

re: **Grading Plan Review**
Proposed Commercial Development
2165 Robertson Road - Bell's Corner - Ottawa

to: Huntington Properties - Ms. Lisa Westphal - lwestphal@huntingtonproperties.ca

date: January 23, 2020

file: PG4694-MEMO.01

Further to your request, Paterson Group (Paterson) conducted a grading plan review for the proposed commercial development to be located at the aforementioned site. The following memorandum should be read in conjunction with our geotechnical Report PG4694-1 dated November 16, 2018.

Grading Plan Review

Paterson reviewed the following grading plans prepared by DSEL Ltd. for the aforementioned development:

- Project No. 18-1062, Drawing No. GP-1 - Grading Plan, dated December 21, 2018.
- Project No. 18-1062, Drawing No. GP-2 - Grading Plan, dated December 21, 2018.

Based on our review of the aforementioned grading plan, the proposed grades are in compliance with the permissible grade raise recommendation provided by Paterson and are considered acceptable from a geotechnical perspective. Therefore, no lightweight fill is required at this time.

Landscaping Considerations

Tree Planting Restrictions

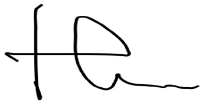
The proposed development is located in an area of low sensitive silty clay deposits for tree planting. Based on our review of the subsurface profile below the subject site, the underlying silty clay crust within the upper 3.5 m is relatively dry and designated as a hard to stiff silty clay. Therefore, the proposed development is located within an area of low to medium sensitive silty clay deposits for tree planting.

Based on the above discussion, it is recommended that trees placed within 5 m of the foundation wall consist of street trees with shallow roots systems that extend less than 1.5 m below ground surface. The following tree planting setbacks are recommended for the low to medium sensitivity area. Large trees (mature height over 14 m) can be planted within these areas provided a tree to foundation setback equal to the full mature height of the tree can be provided (e.g. in a park or other green space). Tree planting setback limits may be reduced to 4.5 m for small (mature tree height up to 7.5m) and medium size trees (mature tree height 7.5 m to 14 m) provided that the conditions noted below are met.

It is well documented in the literature, and is our experience, that fast-growing trees located near buildings founded on cohesive soils that shrink on drying can result in long-term differential settlements of the structures. Tree varieties that have the most pronounced effect on foundations are seen to consist of poplars, willows and some maples (i.e. Manitoba Maples) and, as such, they should not be considered in the landscaping design.

We trust that this information satisfies your immediate requirements.

Paterson Group Inc.



Hian De Freitas, MAsc.



Faisal I. Abou-Seido, P.Eng.

Paterson Group Inc.

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