



IRC Building Sciences Group

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City of Cambridge
50 Dickson Street
P.O.Box 669
Cambridge, ON N1R 5W8

Attention: Elisabeth Leal C.P.S.O.
Property Standards Officer

LealE@cambridge.ca

RE: 102 Fountain Street
Cambridge, ON
Preston Springs Hotel Structural Review

1 Terms of Reference

IRC Building Sciences Group (IRC) was authorized by the City of Cambridge to conduct a visual investigation of the building structure at the above referenced location. The project site was visited on January 8, 2020 by Scot McCavour and Michael Hensen of IRC Building Sciences Group along with representatives of the City of Cambridge Property Standards and Fire Departments.

IRC was to report on structural integrity of the building given that it has been unoccupied for a number of years and is currently in a state of general disrepair and abandonment.

2 Scope of Work

The former Preston Springs Hotel is a landmark structure originally constructed in 1888 located on Fountain Street South in Cambridge, Ontario. The building has in recent years been boarded up and left open to the elements allowing for deterioration and decay. The location and history of the building, along with its state of abandonment, has attracted vandals, scavengers, graffiti artists and urban explorers who have caused further destruction to the interior.

The City of Cambridge retained IRC to review reports prepared by the current owner and to examine the structure in order to assess the level of deterioration. IRC was to make recommendations for action to secure the site with respect to public safety. IRC was also asked to comment on the condition of the building with respect to salvaging it for its historical significance.

The following outlines the scope of work that was completed as part of the review:

1. Review of documentation provided to IRC from the City pertaining to the current condition of the Preston Springs Hotel.
2. Conduct a visual review of all accessible areas to identify the type and magnitude of deficiencies.
3. Provide a summary report identifying findings and recommendations.



3 Document Review

The following documents commissioned by the current Owner were provided for IRC's review.

1. Preston Springs Hotel, Heritage Impact Study – Architecture Unfolded Inc.– June 15, 2017
2. Summary of Site Review, Preston Springs – Strik Baldinelli Moniz – May 30, 2017
3. Structural Review of : 102 Fountain Street S., Cambridge, ON – Strik Baldinelli Moniz – December 2019

4 Structure Review

The building structure located at 102 Fountain Street South in Cambridge was originally constructed in 1888 and has undergone numerous modifications, renovations and additions over the years. The original building was five storeys, primarily wood framed, on load bearing multi-wythe masonry. Over the years this structure was modified to include steel transfer beams on the ground floor along with various additions. In the early 2000's a five storey addition was partially constructed out of structural steel on the west side of the property. At this time the entire building also received a new light gauge steel truss roof structure. Other elements modified at this time include a metal roof, vinyl windows and an over cladding of the original masonry with an insulated acrylic finish system (EIFS).

The building site is currently hoarded in at the front and sides along with a chain link fence at the back to discourage trespassers. Many of the windows and doors are boarded up. Access to the building was obtained through the front entrance and a gate in the hoarding which was unlocked by an owner's representative. It was noted that there were numerous breaches in the perimeter fencing and in the building exterior which would allow easy access for a determined trespasser.

The deterioration noted within the building is much in line with the December 2019 Strik Baldinelli Moniz (SBM) report, commissioned by the Owner, goes into detail regarding both the level of deterioration and the time lines for addressing the structural concerns. IRC through their review has some more specific concerns as outlined below:

- There are numerous openings in floors along with unguarded openings at stairs and the elevator shaft which present a hazard to authorized personnel as well as to trespassers. Included in this is the west end of the basement which is essentially an open excavation.
- An exterior ground level opening in a suspended slab in the west is uncovered.
- The entire west end addition is unsafe due to advanced deterioration of steel floor deck. The potential for a person to fall through the deck is high given that the central corridor on all floors leads directly into this area of the building with no warning. Access is also possible from a steel stairway at the west side of the addition.
- The entire multi-wythe masonry wall that was the original exterior wall on the west elevation of the building is in an advanced state of deterioration due to prolonged exposure to moisture and subsequent freeze/thaw damage.
- The wood framed balconies at the front of the building are in a deteriorated condition with the guards on the top third floor level presenting an obvious hazard.
- Loose stones at the base of the front balcony piers are a potential trip hazard for pedestrians using the sidewalk in front of the building.

Note that some of the items listed above are also identified in the SBM report.

