo	I floor, ii	k at the	e front of f	the hous	olywood ee.			

REFE	RENCE: 214962		RESIDE	NTIAL APPR	AISAL REPORT		FILE NO.: 214962	
	LAND VALUE AS IF VACANT:	N/A	SOURCE OF DATA:	Assessment, vaca	ant land sales/listings	COMMENT:	estimate based on very l	imited data
ш	EXISTING USE: Resident	tial Single Family					<b>-</b> -	
USI	HIGHEST AND BEST USE OF THE L		Residential	Other				
ST	HIGHEST AND BEST USE OF THE P	PROPERTY AS IMPROVED:	Existing Residential Use	Other				
D BI				-				
ANI								_
HIGHEST AND BEST USE								
GHI	L							
王								
	S	SUBJECT						
	105 4 Street W							
	Lehigh, AB T0J 1B0	0						
	DATA SOURCE	Inspection						
	DAYS ON MARKET							
	DATE OF SALE							
	SALE PRICE	\$						
	LOCATION	Riverfront						
	SITE DIMENSIONS / LOT SIZE	1.33 Ac.						
	BUILDING TYPE	Single Family Dwell	ing					
	DESIGN / STYLE	Bungalow						
	AGE / CONDITION	40 eff. Average	e					
	LIVABLE FLOOR AREA	1,210 Sq.Ft.	_					
	DOOM COUNT	Total Rooms Bdrms						
<b>ACH</b>	ROOM COUNT	3 2						
R0/	BATHROOMS	1 Dential ( Linderseland						
APP	BASEMENT PARKING FACILITIES	Partial / Undevelope						
S		Double Det. (no floo	<u>, n</u>					
RIS	EXTRAS	5x Sheds, Scrn. De	ck					
MPA		5x Offed3, Ocffi. De						
DIRECT COMPARISON APPROACH								
ECT								
DIRI	ADJUSTMENTS (Gross %, Net %, N	let \$)						
	ADJUSTED VALUES							
	ANALYSES AND COMMENTS:							
	Ī							
								·
	ľ							
	-							
	i							
	Please refer to the	extraordinary assum	ptions addendum	regarding select	ion of comparable s	ales.		
	L							
	ESTIMATED VALUE BY THE DIR	RECT COMPARISON APPROACH (	rounded): \$					

REFERENCE:		RENCE:	Subject Photo P		o Pag	Page         FILE NO.: 214962			
		CLIENT:	DRFM Office	a	r /	APPRAISER:	Robert Irwin		
OLIENT	IENT	ADDRESS:	702 Premier Way			ADDRESS:	P.O. Box 771		
			Drumheller, AB T0J 0Y0	a	E L		Brooks, AB T1R 1B7		
		PHONE:	FAX:	2	¥ F	PHONE:	(403) 362-6992	FAX:	

### 105 4 Street W, Lehigh, AB T0J 1B0



Subject Front					
105 4 Street W					
Sale Price					
Livable Floor Area	1,210 Sq.Ft				
Total Rooms	3				
Total Bedrooms	2				
Total Bathrooms	1				
Site Size	1.33 Ac.				

Age

40 eff.



**Subject Rear** 

Subject Garage

### **APPENDIX E – HAZMAT REPORTS**

Attached



July 14, 2022

+

# HAZARDOUS MATERIALS ASSESSMENT REPORT

# 105 4 Street W

E2791



Prepared For:

**Town of Drumheller** 702 Premier Way Drumheller, Alberta T0J 0Y4

Prepared By:

Eco Abate Inc. 425 Forge Road SE Calgary, Alberta T2H 0S9



### SUMMARY LETTER

SENT: July 14, 2022

Town of Drumheller

702 Premier Way Drumheller, Alberta T0J 0Y4

ATTN: Mark Steffler, Project Manager

#### RE: Hazardous Material Assessment Report

105 4 Street W

Project #: E2791

Dear Mr. Steffler,

At your request, Eco Abate performed hazardous material sampling and assessment of the building located at 105 4 Street W in Lehigh, Alberta. The purpose of the investigation was to identify hazardous materials on the property to permit development of a remediation scope, identify abatement procedures, and confirm disposal protocols.

During the process, Eco Abate identified the following asbestos-containing materials which will require abatement prior to the planned renovations or demolition of the structure:

1. Exterior Stucco.

Various other hazardous materials were also identified including: ozone depleting substances, radioactive materials and biological hazards.

If you have any questions, concerns or require any additional information please contact the undersigned at (403) 998-5079 or <u>info@ecoabate.com</u>.

Authored By:

2/

**Reid Andersen**, *B.Sc., Project Coordinator* 

Reviewed By:

Scott Blake, B.Sc., NCSO, EP<sup>®</sup> Principal

### **EXECUTIVE SUMMARY:**

Based on observations and results, Eco Abate makes the following conclusions:

- 1. The following materials were identified as asbestos-containing and will require abatement prior to demolition of the structure:
  - a. Stucco Materials on Exterior Structures (See Photographs #13 to 17).

Removal of the materials must be performed by a qualified abatement contractor prior to demolition using procedures found in the <u>Alberta Asbestos Abatement Manual (2019)</u>.

- 2. Hazardous components were identified on site and will require appropriate disposal prior to demolition. These items included:
  - a. ozone depleting substances in refrigerators,
  - b. radioactive materials in smoke detectors, and
  - c. miscellaneous chemicals.
- 3. Various biological hazards were observed on site including animal carcasses, animal fecal matter and urine, and mould growth.
- 4. No attic access was identified, and ceiling materials were suspected to be asbestos-containing at the time. As a result, no inspection or test of attic materials was possible.
- 5. Should any new materials be identified throughout the process, work should stop until the materials can be assessed by a qualified health and safety professional.

**PLEASE NOTE:** Renovation and demolition activities involving asbestos materials identified must be performed in accordance with all laws found in the <u>Occupational Health and Safety Act Regulation and</u> <u>Code (2021)</u> and follow procedures outlined in the <u>Alberta Asbestos Abatement Manual (2019)</u>. Asbestos abatement must be performed by a competent contractor experienced in the procedures described above and include air quality monitoring by a third-party occupational hygiene consultant. All contractors who perform work on the building must be given relevant information pertaining to asbestos-containing materials and must be given access to all records of asbestos testing, including this report.

### TABLE OF CONTENTS

EXECUTIVE SUMMARY:	1
INTRODUCTION	2
SCOPE OF WORK	2
REGULATIONS AND GUIDELINES. Occupational Health and Safety Code Asbestos Products Regulations	. 3
METHODOLOGY Asbestos Bulk Sampling. Material Condition Assessment Lead Sampling. Polychlorinated Biphenyls Mercury. Ozone Depleting Substances Radioactive Materials Biological Hazards. Miscellaneous Chemicals	5566677
LIMITATIONS	7
OBSERVATIONS	8
RESULTS	.9 10 11
CONCLUSIONS	2
WARRANTY: 1	3

**APPENDIX I** 

PHOTOGRAPHS

**APPENDIX II** 

LABORATORY REPORTS

### INTRODUCTION

At your request, Eco Abate performed hazardous material sampling and assessment of the building located at 105 4 Street W in Lehigh, Alberta. The purpose of the investigation was to identify hazardous materials on the property to permit development of a remediation scope, identify abatement procedures, and confirm disposal protocols.

The site assessment and sampling portions of the investigation were performed on July 6<sup>th</sup>, 2022, by Mr. Scott Blake, *B.Sc., NCSO, EP*<sup>®</sup>, Principal at Eco Abate Inc.

### **SCOPE OF WORK**

Eco Abate provide the following services:

- Inspection of the building for hazardous materials and conditions, including:
  - o Asbestos-containing materials (ACM);
  - Lead-containing materials;
  - PCB-containing fixtures;
  - Mercury-containing fixtures;
  - Ozone depleting substances;
  - Biological hazards; and
  - Miscellaneous chemicals.
- Sampling, assessment, and photography of suspect materials;
- Interpretation of bulk sample laboratory results;
- Analysis of results in accordance with current industry standards;
- Determine mitigation and corrective actions, where needed;
- Identification of potential exposure hazards relating to asbestos, lead, PCBs, mercury, ODS; and
- Drafting of full report detailing results, conclusions, and recommendations.

### **REGULATIONS AND GUIDELINES**

#### **Occupational Health and Safety Code**

The <u>Alberta Asbestos Abatement Manual (2019)</u><sup>1</sup> (AAAM) outlines methods used to aid compliance with the <u>Occupational Health and Safety Act</u>, <u>Regulation and Code (December 2021)</u><sup>2</sup> (OH&S Code) in the province of Alberta. The manual covers general information on asbestos, related health hazards, requirements for worker protection, safe work practices and basic principles to follow for the safe abatement of asbestos-containing materials.

<u>Part 4</u> of the <u>Alberta OH&S Code (December 1, 2021)</u><sup>2</sup>, outlines requirements related to asbestos in buildings. These requirements are:

- Section 31 (1) If it is determined that asbestos fibres may be released in a building, the building is in an unsafe condition.
  - (2) The employer must take all necessary steps to correct the unsafe condition.
- Section 32 (1) A person must not use materials containing crocidolite asbestos in an existing or a new building.
  - (2) A person must not apply materials containing asbestos by spraying them.
- Section 33 A person must not use asbestos in an air distribution system or equipment in a form in which, or in a location where, asbestos fibres could enter the air supply or return air systems.
- Section 34 If a building is to be demolished, the employer must ensure that materials with the potential to release asbestos fibres are removed first.
- Section 35 If a building is being altered or renovated, the employer must ensure that materials in the area of the alterations or renovations that could release asbestos fibres are encapsulated, enclosed or removed.
- Section 36 (1) An employer who is responsible for removing or abating asbestos or for demolishing or renovating a building or equipment containing asbestos must notify a Director of Inspection of the activity at least 72 hours before beginning the activities that may release asbestos fibres.

(2) A person must not remove or abate asbestos or demolish or renovate a building or equipment containing asbestos if a Director of Inspection has not been notified in accordance with subsection (1).

All services provided by Eco Abate strictly adhere to Alberta's current occupational health and safety laws, which includes the <u>Occupational Health and Safety Act, Regulation and Code<sup>2</sup></u>.

<sup>&</sup>lt;sup>1</sup> Alberta Queens Printer, *Alberta Asbestos Abatement Manual (2019)*, Retrieved from <u>https://www.alberta.ca/alberta-asbestos-abatement-manual.aspx</u>

<sup>&</sup>lt;sup>2</sup> Alberta Queens Printer, Occupational Health and Safety Act, Regulation and Code (December 2021), Retrieved from http://work.alberta.ca/occupational-health-safety/ohs-act-regulation-and-code.html

#### Asbestos Products Regulations

<u>Section 1</u> of the <u>Asbestos Products Regulation (December 12, 2018)</u><sup>3</sup>, defines asbestos product as the following:

• A product that contains any type of asbestos, including actinolite, amosite, anthophyllite, chrysotile, crocidolite, cummingtonite, fibrous erionite and tremolite.

<u>Section 2.2</u> of the <u>Asbestos Products Regulation (December 12, 2018)<sup>3</sup></u> permits the use of non-crocidolite asbestos products if certain conditions are met. The following products and conditions are:

- 1) A textile fibre product that is worn on the person; if:
  - a) The product provides protection from fire or heat hazards; and
  - b) A person who uses the product in a reasonably foreseeable manner cannot come into contact with airborne asbestos from the product.
- 2) A product that is used by a child in learning or play; if:
  - a) Asbestos cannot become separated from the product.
- 3) Drywall joint cement or compound, or spackling or patching compound, that is used in construction, repair or renovation; if:
  - a) Asbestos cannot become separated from the product during its post-manufacture preparation, application or removal.
- 4) A product that is applied by spraying; if:
  - a) The asbestos is encapsulated with a binder during spraying; and
  - b) The materials that result from the spraying are not friable after drying.

<sup>&</sup>lt;sup>3</sup> Minister of Justice (December 12, 2018), Asbestos Products Regulations (SOR/2016-164), Retrieved from <u>https://laws-lois.justice.gc.ca/PDF/SOR-2016-164.pdf</u>

### METHODOLOGY

### **Asbestos Bulk Sampling**

Asbestos bulk sampling and assessment was conducted following <u>AAAM<sup>1</sup></u> guidelines by qualified and competent personnel with experience in sampling and laboratory analysis techniques. Asbestos samples were forwarded to EMSL Canada Inc. in Calgary, Alberta, for analysis. The samples were analyzed by polarized-light microscopy (PLM) using the <u>EPA 600/R-93/116</u> analysis method. This method uses various techniques to determine the asbestos concentrations in building materials.

### Material Condition Assessment

Assessment of the material was performed following the exposure assessment algorithm in <u>Section 1.6</u> of the <u>AAAM</u><sup>1</sup> as a guideline. This assessment method takes into account eight (8) factors that ultimately determine the corrective actions that must be taken to ensure the safety of an asbestos-containing installation. The factors which must be evaluated are:

- (1) Condition of Material An assessment of the quality of the installation, adhesion of the material to substrate, and instances of deterioration or damage. Condition rated as follows:
  - i. Good Condition no significant signs of damage, deterioration or delamination;
  - ii. Fair Condition mild to moderate damage, deterioration or delamination; and
  - iii. Poor Condition severely damaged, deteriorated or delaminated.
- (2) Water Damage;
- (3) Exposed Surface Area;
- (4) Accessibility;
- (5) Activity and Movement;
- (6) Air Distribution System;
- (7) Friability; and
- (8) Asbestos Content.

### Lead Sampling

Lead containing material and paint samples were collected and recommendations provided in accordance with the Alberta Government's Lead at the Work Site (2013)<sup>4</sup> document. This is a bulletin combining regulations and standards from various sources in the occupational health and safety industryLead samples were forwarded to EMSL Canada Inc. in Calgary, Alberta, for analysis. The samples were analyzed for lead content using EPA Method SW 846 3050B\*/700B. EMSL's laboratory is also accredited by the AIHA Environmental Lead Laboratory Approval Program (ELLAP)

Criteria for evaluating the condition of LCPs is based on the United States Housing and Urban Development (HUD) 2012 Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing. The assessment evaluates the condition of the LCPs to determine if deterioration is due to moisture or another building deficiency.

- (1) Condition of Material An assessment of the quality of the installation, adhesion of the material to substrate, and instances of deterioration or damage. Condition rated as follows:
  - i. Good Condition surfaced should be monitored to ensure they remain nonhazardous;
  - ii. Fair Condition -surfaced need to be repaired but are not yet hazardous; and
  - iii. Poor Condition surfaces are considered to be hazardous and need to be corrected.
- (2) Building Component; and
- (3) Surface Area.

#### **Polychlorinated Biphenyls**

Light ballasts were visually assessed for polychlorinated biphenyls (PCBs) containing ballasts during the inspection. Identification of PCBs was possible by the serial numbers and branding on the ballasts. Most PCBS produced in the 1980s or later have markings indicating the ballasts are "Non-PCB". Other ballasts can be identified as hazardous based on the product date and serial numbers indicating they were produced in the time period in which the manufacturer utilized PCB components.

Electrical conduits and heavy-duty sealants may contain PCBs and sampling may be required if large scale industrial processes may have required specialized PCB-containing products.

### Mercury

Thermostats can utilize mercury switches and were visually inspected for the presence of these switches. All observable switches were counted and relayed in the results section.

Mercury is known to be a component of fluorescent light tubes. Visual estimation of the number of light tubes was provided in the results section.

### **Ozone Depleting Substances**

Assessment for equipment or systems likely to contain ODSs was completed visually. Information on the type of equipment, manufacturer, type, and quantity of refrigerants was recorded, where available. The most common products include refrigeration equipment and air conditioning units.

<sup>4</sup> Alberta Queens Printer (2013). Lead at the Work Site, Retrieved from https://work.alberta.ca/documents/OHS-Bulletin-CH071.pdf **ECOABATE** 

### **Radioactive Materials**

Visual assessment of smoke detectors was performed to confirm the presence of radioactive materials where possible. Any smoke detectors which were inaccessible were assumed to contain radioactive materials and were included in the reported amounts in the results section.

### **Biological Hazards**

Identification of hazardous organic waste or biological contaminants was conducted visually and included assessment of all site conditions at the time of the inspection. The identification of material which could result in illness or disease were documented, where possible.

Biological hazards include conditions such as animal droppings or carcasses, mould contamination, standing water, etc.

