

"Inspiring a Healthy Environment"

June 11, 2021

Corporation of the County of Middlesex
County Building
399 Ridout Street North
London, Ontario N6A 2P1

Attention: Durk Vanderwerff (sent via email: dvanderwerff@middlesex.ca)

Dear Mr. Vanderwerff:

**Re: Proposed Plan of Subdivision- File 39T-MC1902 (Renwick- Brantam Estates)
UTRCA Conditions of Draft Plan Approval
Owner/Applicant - Brantam Developments Inc.
9904 Oxbow Drive, Municipality of Middlesex Centre, County of Middlesex, ON**

Further to our correspondence dated July 29, 2019, the Upper Thames River Conservation Authority (UTRCA) offers the following comments and conditions of draft plan approval..

PROPOSAL

The proposed Plan of Subdivision will be comprised of 166 single family residential lots and six (6) medium density residential blocks.

CONSERVATION AUTHORITIES ACT

As shown on the enclosed mapping, the subject lands are regulated by the UTRCA in accordance with Ontario Regulation 157/06, made pursuant to Section 28 of the *Conservation Authorities Act*. The regulation limit is comprised of a riverine flooding hazard. The UTRCA has jurisdiction over lands within the regulated area and requires that landowners obtain written approval from the Authority prior to undertaking any site alteration or development within this area including filling, grading, construction, alteration to a watercourse and/or interference with a wetland.

UTRCA ENVIRONMENTAL PLANNING POLICY MANUAL (2006)

The UTRCA's Environmental Planning Policy Manual is available online at:

<http://thamesriver.on.ca/wp-content/uploads//PlanningRegulations/EnvPlanningPolicyManual-update2017.pdf>

NATURAL HAZARDS

In Ontario, prevention is the preferred approach for managing hazards in order to reduce or minimize the risk to life and property. The UTRCA's natural hazard policies are consistent with the PPS and the applicable policies include:

3.2.2 General Natural Hazard Policies

These policies direct new development and site alteration away from hazard lands. No new hazards are to be created and existing hazards should not be aggravated. The Authority also does not support the fragmentation of hazard lands through lot creation.

3.2.3 Riverine Flooding Hazard Policies

These policies address matters such as the provision of detailed flood plain mapping, uses that may be permitted in the flood plain, one & two zone flood plain policy areas as well as special policy areas.

3.5.2 Policies for Stormwater Management and Erosion & Sediment Control Measures

Generally discusses the requirements for stormwater management (SWM) and the requirements for report submissions, while advocating for catchment area planning of SWM facilities. The UTRCA requires the submission of a SWM Report that addresses various matters including water balance, water quality and quantity as well as monitoring and maintenance. We also require sediment erosion control plans which address the measures to be implemented for any proposed development.

TECHNICAL REVIEW COMMENTS – FUNCTIONAL SERVICING REPORT

The UTRCA has reviewed the Stormwater Management Section of the *Komoka Subdivision Functional Servicing Report* (FSR) prepared by AGM, dated April 24, 2019. We offer the following comments:

1. Under section 5, the report uses a Time to Peak ratio of 0.38. Please provide justification for the time to peak ratio used;
2. Please submit Figure 3 titled “Existing Drainage” on a full size drawing supported by contour information at an appropriate scale;
3. Table 1 titled “Pre-development Flows” shows flows under the existing conditions for a site area of 21.13 ha. However, the site receive flows from external areas of 120.88 ha, and 26.51 ha, respectively, as shown on Figure 3. How will flows from the external areas be controlled and conveyed safely?
4. The UTRCA would advise that the proposed location of the wet SWM pond be investigated further, to ensure that groundwater/groundwater recharge will not affect the proposed pond operation and other SWM infrastructure including the inlets and outlets.
5. The UTRCA does not support the proposal to construct a channel/swale along the east and south property boundaries as this has the potential to shift flooding and/or erosion hazards onto property owned by others, including existing residential lots and municipal road allowances. We recommend the realignment for the swale be reconfigured further away from the residential lots and municipal road allowances.
6. The SWM section of the report proposes to collect runoff from both minor and major flows, (from 120.88 and 26.51 ha, respectively) and route it around property to discharge it just downstream of the proposed SWM wet pond. The total drainage area contributing runoff to the proposed channel is greater than 120 ha. The UTRCA requires hydrologic and hydraulic modeling of the external drainage areas including this site to assess and calculate the flows from the both the external area and this site by routing the flows using HEC-RAS model to assess the conveyance capacity and establish the limit of the 250-year flows, its elevations and width of the 250-year flood plain for the proposed by pass channel.

