HATCH

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Mississauga, Ontario, Canada L5K 2R7
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January 19, 2022

Wayne Carter, BArchSc.
Manager, GO Expansion Early Works
Metrolinx
10 Bay Street, Suite 1400
Toronto, Ontario
M5J 2W3

Dear Mr. Carter:

Subject: Small's Creek Retaining Wall #4 Design Alternatives (Package C)

As part of the Lakeshore East (LSE) West Corridor Expansion Project (Package C), Metrolinx has requested Hatch provide rationale for the selection of the retaining wall #4 design at Small's Creek in lieu of alternative design options. This Metrolinx request is in response to letters received from the Small's Creek Ravine Team as follows:

- Letter from Mr. Christopher Elvidge, M.Sc., P.Eng., of 345v Waverley Road, Toronto, ON, dated May 17th, 2021; and
- Letter from Mr. Rick Stranges, P.Eng., of London, ON, dated May 18th, 2021.

These letters identified concerns from the Small's Creek Ravine Team with regards to impact to the ecology of the existing ravine and proposed alternative design methods. The alternative designs proposed include:

1. An "embedded bridge/ guideway" (caissons and grade beam support structure) approach;
2. Ground improvement techniques to stiffen fill and reduce the retaining structure requirements; and
3. Reinforcing slopes through soil nailing/soil anchors to improve slope stability at steeper gradients.

In response to Metrolinx request, Hatch's has reviewed each of the above letters including the proposed alternative design methods as detailed below. In addition, Hatch's retained Geotechnical Subconsultant, Thurber, has reviewed the above listed letters and assisted in informing Hatch's opinion that the proposed alternative design methods do not warrant further assessment or consideration. For further details on Thurber's review refer to Attachment 1.

Embedded bridge/ guideway

Due to the proximity of the proposed embedded bridge/ guideway with deep foundation (caissons) to Existing Track 1 (T1), the alignment of the Proposed North Track (PNT) would be required to be shifted a minimum of 2.0 metres North of the current proposed alignment from the PNT. This shift increases the project footprint with associated increased impacts to the trees and vegetation.

In addition, for this project, consideration is required for the future electrification infrastructure and noise walls in this area. Accounting for this future infrastructure, this widens the bridge/guideway requirements

increasing the footprint of the structure (including caissons/supports, beams, spans, etc.) and therefore further increases the project footprint with associated increased impacts to the trees and vegetation.

With regards to the construction of the guideway, temporary shoring to support the existing tracks would be required. A requirement of this project is to maintain the existing tracks in service and to avoid disruption to train operations during construction. Impacts to Metrolinx train operations and existing tracks is one of the major constraints for this project. From an operational perspective, Metrolinx is not currently in a positions to take the tracks out of service for the purposes of constructing this requested guideway.

Furthermore, a temporary platform/ construction access road and laydown area will be required for construction to allow access for construction equipment (rig, excavator, dump truck, concrete trucks and tie back machine, etc.). These requirements result in the need for a temporary retaining wall on the embankment to support the temporary platform/access road to facilitate the temporary shoring activity and drilling of caissons for the future guideway. These temporary construction requirements further the impacts of this design option to Small's Creek.

In the current design the T-Wall is 112.0 metres in length parallel to the track, due to the PNT shift to the north, the length of the bridge/ guideway will be longer than the existing T-wall design. The actual increase has not been determined as this option is not recommended for further assessment.

This option will result in increased project footprint and therefore increased environmental impact on Small's Creek. In addition, from a cost perspective, the bridge/ guideway is not considered economically feasible. This proposed design alternative is not recommended for further assessment.

Ground improvements

Hatch previously retained Thurber as a geotechnical consultant to review potential design options in this area in 2021. (For further details refer to Attachment #2). As part of this review, Thurber reviewed the option for ground improvement and it was determined that this would have significant impacts to the slope beyond that of the existing design. Ground improvements were deemed to not be an option for further consideration.

Reinforcing slopes

Other soil stabilizing options have been considered by the design team, such as soil nailing or the use of vertical soil anchors, however, these options are not constructible given the existing slope inclinations. Soil stabilization would require full access to the slope, which would result in an increased impact to the existing ecology for the mobilization of construction equipment. With consideration of the additional cost for this proposal and increased ecological impact, this option is not recommended for further assessment.

In addition to the above geotechnical considerations, soil anchors beneath the tracks are generally not preferred by Metrolinx. Based upon Metrolinx feedback of prior Hatch design submissions, a safety concern has been identified with tie backs and soil anchors installed under the tracks, with respect to the fact that they cannot be inspected when experiencing failure.

