

Memo

File	Recipient	Company
224503-5	Fred Schmeltz Mark Martin	The Municipality of Powassan The Municipality of Powassan
Date	Purpose	
October 11, 2024	Detailed Structural Investigation, Trout Creek Community Centre Preliminary Findings	

Message

Preliminary Findings

Based on the findings of our recent review and subgrade investigation at the Trout Creek Community Centre, and preliminary analysis, the following is a summary of our concerns:

- There is a distinct mould/mildew smell in the lobby area. It is difficult to isolate the source of the smell.
- The interior columns around the rink are in direct contact with soil beneath the concrete slab-on-grade floor and have suffered significant localized decay as a result. Settlement of these posts due to the decay is evident.
- The retrofit, bolted steel plates at each interior column provide some support to supplement the capacity lost to decay, however they are not sufficient to support the full roof snow loading.
- The exterior wall columns at the perimeter of the rink are exposed to exterior grade/moisture at the exterior and have suffered varying levels of decay as a result.
- In the worst areas of exterior wall column decay, a section of the original posts has been replaced with pressure-treated blocking (we have no record of when this work was done).
- Most of the exterior canopy roof framing (i.e. at the northwest entrance and the west platform) is insufficient to support design snow loads.

The structure has reached the end of its useful life. This type of structure (below-grade wood framing, uninsulated) has a shorter expected lifespan than current construction practices. The decay has been occurring since before a regular assessment program was implemented in 2007 and will continue to worsen, increasing both maintenance costs and risk to building users.

Temporary Use

To maintain the structure in a safe state of repair for the long term would involve removal of all concrete surrounding the rink to access all interior and perimeter posts for concrete repair at the supporting piers and replacement of all wood posts. In our opinion, replacement of the facility is a more economical option in the long term.

We are aware that the Municipality intends to install the ice surface at the rink imminently. Our position moving forward is as follows:

- Conduct a mould investigation in the lobby/building to ensure the space is safe for public use.

- The structure (with previously implemented retrofits) is sufficient to support the roof in its current state with no snow loading on the roof.
- Prior to any expectation of snow loading on the roof, we anticipate the following measures will be required (which will require design and oversight by a Professional Engineer):
 - Install additional support (i.e. intermediate posts) for the beams at the perimeter of the rink to alleviate the loading on deteriorated posts.
 - Follow a strict set of requirements to minimize the impact of snow loading, which may include removal of snow piling from the sides of the building, monitoring/removing snow buildup on the roof, etc.
 - Implement a monitoring program to proactively identify any additional movement or settlement at the affected framing to mitigate risk.
 - Remove or reinforce the insufficient canopy roof framing.

From

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