

PEER REVIEW REPORT

Attention:	Wendy Cooper, City of White Rock	Date:	April 22, 2025
cc:	Joseph Oh, Braun Geotechnical Ltd.	From:	John Carter, P.Eng.
Project:	14205 Malabar Avenue, White Rock, BC	File:	GA25-1072-00
		Sent Via:	E-mail
Subject:	Peer Review of Braun Geotechnical Ltd. Preliminary Geotechnical Exploration Report Proposed Subdivision, 14205 Malabar Avenue, White Rock, BC		

At the request of the City of White Rock (the City), GeoWest Engineering Ltd. (GeoWest) provides herein our findings with respect to our independent peer review of the above referenced Braun Geotechnical Ltd. (Braun) geotechnical report dated June 5, 2024 (Braun Report). The purpose of this peer review was to assist the City in their assessment of the feasibility of the proposed development from a geotechnical engineering perspective. The City provided the following additional information to us for the geotechnical peer review:

- Tree Evaluation Report for: 14205 – Malabar Avenue, White Rock, BC, prepared by Mike Fadum and Associates Ltd., dated January 5, 2023.
- ESC & Environmental Letter for 14205 Malabar Avenue, White Rock, BC, prepared by All-Terrain Consulting Ltd., dated January 25, 2023.
- Topographic Survey, prepared by Target Land Surveying, dated September 22, 2022.

As a professional courtesy, GeoWest contacted Joseph Oh, P.Eng. of Braun on April 17, 2025 to advise them of this peer review.

The level of study included review of the documentation provided, review of historical information in our files, and review of information available on the City GIS (WROMS) website. A site reconnaissance was also conducted by GeoWest from City property on April 11, 2025. The site is essentially flat, and we observed no indications of slope instability on the property at that time. The head of the Phoenix Ravine is located on the opposite side of Malabar Avenue to the southeast of the development site. The Phoenix Ravine at this location is relatively shallow with gentle slopes.

Braun remains the Geotechnical Engineer-of-Record for the proposed development. This peer review is of insufficient breadth and depth to confirm the completeness and accuracy of their findings. A more exhaustive study that includes multiple test holes, installation of groundwater monitoring wells, and review of Braun’s detailed calculations would be needed to form a detailed second opinion.

We provide the following comments on the Braun Report:

1. It is understood that it is proposed to subdivide the existing property into two lots that will include a single family dwelling (SFD) with one level of basement on each lot in the future.
2. The surficial geology discussed in Section 4.0 of the Braun Report, as well as the soil conditions described in the Braun soil logs, are consistent with our experience in the area.

3. GeoWest has no geotechnical concerns with Braun's site preparation, structural fill, trench backfill, foundation, backfill, or perimeter drainage recommendations.
4. Section 5.4.1 of the Braun Report does not include any commentary on potential shoring options. Temporary shoring may be required subject to the finalized design and construction sequencing of the new SFD on each lot. We recommend that commentary be added in this regard.
5. Section 5.7 of the Braun Report does not include commentary on Radon ventilation below the slab-on-grade floors. The 2024 British Columbia Building Code (BCBC) was adopted on March 8, 2024, excluding seismic design provisions, and includes requirements for the rough-in of radon ventilation systems. These systems are typically designed by the mechanical engineer. Nonetheless, it is our opinion that fill recommendations and associated commentary specific to radon ventilation below the slab-on-grade floor should be included in the report.
6. It is not clear from the commentary in Section 5.9 of the Braun Report if the seismic design provisions of the 2018 or 2024 BCBC are to be utilized in the design. Braun should consult with the City to confirm which building code applies as, for example, the subdivision approval may be grandfathered under the 2018 BCBC, but the future SFDs may be subject to the 2024 BCBC seismic design requirements. The Braun Report should be updated accordingly after consultation with the City. We do concur with Braun that the soils on-site are not liquefiable.
7. Braun has not included any commentary in their report with respect to slope stability. However, we note that the property is not located within the mapped geotechnical assessment area defined in the City Bylaw 1928. Furthermore, the site is located on relatively flat ground and not in close proximity to any steep slopes. Therefore, it is GeoWest's considered opinion that a slope stability assessment is unnecessary for this project.
8. Braun notes that their report is preliminary and is subject to possible revision pending their review of detailed civil, architectural, and structural designs. It is imperative that Braun be given the opportunity to review these detailed drawings to allow for revision, if they deem necessary, and finalization of their geotechnical report.

We recommend that the above referenced commentary and recommendations provided by GeoWest be reviewed and considered by Braun as part of their geotechnical assessment of the site.

We trust that the information provided in this memorandum meets your immediate needs. Should you require further assistance please contact the undersigned.

Yours truly,
GeoWest Engineering Ltd.

Per: John Carter, M.Eng., P.Eng.
Principal, Senior Geotechnical Engineer

REVIEWED BY:
Michael Gutwein, P.Eng.
Senior Geotechnical Engineer

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