With regards to the concerns surrounding the impact to the ecology as described in the community letters, it is noted that this project has completed an Environmental Assessment. For further details please refer to

the Lakeshore East Rail Corridor Expansion (Don River to Scarborough GO Station) Project Environmental Project Report, dated September 2017.

Taking into consideration the environmental and community sensitivity in this area, along with the constraints for this projects with regards to future electrification infrastructure, constructability requirements and site limitations due to adjacency to operational rail tracks, there are limited options through this area of Small's Creek. It is not recommended that the proposed design alternatives are considered for further assessment.

Please advise if you require any additional information to inform your response to Small's Creek Ravine Team.

Sincerely,

Oscar Florez, P.Eng.
OF:em

Attachment(s)/ Enclosure(s)

1. Thurber Draft Technical Memorandum, Review of Resident Letters, Small's Creek Slope Design, Lakeshore East Corridor, West Corridor Expansion, Toronto, Ontario, dated January 18, 2022.
2. Thurber Technical Memorandum, Rail Embankment Stability Review, Alternative Small's Creek Slope Design Option, Lakeshore East Corridor, West Corridor Expansion, Toronto, Ontario, dated April 30, 2021.

THURBER ENGINEERING LTD.

January 19, 2022 File: 19496

Hatch
2800 Speakman Drive
Mississauga, ON L5K 2R7

Attention: Oscar Florez, P.Eng. Ing.

TECHNICAL MEMORANDUM
REVIEW OF RESIDENT LETTERS
SMALL'S CREEK SLOPE DESIGN
LAKESHORE EAST CORRIDOR – WEST CORRIDOR EXPANSION
TORONTO, ONTARIO

Dear Mr. Florez,

Thurber Engineering Ltd. (Thurber) is pleased to present this technical memorandum providing a geotechnical response to two letters from engineers advocating for alternative design options for the proposed installation of a new north track for the Metrolinx Lakeshore East Corridor – West Corridor Expansion at Small's Creek in Toronto, Ontario (Site).

It is a condition of this proposal that Thurber's performance of its professional services will be subject to the attached Statement of Limitations and Conditions.

BACKGROUND

Metrolinx is planning the expansion of the Lakeshore East Rail Corridor at Small's Creek, which includes the installation of a new north track and widening of the embankment to the north to create a stable platform for rail tracks. In order to support the new north track, the new embankment at Small's Creek is designed to include a 2 horizontal to 1 vertical (2H:1V) earth slope, which is consistent with Metrolinx Track Standards, and associated earth retaining walls. The work includes installation of a culvert and a small retaining wall The slope is to be adequately vegetated for erosion protection and maintenance of long-term stability. The reconstruction of the slope will result in the removal of four existing mature trees.

We understand that critical constraints associated with the selection of the design option to widen the embankment include the need to keep the existing rail tracks operating on a full-time basis and safe access to the construction area.

Our review is based on the following Thurber report:

- Final, Foundation Investigation and Design Report, Lakeshore East Corridor, Mile 324.97 to 332.20 – Kingston Subdivision, dated July 17, 2020

Metrolinx has requested that an engineering review be completed for the following two letters submitted on behalf of Small's Creek Ravine Team local residents to the Office of the Mayor:

- Letter from Mr. Christopher Elvidge, M.Sc., P.Eng., of Toronto, ON, dated May 17, 2021
- Letter from Mr. Rick Stranges, P.Eng., of London, ON, dated May 18, 2021

SITE CONDITIONS

The existing north embankment slope near Small's Creek has an inclination ranging between approximately 1.5H:1V to 2H:1V, with localized areas with steeper inclinations. We understand the slope to generally be vegetation and tree-covered. Thurber has not completed a recent slope inspection to assess the presence of slope erosion or other signs of instability.

Based on the subsurface investigations completed by Thurber, the ground conditions within the existing embankment consist of rail ballast over sand fill, overlying competent native sand soils. Hard native clayey silt soils were encountered at the base of the embankment.

The existing embankment supports three rail lines. We understand that the safe rail operation must be maintained for all three lines during reconstruction of the slope and installation of a forth rail.

REVIEW OF LETTERS

Letter from Mr. Elvidge

First page, second Paragraph: The author proposes that the project will impact on the "ecology of the existing ravine". In response to this comment, it is noted that the project has undergone an Environmental Assessment and obtained all required environmental approvals. This comment by the author is considered to be unsubstantiated, and considers only local conditions versus project-wide considerations.

First page, third paragraph: The author concurs that the selected design is technically feasible. Within the remainder of the letter, the author presents alternatives to the design which only consider technical feasibility. When consideration is given to Metrolinx operations, safe access to the working areas and cost, these options become infeasible for implementation.

