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## STRUCTURAL ASSESSMENT REPORT

**Date:** May 09, 2025

**No. of Pages:** 4 + Encl.

**Project:** Mowat Cottage Structural Assessment

**Project No.:** LE-0545-25

**Address:** 2089 White Lake Road West, Douro-Dummer, ON

**Client:** Toms Contracting

**Distribution:** Gord Toms

Gord Toms Contracting

[etoms@nexicom.net](mailto:etoms@nexicom.net)

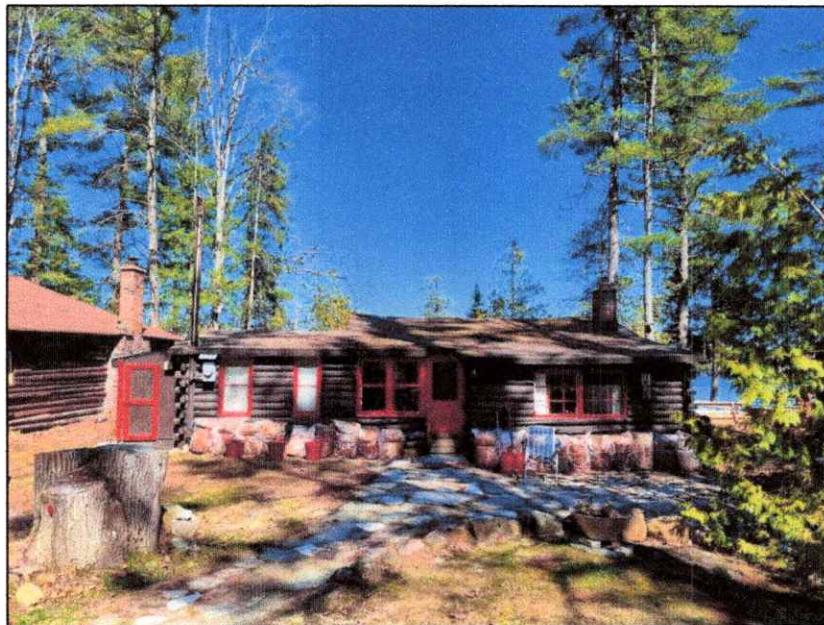
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### Background

Jacob R. Lean Engineering has been retained by Gord Toms Contracting to provide a structural assessment of the existing cottage located at 2089 White Lake Road West, Douro-Dummer, ON. The cottage owners are proposing to renovate or rebuild the existing cottage to make it more livable year-round. The purpose of this report is to provide insight on the structural condition of the building and its suitability for repair and re-use vs. removal and reconstruction. No specifications or drawings have been prepared for the cottage; our review is intended to act only as a first step in determining areas of structural concern.

The undersigned attended the site on April 17, 2025, accompanied by the cottage owner, Lisa Mowat, and our client, Gord Toms.

This report is based on a visual inspection only and does not include any destructive testing. Where no concerns were noted, the structure is assumed to be performing adequately. The structure is assumed to have been constructed in accordance with best building practices common at the time of construction. No further structural analysis or building code analysis has been carried out as part of this report unless specifically noted.



**Photo 1 - Existing Cottage**

## Observations

The existing one-storey wood-framed cottage had an approximate plan area of 800-850 sq. ft. The age of existing cottage is approximately 70-80 years old.

The general construction of the cottage structure reviewed was as follows:

- **Foundation system:** 2x4 wood joists bearing on a mix of 4x4 sleepers and stones bearing directly on grade. There was no air space or access under the cottage.
- **Exterior Walls:** 2x4 wood stud walls clad with horizontal log siding. No insulation or vapor barrier was observed.
- **Floor Framing:** 2x4 wood floor joists supported on 4x4 sleepers or stones bearing directly on grade. No insulation or air barrier was observed.
- **Roof Framing:** Roofing membrane & wood plank decking on 2x4 rough sawn roof joists supported on intermittent ceiling beams or bearing walls. No insulation or vapor barrier was observed.