#### **Miscellaneous Chemicals**

Any household or commercial chemicals which would require special disposal were documented and quantified where possible. Visual identification of the chemicals is sufficient in most cases to determine appropriate handling and disposal procedures.

### LIMITATIONS

The amount of material reported, if reported, is an estimate and materials may exist in locations inaccessible at the time the survey was performed.

Materials with a homogenous appearance cannot be differentiated based on appearance and accurate identification of renovated or replaced areas is not possible. As a result, all areas of materials such as drywall, ceiling texture, stucco, etc., must be treated as asbestos-containing if one (1) or more samples are identified as positive.

Asbestos materials may exist in areas of the property inaccessible for inspection including wall cavities and ceiling cavities.

No attic entrance was identified, and ceiling materials were suspected to be asbestos-containing. As a result, no attic inspection was possible.

Materials such as flooring may extend into other areas of the home beneath secondary layers. Assessment was performed where possible but cannot account for all layers.

### **OBSERVATIONS**

The following observations were made at the time of the assessment:

- 1. Walls were found to consist of drywall and joint compound.
- 2. No attic entrance was identified.
- 3. Basement was unfinished and access was limited.
- 4. Ceiling texture was present in most areas.
- 5. Stucco was present and was painted with vibrant blue color.
- 6. Animals including dogs and multiple cats were present within the home.
- 7. Dead animal carcasses were present on the porch.
- 8. Smoke detectors were observed.
- 9. No fluorescent tubes were identified.
- 10. PCB ballasts were not observed.
- 11. Visible mould growth was present on some building materials.
- 12. No suspected building materials existed on the garage interiors.
- 13. A fridge was confirmed on the porch.

### RESULTS

#### **Asbestos Materials**

*Table 1* below summarizes the positive results of the asbestos bulk sampling. For details, please refer to the attached laboratory reports (*See Appendix II*).

#	DESCRIPTION / LOCATION	ASB TYPE	ASB%	CONDITION	рното
13	Stucco Exterior NE Corner	Assume Positive Assume Positive		Fair	13
14	Stucco Exterior SE Corner			Fair	14
15	Stucco Exterior NW Corner	Chrysotile	2%	Fair	15
16	Stucco Shed SE Corner	Chrysotile	2%	Fair	16
17	Stucco Shed SW Corner	Chrysotile	2%	Fair	17

#### Table #1: Summary of Positive Asbestos Sampling Results

Notes:

- a. N/A = Not applicable due to asbestos not being detected in the provided sample.
- b. None Detected = no asbestos was detected within the material sampled.
- c. Reporting limit is <1% for the method used.

Sampling was performed by Eco Abate Inc. following sampling procedures outlined in the <u>Alberta Asbestos Abatement Manual</u> (2019). Analysis was conducted in Calgary, Alberta, following the <u>EPA 600/R-93/116 Method</u>, which is the approved polarized light microscopy (PLM) analysis method used in Canada for identification of asbestos within bulk materials.

#### Lead Materials

Results of lead paint sampling indicate lead-based paint was used on the property. *Table 2* below summarizes the results of the lead paint sampling. Please refer to the attached *Laboratory Report* for further details (*See Appendix II*).

ID#	LOCATION	COLOR	CONC. (ppm)	INTERPRETATION	
А	Interior	Beige	<80	Non-Lead	
В	Exterior	Blue	<80	Non-Lead	

Notes:

a. Non-Lead = Lead levels reported are below the limit of lead required to classify a paint as lead-based.

b. Reporting limit is <80 ppm for the method used.

Sampling was performed by Eco Abate Inc. following sampling procedures outlined in the Flame AAS <u>SW 846 3050B/7000B</u> <u>Method</u>. Analysis was conducted in Calgary, Alberta, by EMSL Canada Inc. following the Flame AAS <u>SW 846 3050B/7000B</u> <u>Method</u>, which is a flame atomic absorption spectrometry (AAS) analysis method used for identification of lead within surface coating samples.

#### Hazardous Components

Results of visual inspection for hazardous materials in building components identified multiple items which will require disposal prior to demolition. *Table 3* below summarizes the results of the assessment including confirmed counts of various items.

#### Table #3: Hazmat Item Count

ITEM	TOTAL
Smoke Detectors (Radioactive)	2
Thermostat (Mercury)	-
Fluorescent Light Tubes (Mercury)	-
PCB Light Ballasts	-
Ozone Depleting Substances (Fridge)	2
Fire Extinguishers	-

Notes:

- ~ = Estimated amount of material based on visual observation and extrapolation through unexplored areas.
- All fluorescent light tubes were assumed to contain mercury.
- Only smoke detectors confirmed to contain radioactive materials were included.
- Refrigeration equipment included air conditioning units, refrigerators, freezers, and water coolers.
- Item counts are based on visual observation while on site and does not include items which were inaccessible.

#### **Biological Hazards**

Animal carcasses and fecal matter were present. A pungent odour of urine was present due to large number of littler boxes throughout the home.

Mould contamination was observed in various areas of the home.

#### **Miscellaneous Chemicals**

Various chemicals were identified in the basement and main floor.

### CONCLUSIONS

Based on observations and results, Eco Abate makes the following conclusions:

- The stucco on the property was identified as asbestos-containing (See Photographs #13 to 17). Removal of the material must be performed prior to demolition by a qualified abatement contractor using moderate-risk asbestos abatement procedures found in <u>Section 5.3</u> of the <u>AAAM</u> (2019).
- 2. Hazardous components were identified on site and will require appropriate disposal prior to demolition. These items included:
  - a. ozone depleting substances in refrigerators,
  - b. radioactive materials in smoke detectors, and
  - c. miscellaneous chemicals.
- 3. Various biological hazards were observed on site including animal carcasses, animal fecal matter and urine, and mould growth.
- 4. No attic access was identified, and ceiling materials were suspected to be asbestos-containing at the time. As a result, no inspection or test of attic materials was possible.
- 5. Should any new materials be identified throughout the process, work should stop until the materials can be assessed by a qualified health and safety professional.

**PLEASE NOTE:** Renovation and demolition activities involving asbestos materials identified must be performed in accordance with all laws found in the <u>Occupational Health and Safety Act Regulation and</u> <u>Code (2019)</u> and follow procedures outlined in the <u>Alberta Asbestos Abatement Manual (2019)</u>. Asbestos abatement must be performed by a competent contractor experienced in the procedures described above and include air quality monitoring by a third-party occupational hygiene consultant. All contractors who perform work on the building must be given relevant information pertaining to asbestos-containing materials and must be given access to all records of asbestos testing, including this report.

### WARRANTY:

Eco Abate Inc. warrants to the company, organization, or individual to whom this report is addressed that the assessment described has been conducted with a reasonable level of care and skill, in accordance with standards currently prevailing in the health, safety, and environmental consulting profession.

The warranty stated above is subject to the following: (i) the assessment conducted by Eco Abate has been limited to the scope of work described, (ii) this report has been prepared taking into account current government regulations, and does not reflect regulations which may be enacted in the future, (iii) where indicated or implied in this report, conclusions are based on visual observation of the site at the time of this assessment, and (iv) the conclusions of this report do not apply to any areas of the site not available for testing or inspection.

This report is intended for the exclusive use of the company, organization, or individual to whom it is addressed.

If you have any questions, concerns or require any additional information please contact the undersigned at (403) 998-5079 or <u>info@ecoabate.com</u>.

Authored By:

Reid Andersen, B.Sc., Project Coordinator

Reviewed By:

Scott Blake, B.Sc., NCSO, EP<sup>®</sup> Principal

## **APPENDIX I**

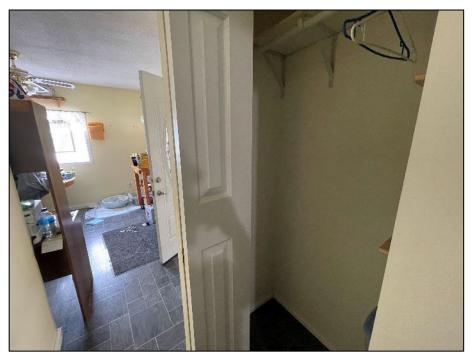
### PHOTOGRAPHS



PHOTOGRAPH #1: Drywall Joint Compound - Level 1 SW Bedroom (Non-Asbestos)



**PHOTOGRAPH #2:** Drywall Joint Compound - Level 1 NW Living Room (Non-Asbestos)



PHOTOGRAPH #3: Drywall Joint Compound - Level 1 West Hall Closet (Non-Asbestos)



PHOTOGRAPH #4: Drywall Joint Compound - Level 1 SW Hallway (Non-Asbestos)



PHOTOGRAPH #5: Drywall Joint Compound - Level 1 Laundry Area (Non-Asbestos)



PHOTOGRAPH #6: Drywall Joint Compound - Level 1 Kitchen (Non-Asbestos)



PHOTOGRAPH #7: Ceiling Texture - Level 1 Living Room (Non-Asbestos)



PHOTOGRAPH #8: Ceiling Texture - Level 1 Kitchen (Non-Asbestos)



PHOTOGRAPH #9: Ceiling Texture - Level 1 SW Bedroom (Non-Asbestos)



PHOTOGRAPH #10: Ceiling Tile - Basement (Non-Asbestos)



PHOTOGRAPH #11: Flooring - Level 1 SW Bedroom (Non-Asbestos)



PHOTOGRAPH #12: Flooring - Level 1 Living Room (Non-Asbestos)



PHOTOGRAPH #13: Stucco - Exterior NE Corner (Assume Positive)



PHOTOGRAPH #14: Stucco - Exterior SE Corner (Assume Positive)



PHOTOGRAPH #15: Stucco - Exterior NW Corner (2% Chrysotile)



PHOTOGRAPH #16: Stucco - Shed SE Corner (2% Chrysotile)



PHOTOGRAPH #17: Stucco - Shed SW Corner (2% Chrysotile)



PHOTOGRAPH #18: Beige Interior Paint (Non-Lead)



PHOTOGRAPH #19: Blue Exterior Paint (Non-Lead)



PHOTOGRAPH #20: Smoke Detectors Present (Radioactive Materials)



PHOTOGRAPH #21: Miscellaneous Chemicals in Basement



PHOTOGRAPH #22: Cat Urine and Fecal Matter Present in Large Quantities (Biological Hazard)



PHOTOGRAPH #23: Fridge on Porch (Ozone Depleting Substances)



PHOTOGRAPH #24: Animal Carcass on Front Porch (Biological Hazard)



# **PLM Analysis Report**

July 14, 2022

Project Number:	E2791
Date of Analysis	Monday, July 11, 2022
Author	Reid Andersen

#### Results

ID	Sample Description / Location	Results
1	Drywall Joint Compound - Level 1 SW Bedroom (EXT)	None Detected
2	Drywall Joint Compound - Level 1 NW Living Room (EXT)	None Detected
3	Drywall Joint Compound - Level 1 West Hall Closet (EXT)	None Detected
4	Drywall Joint Compound - Level 1 SW Hallway (INT)	None Detected
5	Drywall Joint Compound - Level 1 Laundry Area (INT)	None Detected
6	Drywall Joint Compound - Level 1 Kitchen (INT)	None Detected
7	Ceiling Texture - Level 1 Living Room	None Detected
8	Ceiling Texture - Level 1 Kitchen	None Detected
9	Ceiling Texture - Level 1 SW Bedroom	None Detected
10	Ceiling Tile - Basement	None Detected
11	Flooring - Level 1 SW Bedroom	None Detected
12	Flooring - Level 1 Living Room (Layer 2)	None Detected
13	Stucco - Exterior NE Corner	None Detected
14	Stucco - Exterior SE Corner	None Detected
15	Stucco - Exterior NW Corner	2% Chrysotile
16	Stucco - Shed SE Corner	2% Chrysotile
17	Stucco - Shed SW Corner	2% Chrysotile

• Samples analysis of bulk materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

• This report relates only to the samples reported above, and may not be reproduced

Analysis and results subject to limitations of sample collection and methodology used

• Eco Abate maintains liability limited to cost of analysis



June 10, 2022

+

# HAZARDOUS MATERIALS ASSESSMENT REPORT

# 964 Hunter Drive

E2737



Prepared For:

**Town of Drumheller** 702 Premier Way Drumheller, Alberta T0J 0Y4

Prepared By:

Eco Abate Inc. 425 Forge Rd SE Calgary, Alberta T2H 0S9



### SUMMARY LETTER

SENT: June 10, 2022

Town of Drumheller

702 Premier Way Drumheller, Alberta T0J 0Y4

ATTN: Mark Steffler, Project Manager

#### RE: Hazardous Material Assessment Report

964 Hunter Drive

Project #: E2737

Dear Mr. Steffler,

At your request, Eco Abate performed hazardous material sampling and assessment of the building located at 964 Hunter Drive in Drumheller, Alberta. The purpose of the investigation was to identify hazardous materials on the property to permit development of a remediation scope, identify abatement procedures, and confirm disposal protocols.

During the process, Eco Abate identified the following asbestos-containing materials which will require abatement prior to the planned renovations or demolition of the structure:

- 1. Drywall Joint Compound on Property
- 2. Vermiculite in Attic

Various other hazardous materials were also identified including: lead-containing paints, ozone depleting substances, miscellaneous chemicals and biological hazards.

If you have any questions, concerns or require any additional information please contact the undersigned at (403) 998-5079 or <u>info@ecoabate.com</u>.

Authored By:

Juli

Reid Andersen, B.Sc., Project Coordinator

Reviewed By:

Scott Blake, B.Sc., NCSO, EP<sup>®</sup> Principal

### **EXECUTIVE SUMMARY:**

Based on observations and results, Eco Abate makes the following conclusions:

- 1. The following materials were identified as asbestos-containing and will require abatement prior to demolition of the structure:
  - a. Drywall Joint Compound (See Photographs #1 to 8).
  - b. Vermiculite Attic (See Photographs #21 and 22).

Removal of the materials must be performed by a qualified abatement contractor prior to demolition using procedures found in the <u>Alberta Asbestos Abatement Manual (2019)</u>.

- Lead-containing paints (See Appendix II) were identified. Disturbance of lead-containing surface coatings must be performed following exposure prevention controls similar to those found in WorkSafeBC's Lead Containing Paints and Coatings: Preventing Exposure in the Construction Industry (2011) document and described in the Alberta Governments Lead at the Work Site (2013) bulletin.
- 3. Hazardous components were identified on site and will require appropriate disposal prior to demolition. These items included:
  - a. ozone depleting substances in refrigerator
- 4. Various biological hazards were observed on site including mouse feces and mould growth.
- 5. Should any new materials be identified throughout the process, work should stop until the materials can be assessed by a qualified health and safety professional.

**PLEASE NOTE:** Renovation and demolition activities involving asbestos materials identified must be performed in accordance with all laws found in the <u>Occupational Health and Safety Act Regulation and</u> <u>Code (2021)</u> and follow procedures outlined in the <u>Alberta Asbestos Abatement Manual (2019)</u>. Asbestos abatement must be performed by a competent contractor experienced in the procedures described above and include air quality monitoring by a third-party occupational hygiene consultant. All contractors who perform work on the building must be given relevant information pertaining to asbestos-containing materials and must be given access to all records of asbestos testing, including this report.

## TABLE OF CONTENTS

EXECUTIVE SUMMARY:	1
INTRODUCTION	2
SCOPE OF WORK	2
REGULATIONS AND GUIDELINES. Occupational Health and Safety Code Asbestos Products Regulations	. 3
METHODOLOGY Asbestos Bulk Sampling. Material Condition Assessment Lead Sampling. Polychlorinated Biphenyls Mercury. Ozone Depleting Substances Radioactive Materials Biological Hazards. Miscellaneous Chemicals	5566677
LIMITATIONS	7
OBSERVATIONS	8
RESULTS	.9 10 11
CONCLUSIONS	2
WARRANTY: 1	3

**APPENDIX I** 

PHOTOGRAPHS

**APPENDIX II** 

LABORATORY REPORTS

## INTRODUCTION

At your request, Eco Abate performed hazardous material sampling and assessment of the building located at 964 Hunter Drive in Drumheller, Alberta. The purpose of the investigation was to identify hazardous materials on the property to permit development of a remediation scope, identify abatement procedures, and confirm disposal protocols.

The site assessment and sampling portions of the investigation were performed on May 19<sup>th</sup>, 2022, by Mr. Scott Blake, *B.Sc., NCSO, EP*<sup>®</sup>, Principal at Eco Abate Inc.

