

December 23, 2022



Engineers

Perry Freeman
Kelowna Train Station Inc.
c/o INC. NO. BC 0847922
5711 1st Street SE
Calgary, AB T2H 1H9
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Dear Perry Freeman,

**RE: Heritage Element and Structural Visual Assessment
Kelowna Train Station Pub
1177 Ellis Street, Kelowna, BC**

RJC No. KEL.104377.0006

Introduction

RJC has been commissioned by Kelowna Train Station Inc. as part of a City of Kelowna request to complete a condition assessment of the building structure and select heritage components of the Train Station Pub located at 1177 Ellis St in Kelowna, BC. The purpose of our work is to assess the building to form an opinion of the general condition of the various building components included in the scope of work, evaluate the associated level of maintenance and identify items of concern or factors which may affect building systems maintenance and renewal budgets. RJC's scope of work consisted of the following:

- Review the available building drawings and reports.
- Attend the site to complete a visual review of the building. RJC's site visit was completed by Bret Depner and Michael Blackman on December 13, 2022.
- Discuss the site conditions and any existing areas of concern with the site staff.
- Prepare a condition assessment report detailing observations, conclusions and recommendations.

General photos and observations have been included in Appendix A. Limits of Commission regarding our scope is provided in Appendix B.

Building History

The Train Station Pub is a one-storey, wood-frame building on a concrete foundation located in the downtown core of Kelowna, BC (Photo 1 and 2). The original date of construction is circa 1926. Wall superstructure is



understood to be conventional wood framing. The main floor over the crawl space is wood-framed with steel upgrade elements. The roof consists of a timber truss system with members of unknown size and configuration. The structure is supported on concrete perimeter stem walls and interior concrete columns, which are presumed to bear on strip and pad footings.

Exterior cladding includes stucco upper walls and stone lower walls with brick features at corners and doors. The roof is covered with shingles.

The building has heritage designation. The heritage items are identified in the Heritage Character and Elements report provided to RJC and are labelled as follows for this letter:

- Roof
- Windows and Doors
- Façade (including stucco, brick masonry and stone veneers)
- Landscape (not in RJC's review scope)

The City also requested a review of the subject building with regard to heritage values and past significance of the site and existing buildings but this is outside of our current scope of engagement.

From discussions with staff on site, there was a recent roof leak from a fastener penetration. RJC has been advised by staff on site that this has been repaired by a local contractor.

Observation of the Structure

RJC was granted access to the crawlspace to review the foundation and floor structural assembly. The majority of the superstructure, including wall and roof framing, is covered by finishes and cannot be directly observed. Following are RJC's observations from the accessible areas of the building foundation and superstructure:

- Foundation
 - The building foundation wall consists of concrete of unknown thickness with a 2x6 wood build out on the interior side of the wall. The build out is located at the east end of the crawlspace and is not continuous around the entire foundation wall (Photo 3).
 - There is a mud slab of unknown thickness in the crawlspace. The crawlspace mud slab contained minor cracks (Photo 4). RJC is of the opinion that these cracks are not structurally significant.



- Main Floor
 - The floor system consists of 2x10 floor joists spaced at 16" o/c. Some floor joists were sistered with additional 2x10 joists (Photo 5), presumably during prior renovation work. The floor joists are embedded into the concrete foundation wall at one end and are bearing on 8" wide x 11" deep rough-sawn timber beams at the other end. The beams are bearing on concrete columns (Photo 6).
 - Structural steel C-channels have been fastened to most of the timber beams supporting the floor. It appears that these have been installed after original construction to increase the load capacity of these members (Photo 7).
 - There are localized signs of moisture staining and deterioration on the joists and beams below the bathroom at the north end of the building (Photo 8) and the bar (Photo 9). There is a vent and a drain located at the bar and bathroom, respectively. Floor framing at both locations does not appear to be deteriorated to a point of structural concern. Plans should be developed to monitor and maintain these locations.
- Superstructure
 - Visible portions of the existing roof trusses appeared to be in good condition (Photo 10).
 - The wall systems appeared to consist of 2x studs at unknown spacing. No exploratory recesses were performed to confirm the size or spacing of the studs, however the wall appeared to be in good condition.
 - Based on review of interior and exterior finishes RJC found no indication of structural distress or deterioration in the existing building superstructure.

