



Ref. No. D09109

August 26, 2011

Mr. G. Murphy  
Dexter Construction  
P.O. Box 48100  
927 Rocky Lake Drive  
Bedford, NS  
B4A 3Z2  
(Email: [gmurphy@dexter.ca](mailto:gmurphy@dexter.ca))

**Re: Geotechnical Inspection – Brunello Estates (Phase 1)  
Lot 24 – Maple Grove Avenue, Timberlea, NS**

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Dear Mr. Murphy:

As requested, GENIVAR has carried out geotechnical inspection services during placement of engineered fill at the above-mentioned site. The purpose of the work was to monitor and evaluate construction methods during placement and compaction of structural fill beneath proposed building foundations.

### **1.0 Project Background**

It is understood that Lot 24 will accommodate a wood-framed residential structure with slab-on-grade basement floor. The proposed structure will consist of conventional design and will measure 11.0 metres by 11.0 metres in maximum plan dimensions. The proposed basement floor elevation for Lot 24 is 95.02 metres, geodetic datum (ATS 77) and is shown on the enclosed Figure 1.0. Surveying during construction of the engineered pad was conducted by Dexter Construction. Ground elevations at the time of construction completion were surveyed by GENIVAR and are also shown on the enclosed Figure 1.0.

The existing grades on building Lot 24 were generally lower than proposed design grades. Subexcavation of organic soils, followed by placement and compaction of select rockfill was required to reach proposed design grades.

### **2.0 Inspection Summary**

Field inspection was generally carried out during the spring and summer of 2011. Construction of the engineered pad included subexcavation of organic soils, followed by placement and compaction of select portions of the on-site blasted bedrock. The fill was placed in 450 mm thick lifts and compacted with several passes of a large vibratory drum roller. The fill was placed to an approximate elevation of 94.72 metres (300 mm below proposed finished floor elevation is typically industry standard). GENIVAR personnel were on-site periodically to monitor construction methods during structural fill placement.

### 3.0 Summary

Based on our field inspections, we are of the opinion that generally good construction methods were practiced during placement and compaction of engineered fill. GENIVAR personnel were on-site during placement and compaction of engineered fill at Lot 24 Maple Grove Avenue. In our opinion, the prepared structural fill will support the proposed residential structure with only tolerable settlements anticipated.

### 4.0 Recommendations

Additional fill placed at the site (i.e. wall backfill, underslab base course, interior fill, etc.) is to be prepared using similar methods above for placement of engineered fill.

The engineered pad has been prepared for a structure measuring 11.0 metres x 11.0 metres in maximum plan dimensions, as indicated on the enclosed Figure 1. Any changes or relocation with the structure on the lot should be certified by a geotechnical engineer.

Any disturbance to the prepared lot as a result of freeze/thaw, vegetation growth, construction traffic, erosion, etc., would require that the lot be re-inspected by qualified geotechnical personnel prior to placement of concrete foundations.

This letter is based on our inspections conducted to date at the completion of site grading work. If site conditions differ at time of building construction, we require immediate notification to permit reassessment of our recommendations.

If you have any questions regarding the enclosed information, please contact the undersigned at your convenience.

Yours truly,

GENIVAR Inc.



Clayton J. Rogers, P. Eng.  
Project Geotechnical Engineer