7. Without regular maintenance, the proposed bypass channel may pose a flooding risk in the future. Further, encroachment issues may also cause flooding for both existing and proposed dwellings on Komoka Road and Oxbow Drive.
8. The flows from the site under various storm events from the 2-year and up to the 250-year storm shall be controlled to the capacity of the Oxbow Drive storm sewer.
9. The discharge from the proposed SWM pond shall not cause flooding and erosion issues in the existing ditch along the CN rail line. The UTRCA will require a cross section showing the various depths under the various storm events showing the depth of the water in the existing ditch along the CN rail line;
10. Please consider the time to peak of the two proposed inlets shown on Figure 6 to make sure that they do not peak at the same time which may cause backwater effect which may cause local flooding;
11. The UTRCA recommends using some SWM LID feature on the site where possible as per the local soil information;
12. Detailed Erosion and Sediment Control (ESC) measures shown on the Drawing with notes, OPSS and OPSD drawings, reporting, inspection and monitoring duly signed and sealed by P.Eng will be required.

UPSTREAM DRAINAGE CONCERNS/COMMENTS

1. UTRCA staff have had numerous discussions regarding flooding with the landowners of the existing (Komoka Park Station) subdivision lots on Union Avenue east of Komoka Road. These Union Avenue lots are located immediately upstream of the proposed (Renwick Estates) Subdivision via their connection with the Frank Municipal Drain. The Frank Municipal Drain runs (enclosed) along the rear of the Union Avenue lots before crossing under Komoka Road and flowing underground through the proposed Renwick Estates subdivision. The upstream lots have experienced repeated and documented flooding and there is a concern that they may not have sufficient outlet for drainage through the Renwick Estates subdivision. We are of the understanding that some of the upstream landowners have petitioned under the Drainage Act to have their flooding concerns investigated and that to this end an engineer has been appointed by the Municipality of Middlesex Centre. We are of further of the understanding that this Drainage Engineer will be assessing for - among other sizing criteria - the sufficiency of downstream outlet.
2. While not directly the responsibility of the Renwick developer(s) to accommodate additional upstream flows, we suggest it would be in the municipality's interest to ensure that additional stormwater storage and upsized outlets are provided in the design of the Renwick Estates subdivision to handle upstream flows and reduce flooding concerns at the Union Avenue lots. The planning stage of the Renwick Estates subdivision may be the most appropriate time to discuss this opportunity with the developer and their stormwater consultant(s).

RECOMMENDATION

The subject lands are regulated by the UTRCA and we have no objections to this application for Plan of Subdivision. The existing flooding issues on adjacent lands should be considered as part of this proposed development. We offer the following conditions of draft plan approval -

1. That the owner submit a Stormwater Management Plan, and Sediment and Erosion Control Plan and Final Detailed Servicing and Grading Plans prepared to the satisfaction of the Upper Thames River Conservation Authority and the Municipality of Middlesex Centre. The submission should address the comments provided herein.
2. That the necessary Section 28 approvals be secured from the UTRCA prior to any site alteration or development being undertaken within the regulated area including filling, grading, construction, alteration to a watercourse and/or interference with a wetland.

UTRCA REVIEW FEES

Consistent with UTRCA Board of Directors approved policy, Authority Staff are authorized to collect fees for the review of Planning Act Applications. Our fee to review this application for plan of subdivision is \$10,000.00. We also collect fees for the peer review of technical reports. Our fee to review the Functional Servicing Study (April 24, 2019) is \$1075.00. We will invoice the applicant for the amount of \$11,075.00 under separate cover.

Thank you for the opportunity to comment. Please contact the undersigned if you have any questions.

