



## THE CORPORATION OF THE CITY OF VERNON REPORT TO COUNCIL

**SUBMITTED BY:** Geoff Mulligan, Manager  
Infrastructure Systems

Terry Martens, Manager Financial  
Planning & Reporting

**COUNCIL MEETING:** REG ☐ COW ☒ I/C ☐

**COUNCIL MEETING DATE:** Jan 22, 2024

**REPORT DATE:** January 4, 2024

**FILE:** 5700-3

**SUBJECT: HISTORIC O'KEEFE RANCH FACILITY CONDITION ASSESSMENT**

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### **PURPOSE:**

To present to Council the findings of the Historic O'Keefe Ranch Facility Condition Assessment (FCA) in addition to information regarding the financial obligations of the Historic O'Keefe Ranch and financial assistance provided.

### **RECOMMENDATION:**

THAT Council receive for information the report titled "Historic O'Keefe Ranch Facility Condition Assessment", dated January 4, 2024 and respectfully submitted by the Manager, Infrastructure Systems and the Manager, Financial Planning & Reporting;

AND FURTHER, that Council direct Administration to review and report back to Council at a future meeting.

### **ALTERNATIVES & IMPLICATIONS:**

1. THAT Council direct Administration to proceed with the budgeted phases 2 and 3 and complete the O'Keefe Ranch Heritage Conservation Plan and Capital & Operations Management Plan;

*Note: A Heritage Conservation Plan (HCP) is a document which builds upon a Facility Condition Assessment by providing strategy and policy to manage the conservation of the value of the heritage and the key features. An HCP increases the likelihood of heritage properties being successful with Heritage BC grant funding. A Capital & Operations Management Plan operationalizes the FCA and HCP, informed by budgets provided by the City and considers future funding, future grants and other costs in a more unified approach that can be acted upon on an annual basis. Considering that Phase 2 and 3 represent a relatively small proportion of the overall project, for efficient use of resources, it is suggested that the two remaining phases be combined.*

AND FURTHER, that Council direct Administration to review and report back to Council at a future meeting.

### **ANALYSIS:**

#### **A. Committee Recommendations:**

N/A

#### **B. Rationale:**

1. Background

In the interest of providing safe and sustainable services to the public, Council at its Regular Meeting of June 12, 2023 directed Administration to prepare an Asset Management/Heritage Conservation Plan for the Historic O'Keefe Ranch. Councils direction also included the division of the plan into three separate phases, providing Council the opportunity to review each phase independently and assess and decide on the progression of subsequent phases.

- **Phase 1:** Conduct a Facility Condition Assessment (FCA) of the site (Attachment 1) including a brief Statement of Significance (Attachment 2) to provide guidance to the assessment.
- **Phase 2:** Prepare a Heritage Conservation Plan with reference to the Canadian Standards and Guidelines for Heritage Conservation that will give the City guidance in preparing budgets and programs for ongoing maintenance and renewal of the Historic O'Keefe Ranch.
- **Phase 3:** Prepare a detailed 1-10-year Capital and Operations Management Plan, defining a maintenance, renewal, and improvement program for the site assets.

Remaining phases 2 and 3 are costed at \$5000 and \$5000 respectively, and are included within approved budget.

## 2. Facility Condition Assessment

The purpose of a FCA is to determine the present condition of the Historic O'Keefe Ranch facilities and to provide context to the development of a Heritage Conservation Plan and Capital and Operations Management Plan. The FCA provides a per-building and a per-systems approach to understanding the site and the various capital needs of the buildings and the building systems, and provides recommendations. Recommended work was risk prioritized and separated into phased programs and projects. These were then categorized and summarized into:

- **High Priority:** work recommended to be completed in the next fiscal year – totalling \$500,000 and including:
  - Bridge removal,
  - Replacement of the Greenhow Museum exit stairs,
  - Structural and wall repairs to the Meat and Dairy building,
  - Chimney repairs at O'Keefe House and the Blacksmith Shop,
  - Repair of concrete at the Hay Shed,
  - Visitor Centre carpentry repairs and drainage improvements,
  - Ventilation replacement at the Blacksmith Shop,
  - Hazardous materials and geotechnical assessment.
- **Medium Priority:** work recommended to be completed in two to five years, totalling \$950,000 and including a variety of projects and programs detailed in Attachment 1.
- **Lesser Priority:** Work recommended to be completed in six to ten years, totalling \$1,425,000 and including a variety of projects and programs detailed in Attachment 1.

The sum of the recommended work requires an investment totalling \$2.875 million over 10 years.

## 3. Financial Obligations of O'Keefe Ranch & Financial Assistance Provided

The following represents the amounts owed to the City of Vernon by O'Keefe Ranch & Interior Heritage Society as of the date of this report:

Non-interest bearing loan	\$70,000 (issued in October, 2019)
Insurance – 2019	\$22,268
Insurance – 2020	\$25,387
Insurance – 2021	\$29,033
Insurance – 2022	\$35,965
Insurance – 2023	<u>\$42,791</u> (invoiced in December, 2023)
Total	\$225,444

The due date for the repayment of the loan and for the payment of the 2019 to 2022 insurance charges was December 31, 2022. The 2023 insurance charge will become due January 17, 2024.

The following represents the direct operational funding provided by the City of Vernon to O'Keefe Ranch & Interior Heritage Society over the past five years:

2019	\$100,000
2020	\$100,000
2021	\$125,000
2022	\$125,000
2023	<u>\$150,000</u>
Total	\$600,000

Council approved operational funding of \$50,000 in the 2024 budget.

**C. Attachments:**

Attachment 1 – Historic O'Keefe Ranch Facility Condition Assessment  
Attachment 2 – Statement of Significance for the Historic O'Keefe Ranch

\*Included in Phase 2,3 Report under  
Attachment 2 - Heritage Conservation Plan

**D. Council's Strategic Plan Alignment:**

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> Governance & Organizational Excellence | <input type="checkbox"/> Livability     |
| <input type="checkbox"/> Recreation, Parks & Natural Areas                 | <input type="checkbox"/> Vibrancy       |
| <input type="checkbox"/> Environmental Leadership                          | <input type="checkbox"/> Not Applicable |

**E. Relevant Policy/Bylaws/Resolutions:**

1. At its Regular Meeting of March 27, 2023, Council passed the following resolution:

*"THAT Council receive the memorandum titled "O'Keefe Ranch Presentation", dated March 14, 2023 and respectfully submitted by the Manager, Financial Planning and Reporting;*

*AND FURTHER that Council directs Administration to determine the cost of a high level building report and asset management plan which would include a historical value assessment;*

*AND FURTHER that Council approve additional funding for O'Keefe Ranch & Interior Heritage Society for \$100,000, funded by the 2022 Prior Year Uncommitted Unexpended Balance."*

2. At its Regular Meeting of June 12, 2023, Council passed the following resolution:

*"THAT Council receive for information the memorandum titled "O'Keefe Ranch Asset Management/Heritage Conservation Plan" dated May 10, 2023 and respectfully submitted by the Manager, Infrastructure Systems;*

*AND FURTHER, that Council authorize the expenditure of up to \$70,000 for the Conservation Plan and Asset Management Plan of the O'Keefe Ranch, to be funded by the 2022 Unexpended Uncommitted Balance;*

*AND FURTHER, that Council direct Administration to separate the Conservation and Asset Management Plans into three phases, with an option to not proceed based on the findings in each phase."*

**BUDGET/RESOURCE IMPLICATIONS:**

Council authorized the expenditure of up to \$70,000 to complete all three phases of the O'Keefe Ranch Conservation and Asset Management Plan Should Council choose to continue with Phase 2 and 3.

**FINANCIAL IMPLICATIONS:**

- ☒ None      ☐ Budget Previously Approved      ☐ New Budget Request  
(Finance Review Required)

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Prepared by:

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Approved for submission to Council:

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Geoff Mulligan  
Manager, Infrastructure Systems

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Patricia Bridal, CAO

Date: \_\_\_\_\_

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Terry Martens  
Manager, Financial Planning & Reporting

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James Rice  
Director, Operations

**REVIEWED WITH**

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Corporate Services            | <input type="checkbox"/> Operations           | <input type="checkbox"/> Current Planning                     |
| <input type="checkbox"/> Bylaw Compliance              | <input type="checkbox"/> Public Works/Airport | <input type="checkbox"/> Long Range Planning & Sustainability |
| <input type="checkbox"/> Real Estate                   | <input type="checkbox"/> Facilities           | <input type="checkbox"/> Building & Licensing                 |
| <input type="checkbox"/> RCMP                          | <input type="checkbox"/> Utilities            | <input type="checkbox"/> Engineering Development Services     |
| <input type="checkbox"/> Fire & Rescue Services        | <input type="checkbox"/> Recreation Services  | <input checked="" type="checkbox"/> Infrastructure            |
| <input type="checkbox"/> Human Resources               | <input type="checkbox"/> Parks                | <input type="checkbox"/> Transportation                       |
| <input checked="" type="checkbox"/> Financial Services |   | <input type="checkbox"/> Economic Development & Tourism       |
| <input type="checkbox"/> COMMITTEE:                    |   |   |
| <input type="checkbox"/> OTHER:                        |   |   |





Engineers

## Historic O'Keefe Ranch

### Facility Condition Assessment

9380 BC-97, Vernon, BC

#### Prepared for:

**City of Vernon**

3001 – 32 Avenue

Vernon, BC

V1T 2L8

#### Prepared by:

**RJC Engineers**

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# Table of Contents

<b>Executive Summary .....</b>	<b>i</b>
<b>1.0 Introduction.....</b>	<b>1</b>
<b>2.0 Site Description .....</b>	<b>3</b>
2.1 General Building and Site Descriptions .....	4
<b>3.0 Facility Condition Assessment Methodology .....</b>	<b>7</b>
3.1 Risk and Consequence Priority Assessment .....	8
<b>4.0 Summary of Observations .....</b>	<b>9</b>
4.1 High Priority .....	10
4.2 Moderate Priority .....	11
4.3 Lesser Priority .....	13
<b>5.0 Discussion and Recommendations .....</b>	<b>15</b>
5.1 By-Building Summary of Recommendations .....	15
5.2 Prioritized Recommendation Plan.....	32
<b>6.0 Opinions of Probable Cost.....</b>	<b>38</b>
<b>7.0 Next Steps.....</b>	<b>43</b>
<b>8.0 Closing .....</b>	<b>44</b>

## List of Tables

Table 1: Risk Assessment Matrix.....	9
Table 2: Recommended Risk Remediation Timelines .....	9
Table 3: High Priority Programs .....	33
Table 4: Moderate Priority Programs .....	34
Table 5: Low Priority Programs .....	34
Table 6: High Priority Projects .....	35
Table 7: Moderate Priority Projects .....	36
Table 8: Lesser Priority Projects.....	38
Table 9: OPC SUMMARY .....	40



Appendix A .....	A.1
Appendix B.....	B.1
Appendix C .....	C.1
Appendix D .....	D.1
Appendix E.....	E.1
Appendix F.....	F.1
Appendix G .....	G.1
Appendix H .....	H.1



## Executive Summary

To aid in providing safe and sustainable services to the public, the City of Vernon has, via RFP and subsequent contract, engaged a consulting team to provide an Asset Management and Heritage Conservation plan for the O'Keefe Ranch.

Owned by the City of Vernon and located in the Township of Spallumcheen, the O'Keefe Ranch site covers a total of 57 acres, 51 of which are City owned. The ranch was first established in 1867 and operated as a working ranch until 1965, after which it was converted into a heritage and tourist feature.

The site and buildings represent assets to the City. Conforming to the work plan, the services are delivered in Phases, with later phases informed by the work of earlier phases. Phase 1, including Preparation of Statements of Significance (SoS) and completion of a Facility Condition Assessment (FCA), is now complete.

Statements of Significance, prepared by ANCE Building Services, are documents to aid in understanding value of a place by briefly explaining that place and its importance. The Statements identify key aspects of each place or building that must be protected in order to preserve the value. These Statements use three lenses to achieve this goal; they *describe* the historic place, they *explain the value* of the heritage and they *define the key-features* that must be conserved in order maintain the described value.

A Facility Condition Assessment is a tool that aids owners in developing capital plans for their assets. They are a snapshot in time of the *current condition of the asset*, built up from the condition of the asset components such as foundations, superstructure, roofing, mechanical and electrical systems. Each component is catalogued, visually assessed and evaluated to document the as-found condition and make recommendations to maintain the component in a like-for-like condition over a prescribed future lifetime. The recommendations of the condition assessment are *informed by* the Statements of Significance.

After these first phase activities, and on approval to proceed to next phases, the overall program includes preparation of a Heritage Conservation Plan (HCP) and completion of plans to aid the City in Capital and Operations Management, both of which are informed by the SoS and FCA. An HCP builds upon the SoS and FCA by providing strategy and policy to manage the conservation of the value of the heritage and the key features. The strategy and policy are then made operational by developing Capital and Operating Plans. Statements of Significance are presented separately bound from this Facility Condition Assessment.

The Facility Condition Assessment identifies the current building and site asset conditions and provides recommendations. Priorities for each recommendation are derived from the risk of occurrence (risk probability) and the consequence of occurrence. These risks are then grouped into recommended timelines for remedial recommendations to be undertaken with related opinions of probable cost. By way of summary, the categories, timelines and total of probable costs are:



- High Priority – work recommended to be completed in the next fiscal year – totaling \$500,000 and including bridge removal, replacement of the Greenhow Museum exit stairs, structural and wall repairs to the Meat and Dairy Building, chimney repairs at O'Keefe House and the Blacksmith Shop, repair of concrete at the Hay Shed, Visitor Centre carpentry repairs and drainage improvements, ventilation replacement at the Blacksmith Shop, and hazardous materials and geotechnical assessments.
- Moderate Priority work – recommended to be completed in two to five years, totaling \$950,000 and including a variety of projects and programs.
- Lesser Priority work – recommended to be completed in six to ten years, totaling \$1,425,000 in probable costs and including a further variety of projects and programs.

Probable costs are order of magnitude projections based on current conditions and recent costs to complete similar recommended scopes. Allowance is made for contractor overhead and profit, soft costs, contingencies and abatement of hazardous materials. Actual project costs will depend on market conditions at the time work is tendered and actual project design and implementation requirements.

## 1.0 Introduction

At the City of Vernon's request Read Jones Christoffersen Ltd. (RJC) has completed a Facility Condition Assessment (FCA) at the Historic O'Keefe Ranch located at 9380 BC-97 near Vernon, BC per our proposal dated September 14, 2023. The FCA forms part of Phase 1 of the overall services. Phase 1 also includes preparation of Statements of Significance (SoS).

A FCA is an assessment of the facility at the specific time of the review with recommendations on how to maintain the assets. FCA's aid in developing plans for capital renewals of assets. Planning for renewals also needs to consider other criteria, including intended use of the assets. An FCA does not include a review of the current maintenance operations. The FCA is informed by the Statements of Significance, prepared by ANCE and separately submitted.

Phase 2 services, which will advance on approval from City of Vernon, builds on the SoS and FCA is further described in Section 7 of this report. Phase 2 activities include:

- Development of a Heritage Conservation Plan
- Preparation of a Capital and Operations Management Plan

The purpose of the FCA is to determine the present condition of O'Keefe Ranch, thus providing a benchmark and context from which to advise the City as the Capital and Operations Management Plan is developed. The FCA provides a per building and a per systems approach to understanding the site and the various capital needs of the buildings and the building systems.

In the development of this report, RJC and Falcon Engineering completed the following work:

- Review available documentation from the City of Vernon and O'Keefe Ranch and Interior Heritage Society.
- Visual review of all buildings and visible site works at the Ranch.
- Prepare a written report including observations, conclusions, recommendations, and opinions of probable cost.

The following appendices are included at the conclusion of this report:

- **Appendix A: Site Maps** provides reference site maps showing the locations of buildings, infrastructure, and services on site.
- **Appendix B: Facility Condition Assessment Background** provides information about the methodology and best practices for a heritage facility condition assessment followed in the preparation of this report.



- **Appendix C: Detailed Building Condition Assessments** provides detailed information about the condition of each building or site feature reviewed on a by-component basis using the UNIFORMAT II classification standard.
- **Appendix D: Overview, Structure, and Building Envelope Photos** is a log of relevant photographs of the condition of the site.
- **Appendix E: Mechanical Report** describes in more detail the reviewed mechanical systems. The appendix documents significant observations, provides recommendations for repair or renewals and includes OPCs to replace or repair certain building components. The reader is encouraged to review this appendix for more details regarding the facility mechanical systems.
- **Appendix F: Electrical Report** describes in more detail the reviewed electrical systems. The appendix documents significant observations, provides recommendations for repair or renewals and includes OPCs to replace or repair certain building components. The reader is encouraged to review this appendix for more details regarding the facility electrical systems.
- **Appendix G: Roof Maintenance Guide and Replacement Prioritization** is provided to guide the Society with general roof maintenance and as a decision-making tool when planning work in the recommended roof replacement program.
- **Appendix H: Limit of Liability** which provides limitations based on the visual methods used for a facility condition assessment.

## 2.0 Site Description

O'Keefe Ranch is located in the Township of Spallumcheen, British Columbia, 3 km north of the head of Lake Okanagan and 8 km north of the City of Vernon. The historic ranch and heritage site covers 57 acres, 51 of which are owned by the City under several titles. The site is divided by Deep Creek with most historical buildings and artifacts located on the East side of the creek. The West side of the site contains three historic buildings, an RV park, and farmed land. Access to the Ranch by vehicle is from BC Highway 97.



**Figure 1: Historic O'Keefe Ranch Site Plan**

The Ranch was established in 1867 and operated as a working ranch until 1965 when it was converted by Tierney O'Keefe to a heritage and tourist feature in the Okanagan Valley. We defer to the Statements of Significance prepared by ANCE and separately reported for further historical perspective.

Over 30 historic buildings form the O'Keefe Ranch. Together with site works, such as fencing, water supply, walkways and exterior lighting, they form the subject of this FCA.

All buildings and structures on the site are owned by the City of Vernon and leased to the O'Keefe Ranch & Interior Heritage Society which oversees operations at the ranch. The Society also holds sub-leases with the North Okanagan Model Railway Society, Field of Screams, and the Spallumcheen Pioneer Power Club for various spaces on site. Figure 1 is a key plan of the buildings located on the site.





Figure 2: Site and Building Plan from Appendix A

## 2.1 General Building and Site Descriptions

Typically, buildings are wood frame construction with stone, masonry or concrete foundations. Most buildings are clad in wood with the exception of the Greenhow Museum and O'Keefe House which have been reclad in stucco. Roofs are a mix of cedar shakes, corrugated metal, asphalt shingles and sheet metal of which cedar shakes are the most common. A large roof replacement program was completed in the 1980's where many of the cedar shake roofs were replaced. The steeple of St. Anne's Church is clad with metal shingles. In general, buildings have wood framed windows and wood doors in wood door frames. Interior finishes are typically plaster and lath with some drywall in new buildings, or where replaced during renovations.

Road access from BC Highway 97 leads to a paved parking lot with space for approximately 80 cars in front of the Visitor Center. There is also a paved road and circular driveway in front of O'Keefe House with access from the parking lot. Roads from the parking lot to the Caretaker's House and Glamping are unpaved.

Several foot paths run between building groups across the site as seen in Figure 3. There is a wood pedestrian boardwalk that runs from the Log House to St. Anne's Church. Access to the West side of the site is currently by the North footbridge near Schubert House. The bridge, which was used to move vehicles over the creek, has been decommissioned due to structural concerns raised previously by others.

Fences on site are generally wood pole with two to four rails including fences surrounding the perimeter of the site and animal enclosures. Some fences on site are also barbed wire and infilled with chicken wire. Figure 3 shows the location of fences on site.



Figure 3: Infrastructure Map from Appendix A.

Services on site include water supply, fire protection, sewage disposal, electrical power, natural gas, and telephone and communication systems. A summary of services available by building can be found on Figure 4.

Mechanical and electrical systems are reviewed by Falcon Engineering in Appendix E and F respectively.



Figure 4: Services Map from Appendix A

## 3.0 Facility Condition Assessment Methodology

Facility Condition Assessments are based on:

1. Understanding the items included with the asset, in the case of O'Keefe Ranch, this is the list of buildings, services and infrastructure.
2. Visual review of the assets to assess their apparent condition.
3. Documentation of condition and recommendations arising either from the apparent condition or the reported age and expected life of each asset / asset component.

During the various site visits RJC and Falcon Engineering reviewed the following building and site components:

- Wood-Framed Windows and Doors
- Exterior Cladding
- Cedar Shake, Asphalt, and Metal Roofs
- Stone, Concrete, and Wood Foundations
- Envelope Sealants
- Rainwater Management Systems
- Electrical systems, where present.
- Mechanical systems and equipment, where present.
- Vehicle and Pedestrian Pathways and Wayfinding
- Fences

Due to the number of buildings this section of the report is arranged by the priority assessment of observations, using the following structure.

- Observations and data collected during site reviews and discussion of the current condition.
- Discussion and Recommendations for maintenance, renewal programs, and specific projects.

A more detailed description regarding facility condition assessments and heritage conservation methodology is found in Appendix B.



## 3.1 Risk and Consequence Priority Assessment

The condition and associated repairs of each building system or site infrastructure item have been assessed using a risk matrix presented in Table 1. The matrix considers risk probability and severity of consequence criteria.

For the purposes of this report we have uses the following definitions for the consequence severity:

- Catastrophic: The consequence will result in a life safety concern.
- Hazardous: The consequence will result in a major project that will impact the use of the building if not addressed or can cause injuries.
- Major: The consequence will result in a large project and will impact the use of the building if not addressed.
- Minor: The consequence will result in a small project and will have minor impact to the use of the building if not addressed.
- Negligible: The consequence will likely not result in a project and will have minimal impact to the use of the building.

The definitions of risk probability were as follows:

- Very Probable: Risks that are almost certain to occur.
- Somewhat Probable: These risks need regular attention, as they are bound to reoccur and therefore require a consistent mitigation strategy.
- Moderately Probable: Possible risks may occur and need some attention.
- Somewhat Improbable: Risks that have a relatively low chance of occurring but they may still have an affect.
- Improbable: Risks with a low probability of occurring.

The resulting categories of risk are grouped to recommended activity timelines to address the assessed risk for the particular item. The timelines are summarized in Table 2 on the next page.

**TABLE 1: RISK ASSESSMENT MATRIX**

		CONSEQUENCE SEVERITY				
		Catastrophic A	Hazardous B	Major C	Minor D	Negligible E
RISK PROBABILITY	Very Probable 5	5A	5B	5C	5D	5E
	Somewhat Probable 4	4A	4B	4C	4D	4E
	Moderately Probable 3	3A	3B	3C	3D	3E
	Somewhat Improbable 2	2A	2B	2C	2D	2E
	Improbable 1	1A	1B	1C	1D	1E

**TABLE 2: RECOMMENDED RISK REMEDIATION TIMELINES**

	High Priority	0-1 Years
	Moderate Priority	2-5 Years
	Lesser Priority	6-10 Years

## 4.0 Summary of Observations

RJC attended site on October 17, 2023, October 18, 2023. We revisited site in collaboration with Falcon Engineering on November 17, 2023. A summary of the observations can be found below. Where there are mechanical and electrical observations included in Appendices E and F these are brought forward for reference. Detailed building summaries with by-component notes are included in Appendix C.

When referring to a condition that affects multiple buildings “many” refers to twelve or more buildings, “a few” refers to three to eleven buildings, and individual buildings are listed when a condition affects three or fewer buildings.

To aid in transition to planning for the upcoming Phase 2 reporting, the following sections include observations that are summarized in order of Priority Ranking (i.e. higher priority items are followed by lower priority items). The methodology for developing the priority score for each item is outlined in Section 3. Our reporting is further organized by priority within each major category. This method of reporting has been carried through the summary and recommendation sections of the report.

## 4.1 High Priority

The observations noted in this section generally represent the 5A, 5B, 5C, 4A, 4B, and 3A priority categories as described in Section 3.

Items of interest noted by RJC are as follows:

- The wood-framed emergency exit stairs from the second floor of the Greenhow Museum are significantly deteriorated at the footing connections and railings.
- The wood stairs to the basement of the Greenhow Museum are sloped to the west and have deterioration on the step to stringer connections.
- The low-slope roof on the Garage (B3 in Appendix C) of the Meat & Dairy building is deflecting significantly. A post near the center of the room is providing support, resulting in a wave-like deflected shape. The joists supporting this roof span approximately 20' and are spaced generally at 16" on center.
- At the Blacksmith Shop there is no separation between the active chimney and the wood shake roof. This may pose a fire hazard. At the O'Keefe House the south most chimney is leaning and is currently supported by ties.
- The buttressed concrete walls at the Hay Shed are deflecting out of plane. The concrete at the base of wall is deteriorated and, in some locations, has exposed rebar reinforcement.
- The sheet metal roof of the Log House lean-to, which is situated to be eye-level due to the adjacent ground profile, has sharp edges and is a hazard to pedestrians.
- The wood retaining wall behind the Caretaker's House has displaced outwards at its base, likely due to earth pressure overload. Wood components at the tie back connections are deteriorating in some locations.
- The cedar shake roof on the Stagecoach Depot is in poor condition and has signs of an active leak, likely due to missing or otherwise failed shingles.
- One roof overhang post near the North side of the Visitor Center has rotted completely from its footing connection and is unsupported.
- Efflorescence and water staining is present on the interior face of the Greenhow Museum stone foundation wall. There is also evidence of previous water leakage in the form of staining on the vapour barrier surrounding the artifact storage space in the basement. Organic growth is present throughout the artifact collection. Efflorescence is also present at the base of wall on the interior face of the concrete basement wall in the Visitor Center.
- As outlined in the O'Keefe Ranch Bridge Field Review and Assessment Memo produced by McElhanney on April 28, 2023.
  - "The bridge is showing signs of moderate failure. This coupled with the lack of guardrails for pedestrians direct [McElhanney] to the conclusion that the bridge is beyond repair and must be removed and replaced."

## 4.2 Moderate Priority

The observations noted in this section generally represent the 5D, 5E, 4C, 4D, 4E, 3B, 3C, 3D, 2A, 2B, 2C, and 1A priority categories as described in Section 3.

Items of interest by RJC and Falcon Engineering are as follows:

### 4.2.1 Moderately High Priority Structural Conditions

- The brick foundation columns at O'Keefe House have freeze-thaw damage and are spalled.
- The Schubert Barn is leaning towards Deep Creek.
- The Schubert House foundation wall has water staining on the interior where the hose bibb is located at the exterior on the east side.
- The ceilings in the small dining room and bathroom in the O'Keefe House were also noted to be deflected. There are signs of water damage on the ceiling in the bathroom at the O'Keefe House and on the attic floor above.
- Joists in the Meat Building (B2) of the Meat & Dairy building were cut when the cooler room was installed and are currently cantilevered on the East side.
- Beams and joists in the Dairy Building (B1) of the Meat & Dairy building are deflecting at midspan.
- The masonry block foundation wall at the Schubert House has been damaged and is out of plane in two locations.
- Ceiling finish deflection was noted in the East room of the Red Shed with signs of water staining in localized areas.
- The concrete foundation wall of the Carriage Shed is undermined due to animal activities at the South-East elevation.

### 4.2.2 Moderately High Priority Roof Conditions

- Many cedar shake roofs have significant organic build up in the form of moss. Shakes were noted to be loose, curled or missing on multiple buildings.
- The fascia on a few of the buildings have chipped paint or are otherwise deteriorated from water damage. Areas where the fascia is deteriorated typically do not have gutters.
- A few buildings were noted to have water staining on the underside of roof sheathing or soffit.
- The low slope built up roof on the Meat and Dairy building is covered by organic growth and has ponding due to deflected roof structure. There is one scupper and downspout to divert water off of this roof. Drainage was noted to be poor.



### 4.2.3 Moderately High Priority Envelope Conditions

- Water ingress at the North and South elevations of Meat & Dairy building has resulted in deterioration and rot of floor structure (joists and rim board).
- Water staining is present at the floor joists and around the base of dormer windows at the Log House.
- Cladding along the North and South elevations of the Meat & Dairy is damaged and missing at areas of wood deterioration.
- Both ends of the Dairy room has areas of missing and deteriorated CMU blocks in the foundation wall.
- There is efflorescence and other signs of water ingress at multiple locations along the CMU basement wall in the Caretaker's House.
- The O'Keefe House attic was noted to have feces in the attic and exposed insulation. See Section 5.1.4 for further discussion on this item.

### 4.2.4 Moderately Low Priority Structural Conditions

- The wood posts of the lean-to shelter behind Implement Shed #1 have been buried below grade.
- The lateral bracing system for the Tack Shed and Spallumcheen Pioneer Power Club Display #2 has toe-nailed anchor straps connecting the beams to the poles.
- The handrail of the ramp at the back entrance to St. Anne's Church is rotted.
- Stairs to the Chinese Cook's House are supported by a concrete footing at the base and nailed into an exposed ledger attached to the cladding and sheathing at the top. The fasteners into the ledger are losing withdrawal resistance.
- Concrete stairs to the Dairy room of the Meat & Dairy building are spalled and the uneven surface poses a tripping hazard to pedestrians.
- The concrete at the base of the Log Barn's East lean-to has eroded and is poorly consolidated resulting in the slab not being supported.

### 4.2.5 Moderately Low Priority Envelope Conditions

- Cladding at a few of the buildings is deteriorated in the form of woodpecker holes, significant water staining, and loose or missing siding.
- The log wall of the Balmoral School House has rotted in some locations.
- Vegetation is in contact with the cladding at many of the buildings and has begun to deteriorate cladding.
- Windows and doors in most of the buildings have deteriorated trims. Windows either have no seals or seals are hard to the touch and exhibiting adhesive failure.
- Bricks are spalling at the top of chimneys at the Log House. At the Schubert House the mortar joints of the chimney are starting to fail.

- Painted white brick at the South side of the Meat & Dairy building is spalled resulting in cross-sectional area loss and paint being damaged.
- The wood porch at the O'Keefe House is rotting at the edges. There are no scuppers or rainwater leaders to allow water to move away from the edge of the porch.
- Exposed truss tails on the Visitor Center roof are rotted.

#### 4.2.6 Moderate Priority Mechanical and Electrical Conditions

- Some of the inaccessible piping systems are getting close to the end of their service lives and could become increasingly unreliable.
- A few installations do not comply with current standards regarding fire rated enclosures around gas fired appliances at locations noted in section 2.0 of Appendix E.
- Hot water has not been provided in all washrooms.
- Some appliances are nearing the end of their service life, specific items at buildings are noted in section 2.0 of Appendix E.
- Gas piping does not appear to have the appropriate protective coatings at the Museum and SPPC Clubhouse.
- No drain pan has been provided at several hot water heaters.
- At the Stagecoach Depot there is an old meter base that is not in use.
- Communications and branch circuit wiring in the O'Keefe House basement and Schubert House crawlspace are messy.
- At Spallumcheen Pioneer Power Club Display #1 the non-weatherproof disconnect switch is exposed to the weather and is rusting.
- The disconnect switch at the Meat and Dairy Building is very old.
- There is an older style ITE panel in the Pump House for which replacement breakers will be difficult to obtain.

### 4.3 Lesser Priority

The observations noted in this section generally represent the 3E, 2D, 2E, 1B, 1C, 1D, and 1E risk categories as presented in Section 3.

Items of interest noted by RJC are as follows:

- Plaster and lath finish is cracking in most walls and ceilings in the Schubert House and O'Keefe House. In one location in the Schubert House plaster and lath has been replaced by drywall. There is a large section of finish missing in the Schubert House kitchen.

- Surface corrosion is present on the steel saddle connections at the base of posts in both Implement Sheds.
- A few cedar shake and metal roofs are in good condition with normal signs of aging.
- The siding of a few buildings has minor deterioration in the form of fading or chipped paint, water staining, or loose shingles.
- Insulation around piping is in poor condition or missing in some locations in buildings with domestic water distribution.
- Steel uninsulated piping is used for the hydronic heating systems at O'Keefe House. If the hot water heating systems gets above 140°F, the bare pipe can scald bare skin in seconds. It appears that these systems are well barricaded from the public, to avoid an inadvertent incident.
- The only building that is heated but not connected to Natural gas is the St Anne's Church that has a dedicated propane tank.
- The paint is chipping off the white picket fence surrounding the Cemetery.
- Small buildings (sheds, feed buildings, firewood storage, pens, etc.) are in generally good condition with the following exceptions:
  - A joist at the firewood storage structure west of Schubert House is rotted and deflecting significantly.
  - One animal feed building at the West pens is leaning.
  - The firewood storage structure in the Red Shed and Carriage Shed courtyard has sustained impact damage.
  - There is a missing rail at the North tractor shelter near the cemetery.
- Lateral and alligator cracking is observed throughout the paved asphalt surfaces.
- The wood platform outside the bathroom entrances to the Carriage Shed is wet and at high risk for rot due to continuous exposure and lack of cover.
- The concrete foundation wall at the Cowboy Bunkhouse is spalled on the South-West elevation. At other elevations the foundation is buried and could not be reviewed.
- The decorative shutters on the O'Keefe house are deteriorated and the paint is chipped.
- The concrete slab-on-grades outside the Carriage Shed and Red Shed exhibit minor cracking.
- There is cracking in the Red Shed addition concrete slab-on-grade.
- The wood retaining wall at the North side of the Log Barn is leaning outwards.
- Three posts of the Gazebo have checking, and one beam is cracked.
- There is minor cracking in the Stagecoach Depot foundation wall.
- The wood posts at the Windmills are buried at grade and are at risk for rot.

## 5.0 Discussion and Recommendations

Visually accessible building components and site features were visually reviewed from both the inside and outside of the buildings to identify evidence of distress or deterioration of the structural and envelope elements. Falcon Engineering completed reviews of the electrical and mechanical components where present in the buildings (not all buildings have mechanical and/or electrical components).

In general, the visual review found that the buildings overall are generally in fair condition with variation in condition for components in particular. Recommendations have been presented in two formats to accommodate the various roles of the reader: the first being a by-building summary and the second being a prioritized recommendation plan, typically grouped by system (e.g. roofs, window frames, etc.).

The by-building summary is intended to provide a brief discussion of the condition of each building and an overview of the recommended work. Detailed observations and by-building recommendations including maintenance items are included in Appendix C.

The prioritized recommendation plan is intended to be used as a tool to guide decision making for future work programs at the site. In the prioritized recommendations plan, recommendations have been considered into two categories: programs and projects. Programs are recommendations for work that occurs at many buildings and could be completed in phases over a period of years. Projects occur at one or a few buildings and are not considered suitable for phased completion.

A summary of our recommendations are as follows:

### 5.1 By-Building Summary of Recommendations

This section provides by-building recommendations for repair and preventative work. For further detail of the work that should be completed in each program and project see Section 5.2. Maintenance items have not been included and should be reviewed in Appendix C.

#### 5.1.1 Visitor Center

The Visitor Center is in generally fair condition. The main structure appears to be performing as intended, and no overall evidence of structural distress was observed. The truss tails are rotted and may fall off becoming a hazard to pedestrians. If not addressed, ongoing rot will continue to some degree up the member and could result in more costly repair requirements. The rotted pole at the North corner which is not connected to the ground is a structural and pedestrian hazard and should be repaired. The roofing is in good condition at this time. Cladding has water staining up to half-height, likely from the in-ground irrigation, which should be re-directed away from the building. Insulated glass unit windows are in fair condition but are nearing the end of their service life and may need to be replaced in the next ten years. Consideration should be made to provide hot water to both public washrooms for improved hand washing hygiene. Cooling is provided by a single

Lennox ten-ton cooling capacity Condensing Unit which was manufactured in 1999 and is nearing the end of its service life. To address the current condition of the Visitor Center we recommend the following:

- Complete miscellaneous carpentry repairs to remove rotted truss tails and repair and reconnect the rotted post. As an upgrade, consideration could be given to adding fascia boards and gutters. This upgrade is not included in Appendix C or in opinions of probable cost.
- Complete a roof maintenance program that includes maintenance on the Visitor Center roof.
- Complete cladding maintenance program that includes maintenance or replacement of the Visitor Center cladding.
- Upgrade domestic water system to provide hot water to washrooms.
- Provide the hot water heater with a drain pan to catch and direct the water to a drainage system in the event of a leak in the tank.
- Construct fire rated room to house furnaces.
- Replace cooling unit and cooling coil in furnaces.
- Complete a pipe and duct monitoring program to inspect domestic water pipes, sanitary pipes, and supply ducts every five years.
- Complete a landscaping program that includes the garden beds surrounding the Visitor Center.
- Replace IGU windows when required, plan for a window renewal program in 10 years.
- Upgrade existing insulation at domestic water supply pipes to save energy.

### 5.1.2 Greenhow Museum

Greenhow Museum is generally in fair condition except as noted following. The overall structure appears to be performing as intended, with no visual evidence of structural distress. The basement and second floor emergency stairs in Greenhow Museum are in poor condition and the emergency stairs are deficient when compared to the current Building Code. The organic growth present on artifacts in the Greenhow Museum Basement is a health and safety hazard. Greenhow Museum would benefit from roof maintenance and eventual replacement. Consideration should be made to provide hot water to both public washrooms for improved hand washing hygiene. The Domestic hot water heater is old (approx. 40 years since manufactured) and is need of replacement. Gas piping does not appear to have the appropriate protective coatings. To address the current condition of the Greenhow Museum we recommend the following:

- Replace the second-floor emergency exit and basement stairs with Code compliant stairs, guards and railings.
- Complete a roof replacement program that includes replacing the Greenhow Museum roof.
- Complete a roof maintenance program that includes maintenance on the Greenhow Museum roof.
- Upgrade domestic water system to provide hot water to washrooms.
- Provide the hot water heater with a drain pan to catch and direct the water to a drainage system in the event of a leak in the tank.

- Construct fire rated room to house furnaces and domestic water heater.
- Replace hot water heater with new.
- Engage a technician to ensure the energy supply systems are configured to code.
- Complete a pipe and duct monitoring program to inspect domestic water pipes, sanitary pipes, and supply ducts every five years.
- Complete a landscaping program that includes the garden beds surrounding the Greenhow Museum.
- Retain an environmental professional to conduct a Hazardous Materials Assessment reviewing the organic growth in the basement. Recommendation pending basement treatment and collection storage proposal complete repair program.
  - If the artifacts are to remain in the basement considerations should be made to create a separate controlled environment. This may include creating a separate room or buffer zone to condition the current temperature and humidity of the basement to a more desirable level for the storage of artifacts. Capital cost related to creating a separate controlled environment is not included as this is considered an upgrade, and outside the scope of a Facility Condition Assessment.

