

**Communication : C 2
Committee of the Whole (2)
June 8, 2021
Item # 13**

From: Daniela Villani <daniela.villani@medportal.ca>
Sent: Friday, June 04, 2021 12:27 AM
To: Clerks@vaughan.ca
Subject: [External] please attach the following communications

Please attach the following communications to the meeting documents for the meeting regarding 'Clubhouse Deelopments Inc - Resolution regarding conducting peer reviews'

Thank you,

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Daniela Costantini, MD, MSc, CCFP
Keep Vaughan Green



May 3, 2021

RE: Comments by Keep Vaughan Green regarding the proposed Development application at 20 Lloyd Street (Former Board of Trade Country Club)

To the Planning Department, Councillors, Mayor, and TRCA planner. Please see a summary of some of our concerns below.

Traffic Impacts:

1. Residents continue to have concerns regarding impacts of traffic on the existing neighbourhood to the North and South of the Development. Despite the removal of the road access to Wycliffe Avenue, vehicles will continue to use the Clarence -Wycliffe – Kiloran –Islington roads to get to Islington Ave and to access Hwy 400 OR may continue to access the Clarence – Wycliffe – Islington roads to get to Islington. As such it is imperative that these roads and all the intersections within them be included in the traffic impact study.

Even the applicant pointed out that:

‘ future traffic growth (including the new site traffic) may find it increasingly difficult to connect to the regional road network via these collector roadways and may choose to use local streets’

Thus – local streets absolutely need to be included in the impact review. We Suggest a 3rd party PEER Review to further review the applications traffic impacts. KVG has requested quotes for such studies and such a peer review would not be costly and would provide added insight to ensure impacts are fully understood in the context of the larger community and future development in the vicinity. As traffic remains a large concern for all neighbouring ratepayer groups and given the scope and scale of this project within the regions Greenland system within the valley system adjacent to Woodbridge’s heritage core, we believe that such measures are certainly justified.

2. Clarence is projected to accommodate more than it can handle based on the projections in the TIS. Clarence street is considered a heritage street by local residents who appreciate its winding roads through to the heritage core of Woodbridge Avenue. Further, the Woodbridge Avenue Streetscape design serves to enhance the Woodbridge core and the proposed mitigation measures to relieve the strain of traffic into Woodbridge Avenue by the developer do not align with these plans.

We therefore have concerns about the volume of homes being proposed on the site.

Environmental Impact:

1. This valley system is indeed a system. Defining the North and South areas of the site as 'table land' is a rather inaccurate description as there are natural hills and valleys within these portions of the site. Again, this site is part of the regional greenlands system – the natural, ecologic and core features of this site should be preserved.

There is description of a possible significant woodland at the North end of the property (this woodland meets the ELC criteria of Dry-fresh sugar maple deciduous forest/oak deciduous forest.) – the applicant states that the number of trees in the area do not meet the criteria for this designation. However, when looking at counted trees in this area by the tree inventory report there are about 250 trees in this woodland. Only 33 of these are smaller than 20cm DBH (the cut off to be counted) and only a handful are listed as dead and another handful were close to the 18cm cut off 2 years ago and may have grown in width. In fact, most of the trees within this woodland are over 40 cm DBH. Thus, this should be carefully re-evaluated given that it meets the area criteria for woodland with respect to area covered and also appears to meet the criteria for number of trees. Also importantly, this woodland site also contains a roosting habitat for the bat species at risk the little Brown Myotis – listed as ENDANGERED in the federal species at risk act – an important habitat (see appendix B – Natural Heritage in documents submitted by the applicant). The nearby headwater drainage feature in this region is likely important to this habitat.

It is our belief that this should be preserved and included as a core feature. It also will be important to establish preserve this to maintain linkages with the Kortright Centre for Conservation (see aerial maps of the region depicting linkages with neighbouring valley adjacent to Kiloran park and extending north to Kortright). The linkages further continue through the golf course then follow the tree canopy along the winding Humber River to the South of the site.

This woodland has a clear **ecological function** as a bat habitat/roosting site and it provides linkages to neighbouring Conservation areas and to the Humber River system. We request that the TRCA and planning department **re-evaluate this as part of the natural heritage system as a core feature/key natural heritage feature and that destruction of this feature (and the other SAR bat habitat smaller woodlots) be avoided.** We further request that and the Ministry of Natural Resources be consulted. Please see policies below which recommend preserving such features and linkages and only allowing development over 40% of developable land on golf courses.

