

Witness Statement
of
Gord Feniak, P.Eng.

R.J. Burnside & Associates Limited
(On behalf of the Town of Halton Hills)

February 9, 2017

1.0 Qualifications

- 1.1 I am an Executive Vice President with R.J. Burnside & Associates Limited. As part of my responsibilities I manage a municipal engineering division of the company and supervise the provision of engineering services to municipalities.
- 1.2 I am a licensed Professional Engineer and have practiced in Ontario since 1984.
- 1.3 My qualifications and experience are further detailed on the enclosed Curriculum Vitae.
- 1.4 I have been accredited as an expert witness and have provided opinion evidence in the field of civil engineering before both the Ontario Municipal Board and the Courts on a number of occasions. My Acknowledgement of Expert's Duty is enclosed.

2.0 Experience

- 2.1 I have conducted municipal engineering reviews of over 250 subdivision applications.
- 2.2 I have provided subdivision engineering review services to approximately 20 different municipalities.

3.0 Retainer

- 3.1 I have been retained by the Town of Halton Hills to provide my opinion on matters relating to the application for subdivision by Eden Oak (Creditview Heights) Inc., described as Ontario Municipal Board File No. PL150129.
- 3.2 Specifically, I have been retained to provide opinion on the following:
 - 1. Review of engineering design and compliance with Town Standards.
 - 2. Compliance with the objectives of the Hamlet of Glen Williams Secondary Plan as they pertain to engineering matters.

3. Application of good engineering practices in the design of the subdivision.

3.3 I have reviewed the following documents:

- The Hamlet of Glen Williams Secondary Plan, OPA No. 113, August, 2005
- Town of Halton Hills Subdivision Manual, July 1999
- Town of Halton Hills Storm Water Management Policy, March 2009
- Storm Water Management Planning and Design Manual, Ontario Ministry of the Environment, March 2003
- Community of Glen Williams, Evaluation of Alternative Drainage Outlets, McCormick Rankin Corporation on behalf of the Town of Halton Hills, December 22, 1998
- All materials submitted on behalf of Eden Oak (Creditview Heights) Inc.

4.0 Evidence

I am prepared to attend the Ontario Municipal Board Hearing and give my opinion as follows:

- 4.1 I have engaged in numerous reviews, meetings and discussions pertaining to my area of interest.
- 4.2 I am of the opinion that the proposed development is viable and with relatively minor adjustment and modification it can be made to meet required Town Standards, the objectives of the Glenn Williams Secondary Plan and with good engineering practices.
- 4.3 I have reviewed the plan as it relates to slope stability and have concluded that proper setbacks have been maintained from the Long Term Stable Top of Slope Lines as determined by Credit Valley Conservation. I have also concluded that the proposed grades are consistent with those reported on by the Geotechnical Consultant (V.A.Wood and Associates Limited) in Section 6, "Slope Assessment" of its Geotechnical Investigation and Slope Stability Assessment dated June, 2016.
- 4.4 I have reviewed the extent of cut and fill that is being proposed for this development- My review of the extent of cut and fill was to determine whether the proposed grading plan was reasonable for a subdivision of approximately 30 lots. Reviews of earlier submissions showed excessive grading, but modifications have been made and current proposals show a reduced and minimized amount of cut and fill for the project. Discussions are ongoing with respect to grading and it is my opinion that final modification will meet the goals of the Glen Williams Secondary Plan with respect to maintaining the natural heritage and topography of the hamlet.
- 4.5 I have reviewed the Storm Water Management submissions for the subdivision and have overseen modifications and revisions that improved the way the storm water runoff will be controlled from this site. The pond has been split into a two tiered system which improves its stability and is better suited to the natural topography. This configuration also improves the grade of the trailway and allows better access for maintenance purposes. The Storm Water Management System includes a dedicated discharge pipe that conveys water outletting from the pond directly to the floodplain of the Credit River. This will ensure that all downstream properties are protected and some will experience a reduction in the volume of water coming from the subdivision. Because water is being collected in storm sewers and diverted into the detention facility there will be a reduction

in the amount of surface drainage that currently leaves the site and runs over private properties. This also has a positive impact on private septic systems. In my opinion, upon resolution of Outstanding Matters as outlined in my letter of January 17, 2017, the proposal for Storm Water Management is appropriate and meets the objectives of the Glen Williams Secondary Plan.

- 4.6 My letter of January 17, 2017 provides a list of Outstanding Matters that in my opinion need to be addressed in order for the proposal to meet the objectives listed above. The letter was included as Schedule 11 to Town Planning Report PI-2017-0012 which report was considered at the Town Council meeting of January 24, 2017. Further, I have had input into the engineering matters referenced within the report together with the proposed draft conditions and will address those matters at the hearing as may be required.