### 5.1.3 Stagecoach Depot

The Stagecoach Depot is generally in fair to poor condition. The overall structure appears to be performing as intended, with no visual evidence of structural distress. There is active leaking in the roof causing water staining in the ceiling. Cladding is stained along the South elevation. Consideration should be made to provide hot water to both public washrooms for improved hand washing hygiene. The Domestic hot water heater was manufactured in 2006. The hot water tank is approximately  $\frac{3}{4}$  through the service life. The old meter base on West side of building should be removed. To address the current condition of the Stagecoach Depot we recommend the following:

- Complete a roof maintenance program that includes typical maintenance on the Stagecoach Depot roof and immediate repairs to active leaking.
- Complete a roof replacement program that includes replacing the Stagecoach Depot roof in the next two years.
- Complete a cladding maintenance program that includes maintenance or replacement of the Stagecoach Depot cladding.
- Remove meter base at West side of building.
- Upgrade domestic water system to provide hot water to washrooms.
- Replace hot water heater with new.
- Construct fire rated room to house domestic water heater.
- Upgrade existing insulation at domestic water supply pipes to save energy.
- Complete a pipe and duct monitoring program to inspect domestic water pipes and sanitary pipes every five years.

#### 5.1.4 O'Keefe House and Caretaker's House

The O'Keefe House and attached Caretaker's House are in generally fair condition except as noted following. The overall structures appears to be performing as intended, with no visual evidence of structural distress.

The retaining wall behind the O'Keefe House is in poor condition. It is unknown if the tie back connections are from original construction or were installed to prevent further movement in the wall. The deterioration of the wood components of the wall puts it at high risk of failure.

There are reports that animal droppings and vermiculite insulation are present in the O'Keefe House attic, per the Interior Home Inspections report dated November 16, 2018, *"if these conditions are present they may pose a health and safety hazard and should be reviewed by a qualified environmental consultant"*. The chimney at the O'Keefe House is of structural concern and is a falling hazard. While it appears to be braced, the design of the brace is unknown and the condition of the chimney is such that a detailed review is required and an upgraded support may be warranted. An alternative to repairs to the chimney would be to decommission as suits Ranch operations. Costs have been carried to repair the chimney.

The plaster and lath finish in the O'Keefe House is in fair to poor condition and should be repaired or replaced to prevent it becoming a falling hazard. Although plaster and lath is a historic material there is already precedent on site at the Schubert House for replacement with drywall, so either repair with like materials or replacement with drywall is an option. Replacement with like materials will carry a higher cost than replacement with drywall. Costs to replace with drywall have been carried in the OPC.

The Domestic hot water heater was installed in 2008. The hot water tank is approximately  $\frac{3}{4}$  through the service life. The condensate is intentionally plugged and is showing signs of degradation and rust. Care should continue to be made to keep the public from touching the heating piping and terminal units while the systems are hot. Communication wiring is messy in the basement. To address the current condition of the O'Keefe House and Caretaker's House building we recommend the following:

- Provide additional support to the leaning chimney which is currently supported by ties. Also complete any brick repairs at this time.
- Complete a roof maintenance program that includes maintenance on the O'Keefe House roof.
- Complete a roof replacement program that includes replacing the O'Keefe House roof.
- Complete a window and door program that includes maintenance and replacement of protective films and shutters on the O'Keefe House windows.
- Complete a landscaping program that includes the garden beds surrounding the Greenhow Museum.
- Retaining a report by a geotechnical engineer reviewing the retaining wall behind the Caretaker's House.
- Retain an environmental engineering to conduct a Hazardous Materials Assessment reviewing the animal feces and vermiculite insulation in the attic.
- Clean and repair the Caretaker's House CMU basement wall where there is water damage. Add drainage around the basement.

- Retain a structural engineering report reviewing the O'Keefe House roof and deflected ceilings in the Bathroom and Small Dining Room.
- Provide temporary shoring and complete repairs at brick foundation columns.
- Either repair plaster and lath wall and ceiling finishes with like materials or replace with drywall.
- Clean up messy communications and branch circuit wiring in the basement.
- Replace hot water heater with new.
- Construct fire rated room to house domestic water heater and boiler.
- Provide the hot water heater with a drain pan to catch and direct the water to a drainage system in the event of a leak in the tank.
- Replace condensate pump with new.
- Upgrade existing insulation at domestic water supply pipes to save energy.
- Complete a pipe and duct monitoring program to inspect domestic water pipes and five years.

### 5.1.5 Pavilion

The Pavilion is in generally good condition. The overall structures appears to be performing as intended, with no visual evidence of structural distress. Water staining on the soffit indicates an excess of moisture in the roof. To address the current condition of the Pavilion we recommend the following:

- Complete a roof Maintenance program that includes adding eavestroughs and downspouts and other typical maintenance at the Pavilion roof.

### 5.1.6 Gazebo

The Gazebo is in generally fair condition. The overall structures appears to be performing as intended, with no visual evidence of structural distress. To address the current condition of the Gazebo we recommend the following:

- Complete a roof maintenance program that includes maintenance on the Gazebo roof.
- Complete an annual monitoring program of the checking posts and cracked beam for changes in condition.

### 5.1.7 Pioneer Cabin

The Pioneer Cabin is in generally poor condition. The overall structures appears to be performing as intended, with no visual evidence of structural distress. To address the current condition of the Pioneer Cabin we recommend the following:



- Complete a roof Maintenance program that includes cutting back the overhanging tree, clearing debris from the roof and other typical maintenance at the Pioneer Cabin roof.
- Complete a roof replacement program that includes replacing the Pioneer Cabin roof.
- Complete a cladding maintenance program that includes the repair of the Pioneer Cabin cladding. The Pioneer Cabin should be considered one of the first buildings to be addressed under this program.

### 5.1.8 Cowboy Bunkhouse

The Cowboy Bunkhouse is in generally fair condition. The overall structures appears to be performing as intended, with no visual evidence of structural distress. To address the current condition of the Cowboy Bunkhouse we recommend the following:

- Complete a cladding maintenance program that includes maintenance to the Cowboy Bunkhouse cladding.
- Complete a window and door program that includes the door and door trims and other typical maintenance at the Cowboy Bunkhouse.
- Complete a roof maintenance program that includes maintenance on the Cowboy Bunkhouse roof.
- Complete a roof replacement program that includes replacing the Cowboy Bunkhouse roof.
- Complete an annual monitoring program of the spalled foundation wall for changes in condition.

### 5.1.9 Bird Pens

The Bird Pens are in generally good condition. There is currently no recommended work for the Bird Pens.

### 5.1.10 Windmill #1

Windmill #1 is in fair condition considering its age and does not currently pose a hazard to visitors. To address the current condition of Windmill #1 we recommend the following:

- Complete an annual monitoring program of the buried posts for changes in condition.

### 5.1.11 Log Barn

The Log Barn is in generally fair condition. The overall structure appears to be performing as intended, except as noted following. Load capacity of the barn loft should be assessed and use of the loft restricted to align with the structural capacity. The lack of support beneath the concrete slab-on-grade at the East lean-to of the Log Barn may lead to future cracking and failure. To address the current condition of the Log Barn we recommend the following:

- Assess structural capacity of the barn loft and restrict use based on the available capacity.
- Provide fill below the East lean-to concrete slab-on-grade.
- Complete a roof maintenance program that includes maintenance on the Log Barn roof.
- Complete a roof replacement program that includes replacing the Log Barn roof.
- Complete a cladding maintenance program that includes maintenance to the Log Barn cladding.

### 5.1.12 Hay Shed

The Hay Shed is generally in poor condition and is not suitable for its current use as feed storage. The concrete walls are in poor condition due to deterioration. It appears that the shed is of low use/value to the current operations. To avoid repairs this building could be decommissioned if feasible to Ranch operations. Otherwise, to address the current condition of the Hay Shed we recommend the following:

- Temporarily restrict access to the hay shed.
- Undertake a detailed structural review to develop a remediation program.
- Implement the structural remediation program, including concrete repairs at the buttressed walls
- Complete a roof maintenance program that includes maintenance on the Hay Shed roof.
- Complete a roof replacement program that includes replacing the Hay Shed roof.

### 5.1.13 Ye Ol' Feed Shed

Ye Ol' Feed Shed is in generally fair condition. To address the current condition of Ye Ol' Feed Shed we recommend the following:

- Complete a roof maintenance program that includes maintenance on the Ye Ol' Feed Shed roof.
- Complete a roof replacement program that includes replacing the Ye Ol' Feed Shed roof.
- Complete a cladding maintenance program that includes maintenance to the Ye Ol' Feed Shed cladding.
- Complete a window and door program that includes maintenance of the window and door at Ye Ol' Feed Shed.

### 5.1.14 Meat & Dairy Building

The Meat & Dairy Building is in generally poor condition, with noted areas of distress and deterioration affecting the structure and use of this building. Excessive water ingress at the floor of the Meat Building (B2 in Appendix C) has caused the structure to rot. If the floor is not repaired, it will continue to deteriorate and is in danger of collapsing. The CMU foundation walls of the Dairy Building (B1 in Appendix C) are also deteriorated and in need of repair. The joists in both the Dairy and Garage (B3 in Appendix C) are deflecting beyond what is typically allowed for occupancy and require structural assessment and likely remediation or alternate support. The cut

joists in the Meat Building are not currently of structural concern but could be supported for to reduce incidences of occupant discomfort when the current condition is observed. The disconnect switch is very old and should be replaced. To address the current condition of the Meat & Dairy Building we recommend the following:

- Complete repairs to the North and East Dairy walls and rotting Meat Building floor structure.
- Complete brick repairs at the South Dairy wall.
- Provide permanent additional support to joists in Dairy and Garage.
- Replace disconnect switches. Complete a roof maintenance program that includes maintenance on the Meat & Dairy Building roof.
- Complete a roof replacement program that includes replacing the Meat & Dairy Building roofs.
- Complete a window and door program that includes maintenance of the windows and doors at the Meat & Dairy Building.
- Complete a cladding maintenance and painting program that includes maintenance and painting at the Meat & Dairy Building.
- Complete a landscaping program that includes the garden beds surrounding and hill behind the Meat & Dairy Building.

### 5.1.15 Chinese Cook's House

The Chinese Cook's House is generally in poor condition. The overall structure appears to be performing as intended. Cedar shakes on the walls and roof have reached the end of their service life, although no leaking has been reported. The stairs to the Chinese Cook's House are not adequately supported at the top which may cause future failure and injury to visitors under continued use. To address the current condition of the Chinese Cook's House we recommend the following:

- Complete a cladding maintenance and painting program that includes typical repair or replacement of the Chinese Cook's House cladding and providing additional support or connection to the structure of the building at the top of the stairs.
- Complete a roof maintenance program that includes maintenance on the Chinese Cook's House roof within the next two years.
- Complete a roof replacement program that includes replacing the Chinese Cook's House roofs.
- Complete a window and door program that includes maintenance of the windows and doors at the Chinese Cook's House.

### 5.1.16 Log House

The Log House is in generally fair to poor condition. The overall structure appears to be performing as intended. The lean-to roof at the kitchen entrance is in fair condition but terminates at eye-level with sharp edges and is a

safety hazard to pedestrians. The chimney is in fair condition but is beginning to reach the end of its service life. If allowed to continue to spall the chimney could fall and will be a risk to pedestrians below. To address the current condition of the Log House we recommend the following:

- Complete a roof maintenance program that includes typical maintenance on the Log House roof and includes re-detailing the lean-to roof to remediate the risk to pedestrians.
- Replace spalled bricks and repoint mortar joints at chimney.
- Complete a roof replacement program that includes replacing the Log House roof.
- Complete a window and door program that includes maintenance of the windows and doors at the Log House.
- Complete a landscaping program that includes the garden beds surrounding the Log House.
- Complete annual monitoring program to review signs of active leaking at the interior of the building, particularly from the roof and floor.

### 5.1.17 General Store

The General store is in generally fair condition. The overall structure appears to be performing as intended. To address the current condition of the General Store we recommend the following:

- Complete a roof maintenance program that includes maintenance on the General Store roof.
- Complete a roof replacement program that includes replacing the General Store roofs.
- Complete a window and door program that includes maintenance of the windows and doors at the General Store.
- Complete a cladding maintenance program that includes maintenance of the General Store cladding.
- Complete a landscaping program that includes the garden beds surrounding the General Store.

### 5.1.18 Blacksmith Shop

The Blacksmith Shop is in generally fair condition. The overall structure appears to be performing as intended. Under current use the chimneys at the Blacksmith shop, which serves active forges, is a potential fire hazard. To address the current condition of the Blacksmith Shop we recommend the following:

- Provide a double walled flue flashing for the chimney at combustible roofs.
- The forge ventilation systems should be replaced, and appropriate thimbles are needed for the penetrations through the roof.
- Complete a roof maintenance program that includes maintenance on the Blacksmith Shop roof.
- Complete a roof replacement program that includes replacing the Blacksmith Shop roofs.
- Complete a cladding maintenance program that includes maintenance of the Blacksmith Shop cladding.

- Complete a window and door program that includes maintenance of the windows and doors at the Blacksmith Shop.

#### 5.1.19 Red Shed

The Red Shed is in generally fair condition. The overall structure appears to be performing as intended. Minor cracking in the concrete slab on grade and extended slab are not currently of concern. As the foundation has been deflected out of plane for many years and there are no other signs of movement in the building the condition of the foundation is not currently of structural concern. To address the current condition of the Red Shed we recommend the following:

- Complete a roof maintenance program that includes maintenance on the Red Shed roof.
- Complete a roof replacement program that includes replacing the Red Shed roof.
- Complete a window and door program that includes maintenance of the windows and doors at the Red Shed.
- Complete a cladding maintenance program that includes typical maintenance of the Red Shed cladding and patch repair of stained plywood sheathing.
- Complete an annual monitoring program of the cracking in the concrete slab-on-grade for changes in condition. This program can be completed with typical maintenance completed by the Society.
- Complete an annual monitoring program of the foundation and building as a whole for signs of movement such as cracking in walls. This program can be completed with typical maintenance completed by the Society.

#### 5.1.20 Carriage Shed

The Carriage Shed is in generally fair condition. The overall structure appears to be performing as intended, except as noted. Where the foundation is undermined, there is a lack of support for the foundation which may cause future failures. Consideration should be made to provide hot water to both public washrooms for improved hand washing hygiene. The electric domestic hot water heater is nearing the end of its service life. To address the current condition of the Carriage Shed we recommend the following:

- Temporarily support the foundation where undermined and add fill below.
- Upgrade domestic water system to provide hot water to washrooms.
- Replace domestic hot water heater with new.
- Complete a roof maintenance program that includes maintenance on the Carriage Shed roof.
- Complete a roof replacement program that includes replacing the Carriage Shed roof.
- Complete a cladding maintenance program that includes maintenance of the Carriage Shed cladding.

### 5.1.21 St. Anne's Church

St. Anne's Church is in generally fair condition. The overall structure appears to be performing as intended. The wood ramp leading to the rear room of the building was noted to be in poor condition and the connection to the guards was failing. Water staining on the ceiling and wall of the sacristy is likely from the chimney penetration although further investigation is required to determine the root cause. St. Anne's Church is the only building that is heated but not connected to Natural gas and has a dedicated propane tank. Gas piping where visible appears to be in good condition. We assume there is a propane fired furnace in the ceiling space above the back entry to the church. Our sense is the unit is fairly old as the venting is an older style. Modern furnaces use plastic pipe for combustion air and venting. To address the current condition of St. Anne's Church we recommend the following:

- Remove and replace the existing wood ramp and guards with new. This project does not meet the minimum \$5,000 value of a project as set out by the RFP documents and would be considered a maintenance item. It is not included in the OPC.
- Update the propane furnace to a sealed combustion condensing furnace considering the cost of propane. Construct a fire rated room to house the new furnaces.
- Complete a supply duct monitoring program every five years.
- Complete a roof maintenance program that includes typical maintenance on the St. Anne's Church roof and investigation of the chimney penetration to confirm source of leaking in the sacristy and repair flashing.
- Complete a window and door program that includes maintenance of the windows and doors at St. Anne's Church.

### 5.1.22 Smoke House

The Smoke House is in generally fair condition considering its age and use. To address the current condition of the Smoke House we recommend the following:

- Complete a cladding maintenance program that includes patching the North-East corner and other typical maintenance of the Smoke House cladding.

### 5.1.23 Pump House

The Pump House is in generally fair condition. There was a leak noted in the North East corner of the building. The leak appears to be a result from the roof. The interior finishes should be removed to review to condition of the structure. The piping systems use galvanized, copper, and plastic piping. Galvanized piping is no longer approved on domestic water systems. The building has an older style ITE panel and replacement breakers will be hard to find. To address the current condition of the Pump House we recommend the following:

- Remove interior finishes and repair and deteriorated wood framing caused by the leak.
- The next time the system needs work, we recommend replacing the galvanized piping with approved domestic water systems.
- Replace ITE panel with new.
- Complete a roof maintenance program that includes typical maintenance and repair of the leaks at the Pump House roof.
- Complete a cladding maintenance program that includes replacing stained plywood sheathing and other typical maintenance of the Pump House cladding.
- Complete a landscaping program that includes the vegetation surrounding the Pump House.

#### 5.1.24 Windmill #2

Windmill #2 is in fair condition considering its age and does not currently pose a hazard to visitors. To address the current condition of Windmill #2 we recommend the following:

- Complete an annual monitoring program of the buried posts for changes in condition.

#### 5.1.25 Water Cisterns and Cover

The Water Cisterns and Cover are in generally fair condition. Cracking in the cisterns is minor and not of concern under current use. To address the current condition of the Water Cisterns and Cover we recommend the following:

- Complete an annual monitoring program of the cracking in the Water Cisterns for changes.
- Complete a roof maintenance program that includes maintenance on the Water Cistern Cover roof.
- Complete a roof replacement program that includes replacing the Water Cistern Cover roof.
- Complete a window and door program that includes maintenance of the window at the Water Cistern Cover.
- Complete a cladding maintenance and painting program that includes maintenance of the Water Cistern Cover cladding.

#### 5.1.26 Spallumcheen Pioneer Power Club Display #1

The SPPC Display #1 is in generally good condition. The non-weatherproof disconnect switch is exposed to the weather and is rusting. To address the condition at SPPC Display #1 we recommend:

- Replace the disconnect switch.

### 5.1.27 Spallumcheen Pioneer Power Club Display #2

The SPPC Display #2 is in generally fair condition. However, the strap ties that currently provide the lateral bracing for the barn are not a sufficient structural system. To address the current condition of the Spallumcheen Pioneer Power Club Display #2 we recommend the following:

- Provide new strap anchors at steel ties.
- Complete a roof maintenance program that includes maintenance on the SPPC Display #2 roof.
- Complete a roof replacement program that includes replacing the SPPC Display #2 roof.

### 5.1.28 Implement Shed #1

Implement Shed #1 is in generally fair condition. Some posts of the lean-to structure have been buried over time and are in danger of rot if not re-exposed. Surface corrosion on the steel saddle connections at the base of the barn posts is not currently of concern but will continue to corrode the connection if not addressed. The roof currently has significant organic growth on the north side and has missing shakes on the south. To address the current condition of Implement Shed #1 we recommend the following:

- Complete a roof maintenance program that includes maintenance on the Implement Shed #1 roof.
- Complete a roof replacement program that includes replacing Implement Shed #1 roof.
- Complete a landscaping program that includes the vegetation surrounding Implement Shed #1.
- Expose lean-to posts up to concrete footing.

### 5.1.29 Implement Shed #2

Implement Shed #2 is in generally fair condition. Surface corrosion on the steel saddle connections at the base of the barn posts is not currently of concern but will continue to corrode the connection if not addressed. The roof has significant debris from the tree to the North and has had extensive localized shake replacement. To address the current condition of Implement Shed #2 we recommend the following:

- Complete a roof maintenance program that includes maintenance on the Implement Shed #2 roof.
- Complete a roof replacement program that includes replacing Implement Shed #2 roof.
- Complete a landscaping program that includes the vegetation surrounding Implement Shed #2.
- Complete a cladding maintenance program that includes maintenance of the Implement Shed #2 cladding.
- Expose lean-to posts up to concrete footing.



### 5.1.30 Tack Shed

The Tack Shed is in generally good condition. The strap ties that currently provide the lateral bracing for the barn are not sufficient from a structural perspective. To address the current condition of the Tack Shed we recommend the following:

- Provide new strap anchors at steel ties.

### 5.1.31 Corral

The fence and announcer booth are in generally good condition. The grandstand platform is a hazard to visitors in its current condition. It should be removed and could be replaced as desired by the City and the Society. Costs have been carried to remove and replace the grandstand. To address the current condition of the Corral we recommend the following:

- Remove grandstand platform with option to replace with new if desired.

### 5.1.32 Glamping

The glamping area appears to be in generally good condition. As the glamping site becomes more popular, the operator may need to add more toilet systems to keep up with demand. Improvement to toilet systems, including septic system upgrades are not included in recommendations or opinions of probable costs as these would be improvements to the current installations.

### 5.1.33 Balmoral School House

Balmoral School House is in generally fair condition. Localized rotting of logs at the exterior walls should be repaired before they become of structural concern. To address the current condition of Balmoral School House we recommend the following:

- Repair logs where they have deteriorated.
- Complete a roof maintenance program that includes maintenance on the Balmoral School House roof.
- Complete a roof replacement program that includes replacing Balmoral School House roof.
- Complete a window and door program that includes maintenance of the window at the Balmoral School House.
- Complete a cladding maintenance program that includes maintenance of the Balmoral School House cladding.

### 5.1.34 Schubert House

Schubert House is in generally fair condition. The foundation at Schubert House is in fair condition. Some localized damage to the concrete masonry foundation appears to have been caused during the restoration process or other work and should be repaired. The plaster and lath finish is in poor condition and should be repaired or replaced to prevent it becoming a falling hazard. While plaster and lath is a heritage material, a precedent for replacement with drywall has already been set. The chimney is in fair condition but is beginning to reach the end of its service life. If allowed to continue to deteriorate the chimney poses a projectile risk to pedestrians below. There is messy wiring in the crawlspace that should be cleaned up. To address the current condition of the Schubert House we recommend the following:

- Complete localized foundation wall repairs at the wood pony wall where tilted and repair any damaged CMU.
- Complete a roof maintenance program that includes maintenance on the Schubert House roof.
- Complete a roof replacement program that includes replacing the Schubert House roof.
- Complete a window and door program that includes maintenance of the windows and doors at Schubert House.
- Complete a cladding maintenance and painting program that includes maintenance of the Schubert House cladding.
- Complete a landscaping program that includes the vegetation surrounding the Schubert House.
- Repoint mortar at the chimney.
- Either repair plaster and lath wall and ceiling finishes with like materials and heat in the winter or replace with drywall.
- Clean up wiring in crawlspace.

### 5.1.35 Schubert Barn

The Schubert Barn is in generally fair condition considering its age. However, it is leaning towards Deep Creek which is of structural concern. RJC had no access to the interior of the barn during our visit so the cause of the leaning could not be determined. To address the current condition of the Schubert Barn we recommend the following:

- Retain structural engineer report to review whole building structural system.
- Complete a roof maintenance program that includes maintenance on the Schubert Barn roof.
- Complete a roof replacement program that includes replacing the Schubert Barn roof.
- Complete a cladding maintenance program that includes maintenance of the Schubert Barn cladding.

### 5.1.36 Spallumcheen Pioneer Power Club Clubhouse (a.k.a. Maintenance Building)

The SPPC Clubhouse and Maintenance Building is in generally good condition. Some posts supporting the lean-to at the back and side of the building have rotted and should be repaired. The hole in the North lean-to roof also diminishes its weather-proofing abilities. The Domestic hot water heater is nearing the end of its service life and is in need of replacement. The furnace is at the end of its service life. Gas piping does not appear to have the appropriate protective coatings. To address the current condition of the Spallumcheen Pioneer Power Club Clubhouse we recommend the following:

- Remove rotted wood from posts and add new pedestal.
- Complete a roof maintenance program that includes maintenance on the SPPC Clubhouse roof.
- Complete a cladding maintenance program that includes maintenance of the SPPC Clubhouse cladding.
- Replace domestic water heater. Provide the hot water heater with a drain pan to catch and direct the water to a drainage system in the event of a leak in the tank.
- Upgrade heat generation system.
- Construct fire rated room to house domestic water heater and furnaces.
- Engage a technician to ensure the energy supply systems are configured to code.
- Complete a pipe and duct monitoring program to inspect domestic water pipes, sanitary pipes, and supply ducts every five years.
- Upgrade existing insulation at domestic water supply pipes to save energy.
- Complete a landscaping program that includes the vegetation surrounding the SPPC Clubhouse and lean-tos.

### 5.1.37 Storage Building

The Storage Building is in generally fair condition. To address the current condition of the Storage Building we recommend the following:

- Complete a landscaping program that includes the vegetation surrounding the Storage Building.

### 5.1.38 Storage Shed

The storage shed is in generally poor condition. Although the super structure appears to be in fair condition with minor staining at the base of posts, the roofing is in poor condition with missing sheathing and shingles, excessive moss, and poor condition of the existing shingles. To address the current condition of the Storage Shed we recommend the following:

- Complete a roof replacement program that includes replacing the Storage Shed roof.
- Complete a roof maintenance program that includes maintenance on the Storage Shed roof.

### 5.1.39 Foot Bridge

The new Foot Bridge is in generally good condition. There is currently no recommended work for the Foot Bridge.

### 5.1.40 Vehicle Bridge (Currently Decommissioned)

The Decommissioned Bridge is currently in poor condition and, per report by McElhanney, is not suitable for use. To address the current condition of the Decommissioned Bridge we recommend the following:

- Retain environmental engineer Environment Impact Assessment for the removal of the bridge.
- Remove and dispose of bridge
- Assess whether a new bridge is beneficial to the site and, if so, replace with new.

### 5.1.41 Log Foot Bridge

The Log Foot Bridge is in poor condition and it is not suitable for use. To address the current condition of the Log Foot Bridge we recommend the following:

- Retain environmental engineer Environment Impact Assessment for the removal of the bridge.
- Remove and dispose of bridge.

### 5.1.42 Small Buildings

The animal feed buildings and other small buildings are in generally good condition. A few buildings are in poor condition due to age or have sustained previous damage and require repair. To address the current condition of the Small Buildings on site we recommend completing the following:

- Complete a small building maintenance program which includes the following items in the next five years:
  - Repair fire storage structure West of Schubert House.
  - Replace north most animal feed building in group South of Log Barn
  - Replace railing on North tractor shelter near cemetery.
  - Repair wood storage building near Carriage Shed and Red Shed.
- Complete a landscaping program which addresses the vegetation around small buildings.

### 5.1.43 Parking Lots and Roads

The parking lots are in fair condition. Repair will be required to maintain drivability. To address the current condition of the Parking Lots and Roads we recommend the following:

- Complete a road maintenance program to repair paved surfaces over the next seven years as required.

### 5.1.44 Fences

Fencing is in varying but generally good condition with areas of maintenance being required. To address the current condition of the Fences we recommend the following:

- Complete a fencing maintenance program over the next 15 years that allows for the repair and replacement of 2 km of fence per year.

### 5.1.45 Irrigation and Water Lines

Irrigation Lines are varying but generally good condition where visible. However, the majority of the system is buried and was not reviewed. The Water lines and hydrant servicing the O'Keefe Ranch were installed in 2010 and are assumed to be in good condition. It has been reported that the O'Keefe Ranch site is on a permanent water quality advisory from Interior Health as they have low chlorine issues and have had positive coliform samples. Further assessment will be required to determine a long term solution to this issue. Cost associated with addressing this problem are not known and have not been included in the evaluation.

To address the current condition of the Irrigation and Water Lines we recommend the following:

- Complete an irrigation and water line maintenance program over the next 50 years that allows for the repair and replacement of 50 m of water lines and connected hydrants per year.

## 5.2 Prioritized Recommendation Plan

This section proposes a prioritized recommendation plan of programs and projects based on the recommended actions above and the risk assessment matrix presented in Section 3.0. The opinion of probable costs for each program and project can be found in Section 6.0 of this report. Recommended work has been grouped into Programs and Projects based on the following criteria:

**Programs:** work is to be completed at multiple buildings in phases over a period of several years.

**Projects:** work is to be completed at one building or at multiple buildings and is not phased over several years.

## 5.2.1 High Priority Programs

Table 3, identifies programs address conditions considered to be of moderate priority and should begin within the next year.

TABLE 3: HIGH PRIORITY PROGRAMS			
Item	Location	Program Title	Description
1	All Building Roofs	Roof Maintenance Program	<p>Clean eavestroughs, remove vegetation and debris from roofs bi-annually (fall/spring). Replace loose or missing shingles as required. Repair and repaint fascia as required.</p> <p>Immediate repairs to active leaking at Stagecoach Depot.</p> <p>Cut back overhanging tree and remove debris from Pioneer Cabin roof.</p> <p>Re-Detail Log House Lean-To roof edge with mitered edges and add signage and post to redirect pedestrians.</p> <p>Investigate chimney penetration at St. Anne's Church to confirm source of leaking and repair flashing.</p> <p>Review and repair leaks at Pump House roof.</p>
2	All Buildings and Small Buildings	Landscaping, Small Building Maintenance, and Monitoring Budget Program	<p>Landscape to provide 4" clearance around buildings.</p> <p>Repair or replace small buildings as required. See Section 5.1 for immediate projects.</p> <p>Continue to monitor conditions indicated in Section 5.1 for changes. Monitoring can be completed internally. Notify a professional if conditions change. At a minimum the following items should be included in the annual monitoring program.</p> <ul style="list-style-type: none"> <li>▪ Gazebo checking posts and cracked beam.</li> <li>▪ Cowboy Bunkhouse spalled foundation wall.</li> <li>▪ Both Windmills buried posts.</li> <li>▪ Log House active leaking at the interior of the building.</li> <li>▪ Red Shed cracking in the extended concrete slab-on-grade, foundation, and building for movement.</li> <li>▪ Water Cisterns cracking in walls.</li> </ul> <p><i>Note. This program is considered high priority based on the recommended timeline not the severity of the condition.</i></p>

## 5.2.2 Moderate Priority Programs

Table 4, on the next page, identifies programs address conditions considered to be of moderate priority and should begin with two to five years.

**TABLE 4: MODERATE PRIORITY PROGRAMS**

Item	Location	Program Title	Description
3	All Building Roofs	Roof Replacement Program	Complete a roof replacement program starting in the next 5 years. The program is recommended to replace the roofs of four buildings a year for the next nine years. The first roofs considered for replacement should include the Stagecoach Depot and Chinese Cook's House. For a full prioritization of roof replacements see Appendix G.
4	All Sanitary and Domestic Distribution Piping and Supply Ducts	Mechanical System Monitoring and Assessment Program	See Section 2.0 in Appendix E for detail. Inspect and clean sanitary pipes. Look for pinhole leaks in domestic water distribution and sanitary waste piping. Inspect and clean supply ducts. This program is recommended to be completed every 5 years.
5	All Windows and Doors	Window and Door Program	Repair and paint window and door trims, replace glazing seals and broken glass, repair or replace door doors. The program is recommended to repair or replace windows in three buildings a year for the next seven years.
6	All Building Cladding	Cladding Maintenance and Painting Program	Replace damaged cladding trims and loose or missing cladding as required. Clean and paint cladding as required. Paint at risk cladding to extend service life. This program is recommended to replace 5% of cladding in the next 30 years. Provide additional support or connection to the structure of the building at the top of the Chinese Cook's House stairs. Repair stained sheathing at Red Shed and Pump House.

### 5.2.3 Lesser Priority Programs

Table 5 identifies programs address conditions considered to be of lesser priority and should begin with six to ten years.

**TABLE 5: LOW PRIORITY PROGRAMS**

Item	Location	Program Title	Description
7	All Buildings	Assessment Budget	Allowance for building assessments as required. This program is recommended for assessment of 2-4 buildings every five years.
8	All Fences	Fence Maintenance Program	Repair fencing in the spring with like materials as required.
9	All Paved Surfaces	Road Maintenance Program	Repair potholes and slope for drainage as required.
10	All Water Lines	Irrigation and Water Line Replacement Program	Replace damaged lines and garden hydrants in the spring as required.

## 5.2.4 High Priority Projects

Table 6 identifies projects address conditions considered to be a high priority and should be completed within the next year.

TABLE 6: HIGH PRIORITY PROJECTS			
Item	Location	Project Title	Description
11	Visitor Center, Greenhow Museum & O'Keefe House	Hazardous Materials Assessment	Retain environmental engineer report for review of organic growth in Visitor Center and Greenhow Museum basements and animal dropping and vermiculite insulation in O'Keefe House attic.
12	Greenhow Museum	Stair Replacement and Repair	Replace basement and second floor emergency exit stairs.
13	Meat & Dairy Building	Additional Structural Support	Add permanent support at Dairy Building, Garage (B3 in Appendix C). Complete structural review and design to address as-found conditions. Add blocking at cut joists at Meat Building.
14	Meat & Dairy Building	Wall and Floor Repairs	Temporarily support and repair North and East wall in Dairy Building (B1 in Appendix C) and rotted floor structure in Meat Building (B2 in Appendix C). Landscape to expose structure. Remove and reinstate cladding at North wall. Install vents over openings at North wall. Patch concrete steps to Dairy Building front entrance.
15	Blacksmith Shop	Forge Ventilation System Replacement	See section 2.0 of Appendix E for detail. Systems should be replaced, and appropriate thimbles are needed for the penetrations through the roof.
16	O'Keefe House & Blacksmith Shop	Chimney Repairs	Provide additional support to leaning chimney at O'Keefe House. Replace spalled bricks and repoint mortar. Provide double wall flashing at combustible roof at Blacksmith Shop.
17	Hay Shed	Concrete Repair	Remove deteriorated concrete, clean rebar, replace any reinforcement with significant cross-sectional area loss, and repair concrete.
18	Decommissioned Vehicle Bridge & Log Foot Bridge	Bridge Removal and Replacement	Retain environmental engineer report for environmental impact of bridges removal. Remove and dispose of bridges. Cost to install a new bridge is carried as Optional Item 43. This cost has been budgeted using the Ministry of Transportation of BC's guidelines as is recommended to be reviewed.



**TABLE 6: HIGH PRIORITY PROJECTS**

Item	Location	Project Title	Description
19	O'Keefe House	Geotechnical Report	Retain geotechnical engineer report for review of retaining wall.
20	Visitor Center	Carpentry Repairs	Temporarily support roof structure, remove rotted wood from post and add new pedestal. Remove rotted truss trails and provide flashing.
21	Visitor Center	Basement Repairs	Clean basement walls and extend rainwater leaders. If condition persists, add drainage and waterproofing.

### 5.2.5 Moderate Priority Projects

Table 7 identifies projects address conditions considered to be at moderate risk and should be completed within two to five years.

**TABLE 7: MODERATE PRIORITY PROJECTS**

Item	Location	Project Title	Description
22	O'Keefe House & Schubert Barn	Structural Assessment	Retain structural engineer report for review of O'Keefe House roof structure and deflecting ceilings in bathroom and small dining room, Log Barn hay loft, and Schubert Barn structural system.
23	Corral	Grandstand Removal	Remove grandstand platform. Cost to install a new grandstand has been carried as an optional cost in addition to the removal.
24	Various	New Fire Rated Rooms	See section 2.0 of Appendix E for detail. Construct new fire rated rooms to house furnaces and water heaters as recommended.
25	O'Keefe House, Log Barn, Carriage Shed & Schubert House	Foundation Repairs	Provide support and repair foundation columns at O'Keefe House. Replace spalled bricks and repoint mortar joints. Provide fill below Log Barn East Lean-To concrete slab. Provide fill where Carriage Shed foundation is undermined. Repair Schubert House pony wall where tilted and repair CMU blocks that are damaged.
26	Various Locations	Miscellaneous Electrical Repairs	See Appendix F for detail. Remove old meter outside of Stagecoach Depot. Replace disconnect switches in Meat and Dairy Building and SPPC Display #1. Clean up wiring in O'Keefe House and Schubert House.

**TABLE 7: MODERATE PRIORITY PROJECTS**

<b>27</b>	Schubert House & Log House	Chimney Repairs	Replace spalled bricks and repoint mortar joints where required.
<b>28</b>	O'Keefe House	Water Management	Repair CMU basement wall and add extend rainwater leaders. If condition persists, add drainage away from the area. Remove rotted portions of porch and repair. Add new scuppers.
<b>29</b>	Visitor Center	Cooling Unit Replacement	See section 2.0 of Appendix E for detail. Replace cooling unit in the near future.
<b>30</b>	Greenhow Museum	Hot Water Heater Replacement	See section 2.0 of Appendix E for detail. Remove and dispose of old heater and install new.
<b>31</b>	Stagecoach Depot	Hot Water Heater Replacement	See section 2.0 of Appendix E for detail. Remove and dispose of old heater and install new
<b>32</b>	O'Keefe House	Condensate Pump Replacement	See section 2.0 of Appendix E for detail. Remove and dispose of old condensate pump and install new.
<b>33</b>	Carriage Shed	Hot Water Heater Replacement	See section 2.0 of Appendix E for detail. Remove and dispose of old heater and install new
<b>34</b>	SPPC Clubhouse	Furnace Upgrade	See section 2.0 of Appendix E for detail. System should be upgraded soon.
<b>35</b>	SPPC Clubhouse	Hot Water Heater Replacement	See section 2.0 of Appendix E for detail. Remove and dispose of old heater and install new
<b>36</b>	Various	Hot Water Upgrade	See section 2.0 of Appendix E for detail. Upgrade systems to provide hot water at sinks.
<b>37</b>	Various	Miscellaneous Mechanical Repairs	See section 2.0 of Appendix E for detail. Configure natural gas piping in Museum and SPPC Clubhouse. Provide drain pans for hot water heaters. Replace galvanized piping at Pump House. Upgrade piping insulation.

## 5.2.6 Lesser Priority Projects

Table 8, on the next page, identifies projects address conditions considered to be lesser priority and should be completed within six to ten years.

**TABLE 8: LESSER PRIORITY PROJECTS**

Item	Location	Project Title	Description
38	Implement Sheds, SPPC Displays and SPPC Clubhouse	Minor Structural Repairs	Expose base of lean-to wood posts to concrete footing were buried. Remove rotted wood and add new pedestals at these locations. Provide new strap anchors at SPPC Display #2 and Tack Shed. Clean saddle connections at base of posts in Implement Sheds.
39	Visitor Center, Caretaker's House, & SPPC Clubhouse	IGU Replacement	Replace IGUs as required.
40	O'Keefe House & Schubert House	Plaster and Lath Repair or Replacement	Option 1: Repair existing plaster and lath. Heat buildings in the winter to extend service life. Option 2: Replace damaged plaster and lath with drywall (carried in OPC).
41	O'Keefe House	Air Handling Unit Repair	See section 2.0 of Appendix E for detail. Replace cooling coil in air handling unit.
42	St. Anne's Church	Heating Upgrade	See section 2.0 of Appendix E for detail. Update heating to sealed combustion condensing unit.

## 6.0 Opinions of Probable Cost

Opinions of Probable Costs (OPC) for the recommended options are presented by RJC to provide an expectation as to the magnitude of costs required to complete the recommended work. The opinions provided are based on conceptual repair methods, recently obtained broad unit rates and past experience with similar projects. A detailed estimate of costs has not been provided, as it would require the preparation of plans, details, specifications, and schedules to achieve a quantified summary of estimated costs. It is assumed in the creation of these costs that work will be completed by a contractor.