## **SCOPE OF WORK**

Eco Abate provide the following services:

- Inspection of the building for hazardous materials and conditions, including:
  - Asbestos-containing materials (ACM);
  - Lead-containing materials;
  - PCB-containing fixtures;
  - Mercury-containing fixtures;
  - Ozone depleting substances;
  - Biological hazards; and
  - Miscellaneous chemicals.
- Sampling, assessment, and photography of suspect materials;
- Interpretation of bulk sample laboratory results;
- Analysis of results in accordance with current industry standards;
- Determine mitigation and corrective actions, where needed;
- Identification of potential exposure hazards relating to asbestos, lead, PCBs, mercury, ODS; and
- Drafting of full report detailing results, conclusions, and recommendations.

## **REGULATIONS AND GUIDELINES**

#### **Occupational Health and Safety Code**

The <u>Alberta Asbestos Abatement Manual (2019)</u><sup>1</sup> (AAAM) outlines methods used to aid compliance with the <u>Occupational Health and Safety Act</u>, <u>Regulation and Code (December 2021)</u><sup>2</sup> (OH&S Code) in the province of Alberta. The manual covers general information on asbestos, related health hazards, requirements for worker protection, safe work practices and basic principles to follow for the safe abatement of asbestos-containing materials.

<u>Part 4</u> of the <u>Alberta OH&S Code (December 1, 2021)</u><sup>2</sup>, outlines requirements related to asbestos in buildings. These requirements are:

- Section 31 (1) If it is determined that asbestos fibres may be released in a building, the building is in an unsafe condition.
  - (2) The employer must take all necessary steps to correct the unsafe condition.
- Section 32 (1) A person must not use materials containing crocidolite asbestos in an existing or a new building.
  - (2) A person must not apply materials containing asbestos by spraying them.
- Section 33 A person must not use asbestos in an air distribution system or equipment in a form in which, or in a location where, asbestos fibres could enter the air supply or return air systems.
- Section 34 If a building is to be demolished, the employer must ensure that materials with the potential to release asbestos fibres are removed first.
- Section 35 If a building is being altered or renovated, the employer must ensure that materials in the area of the alterations or renovations that could release asbestos fibres are encapsulated, enclosed or removed.
- Section 36 (1) An employer who is responsible for removing or abating asbestos or for demolishing or renovating a building or equipment containing asbestos must notify a Director of Inspection of the activity at least 72 hours before beginning the activities that may release asbestos fibres.

(2) A person must not remove or abate asbestos or demolish or renovate a building or equipment containing asbestos if a Director of Inspection has not been notified in accordance with subsection (1).

All services provided by Eco Abate strictly adhere to Alberta's current occupational health and safety laws, which includes the <u>Occupational Health and Safety Act, Regulation and Code<sup>2</sup></u>.

<sup>&</sup>lt;sup>1</sup> Alberta Queens Printer, *Alberta Asbestos Abatement Manual (2019)*, Retrieved from <u>https://www.alberta.ca/alberta-asbestos-abatement-manual.aspx</u>

<sup>&</sup>lt;sup>2</sup> Alberta Queens Printer, Occupational Health and Safety Act, Regulation and Code (December 2021), Retrieved from http://work.alberta.ca/occupational-health-safety/ohs-act-regulation-and-code.html

#### Asbestos Products Regulations

<u>Section 1</u> of the <u>Asbestos Products Regulation (December 12, 2018)</u><sup>3</sup>, defines asbestos product as the following:

• A product that contains any type of asbestos, including actinolite, amosite, anthophyllite, chrysotile, crocidolite, cummingtonite, fibrous erionite and tremolite.

<u>Section 2.2</u> of the <u>Asbestos Products Regulation (December 12, 2018)<sup>3</sup></u> permits the use of non-crocidolite asbestos products if certain conditions are met. The following products and conditions are:

- 1) A textile fibre product that is worn on the person; if:
  - a) The product provides protection from fire or heat hazards; and
  - b) A person who uses the product in a reasonably foreseeable manner cannot come into contact with airborne asbestos from the product.
- 2) A product that is used by a child in learning or play; if:
  - a) Asbestos cannot become separated from the product.
- 3) Drywall joint cement or compound, or spackling or patching compound, that is used in construction, repair or renovation; if:
  - a) Asbestos cannot become separated from the product during its post-manufacture preparation, application or removal.
- 4) A product that is applied by spraying; if:
  - a) The asbestos is encapsulated with a binder during spraying; and
  - b) The materials that result from the spraying are not friable after drying.

<sup>&</sup>lt;sup>3</sup> Minister of Justice (December 12, 2018), Asbestos Products Regulations (SOR/2016-164), Retrieved from <u>https://laws-lois.justice.gc.ca/PDF/SOR-2016-164.pdf</u>

## METHODOLOGY

#### Asbestos Bulk Sampling

Asbestos bulk sampling and assessment was conducted following <u>AAAM<sup>1</sup></u> guidelines by qualified and competent personnel with experience in sampling and laboratory analysis techniques. Asbestos samples were forwarded to EMSL Canada Inc. in Calgary, Alberta, for analysis. The samples were analyzed by polarized-light microscopy (PLM) using the <u>EPA 600/R-93/116</u> analysis method. This method uses various techniques to determine the asbestos concentrations in building materials.

#### Material Condition Assessment

Assessment of the material was performed following the exposure assessment algorithm in <u>Section 1.6</u> of the <u>AAAM</u><sup>1</sup> as a guideline. This assessment method takes into account eight (8) factors that ultimately determine the corrective actions that must be taken to ensure the safety of an asbestos-containing installation. The factors which must be evaluated are:

- (1) Condition of Material An assessment of the quality of the installation, adhesion of the material to substrate, and instances of deterioration or damage. Condition rated as follows:
  - i. Good Condition no significant signs of damage, deterioration or delamination;
  - ii. Fair Condition mild to moderate damage, deterioration or delamination; and
  - iii. Poor Condition severely damaged, deteriorated or delaminated.
- (2) Water Damage;
- (3) Exposed Surface Area;
- (4) Accessibility;
- (5) Activity and Movement;
- (6) Air Distribution System;
- (7) Friability; and
- (8) Asbestos Content.

#### Lead Sampling

Lead containing material and paint samples were collected and recommendations provided in accordance with the Alberta Government's Lead at the Work Site (2013)<sup>4</sup> document. This is a bulletin combining regulations and standards from various sources in the occupational health and safety industryLead samples were forwarded to EMSL Canada Inc. in Calgary, Alberta, for analysis. The samples were analyzed for lead content using EPA Method SW 846 3050B\*/700B. EMSL's laboratory is also accredited by the AIHA Environmental Lead Laboratory Approval Program (ELLAP)

Criteria for evaluating the condition of LCPs is based on the United States Housing and Urban Development (HUD) 2012 Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing. The assessment evaluates the condition of the LCPs to determine if deterioration is due to moisture or another building deficiency.

- (1) Condition of Material An assessment of the quality of the installation, adhesion of the material to substrate, and instances of deterioration or damage. Condition rated as follows:
  - i. Good Condition surfaced should be monitored to ensure they remain nonhazardous;
  - ii. Fair Condition -surfaced need to be repaired but are not yet hazardous; and
  - iii. Poor Condition surfaces are considered to be hazardous and need to be corrected.
- (2) Building Component; and
- (3) Surface Area.

#### **Polychlorinated Biphenyls**

Light ballasts were visually assessed for polychlorinated biphenyls (PCBs) containing ballasts during the inspection. Identification of PCBs was possible by the serial numbers and branding on the ballasts. Most PCBS produced in the 1980s or later have markings indicating the ballasts are "Non-PCB". Other ballasts can be identified as hazardous based on the product date and serial numbers indicating they were produced in the time period in which the manufacturer utilized PCB components.

Electrical conduits and heavy-duty sealants may contain PCBs and sampling may be required if large scale industrial processes may have required specialized PCB-containing products.

#### Mercury

Thermostats can utilize mercury switches and were visually inspected for the presence of these switches. All observable switches were counted and relayed in the results section.

Mercury is known to be a component of fluorescent light tubes. Visual estimation of the number of light tubes was provided in the results section.

#### **Ozone Depleting Substances**

Assessment for equipment or systems likely to contain ODSs was completed visually. Information on the type of equipment, manufacturer, type, and quantity of refrigerants was recorded, where available. The most common products include refrigeration equipment and air conditioning units.

<sup>4</sup> Alberta Queens Printer (2013). Lead at the Work Site, Retrieved from https://work.alberta.ca/documents/OHS-Bulletin-CH071.pdf **ECOABATE** 

#### **Radioactive Materials**

Visual assessment of smoke detectors was performed to confirm the presence of radioactive materials where possible. Any smoke detectors which were inaccessible were assumed to contain radioactive materials and were included in the reported amounts in the results section.

#### **Biological Hazards**

Identification of hazardous organic waste or biological contaminants was conducted visually and included assessment of all site conditions at the time of the inspection. The identification of material which could result in illness or disease were documented, where possible.

Biological hazards include conditions such as animal droppings or carcasses, mould contamination, standing water, etc.

#### **Miscellaneous Chemicals**

Any household or commercial chemicals which would require special disposal were documented and quantified where possible. Visual identification of the chemicals is sufficient in most cases to determine appropriate handling and disposal procedures.

## LIMITATIONS

The amount of material reported, if reported, is an estimate and materials may exist in locations inaccessible at the time the survey was performed.

Materials with a homogenous appearance cannot be differentiated based on appearance and accurate identification of renovated or replaced areas is not possible. As a result, all areas of materials such as drywall, ceiling texture, stucco, etc., must be treated as asbestos-containing if one (1) or more samples are identified as positive.

Asbestos materials may exist in areas of the property inaccessible for inspection including wall cavities and ceiling cavities.

Attic inspection included the visual assessment of insulation within arms length of the entrance. Full entry into the attic space was not performed and the insulation was assumed to be consistent throughout the home.

Materials such as flooring may extend into other areas of the home beneath secondary layers. Assessment was performed where possible but cannot account for all layers.

### **OBSERVATIONS**

The following observations were made at the time of the assessment:

- 1. All walls inspected on the main floor were identified as drywall (*See Photographs #1 to 8*). Basement was unfinished and did not contain drywall.
- 2. Beige paint was consistently used throughout the main floor.
- 3. One fridge was identified in the kitchen as the main ozone depleting substance (See Photograph #32).
- 4. All layers of flooring that were identified were non-asbestos.
- 5. No suspected building materials existed inside the 2 shed units on the property. Shed units were left unlocked during the inspection.
- 6. Vermiculite was observed in the attic (See Photograph #21 and 22).
- 7. Mouse droppings were observed throughout the home.
- 8. Mould growth was evident throughout the property

## RESULTS

#### **Asbestos Materials**

*Table 1* below summarizes the positive results of the asbestos bulk sampling. For details, please refer to the attached laboratory reports (*See Appendix II*).

#	DESCRIPTION / LOCATION	ASB TYPE	ASB%	CONDITION	рното
1	Drywall Joint Compound (Ext) Floor 1 – Dining Room	Chrysotile	2%	Fair	1
2	Drywall Joint Compound (Int) Floor 1 – Foyer	Assume Positive		Fair	2
3	Drywall Joint Compound (Ext) Floor 1 – Kitchen	Chrysotile	2%	Fair	3
4	Drywall Joint Compound (Int) Floor 1 – Living Room	Chrysotile	2%	Fair	4
5	Drywall Joint Compound (Ext) Floor 1 – NW Bedroom	Assume Positive		Fair	5
6	Drywall Joint Compound (Ext) Floor 1 – Bathroom	Assume Positive		Fair	6
7	Drywall Joint Compound (Int) Basement - Stairs	Assume Positive		Fair	7
8	Drywall Joint Compound (Ext) Floor 1 – NE Bedroom	Chrysotile	2%	Fair	8
21	Vermiculite 1 Attic	Tremolite	<1%	Fair	21
22	Vermiculite 2 Attic	Tremolite	<1%	Fair	22

Table #1: Summary of Positive Asbestos Sampling Results

Notes:

a. N/A = Not applicable due to asbestos not being detected in the provided sample.

b. None Detected = no asbestos was detected within the material sampled.

c. Reporting limit is <1% for the method used.

Sampling was performed by Eco Abate Inc. following sampling procedures outlined in the <u>Alberta Asbestos Abatement Manual</u> (2019). Analysis was conducted in Calgary, Alberta, following the <u>EPA 600/R-93/116 Method</u>, which is the approved polarized light microscopy (PLM) analysis method used in Canada for identification of asbestos within bulk materials.

#### Lead Materials

Results of lead paint sampling indicate lead-based paint was used on the property. *Table 2* below summarizes the results of the lead paint sampling. Please refer to the attached *Laboratory Report* for further details (*See Appendix II*).

ID#	LOCATION	COLOR	CONC. (ppm)	INTERPRETATION
А	Stairs	White	<80	Non-Lead Based
В	Basement	Grey	<80	Non-Lead Based
С	Dining	Beige	450	Lead Based
D	Exterior	White	<80	Non-Lead Based
Е	Shed	White	<80	Non-Lead Based
F	Shed	Burgundy	<80	Non-Lead Based

#### Table #2: Lead Paint Sampling Results

Notes:

a. Non-Lead = Lead levels reported are below the limit of lead required to classify a paint as lead-based.

b. Reporting limit is <80 ppm for the method used.

Sampling was performed by Eco Abate Inc. following sampling procedures outlined in the Flame AAS <u>SW 846 3050B/7000B</u> <u>Method</u>. Analysis was conducted in Calgary, Alberta, by EMSL Canada Inc. following the Flame AAS <u>SW 846 3050B/7000B</u> <u>Method</u>, which is a flame atomic absorption spectrometry (AAS) analysis method used for identification of lead within surface coating samples.

#### Hazardous Components

Results of visual inspection for hazardous materials in building components identified multiple items which will require disposal prior to demolition. *Table 3* below summarizes the results of the assessment including confirmed counts of various items.

#### Table #3: Hazmat Item Count

ITEM	TOTAL
Smoke Detectors (Radioactive)	-
Thermostat (Mercury)	-
Fluorescent Light Tubes (Mercury)	-
PCB Light Ballasts	-
Ozone Depleting Substances (Fridge)	1
Fire Extinguishers	-

Notes:

- ~ = Estimated amount of material based on visual observation and extrapolation through unexplored areas.
- All fluorescent light tubes were assumed to contain mercury.
- Only smoke detectors confirmed to contain radioactive materials were included.
- Refrigeration equipment included air conditioning units, refrigerators, freezers, and water coolers.
- Item counts are based on visual observation while on site and does not include items which were inaccessible.

#### **Biological Hazards**

Mouse feces was identified on site.

Mould contamination was confirmed on the attic hatch in the home.

#### **Miscellaneous Chemicals**

Various chemicals were identified in the basement and the shed.

## CONCLUSIONS

Based on observations and results, Eco Abate makes the following conclusions:

 Drywall joint compound was identified as asbestos-containing (See Photographs #1 to 8). Removal of the material must be performed prior to demolition by a qualified abatement contractor using moderate risk asbestos abatement procedures found in <u>Section 5.3</u> of the <u>AAAM</u> (2019).

**PLEASE NOTE:** Due to the homogenous appearance of drywall, all sections of the materials throughout the property must be treated as asbestos-containing as required by <u>Section 7.1.1</u> of the <u>Alberta Asbestos Abatement Manual (2019)</u>.

- Vermiculite material was confirmed in the attic space and confirmed asbestos-containing (See Photographs #21 and 22). Removal of the material must be performed prior to demolition by a qualified abatement contractor using high-risk asbestos abatement procedures found in <u>Section</u> <u>5.4</u> of the <u>AAAM (2019)</u>.
- Lead-containing paints (See Appendix II) were identified on all surfaces present on the home. Disturbance of lead-containing surface coatings should be performed following using exposure prevention controls found in WorkSafeBC's Lead Containing Paints and Coatings: Preventing Exposure in the Construction Industry (2011) document and described in the Alberta Governments Lead at the Work Site (2013) bulletin.

**PLEASE NOTE:** All waste which includes the paint must be disposed of as hazardous waste unless toxicity characteristic leachate procedure (TCLP) testing can confirm the levels below the hazardous waste definition in the <u>Government of Alberta's</u> document <u>Alberta User Guide for</u> <u>Waste Managers (1996)</u><sup>1</sup>.