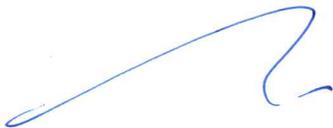
Discussions regarding these outstanding matters are ongoing between the parties and are anticipated to be resolved prior to the Ontario Municipal Board Hearing.

5.0 Conclusion

As of the date of this Witness Statement there are reasonable modifications that can be made to the application that will bring it into compliance with the requirements of the Town of Halton Hills and in particular, into compliance with Glen Williams Secondary Plan.

6.0 Attachments

- Curriculum Vitae – Gord Feniak
- Acknowledgement of Expert's Duty
- Letter of January 17, 2017



Gord Feniak, P.Eng.



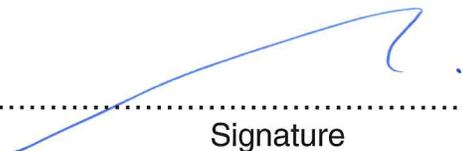
Ontario
Ontario Municipal Board
Commission des affaires municipales de l'Ontario

ACKNOWLEDGMENT OF EXPERT'S DUTY

Case Number	Municipality
PL150129	Town of Halton Hills

1. My name is Gord Feniak
I live at the Township of Centre Wellington in the County of Wellington in the province of Ontario.
2. I have been engaged by or on behalf of the Town of Halton Hills to provide evidence in relation to the above-noted Board proceeding.
3. I acknowledge that it is my duty to provide evidence in relation to this proceeding as follows:
 - a. to provide opinion evidence that is fair, objective and non-partisan;
 - b. to provide opinion evidence that is related only to matters that are within my area of expertise; and
 - c. to provide such additional assistance as the Board may reasonably require, to determine a matter in issue.
4. I acknowledge that the duty referred to above prevails over any obligation which I may owe to any party by whom or on whose behalf I am engaged.

Date February 9 2017


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Signature

Position

Senior Vice President

Education

Bachelor of Applied Science, University of Toronto, 1984

Professional Societies

Professional Engineers Ontario

Employment Record

R.J. Burnside & Associates Limited
(1986-Present)

Engineering Assistant, Town of Caledon
(1984-1986)

Personal Experience

Groves Memorial Hospital, Director
(2007-Present)

Chair – 2009-2012

Elora Centre for the Arts, Director
(2007-2011)

Councillor, Township Centre Wellington
(2000-2006)

Heritage Centre Wellington Committee
(1998-2003)

Township of Centre Wellington,
Committee of Adjustment, Chairman,
(1998-2000)

Township of Nichol, Planning Advisory
Committee (1994-1998)

Township of Nichol Councillor (1998)

Citizenship

Canadian

Languages

English

Gord Feniak, P.Eng.

Gord has over 30 years' experience in municipal engineering. He represents numerous municipalities, ranging from small rural townships to large cities. His career has included several appointments as the municipal engineer of record in municipalities that do not have engineers on staff.

Development Review

Projects have included over 250 subdivisions, hundreds of site plan developments as well as a number of traffic studies, bridges, water supply and sewage disposal systems, condominiums, gravel pit applications, planning studies and solid waste disposal sites.

Senior Review Engineer for the Geranium Homes proposal for 25,000 homes in Bradford/Bond Head, and for the Ontario Potato Distributors proposal for 15,000 homes in Alliston (New Tecumseth).

Road Construction**Urban Reconstruction**

Project Management and Director of road reconstruction in the Town of Bradford West Gwillimbury, including Agar Avenue, Barrie Street, Davy Boulevard, Townsend Avenue, Luxury Avenue, Nelson Street, Eighth Line, Simcoe Street, Holland Street, Disette Street, and Professor Day Drive.

Rural Reconstruction, Various Locations, Ontario

3rd Line, 5 Sideroad, and 15 Sideroad in the Town of Mono; 4th Line and 9th Line in the Town of New Tecumseth; 12th Line in the Town of Bradford West Gwillimbury; Adjala-Mono Townline; and 20 Sideroad in the Township of Adjala-Tosorontio.

Environmental Assessment

Gord has acted as a Senior Advisor to the Project Manager on numerous projects. He attended public meetings, liaised with the clients and members of the public, and reviewed the Project Manager's work. Examples are Master Servicing Study and Functional Servicing Reports in Bradford West Gwillimbury; Mono Class EA for Water Delivery; Beeton Secondary Plan; Wastewater Plant EA, East Luther Grand Valley; Sebringville Servicing EA, Township of Perth South.

Expert Evidence

Providing expert evidence on numerous occasions in hearings at Tribunals such as the Ontario Municipal Board and the Environmental Review Tribunal, and in the Courts.