Opinions of Probable Costs are based on RJC's review of the present condition of the building. Deferral of the work could result in increased repair costs. Please note that the cost of remediation could vary greatly depending upon the materials chosen and any deterioration uncovered during the remediation work.

Contract administration range depending on the scope and can run from 10% through 20%, typically smaller projects are found to have a higher percentage of costs. For the purposes of the provided OPCs we have included soft costs to be 18% of construction costs.

When budgeting, soft costs, including Society costs, engineering fees, costs for management, permits, and testing should also be added. Soft costs range depending on the scope and can run from 15% through 25%, typically smaller projects are found to have a higher percentage of soft costs, depending on the project details and requirements. For the purposes of the provided OPCs we have included soft costs to be 25% of construction costs.



An Owner contingency of 20% is included with each Opinion of Probable Cost. A contingency of at least this amount should be included in all construction budgets to allow for variation in estimated unit prices due to competitive bidding, repair work resulting from additional deterioration, and additional work required to repair any damage caused by or discovered during construction.

Due to the known potential of hazardous materials we have included a Hazardous Material Contingency of 15% of the construction costs. This contingency does not include for the testing of materials but rather the potential increase in effort to abatement and contain work areas with hazardous materials.

Table 9, on the next page, summarizes the opinions of probable costs for remediation and repair programs and projects for the O'Keefe Ranch. As noted earlier, items are presented in order of priority. The items recommended in the table are intended to maintain or improve the performance of the facility and to protect the building's structures from deterioration due to moisture ingress. A summary of OPCs for all programs and projects discussed are included below.

TABLE 9: OPC SUMMARY													
		High Priority	Moderate Priority				Lesser Priority						
Item	Description	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Optional Timeline	Comments
Programs													
1	Roof Maintenance Program	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000		Ongoing Maintenance Program.
2	Landscaping, Small Building Maintenance, and Monitoring Program	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000		Ongoing Maintenance Program.
3	Roof Replacement Program			\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000	\$70,000		Program completed in 40 years.
4	Mechanical System Monitoring and Assessment Program		\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000	\$4,000		Ongoing Maintenance Program.
5	Window and Door Program		\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000		Program completed in 30 years.
6	Cladding Maintenance and Painting Program		\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000		Program completed in 30 years.
7	Assessments Budget						\$8,000						Budget \$8,000 every 5 years. Ongoing program.
8	Fencing Maintenance Program						\$10,000	\$10,000	\$10,000	\$10,000	\$10,000		Program completed in 15 years.
9	Road Maintenance Program						\$15,000	\$15,000	\$15,000	\$15,000	\$15,000		Program completed in 7 years.
10	Irrigation and Water Line Replacement Program							\$40,000	\$40,000	\$40,000	\$40,000		Budget \$400,000 every 10 years for 50 years.
Projects													
11	Hazardous Materials Assessment	\$10,000											
12	Greenhow Museum Stair Replacement and Repair	\$25,000											
13	Meat and Dairy Building Additional Structural Support	\$7,000											
14	Meat and Dairy Building Wall and Floor Repairs	\$20,000											
15	Blacksmith Shop Forge Ventilation Replacement	\$18,000											
16	O'Keefe House & Blacksmith Shop Chimney Repairs	\$5,000											
17	Hay Shed Concrete Repair	\$25,000											
18	Bridge Removal	\$125,000											
19	O'Keefe House Geotechnical Report	\$8,000											
20	Visitor Center Drainage Improvement	\$25,000											
21	Visitor Center Carpentry Repairs	\$8,000											
22	Structural Assessments at Various Buildings		\$10,000										
23	Corral Grandstand Remove		\$10,000									\$40,000	Optional item to replace grandstand in addition to the removal cost.
24	New Fire Rated Rooms at Various Buildings		\$60,000										
25	Foundation Repairs at Various Buildings		\$25,000										



TABLE 9: OPC SUMMARY													
		High Priority	Moderate Priority				Lesser Priority						
Item	Description	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Optional Timeline	Comments
26	Miscellaneous Electrical Repairs		\$9,000										
27	Log House and Schubert House Chimney Repairs		\$5,000										
28	O'Keefe House Water Management		\$5,000										
29	Visitor Center Cooling Unit Replacement		\$14,000										
30	Greenhow Museum Hot Water Heater Replacement		\$6,000										
31	Stagecoach Depot Hot Water Heater Replacement		\$6,000										
32	O'Keefe House Hot Water Heater Replacement		\$2,000										
33	Carriage Shed Hot Water Heater Replacement		\$3,000										
34	SPPC Clubhouse Furnace Upgrade		\$13,000										
35	SPPC Clubhouse Hot Water Heater Replacement		\$6,000										
36	Hot Water Upgrade		\$10,000										
37	Miscellaneous Mechanical Repairs		\$8,000										
38	Minor Structural Repairs Project						\$6,000						
39	IGU Replacement Project						\$50,000						
40	O'Keefe House Air Handling Unit Repair						\$6,000						
41	O'Keefe & Schubert House Plaster and Lath Repair or Replacement*						\$14,000						
42	St. Anne's Church Heating Upgrade						\$13,000						
43	Optional - Bridge Replacement											\$325,000	Optional item to replace bridge.  Based off of the Ministry of Transportation BC Guidelines. A class 'D' estimate is recommended by a cost consultant.
Subtotal**:		\$291,000	\$227,000	\$105,000	\$105,000	\$105,000	\$227,000	\$130,000	\$130,000	\$130,000	\$130,000	\$365,000	
Contract Administration Overhead (18%):**:		\$52,380	\$40,860	\$18,900	\$18,900	\$18,900	\$40,860	\$23,400	\$23,400	\$23,400	\$23,400	\$65,700	
Soft Costs (25%):**:		\$72,750	\$56,750	\$26,250	\$26,250	\$26,250	\$56,750	\$32,500	\$32,500	\$32,500	\$32,500	\$91,250	
Contingencies (20%):**:		\$29,100	\$22,700	\$10,500	\$10,500	\$10,500	\$22,700	\$13,000	\$13,000	\$13,000	\$13,000	\$73,000	
Hazardous Material Contingency (15%)		\$43,650	\$34,050	\$15,750	\$15,750	\$15,750	\$34,050	\$19,500	\$19,500	\$19,500	\$19,500	\$54,750	
Total***:		\$500,000	\$425,000	\$175,000	\$175,000	\$175,000	\$425,000	\$250,000	\$250,000	\$250,000	\$250,000	\$650,000	

Note. The total is calculated on the first year for programs or projects that span multiple years.  
\*Cost carried is to replace cracked plaster and lath with drywall not to repair or replace with like materials.  
\*\*Opinions of Probable Costs do not include extended warranties, engineering fees, or GST/PST unless noted otherwise. The opinions of probable costs should be considered class "D" estimates.



\*\*\*The total costs provided in the table above and the executive summary have been rounded based on the following rounding protocol:

- Rounded to the nearest \$1,000 for budget values up to \$20,000
- Rounded to the nearest \$5,000 for budget values between \$20,000 and \$100,000
- Rounded to the nearest \$25,000 for budget values between \$100,000 and \$500,000
- Rounded to the nearest \$50,000 for budget values between \$500,000 and \$1,000,000
- Rounded to the nearest \$100,000 for budget values of more than \$1,000,000

## 7.0 Next Steps

As discussed in the introduction of this report Phase 2 of the overall consulting program builds from the Statements of Significance (SoS) and this Facility Condition Assessment (FCA). Taken together, the overall goal is to understand the heritage value of O'Keefe Ranch as a historic place (SoS) and its current condition (FCA) then plan for the ongoing use and conservation of the heritage value (Phases 2 and 3). To help understand the value of these reports and the pending additional phases, ANCE has provided the following summary, with emphasis and additions by RJC:

*Before any plans are put in place, or work carried out, the Standards and Guidelines for the Conservation of Historic Places in Canada call for producing SoSs to cohesively and formally recognize the heritage value of the place. This requirement is now met as the Statements are complete.*

*The SoS was created by the federal Historic Places Initiative (HPI) as a succinct and consistent format to express the heritage values of places that matter to Canadian communities. A SoS, in its simple, non-technical language, is "a declaration of value that briefly explains what a historic place is and why it is important". It is both a starting point and a guide for communities, property owners, architects, developers, planners and anyone who may be planning the future of a historic place. The completed SoSs are submitted by the local government to the Province of BC, and from there to the Canadian Register of Historic Places ([historicplaces.ca](http://historicplaces.ca)).*

*An SOS and a Condition Assessment are both **requirements for conservation grant applications** with the provincial Heritage Legacy Fund, administered by Heritage BC, and which provide hundreds of thousands of dollars towards heritage awareness, planning and conservation work each year.*

*The advancement of the work to develop the Heritage Conservation Plan (HCP) explains how The City of Vernon will sustain the significance identified in the Statement of Significance (the heritage values and character defining elements) in any new use, alteration, repair or management.*

*The HCP utilizes a simple thinking process which starts with describing what is there, the condition of each part, what is proposed to happen to the historic place and its components, and the principles by which you will manage it (following the Standards and Guidelines for the Conservation of Historic Places in Canada).*

*The HCP then outlines more detailed work programs for maintenance, management, access, use or other issues.*

*Within the HCP each part of the property (building and site) will be specified to be either Preserved, Restored or Rehabilitated (the three possible Conservation treatments) depending on its condition, its significance and its intended function. The HCP document outlines how to technically implement the above conservation approaches.*

*The biggest funding source for heritage properties in BC, the Heritage Legacy Fund, as mentioned above, prioritizes applications that have a professionally written Statement of Significance, Condition Assessment*



and Heritage Conservation Plan. **Having this work completed now, in advance of grant intake announcements, will help the City be prepared to act when new grant intakes are announced.**

*Whether the grant application is successful or not, having these documents is especially useful in the case of historic places that are owned, run and managed by non-profit societies and a board or committee. The HCP provides a consensual, professional and comprehensive guide to how to care for the place, the priority items and order in which money and efforts should be invested, and, offer a continuity of knowledge about a site when board members, site managers and maintenance staff may turn-over or have different ideas over time.*

*From this conservation plan the proposed capital and operations management plan will be formed. The capital and operations management plan operationalizes the studies, informed by budget boundaries provided by the City and considers existing funding, future grants and other costs in a more unified approach that can be acted upon on an annual basis.*

## 8.0 Closing

We trust the information contained within this report satisfies your current requirements. Should you have any comments, questions or concerns, please contact the undersigned. We remain available to review and discuss findings and future action.

Yours truly,

READ JONES CHRISTOFFERSEN LTD.



**EGBC Permit to Practice number: 1002503**

Michael Blackman, BSc, P.Eng., LEED® AP BD+C, FEC  
Principal

Trenton Squair, BSc, P.Eng., CAHP, BCAHP  
Project Engineer

ELW/vml



Engineers

## Appendix A

### Site Maps



# BUILDING MAP

## Building Key

- 1. Visitor Center
  - 2. Greenhow Museum
  - 3. Stagecoach Depot
  - 4A. O'Keefe House
  - 4B. Caretaker's House
  - 5. Pavilion
  - 6. Gazebo
  - 7. Pioneer Cabin
  - 8. Cowboy Bunkhouse
  - 9. Bird Pens
  - 10. Windmill #1
  - 11. Log Barn
  - 12. Hay Shed
  - 13. Ye Ol' Feed Shed
  - 14. Meat & Dairy Building
  - 15. Chinese Cook's House
  - 16. Log House
  - 17. General Store
  - 18. Blacksmith Shop
  - 19. Red Shed
  - 20. Carriage Shed
  - 21. St. Anne's Church
  - 22. Smoke House
  - 23. Pump House
  - 24. Windmill #2
  - 25. Water Cisterns
  - 26. SPPC Display #1
  - 27. SPPC Display #2
  - 28. Implement Shed #1
  - 29. Implement Shed #2
  - 30. Tack Shed
  - 31. Corral
  - 32. Glamping
  - 33. Balmoral School House
  - 34. Schubert House
  - 35. Schubert Barn
  - 36. SPPC Clubhouse
  - 37. Storage Building
  - 38. Storage Shed
- A. Foot Bridge  
B. Decommissioned Bridge  
C. Cistern Ruin  
D. Fields  
E. Cemetery  
F. Log Foot Bridge



# SERVICES MAP

## Building Key

- 1. Visitor Center
- 2. Greenhow Museum
- 3. Stagecoach Depot
- 4A. O'Keefe House
- 4B. Caretaker's House
- 5. Pavilion
- 6. Gazebo
- 7. Pioneer Cabin
- 8. Cowboy Bunkhouse
- 9. Bird Pens
- 10. Windmill #1
- 11. Log Barn
- 12. Hay Shed
- 13. Ye Ol' Feed Shed
- 14. Meat & Dairy Building
- 15. Chinese Cook's House
- 16. Log House
- 17. General Store
- 18. Blacksmith Shop
- 19. Red Shed
- 20. Carriage Shed
- 21. St. Anne's Church
- 22. Smoke House
- 23. Pump House
- 24. Windmill #2
- 25. Water Cisterns
- 26. SPPC Display #1
- 27. SPPC Display #2
- 28. Implement Shed #1
- 29. Implement Shed #2
- 30. Tack Shed
- 31. Corral
- 32. Glamping
- 33. Balmoral School House
- 34. Schubert House
- 35. Schubert Barn
- 36. SPPC Clubhouse
- 37. Storage Building
- 38. Storage Shed

- A. Foot Bridge
- B. Decommissioned Bridge
- C. Cistern Ruin
- D. Fields
- E. Cemetery
- F. Log Foot Bridge



### Legend

- 4-WIRE BARBED WRE FENCE
- 2-3 RAIL WOOD POLE FENCE
- ANIMAL ENCOSURES (WOOD FENCE)
- CHICKEN WIRE FENCE
- WHITE PICKET FENCE
- ROPE FENCE
- 3 POLE WOOD FENCE
- TBD BY TDS
- ROADS AND PATHS

### FENCING MAP

#### Building Key

- Visitor Center
  - Greenhow Museum
  - Stagecoach Depot
  - A. O'Keefe House
  - B. Caretaker's House
  - Pavilion
  - Gazebo
  - Pioneer Cabin
  - Cowboy Bunkhouse
  - Bird Pens
  - Windmill #1
  - Log Barn
  - Hay Shed
  - Ye Ol' Feed Shed
  - Meat & Dairy Building
  - Chinese Cook's House
  - Log House
  - General Store
  - Blacksmith Shop
  - Red Shed
  - Carriage Shed
  - St. Anne's Church
  - Smoke House
  - Pump House
  - Windmill #2
  - Water Cisterns
  - SPPC Display #1
  - SPPC Display #2
  - Implement Shed #1
  - Implement Shed #2
  - Tack Shed
  - Corral
  - Glamping
  - Balmoral School House
  - Schubert House
  - Schubert Barn
  - SPPC Clubhouse
  - Storage Building
  - Storage Shed
- A. Foot Bridge  
B. Decommissioned Bridge  
C. Cistern Ruin  
D. Fields  
E. Cemetery  
F. Log Foot Bridge





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## Appendix B

### Facility Condition Assessment Background



## Notation

A condition assessment is provided for each building component. The condition is generally categorized as Good, Fair, and Poor.

**Good** generally applies to building components that are in the first half of their expected service life, are well-maintained, require only basic maintenance if any, are fully functional and serving their intended purpose without known issues.

**Fair** generally applies to building components that are in the second half of their expected service life, require some regular maintenance, are fully functional and serving their intended purpose, however may have known issues.

**Poor** generally applies to building components that require increasing effort to maintain in a functional state or are not serving their intended purpose reliably.

When a component cannot be visually reviewed, such as underground storm water piping or building components hidden inside walls or behind other building components, Unknown may be used. When the component condition varies significantly, such as for buildings where portions of the exterior cladding have been restored at different times, Varies may be used.

## Estimated Remaining Service Life

The estimated remaining service life, as well as the timing for work required before the component reaches the end of its expected service life, is based on the year the component was installed, its expected service life (published and internal data), and the condition at the time of the site review, and the field observer's knowledge of the component. If the installation date is unknown, the condition assessment becomes the primary means of estimating the year of installation. If deemed useful (and included in the agreed-upon scope of work for the BCA), the condition assessment is supplemented by a review of available documentation and discussions with maintenance staff or service providers. This can improve the estimates of the component's remaining service life. For this report the estimated lifespan is compiled in the Asset Inventory in Appendix G.

There are numerous factors that can affect the service life and performance of a component. Furthermore, certain evidence which might impact our opinions of estimated remaining service life or work required before the component reaches the end of its expected service life may be hidden within walls, inside the component or behind other components, underground or in crawl spaces, for example. As a result, there remains a significant margin of error for certain building components. Actual conditions may differ significantly from the conditions assumed during the visual review. In some cases, components could require significant expenditures earlier or later than what is noted in this report.



## Preservation, Restoration, and Rehabilitation

The Historic O'Keefe Ranch is part of the historic fabric of British Columbia. As such, any works proposed for the Ranch should be proposed within the context of the Standards and Guidelines for The Conservation of Historic Places in Canada (The Standards). The current iteration of this document is the Second Edition.

The Standards prescribe three (3) primary approaches or “treatments” for conservation of historic or heritage value. These are preservation, rehabilitation and restoration. Each of the three (3) treatments can be present in any particular conservation context, but one (1) will be the primary focus.

In the case of O'Keefe Ranch it is RJC's current understanding that the overarching goal is to preserve the structures and are not intended to be returned to an occupied state. While preservation is the long-term goal, rehabilitation is also a prudent course of action in order to effectively conserve the heritage fabric of The Ranch. Rehabilitation activities will largely focus on the repair of deteriorated building components, such as roofs, that will extend the lifespan of the building as a whole system.

Assuming that the recommended funding is available, and work can move forward with the recommended scopes of rehabilitation, the services of a heritage consultant will be invaluable to help ensure that The Standards are met and that schematic designs for the rehabilitation can be submitted to the responsible authorities to vet the proposed works.





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## Appendix C

### Detailed Building Condition Assessments





## OPC for Programs

Opinions of Probable Cost for recommended programs have not been included in the summary tables in the header of the following sheets. A summary of Recommended Programs OPCs is below in Table C1.

TABLE C10: SUMMARY OF PROGRAM OPCs			
Program Title	Typical Annual Cost	Ten Year Cost	Comments
Roof Maintenance Program	\$ 10,000	\$ 100,000	n/a
Landscaping, Small Building Maintenance, and Monitoring Budget Program	\$ 5,000	\$ 50,000	n/a
Roof Replacement Program	\$ 70,000	\$ 560,000	Total replacement project to run over 40 years with a projected total cost of \$ 2,800,000
Mechanical System Monitoring and Assessment Program	\$ 4,000	\$ 36,000	n/a
Window and Door Program	\$ 10,000	\$ 90,000	Total replacement project to run over 30 years with a total cost of \$ 300,000
Cladding Maintenance and Painting Program	\$ 6,000	\$ 54,000	Total replacement project to run over 30 years with a total cost of \$ 180,000
Assessment Budget	\$ 8,000	\$ 8,000	A budget of \$8,000 every 5 years.
Fence Maintenance Program	\$ 10,000	\$ 50,000	50% replacement project to run over 15 years with a total cost of \$ 150,000
Road Maintenance Program	\$ 15,000	\$ 75,000	50% replacement project to run over 7 years with a total cost of \$ 105,000
Irrigation and Water Line Replacement Program	\$ 40,000	\$ 160,000	Total replacement project to run over 50 years with a total cost of \$ 2,000,000



Visitor Center

Building Info			Notes	Opinion of Probable Cost Summary					Overview Photo	Location
Building No.	1	History	Where projects have scope occurring at multiple buildings the full project cost has been included in each sheet and has not been split by building. Numbers affected by these "duplicate" costs are in <b>red</b> .  Programs have not been included in OPC Summary. Refer to Program Summary page at beginning of the report.  Where scopes have been summarized into one project in the report OPC, numbers are reported in <b>green</b> .	Level 1 Group	High Priority	Moderate Priority	Low Priority	Total		
Other Names		A		\$ 35,000			\$ 35,000			
Restaurant, Gift Shop, Core Building		B			\$ 8,000	\$ 50,000	\$ 58,000			
Description		C					\$ -			
One-storey building with attic and basement. Visitor center also houses a gift shop, non-operational restaurant, and administrative offices.		D			\$ 27,400	\$ 1,000	\$ 28,400			
		E					\$ -			
		F					\$ -			
		G					\$ -			
		Total		\$ 35,000	\$ 35,400	\$ 51,000	\$ 121,400			
Level 1	Level 2	Level 3	Assessment							
Major Group Elements	Group Elements	Individual Elements	Building Component	Condition	Comments		Recommended Action		Priority Ranking	Probable Cost
A Substructure	A10 Foundation	A1010.1 Standard Foundations	Concrete foundation wall.	Poor	Efflorescence and water staining at the base of the wall.		A1010.1 Hazardous Materials Assessment. See A1010 at buildings 2, B1020 at building 4A.		4B	\$ 10,000
						A1010.2 Add perimeter drainage and extend RWL.		4B	\$ 25,000	
		A1020 Special Foundations	Wood foundation on grade at the exterior washrooms.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
		A1030 Slab on Grade	Concrete slab on grade patio at North-West of the building.	Fair	Minor cracking.		No Recommendation.		N/A	N/A
	A20 Basement Construction	A2020 Basement Walls	See A1010.	Poor	See A1010.				N/A	See A1010.
B Shell	B10 Superstructure	B1010 Floor Construction	Wood deck at the front entrance. Wood framed. Concrete slab in basement.	Good	No comment on condition.		No Recommendation.		N/A	N/A
		B1020 Roof Construction	Pole barn style glulam rafters in gift shop and restaurant. Elsewhere, 2x wood rafters or trusses.	Fair	Truss tails extend beyond edge of the roof and are rotted. Some checking in poles.		Remove deteriorated wood and add flashing. Continue monitoring checked poles for changes.		4D	\$ 8,000
	B20 Exterior Enclosure	B2010 Exterior Walls	Untreated board and batten cladding. Wood framed.	Fair	Cladding very close to grade and covered by landscaping in some areas. Water staining from irrigation. Some boards loose or rotted and some battens missing.		Landscape to provide 4" clearance between cladding and vegetation.		3D	See Landscaping Program.
		B2020 Exterior Windows	Double glazed fixed windows circa 1980.	Fair	1980 windows may need replacement in next ten years.		Carry partial IGU replacement.		2D	\$ 50,000
		B2030 Exterior Doors	Fibreglass doors at kitchen and giftshop, else wood. Wood trims.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
	B30 Roofing	B3010 Roof Coverings	Cedar shake shingles roof with eavestroughs and downspouts and wood fascia.	Poor	Moss below dormer along patio and on east and south facing rooves. Water staining below south-east dormer. Fascia on south side of washroom building deteriorated.		Clean and maintain roof.		N/A	See Roof Maintenance Program.
		B3020 Roof Openings	Box vents.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
C Interiors	C10 Interior Construction	C1010 Partitions	Wood frame partitions.	Good	No comment on condition.		No Recommendation.		N/A	N/A
		C1020 Interior Doors	Wood doors and trims. Style varies.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
		C20 Stairs	C2010 Stair Construction	Wood stairs to second floor (1) and basement (2).	Fair	No comment on condition.		No Recommendation.		N/A
	C30 Interior Finishes	C3010 Wall Finishes	Drywall and plaster.	Good	Plaster cracking in north attic. Staining in kitchen from previous use.		No Recommendation.		N/A	N/A
		C3020 Floor Finishes	Mostly hardwood. Linoleum tile in kitchen and vinyl in bathrooms.	Good	No comment on condition.		No Recommendation.		N/A	N/A
		C3030 Ceiling Finishes	Drywall with textured finish.	Fair	Taped joints failing.		No Recommendation.		N/A	N/A

Visitor Center

D Services	D20 Plumbing	D2010 Plumbing Fixtures	Washrooms with toilets, urinals, sinks. One set indoors and the other outdoors. Kitchen equipment is in good shape but has been abandoned in place, as the restaurant is no longer in use.	Good	Lavatories and water closets are in good condition and seem to have been recently upgraded. The lavatory is only served with cold water. Hot water has not been provided. The existing fixtures should provide good service for the near future.	Consideration should be made to provide hot water to both public washrooms for improved hand washing hygiene.	3D	\$2,500
		D2020 Domestic Water Distribution	Piping system.	Fair	Original piping systems are copper systems. Recent upgrades have used approved plastic piping systems. The insulation is in poor condition or missing in certain locations. Some elbows witnessed look suspiciously to be made with asbestos. The domestic water piping should provide good service for the near future.	D2020.1 Look for pinhole leaks from time to time.	3B	\$100
						D2020.2 Consideration should be made for upgrades to the existing insulation to save energy.	1E	\$500
						D2020.3 The piping system should be assessed by a hazardous materials professional to determine if there is asbestos on these systems.	3B	See A1010.1
		D2030 Sanitary Waste	Sanitary waste systems utilize ABS piping systems where visible. Buried piping and piping within the walls were not reviewed.	Fair	The sanitary drainage piping should provide good service for the near future. However, the system is at an age where blockages could occur.	Should be inspected and cleaned from time to time. Repairs if needed could be completed for the location at hand. There is no need for wholesale piping upgrades in the near future.	3D	\$300
		D2090 Other Plumbing Systems	Domestic hot water has been recently upgraded with a 3 kW Electric Domestic Water Heater.	Fair	The domestic water heater should provide good service for the near future.	Consideration should be made to provide the water heater with a drain pan to catch and direct the water to a drainage system, in the event of a leak in the tank.	2C	\$500
D Services	D30 HVAC	D3010 Energy Supply	The bulk of the facilities that are heated are served through the natural gas meter and pressure regulation systems. These systems are owner and operated by the utility supplier.	Good	Gas piping where visible appears to be in good condition.	No upgrades to the system are anticipated unless significant upgrades to the existing systems is initiated.	N/A	N/A
		D3020 Heat Generating Systems	Three furnaces have been recently upgraded with sealed combustion energy efficient units.	Fair	These gas fired appliances have been installed in a room that is not fire rated.	No upgrades to the system are anticipated in the near future. Consideration should be made to fire rate the room that the furnaces are installed.	2B	\$10,000
		D3030 Cooling Generating Systems	Cooling is provided by a single Lennox ten-ton cooling capacity Condensing Unit. The unit was manufactured in 1999.	Poor	The unit is nearing the end of its service life. The cooling equipment is near the end of its service life, but has effectively been abandoned in place, as the restaurant is no longer in use.	Replace in the near future. Due to the change in refrigerants, the cooling coil on the furnaces will need to be replaced as well.	5D	\$14,000
		D3040 Distribution Systems	Supply duct system.	Fair	The supply duct systems are in good shape considering the age of the system.	At most, an internal inspection of the duct and a duct cleaning every 5 years or so.	3E	\$500
	D40 Fire Protection	D4030 Fire Protection Specialties	Fire extinguishers.	Fair	No comment on condition.	No Recommendation.	N/A	N/A
	D50 Electrical	D5010 Electrical Service & Distribution	400A-3PH BC Hydro service. Wiring consists of AC90 and NMD90 cable.	Fair	Service is adequate for the facility.	Routine maintenance of circuit breakers (maintenance).	2D	N/A
		D5020 Lighting and Branch Wiring	Interior, Exterior, and Emergency lighting.	Poor	Emergency lighting is minimal but has been maintained. Lighting is generally fluorescent in fair condition.	Continue annual checks of EM lighting. Upgrade general lighting to LED as fixtures fail or when funding is available (maintenance).	2D	N/A
		D5030 Communications & Security	Security alarm & fire alarm.	Fair	Minimal fire detectors installed.	Adding fire alarm devices could improve early detection of fires.	3C	N/A
		D5090 Other Electrical Systems	Branch circuit wiring.	Fair	Wiring is untidy in places but code compliant.	No Recommendation.	1D	N/A
E Equipment & Furnishings	E10 Equipment	E1090 Other Equipment	Kitchen equipment and cooler room.	Fair	Water at base of basement cooler room.	No Recommendation.	N/A	N/A
G Sitework	G20 Site Improvements	G2030 Pedestrian Paving	Pavers around South-East side. 3-ply 2x6 posts at porch.	Poor	Pavers are cracked. One post rotted, not connected to grade.	Support post and add new pedestal.	3D	See B1020.
		G2040 Site Development	4-rail fence surrounding.	Fair	Fence in fair condition.	No Recommendation.	N/A	N/A
		G2050 Landscaping	Garden beds surrounding.	Fair	Vegetation touching cladding.	See B2010.	N/A	See B2010.

Greenhow Museum



Building Info		Notes	Opinion of Probable Cost Summary					Overview Photo	Location	
Building No.	2	History	Where projects have scope occurring at multiple buildings the full project cost has been included in each sheet and has not been split by building. Numbers affected by these "duplicate" costs are in red.  Programs have not been included in OPC Summary. Refer to Program Summary page at beginning of the report.  Where scopes have been summarized into one project in the report OPC, numbers are reported in green.	Level 1 Group	High Priority	Moderate Priority	Low Priority	Total		
Other Names		1893 foundations built. 1941 constructed.		A	\$ 25,000			\$ 25,000		
Greenhow House				B	\$ 25,000			\$ 25,000		
Description				C				\$ -		
Two-storey wood frame building with stone and concrete basement. Cedar shake shingle roof. Wood framed doors and windows. Stucco siding.				D		\$ 19,400	\$ 1,000	\$ 20,400		
				E				\$ -		
				F				\$ -		
				G				\$ -		
				Total	\$ 50,000	\$ 19,400	\$ 1,000	\$ 70,400		
Level 1	Level 2	Level 3	Assessment							
Major Group Elements	Group Elements	Individual Elements	Building Component	Condition	Comments			Recommended Action	Priority Ranking	Probable Cost
A Substructure	A10 Foundation	A1010 Standard Foundations	Concrete foundation wall at front (South) and stone foundation wall at rear (North) elevation.	Fair	Water staining and efflorescence on interior face of foundation wall in the basement stair. Efflorescence starting at the floor and moving upwards.		Hazardous materials assessment. See A1010 at building 1, B1020 at building 4A. Recommendation pending basement treatment and collection storage proposal complete repair program.		4B	\$ 25,000
		A1030 Slab on Grade	Concrete slab on grade in the basement.	Fair	Minor cracking.		See A1010.		N/A	See A1010.
	A20 Basement Construction	A2020 Basement Walls	Vapour barrier installed on the ceilings around artifact storage in basement. Wood lattice over openings in foundation/basement wall.	Fair	Water staining on vapour barrier.		See A1010.		N/A	See A1010.
B Shell	B10 Superstructure	B1010 Floor Construction	Wood front steps. Timber posts in basement. 2x12 wood joists at 16" o/c with cross bracing. Wood stairs to basement and at second floor emergency exit.	Good	All exterior stairs in poor condition.		Replace both exterior stairs.		4B	\$ 25,000
		B1020 Roof Construction	2x6 wood rafters at 16" o/c. 1x10 shiplap. 8x10 beam north-south on three 8x8 columns. 18x12 concrete beam spans 8' over south foundation wall. 18x12 concrete beam on 10'8" opening on east and west walls.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
	B20 Exterior Enclosure	B2010 Exterior Walls	Pea gravel and cement stucco cladding. Walls consist of brick masonry and 2x4 stud wall at 16" o/c. Some horizontal wood, shake shingle, and board and batten.	Fair	Minor cracking and previous patches in stucco. Wood members built into wall at former porch.		No Recommendation. Consider sealing cracks in stucco to limit potential water ingress (maintenance).		N/A	N/A
		B2020 Exterior Windows	Single pane fixed windows first floor and hung windows second floor circa 1996. All wood trim. Some stained-glass in-fill.	Good	No comment on condition.		Repair windows as required.		N/A	See Cladding Maintenance Program.
		B2030 Exterior Doors	Wood doors and trim.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
	B30 Roofing	B3010 Roof Coverings	Asphalt shingle roof with eavestroughs and downspouts and wood fascia.	Fair	Debris build up at roof overhang.		Clean eavestroughs and front roof. Roof replacement.		3C	See Roof Replacement and Maintenance Programs.
		B3020 Roof Openings	Brick chimney.	Fair	Loose bricks at top of chimney.		No Recommendation.		N/A	N/A
C Interiors	C10 Interior Construction	C1010 Partitions	Wood frame partition walls.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
		C1020 Interior Doors	Wood doors and frame excepting plywood doors in basement.	Good	No comment on condition.		No Recommendation.		N/A	N/A
	C20 Stairs	C2010 Stair Construction	Wood stairs to second floor.	Fair	No comment on condition.		Repair where required.		3B	See B1010.
	C30 Interior Finishes	C3010 Wall Finishes	Painted drywall on main and second floors. Unpainted drywall and VB in basement.	Good	No comment on condition.		No Recommendation.		N/A	N/A
		C3020 Floor Finishes	Hardwood.	Good	No comment on condition.		No Recommendation.		N/A	N/A
		C3030 Ceiling Finishes	White painted wood plank.	Fair	No comment on condition.		No Recommendation.		N/A	N/A



Greenhow Museum

D Services	D20 Plumbing	D2010 Plumbing Fixtures	Sink on main floor.	Good	The existing fixtures should provide good service for the near future.	Consideration should be made to provide hot water to both public washrooms for improved hand washing hygiene.	3D	\$2,500
		D2020 Domestic Water Distribution	Original piping systems are copper systems. Recent upgrades have used approved plastic piping systems.	Fair	The insulation is in poor condition or missing in certain locations. Non the less, the operators should look for pinhole leaks from time to time.	D2020.1 Look for pinhole leaks from time to time.	3C	\$100
						D2020.2 Consideration should be made for upgrades to the existing insulation to save energy.	1E	\$500
		D2030 Sanitary Waste	Sanitary waste systems utilize ABS piping systems where visible. Buried piping and piping within the walls were not reviewed.	Good	The sanitary drainage piping should provide good service for the near future.	System is at an age where blockages could occur, so should be inspected and cleaned from time to time. Repairs if needed could be completed for the location at	3D	\$300
		D2090 Other Plumbing Systems	Domestic water heater.	Poor	The Domestic hot water heater is old (approx. 40 years since manufactured) and is need of replacement. The Water heater has not been provided with a drain pan.	D2090.1 The domestic water heater should be replaced soon.	4C	\$5,500
						D2090.2 Consideration should be made to provide the water heater with a drain pan to catch and direct the water to a drainage system, in the event of a leak in the tank.	4C	\$500
	D30 HVAC	D3010 Energy Supply	The facility has a natural gas connection and pressure regulation station.	Fair	Gas piping does not appear to have the appropriate protective coatings.	The owner will want to engage a technician to ensure the systems are configured to code.	2C	\$500
		D3020 Heat Generating Systems	The furnace was upgraded with sealed combustion energy efficient unit about 12 years ago.	Fair	This gas fired appliances have not been installed in a room that is fire rated.	No upgrades to the system are anticipated in the near future. Consideration should be made to build a fire rated room that would house the furnaces and domestic water heater.	2B	\$10,000
		D3030 Cooling Generating Systems	Cooling is provided by a single window mount air conditioning unit.	Fair	No comment on condition.	If the unit fails, replacement units are readily available and relatively inexpensive.	3E	N/A
		D3040 Distribution Systems	Supply duct system.	Fair	The supply duct systems are in good shape considering the age of the system.	At most, an internal inspection of the duct and a duct cleaning every 5 years or so.	3E	\$500
	D40 Fire Protection	D4030 Fire Protection Specialties	Fire extinguishers.	Fair	No comment on condition.	No Recommendation.	N/A	N/A
	D50 Electrical	D5010 Electrical Service & Distribution	100A-single phase BC Hydro service.	Fair	Service is adequate for facility.	Maintain circuit breakers	2D	N/A
		D5020 Lighting and Branch Wiring	Mixture of fluorescent and screw base track lighting.	Fair	Lighting is in fair condition.	Upgrade general lighting to LED as fixtures fail or funding becomes available	2E	N/A
		D5030 Communications & Security	Fire exits & emergency lighting.	Fair	Minimal but acceptable level of emergency lighting and exit signage. No fire alarm system.	Continue annual checks of EM lighting.	2D	N/A
		D5090 Other Electrical Systems	Branch circuit wiring.	Fair	Mainly NMD cable.	No Recommendation.	1D	N/A
G Sitework	G20 Site Improvements	G2050 Landscaping	Garden beds at the front to around sides.	Fair	Good clearance between vegetation and side of building.	No Recommendation.	N/A	N/A