First page, fifth paragraph: The author presents the alternative of a concrete guideway founded on cast in place concrete caissons, helical piers or micropiles. The author indicates that a suitably wide work area would be required, including temporary removal of the 3rd line may be required. In response, it is noted that the removal of a rail line is not feasible or permitted. It is also noted that constructing a concrete guideway would require access through the slope and the establishment of a significant laydown area. It is Thurber's opinion that the need for safe access would impact the slope to the same extent as the proposed design. Given the significantly higher cost associated with this option, the benefit to the local ecology is not evident. Thurber does not recommend this option for further consideration.

First page, last paragraph: The author indicates that ground improvement may be used to "stiffen the existing fill". The author also refers to techniques from Geosolv. As part of the review of potential alternatives in 2021, Thurber discussed the option for ground improvement with Geosolv. Geosolv indicated that access for ground improvements would have significant impacts to the slope. Based on this, this method was not considered an improvement to the existing design. Thurber does not recommend this option for further consideration.

Second page, first full paragraph: The author indicates that the techniques of soil nailing or soil anchors could be used to steepen the inclination of the slope. We presume this is in relation to construction of a fourth line on the improved slope. As above, such a remedy would require full access to the slope, which would not result in an improvement to management of the existing ecology. Given the added cost and limited improvement, this option is not recommended for further consideration.

Letter from Mr. Stranges

First page, fourth paragraph: The author indicates that an "embedded bridge/guideway" with "caissons and grade beam support structure" is "viable and the least environmentally disruptive". As above, we note that this is a generalized unsupported statement with respect to the impact to the environment. Again, we note that the project has undergone an Environmental Assessment and obtained all required environmental approvals. Notwithstanding, as noted above, this option would not be an improvement to the local ecology given the need for full access across the slope, and would be much more expensive. Thurber does not recommend this option for further consideration.

CLOSURE

We trust this memo provides you with the information that you require at this time. Please do not hesitate to contact us should you have any questions.

Yours truly,

Thurber Engineering Ltd.

Renato Pasqualoni, P.Eng.
Principal

THURBER ENGINEERING LTD.

April 30, 2021 File: 19496

Hatch
2800 Speakman Drive
Mississauga, ON L5K 2R7

Attention: Oscar Florez, P.Eng. Ing.

TECHNICAL MEMORANDUM
RAIL EMBANKMENT STABILITY REVIEW
ALTERNATIVE SMALL'S CREEK SLOPE DESIGN OPTION
LAKESHORE EAST CORRIDOR – WEST CORRIDOR EXPANSION
TORONTO, ONTARIO

Dear Mr. Florez,

Thurber Engineering Ltd. (Thurber) is pleased to present this technical memorandum providing a geotechnical review of an alternative design for the proposed slope stabilization for the Metrolinx Lakeshore East Corridor – West Corridor Expansion at Small's Creek in Toronto, Ontario (Site).

It is a condition of this proposal that Thurber's performance of its professional services will be subject to the attached Statement of Limitations and Conditions.

BACKGROUND

Metrolinx is planning the expansion of the Lakeshore East Rail Corridor at Small's Creek, which includes the installation of a new north track and widening of the embankment to the north to create a stable platform for rail tracks. In order to support the new north track, the new embankment is currently designed to include a 2 horizontal to 1 vertical (2H:1V) earth slope, which is consistent with Metrolinx Track Standards. The work includes installation of a culvert and a small retaining wall. The slope is to be properly vegetated for erosion protection and maintenance of long term stability.

We have reviewed the following drawings provided by Hatch (enclosed):

- Lakeshore East Corridor Infrastructure, West Corridor Expansion – Package C, Smalls Creek – Super Trees, Sheets 1 through 3, Prepared by Hatch for Metrolinx, dated March 16, 2021
- Conceptual Sketches for Alternate Track Stabilization Approaches, by Respect Toronto Ravines, dated March 27, 2021

The drawings were reviewed based on the findings of the follow Thurber report:

- Final, Foundation Investigation and Design Report, Lakeshore East Corridor, Mile 324.97 to 332.20 – Kingston Subdivision, dated July 17, 2020

THURBER

STATEMENT OF LIMITATIONS AND CONDITIONS

1. STANDARD OF CARE

This Report has been prepared in accordance with generally accepted engineering or environmental consulting practices in the applicable jurisdiction. No other warranty, expressed or implied, is intended or made.

2. COMPLETE REPORT

All documents, records, data and files, whether electronic or otherwise, generated as part of this assignment are a part of the Report, which is of a summary nature and is not intended to stand alone without reference to the instructions given to Thurber by the Client, communications between Thurber and the Client, and any other reports, proposals or documents prepared by Thurber for the Client relative to the specific site described herein, all of which together constitute the Report.

