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## STRUCTURAL ASSESSMENT REPORT

**Date:** October 10, 2025  
**Project:** 1182 Birchview Rd. Cottage Structural Assessment  
**Address:** 1182 Birchview Road, Douro-Dummer, ON  
**Client:** Welsh Custom Homes  
**Distribution:** Daryl Welsh Client / Contractor [welshcustomhomes@gmail.com](mailto:welshcustomhomes@gmail.com)  
**No. of Pages:** 4 + Encl.  
**Project No.:** LE-0586-25

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### Background

Jacob R. Lean Engineering has been retained by Welsh Custom Homes to provide a structural assessment of the existing cottage located at 1182 Birchview Road, Douro-Dummer, ON. The cottage owner is proposing to renovate or rebuild the existing cottage to make it usable 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 September 18, 2025, accompanied by the Daryl Welsh, from Welsh Custom Homes.

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 1.5 storey wood-framed cottage had an approximate plan area of 1000 sq. ft. The age of the cottage is estimated at 50-60 years old based on materials used to construct.

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

- **Foundation system:** 3-4 rows of hollow 8" concrete block on 6"x12" concrete strip footings bearing on grade without frost protection.
- **Exterior Walls:** 2x4 @ 24" on center stud walls clad with OSB and vertical wood siding. No insulation or vapor barrier was observed.
- **Floor Framing:** mixture of 2x6 & 2x10 wood floor joists.
- **Roof Framing:** 2x6 wood roof joists with steel roof. Vapour barrier on underside of roof joists was observed. Insulation between joists is likely. Unvented wood soffit.

## Comments

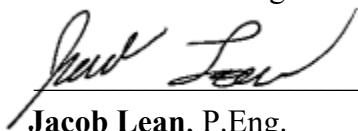
The existing cottage structure was in overall poor condition. The primary areas of concern are noted below:

1. The concrete block foundation under the cottage is deteriorating. Lack of a frost protected foundation has led to shifting and settlement of the building which was evident inside and outside the cottage. The sill plates along the top of the foundation also showed signs of rot along the back of the cottage where grade was highest. Refer to Photos 2 & 3.
2. The main floor framing for the cottage was 2x10 @ 16" spacing and spanning 15'-4", which exceeds the maximum span specified in the Ontario Building Code.
3. The second-floor framing for the cottage was 2x6 @ 24" spacing and spanning 11'-6", which also exceeds the maximum span specified in the Ontario Building Code.
4. The ceiling showed significant water damage and water staining was evident on interior of wall framing, especially along the lakeside walls. Refer to Photo 4.
5. Most windows and the wood framing around the openings showed signs of long-term water damage / leaking and should be replaced. Refer to Photo 5.
6. The building envelope of the cottage was in very poor condition. Improper use and lack of vapor barrier, poor insulation, and old windows make any cold weather use unfeasible without moisture accumulating in the wall and ceiling cavities.

Based on our site observations, it is our opinion that the existing cottage cannot be repaired or renovated to a 4-season level of performance consistent with the Ontario Building Code without lifting the existing cottage and rebuilding large portions of the 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.



**Encl.** Site Photographs – 2 pages



**Photo 2 – Existing Non-frost Protected Foundation**



**Photo 3 – Water Damage in Crawlspace**



**Photo 4 – Leaking from Ceiling into Wall Framing**



**Photo 5 – Leaking Around Window Framing**