Stagecoach Depot



Building Info			Notes	Opinion of Probable Cost Summary					Overview Photo		Location		
Building No.	3		History	Programs have not been included in OPC Summary. Refer to Program Summary page at beginning of the report. Where scopes have been summarized into one project in the report OPC, numbers are reported in green.	Level 1 Group	High Priority	Moderate Priority	Low Priority	Total				
Other Names			A					\$	-				
Cowboy Showers, Green Room, Stove Museum, Display Barn, Firehall Barn			B					\$	-				
Description			C					\$	-				
Two-storey wood framed building with cedar shake hip roof. Access from two levels and no interior stairs. Concrete foundation wall follows grade. Clad in board and batten with wood windows and doors.			D			\$	9,400	\$	100			\$	9,500
			E					\$	-				
			F					\$	-				
			G					\$	-				
			Total		\$	-	\$	9,400	\$			100	\$
Level 1	Level 2	Level 3	Assessment										
Major Group Elements	Group Elements	Individual Elements	Building Component	Condition	Comments			Recommended Action		Priority Ranking	Probable Cost		
A Substructure	A10 Foundation	A1010 Standard Foundations	Concrete foundation/retaining wall sloped with grade.	Fair	Minor cracking.			Continue monitoring for changes.		N/A	N/A		
		A1030 Slab on Grade	Upper patio is slab on grade.	Fair	Some organic growth and minor cracking.			No Recommendation.		N/A	N/A		
	A20 Basement Construction	A2020 Basement Walls	See A1010.		See A1010.			See A1010.		N/A	See A1010.		
B Shell	B10 Superstructure	B1010 Floor Construction	Concrete slab on grade and wood framed.	Fair	No comment on condition.			No Recommendation.		N/A	N/A		
		B1020 Roof Construction	Hip roof. Wood framed.	Fair	No comment on condition.			No Recommendation.		N/A	N/A		
	B20 Exterior Enclosure	B2010 Exterior Walls	Board and batten cladding with horizontal wood cladding on gable ends.	Fair	Cladding stained at base up to half height.			Repair cladding.		3D	See Cladding Program.		
		B2020 Exterior Windows	Wood frame fixed windows.	Fair	No comment on condition.			No Recommendation.		N/A	N/A		
		B2030 Exterior Doors	Wood barn door at South. Else door and wood frame.	Fair	No comment on condition.			No Recommendation.		N/A	N/A		
	B30 Roofing	B3010 Roof Coverings	Cedar shake shingles roof with eavestroughs and downspouts and wood fascia.	Poor	Shingles curling or missing and organic growth. Facia and soffit have organic growth.	Immediate roof repairs to address leak.		5C	See Roof Replacement and Maintenance Programs.				
						Replace Roof.		4C	See Roof Replacement and Maintenance Programs.				
C Interiors	C10 Interior Construction	C1010 Partitions	Wood framed partitions.	Fair	No comment on condition.			No Recommendation.		N/A	N/A		
	C30 Interior Finishes	C3010 Wall Finishes	Painted drywall.	Fair	No comment on condition.			No Recommendation.		N/A	N/A		
		C3020 Floor Finishes	Mix of plywood and vinyl tile.	Fair	No comment on condition.			No Recommendation.		N/A	N/A		
		C3030 Ceiling Finishes	Mix of painted plywood and acoustic tiles.	Fair	Water staining at Stove Museum ceiling.			See B3010.		N/A	See B3010.		
D Services	D20 Plumbing	D2010 Plumbing Fixtures	Lavatories, Urinal, Shower and water closets	Good	Facilities are new and well appointed. The existing fixtures should provide good service for the near future.			Consideration should be made to provide hot water to both public washrooms for improved hand washing hygiene.		3D	\$ 2,500		
		D2020 Domestic Water Distribution	Original piping systems are copper systems. Recent upgrades have used approved plastic piping systems.	Fair	The insulation is in poor condition or missing in certain locations. The domestic water piping should provide good service for the near future.	D2020.1 Look for pinhole leaks from time to time.		3C	\$ 100				
						D2020.2 Consideration should be made for upgrades to the existing insulation to save energy.		1E	\$ 500				
		D2030 Sanitary Waste	Sanitary waste systems utilize ABS piping systems where visible. Buried piping and piping within the walls were not reviewed.	Fair	The sanitary drainage piping should provide good service for the near future.			Blockages could occur, so should be inspected and cleaned from time to time. Repairs if needed could be completed for the location at hand. There is no need for wholesale piping upgrades in the near future.		3D	\$ 300		
		D2090 Other Plumbing Systems	The Domestic hot water heater was manufactured in 2006.	Poor	The hot water tank is approximately ¾ through the service life. This gas fired appliances has not been installed in a room that is fire rated.	D2090.1 The domestic water heater should be replaced soon.		4C	\$ 5,500				
						D2090.2 Consideration should be made to provide the water heater with a drain pan to catch and direct the water to a drainage system, in the event of a leak in the tank.		4C	\$ 500				

Stagecoach Depot

D Services	D30 HVAC	D3010 Energy Supply	The facility has a natural gas connection and pressure regulation station.	Good	The system should provide good service for the near future.	No Recommendation.	1D	N/A
		D3020 Heat Generating Systems	Most areas are unheated. Occupied areas use baseboard electric heaters.	Good	No comment on condition.	No Recommendation.	N/A	N/A
		D3030 Cooling Generating Systems	Cooling is provided by a single window mount air conditioning unit.	Fair	No comment on condition.	If the unit fails, replacement units are readily available and relatively inexpensive.	3E	N/A
	D40 Fire Protection	D4030 Fire Protection Specialties	Fire extinguisher.	Fair	No comment on condition.	No Recommendation.	N/A	N/A
	D50 Electrical	D5010 Electrical Service & Distribution	Newer 200A single phase BC Hydro service and panel.	Good	Panel in good condition.	Old meter base on west side of building to be removed	5D	\$500
		D5020 Lighting and Branch Wiring	Exterior, interior, and emergency lighting.	Fair	Newer LED lighting in washrooms, fluorescent and screw base track in other areas.	Upgrade general lighting to LED as fixtures fail or funding becomes available	2E	N/A
G Sitework	G20 Site Improvements	G2010 Roads	Dirt road at North elevation.	Fair	Road in fair condition.	No Recommendation.	N/A	N/A
		G2030 Pedestrian Paving	Rock stairs with metal railing on East side. Exterior wood stair and ramp provide access to Stove Museum and Green Room.	Fair	Organic growth on wood ramp and platform. Some water staining at the base of posts.	Clean stairs (maintenance).	N/A	N/A





O'Keefe House

Building Info			Notes	Opinion of Probable Cost Summary					Overview Photo	Location	
Building No.	4A	History	Where projects have scope occurring at multiple buildings the full project cost has been included in each sheet and has not been split by building. Numbers affected by these "duplicate" costs are in red.  Programs have not been included in OPC Summary. Refer to Program Summary page at beginning of the report.  Where scopes have been summarized into one project in the report OPC, numbers are reported in green.	Level 1 Group	High Priority	Moderate Priority	Low Priority	Total			
Other Names		1886 built.		A		\$ 25,000		\$ 25,000			
O'Keefe Mansion		1896 Log House removed, addition added, roofline altered.		B	\$ 5,000	\$ 20,000		\$ 25,000			
Description		1900 single storey addition.		C			\$ 14,000	\$ 14,000			
Two-storey wood building with attic and mixed concrete and stone basement. Stucco cladding over original and wood door and windows with decorative shutters. Covered wood wrap around porch. Cedar shake roof.		1910 central hot water heating and hardwood flooring.		D		\$ 10,000	\$ 2,000	\$ 12,000			
		1989 most recent roof replacement.		E				\$ -			
		1994 stucco reclad.		F				\$ -			
		1997 porch repaired		G		\$ 5,000		\$ 5,000			
				Total	\$ 5,000	\$ 55,000	\$ 16,000	\$ 81,000			
Level 1	Level 2	Level 3	Assessment								
Major Group Elements	Group Elements	Individual Elements	Building Component	Condition	Comments		Recommended Action		Priority Ranking	Probable Cost	
A Substructure	A10 Foundation	A1010 Standard Foundations	Stone foundation wall and clay brick masonry columns. Two 2'x2' concrete pillars. Wood trellis above grade.	Poor	Parging is mostly gone. Brick has freeze/thaw damage. Trellis deteriorated. Stone walls in good condition.		Provide temporary support and repair brick foundation columns. See A1010 at buildings 20 & 34, A1030 at building 11.		3B	\$ 25,000	
	A20 Basement Construction	A2020 Basement Walls	Basement below kitchen and crawlspace below rest of building. See A1010 for construction.	Fair	See A1010.		See A1010.		N/A	N/A	
B Shell	B10 Superstructure	B1010 Floor Construction	Wood framed.	Fair	Floor deflecting in bathroom.		Structural assessment. See B1020 at buildings 11 & 35.		3B	\$ 10,000	
		B1020 Roof Construction	Wood truss with collar ties. Partially finished attic.	Poor	Ceilings deflecting in bathroom and small dining room. Animal droppings in attic.		Hazardous Materials Assessment. See A1010 at buildings 1 & 2. See B1010 for deflection.		3B	\$ 10,000	
	B20 Exterior Enclosure	B2010 Exterior Walls	Stucco over original siding. Wood framed.	Good	No comment on condition.		No Recommendation.		N/A	N/A	
		B2020 Exterior Windows	Fixed wood framed windows.	Fair	Shutters deteriorating. Protective films on windows poorly applied.		Repair and paint shutters. Replace protective films.		3E	See Window and Door Program.	
		B2030 Exterior Doors	Wood doors and trim.	Fair	No comment on condition.		No Recommendation.		N/A	N/A	
	B30 Roofing	B3010 Roof Coverings	Cedar shake shingles roof with eavestroughs and downspouts and wood fascia.	Poor	Normal aging, some organic growth. Eavestroughs leak. Downspouts discharge close to building.		Replace roof.		3C	See Roof Replacement and Maintenance Programs.	
		B3020 Roof Openings	Brick chimneys (2).	Poor	Chimneys spalled at top. South chimney is leaning towards house and is currently supported by ties.		Decommission or support leaning chimney. See B3020 at building 18.		4B	\$ 5,000	
C Interiors	C10 Interior Construction	C1010 Partitions	Wood framed stud walls.	Good	No comment on condition.		No Recommendation.		N/A	N/A	
		C1020 Interior Doors	Wood and wood framed.	Good	No comment on condition.		No Recommendation.		N/A	N/A	
		C1030 Fittings	Wood handrail in second floor hall.	Good	No comment on condition.		No Recommendation.		N/A	N/A	
	C20 Stairs	C2010 Stair Construction	Wood stair with wood handrail (3) between all levels.	Fair	Stair to attic is very steep and handrail is not fully attached.		Reattach handrail (maintenance).		N/A	N/A	
		C2020 Stair Finishes	Carpet finish on stair to second floor. Membrane taped over stair to attic.	Fair	Finish is chipping on second floor handrail.		Paint handrail (maintenance).		N/A	N/A	
	C30 Interior Finishes	C3010 Wall Finishes	Mixture of wallpaper, painted plaster, wainscotting, and tile.	Fair	Cracking in sewing room.		Repair or replace plaster and lath. See C3010 at building 34.		2E	\$ 14,000	
		C3020 Floor Finishes	Mix of hardwood and carpet, and wood plank in attic.	Good	No comment on condition.		No Recommendation.		N/A	N/A	
		C3030 Ceiling Finishes	Plaster and lath.	Poor	Cracking everywhere, water staining in governess room, bathroom, and small dining room.		Repair or replace plaster and lath.		2E	See C3010.	
D Services	D20 Plumbing	D2010 Plumbing Fixtures	The plumbing fixtures for the historic part of the mansion are of course old.	Fair	The existing fixtures should provide good service for the near future.		No Recommendation.		2E	N/A	
		D2020 Domestic Water Distribution	The piping systems in the historic part of the mansion are not in use.	Fair	No comment on condition.		No Recommendation.		N/A	N/A	

O'Keefe House

D Services	D30 HVAC	D3010 Energy Supply	The facility has a natural gas connection and pressure regulation station.	Good	The system should provide good service for the near future.	No Recommendation.	1D	N/A
		D3020 Heat Generating Systems	The hot water heating systems for the historical portion of the building is served by a modern sealed combustion condensing boiler manufactured in 2013. The boiler is approximately ½ through its service life.	Fair	This gas fired appliances have not been installed in a room that is fire rated.	No upgrades to the system are anticipated in the near future. Consideration should be made to build a fire rated room that would house the boiler.	2B	\$10,000
		D3030 Cooling Generating Systems	Cooling is provided by a single Rheem five-ton cooling capacity condensing unit. The unit was manufactured in 2016.	Fair	The unit is 1/3 through its service life and should provide good service for the near future. If the outdoor cooling unit is replaced, the indoor cooling coil will need to be replaced to match the outdoor unit.	No Recommendation.	2D	N/A
		D3040 Distribution Systems	Steel uninsulated piping is used for the hydronic heating systems.	Fair	If the hot water heating systems gets above 140°F, the bare pipe can scald bare skin in seconds. It appears that these systems are well barricaded from the public, to avoid an inadvertent incident. The system should provide good service for the near future.	Care should continue to be made to keep the public from touching the heating piping and terminal units while the systems are hot.	1D	N/A
		D3050 Terminal & Package Units	The heating systems are original and are still in use.	Fair	It is hard to determine the life expectancy of these older system, but they seem to be built to last as there are lots of facilities that utilize them.	Deal with failing systems as they occur.	1C	N/A
	D40 Fire Protection	D4090 Other Fire Protection Systems	Smoke alarm and some heat detectors.	Fair	Some fire alarm heat detectors but no bells or pull stations. Fire alarm panel was not located	Fire alarm system could be upgraded but would provide little additional benefit in the absence of fire sprinklers.	2D	N/A
	D50 Electrical	D5010 Electrical Service & Distribution	200A single phase BC Hydro service. 60A sub panel adjacent.	Fair	Service is adequate.	Maintain circuit breakers.	2D	N/A
		D5020 Lighting and Branch Wiring	Mainly residential style screw base fixtures	Fair	Lighting is in fair condition.	Ensure LED lamps are used.	2D	N/A
		D5030 Communications & Security	Communications in entry of basement.	Fair	Communications wiring in basement is messy	Clean up wiring.	2D	\$1,000
		D5090 Other Electrical Systems	Branch circuit wiring.	Fair	Wiring in basement is messy.	Clean up wiring.	2D	\$1,000
G Sitework	G20 Site Improvements	G2010 Roads	Circular driveway at front.	Fair	Lateral and alligator cracking found throughout. Pot holes developing. Parking line paint has worn off.	Repair potholes and slope surface to drainage.		See Road Maintenance Program.
		G2030 Pedestrian Paving	Wrap around wood front porch with steps.	Fair	Wood is rotting at edges of front porch. Nowhere for water to drain.	Repair porch and add scuppers. See A2020 at building 4B.	3B	\$5,000
		G2050 Landscaping	Garden beds around front porch.	Fair	Vegetation is restricting air flow around the building.	Landscape to provide 4" clearance between cladding and vegetation.	3D	See Landscaping Program.

Caretaker's House



Building Info			Notes	Opinion of Probable Cost Summary					Overview Photo		Location		
Building No.	4B	History	Where projects have scope occurring at multiple buildings the full project cost has been included in each sheet and has not been split by building. Numbers affected by these "duplicate" costs are in red.  Programs have not been included in OPC Summary. Refer to Program Summary page at beginning of the report.  Where scopes have been summarized into one project in the report OPC, numbers are reported in green.	Level 1 Group	High Priority	Moderate Priority	Low Priority	Total					
Other Names		1886 built.		A		\$ 5,000		\$ 5,000					
n/a		1896 Log House removed, addition added, roofline altered.		B				\$ -					
Description		1900 single storey addition.		C				\$ -					
Single-storey addition to the O'Keefe House with concrete basement. Wood framed with stone veneer cladding. Aluminum framed windows and doors. Cedar shake roof.		1910 central hot water heating and hardwood flooring.		D		\$ 17,600		\$ 17,600					
		1989 mosr recent roof replacment.		E				\$ -					
		1994 stucco reclad.		F				\$ -					
		1997 porch repaired		G	\$ 8,000			\$ 8,000					
				Total	\$ -	\$ 22,600	\$ -	\$ 30,600					
Level 1	Level 2	Level 3	Assessment										
Major Group Elements	Group Elements	Individual Elements	Building Component	Condition	Comments		Recommended Action		Priority Ranking	Probable Cost			
A Substructure	A10 Foundation	A1010 Standard Foundations	Concrete masonry units. Two 2'x2' concrete pillars. Wood trellis above grade. Stone pedestal footings.	Poor	Parging is mostly gone. Brick has freeze/thaw damage. Trellis deteriorated. Stone walls in good condition.		See A1010 on O'Keefe House sheet.		3B	N/A			
	A20 Basement Construction	A2020 Basement Walls	CMU basement wall.	Fair	Water damage in corner of CMU wall.		Repair leak through CMU wall and add perimeter drainage. See G2030 at building 4A.		3C	\$ 5,000			
B Shell	B10 Superstructure	B1010 Floor Construction	Concrete slab on grade in basement and approximately 8x8 wood center beam. Wood framed.	Fair	No comment on condition.		No Recommendation.		N/A	N/A			
		B1020 Roof Construction	Built-up beams.	Fair	No comment on condition.		No Recommendation.		N/A	N/A			
	B20 Exterior Enclosure	B2010 Exterior Walls	Stone cladding and wood frame.	Good	No comment on condition.		No Recommendation.		N/A	N/A			
		B2020 Exterior Windows	Fixed and sliding windows. Wood frame.	Fair	Windows are in aged but fair condition.		Repair or replace as required.		N/A	See Window and Door Program.			
		B2030 Exterior Doors	Wood and fiberglass doors. Wood frame. Glass sliding door with aluminum frame to patio.	Fair	Doors are in aged but fair condition.		No Recommendation.		N/A	N/A			
	B30 Roofing	B3010 Roof Coverings	Cedar shake shingles roof with eavestroughs and downspouts and wood fascia.	Poor	Normal aging and organic growth. Eavestroughs leaking.		Replace roof.		2C	See Roof Replacement and Maintenance Programs.			
		B3020 Roof Openings	Box vents.	Fair	No comment on condition.		No Recommendation.		N/A	N/A			
C Interiors	C10 Interior Construction	C1010 Partitions	Wood stud walls.	Good	No comment on condition.		No Recommendation.		N/A	N/A			
		C1020 Interior Doors	Wood doors and frames.	Good	No comment on condition.		No Recommendation.		N/A	N/A			
		C1030 Fittings	Wrought-iron guardrail at basement stairs.	Good	No comment on condition.		No Recommendation.		N/A	N/A			
	C20 Stairs	C2010 Stair Construction	Wood stairs with no handrail.	Fair	No comment on condition.		No Recommendation.		N/A	N/A			
	C30 Interior Finishes	C3010 Wall Finishes	Mix of tile and painted drywall.	Fair	No comment on condition.		No Recommendation.		N/A	N/A			
		C3020 Floor Finishes	Mix of tile and hardwood.	Good	No comment on condition.		No Recommendation.		N/A	N/A			
		C3030 Ceiling Finishes	Drywall with textured finish.	Fair	No comment on condition.		No Recommendation.		N/A	N/A			
D Services	D20 Plumbing	D2010 Plumbing Fixtures	Lavatories, Urinal, Shower and water closets for the residence appear to be recently installed.	Fair	The existing fixtures should provide good service for the near future.		No Recommendation.		2E	N/A			
		D2020 Domestic Water Distribution	The residence appears to have relatively recent upgrades have used approved plastic piping systems. Sanitary waste systems utilize ABS piping systems where visible. Buried piping and piping within the walls were not reviewed.	Fair	The domestic water piping should provide good service for the near future. The sanitary drainage piping should provide good service for the near future.	D2020.1 The operators should look for pinhole leaks from time to time.		3C	\$ 100				
						D2020.2 Consideration should be made for upgrades to the existing insulation to save energy.		1E	\$ 500				

Caretaker's House



D Services	D20 Plumbing	D2090 Other Plumbing Systems	The Domestic hot water heater was installed in 2008. The hot water tank is approximately ¾ through the service life.	Fair	This gas fired appliances has not been installed in a room that is fire rated. The Water heater has not been provided with a drain pan.	D2090.1 The domestic water heater should be replaced relatively soon.	4C	\$5,500
						D2090.2 Consideration should be made to build a fire rated room that would house the domestic water heater.	2B	\$10,000
						D2090.3 Consideration should be made to provide the water heater with a drain pan to catch and direct the water to a drainage system, in the event of a leak in the tank.	4C	\$500
	D30 HVAC	D3010 Energy Supply	The facility has a natural gas connection and pressure regulation station.	Good	The system should provide good service for the near future.	No Recommendation.	1D	N/A
		D3030 Cooling Generating Systems	Cooling is provided by a single Rheem five-ton cooling capacity condensing unit. The unit was manufactured in 2016.	Fair	The unit is 1/3 through its service life and should provide good service for the near future. If the outdoor cooling unit is replaced, the indoor cooling coil will need to be replaced to match the outdoor unit.	No Recommendation.	2D	N/A
		D3040 Distribution Systems	Cooling distribution systems	Fair	The fan and cooling coil are in fair shape considering the age of the system. The condensate is intentionally plugged and is showing signs of degradation and rust.	Consideration should be made to provide a condensate pump.	3D	\$1,500
	D40 Fire Protection	D4090 Other Fire Protection Systems	Smoke alarm	Fair	Smoke alarm condition is fair.	Smoke alarms should be added to all bedrooms and outside bedrooms.	1B	N/A
	D50 Electrical	D5010 Electrical Service & Distribution	Electrical panel	Fair	Located in main house. See O'Keefe House sheet.	No Recommendation.	2D	N/A
		D5020 Lighting and Branch Wiring	Mainly screw base style residential fixtures	Fair	Lighting is in fair condition.	Ensure LED lamps are used.	2D	N/A
		D5030 Communications & Security	Communications entry in basement of main house.	Fair	Communications wiring in basement is messy.	Clean up wiring.	2D	N/A
		D5090 Other Electrical Systems	Branch circuit wiring. Electrical heaters.	Fair	Wiring in basement is messy.	Clean up wiring, ensure electric heaters are not blocked by clothing, furniture etc.	5D	N/A
G Sitework	G20 Site Improvements	G2010 Roads	Dirt road and driveway at rear.	Fair	Driveway is in fair condition.	No recommendation.	N/A	N/A
		G2030 Pedestrian Paving	Paved patio	Fair	Patio is in fair condition.	No recommendation.	N/A	N/A
		G2040 Site Development	Wood retaining wall with ties at back of house.	Poor	Wall is heaving our at base near driveway.	Geotechnical Report.	4B	\$8,000





Pavilion

Building Info			Notes	Opinion of Probable Cost Summary					Overview Photo	Location
Building No.	5	History	Programs have not been included in OPC Summary. Refer to Program Summary page at beginning of the report.	Level 1 Group	High Priority	Moderate Priority	Low Priority	Total		
Other Names		Construction date unknwn.		A				\$ -		
n/a				B				\$ -		
Description				C				\$ -		
Wood post and beam structure with engineered trusses and asphalt shingle roof. Wood half wall at some locations around the perimeter. Houses stage and picnic tables. Concrete slab-on-grade floor.				D				\$ -		
				E				\$ -		
				F				\$ -		
				G				\$ -		
				Total	\$ -	\$ -	\$ -			
Level 1	Level 2	Level 3	Assessment							
Major Group Elements	Group Elements	Individual Elements	Building Component	Condition	Comments	Recommended Action		Priority Ranking	Probable Cost	
A Substructure	A10 Foundation	A1020 Special Foundations	Pressure-treated buried posts. Embedded plate steel saddle connection for posts near stage.	Fair	Water staining at base of buried posts.	No Recommendation.		N/A	N/A	
B Shell	B10 Superstructure	B1010 Floor Construction	Concrete slab on grade.	Good	Concrete slab in good condition.	No Recommendation.		N/A	N/A	
		B1020 Roof Construction	Post and beam construction. Engineered trusses at 4' o/c. Plywood sheathing.	Fair	Water staining on soffit.	Add eavestroughs and downspouts.		4D	See Roof Maintenance Program.	
	B20 Exterior Enclosure	B2010 Exterior Walls	Wood plank half walls with mesh upper half. Hardie panels behind stage. Wood plank on gable end.	Good	Posts and wood members stained at east side.	No Recommendation.		N/A	N/A	
	B30 Roofing	B3010 Roof Coverings	Asphalt shingle.	Good	Fascia in good condition. No rainwater management.	No Recommendation.		N/A	N/A	
D Services	D40 Fire Protection	D4030 Fire Protection Specialties	Fire extinguisher.	Fair	No comment on condition.	No Recommendation.				
	D50 Electrical	D5010 Electrical Service & Distribution	100A single phase service sub-fed from adjacent building.	Fair	Service appears adequate.	Maintain circuit breakers (maintenance).		2D	N/A	
		D5020 Lighting and Branch Wiring	Screw base residential fixtures and string lights.	Fair	Lighting is suitable for location as long as no water spraying is done.	Ensure led lamps are utilized. Weatherproof fixtures should be considered as an upgrade. Maintain emergency lighting packs (maintenance).		2D	N/A	
		D5090 Other Electrical Systems	Receptacles for event power.	Good	Receptacles are in good condition.	Maintain devices as required (maintenance).		2D	N/A	



Gazebo

Building Info			Notes	Opinion of Probable Cost Summary					Overview Photo	Location
Building No.	6	History	Programs have not been included in OPC Summary. Refer to Program Summary page at beginning of the report.	Level 1 Group	High Priority	Moderate Priority	Low Priority	Total		
Other Names		1986 constructed.		A				\$ -		
n/a		1987 relocated to present location.		B				\$ -		
Description		2008 reconstructed.		C				\$ -		
White painted wood post and beam construction with asphalt shingle roof.				D				\$ -		
				E				\$ -		
				F				\$ -		
				G				\$ -		
				Total	\$ -	\$ -	\$ -			
Level 1	Level 2	Level 3	Assessment							
Major Group Elements	Group Elements	Individual Elements	Building Component	Condition	Comments	Recommended Action	Priority Ranking	Probable Cost		
A Substructure	A10 Foundation	A1020 Special Foundations	Wood sleeper foundations and decorative wood lattice.	Fair	Foundation is in fair condition.	No Recommendation.	N/A	N/A		
B Shell	B10 Superstructure	B1010 Floor Construction	Wood framed.	Fair	No comment on condition.	No Recommendation.	N/A	N/A		
		B1020 Roof Construction	White painted post and beam with wood rafters and wood plank sheathing.	Fair	3 posts with checking and 1 beam with cracking.	Repair posts (maintenance). Continue to monitor for changes.	N/A	N/A		
	B30 Roofing	B3010 Roof Coverings	Asphalt shingle roof and wood fascia.	Good	Fascia deteriorated at cupola.	Repair and paint fascia (maintenance).	3D	See Roof Maintenance Program.		
C Interiors	C10 Interior Construction	C1030 Fittings	White painted wood guardrail.	Good	No comment on condition.	No Recommendation.	N/A	N/A		
	C30 Interior Finishes	C3020 Floor Finishes	Grey painted plywood.	Fair	Paint peeling on floor.	Paint steps and floor (maintenance).	N/A	N/A		
D Services	D50 Electrical	D5010 Electrical Service & Distribution	Circuit sub-fed from Pavilion.		No comment on condition.	No Recommendation.	N/A	N/A		
		D5020 Lighting and Branch Wiring	Screw base floodlight lamp holders.		No comment on condition.	Ensure led lamps are utilized. Replace missing lamps (maintenance).	5D	N/A		
G Sitework	G20 Site Improvements	G2050 Landscaping	Landscaping around base.	Fair	Vegetation may deteriorate lattice in future.	Continue monitoring for changes and remove vegetation as required.	N/A	N/A		

Pioneer Cabin



Building Info		Notes		Opinion of Probable Cost Summary					Overview Photo	Location
Building No.	7	History	Programs have not been included in OPC Summary. Refer to Program Summary page at beginning of the report.	Level 1 Group	High Priority	Moderate Priority	Low Priority	Total		
Other Names		Pre-1900 constructed.		A				\$ -		
Chicken Coop, Chicken House		1989 re-shingled roof, replace bottom logs.		B				\$ -		
Description		1992 lifted onto new concrete slab.		C				\$ -		
13' x 13' log cabin with painted white interior. Wood framed cedar shake shingle roof. Board and batten cladding.				D				\$ -		
				E				\$ -		
				F				\$ -		
				G				\$ -		
				Total	\$ -	\$ -	\$ -			
Level 1	Level 2	Level 3	Assessment							
Major Group Elements	Group Elements	Individual Elements	Building Component	Condition	Comments		Recommended Action		Priority Ranking	Probable Cost
A Substructure	A10 Foundation	A1030 Slab on Grade	Standard slab on grade circa 1992.	Good	Concrete slab in generally good condition.		No recommendation.		N/A	N/A
B Shell	B10 Superstructure	B1010 Floor Construction	See A1030.	Good	See A1030.		No Recommendation.		N/A	N/A
		B1020 Roof Construction	Wood rafters.	Fair	Roof structure was not accessible for review.		No Recommendation.		N/A	N/A
	B20 Exterior Enclosure	B2010 Exterior Walls	Split log w/ chinking and V-notched corners. Board and batten cladding.	Poor	Cladding touching grade and failing on south walls. Chinking failing.		Repair or replace cladding.		4C	See Cladding Program.
		B2020 Exterior Windows	Single pane fixed windows with wood trim.	Fair	One window boarded over and one with mesh covering.		No Recommendation.		N/A	N/A
		B2030 Exterior Doors	Wood doors and trim.	Fair	Doors aged but functional.		No Recommendation.		N/A	N/A
	B30 Roofing	B3010 Roof Coverings	Cedar shake shingles roof with eavestroughs and downspouts and wood fascia.	Poor	Roof in fair to poor condition with organic growth. Fascia in varying condition.		Clear debris from roof and cut back overhanging tree. Replace roof.		3C	See Roof Replacement and Maintenance Programs.
		B3020 Roof Openings	Reports of a square hole for smoke ventilation.	Fair	Square hole not visible at the time of the review. No comment on condition.		No Recommendation.		N/A	N/A
C Interiors	C30 Interior Finishes	C3010 Wall Finishes	White paint.	Poor	Paint is chipping and peeling.		Repaint (maintenance).		N/A	N/A
		C3030 Ceiling Finishes	White painted 1x4 tongue and groove.	Fair	No comment on condition.		Repaint (maintenance).		N/A	N/A
G Sitework	G20 Site Improvements	G2040 Site Development	3-rail fence with wire mesh.	Good	Fence is in good condition.		Repair or replace as required.		N/A	See Fence Program.
		G2050 Landscaping	Grass and animal pens surrounding.		No comment on condition.		No Recommendation.		N/A	N/A

Cowboy Bunkhouse



Building Info			Notes	Opinion of Probable Cost Summary					Overview Photo	Location
Building No.	8	History	Programs have not been included in OPC Summary. Refer to Program Summary page at beginning of the report.	Level 1 Group	High Priority	Moderate Priority	Low Priority	Total		
Other Names		1941 constructed. 1980s modified.		A				\$ -		
Ford House				B				\$ -		
Description				C				\$ -		
Wood framed single-storey structure with wood siding. Concrete foundation wall. Cedar shake roof. Wood awning at West elevation. Wood framed windows and doors.				D				\$ -		
				E				\$ -		
				F				\$ -		
				G				\$ -		
				Total	\$ -	\$ -	\$ -			
Level 1	Level 2	Level 3	Assessment							
Major Group Elements	Group Elements	Individual Elements	Building Component	Condition	Comments		Recommended Action		Priority Ranking	Probable Cost
A Substructure	A10 Foundation	A1010 Standard Foundations	Stone and concrete foundation with openings for air circulation.	Poor	Spalling.		Continue monitoring for changes.		N/A	N/A
B Shell	B10 Superstructure	B1010 Floor Construction	Wood rafters.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
		B1020 Roof Construction	2x4 wood joists at 24" o/c with 1x8 strapping.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
	B20 Exterior Enclosure	B2010 Exterior Walls	Wood horizontal cladding. 2x4 wood framing at 16" o/c.	Poor	Previous temporary patches with mesh and some rotted boards.		Upgrade patches to metal or repair cladding.		3E	See Cladding Program.
		B2020 Exterior Windows	Mix of hung and fixed windows. Wood frame.	Poor	Poor seals and aged trim.		Repair and paint.		4D	See Window and Door Program.
		B2030 Exterior Doors	Painted wood doors and wood trim. Some glass panes.	Poor	Some organic growth on trims and paint peeling.		Repair and paint.		4D	See Window and Door Program.
	B30 Roofing	B3010 Roof Coverings	Cedar shake shingles roof with eavestroughs and downspouts and wood fascia.	Poor	Organic growth.		Replace roof.		4C	See Roof Replacement and Maintenance Programs.
		B3020 Roof Openings	Brick chimney and metal exhaust ventilation.	Fair	New metal flashing on chimney. Some efflorescence.		No Recommendation.		N/A	N/A
C Interiors	C10 Interior Construction	C1010 Partitions	Wood framed.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
		C1020 Interior Doors	Wood door and frame	Fair	No comment on condition.		No Recommendation.		N/A	N/A
	C30 Interior Finishes	C3010 Wall Finishes	Mix of rough cedar planks and drywall.	Good	No comment on condition.		No Recommendation.		N/A	N/A
		C3020 Floor Finishes	Wood plank.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
		C3030 Ceiling Finishes	1" wood planks of random width covered by drywall.	Good	No comment on condition.		No Recommendation.		N/A	N/A
D Services	D40 Fire Protection	D4030 Fire Protection Specialties	Fire extinguisher.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
G Sitework	G20 Site Improvements	G2030 Pedestrian Paving	Wood ramp to north-east door and wood steps with awning to south-east door.	Fair	Awning leaning North.		No Recommendation.		N/A	N/A
		G2040 Site Development	Horse tie-up.	Good	No comment on condition.		No Recommendation.		N/A	N/A
		G2050 Landscaping	Flower beds at south-east entrance.	Good	No comment on condition.		No Recommendation.		N/A	N/A



Bird Pens

Building Info			Notes	Opinion of Probable Cost Summary					Overview Photo	Location
Building No.	9	History	n/a	Level 1 Group	High Priority	Moderate Priority	Low Priority	Total		
Other Names		Construction date unknown		A				\$ -		
n/a				B				\$ -		
Description				C				\$ -		
Embedded wood post structure and chicken wire fence with tin roof.				D				\$ -		
				E				\$ -		
				F				\$ -		
				G				\$ -		
				Total	\$ -	\$ -	\$ -			
Level 1 Major Group Elements	Level 2 Group Elements	Level 3 Individual Elements	Assessment							
			Building Component	Condition	Comments		Recommended Action		Priority Ranking	Probable Cost
A Substructure	A10 Foundation	A1020 Special Foundations	Buried wood posts.	Good	Posts at high risk for rot. Water staining at base.		No Recommendation.		N/A	N/A
B Shell	B10 Superstructure	B1010 Floor Construction	Soil.		No comment on condition.		No Recommendation.		N/A	N/A
		B1020 Roof Construction	2x6 rafters. Post and beam construction.	Good	No comment on condition.		No Recommendation.		N/A	N/A
	B20 Exterior Enclosure	B2010 Exterior Walls	Wire mesh over wood frame and wood plank half wall at south.	Good	No comment on condition.		No Recommendation.		N/A	N/A
		B2030 Exterior Doors	Wood frame and wire mesh.	Good	No comment on condition.		No Recommendation.		N/A	N/A
G Sitework	B30 Roofing	B3010 Roof Coverings	Sheet metal roof.	Good	Overhang is appropriate.		No Recommendation.		N/A	N/A
	G20 Site Improvements	G2040 Site Development	5-rail fence surrounding.	Good	No comment on condition.		No Recommendation.		N/A	N/A
		G2050 Landscaping	Grass and animal pens surrounding.		No comment on condition.		No Recommendation.		N/A	N/A

Windmill #1



Building Info			Notes	Opinion of Probable Cost Summary					Overview Photo	Location
Building No.	10	History	n/a	Level 1 Group	High Priority	Moderate Priority	Low Priority	Total		
Other Names		1896 constructed.		A				\$ -		
n/a				B				\$ -		
Description				C				\$ -		
Galvanized metal frame wind mill installed on a wood platform. Appears to be connected to a decommissioned well.				D				\$ -		
				E				\$ -		
				F				\$ -		
				G				\$ -		
				Total	\$ -	\$ -	\$ -			
Level 1	Level 2	Level 3	Assessment							
Major Group Elements	Group Elements	Individual Elements	Building Component	Condition	Comments		Recommended Action		Priority Ranking	Probable Cost
A Substructure	A10 Foundation	A1020 Special Foundations	Wood platform sleeper.	Fair	Wood is in direct contact with soil.		Monitor and repair foundations as required.		N/A	N/A
B Shell	B20 Exterior Enclosure	B2010 Exterior Walls	Galvanized steel frame with bolted connections.	Good	Connections show minor sings of corrosion.		No Recommendation.		N/A	N/A

Historic O'Keefe Ranch



KEL.136116.0002

January 10, 2024



Log Barn

Building Info			Notes	Opinion of Probable Cost Summary					Overview Photo	Location
Building No.	11	History	Where projects have scope occurring at multiple buildings the full project cost has been included in each sheet and has not been split by building. Numbers affected by these "duplicate" costs are in red.  Programs have not been included in OPC Summary. Refer to Program Summary page at beginning of the report.	Level 1 Group	High Priority	Moderate Priority	Low Priority	Total		
Other Names		1890 constructed circa. 1989 rebuilt.		A		\$ 25,000		\$ 25,000		
n/a				B		\$ 10,000		\$ 10,000		
Notes				C				\$ -		
Log cabin with attic accessed from exterior. Stone pedestal foundation. Lean-tos on either side for livestock or storage. Wood framed cedar shake roof. Loft used for hay storage.				D				\$ -		
		E					\$ -			
		F					\$ -			
		G					\$ -			
				Total	\$ -	\$ 35,000	\$ -	\$ 35,000		
Level 1	Level 2	Level 3	Assessment							
Major Group Elements	Group Elements	Individual Elements	Building Component	Condition	Comments		Recommended Action		Priority Ranking	Probable Cost
A Substructure	A10 Foundation	A1020 Special Foundations	Stone pedestals and grade beams. Buried post for West elevation lean-to.	Good	Foundations are in good condition.		No Recommendation.		N/A	N/A
		A1030 Slab on Grade	Concrete slab on grade for East elevation lean-to.	Fair	No fill under the slab at South end.		Add fill to support slab. See A1010 at buildings 4A, 20 & 34.		3D	\$ 25,000
B Shell	B10 Superstructure	B1010 Floor Construction	2x8 wood stringers on center beam.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
		B1020 Roof Construction	Rough cut 2x4 trusses w collar ties and 1"x6" strapping. Approximately 8-10 inch diameter pole beams. Some 2x4 posts. Lean-tos are post and beam construction. West elevation lean-to has diagonal bracing.	Fair	Water staining on underside of wood plank sheathing. Floor in hay loft deflects under human load.	B1020. 1 Roof replacement.		3C	See Roof Replacement and Maintenance Program.	
						B1020.2 Structural assessment of hay loft. See B1010 at building 4A, B1020 at building 35.		3C	\$ 10,000	
	B20 Exterior Enclosure	B2010 Exterior Walls	Broad axed log with chinking. Vertical and horizontal 1" wood planks on gable ends. Mesh on east lean-to.	Fair	Some planks are loose. Chinking is dry and cracking.		Replace loose boards and repair chinking.		2D	See Cladding Program.
		B2020 Exterior Windows	Wood fame with wire mesh.	Good	No comment on condition.		No Recommendation.		N/A	N/A
		B2030 Exterior Doors	Wood doors and frames. Barn door at South elevation.	Good	No comment on condition.		No Recommendation.		N/A	N/A
	B30 Roofing	B3010 Roof Coverings	Cedar shake shingles roof with eavestroughs, downspouts and wood fascia.	Poor	Cedar shake roof is aged and has organic growth and some broken shingles. Corrugated metal roofs have localized surface corrosion.		See B2010.		N/A	N/A
C Interiors	C10 Interior Construction	C1010 Partitions	Wood frame and wire mesh.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
	C30 Interior Finishes	C3020 Floor Finishes	Shiplap floors.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
		C3030 Ceiling Finishes	1" planking.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
D Services	D50 Electrical	D5010 Electrical Service & Distribution	60A single phase panel sub-fed underground from another building	Fair	Service is adequate.		Maintain circuit breakers (maintenance).		2D	N/A
		D5020 Lighting and Branch Wiring	Lighting is generally screw based lamp holders. Wiring is NMWU cable.	Fair	A lot of extension cords have been used in a semi-permanent style.		Ensure LED lamps are utilized. Replace extension cords with permanent wiring where required (maintenance).		2D	N/A
G Sitework	G20 Site Improvements	G2040 Site Development	Concrete retaining wall at North.	Fair	Wood portion of retaining wall heaving out at top.		Continue to monitor for changes.		N/A	N/A
		G2050 Landscaping	Animal pens surrounding.	Fair	No comment on condition.		No Recommendation.		N/A	N/A

Hay Shed



Building Info		Notes	Opinion of Probable Cost Summary					Overview Photo	Location	
Building No.	12	History	Programs have not been included in OPC Summary. Refer to Program Summary page at beginning of the report.	Level 1 Group	High Priority	Moderate Priority	Low Priority	Total		
Other Names		Construction date unknown.		A				\$ -		
				B	\$ 25,000			\$ 25,000		
				C				\$ -		
Description				D				\$ -		
Concrete structure with tin roof. Used for hay storage.				E				\$ -		
				F				\$ -		
				G				\$ -		
				Total	\$ 25,000	\$ -	\$ -	\$ 25,000		
Level 1	Level 2	Level 3	Assessment							
Major Group Elements	Group Elements	Individual Elements	Building Component	Condition	Comments		Recommended Action		Priority Ranking	Probable Cost
A Substructure	A10 Foundation	A1010 Standard Foundations	Concrete foundation and wall with concrete buttresses.	Fair	Condition was not visible.		Refer to B2010		3A	
B Shell	B10 Superstructure	B1010 Floor Construction	Soil		No comment on condition.		No Recommendation.		N/A	N/A
		B1020 Roof Construction	Stick built trusses with collar ties.	Good	No comment on condition.		No Recommendation.		N/A	N/A
	B20 Exterior Enclosure	B2010 Exterior Walls	Reinforced buttressed concrete. Tire retaining wall at North.	Poor	Spalled concrete due to freeze/thaw at front and sides. Concrete buttresses spalled. Exposed rebar at buttresses with surface corrosion.		Structural review and concrete repair or decommission.		3A	\$ 25,000
	B30 Roofing	B3010 Roof Coverings	Sheet metal roof.	Fair	Minor surface corrosion.		Roof replacement.		1C	See Roof Replacement and Maintenance Programs.
G Sitework	G20 Site Improvements	G2040 Site Development	3-rail wood fence surrounding with metal gate.	Good	Fence and gate are in generally good condition.		No Recommendation.		N/A	N/A
		G2050 Landscaping	Built into hill. Grade sloped along East and West walls.		No comment on condition.		No Recommendation.		N/A	N/A

Ye Ol' Feed Shed

Building Info			Notes	Opinion of Probable Cost Summary					Overview Photo	Location
Building No.	13	History	Programs have not been included in OPC Summary. Refer to Program Summary page at beginning of the report.	Level 1 Group	High Priority	Moderate Priority	Low Priority	Total		
Other Names		Construction date unknown.		A				\$ -		
n/a				B				\$ -		
Description				C				\$ -		
Small wood framed storage building on wood sled foundation with cedar shake shingle roof.				D				\$ -		
		E					\$ -			
		F					\$ -			
		G					\$ -			
		Total		\$ -	\$ -	\$ -				
Level 1	Level 2	Level 3	Assessment							
Major Group Elements	Group Elements	Individual Elements	Building Component	Condition	Comments		Recommended Action		Priority Ranking	Probable Cost
A Substructure	A10 Foundation	A1020 Special Foundations	Wood skid foundation.	Fair	Foundation is in generally good condition.		No Recommendation.		N/A	N/A
B Shell	B10 Superstructure	B1010 Floor Construction	Wood frame.	Fair	No access to review.		No Recommendation.		N/A	N/A
		B1020 Roof Construction	Wood frame. With 2x4 trusses.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
	B20 Exterior Enclosure	B2010 Exterior Walls	Wood frame. Vertical wood plank cladding.	Poor	Some boards are loose or broken at the base.		Replace the loose or broken boards.		3E	See Cladding Program.
		B2020 Exterior Windows	Wood frame with no glass. Sliding wood shutter.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
		B2030 Exterior Doors	Wood door and trim.	Poor	Wood is splitting, some ad hoc repairs.		Restain and replace door.		2E	See Window and Door Program.
	B30 Roofing	B3010 Roof Coverings	Cedar shake shingle roof with wood fascia.	Fair	Debris from tree. Fascia deteriorated from woodpeckers and rot. Has been previously replaced.		Remove debris and replace fascia.		1C	See Roof Maintenance Program.
G Sitework	G20 Site Improvements	G2040 Site Development	Decommissioned light pole adjacent.		No comment on condition.		No Recommendation.		N/A	N/A
		G2050 Landscaping	Tree adjacent.		Debris on roof from tree.		Clear debris.		N/A	See Roof Maintenance Program.