(Also see attached Ecologist Assessment report) and Natural Heritage Reference Manual – for Natural Heritage Policies of the Provincial Policy statement)

Per PPS 2014:

2.1.2 - The **diversity and connectivity of Natural features in an area, and the long term ecological function** and biodiversity of natural heritage systems **should be maintained, restored or where possible improved, recognizing linkages** between and among natural heritage features and areas, surface water features and ground water features.

Furthermore per the **Growth Plan for the Greater Golden Horseshoe (Places to grow) 2017:**

Policy 4.2.2.3:

Within a Natural Heritage system:

- a. A new development or site alteration will demonstrate that:
 - I. There are no negative impacts on key natural heritage features or key hydrologic features or their functions.
 - II. Connectivity along the system and between key natural heritage features and key hydrologic features located within 240m of each other will be maintained or enhanced for the movement of native plants and animals across the landscape
 - III. The removal of other natural features not identified as key natural features and key hydrologic features is avoided, where possible. Such features should be incorporated into the planning and design of the proposed use wherever possible
 - IV. Except for uses described in and governed by the policies in subsection 4.2.8, the disturbed area, including any buildings and structures, will not exceed 25% of the total developable area and the impervious surface will not exceed 10 percent of the total developable area
 - V. **With respect to golf courses, the disturbed area will not exceed 40 percent of the total developable area and**
 - VI. **AT least 30 percent of the total developable area** will remain or be returned to natural self sustaining vegetation, except where specified in accordance with the policies in 4.2.8

Per Vaughan OP

3.2.1.2 To maintain the long-term ecological function and biodiversity of the Natural Heritage Network by utilizing an ecosystem approach to planning that protects, restores and where possible, enhances the natural features and their functions.

3. Concerns regarding building within the valley system

The developer proposes both a major road into the development and two Storm management ponds in the valley system. There are numerous areas where the SWM pond/bioretenion pond can be located OUTSIDE of the valley land and on the table land. Placing the SWM pond within the valley should thus be avoided. This measure of proposing the SWM facility outside of the tableland simply serves to make room for MORE intensification at this site and ONLY serves the developer/applicant.

Per TRCA Living City Policies:

7.3.1.2

- a. **That Natural features and areas include: valley and stream corridors;** wetlands; fish habitat; **woodlands; wildlife habitat;** habitat of endangered and threatened species; species of concern, ANSIs, key natural heritage features as per Provincial Plans, ESAs.
- b. **That all natural features be protected from development, site alteration and infrasctucture** in accordance with natural system policies 7.3.1

- c. That any natural feature or area isolated from the Natural system (eg tableland, woodland, headwater drainage features) be assessed to determine the need to protect the natural feature or area and its functions **and any potential connection to the Natural System**.

7.3.1 It is the policy of the TRCA:

- A. That the Natural System be comprised of the following components: water resources, natural features and areas, natural hazards and any associated potential natural cover and/or buffers
- B. That Development and site alteration NOT be permitted in the Natural system except in accordance with the policies in sections 7.4 and 7.5 and 8.1.3
- C. That infrastructure be located outside of the natural system

That where there is an existing vacant lot of record (including an infill lot), no new development will be permitted where the lot has no safe access OR is entirely within one or more of the following:

- D. Any natural features, areas and systems contributing to the conservation of land including areas providing hydrologic or **ecologic functions**.

4. Lack of Park and green in the north neighbourhood:

City staff suggest park at the north west portion of the neighbourhood. The developer believes a park within the valley is more inclusive. Families that live off of modesto gardens and on the north east area of the proposed development will need to travel a long distance by foot to access the proposed park or to kiloran park. A parkland feature in the north that preserves the woodland would be beneficial.

Residents have suggested significant widening of the existing buffer between the existing homes and new development and create a greenway connecting the buffers to a central green woodland area in the North that extends into the valley. Similar widening of buffers and preservation of linkages are needed in the South neighbourhood.

5. Headwater drainage feature identified in North Neighbourhood (G3 s1-4) when studied in the natural heritage assessment was recommended to be **conserved** in accordance with HDFA guidelines (but there is no mention of conserving this headwater drainage feature. The applicant is proposing not following HDFA guidelines and proposing to REMOVE this headwater drainage feature. To suggest this feature has no ecological function is absurd in the context of the entire site and the presence of the SAR roosting habitat. It is our belief that the HDFA guidelines should be followed and that this HDF be conserved.

