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Grand River Conservation Authority
400 Clyde Road, P.O. Box 729
Cambridge, Ontario
N1R 5W6

19 October 2018
File: 14118

Attention: **Jason Wagler, MCIP RPP**

Re: **Response to GRCA Comments Dated June 19, 2018**
Proposed Corseed Subdivision (22T-201601)
Corseed Inc.
Town of Grand Valley

We enclose our updated Functional Servicing Report (Rev: October 2018) for your review. We note that the report has been updated to reflect the revised draft plan which now indicates the proposed SWM pond located along the western limit of the development.

As you will recall, your attached comments dated June 19, 2018 were addressed as you acknowledged in your attached email dated June 22, 2018. It should be noted that the revised SWM pond satisfies all previous GRCA comments, with the exception that the major system overland flow into the SWM pond will discharge to the forebay. Due to the revised SWM block configuration, it is not possible for the major system overland flow to bypass the forebay and discharge directly into the main cell. Given the additional forebay depth provided (as per previous comments) it is anticipated that scouring of captured sediment during major flow events will be minimal.

We trust that we have adequately addressed your concerns and that you will now be in a position to provide your clearance to the Town's Planning Division with respect to draft plan approval. Should you have any questions please do not hesitate to contact us.

Yours very truly,

VALDOR ENGINEERING INC.

David Giugovaz, P.Eng.
Senior Project Manager

905-264-0054 x 224
dgiugovaz@valdor-engineering.com

Enclosure

c: Darren Vella, Innovative Planning Solutions

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June 19, 2018

Tracey Atkinson
Town of Grand Valley
5 Main Street North
Grand Valley, ON L9W 5S6

Dear Ms. Atkinson,

**Re: Corseed Draft Plan of Subdivision – 2nd Submission
Part of Lot 30, Concession 2, former Township of East Luther, Town of Grand Valley**

The Grand River Conservation Authority has received the following plans and reports submitted in support of the Corseed Draft Plan of Subdivision:

- Response Letter, prepared by Azimuth Environmental Consulting Inc., dated April 10, 2018;
- Draft Plan of Subdivision, prepared by IPS, dated December 7, 2017;
- Functional Servicing Report, prepared by Valdor Engineering Inc., dated March 2018.

At this time, we ask that the following information be provided or clarified by the applicant prior to draft plan approval.

Engineering – Stormwater Management

- Comment #6 under the SWM section has not been addressed. We need more clarification regarding the calculations for average velocity in the forebay. Based on the revised report, using the proposed 5m average bottom width, with 3:1 side slopes and a 1m depth (cross-sectional area of ~8 m² vs 17.1 m² referenced in the FSR) we find that average velocity will still be greater than the MOE recommend maximum of 0.15 m/s. Please reconfigure the forebay to ensure that average velocity is minimized when its depth is reduced to its cleanout condition.

Natural Heritage

- Reply to Review Comment #1, the application of a wetland buffer ranging from 0 – 30m is not acceptable. The 2017 TRCA Wetland Water Balance Risk Evaluation is not appropriate for determining wetland buffer dimensions and treatments. The use of rear lot fencing is encouraged to limit encroachment and future impacts to the wetland. A 30m wetland buffer would be suitable with a minimum 10m no-touch setback from the confirmed wetland boundary. All rear lot lines should be located outside of the minimum 10m setback. The remaining 20m dimension could potentially support limited grading, SWM infrastructure, and enhanced vegetation plantings.

Natural Heritage – Advisory Comments:

- Reply to Review Comment #3, the proposed setback/buffer dimensions and lot configuration should be deferred until confirmation from MNRF regarding ESA species is received. Compliance with ESA species and habitat criteria potentially could influence buffer dimensions and treatment.

We wish to advise that the applicant has submitted payment with respect to the comments provided and the remaining 30% (\$3345.5) will be required prior to draft plan approval.

Should you have any questions, please contact the undersigned at 519-621-2763 ext. 2320.

Yours truly,



Jason Wagler, MCIP RPP
Resource Planner
Grand River Conservation Authority

c.c. IPS Consulting Inc. c/o Darren Vella – 150 Dunlop Street East, Suite 201, Barrie, ON L4M 1B2
Bill Coffey - Valdor Engineering Inc., 741 Rowntree Dairy Road, Suite 2, Woodbridge, ON L4L 5T9
Matthew Nelson – GM Blue Plan, 1260-2nd Ave. E., Unit 1, Owen Sound, ON N4K 2J3
Lisa Moran – Azimuth Environmental, 642 Welham Road, Barrie, ON L4N 9A1

Oliver Beaudin

From: Jason Wagler <jwagler@grandriver.ca>
Sent: June 28, 2018 1:50 PM
To: Oliver Beaudin
Cc: David Giugovaz; Peter Zourntos
Subject: RE: Response to GRCA Comments - Corseed Subdivision

Hi Oliver,

We have reviewed the work and this satisfies the outstanding engineering comment.

Regards,

Jason Wagler, MCIP, RPP
Resource Planner
Grand River Conservation Authority
400 Clyde Rd, Cambridge ON N1R 5W6
(519) 621-2763 x2320
www.grandriver.ca

From: Oliver Beaudin [mailto:OBeaudin@Valdor-Engineering.com]
Sent: Friday, June 22, 2018 2:58 PM
To: Jason Wagler
Cc: David Giugovaz; Peter Zourntos
Subject: Response to GRCA Comments - Corseed Subdivision

Valdor File: 14118

Hi Jason,

Further to your comments dated June 19th, 2018 (attached), we offer the following clarification to demonstrate that the outstanding *Engineering – Stormwater Management* comment (i.e. *Comment #6*) has indeed been addressed in our previous submission.