- 4. Hazardous components were identified on site and will require appropriate disposal prior to demolition. These items included:
  - a. ozone depleting substances in refrigerators,
- 5. Should any new materials be identified throughout the process, work should stop until the materials can be assessed by a qualified health and safety professional.

**PLEASE NOTE:** Renovation and demolition activities involving asbestos materials identified must be performed in accordance with all laws found in the <u>Occupational Health and Safety Act Regulation and</u> <u>Code (2019)</u> and follow procedures outlined in the <u>Alberta Asbestos Abatement Manual (2019)</u>. Asbestos abatement must be performed by a competent contractor experienced in the procedures described above and include air quality monitoring by a third-party occupational hygiene consultant. All contractors who perform work on the building must be given relevant information pertaining to asbestos-containing materials and must be given access to all records of asbestos testing, including this report.

## WARRANTY:

Eco Abate Inc. warrants to the company, organization, or individual to whom this report is addressed that the assessment described has been conducted with a reasonable level of care and skill, in accordance with standards currently prevailing in the health, safety, and environmental consulting profession.

The warranty stated above is subject to the following: (i) the assessment conducted by Eco Abate has been limited to the scope of work described, (ii) this report has been prepared taking into account current government regulations, and does not reflect regulations which may be enacted in the future, (iii) where indicated or implied in this report, conclusions are based on visual observation of the site at the time of this assessment, and (iv) the conclusions of this report do not apply to any areas of the site not available for testing or inspection.

This report is intended for the exclusive use of the company, organization, or individual to whom it is addressed.

If you have any questions, concerns or require any additional information please contact the undersigned at (403) 998-5079 or <u>info@ecoabate.com</u>.

Authored By:

Reid Andersen, B.Sc., Project Coordinator

Reviewed By:

Scott Blake, B.Sc., NCSO, EP<sup>®</sup> Principal

## **APPENDIX I**

## PHOTOGRAPHS



PHOTOGRAPH #1: Drywall Joint Compound - Floor 1 Ext Dining Room (2% Chrysotile)



**PHOTOGRAPH #2:** Drywall Joint Compound – Floor 1 Int Foyer (Assume Positive)



PHOTOGRAPH #3: Drywall Joint Compound – Floor 1 Ext Kitchen (2% Chrysotile)



PHOTOGRAPH #4: Drywall Joint Compound – Floor 1 Int Living Room (2% Chrysotile)



PHOTOGRAPH #5: Drywall Joint Compound – Floor 1 Ext NW Bedroom (Assume Positive)



PHOTOGRAPH #6: Drywall Joint Compound – Floor 1 Ext Bathroom (Assume Positive)



PHOTOGRAPH #7: Drywall Joint Compound – Basement Int Stairs (Assume Positive)



PHOTOGRAPH #8: Drywall Joint Compound – Floor 1 Ext NE Bedroom (2% Chrysotile)



PHOTOGRAPH #9: Ceiling Texture - Floor 1 Bathroom (Non-Asbestos)



PHOTOGRAPH #10: Ceiling Texture - Floor 1 Foyer (Non-Asbestos)



PHOTOGRAPH #11: Sheet Flooring – Floor 1 Kitchen (Non-Asbestos)



PHOTOGRAPH #12: Sheet Flooring – Floor 1 Bathroom (Non-Asbestos)



PHOTOGRAPH #13: Thinset – Kitchen (Non-Asbestos)



PHOTOGRAPH #14: Leveling Compound – Basement (Non-Asbestos)



PHOTOGRAPH #15: Window Caulking – Exterior (Non-Asbestos)



PHOTOGRAPH #16: Window Caulking – Shed (Non-Asbestos)



PHOTOGRAPH #17: Parging 1 – Exterior (Non-Asbestos)



PHOTOGRAPH #18: Parging 2 – Exterior (Non-Asbestos)



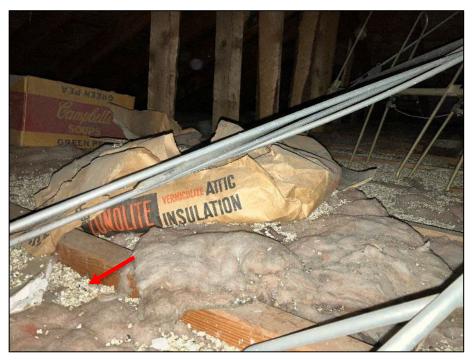
PHOTOGRAPH #19: Roof Shingle – Exterior (Non-Asbestos)



PHOTOGRAPH #20: Roof Shingle – Shed (Non-Asbestos)



PHOTOGRAPH #21: Vermiculite in the Attic Space (<1% Tremolite)



PHOTOGRAPH #22: Vermiculite in the Attic Space (<1% Tremolite)



PHOTOGRAPH #23: Paint – White Stairs (Non-Lead Based)



PHOTOGRAPH #24: Paint - Grey Basement (Non-Lead Based)



PHOTOGRAPH #25: Paint – Beige Dining Room (450 ppm)



PHOTOGRAPH #26: Paint- White Exterior (Non-Lead Based)



PHOTOGRAPH #27: Paint – White Shed (Non-Lead Based)



PHOTOGRAPH #28: Paint - Burgundy Shed (Non-Lead Based)



PHOTOGRAPH #29: Miscellaneous Chemicals - Basement



PHOTOGRAPH #30: Miscellaneous Chemicals - Basement



PHOTOGRAPH #31: Miscellaneous Chemicals - Shed



PHOTOGRAPH #32: Ozone Depleting Unit - Fridge



PHOTOGRAPH #33: Mouse Dropping – Kitchen Venting



# **PLM Analysis Report**

June 10, 2022

Project Number:	E2737
Date of Analysis	Friday, June 10, 2022
Author	Reid Andersen

#### Results

ID	Sample Description / Location	Results
1	Drywall Joint Compound - Level 1 Dining Room (EXT)	2% Chrysotile
2	Drywall Joint Compound - Level 1 Foyer (INT)	None Detected
3	Drywall Joint Compound - Level 1 Kitchen (EXT)	2% Chrysotile
4	Drywall Joint Compound - Level 1 Living Room (INT)	2% Chrysotile
5	Drywall Joint Compound - Level 1 NW Bedroom (EXT)	None Detected
6	Drywall Joint Compound - Level 1 Bathroom (EXT)	None Detected
7	Drywall Joint Compound - Basement Stairs (INT)	None Detected
8	Drywall Joint Compound - Level 1 NE Bedroom (EXT)	2% Chrysotile
9	Ceiling Texture - Level 1 Bathroom	None Detected
10	Ceiling Texture - Level 1 Foyer	None Detected
11	Sheet Flooring - Level 1 Kitchen	None Detected
12	Sheet Flooring - Level 1 Bathroom	None Detected
13	Thinset - Level 1 Kitchen	None Detected
14	Leveling Compound - Basement	None Detected
15	Window Caulking - Exterior	None Detected
16	Window Caulking - Shed	None Detected
17	Parging - Exterior	None Detected
18	Parging - Exterior	None Detected
19	Roof Shingle - Exterior	None Detected
20	Roof Shingle - Shed	None Detected
21	Vermiculite - Attic	<1% Tremolite
22	Vermiculite - Attic	<1% Tremolite

• Samples analysis of bulk materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

• This report relates only to the samples reported above, and may not be reproduced

Analysis and results subject to limitations of sample collection and methodology used

Eco Abate maintains liability limited to cost of analysis



Attn: Scott	Blake	Phone:	(403) 998-5079
ECO	Abate Inc.	Fax:	
	orge Road SE	Received:	6/6/2022 03:56 PM
	ry, AB T2H 0S9	Collected:	6/6/2022

Project: E2718-C

#### Test Report: Lead in Paint Chips by Flame AAS (SW 846 3050B/7000B)\*

Client Sample Description	Lab ID Coll	ected Analyzed	Weight	Lead Concentration
A	652205214-0001 6/6/2	2022 6/7/2022	0.2567 g	<80 ppm
	Site: WHITE PAINT -	STAIRS		
В	652205214-0002 6/6/2	2022 6/7/2022	0.2533 g	<80 ppm
	Site: GREY PAINT - E	BSMT		
С	652205214-0003 6/6/2	2022 6/7/2022	0.2535 g	450 ppm
	Site: BEIGE PAINT -	DINING		
D	652205214-0004 6/6/2	2022 6/7/2022	0.2581 g	<80 ppm
	Site: WHITE PAINT -	EXT		
E	652205214-0005 6/6/2	2022 6/7/2022	0.2559 g	<80 ppm
	Site: WHITE PAINT -	SHED		
F	652205214-0006 6/6/2	2022 6/7/2022	0.2534 g	<80 ppm
	Site: BURGUNDY PA	INT - SHED		

prahada)

Jefferson Salvador, Laboratory Manager or other approved signatory

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. \* Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.008% wt based on the minimum sample weight per our SOP. "<" (less than) result

\* Analysis following Lead in Paint by EMSL SOP/Determination of Environmental Lead by FLAA. Reporting limit is 0.008% wt based on the minimum sample weight per our SOP. "<" (less than) result signifies the analyte was not detected at or above the reporting limit. Measurement of uncertainty is available upon request. Definitions of modifications are available upon request. Samples analyzed by EMSL Canada Inc. Calgary, AB CALA Accreditation #A3942

Initial report from 06/08/2022 16:04:45



August 25, 2022

# HAZARDOUS MATERIALS ASSESSMENT REPORT

# 1000 Hunter Drive

E2869



Prepared For:

**Town of Drumheller** 702 Premier Way Drumheller, Alberta T0J 0Y4

Prepared By:

Eco Abate Inc. 425 Forge Rd SE Calgary, Alberta T2H 0S9



## SUMMARY LETTER

SENT: August 25, 2022

**Town of Drumheller** 702 Premier Way Drumheller, Alberta

T0J 0Y4

ATTN: Mark Steffler, Project Manager

RE: Hazardous Material Assessment Report 1000 Hunter Drive in Nacmine, Alberta Project #: E2869

Dear Mr. Steffler,

At your request, Eco Abate performed hazardous material sampling and assessment of the building located at 1000 Hunter Drive in Nacmine, Alberta. The purpose of the investigation was to identify hazardous materials on the property to permit development of a remediation scope, identify abatement procedures, and confirm disposal protocols, prior to proposed demolition.

During the process, Eco Abate identified the following asbestos-containing materials which will require abatement prior to the planned renovations or demolition of the structure:

- 1. Plaster on main floor walls and ceiling; and
- 2. Stucco beneath exterior siding.

Various other hazardous materials were also identified including: lead-containing paints, radioactive materials in smoke detectors, biological hazards and miscellaneous chemicals.

If you have any questions, concerns or require any additional information please contact the undersigned at (403) 998-5079 or <u>info@ecoabate.com</u>.

Authored By:

Alyssa Kocsar, Environmental Technician

Reviewed By:

Scott Blake, B.Sc., NCSO, EP<sup>®</sup> Principal

## **EXECUTIVE SUMMARY:**

Based on observations and results, Eco Abate makes the following conclusions:

- 1. The following materials were identified as asbestos-containing and will require abatement prior to demolition of the structure:
  - a. Plaster on main floor walls and ceiling (See Photographs #1 to 6).
  - b. Stucco beneath exterior siding (See Photographs #11 and 12).

Removal of the materials must be performed by a qualified abatement contractor prior to demolition using procedures found in the <u>Alberta Asbestos Abatement Manual (2019)</u>.

 Lead-containing paints were identified (See Appendix II). Disturbance of lead-containing surface coatings must be performed following exposure prevention controls similar to those found in WorkSafeBC's Lead Containing Paints and Coatings: Preventing Exposure in the Construction Industry (2011) document and described in the Alberta Governments Lead at the Work Site (2013) bulletin.

**PLEASE NOTE:** All waste which includes the paints must be disposed of as hazardous waste unless toxicity characteristic leachate procedure (TCLP) testing can confirm the levels below the hazardous waste definition in the <u>Government of Alberta's</u> document <u>Alberta User Guide for</u> <u>Waste Managers (1996)</u><sup>1</sup>.

- 3. Hazardous components including smoke detectors and miscellaneous chemicals were identified on site and will require appropriate disposal prior to demolition.
- 4. Various biological hazards were observed on site including animal feces and minor mould contamination.
- 5. Should any new materials be identified throughout the process, work should stop until the materials can be assessed by a qualified health and safety professional.

**PLEASE NOTE:** Renovation and demolition activities involving asbestos materials identified must be performed in accordance with all laws found in the <u>Occupational Health and Safety Act Regulation and</u> <u>Code (2021)</u> and follow procedures outlined in the <u>Alberta Asbestos Abatement Manual (2019)</u>. Asbestos abatement must be performed by a competent contractor experienced in the procedures described above and include air quality monitoring by a third-party occupational hygiene consultant. All contractors who perform work on the building must be given relevant information pertaining to asbestos-containing materials and must be given access to all records of asbestos testing, including this report.

# **TABLE OF CONTENTS**

EXECUTIVE SUMMARY:	. 1
INTRODUCTION	. 2
SCOPE OF WORK	. 2
REGULATIONS AND GUIDELINES. Occupational Health and Safety Code Asbestos Products Regulations	3
METHODOLOGY Asbestos Bulk Sampling Material Condition Assessment Lead Sampling Polychlorinated Biphenyls	5 5 6
Mercury Ozone Depleting Substances Radioactive Materials Biological Hazards Miscellaneous Chemicals	6 7 7
LIMITATIONS	. 7
OBSERVATIONS	. 8
RESULTS Asbestos Materials Lead Materials Hazardous Components Biological Hazards Miscellaneous Chemicals	9 10 11 11
CONCLUSIONS	12
WARRANTY:	13

**APPENDIX I** 

PHOTOGRAPHS

**APPENDIX II** 

LABORATORY REPORTS

# INTRODUCTION

At your request, Eco Abate performed hazardous material sampling and assessment of the building located at 1000 Hunter Drive in Nacmine, Alberta. The purpose of the investigation was to identify hazardous materials on the property to permit development of a remediation scope, identify abatement procedures, and confirm disposal protocols.

The site assessment and sampling portions of the investigation were performed on August 23<sup>rd</sup>, 2022, by Mr. Scott Blake, *B.Sc., NCSO, EP*<sup>®</sup>, Principal at Eco Abate Inc.

# **SCOPE OF WORK**

Eco Abate provide the following services:

- Inspection of the building for hazardous materials and conditions, including:
  - Asbestos-containing materials (ACM);
  - Lead-containing materials;
  - PCB-containing fixtures;
  - Mercury-containing fixtures;
  - Ozone depleting substances;
  - Biological hazards; and
  - Miscellaneous chemicals.
- Sampling, assessment, and photography of suspect materials;
- Interpretation of bulk sample laboratory results;
- Analysis of results in accordance with current industry standards;
- Determine mitigation and corrective actions, where needed;
- Identification of potential exposure hazards relating to asbestos, lead, PCBs, mercury, ODS; and
- Drafting of full report detailing results, conclusions, and recommendations.

# **REGULATIONS AND GUIDELINES**

### **Occupational Health and Safety Code**

The <u>Alberta Asbestos Abatement Manual (2019)</u><sup>1</sup> (AAAM) outlines methods used to aid compliance with the <u>Occupational Health and Safety Act</u>, <u>Regulation and Code (December 2021)</u><sup>2</sup> (OH&S Code) in the province of Alberta. The manual covers general information on asbestos, related health hazards, requirements for worker protection, safe work practices and basic principles to follow for the safe abatement of asbestos-containing materials.

<u>Part 4</u> of the <u>Alberta OH&S Code (December 1, 2021)</u><sup>2</sup>, outlines requirements related to asbestos in buildings. These requirements are:

- Section 31 (1) If it is determined that asbestos fibres may be released in a building, the building is in an unsafe condition.
  - (2) The employer must take all necessary steps to correct the unsafe condition.
- Section 32 (1) A person must not use materials containing crocidolite asbestos in an existing or a new building.
  - (2) A person must not apply materials containing asbestos by spraying them.
- Section 33 A person must not use asbestos in an air distribution system or equipment in a form in which, or in a location where, asbestos fibres could enter the air supply or return air systems.
- Section 34 If a building is to be demolished, the employer must ensure that materials with the potential to release asbestos fibres are removed first.
- Section 35 If a building is being altered or renovated, the employer must ensure that materials in the area of the alterations or renovations that could release asbestos fibres are encapsulated, enclosed or removed.
- Section 36 (1) An employer who is responsible for removing or abating asbestos or for demolishing or renovating a building or equipment containing asbestos must notify a Director of Inspection of the activity at least 72 hours before beginning the activities that may release asbestos fibres.