Meat and Dairy Building

Building Info			Notes	Opinion of Probable Cost Summary					Overview Photo	Location
Building No.	14	History	Programs have not been included in OPC Summary. Refer to Program Summary page at beginning of the report. Where scopes have been summarized into one project in the report OPC, numbers are reported in green.	Level 1 Group	High Priority	Moderate Priority	Low Priority	Total		
Other Names		1890 constructed.		A	\$ 20,000			\$ 20,000		
n/a		1920s addition.		B	\$ 7,000			\$ 7,000		
Notes		1987 CMU support wall added.		C				\$ -		
Composed of three buildings. From East to West: B1 = Dairy Building, B2 = Meat Addition, B3 = Garage Addition. Mostly wood frame, some CMU and masonry. Some sloped cedar shake roof and some flat roof. Wood windows and doors.		1989 re-roofed.		D			\$ 2,000	\$ 2,000		
		1960s garage added.		E				\$ -		
		F					\$ -			
		G					\$ -			
		Total		\$ 27,000	\$ -	\$ 2,000	\$ 29,000			
Level 1	Level 2	Level 3	Assessment							
Major Group Elements	Group Elements	Individual Elements	Building Component	Condition	Comments		Recommended Action		Priority Ranking	Probable Cost
A Substructure	A10 Foundation	A1010 Standard Foundations	B1: Clay brick foundation wall at South and West and CMU wall at North and East. New CMU wall at West. B2: Stone foundation with no mortar. B3: Slab on grade with footings.	Poor	B1: At the West the clay masonry wall mortar failing: step cracking, spalling, and heaved in. At the South spalled bricks and paint peeling were noted. At the East concrete is missing at rotted floor joist above. Parging has spalling at the East. At the North a portion of the wall is missing.		Support and repair B1 North and East wall and associated areas in B2.		5B	\$ 20,000
B Shell	B10 Superstructure	B1010 Floor Construction	B1: Concrete slab on grade (not original). B2: Wood joists. B3: Concrete slab on grade.	Poor	B2: Wood joists rotted on main floor.		Replace deteriorated joists. See A1010.		5B	See A1010.
		B1020 Roof Construction	B1: 2x8 joists on center beam. New post and beam in the center of the room. B2: Wood frame joists. B3: 1 3/4"x6" joists at 16" o/c span 19'6". New steel post in the center of the room.	Poor	B1: Beam and joists sagging. B2: Joists cut during install of the cooler room are now cantilevered. B3: Deflection at midspan of joists held up by post is causing wave deflection pattern.		B1/B3: Load review and provide additional support. B2: Add blocking to end of cantilevered joists.		4B	\$ 7,000
	B20 Exterior Enclosure	B2010 Exterior Walls	B1: White painted horizontal wood siding. 2x4 wood studs at 2' o/c. B2: Tin cladding on double layer of 1" plank. Wood frame. B3: CMU walls with board and batten cladding.	Fair	North wall mostly buried. B1: Paint chipping. B2: Tin cladding missing at bottom of North wall.		Repair and paint cladding.		3D	See Cladding Program.
		B2020 Exterior Windows	B1: Fixed wood frame windows at South. Openings just below grade at North. B3: Fixed wood frame.	Fair	Paint chipping at trims.		Repair and paint.		3D	See Window and Door Program.
		B2030 Exterior Doors	B1/B2: Wood door. B3: Plywood barn door.	Fair	B1: Door trim deteriorating.		Repair and paint.		3D	See Window and Door Program.
	B30 Roofing	B3010 Roof Coverings	B1/B2: Cedar shake single roof with wood fascia.	Fair	B1/B2: Some loose shingles.		Replace B1/B2 roof.		3C	See Roof Replacement and Maintenance Program.
			B3: Built up roof with one scupper and downspout.	Fair	B3: Organic growth and ponding.		Replace B3 roof and improve drainage.		4C	See Roof Replacement and Maintenance Program.

Meat and Dairy Building



C Interiors	C10 Interior Construction	C1010 Partitions	B2: Wood frame.	Fair	No comment on condition.	No Recommendation.	N/A	N/A
		C1020 Interior Doors	B2: Wood door and trim.	Fair	No comment on condition.	No Recommendation.	N/A	N/A
	C30 Interior Finishes	C3010 Wall Finishes	B1: N/A B2: Wood plank. B3: Plywood at West, else none.	Fair	No comment on condition.	No Recommendation.	N/A	N/A
		C3020 Floor Finishes	B2: Wood plank.	Fair	No comment on condition.	No Recommendation.	N/A	N/A
		C3030 Ceiling Finishes	B1: White painted 1x12 planks. B2: White painted 1x8 tongue and groove. B3: Wood plank.	Fair	No comment on condition.	No Recommendation.	N/A	N/A
D Services	D50 Electrical	D5010 Electrical Service & Distribution	Circuit fed from mansion overhead.	Poor	Disconnect switch is very old.	Replace disconnect switches.	3D	\$ 2,000
		D5020 Lighting and Branch Wiring	Interior lighting.	Fair	Fluorescent and screw base lamp holders.	Ensure LED lamps are utilized. Replace missing lamps (maintenance).	2D	N/A
G Sitework	G20 Site Improvements	G2030 Pedestrian Paving	Concrete pavers along front. Concrete steps to B1 and B2 front entrances. Steel rail and caps at stair to B2.	Fair	Previous patch repairs at pavers. Stairs to B1 significantly eroded.	Repair concrete stairs to B1.	3B	See A1010.
		G2040 Site Development	Decommissioned light pole adjacent.	Fair	No comment on condition.	No Recommendation.	N/A	N/A
		G2050 Landscaping	Tree adjacent.		No comment on condition.	No Recommendation.	N/A	N/A

Chinese Cook's House



Building Info		Notes		Opinion of Probable Cost Summary					Overview Photo	Location
Building No.	15	History	Programs have not been included in OPC Summary. Refer to Program Summary page at beginning of the report.	Level 1 Group	High Priority	Moderate Priority	Low Priority	Total		
Other Names		1910s constructed. Chinese Bunkhouse		A				\$ -		
				B				\$ -		
Description				C				\$ -		
Small wood framed single-storey, single-room building with cedar shake roof and cladding. Wood framed windows and doors. Rock faced concrete foundation.				D				\$ -		
				E				\$ -		
				F				\$ -		
				G				\$ -		
				Total	\$ -	\$ -	\$ -			
Level 1	Level 2	Level 3	Assessment							
Major Group Elements	Group Elements	Individual Elements	Building Component	Condition	Comments	Recommended Action	Priority Ranking	Probable Cost		
A Substructure	A10 Foundation	A1010 Standard Foundations	Rock faced concrete footing.	Fair	Foundation is in fair condition.	No Recommendation.	N/A	N/A		
B Shell	B10 Superstructure	B1010 Floor Construction	Wood frame.	Fair	Floor is overhung of the foundation.	No Recommendation.	N/A	N/A		
		B1020 Roof Construction	2x6 rafters at 2' o/c.	Fair	No comment on condition.	No Recommendation.	N/A	N/A		
	B20 Exterior Enclosure	B2010 Exterior Walls	Wood shake siding painted white on three sides. 2"x2" horizontal strapping.	Poor	Shingles split, curling, and missing.	Repair deteriorated cladding.	4C	See Cladding Programs.		
		B2020 Exterior Windows	Wood frame hung windows.	Poor	No seals. Sills and trim deteriorating.	Repair and paint. Add seals.	4D	See Window and Door Program.		
		B2030 Exterior Doors	Wood door and frame with glass panes.	Poor	Seals and trim deteriorating.	Repair and paint trim.	4D	See Window and Door Program.		
	B30 Roofing	B3010 Roof Coverings	Cedar shake shingle roof with wood fascia.	Poor	Shingles curling. Fascia paint chipping.	Roof replacement and maintenance.	4C	See Roof Replacement and Maintenance Programs.		
C Interiors	C30 Interior Finishes	C3010 Wall Finishes	Painted 1"x3" tongue and groove.	Fair	No comment on condition.	No Recommendation.	N/A	N/A		
		C3020 Floor Finishes	Painted 1"x3" tongue and groove.	Fair	No comment on condition.	No Recommendation.	N/A	N/A		
		C3030 Ceiling Finishes	1"x3" tongue and groove.	Fair	No comment on condition.	No Recommendation.	N/A	N/A		
G Sitework	G20 Site Improvements	G2040 Site Development	Wood stairs with steel stringer and handrail.	Fair	Paint on treads is chipping and surface corrosion on stringer. Nailed into cladding at top of stairs.	Provide support at top of stairs.	3B	See Cladding Program.		





Log House

Building Info		History	Notes	Opinion of Probable Cost Summary					Overview Photo	Location
Building No.	16	History	Where projects have scope occurring at multiple buildings the full project cost has been included in each sheet and has not been split by building. Numbers affected by these "duplicate" costs are in red.  Programs have not been included in OPC Summary. Refer to Program Summary page at beginning of the report.	Level 1 Group	High Priority	Moderate Priority	Low Priority	Total		
Other Names		1875 constructed.		A				\$ -		
Log Cabin, Original O'Keefe House		1898 moved to current location.		B		\$ 5,000		\$ 5,000		
Notes		1965-1967 restored: new concrete footing, replace sashes and doors, fireplace constructed.		C				\$ -		
Two-storey wood framed building with stone foundation and wood siding. Cedar shake shingle roof. Tin-roofed lean-to off kitchen entrance. Wood frame windows and doors.		1978 re-roofed, new stairs.		D				\$ -		
		1989 lean-to re-roofed.		E				\$ -		
				F				\$ -		
				G				\$ -		
				Total	\$ -	\$ 5,000	\$ -	\$ 5,000		
Level 1	Level 2	Level 3	Assessment							
Major Group Elements	Group Elements	Individual Elements	Building Component	Condition	Comments		Recommended Action		Priority Ranking	Probable Cost
A Substructure	A10 Foundation	A1010 Standard Foundations	Stone foundation.	Fair	No signs of distress where visible.		No Recommendation.		N/A	N/A
B Shell	B10 Superstructure	B1010 Floor Construction	Wood joists.	Fair	Stained where buried		Landscape to provide 4" clearance between cladding and vegetation. Monitor for leaking.		3D	See Landscaping Program.
		B1020 Roof Construction	Wood joists.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
	B20 Exterior Enclosure	B2010 Exterior Walls	Split log construction (whip-sawn ponderosa pine). Horizontal wood siding and wood cap on corners.	Poor	Aged cladding with localized metal patches. Corner trim is pulling away in at the south east corner. Water staining at base of cladding.		Repair corner trim. See B1010.		3E	See Cladding Program.
		B2020 Exterior Windows	Hung and fixed wood frame windows. Metal bars over some windows.	Poor	Poor seals. Water staining around dorm windows with new flashing.		Repair and paint trim and replace seals.		5D	See Window and Door Program.
		B2030 Exterior Doors	Wood door and frame. Metal sill at South door.	Fair	No comment on condition.		Repair and paint trim.		4D	See Window and Door Program.
	B30 Roofing	B3010 Roof Coverings	Cedar shake shingle roof with wood fascia.	Poor	Organic growth. Fascia paint is chipping. Water staining below dormer windows.		Paint fascia.		4D	See Roof Replacement and Maintenance Programs.
							Roof replacement.		3C	See Roof Replacement and Maintenance Programs.
		B3020 Roof Openings	One brick chimney and one stone chimney.	Fair	Spalling at top of brick chimney.		Repair chimney. See B3020 at building 34.		2B	\$ 5,000
C Interiors	C10 Interior Construction	C1010 Partitions	Wood frame.	Good	No comment on condition.		No Recommendation.		N/A	N/A
		C1020 Interior Doors	Wood doors and trim.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
	C20 Stairs	C2010 Stair Construction	Wood construction.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
	C30 Interior Finishes	C3010 Wall Finishes	Mix of painted wood plank and wallpaper.	Good	No comment on condition.		No Recommendation.		N/A	N/A
		C3020 Floor Finishes	Mix of wood plank and linoleum.	Poor	Some linoleum peeling or missing.		No Recommendation.		N/A	N/A
		C3030 Ceiling Finishes	Painted wood plank.	Good	No comment on condition.		No Recommendation.		N/A	N/A
D Services	D50 Electrical	D5010 Electrical Service & Distribution	100A single phase service from BC Hydro which also sub-feeds the General Store (2P-30) and Blacksmith (2P-60).	Good	Service is adequate.		Maintain breakers (maintenance).		N/A	N/A
		D5020 Lighting and Branch Wiring	Interior lighting.	Fair	Minimal indoor lighting.		Ensure LED lamps are used (maintenance).		N/A	N/A
G Sitework	G20 Site Improvements	G2030 Pedestrian Paving	Wood boardwalk from Log House to St. Anne's Church. Stone steps with retrofit steel rail. Gravel porch at back entrance.	Fair	Pedestrian paving is in fair condition.		No Recommendation.		N/A	N/A
		G2040 Site Development	Wood frame lean-to at back with sheet metal roof. White painted picket fence to west.	Poor	Roof is a hazard to pedestrians.		Re-detail to remove sharp edges.		5B	See Roof Maintenance Program.
		G2050 Landscaping	Garden beds at East and South. Grade sloped from back to front.	Fair	Vegetation touches cladding.		See B1010.		N/A	See B1010.

General Store



Building Info		Notes		Opinion of Probable Cost Summary					Overview Photo	Location	
Building No.	17	History	Programs have not been included in OPC Summary. Refer to Program Summary page at beginning of the report.	Level 1 Group	High Priority	Moderate Priority	Low Priority	Total			
Other Names		1965 constructed.		A				\$ -			
Candy Store, Okanagon Post Office				B				\$ -			
Description				C				\$ -			
Wood framed single-storey building with board and batten siding, stone foundations, and cedar shake single roof. Exposed wood structure inside. Wood front awning over boardwalk and wood steps.				D				\$ -			
				E				\$ -			
				F				\$ -			
				G				\$ -			
				Total	\$ -	\$ -	\$ -				
Level 1	Level 2	Level 3	Assessment								
Major Group Elements	Group Elements	Individual Elements	Building Component	Condition	Comments		Recommended Action		Priority Ranking	Probable Cost	
A Substructure	A10 Foundation	A1010 Standard Foundations	Stone foundation and grade beam. Concrete slab on grade. Deck post has concrete footing.	Good	Foundation is in generally good condition.		No Recommendation.		N/A	N/A	
B Shell	B10 Superstructure	B1010 Floor Construction	2-ply 3x8 North-South spanning beam. 5 1/4"x5 1/4" beam in center of room.	Good	No comment on condition.		No Recommendation.		N/A	N/A	
		B1020 Roof Construction	2x6 wood rafters at 16" o/c with 1"x6" strapping.	Fair	Water staining on soffit.		Clean and paint soffit. Repair roof leaks.		3D	See Roof Maintenance Program.	
	B20 Exterior Enclosure	B2010 Exterior Walls	Wood frame. 1" board and batten cladding.	Good	Aged siding with water staining at base. Some loose battens.		Landscape to provide 4" clearance between cladding and vegetation. Repair or replace loose battens.		3D	See Landscaping and Cladding Programs.	
		B2020 Exterior Windows	Wood frame fixed windows with metal bars over exterior and some stained glass.	Fair	Trim paint peeling.		Repair and paint trim.		2D	See Window and Door Program.	
		B2030 Exterior Doors	Wood door and trim with glass panes.	Fair	Trim paint peeling.		Repair and paint trim.		2D	See Window and Door Program.	
	B30 Roofing	B3010 Roof Coverings	Cedar shake shingle roof with wood fascia.	Poor	Shingles curling and some organic growth.		Repair and paint fascia.		3D	See Roof Replacement and Maintenance Programs.	
						Roof replacement.		4C	See Roof Replacement and Maintenance Programs.		
		B3020 Roof Openings	New metal chimney.	Fair	No comment on condition.		No Recommendation.		N/A	N/A	
C Interiors	C30 Interior Finishes	C3010 Wall Finishes	Painted wood plank.	Fair	No comment on condition.		No Recommendation.		N/A	N/A	
		C3020 Floor Finishes	1x6 tongue and groove at 16" o/c.	Fair	No comment on condition.		No Recommendation.		N/A	N/A	
		C3030 Ceiling Finishes	Painted wood plank.	Fair	No comment on condition.		No Recommendation.		N/A	N/A	
D Services	D50 Electrical	D5010 Electrical Service & Distribution	30A sub fed from log house underground.	Good	Load centre panel located under counter is adequate.		Maintain circuit breakers (maintenance).		2D	N/A	
		D5020 Lighting and Branch Wiring	Interior lighting.	Fair	Screw base lamp holders and older decorative fixtures.		Ensure LED lamps are utilized (maintenance).		2E	N/A	
G Sitework	G20 Site Improvements	G2030 Pedestrian Paving	Wood boardwalk from Log House to St. Anne's Church. Wood frame front porch with wood steps and guardrail.	Fair	Pedestrian paving is in fair condition.		No Recommendation.		N/A	N/A	
		G2040 Site Development	White painted picket fence on either side.	Fair	Fence is in fair condition.		No Recommendation.		N/A	N/A	
		G2050 Landscaping	Garden beds on three sides.	Fair	Vegetation touches cladding.		See B2010.		N/A	See B2010.	

Blacksmith Shop


Building Info		Notes	Opinion of Probable Cost Summary					Overview Photo	Location	
Building No.	18	History	Where projects have scope occurring at multiple buildings the full project cost has been included in each sheet and has not been split by building. Numbers affected by these "duplicate" costs are in red.  Programs have not been included in OPC Summary. Refer to Program Summary page at beginning of the report.	Level 1 Group	High Priority	Moderate Priority	Low Priority	Total		
Other Names		1965 constructed.		A				\$ -		
n/a				B	\$ 5,000			\$ 5,000		
Description				C				\$ -		
Wood framed single-storey with board and batten siding. Stone foundation and cedar shake shingle roof. Active forges inside. Wood doors.				D	\$ 18,000			\$ 18,000		
				E				\$ -		
				F				\$ -		
				G				\$ -		
				Total	\$ 23,000	\$ -	\$ -			
Level 1	Level 2	Level 3	Assessment							
Major Group Elements	Group Elements	Individual Elements	Building Component	Condition	Comments		Recommended Action		Priority Ranking	Probable Cost
A Substructure	A10 Foundation	A1010 Standard Foundations	Stone foundation wall 10" high by 12" wide with 5" concrete footing and parging on interior.	Good	No comment on condition.		No Recommendation.		N/A	N/A
B Shell	B10 Superstructure	B1010 Floor Construction	Reported 2" concrete slab.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
		B1020 Roof Construction	2x6 rough cut wood rafters. Center beam bearing on column and exterior walls.	Good	No comment on condition.		No Recommendation.		N/A	N/A
	B20 Exterior Enclosure	B2010 Exterior Walls	Board and batten siding with 1x8-12" board and 1x4 battens. 2x4 rough cut wood stud at 16" o/c, cross braced with 2x4 blocking. 2x6 bottom plate and 2x4 top plate.	Poor	Wood pecker holes and water staining at base. Some previous metal patches.		Landscape to provide 4" clearance between cladding and vegetation. Repair woodpecker holes.		3D	See Landscaping and Cladding Program.
		B2020 Exterior Windows	Wood frame with metal mesh covering. One fixed glass panel window.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
		B2030 Exterior Doors	Wood doors and trim. Glass panel in back door.	Fair	Surface corrosion on hardware. Front door is touching vegetation and rotting at base. Back door is in poor condition and has no handle.		See B2010. repair doors as required.		3E	See Window and Door Program.
	B30 Roofing	B3010 Roof Coverings	Cedar shake shingle with wood fascia.	Fair	Lots of organic growth and debris from tree. Some missing shingles.		Roof replacement.		4C	See Roof Replacement and Maintenance Programs.
		B3020 Roof Openings	Metal chimney.	Good	Potential fire hazard with no flashing at base of chimney.		Add flue flashing at base of chimney. See B3020 at building 4A.		4B	\$ 5,000
C Interiors	C30 Interior Finishes	C3010 Wall Finishes	Painted plywood	Good	No comment on condition.		No Recommendation.		N/A	N/A
	D30 HVAC	D3040 Distribution Systems	Forge Venting System	Poor	Except for one system, the forge venting system will need to be replaced.		The systems should be replaced, and appropriate thimbles are needed for the penetrations through the roof.		5C	\$ 18,000
D Services	D40 Fire Protection	D4030 Fire Protection Specialties	Fire extinguisher.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
	D50 Electrical	D5010 Electrical Service & Distribution	60A sub feed underground from Log House.	Good	60A load centre panel is adequate for the current use.		Maintain circuit breakers (maintenance).		2D	N/A
		D5020 Lighting and Branch Wiring	Interior fluorescent lighting.	Fair	Minimal lighting.		Replace lighting with LED as fixtures fail.		2D	N/A
E Equipment & Furnishings	E10 Equipment	E1010 Commercial Equipment	Blacksmithing forges.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
G Sitework	G20 Site Improvements	G2030 Pedestrian Paving	Wood boardwalk from Log House to St. Anne's Church.	Fair	Boardwalk is in fair condition.		No Recommendation.		N/A	N/A
		G2050 Landscaping	Evergreen tree adjacent.	Fair	No comment on condition.		No Recommendation.		N/A	N/A





Red Shed

Building Info		Notes	Opinion of Probable Cost Summary					Overview Photo	Location	
Building No.	19	History	Programs have not been included in OPC Summary. Refer to Program Summary page at beginning of the report.	Level 1 Group	High Priority	Moderate Priority	Low Priority	Total		
Other Names		1870 original construction. 1915 garage addition.		A				\$ -		
Pottery Studio				B				\$ -		
Description				C				\$ -		
Single-storey wood framed building. Original building was 20' x 30' with a 22' x 20' addition. Cedar shingle roof. Concrete foundation wall. Attic with access by ladder from main floor.				D				\$ -		
				E				\$ -		
				F				\$ -		
				G				\$ -		
				Total	\$ -	\$ -	\$ -			
Level 1	Level 2	Level 3	Assessment							
Major Group Elements	Group Elements	Individual Elements	Building Component	Condition	Comments		Recommended Action		Priority Ranking	Probable Cost
A Substructure	A10 Foundation	A1010 Standard Foundations	Concrete foundation wall.	Poor	North-West corner concrete has eroded. Cracked in some locations (pre-existing condition). Deflected outwards at South elevation.		Continue monitoring for changes.		N/A	N/A
	A20 Basement Construction	A2010 Basement Excavation	Vented crawlspace.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
B Shell	B10 Superstructure	B1010 Floor Construction	Addition is concrete slab on grade and grease pit. Original room is wood joist.	Fair	Minor cracking.		Continue monitoring for changes.		N/A	N/A
		B1020 Roof Construction	Wood joists.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
	B20 Exterior Enclosure	B2010 Exterior Walls	Horizontal red wood siding and white painted wood corner caps.	Fair	Some loose planks.		Replace or repair loose planks.		2E	See Cladding Program.
		B2020 Exterior Windows	Wood frame awning windows.	Fair	South windows are insulated over.		No Recommendation.		N/A	N/A
		B2030 Exterior Doors	Wood door and frame.	Fair	Addition door has water staining at base. Back door is insulated over. Barn door has loose boards.		Repair doors.		3D	See Window and Door Program.
	B30 Roofing	B3010 Roof Coverings	Cedar shake shingle roof with eavestroughs and downspouts and wood fascia.	Fair	Some organic growth.		Roof replacement.		1C	See Roof Replacement and Maintenance Programs.
		B3020 Roof Openings	Box vents and two metal chimneys.	Good	No comment on condition.		No Recommendation.		N/A	N/A
C Interiors	C10 Interior Construction	C1010 Partitions	Exterior wall of original room. Wood frame.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
		C1020 Interior Doors	Wood door and trim.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
		C30 Interior Finishes	C3010 Wall Finishes	Wood plank.	Fair	Water staining in Addition South-West corner at top of wall.		Patch planks.		3D
	C3020 Floor Finishes		Plank floor in loft. N/A in addition.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
		C3030 Ceiling Finishes	Plywood in original room. Wood plank in addition.	Fair	Water staining near addition door. Ceiling is deflecting in original room.		Re-fasten ceiling to roof structure (maintenance). Patch repair plywood.		3D	See Cladding Program.
D Services	D50 Electrical	D5010 Electrical Service & Distribution	Overhead BC Hydro service to a load centre panel.	Fair	Service is in fair condition.		Maintain breakers (maintenance).		2D	N/A
		D5020 Lighting and Branch Wiring	Interior lighting.	Fair	Fluorescent and screw base lamp holders.		Replace lighting with LED as existing fixtures fail (maintenance).		2D	N/A
G Sitework	G20 Site Improvements	G2030 Pedestrian Paving	Extended slab patio.	Fair	Minor cracking.		Continue monitoring for changes.		N/A	N/A
		G2040 Site Development	Lamppost and metal gate adjacent.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
		G2050 Landscaping	Vegetation on lattice.	Fair	No comment on condition.		No Recommendation.		N/A	N/A

Carriage Shed

Building Info		History	Notes	Opinion of Probable Cost Summary					Overview Photo		Location
Building No.	20	History	Programs have not been included in OPC Summary. Refer to Program Summary page at beginning of the report. Where scopes have been summarized into one project in the report OPC, numbers are reported in green.	Level 1 Group	High Priority	Moderate Priority	Low Priority	Total			
Other Names		Circa 1890.		A				\$ -			
Quilt Barn, Washrooms, Buggy Shed		1965 renovation.		B				\$ -			
Description		1981 renovation: (add garage doors, close in some doorways and chimney).		C				\$ -			
Single-storey wood frame building with concrete foundation wall and cedar shake shingle roof. Wood framed fibreglass doors. Two individual bathrooms. Red painted wood siding.				D		\$ 5,000		\$ 5,000			
				E				\$ -			
				F				\$ -			
				G				\$ -			
				Total	\$ -	\$ 5,000	\$ -				
Level 1	Level 2	Level 3	Assessment								
Major Group Elements	Group Elements	Individual Elements	Building Component	Condition	Comments		Recommended Action		Priority Ranking	Probable Cost	
A Substructure	A10 Foundation	A1010 Standard Foundations	Concrete foundation wall. Floor joists on rocks or concrete piles.	Fair	Minor cracking. Undermined at South elevation.		Provide soil infill where undermined.		3C	See O'Keefe House A1010.	
	A20 Basement Construction	A2010 Basement Excavation	Vented crawlspace.	Fair	No vent covers.		Install vent covers (maintenance).		N/A	N/A	
B Shell	B10 Superstructure	B1010 Floor Construction	Wood joists.	Fair	No comment on condition.		No Recommendation.		N/A	N/A	
		B1020 Roof Construction	Wood joists.	Fair	No comment on condition.		No Recommendation.		N/A	N/A	
	B20 Exterior Enclosure	B2010 Exterior Walls	Mix of 1x6 vertical wood siding and cedar shake shingles. Wood frame.	Fair	Some loose of broken shingles and woodpecker holes.		Patch or replace damaged shingles.		3E	See Cladding Program.	
		B2030 Exterior Doors	Wood frame fibreglass doors.	Fair	Aged but functional.		No Recommendation.		N/A	N/A	
	B30 Roofing	B3010 Roof Coverings	Cedar shake shingle roof with eavestroughs and downspouts and wood fascia.	Fair	Some organic growth. Eavestroughs are dirty.		Clean eavestroughs.		1C	See Roof Maintenance Program.	
C Interiors	C10 Interior Construction	C1010 Partitions	Wood frame.	Good	No comment on condition.		No Recommendation.		N/A	N/A	
	C30 Interior Finishes	C3010 Wall Finishes	Wood planks.	Fair	No comment on condition.		No Recommendation.		N/A	N/A	
		C3020 Floor Finishes	2x6 tongue and groove.	Good	No comment on condition.		No Recommendation.		N/A	N/A	
		C3030 Ceiling Finishes	Drywall.	Fair	No comment on condition.		No Recommendation.		N/A	N/A	
D Services	D20 Plumbing	D2010 Plumbing Fixtures	Lavatories and water closets appear to be relatively new.	Good	The existing fixtures should provide good service for the near future.		Consideration should be made to provide hot water to both public washrooms for improved hand washing hygiene.		3D	\$ 2,500	
		D2020 Domestic Water Distribution	Original piping systems are not visible.	Fair	The systems are not likely to be very old as the washrooms seem to be a recent renovation to the building.		No Recommendation.		2E	N/A	
		D2030 Sanitary Waste	Sanitary waste systems utilize ABS piping systems where visible. Buried piping and piping within the walls were not reviewed.	Fair	The sanitary drainage piping should provide good service for the near future.		No Recommendation.		2E	N/A	
		D2090 Other Plumbing Systems	Domestic Water Heater	Fair	The electric domestic hot water heater is nearing the end of its service life.		The domestic water heater should be replaced relatively soon.		3D	\$ 2,500	
	D50 Electrical	D5010 Electrical Service & Distribution	Circuits sub fed from adjacent building.	Fair	Service is in fair condition.		No Recommendation.		N/A	N/A	
		D5020 Lighting and Branch Wiring	Interior Lighting	Fair	Fluorescent wraparound and incandescent.		Replace light with LED as fixtures fail or funding becomes available (maintenance).		2D	N/A	
G Sitework	G20 Site Improvements	G2030 Pedestrian Paving	Wood platform outside of washrooms. Extended slab patio.	Fair	Wood platform is wet. Minor cracking in slab.		Replace wood platform at failure. Continue monitoring slab for changes.		N/A	N/A	
		G2040 Site Development	Metal fence with barbed wire.	Fair	Fence is in fair condition.		No Recommendation.		N/A	N/A	

St. Anne's Church



Building Info			Notes	Opinion of Probable Cost Summary					Overview Photo	Location
Building No.	21	History	Programs have not been included in OPC Summary. Refer to Program Summary page at beginning of the report. Where scopes have been summarized into one project in the report OPC, numbers are reported in green.	Level 1 Group	High Priority	Moderate Priority	Low Priority	Total		
Other Names		1889 constructed.		A				\$ -		
St. Ann's Church		1965 interior restored, repainted.		B				\$ -		
Description		1989 sacristy rehabilitation (linseed preservative oil).		C				\$ -		
Wood framed single-storey building with attic above sacristy. Vaulted ceiling in main room. Cedar shake roof with metal shingles on steeple. New white painted wood cladding. Wood doors and windows.		2015-2017 exterior restoration and foundation.		D		\$ 10,000	\$ 13,000	\$ 23,000		
				E				\$ -		
				F				\$ -		
				G				\$ -		
				Total	\$ -	\$ 10,000	\$ 13,000			
Level 1	Level 2	Level 3	Assessment							
Major Group Elements	Group Elements	Individual Elements	Building Component	Condition	Comments		Recommended Action		Priority Ranking	Probable Cost
A Substructure	A10 Foundation	A1010 Standard Foundations	Cast-in-place concrete foundation.	Good	Foundation new in 2006.		No Recommendation.		N/A	N/A
B Shell	B10 Superstructure	B1010 Floor Construction	2x8 joists at 24" o/c on 6x6 beam.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
		B1020 Roof Construction	Attic above back room. 1x10-12" strapping.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
	B20 Exterior Enclosure	B2010 Exterior Walls	Wood horizontal cladding. Wood balloon framing at 24" o/c.	Good	No comment on condition.		No Recommendation.		N/A	N/A
		B2020 Exterior Windows	Exterior glazed single pane swing windows with wood trim. Some stained glass. Hung windows at back.	Poor	Paint chipping on sills. Glass is dirty.		Repair and paint trims.		2D	See Window and Door Program.
		B2030 Exterior Doors	Original wood doors and trim.	Fair	Front door has astragal.		Adjust astragal to clear the door handle.		2B	See Window and Door Program.
	B30 Roofing	B3010 Roof Coverings	Cedar shake shingle roof with eavestroughs and downspouts and wood fascia.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
		B3020 Roof Openings	Metal chimney.	Fair	Chimney leaking.		Review and repair (maintenance).		N/A	N/A
C Interiors	C10 Interior Construction	C1010 Partitions	Wood frame.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
		C1020 Interior Doors	Wood door and frame.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
	C30 Interior Finishes	C3010 Wall Finishes	Generally 1"x2.5" tongue and groove. 1"x3.5" tongue and groove in sacristy.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
		C3020 Floor Finishes	Generally 1"x5" tongue and groove. 1"x5-9" tongue and groove in sacristy.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
		C3030 Ceiling Finishes	1x4 tongue and groove.	Fair	Some water staining in back room.		Assess chimney and repair flashing.		4E	See Roof Maintenance Program.

St. Anne's Church

D Services	D30 HVAC	D3010 Energy Supply	The only building that is heated but not connected to Natural gas is the St Annes Church, that has a dedicated propane tank.	Good	Gas piping where visible appears to be in good condition.	No upgrades to the system are anticipated unless significant upgrades to the existing systems is initiated.	N/A	N/A
		D3020 Heat Generating Systems	Assumed there is a propane fired furnace in the ceiling space above the back entry to the church. Likely the unit is fairly old as the venting is an older style. Wood stove is not in use. Chimney has been reconfigured to serve the furnace mentioned above.	Poor	This gas fired appliances have been installed in a room that is not fire rated.	D3020.1 Update the propane furnace to a sealed combustion condensing furnace considering the cost of propane.	2D	\$ 12,500
						D3020.2 Fire rate the room that the furnaces are installed.	2B	\$ 10,000
		D3040 Distribution Systems	Supply duct system.	Fair	The supply duct systems are in good shape considering the age of the system.	At most, an internal inspection of the duct and a duct cleaning every 5 years or so.	3E	\$ 500
	D50 Electrical	D5010 Electrical Service & Distribution	Circuits sub fed from Blacksmith Shop.	Fair	Two circuits for lighting and receptacles.	No Recommendation.	N/A	N/A
		D5020 Lighting and Branch Wiring	Interior lighting and accent lighting surrounding.	Fair	Single incandescent up light, in ground accent lightings around building.	Some inground lights have been replaced with LED. Upgrade interior lighting to LED when fixture fails or if funding is available (maintenance).	2D	N/A
G Sitework	G20 Site Improvements	G2030 Pedestrian Paving	Wood steps to front door. Wood ramp to back door on concrete pedestals. Wood boardwalk from Log House to St. Anne's Church.	Fair	Wood handrail at ramp is rotting.	Replace handrail (maintenance).	N/A	N/A
		G2040 Site Development	White picket fence surrounding. Mini stone retaining wall at south-east corner. Streetlamps along boardwalk.	Fair	Fence paint is chipping. Streetlamps in fair to poor condition.	Paint fence.	2E	See Fence Program.





