



**Stantec Consulting Ltd.**  
300W-675 Cochrane Drive  
Markham ON L3R 0B8

September 26, 2023

Project/File: 160900933

**Attn: Keziah Holden, B.A. Senior Planner**

County of Peterborough  
470 Water Street  
Peterborough, ON, K9H 3M3

Dear Keziah,

**Reference: Peer Review Comments – 4<sup>th</sup> Submission  
Preliminary Stormwater Management Report  
162 Country Road 4, Township of Douro-Dummer**

The County of Peterborough (the 'County') has received an application requesting acceptance in support of a planning level application of a Draft Plan of Subdivision located at 162 County Road 4 in the Township of Douro-Dummer, County of Peterborough (the 'site') and has requested Stantec Consulting Ltd. ('Stantec') to peer review the following documents in support of the proposed development:

- Preliminary Stormwater Management Report, 162 County Road 4, Township of Douro-Dummer, prepared by WMI Associated Limited, dated June 2023 ('SWM Report')
- 162 County Road 4, Township of Douro-Dummer, 3<sup>rd</sup> Submission Comment Matrix (For 4<sup>th</sup> Submission), dated July 13, 2023.

This letter details the results of the peer review comments pertaining to the abovementioned study.

## **Comments**

1. **Stantec January 2023:** During detailed design, roadside ditch calculations will be required to demonstrate that they will be able to provide the required quality control and can adequately convey both the minor and major storm events.

**WMI July 2023:** Will be provided during detailed design.

**Stantec September 2023:** No further comment

**Reference:** Peer Review Comments – 4<sup>th</sup> Submission Preliminary Stormwater Management Report 162 Country Road 4, Township of Douro-Dummer

2. **Stantec January 2023:** During detailed design, low impact design (LID) measures should be designed using infiltration rates determined by in-situ field testing in the vicinity of the proposed infiltration measures (LID).

**WMI July 2023:** Will be provided during detailed design.

**Stantec September 2023:** No further comment.

3. **Stantec January 2023:** Appendix B: Drawdown Calculations

During detailed design, please confirm if the  $C_2$  and  $C_3$  values used in the drawdown calculation are based on the stage or the head above the orifice.

**WMI July 2023:** Will be provided during detailed design.

**Stantec September 2023:** No further comment

4. Appendix B: Culvert Calculations and Swale Calculation

a) **Stantec January 2023:** Knowing the max capacity of the swales, the max conveyance capacity of culverts and providing rating curves is helpful; however, it would be beneficial to know what the actual anticipated normal depths, headwater elevations, and freeboard would be during both the minor and major storm events.

**WMI July 2023:** Culvert and Swale rating table spreadsheets have been updated to list each design storm and their associated peak flows. The rating tables provide all of the parameters requested indicating where each storm event falls within the table.

**Stantec September 2023:** No further comment

b) **Stantec January 2023:** Based on the FlowMaster output, Block C Channel does not appear to have any freeboard when conveying the 100-year unattenuated flow (pond inflow is  $2.475 \text{ m}^3/\text{s}$  and the max capacity of the channel is  $2.524 \text{ m}^3/\text{s}$ ). Is there an opportunity to provide some freeboard.

**WMI July 2023:** Block C will convey the controlled peak flows released from the SWM facility. The pond inflow of  $2.475 \text{ cms}$  (uncontrolled 100-yr peak flow) will be attenuated within the SWM facility and released at a rate of  $1.812 \text{ cms}$  (controlled 100-yr peak flow).

The grading of the Block C channel will inherently provide additional freeboard beyond that expressed in the cross-sections and associated calculations as the  $3.0 \text{ m}$  maintenance access to the west and the top of bank to the east are slightly higher than the top of bank elevation used within the hydraulic calculations.

**Reference:** Peer Review Comments – 4<sup>th</sup> Submission Preliminary Stormwater Management Report 162 Country Road 4,  
Township of Douro-Dummer

**Stantec September 2023:** No further comment

5. **Stantec January 2023:** Please provide information (i.e. existing/proposed operating conditions during both a minor and major storm event) for Street A crossing at County Road 4. Safe ingress/egress should be provided as it is the only access point for the residential lots.

**WMI July 2023:** Additional calculations have been provided to demonstrate that safe ingress/egress is provided at the County Road 4 site entrance. Refer to Appendix B of the Preliminary SWM Report.

**Stantec September 2023:** No further comment

Sincerely,

**Stantec Consulting Ltd.**



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