(2) A person must not remove or abate asbestos or demolish or renovate a building or equipment containing asbestos if a Director of Inspection has not been notified in accordance with subsection (1).

All services provided by Eco Abate strictly adhere to Alberta's current occupational health and safety laws, which includes the <u>Occupational Health and Safety Act, Regulation and Code<sup>2</sup></u>.

<sup>&</sup>lt;sup>1</sup> Alberta Queens Printer, *Alberta Asbestos Abatement Manual (2019)*, Retrieved from <u>https://www.alberta.ca/alberta-asbestos-abatement-manual.aspx</u>

<sup>&</sup>lt;sup>2</sup> Alberta Queens Printer, Occupational Health and Safety Act, Regulation and Code (December 2021), Retrieved from http://work.alberta.ca/occupational-health-safety/ohs-act-regulation-and-code.html

## Asbestos Products Regulations

<u>Section 1</u> of the <u>Asbestos Products Regulation (December 12, 2018)</u><sup>3</sup>, defines asbestos product as the following:

• A product that contains any type of asbestos, including actinolite, amosite, anthophyllite, chrysotile, crocidolite, cummingtonite, fibrous erionite and tremolite.

<u>Section 2.2</u> of the <u>Asbestos Products Regulation (December 12, 2018)<sup>3</sup></u> permits the use of non-crocidolite asbestos products if certain conditions are met. The following products and conditions are:

- 1) A textile fibre product that is worn on the person; if:
  - a) The product provides protection from fire or heat hazards; and
  - b) A person who uses the product in a reasonably foreseeable manner cannot come into contact with airborne asbestos from the product.
- 2) A product that is used by a child in learning or play; if:
  - a) Asbestos cannot become separated from the product.
- 3) Drywall joint cement or compound, or spackling or patching compound, that is used in construction, repair or renovation; if:
  - a) Asbestos cannot become separated from the product during its post-manufacture preparation, application or removal.
- 4) A product that is applied by spraying; if:
  - a) The asbestos is encapsulated with a binder during spraying; and
  - b) The materials that result from the spraying are not friable after drying.

<sup>&</sup>lt;sup>3</sup> Minister of Justice (December 12, 2018), Asbestos Products Regulations (SOR/2016-164), Retrieved from <u>https://laws-lois.justice.gc.ca/PDF/SOR-2016-164.pdf</u>

# METHODOLOGY

## Asbestos Bulk Sampling

Asbestos bulk sampling and assessment was conducted following <u>AAAM<sup>1</sup></u> guidelines by qualified and competent personnel with experience in sampling and laboratory analysis techniques. Asbestos samples were forwarded to EMSL Canada Inc. in Calgary, Alberta, for analysis. The samples were analyzed by polarized-light microscopy (PLM) using the <u>EPA 600/R-93/116</u> analysis method. This method uses various techniques to determine the asbestos concentrations in building materials.

## Material Condition Assessment

Assessment of the material was performed following the exposure assessment algorithm in <u>Section 1.6</u> of the <u>AAAM</u><sup>1</sup> as a guideline. This assessment method takes into account eight (8) factors that ultimately determine the corrective actions that must be taken to ensure the safety of an asbestos-containing installation. The factors which must be evaluated are:

- (1) Condition of Material An assessment of the quality of the installation, adhesion of the material to substrate, and instances of deterioration or damage. Condition rated as follows:
  - i. Good Condition no significant signs of damage, deterioration or delamination;
  - ii. Fair Condition mild to moderate damage, deterioration or delamination; and
  - iii. Poor Condition severely damaged, deteriorated or delaminated.
- (2) Water Damage;
- (3) Exposed Surface Area;
- (4) Accessibility;
- (5) Activity and Movement;
- (6) Air Distribution System;
- (7) Friability; and
- (8) Asbestos Content.

## Lead Sampling

Lead containing material and paint samples were collected and recommendations provided in accordance with the Alberta Government's Lead at the Work Site (2013)<sup>4</sup> document. This is a bulletin combining regulations and standards from various sources in the occupational health and safety industryLead samples were forwarded to EMSL Canada Inc. in Calgary, Alberta, for analysis. The samples were analyzed for lead content using EPA Method SW 846 3050B\*/700B. EMSL's laboratory is also accredited by the AIHA Environmental Lead Laboratory Approval Program (ELLAP).

Criteria for evaluating the condition of LCPs is based on the United States Housing and Urban Development (HUD) 2012 Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing. The assessment evaluates the condition of the LCPs to determine if deterioration is due to moisture or another building deficiency.

- (1) Condition of Material An assessment of the quality of the installation, adhesion of the material to substrate, and instances of deterioration or damage. Condition rated as follows:
  - i. Good Condition surfaced should be monitored to ensure they remain nonhazardous;
  - ii. Fair Condition -surfaced need to be repaired but are not yet hazardous; and
  - iii. Poor Condition surfaces are considered to be hazardous and need to be corrected.
- (2) Building Component; and
- (3) Surface Area.

## **Polychlorinated Biphenyls**

Light ballasts were visually assessed for polychlorinated biphenyls (PCBs) containing ballasts during the inspection. Identification of PCBs was possible by the serial numbers and branding on the ballasts. Most PCBS produced in the 1980s or later have markings indicating the ballasts are "Non-PCB". Other ballasts can be identified as hazardous based on the product date and serial numbers indicating they were produced in the time period in which the manufacturer utilized PCB components.

Electrical conduits and heavy-duty sealants may contain PCBs and sampling may be required if large scale industrial processes may have required specialized PCB-containing products.

## Mercury

Thermostats can utilize mercury switches and were visually inspected for the presence of these switches. All observable switches were counted and relayed in the results section.

Mercury is known to be a component of fluorescent light tubes. Visual estimation of the number of light tubes was provided in the results section.

## **Ozone Depleting Substances**

Assessment for equipment or systems likely to contain ODSs was completed visually. Information on the type of equipment, manufacturer, type, and quantity of refrigerants was recorded, where available. The most common products include refrigeration equipment and air conditioning units.

<sup>4</sup> Alberta Queens Printer (2013). Lead at the Work Site, Retrieved from https://work.alberta.ca/documents/OHS-Bulletin-CH071.pdf **ECOABATE** 

## **Radioactive Materials**

Visual assessment of smoke detectors was performed to confirm the presence of radioactive materials where possible. Any smoke detectors which were inaccessible were assumed to contain radioactive materials and were included in the reported amounts in the results section.

## **Biological Hazards**

Identification of hazardous organic waste or biological contaminants was conducted visually and included assessment of all site conditions at the time of the inspection. The identification of material which could result in illness or disease were documented, where possible.

Biological hazards include conditions such as animal droppings or carcasses, mould contamination, standing water, etc.

## **Miscellaneous Chemicals**

Any household or commercial chemicals which would require special disposal were documented and quantified where possible. Visual identification of the chemicals is sufficient in most cases to determine appropriate handling and disposal procedures.

# LIMITATIONS

The amount of material reported, if reported, is an estimate and materials may exist in locations inaccessible at the time the survey was performed.

Materials with a homogenous appearance cannot be differentiated based on appearance and accurate identification of renovated or replaced areas is not possible. As a result, all areas of materials such as drywall, plaster, ceiling texture, stucco, etc., must be treated as asbestos-containing if one (1) or more samples are identified as positive.

A full assessment of the attic space was not performed. Inspection of the attic included the immediate area around the hatch and materials within arms reach of the opening.

Asbestos materials may exist in areas of the property inaccessible for inspection including wall cavities and ceiling cavities.

Inspection of the exterior garage block wall was performed in areas which the interior block cavities were visible. No visible vermiculite was identified. Should vermiculite be identified during demolition processes, work must stop, and the vermiculite tested or treated as asbestos-materials and abated.

# **OBSERVATIONS**

The following observations were made at the time of the assessment:

- 1. Main floor walls and ceilings consisted of plaster.
- 2. Basement walls and stairwell lower portions were constructed of drywall.
- 3. Stucco materials were confirmed on the exterior of the home beneath grey siding.
- 4. Ceiling textures were visible on the main floor of the home
  - a. The ceiling textures were present on top of a layer of plaster.
- 5. The basement was unfinished except for the furnace room and lower stairwell.
- 6. No mercury containing thermostats were observed.
- 7. Miscellaneous chemicals were identified throughout the space.
- 8. No PCB Ballasts were identified in the space.
- 9. Mouse droppings were observed on the windowsill in the basement laundry room.

# RESULTS

### Asbestos Materials

*Table 1* below summarizes the positive results of the asbestos bulk sampling. For details, please refer to the attached laboratory reports (*See Appendix II*).

#	DESCRIPTION / LOCATION	ASB TYPE	ASB%	CONDITION	рното
1	Plaster Level 1 Kitchen Exterior	Actinolite	<1%	Fair	1
2	Plaster Level 1 Bedroom North Exterior	Actinolite	<1%	Fair	2
3	Plaster Level 1 Living Room Exterior	Actinolite	<1%	Fair	3
4	Plaster Level 1 Living Room Interior	Actinolite	<1%	Fair	4
5	Plaster Level 1 Master Bedroom Interior	Actinolite	<1%	Fair	5
6	Plaster Level 1 Bathroom Interior	Actinolite	<1%	Fair	6
11	Stucco 1 West Face	Chrysotile	<1%	Fair	11
12	Stucco 2 West Face	Chrysotile	<1%	Fair	12

 Table #1: Summary of Positive Asbestos Sampling Results

Notes:

a. N/A = Not applicable due to asbestos not being detected in the provided sample.

b. None Detected = no asbestos was detected within the material sampled.

c. Reporting limit is <1% for the method used.

Sampling was performed by Eco Abate Inc. following sampling procedures outlined in the <u>Alberta Asbestos Abatement Manual</u> (2019). Analysis was conducted in Calgary, Alberta, following the <u>EPA 600/R-93/116 Method</u>, which is the approved polarized light microscopy (PLM) analysis method used in Canada for identification of asbestos within bulk materials.

## Lead Materials

Results of lead paint sampling indicate lead-based paint was used on the property. *Table 2* below summarizes the results of the lead paint sampling. Please refer to the attached *Laboratory Report* for further details (*See Appendix II*).

LOCATION	COLOR	CONC. (ppm)	INTERPRETATION
Interior Paint	Beige	<80	Non-Lead
Exterior Trim Paint	White	11000	Lead Based
Garage Door Paint	Grey	1200	Lead Based
	Interior Paint Exterior Trim Paint	Interior Paint Beige Exterior Trim Paint White	Interior Paint     Beige     <80       Exterior Trim Paint     White     11000

#### Table #2: Lead Paint Sampling Results

Notes:

a. Non-Lead = Lead levels reported are below the limit of lead required to classify a paint as lead-based.
b. Reporting limit is <80 ppm for the method used.</li>

Sampling was performed by Eco Abate Inc. following sampling procedures outlined in the Flame AAS <u>SW 846 3050B/7000B</u> <u>Method</u>. Analysis was conducted in Calgary, Alberta, by EMSL Canada Inc. following the Flame AAS <u>SW 846 3050B/7000B</u> <u>Method</u>, which is a flame atomic absorption spectrometry (AAS) analysis method used for identification of lead within surface coating samples.

## Hazardous Components

Results of visual inspection for hazardous materials in building components identified multiple items which will require disposal prior to demolition. *Table 3* below summarizes the results of the assessment including confirmed counts of various items.

Table #3: Ha	zmat Item Count
--------------	-----------------

ITEM	TOTAL
Smoke Detectors (Radioactive)	2
Thermostat (Mercury)	-
Fluorescent Light Units (Mercury)	-
PCB Light Ballasts	-
Ozone Depleting Substances (Fridge)	1
Fire Extinguishers	-

Notes:

~ = Estimated amount of material based on visual observation and extrapolation through unexplored areas.

- All fluorescent light tubes were assumed to contain mercury.
- Only smoke detectors confirmed to contain radioactive materials were included.
- Refrigeration equipment included air conditioning units, refrigerators, freezers, and water coolers.
- Item counts are based on visual observation while on site and does not include items which were inaccessible.

### **Biological Hazards**

Biological materials existed in the space, such as mouse droppings and visible mould contamination. These materials may present a respiratory hazard to occupants during demolition or renovation.

### **Miscellaneous Chemicals**

Various household chemicals were identified, empty gasoline containers in the garage.

# CONCLUSIONS

Based on observations and results, Eco Abate makes the following conclusions:

 Plaster was observed and confirmed asbestos-containing (See Photographs #1 through 6). Removal of the material must be performed prior to demolition by a qualified abatement contractor using moderate-risk asbestos abatement procedures found in <u>Section 5.3</u> of the <u>AAAM</u> (2019).

**PLEASE NOTE:** Due to the homogenous appearance of plaster, all sections of the materials throughout the property must be treated as asbestos-containing as required by Section 7.1.1 of the <u>AAAM (2019)</u>.

- The stucco beneath the exterior siding was confirmed as asbestos-containing (See Photographs #11 and 12). Removal of the material must be performed prior to demolition by a qualified abatement contractor using moderate-risk asbestos abatement procedures found in <u>Section 5.3</u> of the <u>AAAM (2019)</u>.
- Lead-containing paints (See Appendix II) were identified. Disturbance of lead-containing surface coatings must be performed following exposure prevention controls similar to those found in WorkSafeBC's Lead Containing Paints and Coatings: Preventing Exposure in the Construction Industry (2011) document and described in the Alberta Governments Lead at the Work Site (2013) bulletin.

**PLEASE NOTE:** All waste which includes the paints must be disposed of as hazardous waste unless toxicity characteristic leachate procedure (TCLP) testing can confirm the levels below the hazardous waste definition in the <u>Government of Alberta's</u> document <u>Alberta User Guide for</u> <u>Waste Managers (1996)</u><sup>1</sup>.

- 4. Hazardous components including smoke detectors and miscellaneous chemicals were identified on site and will require appropriate disposal prior to demolition.
- 5. Various biological hazards were observed on site including animal feces and minor mould contamination.
- 6. Should any new materials be identified throughout the process, work should stop until the materials can be assessed by a qualified health and safety professional.

**PLEASE NOTE:** Renovation and demolition activities involving asbestos materials identified must be performed in accordance with all laws found in the <u>Occupational Health and Safety Act Regulation and Code (2019)</u> and follow procedures outlined in the <u>Alberta Asbestos Abatement Manual (2019)</u> [AAAM]. Asbestos abatement must be performed by a competent contractor experienced in the procedures described above and include air quality monitoring by a third-party occupational hygiene consultant. All contractors who perform work on the building must be given relevant information pertaining to asbestos-containing materials and must be given access to all records of asbestos testing, including this report.

## WARRANTY:

Eco Abate Inc. warrants to the company, organization, or individual to whom this report is addressed that the assessment described has been conducted with a reasonable level of care and skill, in accordance with standards currently prevailing in the health, safety, and environmental consulting profession.

The warranty stated above is subject to the following: (i) the assessment conducted by Eco Abate has been limited to the scope of work described, (ii) this report has been prepared taking into account current government regulations, and does not reflect regulations which may be enacted in the future, (iii) where indicated or implied in this report, conclusions are based on visual observation of the site at the time of this assessment, and (iv) the conclusions of this report do not apply to any areas of the site not available for testing or inspection.

This report is intended for the exclusive use of the company, organization, or individual to whom it is addressed.

If you have any questions, concerns or require any additional information please contact the undersigned at (403) 998-5079 or.

