

Appendix	D
SRPRS	019.032
File(s)	D02-18022



Toronto and Region
Conservation
Authority

October 18, 2018

CFN: 59062.40
X-Ref CFN: 52324.12, 40126.09

BY EMAIL: Amanda.dunn@richmondhill.ca

Ms. Amanda Dunn
Town of Richmond Hill
225 East Beaver Creek
Richmond Hill, ON
L4B 3P4

Dear Ms. Dunn,

Re: D06-18038 (Site Plan)
D02-18022 (Zoning By-law Amendment)
195 Gamble Road, Richmond Hill
2304266 Ontario Inc. (Agent: Weston Consulting)

This letter will acknowledge receipt of the above-noted applications. These applications were received August 30, 2018. Toronto and Region Conservation Authority (TRCA) staff have reviewed the submission and offer the following comments.

PURPOSE OF THE APPLICATION

It is our understanding that the purpose of the Zoning By-law Amendment and Site Plan applications is to facilitate the construction of eight townhouse dwellings and a condominium road.

APPLICABLE TRCA REGULATIONS AND POLICIES

Ontario Regulation 166/06

Based upon our mapping, the majority of the subject property is within TRCA's Regulated Area, as it is traversed by the Rouge River valley corridor. In accordance with Ontario Regulation 166/06, as amended (Development, Interference with Wetlands and Alteration to Shorelines and Watercourses), a permit is required from the TRCA prior to any of the following works taking place:

- a) straightening, changing, diverting or interfering in any way with the existing channel of a river, creek, stream or watercourse, or for changing or interfering in any way with a wetland;
- b) development, if in the opinion of the Authority, the control of flooding, erosion, dynamic beaches or pollution or the conservation of land may be affected by the development.

Development is defined as:

- i. the construction, reconstruction, erection or placing of a building or structure of any kind,
- ii. any change to a building or structure that would have the effect of altering the use or potential use of the building or structure, increasing the size of the building or structure or increasing the number of dwelling units in the building or structure,
- iii. site grading, including the temporary or permanent placing, dumping or removal of any material originating on the site or elsewhere.

Living City Policies for Planning and Development in the Watersheds of the TRCA (LCP):

The LCP describes a "Natural System" of water resources, natural features and areas, natural hazards, potential natural cover and/or buffers. TRCA policies generally require that natural features within the "Natural System" be protected from development, site alteration and infrastructure. Notwithstanding additional setbacks prescribed by federal, provincial or municipal requirements, TRCA defines the limit of the "Natural System" as the greater of, but not limited to the following:

- Valley and Stream Corridors: 10 metre buffer from the greater of the long-term stable top of slope (LTSTOS), top of slope (TOS), Regulatory Floodplain, meander belt and any contiguous natural features or areas;
- Woodlands: 10 metre buffer from the dripline and any contiguous natural features or areas;
- Wetlands: 30 metre buffer from Provincially Significant Wetlands (PSWs) and a 10 metre buffer from all other wetlands and any contiguous natural features or areas.

Oak Ridges Moraine Conservation Plan (ORMCP):

The subject property is located on the Oak Ridges Moraine (ORM), within the Settlement Area land use designation of the ORMCP. Under the ORMCP, a Minimum Vegetation Protection Zone (MVPZ) typically of 30 metres are required from any Key Natural Heritage Features (KNHF) or Hydrologically Sensitive Features (HSF). TRCA staff note that the valley corridor located along the west and southern side of the property would qualify as a Significant Valleyland, a Key Natural Heritage Feature.

The TRCA has objectives related to the maintenance, restoration and enhancement of the ORMCP area. As technical advisors to the Town of Richmond Hill, the TRCA must be satisfied that there will be no negative impacts on the natural features resulting from the approval of the subject application. However, given that municipalities are the designated approval authority under the *Oak Ridges Moraine Conservation Act*, we recommend that the Town of Richmond Hill ensure that this application conforms to the provisions of the ORCMP.

As the works qualify as Major Development within the ORMCP, the application must conform with the watershed plan (in this case, the Rouge River Watershed Plan).

Rouge River Watershed Plan, 2007

The implementation of source controls to maintain pre-development Water Balance for new urban development is an objective identified under the *Rouge River Watershed Plan, 2007*.

Source Protection Plan: CTC Source Protection Region

The Source Protection Plan (SPP) under the Clean Water Act, 2006, developed for the Credit Valley, Toronto and Region and Central Lake Ontario (CTC) Source Protection Region took effect on December 31, 2015. The CTC SPP contains policies to ensure that existing activities occurring when the Plan takes effect cease to be significant drinking water threats, and to prevent future activities from becoming significant threats to drinking water.

Vulnerable Areas referred to as Wellhead Protection Area-Q2 (WHPA-Q2) have been delineated by the CTC SPP in accordance with Technical Rules developed by the Ministry of the Environment under O. Reg. 287/07. This WHPA-Q2 area was identified to help manage activities that may reduce recharge to an aquifer (Prescribed Threat No. 20 under the Clean Water Act, 2006). Certain types of applications within the WHPA-Q2 area are subject to CTC SPP Policy REC-1 parts 2 a) and b) and require the submission of a site-specific water balance assessment to mitigate development related impacts to recharge reduction.