Smoke House



Building Info		Notes	Opinion of Probable Cost Summary					Overview Photo		Location
Building No.	22	History	Programs have not been included in OPC Summary. Refer to Program Summary page at beginning of the report.	Level 1 Group	High Priority	Moderate Priority	Low Priority	Total		
Other Names		1900 constructed circa. 2006 re-roofed "recently".		A				\$ -		
n/a				B				\$ -		
Description				C				\$ -		
Small wood framed structure, interior charred from smoke, pedestal foundation, and cedar shake roof.				D				\$ -		
				E				\$ -		
				F				\$ -		
				G				\$ -		
				Total	\$ -	\$ -	\$ -			
Level 1	Level 2	Level 3	Assessment							
Major Group Elements	Group Elements	Individual Elements	Building Component	Condition	Comments		Recommended Action		Priority Ranking	Probable Cost
A Substructure	A10 Foundation	A1020 Special Foundations	Stone pedestal foundation.	Good	Foundation is in generally good condition.		No Recommendation.		N/A	N/A
B Shell	B10 Superstructure	B1010 Floor Construction	Wood joists.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
		B1020 Roof Construction	Wood joists.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
	B20 Exterior Enclosure	B2010 Exterior Walls	Vertical wood cladding. 2x4 wood frame walls with 2-ply 2x4 posts at corners.	Fair	Hole in cladding at North-East corner.		Patch cladding where required.		2D	See Cladding Program.
		B2030 Exterior Doors	Wood door and trim with holes for ventilation.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
	B30 Roofing	B3010 Roof Coverings	Cedar shake shingle roof with wood fascia.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
C Interiors	C30 Interior Finishes	C3010 Wall Finishes	Wood plank.	Fair	Finish is charred from use.		No Recommendation.		N/A	N/A
		C3020 Floor Finishes	Wood plank.	Fair	Finish is charred from use.		No Recommendation.		N/A	N/A
		C3030 Ceiling Finishes	Wood plank.	Fair	Finish is charred from use.		No Recommendation.		N/A	N/A





Pump House

Building Info		Notes	Opinion of Probable Cost Summary					Overview Photo		Location
Building No.	23	History	Programs have not been included in OPC Summary. Refer to Program Summary page at beginning of the report. Where scopes have been summarized into one project in the report OPC, numbers are reported in green.	Level 1 Group	High Priority	Moderate Priority	Low Priority	Total		
Other Names		Construction date unknown.		A				\$ -		
n/a				B				\$ -		
Description				C				\$ -		
Water main for the site. Wood framed building with plywood interior sheathing and sheet metal roof. Board and batten siding. Concrete slab on grade foundation.				D		\$ 4,000		\$ 4,000		
				E				\$ -		
				F				\$ -		
				G				\$ -		
				Total	\$ -	\$ 4,000	\$ -	\$ 4,000		
Level 1	Level 2	Level 3	Assessment							
Major Group Elements	Group Elements	Individual Elements	Building Component	Condition	Comments		Recommended Action		Priority Ranking	Probable Cost
A Substructure	A10 Foundation	A1030 Slab on Grade	Standard concrete slab on grade.	Good	Foundation is in generally good condition.		No Recommendation.		N/A	N/A
B Shell	B10 Superstructure	B1010 Floor Construction	See A1030.	Good	See A1030.		See A1030.		N/A	N/A
		B1020 Roof Construction	Wood joists.	Fair	Potential repairs required due to roof leak. Potential stud deterioration from leak.		Review and repair with roof and cladding repairs.		N/A	See Roof Maintenance Program.
	B20 Exterior Enclosure	B2010 Exterior Walls	Wood frame. Board and batten cladding.	Fair	Cladding is aged and touching grade.		Landscape to provide 4" clearance between cladding and vegetation. Repair or replace damaged cladding.		3E	See Landscaping and Cladding Programs.
		B2030 Exterior Doors	Wood door and frame.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
	B30 Roofing	B3010 Roof Coverings	Sheet metal roof.	Good	No comment on condition.		No Recommendation.		N/A	N/A
C Interiors	C30 Interior Finishes	C3010 Wall Finishes	Plywood.	Poor	Staining at North-East corner.		Replace plywood and repair roof leaks.		4D	See Cladding Program.
		C3020 Floor Finishes	See A1030.	Good	See A1030.		See A1030.		N/A	N/A
		C3030 Ceiling Finishes	Plywood.	Poor	Staining at North-East corner.		See C3010.		N/A	See C3010.
D Services	D20 Plumbing	D2020 Domestic Water Distribution	The piping systems use galvanized, copper, and plastic piping.		Galvanized piping is no longer approved on domestic water systems. The tanks and recent piping system appear to be functional.		The next time the system needs work, we recommended replacing the galvanized piping with approved domestic water systems.		3D	\$ 2,500
	D50 Electrical	D5010 Electrical Service & Distribution	Electrical sub-fed from Implement Shed.	Fair	Older style ITE panel replacement breakers will be difficult to obtain.		Replace panel.		3D	\$ 1,500
		D5020 Lighting and Branch Wiring	Lighting.	Fair	Fluorescent.		Replace with LED when fixture fails (maintenance).		2D	N/A
		D5090 Other Electrical Systems	Generator input.	Fair	Manual transfer switch for connection of portable generator.		No Recommendation.		N/A	N/A



Windmill #2

Building Info			Notes	Opinion of Probable Cost Summary					Overview Photo		Location	
Building No.	24	History		Level 1 Group	High Priority	Moderate Priority	Low Priority	Total				
Other Names		1900 constructed circa.		A				\$ -				
n/a		1990 relocated to O'Keefe Ranch.		B				\$ -				
Description		Galvanized metal frame wind mill installed on a wood platform.		C				\$ -				
				D				\$ -				
				E				\$ -				
				F				\$ -				
				G				\$ -				
				Total	\$ -	\$ -	\$ -					
Level 1	Level 2	Level 3	Assessment									
Major Group Elements	Group Elements	Individual Elements	Building Component	Condition	Comments		Recommended Action		Priority Ranking	Probable Cost		
A Substructure	A10 Foundation	A1020 Special Foundations	Wood platform sleeper.	Fair	Wood is in direct contact with soil.		Monitor and repair foundations as required.		N/A	N/A		
B Shell	B20 Exterior Enclosure	B2010 Exterior Walls	Galvanized steel frame with bolted connections.	Good	Connections show minor sings of corrosion.		No Recommendation.		N/A	N/A		



Water Cisterns

Building Info			Notes	Opinion of Probable Cost Summary					Overview Photo	Location
Building No.	25	History	Programs have not been included in OPC Summary. Refer to Program Summary page at beginning of the report.	Level 1 Group	High Priority	Moderate Priority	Low Priority	Total		
Other Names		1901 constructed.		A				\$ -		
n/a				B				\$ -		
Description				C				\$ -		
Two cisterns - West covered and East uncovered. Cistern cover is wood frame with cedar shake roof and rock pedestal foundation.				D				\$ -		
				E				\$ -		
				F				\$ -		
				G				\$ -		
				Total	\$ -	\$ -	\$ -			
Level 1	Level 2	Level 3	Assessment							
Major Group Elements	Group Elements	Individual Elements	Building Component	Condition	Comments	Recommended Action		Priority Ranking	Probable Cost	
A Substructure	A10 Foundation	A1020 Special Foundations	Rock pedestal foundation at cover.	Good	Foundation is in generally good condition.	No Recommendation.		N/A	N/A	
	A20 Basement Construction	A2020 Basement Walls	Concrete cistern.	Fair	At East cistern: crack through wall near west side, pour joint at half height is cracked. Concrete cap is in fair condition.	Remove vegetation and clean (maintenance).		N/A	N/A	
B Shell	B10 Superstructure	B1020 Roof Construction	Collar tied wood trusses at cover.	Fair	Minor staining	Roof replacement.		2D	See Roof Replacement and Maintenance Programs.	
	B20 Exterior Enclosure	B2010 Exterior Walls	Approximately 2x4 wood frame with double layer of horizontal wood cladding on cover.	Fair	Cladding near grade has minor deterioration and is buried at north elevation.	Repair and paint cladding.		3E	See Cladding Program.	
		B2020 Exterior Windows	Wood framed opening with wood shutter.	Fair	Shutters are aged.	Repair shutters.		3E	See Window and Door Program.	
	B30 Roofing	B3010 Roof Coverings	Cedar shake shingle roof with wood fascia.	Fair	Sheathing is water damaged and splitting in some locations. Some organic growth.	See B1020.		N/A	See B1020.	
C Interiors	C30 Interior Finishes	C3010 Wall Finishes	Parging layer.	Fair	Shrinkage cracking in both cisterns. East cistern has spalling, efflorescence, delaminations, and vegetation growth. No mortar joint deterioration.	See A2020.		N/A	See A2020.	
G Sitework	G20 Site Improvements	G2050 Landscaping	Trees near West cistern.		No comment on condition.	No Recommendation.		N/A	N/A	

SPALLUMCHEEN PIONEER POWER CLUB DISPLAY #1



Building Info		Notes		Opinion of Probable Cost Summary					Overview Photo		Location	
Building No.	26	History	Programs have not been included in OPC Summary. Refer to Program Summary page at beginning of the report. Where scopes have been summarized into one project in the report OPC, numbers are reported in green.	Level 1 Group	High Priority	Moderate Priority	Low Priority	Total				
Other Names		Construction date unknown.		A				\$ -				
Antique Farming Equipment Display				B				\$ -				
Description				C				\$ -				
Pressure-treated post and beam on concrete slab on grade. Sheet metal roof on engineered trusses. Houses antique farming equipment.				D		\$ 2,000		\$ 2,000				
				E				\$ -				
				F				\$ -				
				G				\$ -				
				Total	\$ -	\$ 2,000	\$ -	\$ 2,000				
Level 1	Level 2	Level 3	Assessment									
Major Group Elements	Group Elements	Individual Elements	Building Component	Condition	Comments		Recommended Action		Priority Ranking	Probable Cost		
A Substructure	A10 Foundation	A1010 Standard Foundations	Pressure-treated embedded posts.	Fair	Posts are in fair condition.		No Recommendation.		N/A	N/A		
B Shell	B10 Superstructure	B1010 Floor Construction	Concrete slab on grade.	Good	No comment on condition.		No Recommendation.		N/A	N/A		
		B1020 Roof Construction	Engineered trusses at 4' o/c.	Fair	No comment on condition.		No Recommendation.		N/A	N/A		
	B30 Roofing	B3010 Roof Coverings	Sheet metal roof with wood fascia. Sheet metal cladding on gable ends.	Good	No comment on condition.		No Recommendation.		N/A	N/A		
C Interiors	C10 Interior Construction	C1030 Fittings	Steel fence surrounding.	Fair	Surface corrosion on steel fence.		Clean fence (maintenance)		N/A	N/A		
D Services	D40 Fire Protection	D4030 Fire Protection Specialties	Fire extinguisher.	Fair	No comment on condition.		No Recommendation.		N/A	N/A		
	D50 Electrical	D5010 Electrical Service & Distribution	Circuits fed from panel in SPPC #2.	Poor	Circuits are in poor condition.		Non-weatherproof disconnect switch is exposed to weather and is rusting. Replace.		3D	\$ 2,000		
		D5020 Lighting and Branch Wiring	Lighting.	Fair	Screw based style lamp holders.		Utilize LED lamps (maintenance).		2D	N/A		

SPALLUMCHEEN PIONEER POWER CLUB DISPLAY #2



Building Info		Notes		Opinion of Probable Cost Summary					Overview Photo		Location	
Building No.	27	History	Where projects have scope occurring at multiple buildings the full project cost has been included in each sheet and has not been split by building. Numbers affected by these "duplicate" costs are in red.  Programs have not been included in OPC Summary. Refer to Program Summary page at beginning of the report.	Level 1 Group	High Priority	Moderate Priority	Low Priority	Total				
Other Names		Construction date unknown.		A				\$ -				
n/a				B		\$ 6,000		\$ 6,000				
Description				C				\$ -				
Pressure-treated pole barn. Cedar shake roof on engineered trusses. Houses tractor collection.				D				\$ -				
				E				\$ -				
				F				\$ -				
				G				\$ -				
				Total	\$ -	\$ 6,000	\$ -	\$ 6,000				
Level 1	Level 2	Level 3	Assessment									
Major Group Elements	Group Elements	Individual Elements	Building Component	Condition	Comments		Recommended Action		Priority Ranking	Probable Cost		
A Substructure	A10 Foundation	A1010 Standard Foundations	Pressure-treated embedded posts.	Fair	Water staining at base.		No Recommendation.		N/A	N/A		
B Shell	B10 Superstructure	B1010 Floor Construction	Soil.		No comment on condition.		No Recommendation.		N/A	N/A		
		B1020 Roof Construction	Engineered trusses with steel tie downs. Pole barn construction with poles at 15' o/c.	Fair	Notched poles in bearing. Some cracking in beams and some poles checking.		Add new strap anchors. Continue monitoring for changes. See A1010 at buildings 28 & 29, B1020 at building 30, G2040 at building 36.	2B	\$ 6,000			
	B30 Roofing	B3010 Roof Coverings	Cedar shake shingle roof with wood fascia and horizontal wood cladding at gable ends.	Poor	Shingles in fair to poor condition with some organic growth. Sheathing stained.		Roof replacement.		3C	See Roof Replacement and Maintenance Programs.		
D Services	D50 Electrical	D5010 Electrical Service & Distribution	100A single phase panel.	Good	Panel is located in weather protective wooden cabinet		No Recommendation.		N/A	N/A		
		D5020 Lighting and Branch Wiring	Lighting.	Fair	Residential style chandelier fixtures.		Utilize LED lamps (maintenance).		2D	N/A		





Implement Shed #1

Building Info		History	Notes	Opinion of Probable Cost Summary					Overview Photo		Location
Building No.	28	History	Where projects have scope occurring at multiple buildings the full project cost has been included in each sheet and has not been split by building. Numbers affected by these "duplicate" costs are in red.  Programs have not been included in OPC Summary. Refer to Program Summary page at beginning of the report.	Level 1 Group	High Priority	Moderate Priority	Low Priority	Total			
Other Names		1981 constructed.		A			\$ 6,000	\$ 6,000			
West Implement Shed				B				\$ -			
Description				C				\$ -			
Wood post and beam barn with concrete footings and cedar shake roof. Open on the South side and livestock lean-to on North side. Board and batten siding on enclosed elevations.				D				\$ -			
				E				\$ -			
				F				\$ -			
				G				\$ -			
				Total	\$ -	\$ -	\$ 6,000	\$ 6,000			
Level 1	Level 2	Level 3	Assessment								
Major Group Elements	Group Elements	Individual Elements	Building Component	Condition	Comments		Recommended Action		Priority Ranking	Probable Cost	
A Substructure	A10 Foundation	A1010 Standard Foundations	Sono tube concrete footings with steel saddle connection to columns.	Good	Surface corrosion on steel connections.		Clean steel connection. See A1010 at building 29, B1020 at buildings 27 & 30, G2040 at building 36.		2D	\$ 6,000	
B Shell	B10 Superstructure	B1010 Floor Construction	Soil.		No comment on condition.		No Recommendation.		N/A	N/A	
		B1020 Roof Construction	Engineered trusses.	Good	No comment on condition.		No Recommendation.		N/A	N/A	
	B20 Exterior Enclosure	B2010 Exterior Walls	Post and beam construction. Board and batten cladding.	Fair	Water staining around mid-height.		Landscape to provide 4" clearance between cladding and vegetation.		3E	See Landscaping Program.	
	B30 Roofing	B3010 Roof Coverings	Cedar shake shingle roof with wood fascia.	Poor	Shingles curling and organic growth on North side. Fascia is in fair to poor condition.		Roof replacement.		3C	See Roof Replacement and Maintenance Programs.	
D Services	D40 Fire Protection	D4030 Fire Protection Specialties	Fire extinguisher.	Fair	No comment on condition.		N/A		N/A	N/A	
	D50 Electrical	D5010 Electrical Service & Distribution	Local centre sub fed from SPPC #2.	Fair	Event receptacle load centre fed with cab-tire cable/cord cap OK on temporary basis.		No Recommendation.		N/A	N/A	
		D5020 Lighting and Branch Wiring	Lighting.		Switches but no lighting observed.		No Recommendation.		N/A	N/A	
G Sitework	G20 Site Improvements	G2040 Site Development	Post and beam shelter at back with concrete footing with steel saddle connection and sheet metal roof.	Fair	Some posts buried		Landscape to expose buried posts.		3D	See A1010.	

Implement Shed #2



Building Info		Notes	Opinion of Probable Cost Summary					Overview Photo		Location
Building No.	29	History 1950 constructed circa. Mid 1950s addition.  Description Wood post and beam barn with concrete foundation and cedar shake roof. Open on the South side and livestock holding lean-to on the North. Board and batten cladding on enclosed sides.	Where projects have scope occurring at multiple buildings the full project cost has been included in each sheet and has not been split by building. Numbers affected by these "duplicate" costs are in red.  Programs have not been included in OPC Summary. Refer to Program Summary page at beginning of the report.	Level 1 Group	High Priority	Moderate Priority	Low Priority	Total		
Other Names				A			\$ 6,000	\$ 6,000		
East Implement Shed				B				\$ -		
Description				C				\$ -		
				D				\$ -		
				E				\$ -		
				F				\$ -		
				G				\$ -		
				Total	\$ -	\$ -	\$ 6,000	\$ 6,000		
Level 1	Level 2	Level 3	Assessment							
Major Group Elements	Group Elements	Individual Elements	Building Component	Conditon	Comments		Recommended Action		Priority Ranking	Probable Cost
A Substructure	A10 Foundation	A1020 Special Foundations	18 concrete blocks with mix of posts bearing on concrete in some locations and steel saddle connection.	Good	Surface corrosion on steel connections.		Clean steel connection. See A1010 at building 28, B1020 at buildings 27 & 30, G2040 at building 36.		2D	\$ 6,000
B Shell	B10 Superstructure	B1010 Floor Construction	Soil.		No comment on condition.		No Recommendation.		N/A	N/A
		B1020 Roof Construction	Engineered trusses and 1x6 strapping.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
	B20 Exterior Enclosure	B2010 Exterior Walls	8x8 post and beam construction with mix of board and batten and vertical wood plank cladding.	Fair	Cladding is aged.		No Recommendation.		N/A	N/A
	B30 Roofing	B3010 Roof Coverings	Cedar shake shingle roof with wood fascia.	Poor	Substantial organic growth on North elevation. Sheathing stained. Fascia in very poor condition.		Roof replacement.		4C	See Roof Replacement and Maintenance Programs.
G Sitework	G20 Site Improvements	G2040 Site Development	Post and beam lean-to at back for animals with concrete footings and steel saddle connection. Plywood cladding and sheet metal roof.	Poor	Plywood is aged.		No Recommendation under current use.		N/A	N/A
		G2050 Landscaping	Plantings at back corner.		Vegetation touches grade.		Landscape to provide clearance.		2E	See Landscaping Program.

Tack Shed



Building Info		Notes	Opinion of Probable Cost Summary					Overview Photo		Location
Building No.	30	History	Where projects have scope occurring at multiple buildings the full project cost has been included in each sheet and has not been split by building. Numbers affected by these "duplicate" costs are in red.  Programs have not been included in OPC Summary. Refer to Program Summary page at beginning of the report.	Level 1 Group	High Priority	Moderate Priority	Low Priority	Total		
Other Names		Construction date unknown.		A				\$ -		
n/a				B		\$ 6,000		\$ 6,000		
Description				C				\$ -		
Wood pole barn on concrete footings and sheet metal roof. Enclosed room on West end with sheet metal cladding and skylight.				D				\$ -		
		E					\$ -			
		F					\$ -			
		G					\$ -			
		Total		\$ -	\$ 6,000	\$ -	\$ 6,000			
Level 1	Level 2	Level 3	Assessment							
Major Group Elements	Group Elements	Individual Elements	Building Component	Conditon	Comments		Recommended Action		Priority Ranking	Probable Cost
A Substructure	A10 Foundation	A1020 Special Foundations	Retrofit concrete piles with collar tie connection between post and pile and decorative rope.	Good	The conection is unconventional but appears to be sufficient.		No Recommendation.		N/A	N/A
B Shell	B10 Superstructure	B1010 Floor Construction	Slab on grade in tack room, else soil.	Good	No comment on condition.		No Recommendation.		N/A	N/A
		B1020 Roof Construction	Pole barn construction with notched pole in bearing acting as "beam" and some straps toe-nailed in at ends. Engineered wood trusses at 4'6" o/c in barn and wood rafters in tack room.	Fair	Normal weathering of poles.		Add new strap anchors. See A1010 at buildings 28 & , B1020 at building 27, G2040 at building 36.		2B	\$ 6,000
	B20 Exterior Enclosure	B2010 Exterior Walls	Sheet metal cladding on tack room.	Good	No comment on condition.		No Recommendation.		N/A	N/A
		B2030 Exterior Doors	Wood frame OSB doors.	Good	No comment on condition.		No Recommendation.		N/A	N/A
	B30 Roofing	B3010 Roof Coverings	Sheet metal roof. Horizontal wood plank cladding on gable ends.	Fair	Debris on roof.		Clear roof.		1D	See Roof Maintenance Program.
		B3020 Roof Openings	Wood frame skylight in tack room.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
C Interiors	C10 Interior Construction	C1030 Fittings	2-rail wood fence around perimeter.	Good	No comment on condition.		No Recommendation.		N/A	N/A
	C30 Interior Finishes	C3010 Wall Finishes	Painted plywood.	Good	No comment on condition.		No Recommendation.		N/A	N/A
		C3020 Floor Finishes	Painted plywood.	Good	No comment on condition.		No Recommendation.		N/A	N/A
G Sitework	G20 Site Improvements	G2050 Landscaping	Coniferous tree adjacent.		No comment on condition.		No Recommendation.		N/A	N/A





Corral

Building Info		Notes	Opinion of Probable Cost Summary					Overview Photo		Location
Building No.	31	History	Programs have not been included in OPC Summary. Refer to Program Summary page at beginning of the report. Optional item to replace grandstand is \$50,000.	Level 1 Group	High Priority	Moderate Priority	Low Priority	Total		
Other Names		Construction date unknown.		A				\$ -		
n/a				B				\$ -		
Description				C				\$ -		
5-rail pressure-treated wood fence, announcer, and decommissioned grandstand.				D				\$ -		
				E				\$ -		
				F				\$ -		
				G		\$ 10,000		\$ 10,000		
				Total	\$ -	\$ -	\$ -	\$ 10,000		
Level 1	Level 2	Level 3	Assessment							
Major Group Elements	Group Elements	Individual Elements	Building Component	Condition	Comments		Recommended Action		Priority Ranking	Probable Cost
G Sitework	G20 Site Improvements	G2040.1 Site Development	Five rail fenced corral	Good	Rails are in good condition.		Maintain the rails under the fencing program		N/A	See Fence Program.
		G2040.2 Site Development	Grandstand platform	Poor	Platform structure has signs of rotting. Seating has been removed.		Decommission or repair Platform and seating.		3B	\$ 10,000
		G2040.3 Site Development	Announcer boot with PA System	Good	Announcer booth is in good condition. PA system is exposed to the elements.		Maintain and replace PA equipment (maintenance).		N/A	N/A

Glamping

Building Info			Notes	Opinion of Probable Cost Summary					Overview Photo		Location
Building No.	32	History		Level 1 Group	High Priority	Moderate Priority	Low Priority	Total			
Other Names		Circa 2022		A				\$ -			
n/a				B				\$ -			
Description				C				\$ -			
Newly installed glamping area. Includes nine glamming tents on wood platforms. Four compost toilettes are located in the center of the area. The area is enclosed by a post and rail fence.				D				\$ -			
				E				\$ -			
				F				\$ -			
				G				\$ -			
				Total	\$ -	\$ -	\$ -	\$ -			
Level 1	Level 2	Level 3	Assessment								
Major Group Elements	Group Elements	Individual Elements	Building Component	Condition	Comments		Recommended Action		Priority Ranking	Probable Cost	
A Substructure	A10 Foundation	A1010 Standard Foundations	Pre-cast concrete pedestals.	Good	No comment on condition.		No Recommendation.		N/A	N/A	
B Shell	B10 Superstructure	B1010 Floor Construction	Pressure treated wood platforms.	Good	No comment on condition.		No Recommendation.		N/A	N/A	
	B20 Exterior Enclosure	B2010 Exterior Walls	Tents were not reviewed.		No comment on condition.		No Recommendation.		N/A	N/A	
D Services	D20 Plumbing	D2010 Plumbing Fixtures	The water closets are a purpose-built composting type unit.	Fair	The system appears to be functional. Composting toilets are generally not considered a “high volume” system.		As the glamping site becomes more popular, the operator may need to add more toilet systems to keep up with demand.		N/A	N/A	
G Sitework	G20 Site Improvements	G2040 Site Development	Wood Gazebo and rail fence.	Good	No comment on condition.		No Recommendation.		N/A	N/A	

Balmoral School House



Building Info		Notes		Opinion of Probable Cost Summary					Overview Photo	Location
Building No.	33	History	Programs have not been included in OPC Summary. Refer to Program Summary page at beginning of the report.	Level 1 Group	High Priority	Moderate Priority	Low Priority	Total		
Other Names		1912 constructed. 1989 relocated.		A				\$ -		
n/a				B				\$ -		
Description				C				\$ -		
Single-storey log cabin with wood framed addition on front (West). Sloped cedar shake roof and concrete foundation wall. Wood doors and windows.				D				\$ -		
				E				\$ -		
				F				\$ -		
				G				\$ -		
				Total	\$ -	\$ -	\$ -			
Level 1	Level 2	Level 3	Assessment							
Major Group Elements	Group Elements	Individual Elements	Building Component	Condition	Comments		Recommended Action		Priority Ranking	Probable Cost
A Substructure	A10 Foundation	A1010 Standard Foundations	Concrete foundation wall at main room.	Good	Foundation is in generally good condition.		No Recommendation.		N/A	N/A
		A1020 Special Foundations	Permanent wood foundation at addition.	Good	Foundation is in generally good condition.		No Recommendation.		N/A	N/A
	A20 Basement Construction	A2010 Basement Excavation	Crawlspace.		No comment on condition.		No Recommendation.		N/A	N/A
B Shell	B10 Superstructure	B1010 Floor Construction	See A1010.	Good	See A1010.		No Recommendation.		N/A	N/A
		B1020 Roof Construction	2x4 roof trusses.		Roof structure is in fair condition.		No Recommendation.		N/A	N/A
	B20 Exterior Enclosure	B2010 Exterior Walls	V-notched split log and chinking in main room and 2x4 wood frame in addition. Horizontal drop wood siding at addition with wood corner cap.	Poor	Siding touches grade and is dirty. Some previous repairs and new rot at the main room. New chinking with insulation. Loose boards at addition.		Repair logs and chinking at rotted locations.		5D	See Cladding Program.
		B2020 Exterior Windows	Wood frame hung and fixed windows.	Fair	Poor seals.		Repair seals.		3D	See Window and Door Program.
		B2030 Exterior Doors	Wood door and frame.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
	B30 Roofing	B3010 Roof Coverings	Cedar shake shingle roof with wood fascia.	Poor	Organic growth on roof and fascia. Some previous metal patch repairs.		Roof replacement.		1C	See Roof Replacement and Maintenance Programs.
		B3020 Roof Openings	OSB and metal chimney.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
C Interiors	C10 Interior Construction	C1010 Partitions	Former exterior wall.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
	C30 Interior Finishes	C3010 Wall Finishes	1x6 wood plank.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
		C3020 Floor Finishes	Wood plank.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
		C3030 Ceiling Finishes	1x6 tongue and groove with center bead.	Fair	No comment on condition.		No Recommendation.		N/A	N/A

Schubert House



Building Info		Notes	Opinion of Probable Cost Summary					Overview Photo	Location	
Building No.	34	History	Where projects have scope occurring at multiple buildings the full project cost has been included in each sheet and has not been split by building. Numbers affected by these "duplicate" costs are in red.  Programs have not been included in OPC Summary. Refer to Program Summary page at beginning of the report.  Where scopes have been summarized into one project in the report OPC, numbers are reported in green.	Level 1 Group	High Priority	Moderate Priority	Low Priority	Total		
Other Names		1890/1892 constructed.		A		\$ 25,000		\$ 25,000		
n/a		1989/1991 relocated to O'Keefe Ranch.		B		\$ 5,000		\$ 5,000		
Notes		2003 exterior walls painted.		C			\$ 14,000	\$ 14,000		
Two-storey wood framed building with painted wood siding, concrete foundation wall, and cedar shake roof. Wood doors and windows. Crawlspace below.				D			\$ 1,000	\$ 1,000		
				E			\$ -			
				F			\$ -			
				G			\$ -			
				Total	\$ -	\$ 30,000	\$ 15,000	\$ 45,000		
Level 1	Level 2	Level 3		Assessment						
Major Group Elements	Group Elements	Individual Elements	Building Component	Condition	Comments		Recommended Action		Priority Ranking	Probable Cost
A Substructure	A10 Foundation	A1010 Standard Foundations	CMU foundation wall and 2x4 furring wall in crawlspace.	Poor	Water staining at North-East hose. North-West elevation is tilted in below sink room. North-East pony wall is tilted in. Some damaged CMU blocks. No vent covers. Soil deposits.		Repair foundation wall. Add vent covers (maintenance). See A1010 at buildings 4A & 20, A1030 at building 11.		3C	\$ 25,000
B Shell	B10 Superstructure	B1010 Floor Construction	2x8 wood joists at 16-18" o/c and beam down center of building. 1" thick sheathing.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
		B1020 Roof Construction	Wood frame 2x6 at 16" o/c with skip sheathing.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
	B20 Exterior Enclosure	B2010 Exterior Walls	Split log construction. Horizontal drop cladding with strapping at 24" o/c and wood corner caps.	Fair	Paint is chipping and boards broken at base of wall. Some contact between siding and grade.		Landscape to provide 4" clearance between cladding and vegetation. Repair and paint cladding.		3D	See Landscaping and Cladding Programs.
		B2020 Exterior Windows	Wood frame single glazed hung windows with linseed oil glazing putty.	Poor	Uppers drooping and paint on sills chipping.		Repair and paint.		4D	See Window and Door Program.
		B2030 Exterior Doors	Wood door and trim.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
	B30 Roofing	B3010 Roof Coverings	Cedar shake shingle roof with wood fascia. Decorative truss ends. Some insulation.	Fair	Truss tips missing in two locations. Paint on fascia is chipping. Shingles in fair condition.		Repair and paint fascia and replace truss tips.		3E	See Roof Replacement and Maintenance Programs.
						Roof replacement.		3C	See Roof Replacement and Maintenance Programs.	
		B3020 Roof Openings	Two brick chimneys and box vents.	Fair	Mortar is starting to deteriorate and crack.		Repoint mortar. See B3020 at building 11.		2C	\$ 5,000
C Interiors	C10 Interior Construction	C1010 Partitions	Woof frame.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
		C1020 Interior Doors	Wood doors and trim.	Poor	Trim in kitchen is damaged.		Repair trim (maintenance).		N/A	N/A
		C20 Stairs	C2010 Stair Construction	Wood stair and rail.	Good	No comment on condition.		No Recommendation.		N/A
	C30 Interior Finishes	C3010 Wall Finishes	Plaster and lath.	Poor	Some cracking and a hole in wall at north corner.		Repair or replace cladding and provide heating during winter. See C3010 at building 4A.		3E	\$ 14,000
		C3020 Floor Finishes	Hardwood.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
		C3030 Ceiling Finishes	Generally lath and plaster except upstairs ceiling which is drywall	Poor	Cracking is extensive upstairs with a large section missing in the kitchen.		See C3010.		3E	See C3010.
D Services	D40 Fire Protection	D4030 Fire Protection Specialties	Fire extinguisher.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
	D50 Electrical	D5010 Electrical Service & Distribution	60A single phase load centre fed from overhead BC Hydro service.	Fair	Service is adequate.		Maintain breakers (maintenance).		2D	N/A
		D5020 Lighting and Branch Wiring	Interior lighting.	Fair	Older style residential screw base fixtures.		Utilized LED lamps (maintenance).		2D	N/A
		D5090 Other Electrical Systems	Branch circuit wiring.	Fair	NMD cable.		Messy wiring in crawlspace should be cleaned up.		2D	\$ 1,000
G Sitework	G20 Site Improvements	G2030 Pedestrian Paving	Wood steps to front door.	Fair	Steps are in fair condition.		No Recommendation.		N/A	N/A



Schubert Barn

Building Info		Notes	Opinion of Probable Cost Summary					Overview Photo	Location	
Building No.	35	History	Where projects have scope occurring at multiple buildings the full project cost has been included in each sheet and has not been split by building. Numbers affected by these "duplicate" costs are in red.  Programs have not been included in OPC Summary. Refer to Program Summary page at beginning of the report.	Level 1 Group	High Priority	Moderate Priority	Low Priority	Total		
Other Names		1920 constructed circa. 1989 relocated.		A				\$ -		
n/a				B		\$ 8,000		\$ 8,000		
Description				C				\$ -		
Single-storey wood framed building. Wood door and windows. Leaning towards Deep Creek.				D				\$ -		
		E					\$ -			
		F					\$ -			
		G					\$ -			
		Total		\$ -	\$ 8,000	\$ -	\$ 8,000			
Level 1	Level 2	Level 3		Assessment						
Major Group Elements	Group Elements	Individual Elements	Building Component	Condition	Comments		Recommended Action		Priority Ranking	Probable Cost
A Substructure	A10 Foundation	A1010 Standard Foundations	Concrete foundation wall with vapour barrier and crawlspace.	Fair	Vapour barrier extends 4' above grade.		No Recommendation.		N/A	N/A
		A1030 Slab on Grade	Concrete slab foundation.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
B Shell	B10 Superstructure	B1010 Floor Construction	Wood frame.	Fair	No access to interior.		No Recommendation.		N/A	N/A
		B1020 Roof Construction	Wood frame.	Poor	Leaning North-East towards Deep Creek.		Structural Assessment. See B1010 at building 11, B1020 at building 4A.		4C	\$ 8,000
	B20 Exterior Enclosure	B2010 Exterior Walls	2x6 studs at 24" o/c. 1x9 drop siding, mostly horizontal and some vertical with wood corner caps.	Fair	Some broken siding boards and missing siding cap at some corners.		Repair cladding.		3D	See Program.
		B2020 Exterior Windows	Wood framed windows with plexiglass panels.	Fair	Sills deteriorated at edges.		Repair trims.		1E	See Program.
		B2030 Exterior Doors	Wood door and frame.	Fair	Stained at base.		Patch repair door.		1E	See Program.
	B30 Roofing	B3010 Roof Coverings	Cedar shake shingle roof with wood fascia.	Poor	Some missing shingles and organic growth. Some fascia missing.		Roof replacement.		3C	See Program.
D Services	D50 Electrical	D5010 Electrical Service & Distribution	Circuit fed from house.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
G Sitework	G20 Site Improvements	G2040 Site Development	2-rail wood fence	Good	No comment on condition.		No Recommendation.		N/A	N/A
		G2050 Landscaping	Vegetation on three sides and garden bed at front.	Fair	Vegetation touches grade.		No Recommendation.		N/A	N/A

Spallumcheen Pioneer Power Club Clubhouse



Building Info		Notes	Opinion of Probable Cost Summary					Overview Photo	Location	
Building No.	36	History	Where projects have scope occurring at multiple buildings the full project cost has been included in each sheet and has not been split by building. Numbers affected by these "duplicate" costs are in red.  Programs have not been included in OPC Summary. Refer to Program Summary page at beginning of the report.  Where scopes have been summarized into one project in the report OPC, numbers are reported in green.	Level 1 Group	High Priority	Moderate Priority	Low Priority	Total		
Other Names		1981 constructed.		A				\$ -		
Maintenance Building				B				\$ -		
Description				C				\$ -		
Single-storey wood frame building. West portion is Spallumcheen Pioneer Power Club Clubhouse and East portion is used by Ranch maintenance.				D		\$ 29,600	\$ 500	\$ 30,100		
				E				\$ -		
				F				\$ -		
				G		\$ 6,000		\$ 6,000		
				Total	\$ -	\$ 35,600	\$ 500	\$ 36,100		
Level 1	Level 2	Level 3	Assessment							
Major Group Elements	Group Elements	Individual Elements	Building Component	Condition	Comments		Recommended Action		Priority Ranking	Probable Cost
A Substructure	A10 Foundation	A1030 Slab on Grade	Standard slab on grade.	Fair	Cracking in concrete floor in SPPC bathroom.		Continue monitoring for changes.		N/A	N/A
B Shell	B10 Superstructure	B1010 Floor Construction	See A1030.	Fair	See A1030.		See A1030.		N/A	See A1030.
		B1020 Roof Construction	Wood frame.		No comment on condition.		No Recommendation.		N/A	N/A
	B20 Exterior Enclosure	B2010 Exterior Walls	Wood frame. Board and batten cladding.	Fair	Some battens missing and water staining at base.		Replace missing battens.		3E	See Cladding Program.
		B2020 Exterior Windows	Wood frame and metal slider windows.	Good	No comment on condition.		No Recommendation.		N/A	N/A
		B2030 Exterior Doors	5 garage doors (two with electric openers). Mix of wood and fiberglass doors, all wood frame.	Fair	Some garage doors not fully sealed and weather stripping weathered. Minor damage to garage doors.		No Recommendation.		N/A	N/A
	B30 Roofing	B3010 Roof Coverings	Sheet metal roof with wood fascia.	Fair	From various eras, previous patch on maintenance side. Vegetation on fascia.		No Recommendation.		N/A	N/A
C Interiors	C10 Interior Construction	C1010 Partitions	Wood frame.	Good	No comment on condition.		No Recommendation.		N/A	N/A
		C1020 Interior Doors	Wood door and frame.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
	C30 Interior Finishes	C3010 Wall Finishes	Mix of painted plywood and drywall.	Fair	No comment on condition.		No Recommendation.		N/A	N/A
		C3030 Ceiling Finishes	Drywall.	Good	Failing at joints in SPPC garage.		Retape joints and repaint (maintenance).		N/A	N/A
D Services	D20 Plumbing	D2010 Plumbing Fixtures	Lavatories and water closets.	Fair	Lavatories and water closets are in fair condition but are still serviceable. The existing fixtures should provide good service for the near future.		No Recommendation.		N/A	N/A
		D2020 Domestic Water Distribution	Original piping systems are copper.	Fair	The insulation is in poor condition or missing in certain locations. The domestic water piping should provide good service for the near future.		D2020.1 The operators should look for pinhole leaks from time to time.		3C	\$ 100
							D2020.2 Consideration should be made for upgrades to the existing insulation to save energy.		1E	\$ 500
		D2030 Sanitary Waste	Sanitary waste systems are not visible.	Fair	Based on the age of the building, sanitary drainage piping should provide good service for the near future.		The system is at an age where blockages could occur, so should be inspected and cleaned from time to time. Repairs if needed could be completed for the location at hand. There is no need for wholesale piping upgrades in the near future.		3D	\$ 300

Spallumcheen Pioneer Power Club Clubhouse



D Services	D20 Plumbing	D2090 Other Plumbing Systems	Domestic Water Heater	Poor	The Domestic hot water heater is nearing the end of its service life and is need of replacement. This gas fired appliances has not been installed in a room that is fire rated. The Water heater has not been provided with a drain pan.	D2090.1 The domestic water heater should be replaced soon.	4C	\$5,500
						D2090.2 Consideration should be made to provide the water heater with a drain pan to catch and direct the water to a drainage system, in the event of a leak in the tank.	4C	\$500
						D2090.3 Consideration should be made to build a fire rated room that would house the domestic water heater.	2B	\$10,000
	D30 HVAC	D3010 Energy Supply	The facility has a natural gas connection and pressure regulation station.	Fair	Gas piping does not appear to have the appropriate protective coatings.	The owner will want to engage a technician to ensure the systems are configured to code.	2C	\$500
		D3020 Heat Generating Systems	Furnace	Poor	The furnace is at the end of its service life. This gas fired appliances have not been installed in a room that is fire rated.	D3020.1 The system should be upgraded soon.	5D	\$12,500
						D3020.2 Consideration should be made to build a fire rated room that would house the furnaces and domestic water heater.	2B	See D2090.3.
	D40 Fire Protection	D3040 Distribution Systems	Supply duct system.	Fair	The supply duct systems are in good shape considering the age of the system.	At most, an internal inspection of the duct and a duct cleaning every 5 years or so.	3E	\$500
		D4030 Fire Protection Specialties	Fire extinguisher.	Fair	No comment on condition.	No Recommendation.	N/A	N/A
	D50 Electrical	D5010 Electrical Service & Distribution	200A single phase panel fed from overhead BC Hydro service.	Fair	Service is adequate.	Maintain circuit breakers (maintenance).	2D	N/A
		D5020 Lighting and Branch Wiring	Exterior and interior lighting.	Fair	Lighting mix of fluorescent and incandescent lamp.	Utilize LED lamps and replace fixtures as they fail (maintenance).	2D	N/A
		D5090 Other Electrical Systems	Emergency lighting.	Fair	Minimal emergency lighting installed.	Test emergency lighting regularly.	2D	N/A
	G20 Site Improvements	G2040 Site Development	Lean-tos around building of post and beam and pole barn construction with buried post footings and sheet metal roofs. Front shelter of pressure treated post and beam construction with engineered trusses at 4' o/c. Posts tied to main building.	Fair	One rotted pole at lean-tos. North lean-to roof failed at south corner.	Support and provide new pedestal at rotted poles. Patch roof. See A1010 at buildings 28 & 29, B1020 at buildings 27 & 30.	4D	\$6,000
		G2050 Landscaping	Vegetation on 3 sides and garden bed at front.	Fair	No comment on condition.	Landscape to provide clearance between cladding and vegetation.	N/A	See Program.