Authored By:

August

Alyssa Kocsar, Environmental Technician

Reviewed By:

AU UL

Scott Blake, B.Sc., NCSO, EP<sup>®</sup> Principal

# **APPENDIX I**

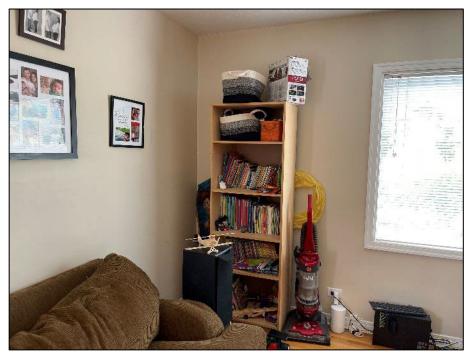
# PHOTOGRAPHS



PHOTOGRAPH #1: Plaster - Level 1 Kitchen Exterior (<1% Actinolite)



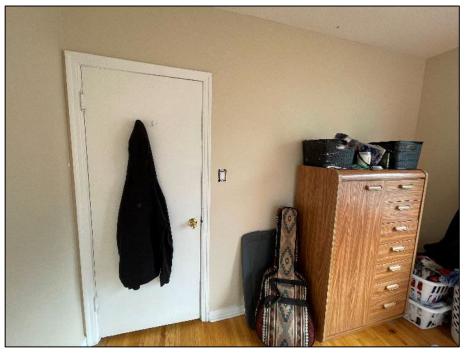
PHOTOGRAPH #2: Plaster - Level 1 Bedroom North Exterior (<1% Actinolite)



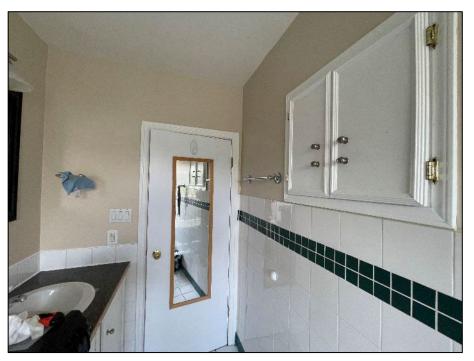
PHOTOGRAPH #3: Plaster - Level 1 Living Room Exterior (<1% Actinolite)



**PHOTOGRAPH #4:** Plaster - Level 1 Living Room Interior (<1% Actinolite)



PHOTOGRAPH #5: Plaster - Level 1 Master Bedroom Interior (<1% Actinolite)



PHOTOGRAPH #6: Plaster - Level 1 Bathroom Interior (<1% Actinolite)



PHOTOGRAPH #7: Sheet Flooring - Level 1 Stairs (Non-Asbestos)



PHOTOGRAPH #8: Thinset – Bathroom (Non-Asbestos)



PHOTOGRAPH #9: Fibre Board - Basement Laundry (Non-Asbestos)



PHOTOGRAPH #10: Roofing (Non-Asbestos)



PHOTOGRAPH #11: Stucco 1 - West Face (<1% Chrysotile)



PHOTOGRAPH #12: Stucco 2 - West Face (<1% Chrysotile)



PHOTOGRAPH #13: Attic Insulation (Non-Asbestos)



PHOTOGRAPH #14: Drywall Joint Compound - Basement Furnace Room (Non-Asbestos)



PHOTOGRAPH #15: Drywall Joint Compound - Basement Laundry Room (Non-Asbestos)



PHOTOGRAPH #16: Drywall Joint Compound - Basement Stairs (Non-Asbestos)



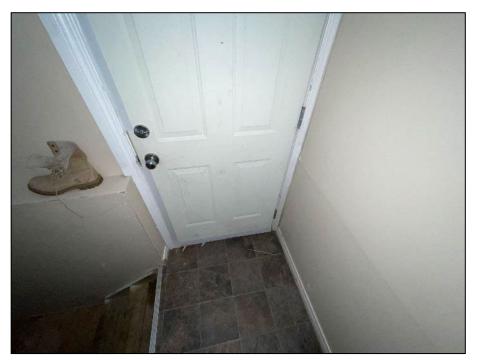
PHOTOGRAPH #17: Ceiling Texture - Level 1 Hallway (Non-Asbestos)



PHOTOGRAPH #18: Ceiling Texture - Level 1 Kitchen (Non-Asbestos)



PHOTOGRAPH #19: Ceiling Texture - Level 1 Living Room (Non-Asbestos)



PHOTOGRAPH #20: Drywall Joint Compound - Level 1 Stairs Exterior (Non-Asbestos)



PHOTOGRAPH #21: Beige Paint - Interior (Non-Lead)



PHOTOGRAPH #22: White Paint – Exterior Trim (Lead Based)



PHOTOGRAPH #23: Grey Paint – Garage Door (Lead Based)



PHOTOGRAPH #24: Smoke Detector – Main Floor Living Room (Radioactive Materials)



PHOTOGRAPH #25: Mouse Droppings Present in Basement Laundry Room (Biological Hazard)



PHOTOGRAPH #26: Visible Mould Contamination - Basement Laundry Room (Biological Hazard)



PHOTOGRAPH #27: Block Wall Used for Garage Construction – No Visible Vermiculite Identified

# **APPENDIX II**

# LABORATORY REPORTS



# **PLM Analysis Report**

Project Number:	E2869
Date of Analysis	Thursday, August 25, 2022
Author	Scott Blake

### Results

ID	Sample Description / Location	Results
1	Plaster - Level 1 Kitchen (EXT)	<1% Actinolite
2	Plaster - Level 1 Bedroom North (EXT)	<1% Actinolite
3	Plaster - Level 1 Living Room (EXT)	<1% Actinolite
4	Plaster - Level 1 Living Room (INT)	<1% Actinolite
5	Plaster - Level 1 Master Bedroom (INT)	<1% Actinolite
6	Plaster - Level 1 Bathroom (INT)	<1% Actinolite
7	Sheet Flooring - Level 1 Stairs	None Detected
8	Thinset - Level 1 Bathroom	None Detected
9	Fibre Board - Basement Laundry	None Detected
10	Roofing	None Detected
11	Stucco 1 - West Face	<1% Chrysotile
12	Stucco 2 - West Face	<1% Chrysotile
13	Attic Insulation	None Detected
14	Drywall Joint Compound - Basement Furnace Room	None Detected
15	Drywall Joint Compound - Basement Laundry Room	None Detected
16	Drywall Joint Compound - Basement Stairs	None Detected
17	Ceiling Texture - Level 1 Hallway	None Detected
18	Ceiling Texture - Level 1 Kitchen	None Detected
19	Ceiling Texture - Level 1 Living Room	None Detected
20	Drywall Joint Compound - Level 1 Stairs (EXT)	None Detected

Samples analysis of bulk materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

• This report relates only to the samples reported above, and may not be reproduced

Analysis and results subject to limitations of sample collection and methodology used

Eco Abate maintains liability limited to cost of analysis



Project Number:	E2869
Date of Analysis:	Thursday, August 25, 2022
Author:	Scott Blake

### **Results:**

ID	Sample Description / Location	Results
А	Interior Paint - Beige	<80 ppm
В	Exterior Trim Paint - White	11000 ppm
С	Garage Door Paint - Grey	1200 ppm

Samples analysis of paint chips via Flame AAS (SW 846 3050B/7000B)\*

• Reporting limit is 0.008% wt based on the minimum sample weight.

• This report relates only to the samples reported above, and may not be reproduced

Analysis and results subject to limitations of sample collection and methodology used

Eco Abate maintains liability limited to cost of analysis

# **APPENDIX F – SPECIFICATIONS**

Attached

### 1. SAFETY

### **1.1** SAFETY REQUIREMENTS

- .1 Comply with and enforce the construction safety measures required by the Alberta Building Code, the Workers' Compensation Board, and applicable provisions of Federal, Provincial, and Municipal safety laws and ordinances.
- .2 Adhere to all Provincial Occupational Health and Safety Act regulations for the safety of the public and of workers at all times.
- .3 For the purposes of this Act, the General Contractor is deemed to be the "Prime Contractor". Post appropriate notice on the site as required.
- .4 Assume full responsibility for the safety and organization of the work. The Project Manager nor Owner do not direct, supervise or assume control over the means, methods, techniques, sequences, or procedure of construction.
- .5 In the event of conflict between any provisions of above authorities, the most stringent provision will apply.

### **1.2** ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit in accordance with Submittal Procedures.
- .2 Submit site-specific Health and Safety Plan: Within [7] days after date of Notice to Proceed and prior to commencement of Work. Health and Safety Plan must include:
  - .1 Results of site-specific safety hazard assessment.
  - .2 Results of safety and health risk or hazard analysis for site tasks and operation.
- .3 Submit one copy of Contractor's authorized representative's work site health and safety inspection reports to Owner weekly.
- .4 Submit copies of reports or directions issued by Federal, Provincial and Territorial health and safety inspectors.
- .5 Submit copies of incident and accident reports.
- .6 Submit WHMIS Safety Data Sheets (SDS) in accordance with applicable regulations.
- .7 Owner will review Contractor's site-specific Health and Safety Plan and provide comments to Contractor within [7] days after receipt of plan. Revise plan as appropriate and resubmit plan to Owner within [5] days after receipt of comments from Owner.
- .8 Owner's review of Contractor's final Health and Safety plan should not be construed as approval and does not reduce the Contractor's overall responsibility for construction Health and Safety.
- .9 Medical Surveillance: where prescribed by legislation, regulation or safety program, submit certification of medical surveillance for site personnel prior to *commencement of Work, and submit additional certifications for any new site personnel to Owner.*
- .10 On-site Contingency and Emergency Response Plan: address standard operating procedures to be implemented during emergency situations.

### 1.3 FILING OF NOTICE

- .1 File Notice of Project with Provincial authorities prior to beginning of Work.
- .2 Contractor shall be responsible and assume the Prime Contractor role for each work zone location. Contractor shall provide a written acknowledgement of this responsibility with 3 weeks of contract award.

- .3 Work zone locations include:
  - .1 105 4 St W Lehigh
  - .2 964 Hunter Drive Nacmine
  - .3 1000 Hunter Drive Nacmine
- .4 Contractor shall agree to install proper site separation and identification in order to maintain time and space at all times throughout life of project.
- **1.4** SAFETY ASSESSMENT
  - .1 Perform site-specific safety hazard assessment related to project.

### 1.5 MEETINGS

- .1 Schedule and administer a Health and Safety meeting with Owner prior to commencement of Work.
- **1.6** REGULATORY REQUIREMENTS
  - .1 Do Work in accordance with Regulatory Requirements.

### 1.7 PROJECT/SITE CONDITIONS

- .1 Work at site will involve contact with:
  - .1 Asbestos-containing building materials
  - .2 Lead paint and lead-containing products
  - .3 Mercury in fluorescent light tubes and thermostat ampules
  - .4 PCBs in light ballasts
  - .5 Mould and water impacted building materials
  - .6 Bird and mouse droppings
  - .7 Silica in building materials

#### 1.8 GENERAL REQUIREMENTS

- .1 Develop written site-specific Health and Safety Plan based on hazard assessment prior to beginning site Work and continue to implement, maintain, and enforce plan until final demobilization from site. Health and Safety Plan must address project specifications.
- .2 Owner may respond in writing, where deficiencies or concerns are noted and may request re-submission with correction of deficiencies or concerns.

#### **1.9** RESPONSIBILITY

- .1 Be responsible for health and safety of persons on site, safety of property on site, and for protection of persons adjacent to site and environment to extent that they may be affected by conduct of Work.
- .2 Contractor will be responsible and assume the role of Prime Contractor as described in the Alberta Occupational Health and Safety Act and Regulations for Construction Projects.

.3 Comply with and enforce compliance by employees with safety requirements of Contract Documents, applicable federal, provincial, and local statutes, regulations, and ordinances, and with site-specific Health and Safety Plan.

### 1.10 COMPLIANCE REQUIREMENTS

- .1 Comply with Occupational Health and Safety Act, General Safety Regulation for the Province of Alberta.
- .2 Comply with Occupational Health and Safety Regulations, 1996.
- .3 Comply with Canada Labour Code and Canada Occupational Safety and Health Regulations.

### 1.11 UNFORSEEN HAZARDS

.1 When unforeseen or peculiar safety-related factor, hazard, or condition occur during performance of Work, follow procedures in place for Employee's Right to Refuse Work in accordance with Acts and Regulations of Province having jurisdiction and advise Owner verbally in writing.

### 1.12 HEALTH AND SAFETY CO-ORDINATOR

- .1 Employ and assign to Work, competent and authorized representative as Health and Safety Coordinator. Health and Safety Coordinator must:
  - .1 Have site-related working experience specific to activities associated with demolition.
  - .2 Have working knowledge of occupational safety and health regulations.
  - .3 Be responsible for completing Contractor's Health and Safety Training Sessions and ensuring that personnel not successfully completing required training are not permitted to enter site to perform Work.
  - .4 Be responsible for implementing, enforcing daily and monitoring site-specific Contractor's Health and Safety Plan.
  - .5 Be on site during execution of Work.

### 1.13 POSTING OF DOCUMENTS

.1 Ensure applicable items, articles, notices and orders are posted in conspicuous location on site in accordance with Acts and Regulations of Province having jurisdiction, and in consultation with Owner.

### 1.14 CORRECTION OF NON-COMPLIANCE

- .1 Immediately address health and safety non-compliance issues identified by authority having jurisdiction or by Owner.
- .2 Provide Owner with written report of action taken to correct non-compliance of health and safety issues identified.

.3 Owner may stop Work if non-compliance of health and safety regulations is not corrected.

### 1.15 BLASTING

- .1 Blasting or other use of explosives is not permitted without prior receipt of written instruction by Owner.
- **1.16** POWDER ACTUATED DEVICES
  - .1 Use powder actuated devices only after receipt of written permission from Owner.

### 1.17 WORK STOPPAGE

.1 Give precedence to safety and health of public and site personnel and protection of environment over cost and schedule considerations for Work.

### **END OF SECTION**

#### Part 1 General

- 1.1 SUMMARY
  - .1 General: Provide selective site demolition, in accordance with the requirements of the Contract Documents.
  - .2 Section includes descriptions for demolishing, salvaging, recycling, and removing site work items identified for removal in whole or in part, and for backfilling resulting trenches and excavations.

## **1.2** REFERENCE STANDARDS

- .1 Health Canada/Workplace Hazardous Materials Information System (WHMIS).
  - .1 Material Safety Data Sheets (MSDS).
- .2 Transport Canada:
  - .2 Transportation of Dangerous Goods Act, (TDGA), c. 34.

## 1.3 DEFINITIONS

- .1 Owner: The Town of Drumheller.
- .2 Demolish: Detach items from existing construction and legally dispose of them off site, unless indicated to be removed and salvaged or removed and reinstalled.
- .3 Remove and Salvage: Detach items from existing construction and deliver them to Owner ready for reuse.
- .4 Remove and Reinstall: Detach items from existing construction, prepare them for reuse, and reinstall them where indicated.
- .5 Existing to Remain: Existing items of construction that are not to be removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.
- .6 Hazardous Materials: dangerous substances, dangerous goods, hazardous commodities and hazardous products, may include but not limited to: asbestos PCB's, CFC's, HCFC's poisons, corrosive agents, flammable substances, ammunition, explosives, radioactive substances, or other material that can endanger human health or well-being or the environment if handled improperly.

### **1.4** QUALITY ASSURANCE

.1 Perform work of this Section in accordance with referenced standards and applicable Federal, Provincial, and Municipal regulations.

### **1.5** PROJECT MEETINGS

- .1 ADMINISTRATIVE
  - .1 Schedule and administer project meetings throughout the progress of the work at the call of Owner.
  - .2 Prepare agenda for meetings.

- .3 Distribute written notice of each meeting [4] days in advance of meeting date to Owner.
- .4 Provide physical space and make arrangements for meetings.
- .5 Preside at meetings.
- .6 Record the meeting minutes. Include significant proceedings and decisions. Identify actions by parties.
- .7 Reproduce and distribute copies of minutes within [3] days after meetings and transmit to meeting participants, affected parties not in attendance, and Owner.
- .8 Representative of Contractor, Subcontractor and suppliers attending meetings will be qualified and authorized to act on behalf of party each represents.

## **1.6** PRECONSTRUCTION MEETING

- .1 Within [5] days after award of Contract, request a meeting of parties in contract to discuss and resolve administrative procedures and responsibilities.
- .2 Owner, Contractor, major Subcontractors, field inspectors, and supervisors will be in attendance.
- .3 Establish time and location of meeting and notify parties concerned minimum [5] days before meeting.
- .4 Incorporate mutually agreed variations to Contract Documents into Agreement, prior to signing.
- .5 Agenda to include:
  - .1 Appointment of official representative of participants in the Work.
  - .2 Schedule of Work: in accordance with Construction Progress Schedule.
  - .3 Schedule of submission of shop drawings, samples, colour chips. Submit submittals in accordance with Submittal Procedures.
  - .4 Requirements for temporary facilities, site sign, offices, storage sheds, utilities, fences in accordance with regulations.
  - .5 Delivery schedule of specified equipment.
  - .6 Site security.
  - .7 Proposed changes, change orders, procedures, approvals required, markup percentages permitted, time extensions, overtime, administrative requirements.
  - .8 Owner provided products.
  - .9 Record drawings in accordance with Submittal Procedures.
  - .10 Maintenance manuals in accordance with Closeout Submittals.