Heritage Impacts:

As the site sits next to Woodbridge's cultural core and since part of the golf course sits within this core we feel that her heritage merits of the site AND the winding streetscape of clarence and mature treescape be carefully considered and maintained.

Thank you,

Daniela Costantini, MD, CCFP, MSc

Keep Vaughan Green Representative

K.W.F. Howard M.Sc., Ph.D., P.HG., P.Geo FGC, CGeol FGS
University Professor and Groundwater Consultant
32 Cadbury Court, Toronto,
Ontario, M1E 1E7
CANADA

Attention:
Keep Vaughan Green

31 May 2018

**Review of hydrogeological studies conducted in support of the proposed
Board of Trade Golf Course development in Vaughan, Ontario**

I have completed my review of two documents prepared by McClymont & Rak Engineers Inc. (MCR) in support of the Board of Trade Golf Course development proposed in Vaughan, Ontario. These documents include:

- **Doc 1:** MCR report entitled: "Preliminary Geohydrology Assessment 20 Lloyd Street (The Country Club Golf Course) Vaughan, Ontario, prepared for Clubhouse Properties Inc.", dated November 2017.
- **Doc. 2:** MCR report entitled: "Preliminary Geotechnical Report, Proposed Residential Development, 20 Lloyd Street, Board of Trade Golf Course, Vaughan, Ontario, prepared for Clubhouse Properties Inc.", dated November 2017.

I find both documents seriously deficient in that they focus exclusively on how the local geology and hydrological conditions may affect construction of the proposed development (i.e. impacts of groundwater on the development). The documents completely fail to consider how the development may impair the natural environment and local hydrogeological conditions (i.e. the potential impacts of development on groundwater) and how such impacts can be mitigated. The site lies to the south of the Oak Ridges Moraine and is not affected by the strict controls on development that such a location would demand. Nevertheless, the proponents of any urban development project in Ontario are obliged, through the Provincial Policy Statement (PPS, 2014), to ensure that the environment is adequately protected including water. The reports seriously lack both the data and level of interpretation required to provide the assurances stipulated by the PPS.

In particular, I note the following:

1) MCR has constructed only 13 boreholes on site (in 2017) and, of these, the majority are less than 10m deep. Only three boreholes extend beyond a depth of 20m with the deepest drilled to 33.28m. This dataset is wholly inadequate. **Doc. 2** (page 2) notes that, "seven boreholes (BH1 to BH7) were drilled by others, for environmental purposes, in 2016". However, MCR have not bothered to include these data in their reports, show the borehole locations on their site maps, or use the data in their interpretations. Neither have MCR used readily available water well data available in Ministry of the Environment and Climate Change (MOECC) records. As a consequence of these failings, the geological interpretation of the site is very weak and the cross-sections provided in the reports' figures are crude, poorly interpreted and limited in lateral extent. No attempt has been made to present cross-sections across the entire site.

2) It is largely due to the poor geological interpretation, that MCR has failed to identify and delineate the key aquifers beneath the site. Defining and understanding the succession of aquifers at the site is an essential pre-requisite for ensuring they will be adequately protected. **Doc. 1** (page 6) states “There is most likely perched water in Borehole 112 at 2.53 mbgs in the sandy silt layer”, but provides no indication how extensive the perched aquifer is, the hydrological function it performs, and how it will be protected. No information (other than its approximate water table elevation) is given on the deeper aquifer at the site, its hydrological function, and the degree of hydraulic interconnectivity it has with other aquifers present.

3) Groundwater flow directions and potential “downstream” receptors (e.g. groundwater dependent ecosystems – GDE’s) have not been identified. Without such information it is impossible to guarantee that “hydrological function” of the aquifers can be protected (as per PPS, 2017, Section 2.2.1). **Doc. 1** (page 1) states that one the report’s objectives is to determine “flow patterns” but no water table maps or potentiometric maps are provided. It is simply stated (**Doc. 1** (page 5)) that “the groundwater typically flows southwest, towards the Humber River”. This interpretation is purely speculative as no data are provided. In fact, some water from the southern part of the site very likely flows eastwards and southwards to the East Humber River (i.e. the site sits on a catchment divide). It is apparent from **Doc. 1** (page 4; Section 2.1 PHYSICAL SETTING) that MCR is not even aware of the existence and role of the East Humber River, which approaches within 200m of the site along its southern boundary.