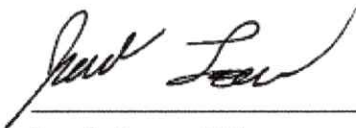
## Comments

The existing cottage structure was in overall poor condition and appeared to be performing very poorly, especially the building envelope. The primary areas of concern are noted below:

1. The wood foundation / main floor framing under the cottage is deteriorating. Lack of a proper foundation has led to sagging and settlement in the wood foundation which was evident inside and outside the cottage. The portions of the wood foundation that could be observed showed extensive rot. Refer to Photo 2.
2. The wood walls appeared to be in ok condition but lacked insulation or vapor barrier which makes winter use unfeasible without creating moisture in the wall cavity. Bags of insulation were stacked around the building to help retain heat during cold weather. Refer to Photo 3.
3. The roof framing showed severe sagging especially around the chimney area and over 50% of the roofing membrane was covered in moss due to rotting of the roof decking below. Lack of insulation or vapor barrier also makes winter use unfeasible without creating moisture in the ceiling cavity. Refer to Photo 4.

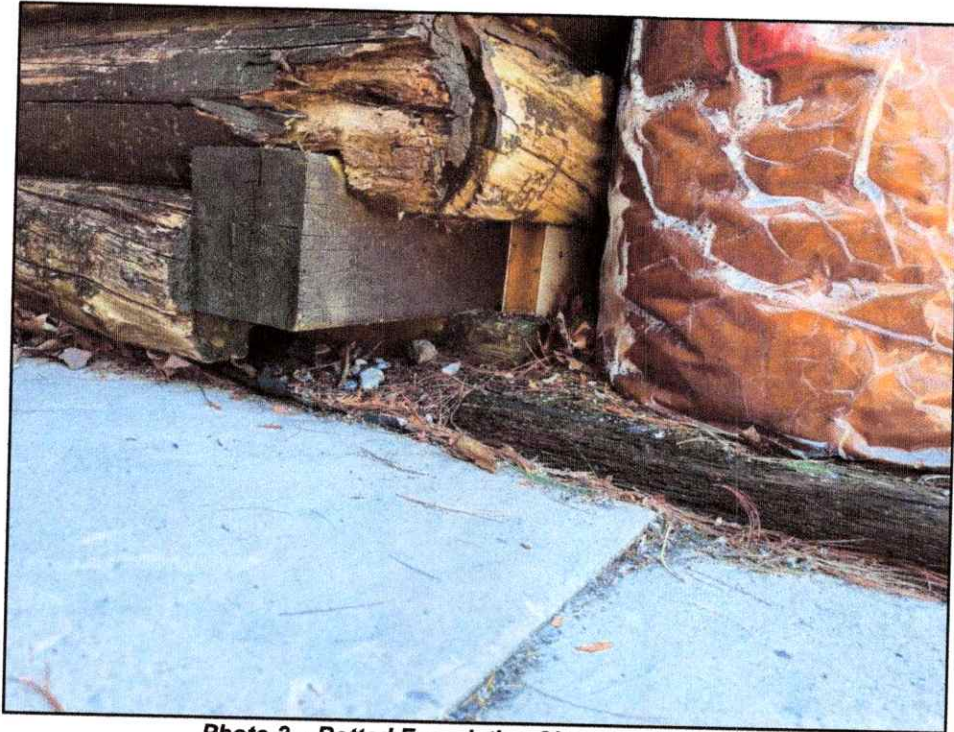
Based on our site observations, it is our opinion that the existing cottage cannot be repaired or renovated to a level of performance consistent with the Ontario Building Code without essentially rebuilding the entire building. We therefore recommend removing and reconstructing the building instead of attempting to renovate or repair.

Please contact the undersigned if you have any questions regarding the contents of this report.