As a technical service provider to the municipality for the REC-1 2 a) and b) policies of the CTC SPP, TRCA's role is to review water balance assessments to ensure they comply with standard practices outlined in guidance to proponents and make recommendations to the Planning Approval Authority as to whether pre-development recharge will be maintained. However, as municipalities are the Planning Approval Authority responsible for implementing the REC-1 Policy, the Town of Richmond Hill is required to ensure this application conforms to the CTC SPP.

APPLICATION-SPECIFIC COMMENTS

TRCA's Limit of Development

As noted in TRCA's previous letters dated January 29, 2016, April 28, 2018 and December 14, 2017 (CFN 52324.12), the subject property is traversed by a valley corridor and setback requirements under TRCA's *Living City Policies for Planning and Development in the Watersheds of the TRCA (LCP)* would be dependent upon TRCA's minimum 10 metre buffer established from the greater of the following constraints:

- The physical top of bank (TOB);
 - The Regulatory Floodplain (i.e. greater of the Regional Storm or 100 Year Flood event standards);
 - The limit of the Long Term Stable Top of Bank (LTSTOB); or,
 - The limit of contiguous vegetation associated with the valley corridor.
1. A 10 metre buffer has been illustrated from TRCA's staked top-of-bank for the western slope but not for the eastern / southeastern TRCA's staked top-of-bank. Please revise all applicable drawings to illustrate a 10 metre buffer from the eastern / southeastern TRCA staked top-of-bank.

Survey / Site Plan

TRCA staff note that a majority of the drawings references two top-of-bank, one being two lines on the western and eastern side representing TRCA's staking and a second line which represents top-of-bank by client.

2. As stated in our previous letters (CFN 52324.12), it is important to note that the staking of this feature is the responsibility of TRCA planning and technical staff. Any subsequent renderings of the top-of-bank and limit of contiguous vegetation must reflect the features identified and staked in the field by TRCA staff. At this time, TRCA staff are not prepared to accept any other top-of-bank line depicted on all the drawings other than the one staked by TRCA staff on December 13, 2016. Please remove all other top-of-bank lines shown on all drawings and properly plot our complete staking limit as conducted in the field.
3. The top-of-bank line for the south end of the subject property is not present on the drawings. TRCA staff recognize the top-of-bank is located beyond the property line; however, a 10 metre buffer from top-of-bank would encroach onto the property. Therefore, using the contours of the slope a contiguous top-of-bank line should be illustrated for the south end to connect TRCA's staked top-of-bank. Please update all drawings to include the top-of-bank line for the south end of the subject property with the respective buffer.

Geotechnical

Based on Geotechnical staff review, the western slope is 9 metres high and sparsely vegetated. A watercourse is located close to the toe of the western slope. TRCA Geotechnical staff previously reviewed a Geotechnical Letter prepared by Soil Engineers Ltd., and are satisfied that the western slope can be considered long-term-stable; however, the location of the long-term-stable-top-of-slope (LTSTOS) should not be below the staked top-of-bank line. No further analysis is required for the western slope.

TRCA staff note that no geotechnical analysis was conducted on the slope located at the southeast corner of the property. It was previously noted that it is highly likely this slope may contain loose or un-compacted fill material. A slope stability analysis for the eastern / southeastern slope is required. Given the condominium road / hammerhead is located very close to the top of a steep slope on the east side of the property, a geotechnical investigation (slope stability analysis) should be conducted to accurately delineate the long-term stable top of slope. It is understood that a geotechnical investigation was conducted; however, the geotechnical report does not include a slope analysis component. A geotechnical report, signed and sealed by a licensed Professional Engineer, should be submitted. The scope of work for the geotechnical investigation is as follow:

- a) A topographical survey is required to illustrate the slope features including existing top of slope, contours of the slope, toe of the slope, watercourse, etc;
- b) Boreholes should be drilled to determine the native soil stratigraphy;
- c) In-situ and lab tests should be carried out, to identify the soil stratigraphy encountered throughout the entire slope, and to determine the soil strength parameters required for slope stability analysis;
- d) Piezometers should be installed in select boreholes to measure groundwater levels. Groundwater levels should be measured after the boreholes are drilled and when the groundwater levels have stabilized in the piezometers;
- e) The location of the long-term stable top of slope should be determined as follows:
 - A sufficient number of cross-sections based on the topography (e.g. slope height and inclination) and slope features that represent the critical slope conditions should be analyzed;
 - Long-term stable slope allowances (setbacks) should be determined and correctly incorporated into each cross-section to delineate the long-term stable top of slope for each cross-section. The minimum acceptable safety factor is 1:50;
 - The Bishop, Spencer or Morgenstern-Price methods can be used for the slope stability analysis. The slope stability analysis should be performed by using either SLIDE or SLOPE/W;
 - Any stabilization effects of existing retaining structures on slopes should be ignored when delineating the long-term stable top of slope;
- f) The cross-sections, methodology, parameters and test results should be presented in the report. The cross-sections should clearly show both the toe erosion and long-term stable slope allowances as well as the long-term stable top of slope on the tableland and the setback from the existing top of slope. The long-term stable top of slope should also be shown on the site plan.