Appointed by Nichol Township Council to sit as a member of the Court of Revision to hear appeals of assessment made under the Drainage Act.



January 17, 2017

Via: Email

Jeff Wilker (jwilker@thomsonrogers.com)
Partner
Thomson Rogers
390 Bay Street, Suite 3100
Toronto ON M5H 1W2

Dear Mr. Wilker:

**Re: Eden Oaks Subdivision
Town of Halton Hills
Project No.: 300038991.0000**

Our August 29, 2016 correspondence to the Town provided our comments on Submission No.4. Since that time we have attended numerous meetings with the design engineer and have received amended drawing submissions, most recently on December 22, 2016. This letter provides our current comments.

In general, it is our opinion that substantial progress has been made since the time of our last letter. The grading plans are now showing significantly less disturbance of slopes and treed areas. The stormwater ponds have been expanded to provide better control of water release during storm events. This letter outlines five ongoing outstanding concerns that remain with the current design.

Further discussions are required to address and resolve these matters as we prepare for the Ontario Municipal Board hearing.

In our review we have encountered a number of issues on the drawings that are not critical at the current planning stage of the project, but they will need to be addressed before construction drawings are approved. We have listed those matters in an appendix to this letter.

Outstanding Lot Grading Matters

Lot 15 remains problematic. There is a proposed flat yard area located in a narrow space between two retaining walls that does not seem appropriate and in general, the rear yard amenity area is insufficient. Further revisions are required

Outstanding Stormwater Management Matters

1. The trail way/maintenance access to the ponds remains a concern. We suggest that the trail needs to be lengthened in order to reduce its slope. An "S" shape may be preferable and would eliminate the turnaround.
2. The shape of the ponds appears to be imposed on the natural contours, as opposed to molded into them. In particular, the lower pond is quite angular. We don't understand why so much of the design requires fill underneath the floor of the pond; it would make more sense to utilize the storage volume that is proposed to be consumed with fill. We are of the opinion that the geometric contours of the ponds require substantial revision.
3. When the capacity of the upper pond is reached it is designed to spill over the retaining wall and cascade to the lower pond. This configuration raises a number of concerns. Modifications and refinements to the design and further discussion are required.
4. Conveyance of flows on Credit Street has not been rationalized for major events. In extreme events when the storm sewer is submerged, it is arguable that water is out letting in a location that didn't previously receive water from the Eden Oak lands.

Also, the existing upper Credit Street storm sewer is proposed to convey all of the pond discharge. This sewer contains an underground storage facility that was not designed for such input. The Eden Oak water would be routed through a 114 mm orifice and then a 300 mm corrugated steel pipe currently lying beneath Credit Street.

We anticipate a need for the Eden Oak pond Regional discharge to be conveyed in an independent storm sewer to a suitable discharge location situated within the Regional floodplain.

We are available to provide whatever assistance is required in resolving these matters.

Yours truly,

R.J. Burnside & Associates Limited



Gord Feniak
GF:js

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Appendix - Detailed Engineering Matters

- Figure 2: The limit of tree preservation fencing on Lot 9 requires revision.
- The proposed culvert extensions and modifications in the area of the Emergency Access should be modified to remove bends and blind tee connections.
- An easement will be required for the water from Lot 8 that crosses the driveway to Lot 9.
- Various rear yard elevations on lots 24 - 31 do not have clear drainage outlets and appear to pond. A continuous swale is needed with a culvert under the proposed walkway.
- Page 15: Report makes reference to an HGL (Hydraulic Gradeline) Analysis but we couldn't find the analysis in the report.
- Page 15: The Regional Flow Conveyance Figure (3C) should be combined with Figure 6 to provide an overall Post Development Minor/Major Conveyance Plan, particularly as the drainage system downstream of the site seems to have undergone several modifications and since most of the flow seems to be confined to a pipe system. It would be helpful if there was additional detail on the downstream portion related to existing/proposed infrastructure and overland flow routes.
- Page 16: There is reference to a 'wetland' pond design. The conformance to wetland-type facilities (per the MOE 2003 manual) should be demonstrated in table format (i.e. how the design meets the various criteria for a wetland design).
- Profile should be provided for French Drain. Groundwater levels should also be provided if the purpose of the French Drain is to intercept groundwater.
- Forebay calculations in back of report for Settling Length may be incorrect (according to the formula referenced). Forebay should have a berm to contain sediment and to maximize flow length within the forebay. Short-circuiting of the forebay will result in the release of sediment to the main cell(s) of the pond.
- The maximum water elevation for the Lower Pond seems to be incorrect on Figures 7 B and 7 C (refer to table).
- More elevations/slope indications are required on the Maintenance Access Route /Walkway. Is the width meant to vary between 2 m and 4 m?