4) There has no water balance performed for the site, either for current or post-development conditions. Urban development can cause significant changes to the water balance, reducing evapotranspiration, reducing direct recharge to aquifers and significantly increasing surface runoff. If the hydrologic function of the site aquifers is to be maintained (as per PPS, 2017, Section 2.2.1) the water balance (pre- and post-development) needs to be thoroughly understood and appropriate mitigation measures need to be put in place.

5) Water quality issues and the potential threat of urbanisation of the quality of both groundwater and surface water have been ignored. Just one groundwater sample has been collected (no surface water samples) and this was done only to ensure that any groundwater removed during construction dewatering could be safely discharged into local sewers. Urbanisation can radically change water quality in a catchment, largely due to the introduction of chemicals such as road salt and gasoline. Baseline water quality conditions need to be established and measures need to be developed to ensure water quality of both surface water and groundwater can be protected.

I acknowledge that both reports are described as preliminary and that further work is likely envisaged. However, the additional work required is substantial and it is essential this work be performed thoroughly and competently and with an appropriately comprehensive dataset.

I shall be pleased to expand on my concerns with further details should you require them.

Best regards,



Ken Howard

Preliminary Ecological Planning Opinion

**Re: The Proposed Country Club Urban Development
(Formerly known as the Toronto Board of Trade Golf Club)
20 Lloyd Street, Woodbridge ON**

Date: December XX, 2018

**Gord Miller B.Sc. (Hon.) M.Sc.
26 Riddle Court
North Bay, Ontario P1B 8S6**

I. Overview

1. I have been retained to provide opinion evidence in biology, ecology, environmental impact assessment, and Ontario environmental land use planning policy, regarding the lands located at 20 Lloyd Street, Woodbridge, Ontario L4L 2B9 (“Subject Lands”).
2. The property is currently occupied by the Country Club Golf Course (formerly the Toronto Board of Trade Golf Course). In May 2017, the golf course was sold to the R.F.G. Real Estate Fund LP. Clubhouse Properties Inc. (“Clubhouse”) then released a proposal for a new 660-unit residential subdivision to be built on the course. This development proposal was subsequently withdrawn on May 7, 2018. However, it is my understanding the proponent will be resubmitting a new proposal to develop these lands in the future.
3. This opinion is an ecological planning assessment based on that proposal, but is focused at a conceptual level on urbanization of the Subject Lands with low-density, urban residential development.

II. Brief Conclusion

4. The proposed Clubhouse development of 660 units has the potential to disrupt the entire Natural Heritage System of Vaughan, Ontario.
5. The loss of forest cover, ecological connectivity and potential impairment of local hydrogeological conditions is unacceptable, and is contrary to the *Provincial Policy Statement (2014)*, *Growth Plan for the Greater Golden Horseshoe (2017)*, and *Vaughan Official Plan 2010*.
6. The lands supporting the large trees on site and within the open space could be restored to a functioning forest ecosystem relatively quickly and at low cost.

III. Retainer

7. I was first contacted by Donnelly Law in May 2018 on behalf of Keep Vaughan Green. Prior to accepting the retainer, I reviewed the following documents:

- Traffic Impact Study prepared by BA Consulting Group, dated December 6, 2017;
- Arborist Report and Tree Inventory and Preservation Plan prepared by Beacon Environmental Ltd, dated January 2018;
- Cultural Heritage Impact Assessment prepared by ERA Architects, dated December 5, 2017;
- Phase 1 Environmental Site Assessment prepared by GHD, dated December 1, 2016;
- Preliminary Environmental Noise Report prepared by Jade Acoustics, dated December 5, 2017;
- Planning Justification Report prepared by KLM Planning Partners Inc., dated January 2018;
- Legal Suvey prepared by KRCMAR, dated December 11, 2017;
- Community Services and Facilities Impact Study Report prepared by MBTW WAI, dated December 22, 2017;
- Concept Plan prepared by MBTW WAI, dated December 6, 2017;
- Urban Design and Sustainability Guidelines prepared by MBTW WAI, dated December 6, 2017;
- Preliminary Geotechnical Report prepared by McClymont and Rak Engineers Ltd., dated November 2017;
- Preliminary Geohydrology Assessment prepared by McClymont and Rak Engineers Ltd., dated November 2017; and
- Master Environmental Servicing Plan prepared by Schaeffer and Associates Ltd., dated January 2018.