Storage Building

Building Info		Notes		Opinion of Probable Cost Summary					Overview Photo		Location	
Building No.	37	History	Programs have not been included in OPC Summary. Refer to Program Summary page at beginning of the report.	Level 1 Group	High Priority	Moderate Priority	Low Priority	Total				
Other Names		Construction date unknown.		A				\$ -				
n/a				B				\$ -				
Description				C				\$ -				
Wood framed building with concrete slab on grade foundation and cedar shake roof. Board and batten siding and wood doors.				D				\$ -				
				E				\$ -				
				F				\$ -				
				G				\$ -				
				Total	\$ -	\$ -	\$ -					
Level 1	Level 2	Level 3	Assessment									
Major Group Elements	Group Elements	Individual Elements	Building Component	Condition	Comments		Recommended Action		Priority Ranking	Probable Cost		
A Substructure	A10 Foundation	A1030 Slab on Grade	Standard slab on grade.	Fair	No comment on condition.		No Recommendation.		N/A	N/A		
B Shell	B10 Superstructure	B1010 Floor Construction	Wood frame with plywood front covered deck.	Fair	No comment on condition.		No Recommendation.		N/A	N/A		
		B1020 Roof Construction	Engineered trusses at 4' o/c.	Fair	No comment on condition.		No Recommendation.		N/A	N/A		
	B20 Exterior Enclosure	B2010 Exterior Walls	Board and batten cladding and OSB sheathing.	Fair	Siding is wet and touches grade. Sheathing is exposed on South		Landscape to provide 4" clearance between vegetation and cladding.		5E	See Landscaping Program.		
		B2030 Exterior Doors	Wood door and trim.	Fair	No comment on condition.		No Recommendation.		N/A	N/A		
	B30 Roofing	B3010 Roof Coverings	Sheet metal roof.	Fair	No comment on condition.		No Recommendation.		N/A	N/A		
G Sitework	G20 Site Improvements	G2050 Landscaping	Vegetation surrounding.	Fair	Vegetation touches cladding.		See B2010.		N/A	See B2010.		



Storage Shed

Building Info		History	Notes	Opinion of Probable Cost Summary					Overview Photo		Location
Building No.	37	History	Programs have not been included in OPC Summary. Refer to Program Summary page at beginning of the report.	Level 1 Group	High Priority	Moderate Priority	Low Priority	Total			
Other Names		Construction date unknown.		A				\$ -			
n/a				B				\$ -			
Notes				C				\$ -			
Pole barn style shed used as storage.				D				\$ -			
				E				\$ -			
				F				\$ -			
				G				\$ -			
				Total	\$ -	\$ -	\$ -				
Level 1	Level 2	Level 3	Assessment								
Major Group Elements	Group Elements	Individual Elements	Building Component	Condition	Comments	Recommended Action		Priority Ranking	Probable Cost		
A Substructure	A10 Foundation	A1010 Standard Foundations	Buried posts.	Fair	No comment on condition.	No Recommendation.		N/A	N/A		
B Shell	B10 Superstructure	B1010 Floor Construction	Soil.		No comment on condition.	No Recommendation.		N/A	N/A		
		B1020 Roof Construction	Pole barn with notched poles in bearing for beams and engineered trusses at 2' o/c.	Fair	Condition commensurate of its age.	No Recommendation.		N/A	N/A		
	B30 Roofing	B3010 Roof Coverings	Cedar shake shingle roof with wood fascia. Plywood sheathing on gable ends.	Poor	Staining underside of soffit. Sheathing missing on South elevation. Shingles missing loose and curled. Fascia missing in some locations.	Roof replacement.		5D	See Roof Replacement and Maintenance Programs.		
C Interiors	C10 Interior Construction	C1030 Fittings	Wood racks for storage.	Fair	No comment on condition.	No recommendation.		N/A	N/A		
G Sitework	G20 Site Improvements	G2050 Landscaping	Vegetation surrounding.	Fair	No comment on condition.	No Recommendation.		N/A	N/A		



Foot Bridge

Building Info			Notes	Opinion of Probable Cost Summary					Overview Photo		Location
Building No.	A	History	n/a	Level 1 Group	High Priority	Moderate Priority	Low Priority	Total			
Other Names		Unknown		A				\$ -			
n/a				B				\$ -			
Description				C				\$ -			
Single span steel girder bridge with a wood deck supported on concrete lock block abutments				D				\$ -			
				E				\$ -			
				F				\$ -			
				G				\$ -			
				Total	\$ -	\$ -	\$ -				
Level 1	Level 2	Level 3	Assessment								
Major Group Elements	Group Elements	Individual Elements	Building Component	Condition	Comments		Recommended Action		Priority Ranking	Probable Cost	
A Substructure	A10 Foundation	A1020 Special Foundations	Concrete lock block abutments.	Good	No comment on condition.		No Recommendation.		N/A	N/A	
B Shell	B10 Superstructure	B1010 Floor Construction	Wood Deck.	Good	No comment on condition.		No Recommendation.		N/A	N/A	
F Special Construction & Demolition	F10 Special Construction	F1010 Special Structures	Steel girders.	Good	No comment on condition.		No Recommendation.		N/A	N/A	



Decommissioned Vehicle Bridge

Building Info			Notes	Opinion of Probable Cost Summary					Overview Photo		Location
Building No.	B	History	n/a	Level 1 Group	High Priority	Moderate Priority	Low Priority	Total			
Other Names		Unknown		A				\$ -			
n/a				B	\$ 125,000			\$ 125,000			
Description				C				\$ -			
Single span timber bridge. Log stringers bear on log sills and gabion abutments.				D				\$ -			
		E					\$ -				
		F					\$ -				
		G					\$ -				
		Total		\$ 125,000	\$ -	\$ -					
Level 1	Level 2	Level 3	Assessment								
Major Group Elements	Group Elements	Individual Elements	Building Component	Condition	Comments		Recommended Action		Priority Ranking	Probable Cost	
A Substructure	A10 Foundation	A1010 Standard Foundations	Stone Gabion abutments.	Fair	No comment on condition.		No Recommendation.		N/A	N/A	
B Shell	B10 Superstructure	B1010 Floor Construction	Log stringers. And wood deck.	Poor	Deflected at midspan. Rotted beams and deck.		Decommission and dispose of bridge.		4B	\$ 125,000	
F Special Construction & Demolition	F10 Special Construction	F1010 Special Structures	Guard logs	Poor	Signs of impact damage and not marked.		See B1010.			See B1010.	

Log Foot Bridge



Building Info			Notes	Opinion of Probable Cost Summary					Overview Photo		Location
Building No.	F	History	n/a	Level 1 Group	High Priority	Moderate Priority	Low Priority	Total			
Other Names		Unknown		A				\$ -			
n/a				B				\$ -			
Description				C				\$ -			
Single span timber bridge. Log stringers bear on log sills and no visible abutments.				D				\$ -			
		E					\$ -				
		F					\$ -				
		G					\$ -				
		Total		\$ -	\$ -	\$ -					
Level 1	Level 2	Level 3	Assessment								
Major Group Elements	Group Elements	Individual Elements	Building Component	Condition	Comments		Recommended Action		Priority Ranking	Probable Cost	
A Substructure	A10 Foundation	A1010 Standard Foundations	Log Sills	Fair	No comment on condition.		No Recommendation.		N/A	N/A	
B Shell	B10 Superstructure	B1010 Floor Construction	Log stringers. And wood deck.	Poor	Deflected at midspan. Rotted beams and deck.		Decommission Bridge		N/A	N/A	
F Special Constrution & Demolition	F10 Special Construction	F1010 Special Structures	Guard logs	Poor	Signs of impact damage and not marked.		Decommission Bridge		N/A	N/A	

Small Buildings

Building Info		Notes	Opinion of Probable Cost Summary					Overview Photo		Location	
Building No.	n/a	History	Programs have not been included in OPC Summary. Refer to Program Summary page at beginning of the report.	Level 1 Group	High Priority	Moderate Priority	Low Priority	Total			
Other Names		Unknown		A				\$ -			
Animal Feed Buildings				B				\$ -			
Description				C				\$ -			
Small Buildings consist of feed buildings, wood storage wayfinding buildings and small shed coverings.				D				\$ -			
				E				\$ -			
				F				\$ -			
				G				\$ -			
				Total	\$ -	\$ -	\$ -				
Level 1	Level 2	Level 3	Assessment								
Major Group Elements	Group Elements	Individual Elements	Building Component	Condition	Comments		Recommended Action		Priority Ranking	Probable Cost	
A Substructure	A10 Foundation	A1010 Standard Foundations	Wood foundations	Good	Foundation types vary by building but are in generally good condition.		Monitor and repair foundations as required.		3E	See Cladding Program.	
B Shell	B30 Roofing	B3010 Roof Coverings	Varied Roofs	Good	Roof types vary by building but are in generally good condition.		Monitor and repair roofs as required.		3E	See Roof Maintenance Program.	
G Sitework	G20 Site Improvements	G2050 Landscaping	Some buildings surrounded by vegetation.	Fair	Where vegetation touches wood building elements they are at risk of rot.		Landscape to provide 4" clearance between wood members and vegetation.		N/A	See Landscaping Program.	





Parking Lot and Roads

Building Info		Notes	Opinion of Probable Cost Summary					Overview Photo		Location
Building No.	n/a	History	Programs have not been included in OPC Summary. Refer to Program Summary page at beginning of the report.	Level 1 Group	High Priority	Moderate Priority	Low Priority	Total		
Other Names		Unknown		A				\$ -		
n/a				B				\$ -		
Description				C				\$ -		
Asphalt parking lot in from of the Visitor Center and O'Keefe Mansion. Dirt Roads are found through out the site.				D				\$ -		
				E				\$ -		
				F				\$ -		
				G				\$ -		
				Total	\$ -	\$ -	\$ -			
Level 1	Level 2	Level 3	Assessment							
Major Group Elements	Group Elements	Individual Elements	Building Component	Condition	Comments		Recommended Action		Priority Ranking	Probable Cost
G Sitework	G20 Site Improvements	G2010 Roads	Dirt Roads	Good	No comment on condition.		No Recommendation.		N/A	N/A
		G2020 Parking Lots	Asphalt Parking Lot in front of the Visitor Center	Fair	Lateral and alligator cracking found throughout. Pot holes developing. Parking line paint has worn off.		Repair potholes and slope surface to drainage.			See Road Maintenance Program.



Fences



Building Info		Notes	Opinion of Probable Cost Summary					Overview Photo		Location
Building No.	n/a	History	Programs have not been included in OPC Summary. Refer to Program Summary page at beginning of the report.	Level 1 Group	High Priority	Moderate Priority	Low Priority	Total		
Other Names		Unknown		A				\$ -		
n/a				B				\$ -		
Description				C				\$ -		
Wood rail, barbed wire, smooth wire, chicken wire, picket and metal rail fences can be found through out the complex.				D				\$ -		
				E				\$ -		
				F				\$ -		
				G				\$ -		
				Total	\$ -	\$ -	\$ -			
Level 1	Level 2	Level 3	Assessment							
Major Group Elements	Group Elements	Individual Elements	Building Component	Condition	Comments		Recommended Action		Priority Ranking	Probable Cost
G Sitework	G20 Site Improvements	G2040 Site Development	Fencing	Fair	The fencing is an a functioning state but requires a continued maintenance program to continue to operate.		Fence Maintenance Program		5D	See Fence Maintenance Program.



Engineers

## Appendix D

Overview, Structure, and Building Envelope Photos

PHOTOS	
Comment	Photograph
1: Visitor Center: General view of South (front) elevation.	 <p>Photo 1</p>
1: Visitor Center: Restaurant patio.	 <p>Photo 2</p>

1: Visitor Center:  
Porch post not connected to the ground.



Photo 3

1: Visitor Center:  
Typical water staining on cladding near  
garden beds.



Photo 4



2: Greenhow Museum:  
General view of East elevation.



Photo 5

2: Greenhow Museum:  
General view of North-East corner.



Photo 6

2: Greenhow Museum:  
Decommissioned back emergency exit stair.



Photo 7

2: Greenhow Museum:  
Water staining and efflorescence on interior  
of stone foundation wall.



Photo 8



2: Greenhow Museum:  
Stairs to basement.



Photo 9

2: Greenhow Museum:  
Water staining on vapour barrier in  
basement.



Photo 10

3: Stagecoach Depot:  
General View of the East elevation.



Photo 11

3: Stagecoach Depot:  
General view of the North elevation.



Photo 12



3: Stagecoach Depot:  
Typical roof condition from South view.

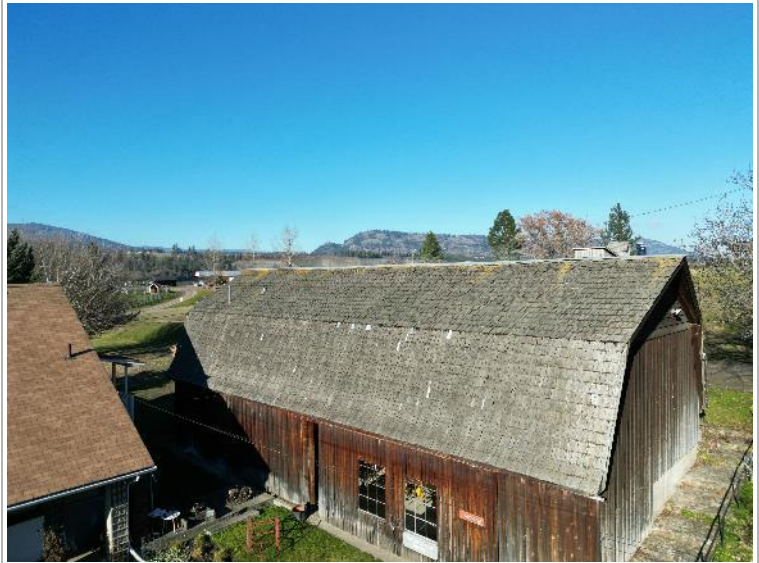


Photo 13

3: Stagecoach Depot:  
Typical water-stained cladding at base of wall.



Photo 14

4A: O'Keefe House:  
General view from South-West corner.



Photo 15

4A: O'Keefe House:  
Cracked plaster and lathe in the sewing room.



Photo 16

4A: O'Keefe House:  
Water damage in the attic above the  
bathroom.



Photo 17

4A: O'Keefe House:  
Rotting edges of front porch.



Photo 18



4A: O'Keefe House:  
Typical brick foundation column spalling.



Photo 19

4A: O'Keefe House:  
Typical condition of windows and shutters.



Photo 20



4B: Caretaker's House:  
General view of North-East corner.



Photo 21

4B: Caretaker's House:  
General view of East elevation.



Photo 22

4B: Caretaker's House:  
Wood retaining wall at driveway.



Photo 23

4B: Caretaker's House:  
Wood retaining wall and steps at back porch.



Photo 24



5: Pavilion:  
General view of South elevation.



Photo 25

6: Gazebo:  
General view.



Photo 26

6: Gazebo:  
Checked post.



Photo 27

6: Gazebo:  
Deteriorated fascia at cupola.



Photo 28

7: Pioneer Cabin:  
General view of South elevation.



Photo 29

8: Cowboy Bunkhouse:  
General view of East elevation.



Photo 30



8: Cowboy Bunkhouse:  
General view of North and West elevations.



Photo 31

8: Cowboy Bunkhouse:  
Spalled foundation at South elevation.



Photo 32



8: Cowboy Bunkhouse:  
Mesh cladding patch.

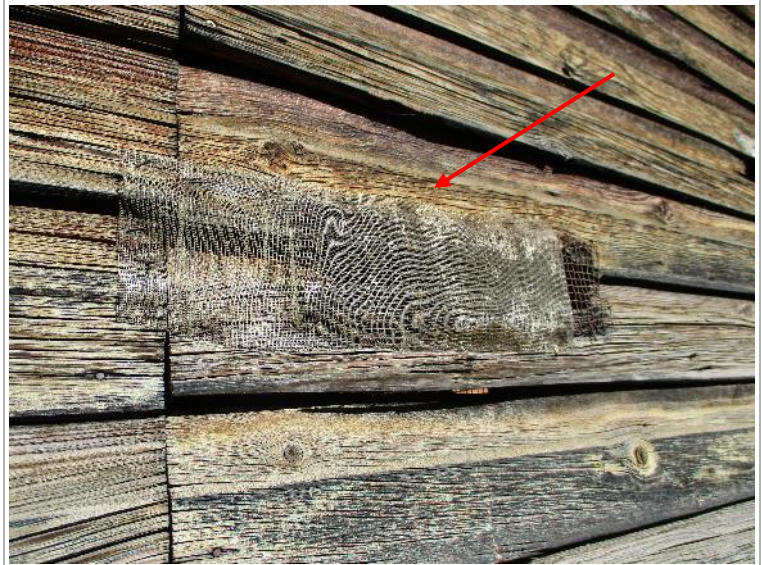


Photo 33

9: Bird Pens:  
General view of North elevation.



Photo 34

10: Windmill #1:  
General view.



Photo 35

11: Log Barn:  
General View of South corner.



Photo 36



11: Log Barn:  
Stained roof sheathing.



Photo 37

11: Log Barn:  
Heaved out wood retaining wall.



Photo 38

11: Log Barn:  
Concrete slab at East lean-to.



Photo 39

12: Hay Shed:  
General view of South elevation.



Photo 40



12: Hay Shed:  
Eroded concrete and exposed rebar.



Photo 41

13: Ye Ol' Feed Shed:  
General view of South corner.



Photo 42



14: Meat & Dairy:  
General view of West elevation.



Photo 43

14: Meat & Dairy:  
General view of North elevation.



Photo 44

14: Meat & Dairy:  
General view of East elevation.



Photo 45

14: Meat & Dairy:  
Organic growth and ponding on flat roof.



Photo 46



14: Meat & Dairy:  
Corroded cladding and rotten structure at  
North elevation.



Photo 47

15: Chinese Cook's House:  
General view of South elevation.



Photo 48

15: Chinese Cook's House:  
General view of North-West corner.



Photo 49

15: Chinese Cook's House:  
Stair is nailed to cladding at top.



Photo 50



16: Log House:  
General view of South-East corner.



Photo 51

16: Log House:  
General View of North elevation and roofs.



Photo 52



16: Log House:  
Low edge of sheet metal lean-to roof.



Photo 53

17: General Store:  
General view of South elevation.



Photo 54

17: General Store:  
General view of North-East corner.



Photo 55

17: General Store:  
Interior exposed structure.



Photo 56



17: General Store:  
Water-stained soffit.



Photo 57

18: Blacksmith Shop:  
General view of South-East corner.



Photo 58

18: Blacksmith Shop:  
General view of North elevation and roof.



Photo 59

18: Blacksmith Shop:  
Woodpecker hole and previous metal patches.

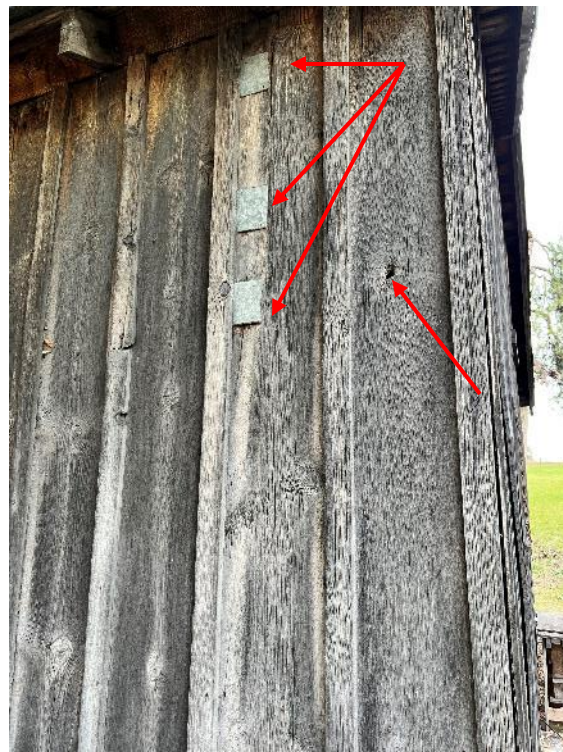


Photo 60



19: Red Shed:  
General view of North elevation.



Photo 61

19: Red Shed:  
Foundation bowed out at South elevation.



Photo 62



19: Red Shed:  
Deflected ceiling in East room.



Photo 63

20: Carriage Shed:  
General view of North elevation.



Photo 64

20: Carriage Shed:  
Undermined foundation at South elevation.



Photo 65

21: St. Anne's Church:  
General view of South and East elevations.



Photo 66

21: St. Anne's Church:  
General view of North and West elevations.



Photo 67

21: St. Anne's Church:  
Typical condition of windows.



Photo 68



22: Smoke House:  
General view of South elevation.



Photo 69

22: Smoke House:  
General view of North elevation.



Photo 70

23: Pump House:  
General view of South elevation.



Photo 71

23: Pump House:  
General view of North elevation and roof.



Photo 72



23: Pump House:  
Interior water staining.



Photo 73

24: Windmill #2:  
General View.



Photo 74

25: Water Cisterns:  
General view of East uncovered cistern.



Photo 75

25: Water Cisterns:  
Spalled parging at East uncovered cistern.



Photo 76



25: Water Cisterns:  
General view of West covered cistern South  
elevation of cover.



Photo 77

25: Water Cisterns:  
Water staining on underside of West cover  
roof sheathing.



Photo 78

26: Spallumcheen Pioneer Power Club  
Display #1:  
General view from South-East corner.



Photo 79

27: Spallumcheen Pioneer Power Club  
Display #2:  
General view from South elevation.



Photo 80

27: Spallumcheen Pioneer Power Club  
Display #2:  
Toe-nailed steel tie.



Photo 81



28: Implement Shed #1:  
General view of South elevation.



Photo 82

28: Implement Shed #1:  
General view of North elevation.



Photo 83

29: Implement Shed #2:  
General view of South and East elevations.



Photo 84

29: Implement Shed #2:  
General view of North elevation.



Photo 85



29: Implement Shed #2:  
General view of roof.



Photo 86

30: Tack Shed:  
General view of East elevation.



Photo 87

30: Tack Shed:  
General view of North elevation.



Photo 88

31: Corral:  
General view from North.



Photo 89



32: Glamping:  
Typical glamping site.



Photo 90

33: Balmoral School House:  
General view from South-East corner.



Photo 91

33: Balmoral School House:  
Rotted logs at South elevation.



Photo 92

33: Balmoral School House:  
Previous patch repair at south elevation.



Photo 93

34: Schubert House:  
General view of South and West elevations.



Photo 94

34: Schubert House:  
Typical condition of windows.



Photo 95



34: Schubert House:  
Missing plaster and lathe in kitchen and  
typical cracking.



Photo 96

34: Schubert House:  
Deteriorated cladding.



Photo 97



34: Schubert House:  
Foundation wall



Photo 98

35: Schubert Barn:  
General view of South and East elevations.



Photo 99

35: Schubert Barn:  
Deteriorated cladding and vapour barrier at  
North-West corner.



Photo 100

36: Spallumcheen Pioneer Power Club  
Clubhouse:  
General view of the South elevation.



Photo 101



36: Spallumcheen Pioneer Power Club  
Clubhouse:  
Rotted buried post at North lean-to.



Photo 102

36: Spallumcheen Pioneer Power Club  
Clubhouse:  
Typical condition of cladding and windows.



Photo 103

37: Storage Building:  
General view of East elevation.



Photo 104

38: Storage Shed:  
General view of South elevation.



Photo 105



38: Storage Shed:  
Missing shingles and sheeting at South end  
of roof.



Photo 106

A: Foot Bridge:  
General view from North



Photo 107

A: Foot Bridge:  
Supporting beam and structure.



Photo 108

B: Decommissioned Bridge  
General view showing deflection at midspan.



Photo 109



Engineers

## Appendix E

### Mechanical Report



210-1715 Dickson Avenue, Kelowna, BC V1Y 9G6  
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**O'Keefe Ranch**

**Near Vernon, B.C**

**City of Vernon**

**Building Condition Assessment Report  
Mechanical**

Revision 1  
8 January 2024  
PERMIT TO PRACTICE NO. 1001295



## 1.0 Executive Summary

Overall, the HVAC equipment at the O'Keefe Ranch has been well maintained and kept up to date where possible. Some of the plumbing fixtures and piping systems have been upgraded over the years where the piping is accessible.

Some of the inaccessible piping systems are getting close to the end of their service lives and could become increasingly unreliable. Consideration should be made to internally clean and inspect some of these systems from time to time as they still may have utility left in them despite their age.

A few installations do not comply with current standards regarding fire rated enclosures around gas fired appliances. Those instances are mentioned in the text of the report.

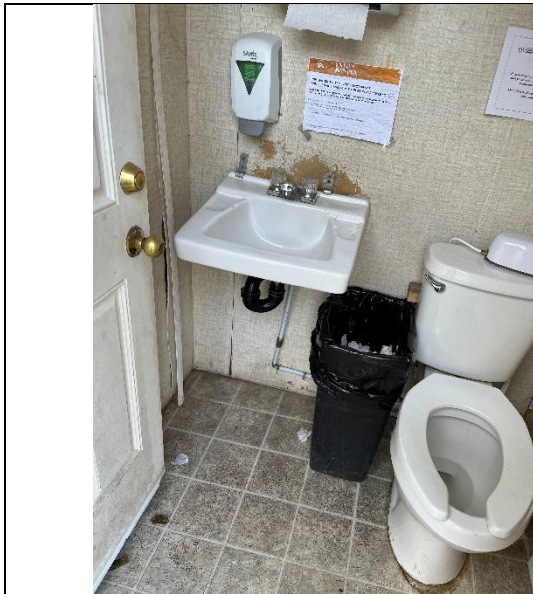
The Log House, General Store, Red Shed, Schubert House, Balmoral School, Cowboy Bunkhouse, Chinese Cooks House, Carriage Shed, St., Annes Church (accompanied with a furnace) have wood fired stoves in them. For many of these buildings, the wood fired appliances are the only source of heating. It may be that these buildings are not heated in the winter, rendering the appliance as authentic decoration. However, if the wood fired appliance is intended to be used for heating, then we recommend that a fully trained technician annually inspect the system and set up a program for regularly cleaning the flue. Unattended fireplaces are known sources of building fires and excessive soot in a flue can be the source of chimney fires. The buildings that these systems are in, are built with old and dry wood in them and would likely be very quick to burn in the event of an inadvertent fire.

## 2.0 Discussion of Mechanical Systems

### 1 Visitor Centre and Washroom Hut



#### D2010 - Plumbing Fixtures



##### Observations:

- Lavatories and water closets are in good condition and seem to have been recently upgraded.
- The lavatory is only served with cold water. Hot water has not been provided.

##### Recommendations:

- The existing fixtures should provide good service for the near future. Risk Rank 2E.
- Consideration should be made to provide hot water to both public washrooms for improved hand washing hygiene. Risk Rank 3D.




##### Observations:

- Kitchen equipment is in good shape but has been abandoned in place, as the restaurant is no longer in use.


##### Recommendations:

- No Recommendations.

## D2020 - Domestic Water Distribution


	<p>Observations:</p> <ul style="list-style-type: none"><li>• Original piping systems are copper systems. Recent upgrades have used approved plastic piping systems.</li><li>• The insulation is in poor condition or missing in certain locations.</li><li>• Some elbows witnessed look suspiciously to be made with asbestos.</li></ul>
	<p>Recommendations:</p> <ul style="list-style-type: none"><li>• The domestic water piping should provide good service for the near future. Nonetheless, the operators should look for pinhole leaks from time to time. Risk Rank 3C.</li><li>• Consideration should be made for upgrades to the existing insulation to save energy. Risk Rank 1E.</li><li>• The piping system should be assessed by a hazardous materials professional to determine if there is asbestos on these systems. Risk Rank 3B</li></ul>

## D2030 – Sanitary Waste


	<p>Observations:</p> <ul style="list-style-type: none"><li>• Sanitary waste systems utilize ABS piping systems where visible. Buried piping and piping within the walls were not reviewed.</li></ul>
	<p>Recommendations:</p> <ul style="list-style-type: none"><li>• The sanitary drainage piping should provide good service for the near future. However, the system is at an age where blockages could occur, so should be inspected and cleaned from time to time. Repairs if needed could be completed for the location at hand. There is no need for wholesale piping upgrades in the near future. Risk Rank 3D.</li></ul>




## D2090 - Domestic Water Heater

	<p>Observations:</p> <ul style="list-style-type: none"> <li>Domestic hot water has been recently upgraded with a 3 kW electric domestic water heater.</li> </ul>
	<p>Recommendations:</p> <ul style="list-style-type: none"> <li>The domestic water heater should provide good service for the near future.</li> <li>Consideration should be made to provide the water heater with a drain pan to catch and direct the water to a drainage system, in the event of a leak in the tank. Risk Rank 2C.</li> </ul>

## D3010 – Energy Supply


	<p>Observations:</p> <ul style="list-style-type: none"> <li>The bulk of the facilities that are heated are served through the natural gas meter and pressure regulation systems. These systems are owned and operated by the utility supplier. The only building that is heated but not connected to natural gas is the St. Annes Church, that has a dedicated propane tank.</li> <li>Gas piping where visible appears to be in good condition.</li> </ul>
	<p>Recommendations:</p> <ul style="list-style-type: none"> <li>No upgrades to the system are anticipated unless significant upgrades to the existing systems is initiated.</li> </ul>

## D3020 – Heat Generation Systems

	<p>Observations:</p> <ul style="list-style-type: none"> <li>Three furnaces have been recently upgraded with sealed combustion energy efficient units.</li> <li>These gas fired appliances have been installed in a room that is not fire rated.</li> </ul>
	<p>Recommendations:</p> <ul style="list-style-type: none"> <li>No upgrades to the system are anticipated in the near future. Risk Rank 1D.</li> <li>Consideration should be made to fire rate the room that the furnaces are installed. Risk Rank 2B.</li> <li>If the outdoor cooling unit is replaced, the indoor cooling coil will need to be replaced to match the outdoor unit. Risk Rank 5D</li> </ul>




## D3030 – Cooling Generation Systems

	<b>Observations:</b> <ul style="list-style-type: none"><li>• Cooling is provided by a single Lennox ten-ton cooling capacity condensing unit.</li><li>• The unit was manufactured in 1999.</li></ul>
	<b>Recommendations:</b> <ul style="list-style-type: none"><li>• The unit is nearing the end of its service life and should be replaced in the near future. Due to the change in refrigerants, the cooling coil on the furnaces will need to be replaced as well. Risk Rank 5D</li></ul>

## D3030 – Walk in Freezer Cooling System

	<b>Observations:</b> <ul style="list-style-type: none"><li>• The cooling equipment is near the end of its service life, but has effectively been abandoned in place, as the restaurant is no longer in use.</li></ul>
	<b>Recommendations:</b> <ul style="list-style-type: none"><li>• No recommendation.</li></ul>

## D3040 – Air Distribution Systems

	<b>Observations:</b> <ul style="list-style-type: none"><li>• The supply duct systems are in good shape considering the age of the system.</li></ul>
	<b>Recommendations:</b> <ul style="list-style-type: none"><li>• At most, an internal inspection of the duct and a duct cleaning every 5 years or so. Risk Rank 3E.</li></ul>

## 2 Greenhow Museum



### D2010 - Plumbing Fixtures




#### Observations:

- Sink is in good condition.


#### Recommendations:

- The existing fixtures should provide good service for the near future. Risk Rank 2E.
- Consideration should be made to provide hot water to both public washrooms for improved hand washing hygiene. Risk Rank 3D.

## D2020 - Domestic Water Distribution and Sanitary Waste


	<p>Observations:</p> <ul style="list-style-type: none"> <li>• Original piping systems are copper systems. Recent upgrades have used approved plastic piping systems.</li> <li>• The insulation is in poor condition or missing in certain locations.</li> <li>• Sanitary waste systems utilize ABS piping systems where visible. Buried piping and piping within the walls were not reviewed.</li> </ul>
	<p>Recommendations:</p> <ul style="list-style-type: none"> <li>• The domestic water piping should provide good service for the near future. Nonetheless, the operators should look for pinhole leaks from time to time. Risk Rank 3C.</li> <li>• Consideration should be made for upgrades to the existing insulation to save energy. Risk Rank 1E.</li> <li>• The sanitary drainage piping should provide good service for the near future. However, the system is at an age where blockages could occur, so should be inspected and cleaned from time to time. Repairs if needed could be completed for the location at hand. There is no need for wholesale piping upgrades in the near future. Risk Rank 3D.</li> </ul>

## D2090 - Domestic Water Heater


	<p>Observations:</p> <ul style="list-style-type: none"> <li>• The domestic hot water heater is old (approx. 40 years since manufactured) and is in need of replacement.</li> <li>• The water heater has not been provided with a drain pan.</li> </ul>
	<p>Recommendations:</p> <ul style="list-style-type: none"> <li>• The domestic water heater should be replaced soon. Risk Rank 4C.</li> <li>• Consideration should be made to provide the water heater with a drain pan to catch and direct the water to a drainage system, in the event of a leak in the tank. Risk Rank 4C.</li> </ul>



## D3010 – Energy Supply

	<b>Observations:</b> <ul style="list-style-type: none"><li>• The facility has a natural gas connection and pressure regulation station.</li><li>• Gas piping does not appear to have the appropriate protective coatings.</li></ul>
	<b>Recommendations:</b> <ul style="list-style-type: none"><li>• The Owner will want to engage a technician to ensure the systems are configured to Code. Risk Rank 2C.</li></ul>

## D3020 – Heat Generation Systems

	<b>Observations:</b> <ul style="list-style-type: none"><li>• The furnace was upgraded with sealed combustion energy efficient unit about 12 years ago.</li><li>• The gas fired appliances have not been installed in a room that is fire rated.</li></ul>
	<b>Recommendations:</b> <ul style="list-style-type: none"><li>• No upgrades to the system are anticipated in the near future. Risk Rank 2D.</li><li>• Consideration should be made to build a fire rated room that would house the furnaces and domestic water heater. Risk Rank 2B.</li></ul>



## D3030 – Cooling Generation Systems



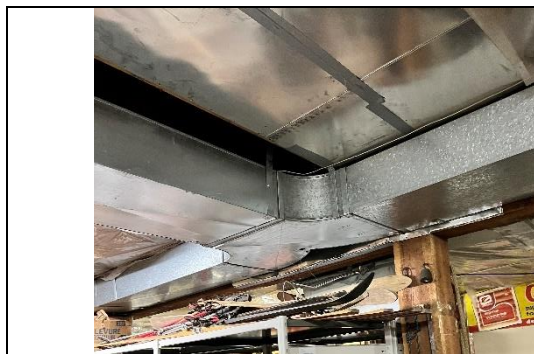
### Observations:

- Cooling is provided by a single window mounted air conditioning unit.

### Recommendations:

- If the unit fails, replacement units are readily available and relatively inexpensive. Risk Rank 3E

## D3040 – Air Distribution Systems



### Observations:

- The supply duct systems are in good shape considering the age of the system.

### Recommendations:

- At most, an internal inspection of the duct and a duct cleaning every 5 years or so. Risk Rank 3E.

### 3 Stagecoach Depot



### D2010 - Plumbing Fixtures



#### Observations:


- Lavatories, urinal, shower and water closets are new and well appointed.

#### Recommendations:


- The existing fixtures should provide good service for the near future. Risk Rank 2E.
- Consideration should be made to provide hot water to both public washrooms for improved hand washing hygiene. Risk Rank 3D.