Observations of the Heritage Items

As noted above the reviewed heritage items consisted of the roof, window and doors, and the facade (stucco, brick, stone veneer). A summary of our findings are below:

- The roof appeared to be in good condition other than minor curling of the shingles (Photo 11).
- The windows and doors appeared to be in good condition other than chips and peeling of the paint on the units and the trim (Photo 12). Trim had become detached at one window in the room that accesses the crawlspace (Photo 13). These are maintenance items and should be included in future maintenance plans.
- The exterior stucco is generally in good condition other than minor marks and staining (Photo 14).



Recommendations

As noted in our observations, RJC found no indications of distress in the existing base-building structure. In general, recommendations are for maintenance purposes and are summarized as follows:

- Periodic monitoring of the progression of the water damage in the crawlspace below the bar vent and the north bathroom drain.
- Paint touch-ups and/or trim repairs at multiple doors and windows.
- Replacement of curling roof shingles.
- General cleaning of the stucco to remove the dirt and stains.

Closing

This report was prepared for Kelowna Train Station Inc. It is not for the use or benefit of, nor may it be relied upon, by any other person or entity, without written permission of RJC. Refer to Appendix B for additional Limits of Commission.

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.

Bret Depner, EIT
Design Engineer

EGBC Permit to Practice number: 1002503
Michael Blackman, B.A.Sc., P.Eng., LEED® AP BD+C, FEC
Principal

BJD/vml

Appendix A – Photos and Observations
Appendix B – Limits of Commission

ATTACHMENT A
This forms part of application
HRA22-0001
Planner Initials BC
City of Kelowna
DEVELOPMENT PLANNING



Engineers

APPENDIX A

PHOTOS AND OBSERVATIONS



PHOTOS	
Description	Photo
<p>December 13, 2022</p> <p>General overview of western end of the north elevation.</p>	 <p style="text-align: center;">Photo 1</p>
<p>December 13, 2022</p> <p>General overview of eastern end of the north elevation.</p>	 <p style="text-align: center;">Photo 2</p>



December 13, 2022

2x6 stud wall build out on the interior of the concrete foundation wall.



Photo 3

December 13, 2022

Crack in the mud slab.

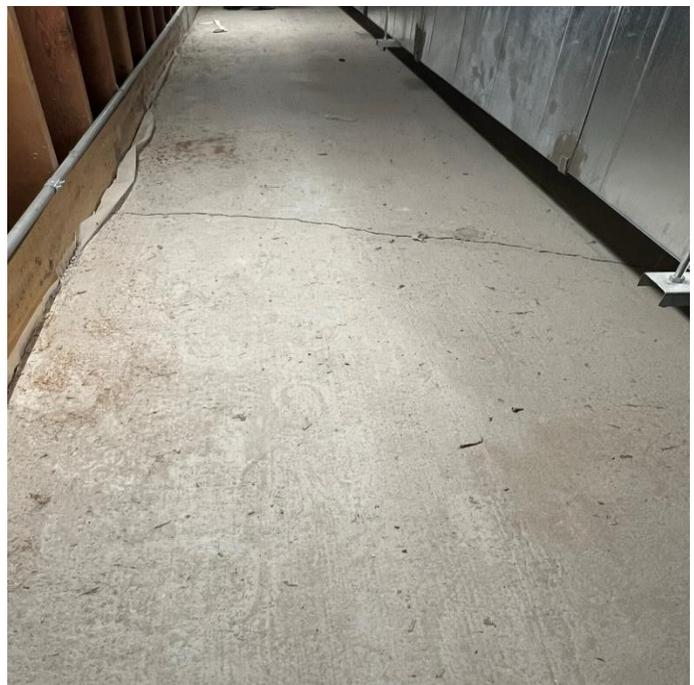


Photo 4



December 13, 2022

Overview of the original 2x10 joists sistered with additional 2x10 joists.



Photo 5

December 13, 2022

Overview of the beams bearing on concrete columns.



Photo 6

December 13, 2022

Metal C-channel installed after original construction.



Photo 7

December 13, 2022

Moisture staining in floor joists below washroom. Concrete cut-out in original foundation wall.