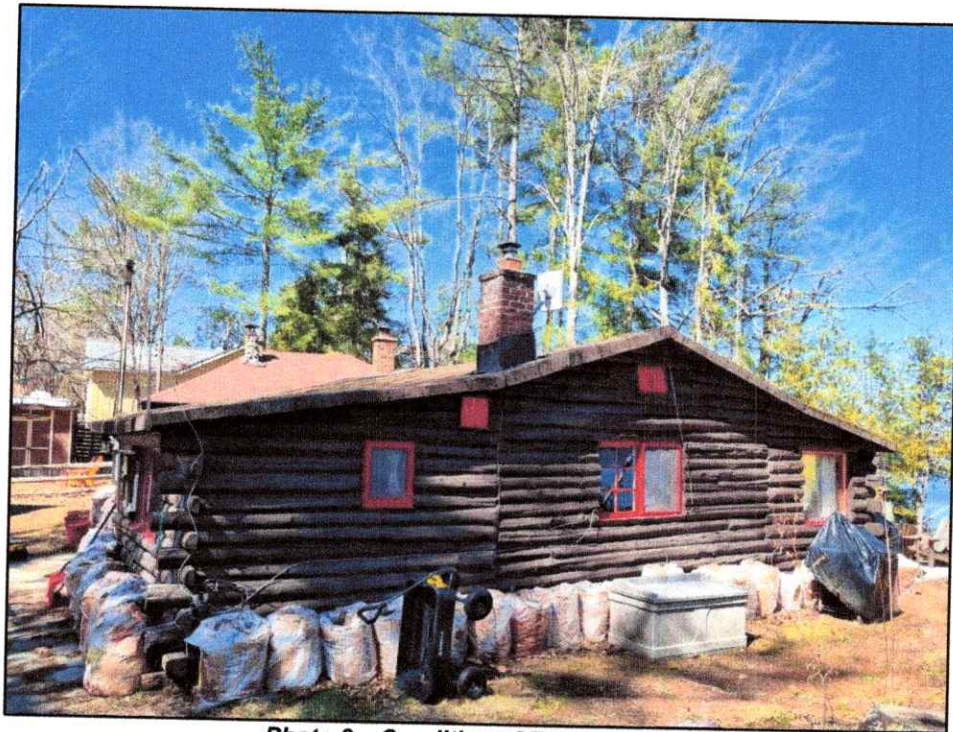
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**Jacob Lean, P.Eng.**  
Structural Engineer  
Jacob R. Lean Engineering Ltd.



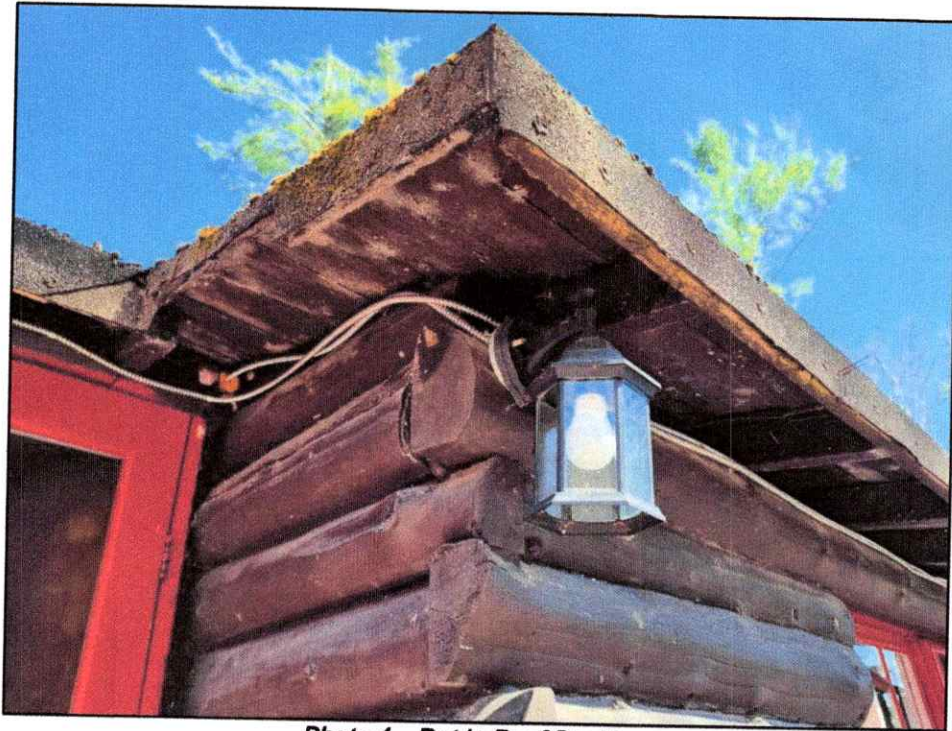
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*Photo 2 – Rotted Foundation Sleepers on Grade*



*Photo 3 – Condition of Exterior Walls*



*Photo 4 – Rot in Roof Decking*