Water Resources Engineering

4. Please show the river / stream alignment in all drawings.
5. The proponents have proposed to provide water quality through OGS and infiltration gallery. However, the sizing of the OGS has not been provided. Therefore, please provide OSG sizing from the OGS manufacturer.

Erosion Control

6. The Infiltration gallery has been designed for retaining 1mm (5 mm – 4 mm) precipitation depth. However, TRCA does not account for initial abstraction in the 5 mm erosion control criteria. Therefore, please provide sufficient infiltration capacity in the design to infiltration a 5 mm precipitation depth for the impervious area (i.e., 5 mm * 0.173 ha).
7. TRCA recognizes that a rip rap is designed at the outfall to reduce the erosion impacts. However, the valley slope at the outlet location is steep at approximately 20% which could cause erosion after the splash pad. Therefore, please provide an outfall design with energy dissipation features (i.e., rip rap protected plunge pool) to ensure that the velocity is reduced prior to flows entering the valley lands.

Erosion and Sediment Control Plan

8. The proponents have provided an erosion and sediment control plan (Drawing No. C2). However, please add the following comments in erosion and sediment control plan:
 - a. The erosion and sediment control strategies outlined on the plans are not static and may need to be upgraded / amended as site conditions change to prevent sediment releases to the natural environment. The TRCA Enforcement Officer should be immediately contacted should the erosion and sediment control plans change from the approved plans.
 - b. All existing grades within the Regional Storm Floodplain will be maintained. All excess fill will be removed from the Regional Storm Floodplain.

Ecology

9. The 10 metre buffer from the top-of-bank on the western side is already a reduction of the 30 metre buffer from Significant Valleylands. For TRCA to accept a further reduction in this buffer for the proposed acoustic fence, further ecological gain must be provided. This can be accomplished by increasing planting quantities (trees and shrubs) in the buffer.
10. The proposed development does not show the 1.8 m wood privacy fence at the western lot limit for units 7 and 8. Please update the Drawing No. L100 Landscape Plan to show the added privacy fence at these lots to reduce incursion into the buffer.
11. The proposed development currently has a minimum buffer from the staked dripline and top of bank from the draw feature. In order for TRCA to entertain this, greater efforts must be made in the form of buffer plantings and invasive species removal. Ecology Staff also recommends design modifications to provide the required buffers to the feature. Please update the drawings to reflect these changes.
12. Planning Ecology staff has concerns about potential erosion impacts to the Natural Heritage System (NHS) as a result of the Stormwater outlet into the valley. There is approximately 35 m from the outfall to the bottom of the valley. The Stormwater outfall should be moved to address this issue and plantings and live stakes should be incorporated into the outfall design to further reduce the risk to the NHS.
13. TRCA supports conveyance of the buffer and valleyland into public ownership (TRCA) and would be pleased to review the proposed planting plan.

14. Where possible please consider the use of silt soxx in place of rock check dams in the temporary drainage swale. Silt soxx when installed properly, allow for an increased setting out of sediments as compared to a rock check dam.
15. Please change the erosion and sediment control inspection notes on Drawing No. C2 from after rainfall events to after precipitation events.
16. The Natural Heritage Evaluation (prepared by Savanta, dated July 2018) note the upper reaches tributary of the Upper Rouge River is considered to be contributing habitat for Redside Dace (Endangered), with occupied habitat for Redside Dace located downstream of the subject property. Consultation with Ministry of Natural Resources and Forestry (MNRF) should be undertaken to ensure compliance with the *Endangered Species Act, 2007*.

PERMITTING

As noted above, the subject properties are located within TRCA's Regulated Area. On this basis, a TRCA permit is required from this Authority prior to the proposed works commencing on the subject site, pursuant to Ontario Regulation 166/06, as amended. Details with respect to permit submission requirements are available at our website (<https://trca.ca/planning-permits/apply-for-a-permit/>).

FEES

By copy of this letter, the applicant is advised that the TRCA has implemented a fee schedule for our planning application review services. In accordance with our 2018 TRCA Planning Services Fee Schedule, this application is subject to a combined Site Plan and Zoning By-law Amendment Standard **\$8,950.00** review fee payable to the TRCA. We request that the applicant submit this fee to our office at their earliest convenience.

RECOMMENDATION

In light of the above noted comments, it is our opinion that the Zoning By-law Amendment and Site Plan applications are considered premature as additional information and revisions are required prior to TRCA staff endorsing the subject applications. Once the limits of development have been established in accordance with TRCA/ORMCP policies, a more precise developable envelope can be established. TRCA staff are happy to help work with you to determine an alternative development proposal that can be facilitated within the limit of development on site.

We trust this is of assistance. Should you have any further questions or comments, please do not hesitate to contact the undersigned.

Yours truly,



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LB/dc