5 Heritage – Potential Salvage

The building as it stands now is in very poor condition from a structural perspective given the fact that it has been vacant for years and exposed to the exterior in numerous locations which has led to an ongoing and pervasive deterioration of interior and exterior elements. This deterioration will accelerate rapidly in the next few years eventually leading to structural failure if no action is taken.

Given the current level of deterioration it is likely that much of the existing base structure is beyond salvage and will require replacement. This would include:

- Many of the wood elements some of which are undersized and potentially rotten with numerous indirect transfers.
- Rubble stone foundations which are losing much of the lime mortar which was used as a binder.
- Steel transfer beams and columns which are corroding.
- The entire west wing which is in an advanced state of corrosion.

On the interior there are few if any historical or architecturally significant elements remaining as much of the interior was gutted during the various renovation efforts. The vandalism and scavenging that has gone on since there was any positive activity at the site has further reduced the potential for historical restoration.

The exterior envelope has also been modified and now incorporates an EIFS overcall along with modern vinyl windows. Much of this material is now damaged to the point where total replacement is required.

6 Recommendations and Conclusions

The Preston Spring Hotel has suffered from serious neglect in recent years which has led to the loss of much of its historical potential as well as rendering the existing structure unsafe and potentially dangerous. As such all of the items outlined in the SBM 2019 report should be implemented in accordance with the timelines set out in the report.

Given that public safety is a paramount concern and given the level of deterioration observed the following specific recommendations are provided for immediate implementation with respect to securing the building structure:

- All openings in floors should be covered.
- The elevator shaft and stair accesses should be properly guarded or blocked at each floor.
- Access to the west basement area should be blocked off.
- The opening in the exterior suspended ground level slab should be securely covered.
- The west addition is unsafe for foot traffic and access should be blocked off securely at each floor level and at the west stair.
- The multi-wythe brick wall that demises the original building from the west addition is in a state of collapse and requires repair and shoring at all levels.
- The wood balconies at the front of the building have loose guard elements which should be removed. Access to these balcony areas must then be adequately blocked off.
- Loose stones at the base of the front balcony piers should be removed or re-pointed to prevent them from becoming trip hazards to sidewalk traffic.



Given that the site is an attraction to various types of trespassers who will often go to great lengths to obtain access we would recommend that the security of the site be upgraded. This could include the following:

- Securing of the site by cutting of all accessible breaches of the exterior wall on the building.
- Reestablishment of a secure perimeter with repair to fencing and hoarding.
- Implementation of a regular monitoring of the site by a security company. This could be a daily walk of the perimeter to insure that there are no new breaches and a weekly walk of the interior to insure that no one has illegally entered the site. A log should be kept to record this action.

The demolition by neglect tactic that seems to have been executed by the current owner of the Preston Springs Hotel has unfortunately for the most part been a success. The deterioration of the structural components of the building and the loss of most of the original architectural elements leaves little to be salvaged. In addition, as pointed out in the SBM reports and the Architecture Unfolded "Heritage Impact Study", restoration of the existing building shell presents significant and costly technical challenges which are likely cost prohibitive. It is recommended that these costs be redirected into a redevelopment of the site that architecturally is sympathetic to the original building.

7 Limitations

IRC prepared this report solely for the client named. The responsibilities of IRC are as described in the Terms of Reference and the Scope of Work. The material in this report reflects the opinion of IRC at the time of preparation and within the terms of reference as agreed. Any use, which a Third Party makes of this report, or any reliance on decisions based on it, are the responsibility of such Third Parties.

IRC does not warrant the accuracy of the identified information provided by others at the time of the report preparation. Unless provided in writing, but not limited to, mistakes, contacts, insufficient information or certification of such information is not the responsibility of IRC.

Only the specific information or locations noted in the report have been reviewed. Although every reasonable effort was taken to identify defects, latent and hidden defects may affect the accuracy of this report. No physical or destructive testing and no design calculations have been performed unless indicated elsewhere in this report.

The assessment provided is based on visually observed defects at a limited number of locations and our experience with similar types of buildings. Deficiencies may exist at other areas not referenced in this report or that are not visually apparent given the level of evaluation. No responsibility is therefore assumed concerning these matters, or for failure to carry out technical or engineering techniques which would be required to discover any inherent or hidden conditions of the property since such an investigation was not included in the scope of work.

We trust that the above is satisfactory for your purposes. If you have any questions regarding the enclosed, please contact the undersigned at your convenience.

Yours Truly

IRC Building Sciences Group Inc.

Scot S. McCavour, P.Eng., BDS
Executive Director