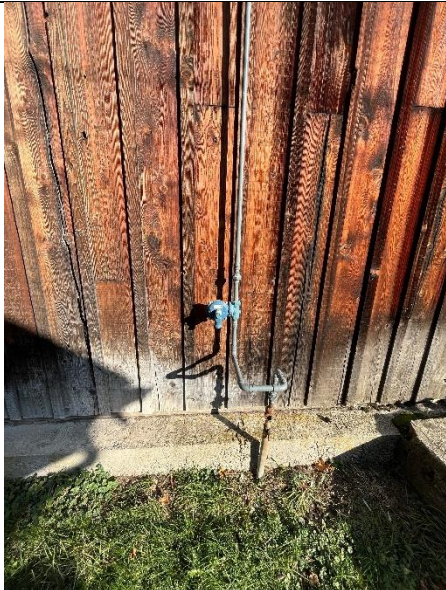
## D2020 - Domestic Water Distribution and Sanitary Waste

	<p>Observations:</p> <ul style="list-style-type: none"> <li>• Original piping systems are copper systems. Recent upgrades have used approved plastic piping systems.</li> <li>• The insulation is in poor condition or missing in certain locations.</li> <li>• Sanitary waste systems utilize ABS piping systems where visible. Buried piping and piping within the walls were not reviewed.</li> </ul>
	<p>Recommendations:</p> <ul style="list-style-type: none"> <li>• The domestic water piping should provide good service for the near future. Nonetheless, the operators should look for pinhole leaks from time to time. Risk Rank 3C.</li> <li>• Consideration should be made for upgrades to the existing insulation to save energy. Risk Rank 1E.</li> <li>• The sanitary drainage piping should provide good service for the near future. However, the system is at an age where blockages could occur, so should be inspected and cleaned from time to time. Repairs if needed could be completed for the location at hand. There is no need for wholesale piping upgrades in the near future. Risk Rank 3D.</li> </ul>


## D2090 - Domestic Water Heater

	<p>Observations:</p> <ul style="list-style-type: none"> <li>• The domestic hot water heater was manufactured in 2006. The hot water tank is approximately <math>\frac{3}{4}</math> through the service life.</li> <li>• The gas fired appliances have not been installed in a room that is fire rated.</li> </ul>
	<p>Recommendations:</p> <ul style="list-style-type: none"> <li>• The domestic water heater should be replaced relatively soon. Risk Rank 4C.</li> <li>• Consideration should be made to build a fire rated room that would house the domestic water heater. Risk Rank 2B.</li> </ul>


## D3010 – Energy Supply

	<b>Observations:</b> <ul style="list-style-type: none"><li>The facility has a natural gas connection and pressure regulation station.</li></ul>
	<b>Recommendations:</b> <ul style="list-style-type: none"><li>The system should provide good service for the near future. Risk Rank 1D.</li></ul>

## D3020 – Heat Generation Systems

	<b>Observations:</b> <ul style="list-style-type: none"><li>Most areas are unheated.</li><li>Occupied areas use baseboard electric heaters.</li></ul>
	<b>Recommendations:</b> <ul style="list-style-type: none"><li>No recommendations</li></ul>

## D3030 – Cooling Generation Systems

	<b>Observations:</b> <ul style="list-style-type: none"><li>Cooling is provided by a single window mounted air conditioning unit.</li></ul>
	<b>Recommendations:</b> <ul style="list-style-type: none"><li>If the unit fails, replacement units are readily available and relatively inexpensive. Risk Rank 3E</li></ul>



## 4 O'Keefe House



### D2010 - Plumbing Fixtures




#### Observations:

- Lavatories, urinal, shower and water closets for the residence appear to be recently installed.
- The plumbing fixtures for the historic part of the mansion are of course old.


#### Recommendations:

- The existing fixtures should provide good service for the near future. Risk Rank 2E.

## D2020 - Domestic Water Distribution and Sanitary Waste


	<p>Observations:</p> <ul style="list-style-type: none"><li>• The residence appears to have relatively recent upgrades that have used approved plastic piping systems.</li><li>• Sanitary waste systems utilize ABS piping systems where visible. Buried piping and piping within the walls were not reviewed.</li><li>• The piping systems in the historic part of the mansion are not in use.</li></ul>
	<p>Recommendations:</p> <ul style="list-style-type: none"><li>• The domestic water piping should provide good service for the near future. Nonetheless, the operators should look for pinhole leaks from time to time. Risk Rank 3C.</li><li>• Consideration should be made for upgrades to the existing insulation to save energy. Risk Rank 1E.</li><li>• The sanitary drainage piping should provide good service for the near future.</li></ul>

## D2090 - Domestic Water Heater


	<p>Observations:</p> <ul style="list-style-type: none"><li>• The domestic hot water heater was installed in 2008. The hot water tank is approximately <math>\frac{3}{4}</math> through the service life.</li><li>• This gas fired appliances has not been installed in a room that is fire rated.</li><li>• The water heater has not been provided with a drain pan.</li></ul>
	<p>Recommendations:</p> <ul style="list-style-type: none"><li>• The domestic water heater should be replaced relatively soon. Risk Rank 4C.</li><li>• Consideration should be made to build a fire rated room that would house the domestic water heater. Risk Rank 2B.</li><li>• Consideration should be made to provide the water heater with a drain pan to catch and direct the water to a drainage system, in the event of a leak in the tank. Risk Rank 4C.</li></ul>




## D3010 – Energy Supply

	<b>Observations:</b> <ul style="list-style-type: none"> <li>The facility has a natural gas connection and pressure regulation station.</li> </ul>
	<b>Recommendations:</b> <ul style="list-style-type: none"> <li>The system should provide good service for the near future. Risk Rank 1D.</li> </ul>


## D3020 – Heat Generation Systems

	<b>Observations:</b> <ul style="list-style-type: none"> <li>The hot water heating systems for the historical portion of the building is served by a modern sealed combustion condensing boiler manufactured in 2013. The boiler is approximately ½ through its service life.</li> <li>This gas fired appliances have not been installed in a room that is fire rated.</li> </ul>
	<b>Recommendations:</b> <ul style="list-style-type: none"> <li>No upgrades to the system are anticipated in the near future. Risk Rank 2D.</li> <li>Consideration should be made to build a fire rated room that would house the boiler. Risk Rank 2B.</li> </ul>


## D3030 – Cooling Generation Systems

	<b>Observations:</b> <ul style="list-style-type: none"> <li>Cooling is provided by a single Rheem five-ton cooling capacity condensing unit.</li> <li>The unit was manufactured in 2016.</li> </ul>
	<b>Recommendations:</b> <ul style="list-style-type: none"> <li>The unit is 1/3 through its service life and should provide good service for the near future. Risk Rank 2D</li> </ul>


## D3040 – Cooling Distribution Systems

	<p>Observations:</p> <ul style="list-style-type: none"> <li>The fan and cooling coil are in fair shape considering the age of the system.</li> <li>The condensate is intentionally plugged and is showing signs of degradation and rust.</li> </ul>
	<p>Recommendations:</p> <ul style="list-style-type: none"> <li>Consideration should be made to provide a condensate pump. Risk Rank 3D</li> <li>If the outdoor cooling unit is replaced, the indoor cooling coil will need to be replaced to match the outdoor unit. Risk Rank 2D</li> </ul>

## D3040 – Heat Distribution Systems

	<p>Observations:</p> <ul style="list-style-type: none"> <li>Steel uninsulated piping is used for the hydronic heating systems. If the hot water heating system gets above 140°F, the bare pipe can scald bare skin in seconds. It appears that these systems are well barricaded from the public, to avoid an inadvertent incident.</li> </ul>
	<p>Recommendations:</p> <ul style="list-style-type: none"> <li>The system should provide good service for the near future. Risk Rank 1D.</li> <li>Care should continue to be made to keep the public from touching the heating piping and terminal units while the systems are hot.</li> </ul>

## D3050 – Terminal Heating

	<p>Observations:</p> <ul style="list-style-type: none"> <li>The heating systems are original and are still in use. It is hard to determine the life expectancy of these older systems, but they seem to be built to last as there are many facilities that utilize them.</li> </ul>
	<p>Recommendations:</p> <ul style="list-style-type: none"> <li>Deal with failing systems as they occur. Risk Rank 1C.</li> </ul>



## 18 Blacksmith Shop



### D3040 – Forge Venting Systems



#### Observations:

- Except for one system, the forge venting system will need to be replaced.

#### Recommendations:

- The systems should be replaced, and appropriate thimbles are needed for the penetrations through the roof. Risk Rank 5C.

## 20 Carriage Shed



## D2010 - Plumbing Fixtures



### Observations:


- Lavatories and water closets appear to be relatively new.

### Recommendations:


- The existing fixtures should provide good service for the near future. Risk Rank 2E.
- Consideration should be made to provide hot water to both public washrooms for improved hand washing hygiene. Risk Rank 3D.



## D2020 - Domestic Water Distribution and Sanitary Waste

	<p>Observations:</p> <ul style="list-style-type: none"><li>• Original piping systems are not visible. The systems are not likely to be very old as the washrooms seem to be a recent renovation to the building.</li><li>• Sanitary waste systems utilize ABS piping systems where visible. Buried piping and piping within the walls were not reviewed.</li></ul>
	<p>Recommendations:</p> <ul style="list-style-type: none"><li>• The domestic water piping should provide good service for the near future. Risk Rank 2E.</li><li>• The sanitary drainage piping should provide good service for the near future. Risk Rank 2E.</li></ul>

## D2090 - Domestic Water Heater

	<p>Observations:</p> <ul style="list-style-type: none"><li>• The electric domestic hot water heater is nearing the end of its service life.</li></ul>
	<p>Recommendations:</p> <ul style="list-style-type: none"><li>• The domestic water heater should be replaced relatively soon. Risk Rank 3D.</li></ul>

## 21 St Annes Church



### D3010 – Energy Supply



#### Observations:

- The bulk of the facilities that are heated are served through the natural gas meter and pressure regulation systems. These systems are owned and operated by the utility supplier. The only building that is heated but not connected to natural gas is the St. Annes Church, that has a dedicated propane tank.
- Gas piping where visible appears to be in good condition.


#### Recommendations:

- No upgrades to the system are anticipated unless significant upgrades to the existing systems is initiated.




## D3020 – Heat Generation Systems

<p>Photo not available</p>	<p>Observations:</p> <ul style="list-style-type: none"><li>• We assume there is a propane fired furnace in the ceiling space above the back entry to the church. Our sense is the unit is fairly old as the venting is an older style. Modern furnaces use plastic pipe for combustion air and venting.</li><li>• The gas fired appliances have been installed in a room that is not fire rated.</li></ul>
	<p>Recommendations:</p> <ul style="list-style-type: none"><li>• Consideration should be made to update the propane furnace to a sealed combustion condensing furnace considering the cost of propane. Risk Rank 2D.</li><li>• Consideration should be made to fire rate the room that the furnaces are installed. Risk Rank 2B.</li></ul>

	<p>Observations:</p> <ul style="list-style-type: none"><li>• The wood fired pot belly stove is not in use. The chimney for this unit has been reconfigured to serve the furnace mentioned above.</li></ul>
	<p>Recommendations:</p> <ul style="list-style-type: none"><li>• Refer to discussion in Executive Summary.</li></ul>


## D3040 – Air Distribution Systems

	<p>Observations:</p> <ul style="list-style-type: none"><li>• The supply duct systems are in good shape considering the age of the system.</li></ul>
	<p>Recommendations:</p> <ul style="list-style-type: none"><li>• At most, an internal inspection of the duct and a duct cleaning every 5 years or so. Risk Rank 3E.</li></ul>

## 23 Pump House



## D2020 - Domestic Water Distribution


	<p>Observations:</p> <ul style="list-style-type: none"><li>• The piping systems use galvanized, copper, and plastic piping. Galvanized piping is no longer approved on domestic water systems.</li><li>• The tanks and recent piping system appear to be functional.</li></ul> <p>Recommendations:</p> <ul style="list-style-type: none"><li>• The next time the system needs work, we recommended replacing the galvanized piping with approved domestic water system piping. Risk Rank 3D.</li></ul>
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32 Glamping Washroom Facilities



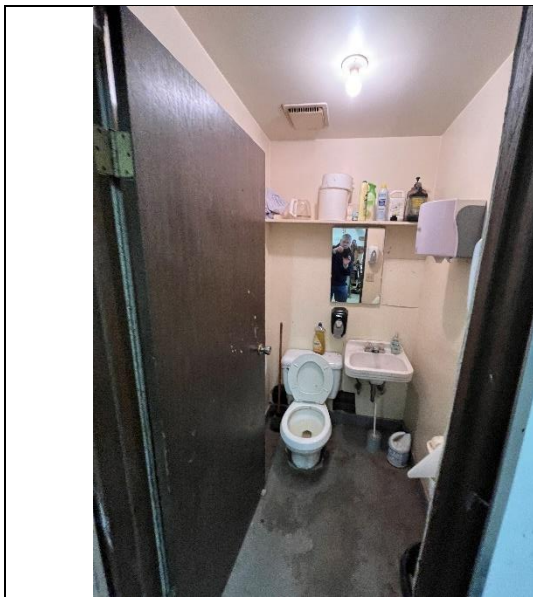
D2010 - Plumbing Fixtures

	<p>Observations:</p> <ul style="list-style-type: none"><li>• The water closets are a purpose-built composting type unit.</li><li>• The system appears to be functional. Composting toilets are generally not considered a “high volume” system.</li></ul> <p>Recommendations:</p> <ul style="list-style-type: none"><li>• As the glamping site becomes more popular, the operator may need to add more toilet systems to keep up with demand.</li></ul>
---	---

## 36 SPPC Clubhouse



### D2010 - Plumbing Fixtures



#### Observations:


- Lavatories and water closets are in fair condition but are still serviceable.

#### Recommendations:


- The existing fixtures should provide good service for the near future. Risk Rank 2E.




## D2020 - Domestic Water Distribution and Sanitary Waste

	<p>Observations:</p> <ul style="list-style-type: none"><li>• Original piping systems are copper.</li><li>• The insulation is in poor condition or missing in certain locations.</li><li>• Sanitary waste systems are not visible.</li></ul>
	<p>Recommendations:</p> <ul style="list-style-type: none"><li>• The domestic water piping should provide good service for the near future. Non the less, the operators should look for pinhole leaks from time to time. Risk Rank 3C.</li><li>• Consideration should be made for upgrades to the existing insulation to save energy. Risk Rank 1E.</li><li>• Based on the age of the building, sanitary drainage piping should provide good service for the near future. However, the system is at an age where blockages could occur, so should be inspected and cleaned from time to time. Repairs if needed could be completed for the location at hand. There is no need for wholesale piping upgrades in the near future. Risk Rank 3D.</li></ul>

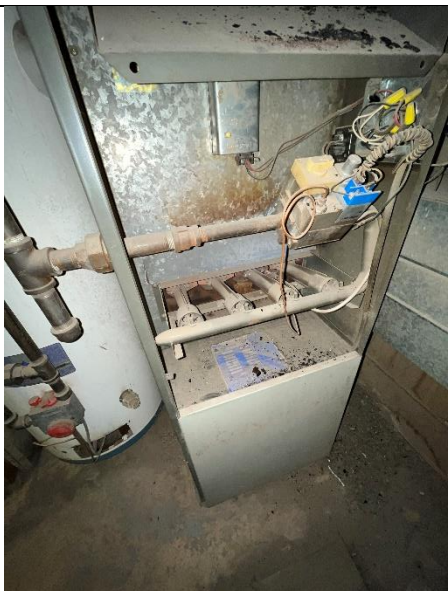
## D2090 - Domestic Water Heater

	<p>Observations:</p> <ul style="list-style-type: none"><li>• The domestic hot water heater is nearing the end of its service life and is need of replacement.</li><li>• This gas fired appliances has not been installed in a room that is fire rated.</li><li>• The water heater has not been provided with a drain pan.</li></ul>
	<p>Recommendations:</p> <ul style="list-style-type: none"><li>• The domestic water heater should be replaced soon. Risk Rank 4C.</li><li>• Consideration should be made to provide the water heater with a drain pan to catch and direct the water to a drainage system, in the event of a leak in the tank. Risk Rank 4C.</li><li>• Consideration should be made to build a fire rated room that would house the domestic water heater. Risk Rank 2B.</li></ul>

## D3010 – Energy Supply

	<p>Observations:</p> <ul style="list-style-type: none"><li>• The facility has a natural gas connection and pressure regulation station.</li><li>• Gas piping does not appear to have the appropriate protective coatings.</li></ul>
	<p>Recommendations:</p> <ul style="list-style-type: none"><li>• The Owner will want to engage a technician to ensure the systems are configured to Code. Risk Rank 2C.</li></ul>

## D3020 – Heat Generation Systems

	<p>Observations:</p> <ul style="list-style-type: none"><li>• The furnace is at the end of its service life.</li><li>• The gas fired appliances have not been installed in a room that is fire rated.</li></ul>
	<p>Recommendations:</p> <ul style="list-style-type: none"><li>• The system should be upgraded soon. Risk Rank 5D.</li><li>• Consideration should be made to build a fire rated room that would house the furnaces and domestic water heater. Risk Rank 2B.</li></ul>

## D3040 – Air Distribution Systems



### Observations:

- The supply duct systems are in good shape considering the age of the system.

### Recommendations:

- At most, an internal inspection of the duct and a duct cleaning every 5 years or so. Risk Rank 3E.

### 3.0 Considerations for Mechanical System Upgrade

Caveat. This review is intended to provide an external review of the conditions and configuration of the existing mechanical systems where they are apparent. The inside condition of many systems (hydronic, gas heating, or refrigerant systems for example) will affect the longevity of the equipment, and that assessment can only be achieved by qualified technicians performing an invasive inspection of the equipment. If there is reason to consider this sort of review, then those recommendations are listed in the text of the report. The main purpose of the report is to develop budgets for systems that need to be substantially upgraded. Individual equipment that needs to be replaced, under what would be considered a maintenance function, are generally not included in the report.

The budgetary guidance is provided under separate cover and is summarized with other recommendations.

An upgrade to the existing mechanical system will improve the operation, comfort, energy consumption, Code compliance, and maintenance of the facility. The specific recommendations are listed in the text of the report. The recommendations provided are based on successful implementation of similar systems in previous upgrades.

Don Poole P. Eng.





Engineers

## Appendix F

### Electrical Report



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**O'Keefe Ranch**

**Near Vernon, B.C**

**City of Vernon**


**Building Condition Assessment Report  
ELECTRICAL**


**Revision 1  
8 January 2024  
PERMIT TO PRACTICE NO. 1001295**



## 1.0 Introduction


O'Keefe Ranch receives power from a three phase BC Hydro power line that enters the property at the northwest corner. Three phase and single phase overhead BC Hydro owned and maintained power lines run through the property with pole mounted transformers (also BC Hydro owned and maintained) delivering secondary voltage (120/240V single phase and 120/208V three phase) services to several buildings, with other buildings sub-fed from those services.

	<b>Observations:</b> <ul style="list-style-type: none"><li>• BC Hydro overhead power line and 3 phase transformer bank with secondary DIP feeding the visitor's centre.</li></ul>
	<b>Recommendations:</b> <ul style="list-style-type: none"><li>• N/A. Equipment owned and maintained by BC Hydro.</li></ul>

	<b>Observations:</b> <ul style="list-style-type: none"><li>• BC Hydro overhead power line near where it enters the site by the Schubert Barn. Three phase line continues on to the Visitor's Centre and single phase tap continues on to the rest of the site. Single phase overhead secondary service to Schubert House.</li></ul>
	<b>Recommendations:</b> <ul style="list-style-type: none"><li>• N/A. Equipment owned and maintained by BC Hydro.</li></ul>

Interior lighting throughout the facility consists of a mixture of screw base incandescent style lampholders (mostly with LED lamps), older fluorescent fixtures, and residential style incandescent fixtures. As lamps and light fixtures fail it is recommended they be replaced with integral LED fixtures or at least with LED lamps.

Exterior lighting consists of some incandescent wall sconces on buildings, some older high intensity discharge (HID) davit lights mounted on wood poles, incandescent post top coach lights, and some in ground up lights at the church. This lighting is generally of poor quality, provides poor illumination levels, and is inefficient. It is recommended that all lighting be upgraded to LED fixtures as budgets permit.

	<p>Observations:</p> <ul style="list-style-type: none"><li>• Examples of exterior lighting.</li></ul>
	<p>Recommendations:</p> <ul style="list-style-type: none"><li>• Upgrade lighting to LED fixtures as budgets permit.</li></ul>







Generally speaking, electrical equipment installed is of residential quality and is quite old. Because the equipment is lightly loaded there are no major issues with the quality and age of the equipment, but in some cases replacement parts like circuit breakers may be difficult to obtain.


General maintenance of distribution equipment should include periodic testing of circuit breakers to ensure proper operation and checking wire connections to circuit breakers for loose connections. Most electrical equipment that is lightly loaded and not subject to vibration or weather should continue to operate without major issues.


## 2.0 Discussion of Electrical Systems

### 1 Visitor Centre and Washroom Hut




#### D5010 – Electrical Service


	<b>Observations:</b> <ul style="list-style-type: none"><li>• 400A-120/208V three phase secondary underground DIP BC Hydro service</li></ul>
	<b>Recommendations:</b> <ul style="list-style-type: none"><li>• n/a</li></ul>

	<b>Observations:</b> <ul style="list-style-type: none"><li>• Main switch and sub-switches feeding several panel in the building.</li></ul>
	<b>Recommendations:</b> <ul style="list-style-type: none"><li>• Maintain switches</li></ul>

## D5020 – Lighting and Branch Circuit Wiring

	<b>Observations:</b> <ul style="list-style-type: none"><li>Emergency lighting is minimal but has been maintained. Lighting is generally fluorescent in fair condition.</li></ul>
	<b>Recommendations:</b> <ul style="list-style-type: none"><li>Continue annual checks of EM lighting. Upgrade general lighting to LED as fixtures fail or when funding is available.</li></ul>

## D5030 – Communications and Security


	<b>Observations:</b> <ul style="list-style-type: none"><li>Building has a fire alarm system with minimal fire detectors.</li></ul>
	<b>Recommendations:</b> <ul style="list-style-type: none"><li>Continue annual verification and testing of fire alarm system.</li><li>Adding fire alarm devices could improve early detection of fires but not required by code.</li></ul>




## 2 Greenhow Museum




### D5010 – Electrical Service and Distribution

	Observations: <ul style="list-style-type: none"><li>• 100A-120/240V BC Hydro service is adequate.</li></ul>
	Recommendations: <ul style="list-style-type: none"><li>• Maintain circuit breakers</li></ul>

## D5020 – Lighting and Branch Wiring

	Observations: <ul style="list-style-type: none"><li>• Mixture of fluorescent and screw base track lighting</li><li>•</li></ul>
	Recommendations: <ul style="list-style-type: none"><li>• Upgrade general lighting to LED as fixtures fail or funding becomes available</li></ul>

## D5030 – Communications and Security

	Observations: <ul style="list-style-type: none"><li>• Minimal but acceptable level of emergency lighting and exit signage. No fire alarm system.</li></ul>
	Recommendations: <ul style="list-style-type: none"><li>• Continue annual checks of EM lighting.</li></ul>



### 3 Stagecoach Depot



### D5010 – Electrical Service and Distribution




#### Observations:


- Newer 200A-120/240V single phase BC Hydro service and panel

#### Recommendations:

- Continue to maintain.

	Observations: <ul style="list-style-type: none"> <li>• Old decommissioned meter base on west side of building.</li> <li>•</li> </ul>
	Recommendations: <ul style="list-style-type: none"> <li>• Remove.</li> </ul>

## D5020 - Lighting and Branch Wiring


	Observations: <ul style="list-style-type: none"> <li>• Newer LED lighting in washrooms, fluorescent and screw base track in other areas.</li> </ul>
	Recommendations: <ul style="list-style-type: none"> <li>• Upgrade general lighting to LED as fixtures fail or funding becomes available.</li> </ul>



## 4 O'Keefe House



### D5010 – Electrical Service and Distribution

	<b>Observations:</b> <ul style="list-style-type: none"><li>• 200A single phase BC Hydro service is adequate. 60A sub panel adjacent.</li><li>• </li></ul>
	<b>Recommendations:</b> <ul style="list-style-type: none"><li>• N/A</li></ul>

## D5020 - Lighting and Branch Wiring



### Observations:

- Communications wiring and branch circuit wiring in basement is very messy.

### Recommendations:

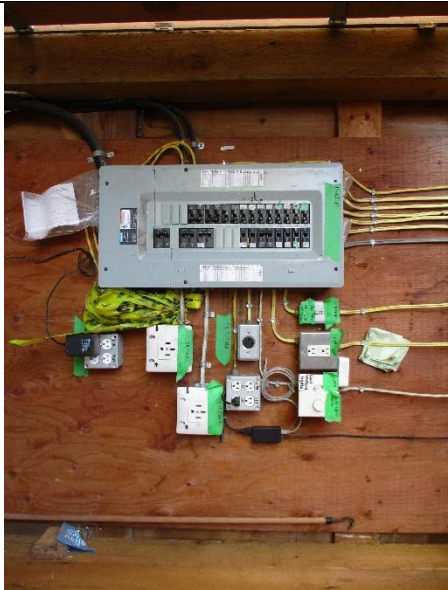
- Clean up and support wiring in basement.

## 5 Pavilion






## D5010 – Electrical Service and Distribution

	<p>Observations:</p> <ul style="list-style-type: none"><li>• 100A-120/240V single phase service is sub-fed from the adjacent building. Special event receptacles installed adjacent.</li></ul>
	<p>Recommendations:</p> <ul style="list-style-type: none"><li>• Maintain devices as required.</li></ul>

## D5020 – Lighting and Branch Wiring

	<p>Observations:</p> <ul style="list-style-type: none"><li>• Screw base residential fixtures and string light suitable for location as long as no water spraying is done</li></ul>
	<p>Recommendations:</p> <ul style="list-style-type: none"><li>• Ensure LED lamps are utilized. Weatherproof outdoor rated lights could be considered as an upgrade.</li><li>• Continue to maintain emergency lighting battery packs.</li></ul>

## 6 Gazebo



### DD5010 Electrical Service & Distribution



#### Observations:

- Single lighting circuit fed from Pavilion

#### Recommendations:


- N/A



## 11 Log Barn



### D5010 – Electrical Service and Distribution

	<b>Observations:</b> <ul style="list-style-type: none"><li>• 60A-120/240V single phase panel sub-fed from another building is adequate</li></ul>
	<b>Recommendations:</b> <ul style="list-style-type: none"><li>• The systems should be replaced, and appropriate thimbles are needed for the penetrations through the roof. Risk Rank 5C.</li></ul>

## 14 Meat and Dairy



### D5010 – Electrical Service and Distribution



#### Observations:

- Circuit fed overhead from mansion. Disconnect is very old and may fail when operated.

#### Recommendations:

- Replace disconnect switch.



## 16 Log House



### D5010 – Electrical Service and Distribution



#### Observations:

- 100A-120/240V single phase BC Hydro service is adequate.

#### Recommendations:

- N/A



## 17 General Store



## D5010 – Electrical Service and Distribution



### Observations:

- 30A-120/240V single phase load centre located under the counter is sub-fed from the Log House service and is adequate for the usage.

### Recommendations:

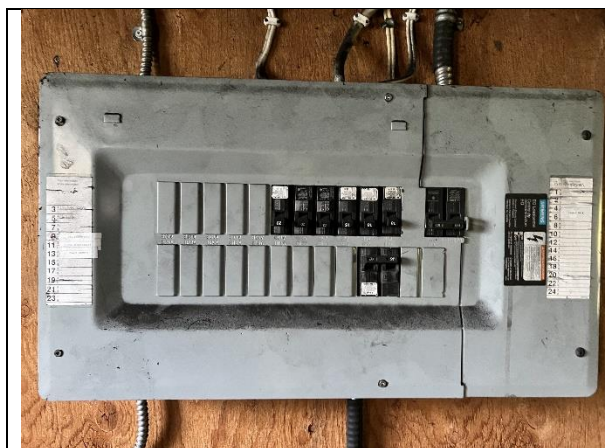
- N/A



## 18 Blacksmith Shop



### D5010 – Electrical Service and Distribution



#### Observations:

- Panel is sub-fed from the Log House at 60A-120/240V single phase and appears adequate for the useage.


#### Recommendations:

- N/A

## 19 Red Shed



## D5010 – Electrical Service and Distribution


	<b>Observations:</b> <ul style="list-style-type: none"><li>• 120/240V load centre panel is fed from the Carriage Shed service.</li></ul>
	<b>Recommendations:</b> <ul style="list-style-type: none"><li>• N/A</li></ul>



## 20 Carriage Shed



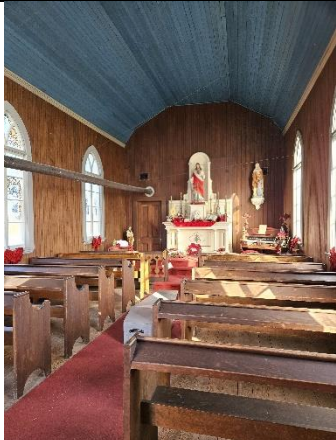
## D5010 – Electrical Service and Distribution

 A close-up photograph of an electrical load centre panel mounted on a wooden wall. The panel is open, showing internal components like circuit breakers and wiring. Handwritten labels are visible on the panel.	<p>Observations:</p> <ul style="list-style-type: none"><li>• 120/240V load centre panel is fed from a BC Hydro pole on the highway.</li><li>• </li></ul> <p>Recommendations:</p> <ul style="list-style-type: none"><li>• N/A</li></ul>
--	--

## 21 St Annes Church




### D5010 – Electrical Service and Distribution

	<b>Observations:</b> <ul style="list-style-type: none"><li>Two circuits for interior and exterior lighting and a receptacle are sub-fed from the Blacksmith Shop panel.</li></ul>
	<b>Recommendations:</b> <ul style="list-style-type: none"><li>N/A</li></ul>



## D5020 – Lighting and Branch Wiring

	Observations: <ul style="list-style-type: none"><li>• Exterior in ground lights are proud of the ground.</li></ul>
	Recommendations: <ul style="list-style-type: none"><li>• Check that these lights are properly installed and protected from equipment damage.</li></ul>

## 23 Pump House



## D5010 – Electrical Service and Distribution




### Observations:

- Electrical panel is sub-fed from Implement Shed.

### Recommendations:

- Older style ITE panel breakers will be difficult to obtain. Panel should be scheduled for replacement.


	<p>Observations:</p> <ul style="list-style-type: none"> <li>Pumphouse has a manual transfer switch for connection of a portable generator.</li> </ul> <p>Recommendations:</p> <ul style="list-style-type: none"> <li>N/A</li> </ul>
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## 23 SPPC#1





## D5010 – Electrical Service and Distribution


	<p>Observations:</p> <ul style="list-style-type: none"><li>• Circuits fed from panel in SPPC#2. Non-weatherproof disconnect switch is exposed to weather and is rusting.</li></ul> <p>Recommendations:</p> <ul style="list-style-type: none"><li>• Replace disconnect switch with weatherproof.</li></ul>
---	---

## 27 SPPC#2






## D5010 – Electrical Service and Distribution

	<p>Observations:</p> <ul style="list-style-type: none"><li>• Newer 100A-120/240V single phase panel is located in weather protective wooden cabinet.</li></ul> <p>Recommendations:</p> <ul style="list-style-type: none"><li>• N/A</li></ul>
---	--

## 28 Implement Sheds



## D5010 – Electrical Service and Distribution



	<p>Observations:</p> <ul style="list-style-type: none"> <li>Newer 100A-120/240V single phase panel is located in weather protective wooden cabinet.</li> </ul> <p>Recommendations:</p> <ul style="list-style-type: none"> <li>N/A</li> </ul>
---	--

### 34 Schubert House






## D5010 – Electrical Service and Distribution

 	<p>Observations:</p> <ul style="list-style-type: none"><li>600A-120/240V single phase service BC Hydro overhead service is sufficient for the use</li></ul>
	<p>Recommendations:</p> <ul style="list-style-type: none"><li>Provide missing breaker fillers.</li></ul>

## D5020 – Lighting and Branch Wiring

	<p>Observations:</p> <ul style="list-style-type: none"><li>Wiring appears to be standard NMD-90 cable throughout.</li></ul>
	<p>Recommendations:</p> <ul style="list-style-type: none"><li>Wiring in crawlspace should be cleaned up.</li></ul>

### 35 Schubert Barn



### D5010 – Electrical Service and Distribution



#### Observations:

- Single lighting circuit is fed from the house.

#### Recommendations:

- N/A



## 36 SPPC Clubhouse



## D5010 – Electrical Service and Distribution




### Observations:

- 200A 120/240V single phase panel is fed overhead from BC Hydro system.

### Recommendations:

- Maintain circuit breakers.

## D5090 Other Electrical Systems

	Observations: <ul style="list-style-type: none"><li>• Minimal emergency lighting is installed</li></ul>
	Recommendations: <ul style="list-style-type: none"><li>• Continue to test emergency lighting regularly.</li></ul>



Engineers

## Appendix G

### Roof Maintenance Guide and Replacement Prioritization

## General Roof Maintenance

A basic preventative maintenance program is the simplest method for prolonging the service life of roof assemblies. This program should include visual review of the roof and its associated components to identify minor items which, if neglected, can accelerate the deterioration of the roof assembly. The tables below provides a basic preventative maintenance programs for flat and sloped roof assemblies that could be adopted as required based on the Client's needs. Any items which are identified during these reviews should be addressed in the short term as deferral typically results in the item being dismissed or forgotten.

**TABLE G1: GENERAL MAINTENANCE PROGRAM – SLOPED ROOM**

General Care Item	Frequency
<p>General visual review of roof and associated flashings and drains:</p> <ul style="list-style-type: none"> <li>▪ Clean debris from gutters</li> <li>▪ Ensure gutters and downspouts</li> <li>▪ Check for loose flashings</li> <li>▪ Check roof penetrations to ensure they are still sealed</li> <li>▪ Check underside of sheathing for staining or organic growth</li> </ul>	<p>Twice per year (Fall and Spring) / After significant weather even</p>
<p>Repair observable defects as soon as possible to limit potential water ingress into the roof assembly:</p> <ul style="list-style-type: none"> <li>○ Blisters, loose seams, scouring, etc.</li> <li>○ Missing shingles, shakes, or tiles; warping; etc.</li> <li>○ Dented or damaged metal panels, corrosion, etc.</li> </ul>	<p>Once a year / as required</p>

## Component-specific Maintenance items

The maintenance of the roof assembly is not limited to the shingles, shakes, membrane and associated flashings. Roofs typically incorporate various mechanical and electrical assemblies, all of which can have detrimental effects on the roof assembly if neglected. These assemblies include items such as roof vents, drains, HVAC units, and roof penetrations. Table 2 provides a general description of items which should be reviewed, their maintenance requirement, as well as their anticipated frequency.

**TABLE G2: COMPONENT SPECIFIC MAINTENANCE SUMMARY**

Component	Maintenance	Frequency
Drains, Gutters, and Downspouts	<ul style="list-style-type: none"> <li>▪ Clean debris obstructing drainage</li> <li>▪ Ensure drain screens are functional</li> </ul>	Twice a year (Spring and Fall)





TABLE G2: COMPONENT SPECIFIC MAINTENANCE SUMMARY

Component	Maintenance	Frequency
Ballast	<ul style="list-style-type: none"> <li>Re-distribute aggregate to ensure membrane is protected. Typical problem areas: <ul style="list-style-type: none"> <li>Roof corners</li> <li>Foot traffic areas</li> <li>Ventilators and mechanical units</li> </ul> </li> </ul>	Twice a year (Spring and Fall)
Reglets and Caulking	<ul style="list-style-type: none"> <li>Ensure sealant/mortar joint is in good condition</li> </ul>	Every five years
Flashing	<ul style="list-style-type: none"> <li>Ensure sealant is in good condition</li> <li>Ensure flashings are firmly attached</li> </ul>	Every five years
Gum Pans and Pitch Pockets	<ul style="list-style-type: none"> <li>Ensure item is "crowned" to ensure drainage</li> <li>Check for cracks in the seal</li> </ul>	Every five years
Plumbing Caps	<ul style="list-style-type: none"> <li>Ensure clamp rings and caps are firmly fastened</li> <li>Ensure that seals are in good condition</li> </ul>	Every year
Mechanical Units	<ul style="list-style-type: none"> <li>Ensure vents are not damaging membrane</li> <li>Ensure drainage is not damaging membrane</li> </ul>	Every year

## Recommendation of Roof Replacement Prioritization

The following list provides context on the relative condition of the roofs at Historic O'Keefe Ranch to guide decision making when planning the recommended Roof Replacement Program. Level 5 roofs should be considered first for replacement, and Level 1 roofs should be considered last for replacement unless conditions change. Level 0 roofs are not recommended for replacement in the next ten years.

### Level 5

Stagecoach Depot  
Chinese Cook's House  
Storage Shed

### Level 2

Caretaker's House  
Log Barn Lean-Tos  
Water Cistern Cover

### Level 4

Cowboy Bunkhouse  
Meat and Dairy Low-Slope Roof  
General Store  
Blacksmith Shop  
Implement Shed #2  
SPPC Clubhouse Lean-To Roof

### Level 1

Hay Shed  
Red Shed  
Carriage Shed  
Balmoral School House

### Level 3

Greenhow Museum  
O'Keefe House  
Pioneer Cabin  
Log Barn  
Meat and Dairy Sloped Roof  
Log House  
SPPC Display #2  
Implement Shed #1  
Schubert House  
Schubert Barn

### Level 0

Visitor Center  
Pavilion  
Gazebo  
Bird Pens  
Ye Ol' Feed Shed  
St. Anne's Church  
Smoke House  
Pump House  
SPPC Display #1  
Tack Shed  
SPPC Clubhouse  
Storage Building



Engineers

## Appendix H

### Limits of Liability

## Limits of Liability

This report is intended to provide The City of Vernon with a general description of the systems employed in the buildings and to comment on their general condition which was apparent at the time of our review. We did not perform any calculations to confirm the adequacy of the elements. The scope of services did not include an evaluation of the original building design or a detailed engineering investigation. A structural loading or seismic review was not performed.

The review undertaken was of a visual nature only. No testing or dismantling of any coverings was performed. Reviews were made on a random basis with no attempt to review every element or portion of the building(s). Comments are not a guarantee or warranty of the condition of the building or that the building has been built in accordance with the drawings and specifications. Given the limitations of a visual review, defects hidden from view or under-designed components may not have been detected.

Drawings and information relating to the building were used solely to supplement the visual review and to obtain design information on elements hidden from view so that a more accurate building description could be provided.

Opinions of probable cost provided by RJC may be based on incomplete or preliminary information, and may also be based on factors over which RJC has no control. RJC does not guarantee the accuracy of these cost estimates and shall have no liability where cost estimates are exceeded or are less.

RJC prepared this report for the use of The City of Vernon. The material in it reflects RJC's judgement in light of information available to RJC at the time of preparation. Any use that a third party makes of this report, or any reliance or decisions to be based on it, is the responsibility of such third parties. RJC accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

The work in this report does not include any assessment or costing of hazardous materials that may be present at the building. Assessment and inventory of hazardous materials should be made by consultants specializing in that field of work. Neither RJC, nor any company with which it is affiliated, nor any of their respective directors, employees, agents, servants or representatives shall in any way be liable for any claim, whether in contract or in tort including negligence, arising of or relating in any way to hazardous materials such as asbestos, lead, mould, mildew or other fungus, including the actual, alleged or threatened existence, effects, ingestion, inhalation, abatement, testing, monitoring, remediation, enclosure, decontamination, repair, or removal of the actual or alleged failure to detect hazardous materials.