Appendix C- Credit Valley Communication

From: Slaght, Tyler [mailto:tslaght@creditvalleyca.ca]
Sent: February-22-17 3:56 PM
To: Robyn Mulder
Subject: CVC File PD 17/001 - Town of Erin

Hi Robyn,

In follow up to the site meeting regarding the proposed trail and lookout, CVC staff provide the following comments.

1. There are concerns associated with the stability of the slope along the proposed trail and lookout area. In accordance with the CVC's "Stability Definition & Determination Guidelines", February 2014, slopes with heights smaller than 2 m and slopes which are at a horizontal to vertical ratio of 3 to 1 or shallower are considered to be stable. The slope around the proposed boardwalk area appears to be greater than 2 m in height and steeper than 3:1 and appears to be located within a slope hazard. The proposed trail and lookout area are located within close proximity to the bank of the West Credit River and may be located within an erosion hazard.

    a. A geotechnical letter/brief from a licensed professional geotechnical engineer is required to determine the erosion hazard limit and provide. Further studies may be required based on recommendations by the geotechnical engineer. Please refer to CVC's *Stability Definition & Determination Guidelines* (dated February 2014) for requirements.

    b. The geotechnical engineer is to determine the toe erosion allowance in accordance with CVC's slope stability guidelines.

    c. The geotechnical engineer is to provide design requirements to ensure that the proposed lookout will not be affected by erosion. The would allow erosion to continue without affecting the stability of the lookout. Please note that erosion protection works would not be supported in order to facilitate the construction of the lookout.

    d. To ensure that the lookout footings are designed with consideration of the adjacent slope, the proposed lookout is to be designed by a licensed professional structural engineer based on recommendations from the geotechnical engineer.

    e. The proposed lookout is located within the floodplain. Confirmation from the structural engineer that the lookout can withstand the depths and velocities associated with the Regulatory floodplain is required. The floodplain elevation is 393.12m with a corresponding velocity of 0.67m/s.

    f. Construction methodology of the lookout is required. The construction methodology is to minimize the limit of disturbance along the slope.

    g. The proposed lookout may restrict long-term vegetation growth underneath the lookout slope. To minimize the risk of slope failure (within an around the lookout area), it is recommended that a geotechnical engineer provide input on the surface treatment underneath the lookout.

h. There are insufficient details relating to the proposed lookout along the proposed recreational trail. Additional details and a typical cross section of the proposed lookout are to be provided. Please note that additional comments may be required once additional information is made available.

i. A cantilevered structure which does not have piers below the top of slope would be preferred, the feasibility of this is to be considered.

2. The provided preliminary drawings do not provide sufficient details about the design of the proposed trail and lookout.

    a. A more detailed trail alignment including trail widths and alignments is required.

    b. Any proposed grading modifications are to be shown within the plan. Please note that the placement of fill within the Regulatory Floodplain is to be minimized unless it can be shown that there will not be any adverse impacts, the placement of fill will not be permitted.

    c. Details of the proposed lookout are required.

    d. Please note that during detailed design, the finalized drawings are to be reviewed by the geotechnical engineer. The geotechnical engineer is to review and confirm the stability of the slope during and post construction to ensure there is no impacts to the existing slope as a result of the construction of the proposed lookout.

3. CVC staff recommend planting native shrubs to reduce erosion and deter access to watercourse beside the culvert on the southeastern side of the access way. Refer to CVC Plant Selection Guideline for a list of shrub species which are native to CVC's upper watershed: http://www.creditvalleyca.ca/wp-content/uploads/2015/06/plant-selection-guideline-May-2015-v1_3.pdf.

4. Ensure that the trail can be installed within the existing shoulder of the narrow portion of the road without the removal of natural vegetation. Consider alternative options if the trail cannot be installed without the removal of natural vegetation (for example: widening the narrow portion of the road towards the north allowing space for the trail to be located on existing road and shoulder beside the valley feature).

5. CVC staff recommend placing the proposed trail around the periphery of Riverside Park in order to minimize compaction to the root zone of the mature trees and to preserve the natural vegetation along the riverbank.

6. A permit from CVC is required for the proposed lookout and possibly the trail (depends on extent beyond the road the trail is proposed).