**Additional Specifications - Demolition and Remediation Services Drumheller Residential & Institutional Demolitions Project** P0303-1568035704-21 (1.0)

- .11 Take-over procedures, acceptance, warranties in accordance with Closeout Submittals.
- .12 Monthly progress claims, administrative procedures, photographs, hold backs.
- .13 Appointment of inspection and testing agencies or firms.
- .14 Insurances, transcript of policies.

#### 1.7 **PROGRESS MEETINGS**

- During course of Work and [2] weeks prior to project completion, schedule progress .1 meetings weekly.
- .2 Contractor, major Subcontractors involved in Work and Owner are to be in attendance.
- .3 Notify parties minimum [3] days prior to meetings.
- .4 Record minutes of meetings and circulate to attending parties and affected parties not in attendance within [3] days after meeting.
- .5 Agenda to include the following:
  - .1 Review, approval of minutes of previous meeting.
  - .2 Review of Work progress since previous meeting.
  - .3 Field observations, problems, conflicts.
  - .4 Problems which impede construction schedule.
  - .5 Review of off-site fabrication delivery schedules.
  - Corrective measures and procedures to regain projected schedule. .6
  - .7 Revision to construction schedule.
  - .8 Progress schedule, during succeeding work period.
  - .9 Review submittal schedules: expedite as required.
  - .10 Maintenance of quality standards.
  - .11 Review proposed changes for affect on construction schedule and on completion date.
  - .12 Other business.

### DELIVERY, STORAGE, AND HANDLING

- .1 Coordinate the protection of the environment and establish adequate site controls.
- .2 Protect open excavations in accordance with the requirements of the Authorities having jurisdiction.

1.8

- .3 Protect existing site features to remain or identified for salvage or re-use; make repairs and restore to a similar condition to existing where damage to these items occurs as directed by the Project Manager and at no cost to Owner:
  - .1 Remove and store salvaged materials to prevent damage.
  - .2 Store and protect salvaged materials as required for maximum preservation of material.
  - .3 Handle salvaged materials the same as new materials.
- .4 Coordinate requirements for Waste Management and Disposal for materials being re-used or recycled:
  - .1 Divert excess materials from landfill to site.
  - .2 Separate materials identified for recycling. Place in identified containers in accordance with local Waste Management regulations.
  - .3 Place materials defined as hazardous or toxic in identified containers.
  - .4 Label location of salvaged material's storage areas and provide barriers and security devices.
  - .5 Ensure emptied containers are sealed and stored safely.
  - .6 Source separate for recycling materials that cannot be salvaged for re-use including wood, metal, concrete and asphalt, and gypsum.
  - .7 Remove materials that cannot be salvaged for re-use or recycling and dispose of in accordance with applicable codes at licensed facilities.

# **1.9** SITE CONDITIONS

# .1 ADMINISTRATIVE REQUIREMENTS

- .1 Coordination: Coordinate with Owner for the material ownership including the following:
- .2 Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, demolished materials shall become Contractor's property and shall be removed from Project site.
- .3 Historic items, relics, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, antiques, and other items of interest or value to Owner that may be encountered during demolition remain Owner's property:
  - .1 Carefully remove and salvage each item or object in a manner to prevent damage and deliver promptly to Owner.
  - .2 Coordinate with Owner's historical adviser, who will establish special procedures for removal and salvage operations.
- .1 Pre-Demolition Meetings.

- .1 Convene pre-demolition meeting [1] week before beginning work of this Section, with Contractor and Owner in accordance with Project Meetings to:
  - .1 Verify project requirements.
  - .2 Verify existing site conditions adjacent to demolition work
  - .3 Coordinate with other construction sub trades
  - .4 Examine existing site conditions adjacent to demolition work, prior to start of Work
  - .5 Waste reporting requirements
- .2 Hold project meetings every week.
- .3 Ensure key personnel, site supervisor, project manager, subcontractor representatives, and Owner attend.
- .4 Contractor will provide written report on status of waste diversion activity at each meeting.
- .5 Owner will provide written notification of change of meeting schedule established upon contract award [24] hours prior to scheduled meeting.
- .2 Scheduling:
  - .1 Employ necessary means to meet project timelines without compromising specified minimum rates of material diversion.
  - .2 In event of unforeseen delay notify Owner in writing.

# **1.10** ACTION AND INFORMATIONAL SUBMITTALS

- .1 Action Submittals: Provide the following submittals before starting any work of this Section:
  - .1 Shop Drawings: Submit drawings stamped and signed by professional engineer registered or licensed in Province, Canada as follows:
    - .1 Submit for review and approval selective site demolition drawings, diagrams or details showing sequence of selective site demolition.
    - .2 Submit in accordance with Submittal Procedures.
    - .3 Contractor is responsible for fulfilment of reporting requirements.
  - .2 Schedule of Selective Site Demolition Activities: Coordinate with Construction Progress Schedule - Critical Path Method (CPM), and indicate the following:
    - .1 Detailed sequence of selective site demolition and removal work, with starting and ending dates for each activity
    - .2 Interruption of utility services
    - .3 Coordination for shutoff, capping, and continuation of utility services

- .4 Locations of temporary partitions and means of egress
- .3 Construction Waste Management Plan (CWM Plan): Submit a plan of demolition area indicating extent of temporary facilities and supports, methods of removal and demolition prepared by a professional engineer in accordance with requirements of Authority Having Jurisdiction, and as follows:
- .4 Proposed Dust Control and Noise Control Measures: Submit statement or drawing that indicates measures proposed for use, proposed locations, and proposed time frame for their operation.
- .5 Inventory: Submit a list of items that have been removed and salvaged after selective site demolition is complete.
- .6 Landfill Records: Indicate receipt and acceptance of all material removed from the site and disposed of at a landfill facility, including hazardous wastes by a landfill facility licensed to accept hazardous wastes.
- .7 Pre-demolition Photographs: Submit photographs indicating existing conditions of adjoining construction and site improvements prior to starting Work. Include finish surfaces that may be misconstrued as damage caused by selective site demolition operations.
- .2 Informational Submittals: Provide the following submittals when requested by the Owner:
  - .1 Qualification Data: Submit information for companies and personnel indicating their capabilities and experience to perform work of this Section including but not limited to, lists of completed projects with project names and addresses, names and addresses of Consultant for work of similar complexity and extent.

### **1.11** QUALITY ASSURANCE

- .3 Regulatory Requirements: ensure Work is performed in compliance with applicable Federal, Provincial, and Municipal regulations.
- .4 Comply with hauling and disposal regulations of Authority having Jurisdiction.

### **1.12** SITE CONDITIONS

- .5 Environmental protection:
  - .1 Ensure Work is done in accordance with Environmental Procedures.
  - .2 Ensure Work does not adversely affect adjacent watercourses, groundwater and wildlife, or contribute to excess air and noise pollution.
  - .3 Fires and burning of waste or materials is not permitted on site.
  - .4 Burying of rubbish waste materials is not permitted.
  - .5 Disposal of waste of volatile materials including but not limited to, mineral spirits, oil, petroleum based lubricants, or toxic cleaning solutions into watercourses, storm or sanitary sewers, is not permitted.

- .6 Ensure proper disposal procedures are maintained throughout the project.
- .6 Pumping of water containing suspended materials into watercourses, storm or sanitary sewers or onto adjacent properties, is not permitted.
- .7 Control disposal or runoff of water containing suspended materials or other harmful substances in accordance with authorities having jurisdiction or as directed by Owner.
- .8 Protect trees, plants, and foliage on site and adjacent properties where indicated.
- .9 Prevent extraneous materials from contaminating air beyond application area, by providing temporary enclosures during demolition work.
- .10 Cover or wet down dry materials and waste to prevent blowing dust and debris. Control dust on all temporary roads.
- .11 Owner may occupy another building immediately adjacent to demolition area.
- .12 Conduct selective site demolition so Owner's operations will not be disrupted:
  - .1 Provide not less than [72] hours' notice to Owner of activities that will affect operations.
  - .2 Maintain access to existing walkways, exits, and other adjacent occupied or used facilities:
    - .1 Closing or obstructing walkways, exits, or other occupied or used facilities without written permission from Owner is not permitted.
- .13 Owner assumes no responsibility for Selective Site elements being demolished:
  - .1 Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.
  - .2 Before selective site demolition, remove, protect, and store salvaged items as directed by Owner:
    - .1 Salvage items as identified by Owner.
    - .2 Deliver to Owner as directed.
- Part 2 Products
- 2.1 EQUIPMENT
  - .1 Equipment and Heavy Machinery:
    - .1 Machinery running only while in use, except where extreme temperatures prohibit shutting machinery down.
- Part 3 Execution
- 3.1 EXAMINATION

- .1 Survey existing conditions and correlate with requirements indicated to determine extent of selective site demolition required.
- .2 Owner does not guaranty that existing conditions are the same as those indicated in Project Record Documents.
- .3 Inventory and record the condition of items being removed and salvaged.
- .4 When unanticipated mechanical, electrical, or structural elements are encountered, investigate and measure the nature and extent of the element. Promptly submit a written report to Owner.
- .5 If necessary, engage a professional engineer to perform an engineering survey of condition of adjacent buildings to determine whether removing any site element might result in structural deficiency or unplanned collapse of any portion of structure or adjacent structures during selective site demolition operations.
- .6 Verify that hazardous materials have been remediated before proceeding with site demolition operations.

## 3.2 PREPARATION

- .1 Temporary Erosion and Sedimentation Control:
  - .1 Provide temporary erosion and sedimentation control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways, according to: requirements of authorities having jurisdiction and/or sediment and erosion control drawings and/or sediment and erosion control plan, specific to site, that complies with requirements of authorities having jurisdiction, whichever is more stringent.
  - .2 Inspect, repair, and maintain erosion and sedimentation control measures during demolition.
  - .3 Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal after completion of demolition work.
- .2 Protection of in-place conditions:
  - .1 Work in accordance with Environmental Procedures and Erosion and Sedimentation Control Plan and Stormwater Pollution Prevention Plan.
  - .2 Prevent movement, settlement or damage of adjacent structures, services, walks, paving, trees, landscaping, adjacent grades properties parts of existing building to remain.
    - .1 Provide bracing, shoring and underpinning as required.
    - .2 Repair damage caused by demolition as directed by Owner.
  - .3 Support affected site elements and, if safety of site element being demolished or adjacent structures or services appears to be endangered, take preventative measures, stop Work and immediately notify Owner.
  - .4 Prevent debris from blocking surface drainage system, elevators, mechanical and electrical systems which must remain in operation.
- .3 Surface Preparation:

- .1 Notify and obtain approval of utility companies before starting demolition.
- .2 Disconnect and re-route electrical and service lines within the site to be demolished.
  - .1 Post warning signs on electrical lines and equipment which must remain energized to serve other properties during period of selective site demolition.
- .3 Disconnect and cap designated mechanical services.
  - .1 Natural gas supply lines: remove in accordance with gas company requirements.
  - .2 Sewer and water lines: remove to property line in accordance with authority having jurisdiction and/or as directed by Owner.
  - .3 Other underground services: remove and dispose of as directed by Owner.
- .4 Disruption of active or energized utilities designated to remain undisturbed is not permitted.

#### **3.3** REMOVAL AND DEMOLITION OPERATIONS

- .1 Remove items as indicated.
- .2 Disruption of items designated to remain in place is not permitted.
- .3 Removal of pavements, curbs, and gutters:
  - .1 Square up adjacent surfaces to remain in place by saw cutting or other method approved by Owner.
  - .2 Protect adjacent joints and load transfer devices.
  - .3 Protect underlying and adjacent granular materials.
- .4 Excavate at least [300] mm below pipe invert, when removing pipes under existing or future pavement area.
- .5 Decommission water wells and monitoring wells in accordance with Municipal and Provincial guidelines regulations.
- .6 Remove designated trees during demolition.
  - .1 Obtain written approval of Owner prior to removal of tree not designated.
- .7 Stockpile topsoil for final grading and landscaping:
  - .1 Provide erosion control and seeding if not immediately used.
- .8 Salvage:
  - .1 Dismantle items containing materials for salvage and stockpile salvaged materials at locations as indicated.
- .9 Disposal of Material:
  - .1 Dispose of materials not designated for salvage or reuse on site at authorized facilities approved in Waste Reduction Workplan.

- .2 Trim disposal areas to approval of Owner.
- .10 Backfill: Backfill in areas as indicated.

## 3.4 STOCKPILING

- .1 Label stockpiles, indicating material type and quantity.
- .2 Designate appropriate security resources/measures to prevent vandalism, damage, and theft.
- .3 Locate stockpiled materials convenient for use in new construction to eliminate double handling wherever possible.
- .4 Stockpile materials designated for alternate disposal in location which facilitates removal from site and examination by potential end markets, and which does not impede disassembly, processing, or hauling procedures.

### 3.5 REMOVAL FROM SITE

- .1 Remove stockpiled material as directed by Owner, when it interferes with operations of project.
- .2 Remove stockpiles of like materials by alternate disposal option once collection of materials is complete.
- .3 Transport material designated for alternate disposal using approved equipment listed in CWM Plan and in accordance with applicable regulations:
  - .1 Written authorization from Owner is required to deviate from CWM Plan.
- .4 Dispose of materials not designated for alternate disposal in accordance with applicable regulations.
  - .1 Disposal Facilities: approved and listed in Waste Reduction Workplan.
  - .2 Written authorization from Owner is required to deviate from disposal facilities listed in Waste Reduction Workplan.

#### 3.6 RESTORATION

- .1 Restore areas and existing works outside areas of demolition to conditions that existed prior to beginning of Work.
- .2 Use soil treatments and procedures which are not harmful to health, are not injurious to plants, and do not endanger wildlife, adjacent water courses or ground water.

### 3.7 CLEANING

- .1 Progress Cleaning:
  - .1 Leave Work area clean at end of each day.
  - .2 Remove debris, trim surfaces, and leave work site clean, upon completion of Work
  - .3 Use cleaning solutions and procedures which are not harmful to health, are not injurious to plants, and do not endanger wildlife, adjacent water courses or ground water.

- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools, and equipment.
- .3 Waste Management: separate waste materials for reuse and recycling in accordance with regulations.
  - .1 Remove recycling containers and bins from site and dispose of materials at appropriate facility.
- .4 Perform selective site demolition work to prevent adverse effects to adjacent watercourses, groundwater, and wildlife, and to prevent excess air and noise pollution:
  - .1 Do not dispose of waste of volatile materials including but not limited to, mineral spirits, oil, petroleum based lubricants, or toxic cleaning solutions into watercourses, storm or sanitary sewers; follow proper disposal procedures throughout the project in accordance with Authorities Having Jurisdiction.
  - .2 Do not pump water containing suspended materials into watercourses, storm or sanitary sewers or onto adjacent properties.
  - .3 Control disposal or runoff of water containing suspended materials or other harmful substances in accordance with Authorities Having Jurisdiction.
- .5 Protect existing site features and structures, trees, plants, and foliage on site and adjacent properties where required.
- .6 Remove contaminated or hazardous materials as defined by Authorities Having Jurisdiction from site, prior to start of selective site demolition Work, and dispose of at certified hazardous waste disposal facilities.

### END OF SECTION

#### Part 1 General

#### 1.1 SUMMARY

- .1 General: Provide finishing, in accordance with the requirements of the Contract Documents.
- .2 This Section includes the following:
  - .1 Demolition and removal of buildings and structures.
  - .2 Demolition and removal of site improvements adjacent to a building or structure being demolished.
  - .3 Demolition and removal of concrete foundations and piles.
  - .4 Removing below-grade construction.
  - .5 Disconnecting, capping or sealing, and removing site utilities.

### 1.2 DEFINITIONS

- .1 Owner: The Town of Drumheller.
- .2 Demolish: Detach items from existing construction and legally dispose of them off site, unless indicated to be removed and salvaged or removed and reinstalled.
- .3 Remove and Salvage: Detach items from existing construction and deliver them to Owner ready for reuse.
- .4 Existing to Remain: Existing items of construction that are not removed and that are not otherwise indicated as being removed, removed and salvaged, or removed and reinstalled.
- .5 Hazardous Materials: dangerous substances, dangerous goods, hazardous commodities and hazardous products, may include but not limited to: asbestos PCB's, CFC's, HCFC's poisons, corrosive agents, flammable substances, ammunition, explosives, radioactive substances, or other material that can endanger human health or well-being or the environment if handled improperly.