8. Following my retainer, I conducted a site visit on June 5, 2018.

IV. Qualifications

9. I am an ecologist and biologist. I have a B.Sc. (Hon.) Biology and M.Sc. in Plant Ecology. From 2000 to 2015, I served as Environmental Commissioner of Ontario. Prior to my appointment, I worked for the Ontario Ministry of the Environment for 14 years as a scientist, manager of training and development and as a district manager. I have direct and extensive experience with

reviewing environmental impact reports, development planning applications and companion technical reports.

10. Please find attached my CV.

11. I have been previously qualified as an expert witness in tribunal proceedings (Joint Board, OMB, Environmental Review Tribunal) and in court to give opinion evidence in the disciplines of biology, ecology and Ontario's environmental land use planning policies.

V. Description of Subject Lands and Development Proposal

12. The Subject Lands are legally described as Block 162, Plan M-2021, Part of Lots 9,10,11, and 12, Part of the Road Allowance Between Lots 10 and 11, Concession 7, and Part of Lots 10 and 11, Concession 8, Vaughan, Ontario.

13. The Subject Lands comprise of approximately 119.7 hectares of lands owned by Clubhouse Properties Inc., with an additional 9.6 hectares owned by Toronto and Region Conservation Authority ("TRCA") and leased for purposes of the golf course.

14. The Subject Lands are located north of the core of the Village of Woodbridge, both east and west of Clarence Street, and border the rear lot lines of lots on Wycliffe Avenue, Kilmur Gate, Squire Graham Lane, and Clarence Avenue to the north and are also bounded by rear lot lines along the east from lots fronting on Pennycross Court, Firglen Ridge, Gamble Street and Waymar Heights Boulevard and to south by rear lot lines from dwellings on Davidson Drive. To the west, the land generally follows the valley associated with the main branch of the Humber River.

15. In addition to the golf course lands, there are two existing single detached residential dwellings located at 757 Clarence Street and 241 Wycliffe Avenue included within the Subject Lands.

16. Notably, the Subject Lands are within close proximity to Greenbelt Lands designated “Natural Heritage System”, and sits adjacent to “Urban River Valleys” as per the Ministry of Municipal Affairs and Housing Map 72.
17. Clubhouse Properties Inc. submitted a proposal to amend the Vaughan Official Plan 2010 to re-designate portions of the lands from “Private Open Space” to “Low Rise Residential”, “Infrastructure and Utilities”, “Parks”, and “Natural Areas”, to permit a low-rise residential development of approximately 660-units on 119.7 hectares (“ha”); continued operation of a golf course and associated uses, and public parks. Specifically, the proposal includes two residential areas, with a range of housing types including single detached houses, laneway townhouses, and decked townhouses.
18. The application was subsequently withdrawn by the proponent on May 7, 2018, without explanation.

VI. Brief Conclusion

19. The Subject Lands have significant natural heritage value, both because of their size and because of their strong linkages to other natural heritage lands.
20. A key feature of these lands is that they are intact and are not sub-divided into small parcels.
21. The Subject Lands are largely unconstrained by development land use commitments e.g. rights-of-way, lotting patterns, etc.
22. The primary ecological function of the area is as a “Core Feature” as identified is the Vaughan Official Plan 2010 Natural Heritage Network.
23. The planning problem posed by the development is that these lands are being viewed as either flood plain where houses can’t be built because of the physical hazard, or “table lands” or land where there are no flood risks and no

topographic restrictions on building. Developing the lands to a residential use is the overarching, dominant goal.

24. In this paradigm, flood plains and other non-table residual lands become natural heritage lands because they have no other use (except for Storm Water Management drainage and ponds). This is piecemeal planning which is fraught with landscape conservation problems and inevitably leads to conflict.
25. This is an arbitrary way of looking at a landscape which is absolutely contrary to an ecosystem approach. The sensible starting point in planning should be to assess the natural heritage value of the entire parcel of land within the context of the surrounding landscape's ecosystems. With this information planners would have an idea of what ecological structure and function is important to maintain. Within that natural landscape perspective, planning for development can then be done in a way that maintains the natural heritage fabric and is consistent with the adjacent, already fully developed lands.
26. Finally, an ecosystem approach allows for other considerations, such as open space preservation, urban forest restoration, climate change, resiliency planning, and a whole host of important public policy and planning considerations.