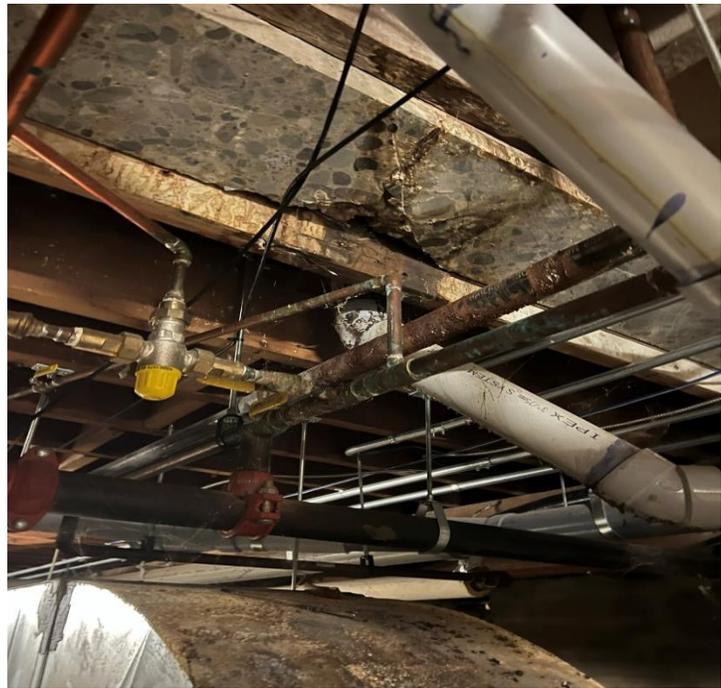


Photo 8

December 13, 2022

Moisture staining in joists and floorboard near vent location below the bar.



Photo 9

December 13, 2022

Overview of exposed roof trusses.



Photo 10



December 13, 2022

Curling shingles on the east end of the south elevation.



Photo 11

December 13, 2022

Peeling of paint and chips in the door on the south elevation.



Photo 12



December 13, 2022

Detachment of the window trim on the interior of the window in the room that accesses the crawlspace.



Photo 13

December 13, 2022

Dirt and staining on the stucco.



Photo 14

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APPENDIX B

LIMITS OF COMMISSION



Kelowna Trains Station Inc. recognizes that special risks occur whenever engineering or related disciplines are applied to identify hidden elements or portions of a building. Even a comprehensive sampling and testing program, implemented with the appropriate equipment and experienced personnel under the direction of a trained professional who functions in accordance with a professional standard of practice may fail to detect certain conditions, because they are hidden and therefore cannot be considered in development of a repair program. For similar reasons actual conditions that the design professional properly inferred to exist between examined conditions may differ significantly from those that actually exist.

Kelowna Trains Station Inc. realizes that nothing can be done to eliminate these risks altogether. As a result, we cannot guarantee the accuracy of opinions of probable cost and shall assume no liability where the probable costs are exceeded.

Kelowna Trains Station Inc. recognizes that RJC does not have expertise in the identification of, or health risks associated with, mould, mildew or other fungi and therefore cannot provide an opinion as to the extent to which these substances exist in the building or the associated potential health risks to building occupants. 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 out of or relating in any way to mould, mildew or other fungus, or other hazardous materials, including the actual, alleged or threatened existence, effects, ingestion, inhalation, abatement, testing, monitoring, remediation, enclosure, decontamination, repair, or removal, or the actual or alleged failure to detect mould, mildew or other fungus, or other hazardous materials.

This report has been prepared in accordance with generally accepted engineering practices. No other warranties, expressed or implied, are made as to the professional services provided under the terms of our contract and included in this report. A detailed review of the structural system, including seismic restraint, was not included in the scope of work.

Review of mechanical, electrical, and fire safety systems, and means of egress were also beyond RJC's scope of work.

Services performed and outlined in this report were based, in part, upon visual observations of the site and attendant structure. Our opinion cannot be extended to portions of the site that were not reviewed or situations reasonably beyond the control of RJC. If unexpected conditions are encountered at the site, RJC must be notified in order that we may determine if modifications to the conclusions presented here are necessary. Any conclusions, recommendations, or opinions of probable cost presented in this report were determined from the limited information available from random testing and visual inspections.

Heritage Element and Structural Visual Assessment

Kelowna Train Station Pub

1177 Ellis Street, Kelowna, BC

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This forms part of application
HRA22-0001

Planner Initials **BC**

City of Kelowna
DEVELOPMENT PLANNING



RJC prepared this report for the use of Kelowna Trains Station Inc. who will share the report with City of Kelowna. 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 party as a result of decisions made or actions based on this report.