### **1.3** REFERENCE STANDARDS

- .1 American National Standards Institute (ANSI):
  - .1 ANSI/ASSE A10.8, Scaffolding Safety Requirements
- .2 Canadian Federal Legislation:
  - .1 Canadian Environmental Protection Act (CEPA),
  - .2 Canadian Environmental Assessment Act (CEAA),
  - .3 Transportation of Dangerous Goods Act (TDGA),
  - .4 Motor Vehicle Safety Act (MVSA),
  - .5 Hazardous Materials Information Review Act,

- .3 Canadian Standards Association (CSA):
  - .1 CSA S350, Code of Practice for Safety in Demolition of Structures
- .4 National Fire Protection Association (NFPA):
  - .2 NFPA 241, Standard for Safeguarding Construction, Alteration, and Demolition Operations

### **1.4** ADMINISTRATIVE REQUIREMENTS

- .1 Materials Ownership:
  - .1 Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, demolished materials shall become the Demolition Contractor's property and shall be removed from Project site.
  - .2 Historic items and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, antiques, and other items of interest or value to Owner that may be encountered during demolition remain Owner's property:
    - .1 Carefully remove and salvage each item or object in a manner to prevent damage and deliver promptly to Owner.
    - .2 Coordinate with Owner's adviser, who will establish special procedures for removal and salvage.
- .2 Pre-Demolition Meeting: Conduct a pre-demolition meeting at Project site, as follows:
  - .1 Inspect and discuss condition of construction being demolished.
  - .2 Review structural load limitations of existing structures.
  - .3 Review and finalize building demolition schedule and verify availability of demolition personnel, equipment, and facilities needed to make progress and avoid delays.
  - .4 Review and finalize protection requirements.

### 1.5 SUBMITTALS

- .1 Action Submittals: Provide the following submittals before starting any work of this Section:
  - .1 Schedule of Demolition Activities: indicate the following:
    - .1 Detailed sequence of demolition and removal work, with starting and ending dates for each activity
    - .2 Interruption of utility services
    - .3 Coordination for shutoff, capping, and continuation of utility services
    - .4 Locations of temporary partitions and means of egress

- .2 Demolition Plan: Submit a plan of demolition area indicating extent of temporary facilities and supports, methods of removal and demolition prepared by a professional engineer in accordance with requirements of Authority Having Jurisdiction, and as follows:
  - .1 Proposed Dust-Control and Noise-Control Measures: Submit statement or drawing that indicates the measures proposed for use, proposed locations, and proposed time frame for their operation.
  - .2 Inventory: Submit a list of items that have been removed and salvaged after demolition is complete.
  - .3 Landfill Records: Indicate receipt and acceptance of all materials removed from site and disposed of at a licensed landfill facility, including acceptance of hazardous wastes by a landfill facility licensed to accept hazardous wastes.

## **1.6** QUALITY ASSURANCE

- .1 Demolition Firm Qualifications: An experienced firm that has specialized in demolition work similar in material and extent to that indicated for this Project.
- .2 Refrigerant Recovery Technician Qualifications: Certified by Authority Having Jurisdiction.
- .3 Regulatory Requirements: Comply with Authority Having Jurisdiction's regulations before beginning demolition.
- .4 Comply with hauling and disposal regulations of Authority Having Jurisdiction.
- .5 Standards: Comply with ANSI A10.6 and NFPA 241.

# 1.7 SITE CONDITIONS

- .1 Environmental protection:
  - .1 Ensure Work is done in accordance with Section 01 35 43 Environmental Procedures.
  - .2 Ensure Work does not adversely affect adjacent watercourses, groundwater and wildlife, or contribute to excess air and noise pollution.
  - .3 Fires and burning of waste or materials is not permitted on site.
  - .4 Do not bury rubbish waste materials.
  - .5 Do not dispose of waste or volatile materials including but not limited to: mineral spirits, oil, petroleum based lubricants, or toxic cleaning solutions into watercourses, storm or sanitary sewers.
  - .6 Ensure proper disposal procedures are maintained throughout project.
- .2 Do not pump water containing suspended materials into watercourses, storm or sanitary sewers, or onto adjacent properties.

- .3 Control disposal or runoff of water containing suspended materials or other harmful substances in accordance with authorities having jurisdiction as directed by Town of Drumheller.
- .4 Protect trees, plants and foliage on site and adjacent properties where indicated.
- .5 Prevent extraneous materials from contaminating air beyond application area, by providing temporary enclosures during demolition work.
- .6 Cover or wet down dry materials and waste to prevent blowing dust and debris. Control dust on all temporary roads.
- .7 Buildings being demolished will be vacated and their use discontinued before start of Work.
  - .1 Owner will not occupy any other building immediately adjacent to demolition area.
  - .2 Conduct building demolition so Owner's operations will not be disrupted:
    - .1 Maintain access to existing walkways, exits, and other adjacent occupied or used facilities.
      - i. Do not close or obstruct walkways, exits, or other occupied or used facilities without written permission from Authority Having Jurisdiction.
  - .3 Owner assumes no responsibility for buildings and structures being demolished:
    - .1 Conditions existing at time of inspection for bidding purpose will remain as-is.
    - .2 Before building demolition, Owner will remove any items applicable for own use, unless otherwise directed.
  - .4 Hazardous Materials: Please refer to Appendix for Hazardous Materials Reports.
  - 1. Existing Hazardous Substances: ECOABATE Environmental Solutions performed a hazardous substances assessment, and it is expected that hazardous substances will be encountered in the following work areas:
    - 105 4 St W Lehigh
    - 964 Hunter Drive Nacmine
    - 1000 Hunter Drive Nacmine
    - .1 Hazardous substances will be removed by a hazardous materials abatement specialist engaged by the Town of Drumheller before start of the Work.

- .3 Discovery of Hazardous Substances not Identified in the Hazardous Materials Reports: Immediately notify Town of Drumheller if materials suspected of containing hazardous substances are encountered and perform the following activities:
  - .1 Hazardous substances will be as defined in the Hazardous Products Act.
  - .2 Stop work in the area of the suspected hazardous substances.
  - .3 Take preventative measures to limit users' and workers' exposure, provide barriers and other safety devices and do not disturb.
  - .4 Hazardous substances will be removed by hazardous materials abatement specialist engaged by the Town of Drumheller under a separate contract or as a change to the Work.
  - .5 Proceed only after written instructions have been received from Town of Drumheller.
  - .6 Examine reports to become aware of locations where hazardous materials are present.
  - .7 Storage or sale of removed items or materials on site will not be permitted.

## Part 2 Products

### 2.1 TEMPORARY SUPPORT STRUCTURES

.1 If required, design temporary support structures required for demolition work using a qualified professional engineer registered or licensed in the province of the Work.

# Part 3 Execution

# **3.1** DEMOLITION FIRMS

.1 Qualified Demolition Firms: submit documentation indicating demolition of similar projects (size and scope) within the last 5 years.

### 3.2 EXAMINATION

- .1 Survey existing conditions and correlate with requirements indicated to determine extent of building demolition required.
- .2 Owner does not guaranty that existing conditions are the same as those indicated in Project documentation.
- .3 Inventory and record the condition of items being removed and salvaged.
- .4 When unanticipated underground mechanical, electrical, or structural elements are encountered, investigate and measure the nature and extent of the element. Promptly submit a written report to the Owner.
- .5 Engage a professional engineer to perform an engineering survey of condition of building to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of structure or adjacent structures during building demolition operations.

.6 Verify that hazardous materials have been remediated before proceeding with building demolition operations. Refer to reports attached as an appendix of this package.

## **3.3** PREPARATION

- .1 Temporary Erosion and Sedimentation Control:
  - .1 Provide temporary erosion and sedimentation control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways, according to: sediment and erosion control plan, specific to site, that complies with EPA 832/R-92-005 or requirements of authorities having jurisdiction, whichever is more stringent.
  - .2 Inspect, repair, and maintain erosion and sedimentation control measures during demolition.
  - .3 Remove erosion and sedimentation controls and restore and stabilize areas disturbed during removal after completion of demolition work.
  - .4 Remove and dispose all materials according to regulations of Authority Having Jurisdiction.
- .2 Existing Utilities: Demolition Contractor is responsible for locating, identifying, disconnecting, removing, and sealing or capping the utilities lines prior to the demolition work commencing, following appropriate agencies' requirements. Locate, identify, disconnect, remove, and seal or cap off all utilities serving buildings and structures being demolished:
  - .1 Arrange to shut off indicated utilities with utility companies.
  - .2 If utility services are required being removed, relocated, or abandoned, before proceeding with building demolition provide temporary utilities that bypass buildings and structures being demolished and that maintain continuity of service to other buildings and structures.
  - .3 Cut off pipe or conduit a minimum of 610 mm (24") below grade.
  - .4 Cap, valve, or plug and seal remaining portion of pipe or conduit after bypassing.
- .3 Do not start demolition work until utility disconnecting and sealing have been completed and verified in writing:
  - .1 Remove refrigerant from air-conditioning equipment before starting demolition where required.
- .4 Temporary Shoring: Provide and maintain interior and exterior shoring, bracing, or structural support to preserve stability and prevent unexpected movement or collapse of construction being demolished:
  - .1 Strengthen or add new supports when required during progress of demolition.
- .5 Removed and Salvaged Items: Comply with the following:

- .1 Clean salvaged items of dirt and demolition debris.
- .2 Pack or crate items after cleaning.
- .3 Identify contents of containers.
- .4 Store items in a secure area until delivery to Owner.
- .5 Transport items to Owner's storage area designated by Owner.
- .6 Protect items from damage during transport and storage.

### 3.4 PROTECTION

- .1 Existing Facilities: Protect adjacent walkways, building entries, and other building facilities during demolition operations.
- .2 Existing Items to Remain: Protect construction indicated to remain against damage and soiling during demolition.
- .3 When permitted by the Owner, items may be removed to a suitable, protected storage location during demolition [and cleaned] and reinstalled in their original locations after demolition operations are complete.
- .4 Existing Utilities: Maintain utility services indicated to remain and protect them against damage during demolition operations:
  - .1 Do not interrupt existing utilities serving adjacent occupied or operating facilities unless authorized in writing by Owner and Authority Having Jurisdiction.
  - .2 Provide temporary services during interruptions to existing utilities, as acceptable to Owner and to Authority Having Jurisdiction.
  - .3 Provide at least 72 hours' notice to Owner if shutdown of service is required during changeover.
- .5 Temporary Protection: Erect temporary protection, such as walks, fences, railings, canopies, and covered passageways, where required by Authority Having Jurisdiction and as indicated.
- .6 Temporary Facilities and Controls:
  - .1 Protect existing site improvements, appurtenances, and landscaping to remain.
  - .2 Erect a plainly visible fence around drip line of individual trees or around perimeter drip line of groups of trees to remain.
  - .3 Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
  - .4 Provide protection to ensure safe passage of people around building demolition area and to and from occupied portions of adjacent buildings and structures.

- .5 Protect walls, windows, roofs, and other adjacent exterior construction that are to remain and that are exposed to building demolition operations.
- .6 Erect and maintain dustproof partitions and temporary enclosures to limit dust and dirt migration and to separate areas from fumes and noise from occupied portions of adjacent buildings.

## 3.5 DEMOLITION, GENERAL

- .1 General: Demolish indicated existing buildings and structures and site improvements completely.
- .2 Use methods required to complete the Work within limitations of governing regulations and as follows:
  - .1 Blasting operations not permitted during demolition.
  - .2 Do not use cutting torches until work area is cleared of flammable materials.
  - .3 Maintain fire watch and portable fire-suppression devices during flame-cutting operations.
  - .4 Maintain adequate ventilation when using cutting torches.
  - .5 Locate building demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
- .3 Engineering Surveys: Perform surveys with the Engineer of Record as the Work progresses to detect hazards that may result from building demolition activities.
- .4 Site Access and Temporary Controls: Conduct building demolition anddebris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities:
  - .1 Do not close or obstruct streets, walks, walkways, or other adjacent occupied or used facilities without permission from Owner or building manager and Authority Having Jurisdiction.
  - .2 Provide alternate routes around closed or obstructed traffic ways if required by Authority Having Jurisdiction.
  - .3 Use water mist and other suitable methods to limit spread of dust and dirt.
  - .4 Comply with governing environmental-protection regulations.
  - .5 Do not use water when it may damage adjacent construction or create hazardous or objectionable conditions, such as ice, flooding, and pollution.

### 3.6 DEMOLITION, ACTUAL

- .1 Remove buildings and structures and site improvements intact when permitted by Authority Having Jurisdiction.
- .2 Proceed with demolition of structural framing members systematically, from higher to lower level.

- .3 Complete building demolition operations above each floor or tier before disturbing supporting members on the next lower level.
- .4 Remove debris from elevated portions by chute, hoist, or other device that will convey debris to grade level in a controlled descent:
  - .1 Remove structural framing members and lower to ground by
- .5 Do not use flame-cutting torches unless otherwise authorized by Authority Having Jurisdiction:
  - .1 Transport steel trusses and joists as whole units without dismantling them further.
- .6 Equipment: Disconnect equipment at nearest fitting connection to services, complete with service valves; Remove as whole units, complete with controls.
- .7 Below-Grade Construction: Demolish foundation walls and other below-grade construction:
  - .1 Remove below grade construction, including basements, foundation walls, and footings, completely.
  - .2 For the Health Centre, Demolition Contractor shall cut off and remove all the piles to 3m below the current grades. On the remaining properties, the spread footings and any other foundation system shall be fully removed and disposed of.
- .8 Existing Utilities: Demolish existing utilities and below-grade utility structures.
- .9 Abandon Utilities:
  - .1 Fill abandoned utility structures with satisfactory soil materials.
  - .2 Piping: Disconnect piping at unions, flanges, valves, or fittings.
  - .3 Wiring Ducts: Disassemble into unit lengths and remove plug-in and disconnecting devices.
- .10 Existing Utilities: Demolish and remove existing utilities and below-grade utility structures:
  - .1 Piping: Disconnect piping at unions, flanges, valves, or fittings.
  - .2 Wiring Ducts: Disassemble into unit lengths and remove plug-in and disconnecting devices.

### **3.7** EXPLOSIVE DEMOLITION

- .1 Explosives: Perform explosive demolition according to governing regulations:
  - .1 Obtain written permission from Authority Having Jurisdiction before bringing explosives to, or using explosives on, Project site.
  - .2 Do not damage adjacent structures, property, or site improvements when using explosives.
- **3.8** SITE RESTORATION

- .1 Below-Grade Areas: Rough grade below-grade areas ready for future use. Excavation opening filled with compacted clean fill on 6-inch lifts at 90% PROCTOR density.
- .2 Site Grading: Uniformly rough grade area of demolished construction to a smooth surface, free from irregular surface changes. Approved and suitable material shall be placed as backfill in all excavated areas and graded to the elevation necessary to provide positive surface drainage to all areas of the site.
- .3 Provide a smooth transition between adjacent existing grades and new grades.

## 3.9 REPAIRS

- .1 General: Promptly repair damage to adjacent construction caused by building demolition operations.
- .2 Where repairs to existing surfaces are required, patch to produce surfaces suitable for new materials.
- .3 Restore exposed finishes of patched areas and extend restoration into adjoining construction in a manner that eliminates evidence of patching and refinishing.

## **3.10** RECYCLING DEMOLISHED MATERIALS

.1 General: Separate recyclable demolished materials from other demolished materials to the maximum extent possible.

### 3.11 DISPOSAL OF DEMOLISHED MATERIALS

- .1 Except for items or materials indicated being recycled, reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site and legally dispose of them in an EPA-approved landfill:
  - .1 Do not allow demolished materials to accumulate on-site.
  - .2 Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- .2 Burning: Do not burn demolished materials. Do bury demolished materials.
- .3 Disposal: Transport demolished materials off Owner's property and legally disposes of them.

# 3.12 CLEANING

- .1 Clean adjacent structures and improvements of dust, dirt, and debris caused by building demolition operations.
- .2 Return adjacent areas to condition existing before building demolition operations began.

# END OF SECTION