Site Visit

27. On June 5, 2018 I attended the site. I first viewed the property from the parking lot of the Club House located at 20 Lloyd Street and walked the perimeter on the easterly side of the parking lot before stopping at the edge of the course.
28. From there, I travelled to 146 Kilmuir Gate where I was able to view the subject lands from the backyard. This lot directly abuts the Subject Lands and

provides a clear, unobstructed view of the next-door lots and their view of the Subject Lands.

29. I then proceeded to Gamble Street and was able to view the Subject Lands from the cul-de-sac. I then proceeded to view the course from the residential lot located at 160 Waymar Heights Blvd.

30. These residential lots back directly onto the course at various points.

31. I observed a large number of mature trees and lands which could be restored to a functioning forest ecosystem, relatively quickly and at low cost. While there are some exotic tree species, the majority of trees are native and of high ecological value.

32. The golf course is situated in an important river valley that defines the landscape. Naturalizing the river valley hazard lands is critical, however, urbanizing the uplands will destroy the connectivity between the upland forest and river valley ecosystem.

33. River valley systems provide linkages and continuity with other features within the Natural Heritage System. Essentially, they provide a functioning landscape ecosystem. There is a potential for disruption of the entire Natural Heritage System in Vaughan if the Subject Lands are developed into a residential landscape.

VII. Policy Considerations

34. I reviewed the following key policy documents applicable to the development proposal:

- Provincial Policy Statement, 2014;
- Growth Plan for the Greater Golden Horseshoe (Places to Grow) 2017;
- Greenbelt Plan (2017);
- Region of York Official Plan;
- City of Vaughan Official Plan; and

- Toronto and Region Conservation Authority's Living City's Policies.

35. The key policies are summarized below:

Provincial Policy Statement, 2014

36. The Provincial Policy Statement 2014 ("PPS") emphasizes the importance of maintaining, restoring and improving where possible Natural features and areas. The PPS maintains that Natural features and areas shall be protected for the long term. Specifically Policy 2.1.2 states:

The diversity and connectivity of natural features in an area, and the long-term *ecological function* and biodiversity of *natural heritage systems*, should be maintained, restored or, where possible, improved, recognizing linkages between and among *natural heritage features and areas, surface water features and ground water features*.

Growth Plan for the Greater Golden Horseshoe (Places to Grow) 2017

37. The Growth Plan for the Greater Golden Horseshoe, 2017 places emphasis on the protection of a Natural Heritage System within a municipality. Specifically, Policy 4.2.2.3 states:

Within the Natural Heritage System:

- a. new development or site alteration will demonstrate that:
 - i. there are *no negative impacts* on *key natural heritage features* or *key hydrologic features* or their functions;
 - ii. connectivity along the system and between *key natural heritage features* and *key hydrologic features* located within 240 metres of each other will be maintained or, where possible, enhanced for the movement of native plants and animals across the landscape;
 - iii. the removal of other natural features not identified as *key natural heritage features* and *key hydrologic features* is avoided, where possible. Such features

- should be incorporated into the planning and design of the proposed use wherever possible;
- iv. except for uses described in and governed by the policies in subsection 4.2.8, the disturbed area, including any buildings and structures, will not exceed 25 per cent of the *total developable area*, and the impervious surface will not exceed 10 per cent of the *total developable area*;
 - v. with respect to golf courses, the disturbed area will not exceed 40 per cent of the *total developable area*; and
 - vi. at least 30 per cent of the *total developable area* will remain or be returned to *natural self-sustaining vegetation*, except where specified in accordance with the policies in subsection 4.2.8.

38. For lands adjacent to Key Hydrologic Features and Key Natural Heritage Features, Policy 4.2.4.1 states that:

Outside *settlement areas*, a proposal for new *development* or *site alteration* within 120 metres of a *key natural heritage feature* within the *Natural Heritage System* or a *key hydrologic feature* will require a natural heritage evaluation or hydrologic evaluation that identifies a *vegetation protection zone*, which:

- a. is of sufficient width to protect the *key natural heritage feature* or *key hydrologic feature* and its functions from the impacts of the proposed change;
- b. is established to achieve and be maintained as *natural self-sustaining vegetation*; and
- c. for *key hydrologic features*, *fish habitat*, and *significant woodlands*, is no less than 30 metres measured from the outside boundary of the *key natural heritage feature* or *key hydrologic feature*.

