



TECHNICAL MEMORANDUM

PROJECT: Dunvegan Recreation Building
DATE: May 28th, 2026
TO: Stephanie MacRae
FROM: Jordan Gandia, P.Eng.
RE: Structural Inspection and Condition Assessment – Floor Structure
Project #: 26053

1 INTRODUCTION

This memorandum summarizes the findings of a visual inspection conducted on May 28th, 2026, at the Dunvegan Recreation Building located at 19053 County Rd 24, Dunvegan, Ontario. A datestone commemorative plaque above the entrance of the door indicates that the building was erected in 1919. The original building had a second floor at one time, which has since been removed and replaced with a new roof. There is a crawl space with a dirt floor below the timber floor structure. The south end of the floor supports two washrooms, a mechanical room, a storage room, and a kitchen. The North end of the floor supports a stage. It is understood that the hardwood flooring has exceeded its expected lifespan, and it is expected to be replaced.

The inspection was conducted to assess the structural condition of the existing floor structure, as previous inspections raised issues, including rotted beams and missing beam supports/footings.

1.1 SCOPE

The scope of this inspection was to determine the condition of the structural floor of the building.

The inspection was limited to a visual assessment of accessible areas. The crawl space is accessible from a hatch in the floor along the east wall. The crawl space itself provides about 300 to 400mm of room to move around; however, the presence of construction debris, including nails, as well as barbed wire, prevented access to the North and West sides of the crawl space. Two gratings were removed to allow observation beneath the stage on the North end of the building.

1.2 LIMITATIONS

This report was prepared for the Township of North Glengarry only and shall not be used or relied upon by any third party without the written consent of EVB Engineering.

The inspection was cursory in nature and does not guarantee or warranty the construction of the building. The overall condition of concealed elements has been inferred based on the observations of visible elements on the day of inspection; conditions may exist that differ from those observed. No destructive testing, imaging or other means of investigation were completed. No calculations were completed as part of this investigation.

1.3 TERMINOLOGY

The visual conditions of existing elements are rated by using one or a combination of the following descriptors.

- Excellent:** The element is in “like new” condition, and there is no sign of wear or fatigue.
- Good:** The element is showing some signs of wear, but there is nothing that will compromise its integrity.
- Fair:** The element is showing evident signs of wear, and while not compromised it should be monitored closely.
- Poor:** The element is damaged. Remedial work to fix and/or replace the element is recommended.

The following categories are used to define repair timelines for existing deficiencies.

- High:** A deficiency that presents immediate hazard for the health and safety of the occupants. Timeline for repair <1 yr.
- Medium:** A deficiency that will affect the building or occupants in the near future (roof leaks, etc.). Preventative maintenance. Timeline for repair 1-3 yrs.
- Low:** Non-critical repairs. Timeline for repair 3-5 yrs.

2 OBSERVATIONS

2.1 EXISTING CONDITIONS

The foundation is poured concrete around the perimeter of the building, with overall exterior dimensions of 18.7m by 9.5m. An interior concrete foundation wall runs along the length of the building at the center span of the floor beams. It is assumed the center foundation wall runs all the way to the Northern foundation wall; however, the Northern end of the crawl space was not observed.

No issues were observed on the exterior of the foundation above grade. In the crawl space, the exterior foundation wall exhibited locations of medium to severe honeycombing.

The floor structure is composed of timber beams spaced approximately 1220mm o.c. (varies), supporting 25mm thick diagonally placed boards. The timber beams vary in size; one was measured to be approximately 300mm wide by 200mm tall. Cut timber pieces have been propped up under the quarter spans of the timber beams; many of these makeshift posts have since fallen. The floor structure is continuous throughout the interior of the building, supporting the partition walls at the South end and the stage at the North end.

Medium to severe brown rot was observed at various locations on the timber beams, up to approximately 25mm deep. In one location near the hatch, very severe brown rot penetrated into the core of the beam.

What appeared to be light to medium white rot was observed on some of the timber beams and decking. One of the deck boards near the hatch that exhibited white rot had failed in bending.

The stage framing was observed through two gratings. The floor of the stage is composed of nominal 2x6 joists (51x150mm), spaced at 356mm o.c. The span of these joists is approximately 3048mm. Many of the joists were supported at midspan by what appeared to be 25x140 lumber posts, resting on the floor below.

2.2 ASSESSMENT

The exterior foundation generally appears to be in fair condition, with areas in the interior in poor condition. The observable area of the timber floor structure is generally in fair to poor condition. The rot was observed to be severe and very severe in certain locations around the south-eastern corner of the building. Although the rest of the crawl space was not visible; it should be assumed that similar conditions exist elsewhere.

It is recommended that timber beams and floorboards exhibiting severe or very severe rot be either strengthened or replaced (high priority). Construction in the crawl space is unlikely to be feasible with the current hatch opening. The current observed rot is in timber beams supporting portions of the southern partition walls; it is expected that at least some of the partition walls and supporting floor structure will have to be demolished to access below.

Due to the difficulty accessing deeper into the crawl space, the scope of the work is difficult to fully assess. It is suggested that when the hardwood flooring is removed, that locations of floorboards in poor condition be removed to allow better access to the crawl space. At that time, the scope of the repair work may be better defined, and consideration may be given to preserving the stage area at the North end of the building. In the meantime, the Township should consider budgeting to repair/replace the entire floor structure.

The areas of medium to severe honeycombing can be repaired when work on the floor structure is being performed (low priority).

3 CONCLUSION AND RECOMMENDATIONS

The floor structure is in fair to poor condition, and portions of the structure require strengthening or replacement. It is recommended that when the hardwood flooring is removed, further openings into the crawl space be made to facilitate cleaning out the debris and inspection to further define the scope of work. Due to the age of the building, rotting timber, and other observed deficiencies, the Township should consider budgeting for the full replacement of the floor. It is our opinion that it would be more cost effective in the long term to replace the floor as opposed to installing reinforcement and having to complete further repairs in the medium term. We would recommend the crawl space ventilation and floor insulation be improved/provided if floor replacement proceeds.

Please do not hesitate to contact the undersigned if you have any questions or require further clarification.

Sincerely,



Jordan Gandia, P.Eng.
Structural Engineer
EVB Engineering

APPENDIX A: Photos



FIGURE 1: Dunvegan Recreation Building



FIGURE 2: Main Hall and Stage



FIGURE 3: South End Partitions



FIGURE 4: Storage Room and Floor Hatch



FIGURE 5: Honeycombing



FIGURE 6: White and Brown Rot



FIGURE 7: Very Severe Rot



FIGURE 8: Crawl space



FIGURE 9: Timber Beam Rot



FIGURE 10: Timber Beam Rot



FIGURE 11: Makeshift Timber Post



FIGURE 12: Stage Floor Structure