We maintain that the forebay cross-sectional area (assuming 1.0 m depth of sediment) is 17.1 m², as indicated in the report. Please find attached a sketch illustrating this.

- The “forebay bottom” width used in the calculation is 13.1 m (as measured in AutoCAD) because we are assuming the bottom 1.0 m is filled with sediment. The 5.0 m bottom width indicated in the comment corresponds to the bottom of the forebay that would be under 1.0 m of sediment.
- The side slopes of the forebay are not the same on both sides (5:1 along the pond perimeter and 3:1 for the forebay berm).
- As shown in the attached sketch, the total cross-sectional area will therefore be 17.1 m².
- Based on a cross-sectional area of 17.1 m², and a 5-year flow of 1.625 m³/s, the average flow velocity through the forebay is 0.095 m/s (17.1 m² ÷ 1.625 m³/s = 0.095 m/s). This is less than the maximum permissible velocity of 0.15 m/s.

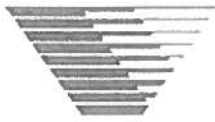
Based on the above, we propose no further revisions to the SWM pond design.

We trust you find this clarification acceptable. Please confirm your acceptance.

Regards,

Oliver Beaudin, P.Eng.

Project Manager, Water Resources



VALDOR ENGINEERING INC.

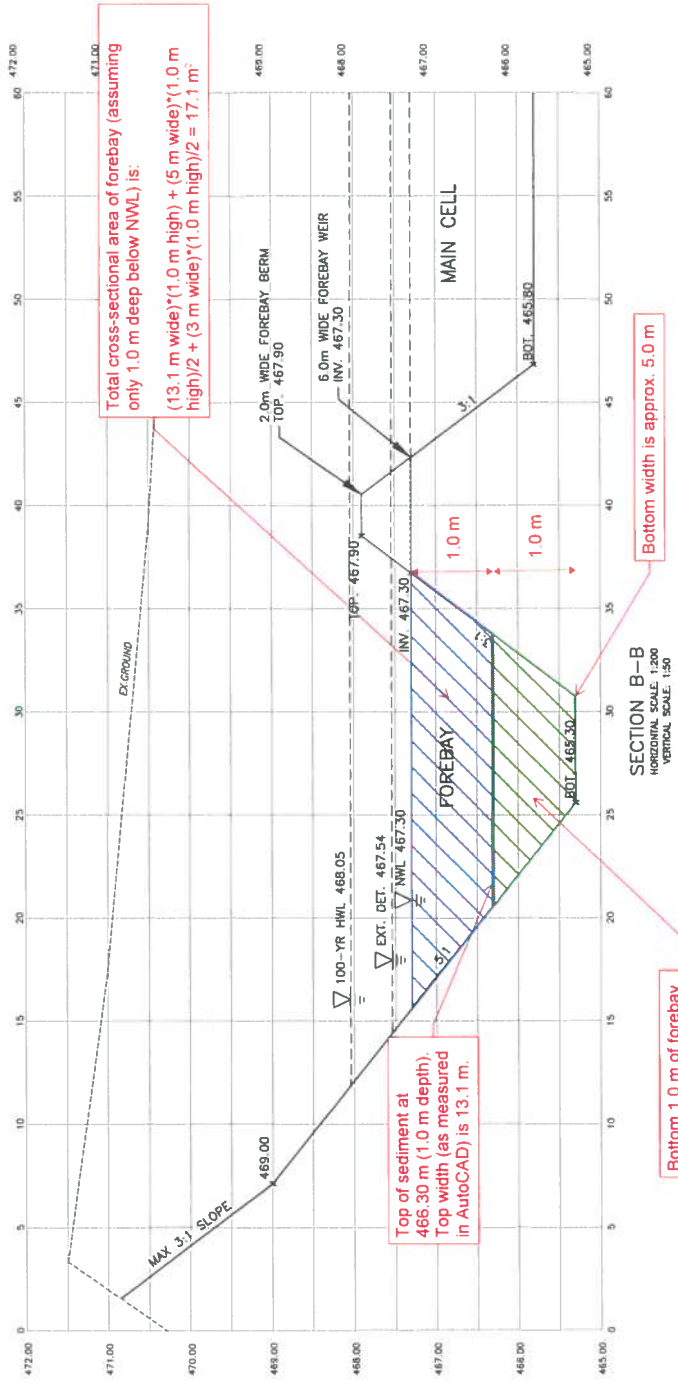
741 Rowntree Dairy Road, Suite 2, Woodbridge, Ontario, L4L 5T9

Cell: 647-632-1391 Fax: 905-264-0069

Alternate Contact (in case of emergency) Bill Coffey Tel: 905-264-0054 x232

E-Mail: obeaudin@valdor-engineering.com URL: www.valdor-engineering.com

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Total cross-sectional area of forebay (assuming only 1.0 m deep below NWL) is:
 $(13.1 \text{ m wide}) \times (1.0 \text{ m high}) + (5 \text{ m wide}) \times (1.0 \text{ m high}) / 2 + (3 \text{ m wide}) \times (1.0 \text{ m high}) / 2 = 17.1 \text{ m}^2$

Top of sediment at 469.30 m (1.0 m depth). Top width (as measured in AutoCAD) is 13.1 m.

Bottom width is approx. 5.0 m

Bottom 1.0 m of forebay assumed to be filled with sediment for flow velocity calculations.

SECTION B-B
 HORIZONTAL SCALE: 1:200
 VERTICAL SCALE: 1:50