Vaughan Official Plan

39. The OP of Vaughan recognizes the essential need and nature of a natural heritage network in such a heavily developed landscape. The importance of maintaining the ecological structure (woodlots, wetlands, vernal pools, etc.) and ecological function (including but not limited to connectivity and corridors

for gene transfer, access to critical ephemeral habitat, etc.) is documented and described in the Plan.

40. Key sections of Vaughan's Official Plan, include:

- 3.2.1.1. To recognize the various functions performed by the natural environment that benefit ecological and human health and that these functions improve the overall quality of life for Vaughan residents.
- 3.2.1.2. To maintain the long-term ecological function and biodiversity of the Natural Heritage Network by utilizing an ecosystem function approach to planning that protects, restores and, where possible, enhances natural features and their functions.
- 3.2.3.1. To protect and enhance the Natural Heritage Network as an interconnected system of natural features and the functions they perform, as identified on Schedule 2, by: a. restricting development or site alteration in accordance with the policies of this Plan within the following components of the Natural Heritage Network: i. Core Features are the core elements of the Natural Heritage Network to be protected and enhanced; ii. Enhancement Areas reflect the best opportunities on remaining undeveloped land to provide additional habitat and/or ecological connectivity of the Natural Heritage Network, the precise limits of which are to be determined through appropriate studies to incorporate Enhancement Areas into the Natural Heritage Network as Core Features or suitable open space designations; iii. Built-Up Valley Lands recognize existing developed lands located below the physical top of bank, such that minor alterations and/or limited new development may be permitted with restrictions.

41. Further, Vaughan OP Policy 3.2.3.8 states:

That *development or site alteration* on lands *adjacent to Core Features* shall not be permitted unless it is demonstrated through an environmental impact study that the *development or site alteration* will not result in a negative impact on the feature or its functions.

42. Schedule 2 within the draft NHN Study report identifies "Core Feature", a designation applied to those features identified as providing critical ecosystem functions and as such, are to be protected and enhanced through the policies set forth in the OP. There is no qualifier on this planning principal which

would allow these protections to be subverted in the interests of maximizing development or lot creation. As a consequence of this designation, the enhancement and protection of these core features becomes the dominant planning priority in land use decisions on lands adjacent to these core features.

VIII. Analysis of Application

Ecological Function of the Subject Lands in the Broader Landscape

43. The Subject Lands link the East branch of the Humber River that adjoins immediately south of the lands with the Main branch of the Humber River.
44. This provides a natural linkage corridor that continues northward that goes up to the Boyd Conservation Area and links up with the Kortright Centre, which ultimately connects north to the Oak Ridges Moraine.
45. Furthermore, Doctor McLean Park site has many mature trees that link up through to the Boyd Conservation Area to the Kortright Centre and up to the continues onwards north to the Oak Ridges Moraine.

IX. Hydrogeology and Ecology

46. I have reviewed a copy of Dr. Ken Howard's report dated May 31, 2018. I take from the main conclusions of his report that the proposed development:
 - Fails to consider how the development may impair the natural environment and local hydrogeological conditions;
 - Has not produced sufficient data and analysis required to provide the assurances stipulated by the PPS;
 - The dataset is wholly inadequate;
 - The geological interpretation of the site is very weak; and
 - There has been a failure to identify and delineate key aquifers beneath the site.
47. The parallel between our thinking is that Dr. Howard seems to be concerned, as am I, that the Applicant's reports are centered around how the

development and work activity will be limited due to the surrounding environmental features, and not how the development will limit the potential of the natural hydrogeological and other environmental conditions. Given the crucial connection between the local hydrologic and hydrogeologic connections, any impairment could seriously adversely affect the natural environment and ecosystem which is a significant concern of mine.

48. In conclusion, Dr. Howard's report outlining the lack of data analysis of environmental considerations necessary to provide assurances of environmental protection adds to my concern regarding the potential impacts to the river valley ecosystem and crucial upland linkages at the heart of Vaughan's natural heritage system.

X. Conclusion

49. The river valley provides linkage and connectivity to the upland features. The river ultimately knits the natural area and core feature into one high value natural heritage system.

50. The east branch of the Humber River links up with Boyd Park and the Kortright Centre. This natural heritage system is at the centre of Vaughan's ecology.

51. This development has the potential to disrupt the entire Natural Heritage System of Vaughan.

52. If this development proposal is evaluated according to the criteria stipulated in the planning requirements and identified above, the proposal fails on all points.