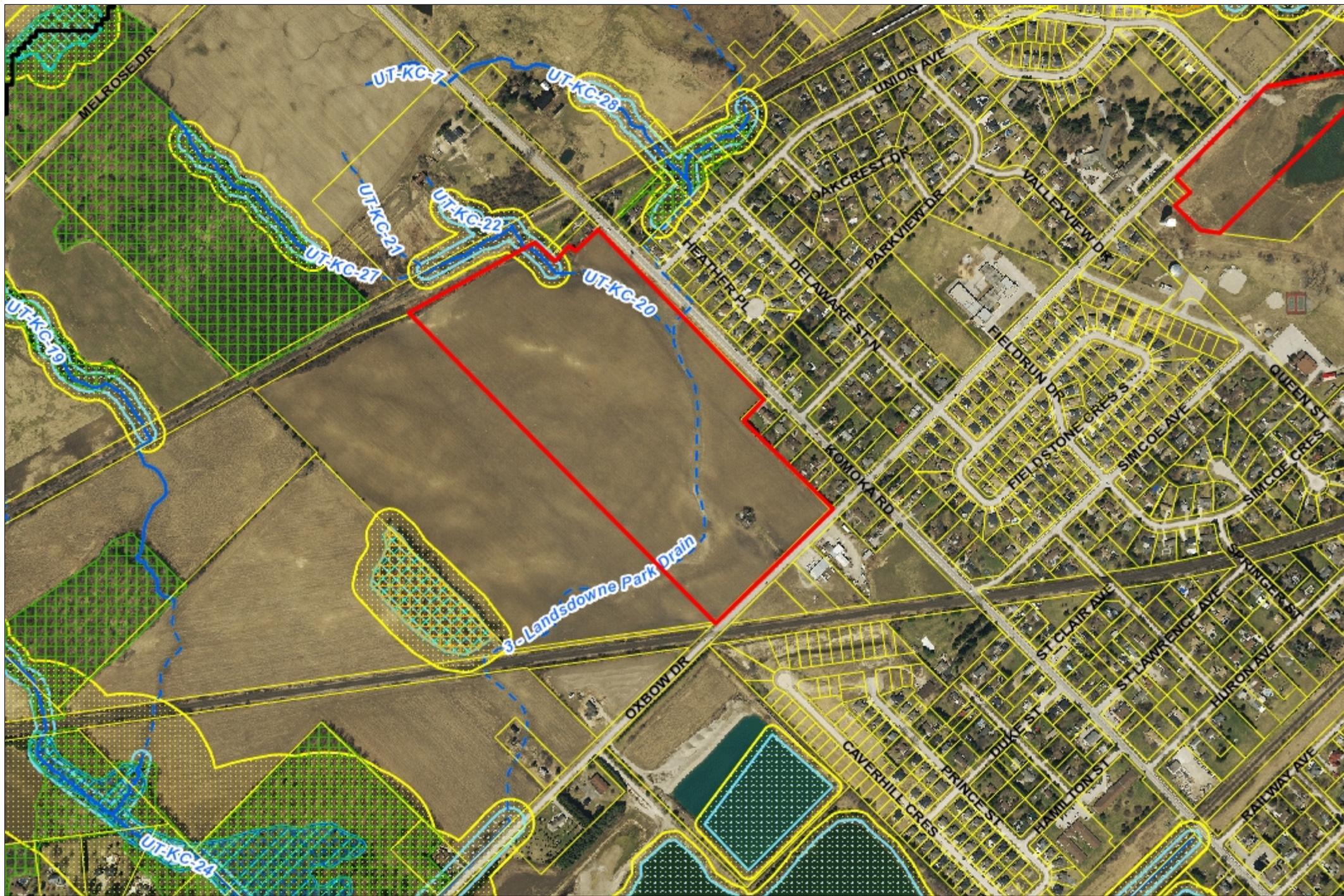
Yours truly,
UPPER THAMES RIVER CONSERVATION AUTHORITY



Christine Creighton
Land Use Planner
CC/cc

Encl. UTRCA Regulation limit mapping (print on legal sized paper for the scales to be accurate)

c.c. Sent via email -
Owner/Applicant - Brantam Developments Inc.
Middlesex County – Marion-Frances Cabral
UTRCA - Karen Winfield, Regulations Officer
UTRCA – Deb Kirk



Regulation Limit

Regulation under s.28 of the *Conservation Authorities Act*
 Development, interference with wetlands, and alterations
 to shorelines and watercourses. O.Reg 157/06, 97/04.

Legend

- UTRCA Watershed (1:10K)
- Assessment Parcel (MPAC)
- Watercourse (UTRCA)**
- Open
- Tiled
- Middlesex NHSS Woodland (2014)**
- Candidate for Ecologically Important
- Ecologically Important
- Significant Ecologically Important
- Wetlands (MNR)**
- Evaluated-Provincial
- Evaluated-Other
- Not Evaluated
- Wetland Hazard
- Flooding Hazard
- Erosion Hazard
- Regulation Limit 2018

The Regulation Limit depicted on this map schedule is a representation of O.Reg 157/06 under O.Reg 97/04.

The Regulation Limit is a conservative estimation of the hazard lands within the UTRCA watershed. In the case of discrepancies between the mapping and the actual features on a property, the text of Ontario Regulation 157/06 prevails and the jurisdiction of the UTRCA may extend beyond areas shown on the maps.

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This map is not a substitute for professional advice. Please contact UTRCA staff for any changes, updates and amendments to the information provided.

This document is not a Plan of Survey.

Sources: Base data, 2015 Aerial Photography used under licence with the Ontario Ministry of Natural Resources Copyright © Queen's Printer for Ontario; City of London.

Notes:
 9904 Oxbow Drive [Lobo], Middlesex Centre

Created By: CC June 11, 2021

* Please note: Any reference to scale on this map is only appropriate when it is printed landscape on legal-sized (8.5" x 14") paper.