IN ORDER TO PROPERLY UNDERSTAND THE SUGGESTIONS, RECOMMENDATIONS AND OPINIONS EXPRESSED HEREIN, REFERENCE MUST BE MADE TO THE WHOLE OF THE REPORT. THURBER IS NOT RESPONSIBLE FOR USE BY ANY PARTY OF PORTIONS OF THE REPORT WITHOUT REFERENCE TO THE WHOLE REPORT.

3. BASIS OF REPORT

The Report has been prepared for the specific site, development, design objectives and purposes that were described to Thurber by the Client. The applicability and reliability of any of the findings, recommendations, suggestions, or opinions expressed in the Report, subject to the limitations provided herein, are only valid to the extent that the Report expressly addresses proposed development, design objectives and purposes, and then only to the extent that there has been no material alteration to or variation from any of the said descriptions provided to Thurber, unless Thurber is specifically requested by the Client to review and revise the Report in light of such alteration or variation.

4. USE OF THE REPORT

The information and opinions expressed in the Report, or any document forming part of the Report, are for the sole benefit of the Client. NO OTHER PARTY MAY USE OR RELY UPON THE REPORT OR ANY PORTION THEREOF WITHOUT THURBER'S WRITTEN CONSENT AND SUCH USE SHALL BE ON SUCH TERMS AND CONDITIONS AS THURBER MAY EXPRESSLY APPROVE. Ownership in and copyright for the contents of the Report belong to Thurber. Any use which a third party makes of the Report, is the sole responsibility of such third party. Thurber accepts no responsibility whatsoever for damages suffered by any third party resulting from use of the Report without Thurber's express written permission.

5. INTERPRETATION OF THE REPORT

a) Nature and Exactness of Soil and Contaminant Description: Classification and identification of soils, rocks, geological units, contaminant materials and quantities have been based on investigations performed in accordance with the standards set out in Paragraph 1. Classification and identification of these factors are judgmental in nature. Comprehensive sampling and testing programs implemented with the appropriate equipment by experienced personnel may fail to locate some conditions. All investigations utilizing the standards of Paragraph 1 will involve an inherent risk that some conditions will not be detected and all documents or records summarizing such investigations will be based on assumptions of what exists between the actual points sampled. Actual conditions may vary significantly between the points investigated and the Client and all other persons making use of such documents or records with our express written consent should be aware of this risk and the Report is delivered subject to the express condition that such risk is accepted by the Client and such other persons. Some conditions are subject to change over time and those making use of the Report should be aware of this possibility and understand that the Report only presents the conditions at the sampled points at the time of sampling. If special concerns exist, or the Client has special considerations or requirements, the Client should disclose them so that additional or special investigations may be undertaken which would not otherwise be within the scope of investigations made for the purposes of the Report.

b) Reliance on Provided Information: The evaluation and conclusions contained in the Report have been prepared on the basis of conditions in evidence at the time of site inspections and on the basis of information provided to Thurber. Thurber has relied in good faith upon representations, information and instructions provided by the Client and others concerning the site. Accordingly, Thurber does not accept responsibility for any deficiency, misstatement or inaccuracy contained in the Report as a result of misstatements, omissions, misrepresentations, or fraudulent acts of the Client or other persons providing information relied on by Thurber. Thurber is entitled to rely on such representations, information and instructions and is not required to carry out investigations to determine the truth or accuracy of such representations, information and instructions.

c) Design Services: The Report may form part of design and construction documents for information purposes even though it may have been issued prior to final design being completed. Thurber should be retained to review final design, project plans and related documents prior to construction to confirm that they are consistent with the intent of the Report. Any differences that may exist between the Report's recommendations and the final design detailed in the contract documents should be reported to Thurber immediately so that Thurber can address potential conflicts.

d) Construction Services: During construction Thurber should be retained to provide field reviews. Field reviews consist of performing sufficient and timely observations of encountered conditions in order to confirm and document that the site conditions do not materially differ from those interpreted conditions considered in the preparation of the report. Adequate field reviews are necessary for Thurber to provide letters of assurance, in accordance with the requirements of many regulatory authorities.

6. RELEASE OF POLLUTANTS OR HAZARDOUS SUBSTANCES

Geotechnical engineering and environmental consulting projects often have the potential to encounter pollutants or hazardous substances and the potential to cause the escape, release or dispersal of those substances. Thurber shall have no liability to the Client under any circumstances, for the escape, release or dispersal of pollutants or hazardous substances, unless such pollutants or hazardous substances have been specifically and accurately identified to Thurber by the Client prior to the commencement of Thurber's professional services.

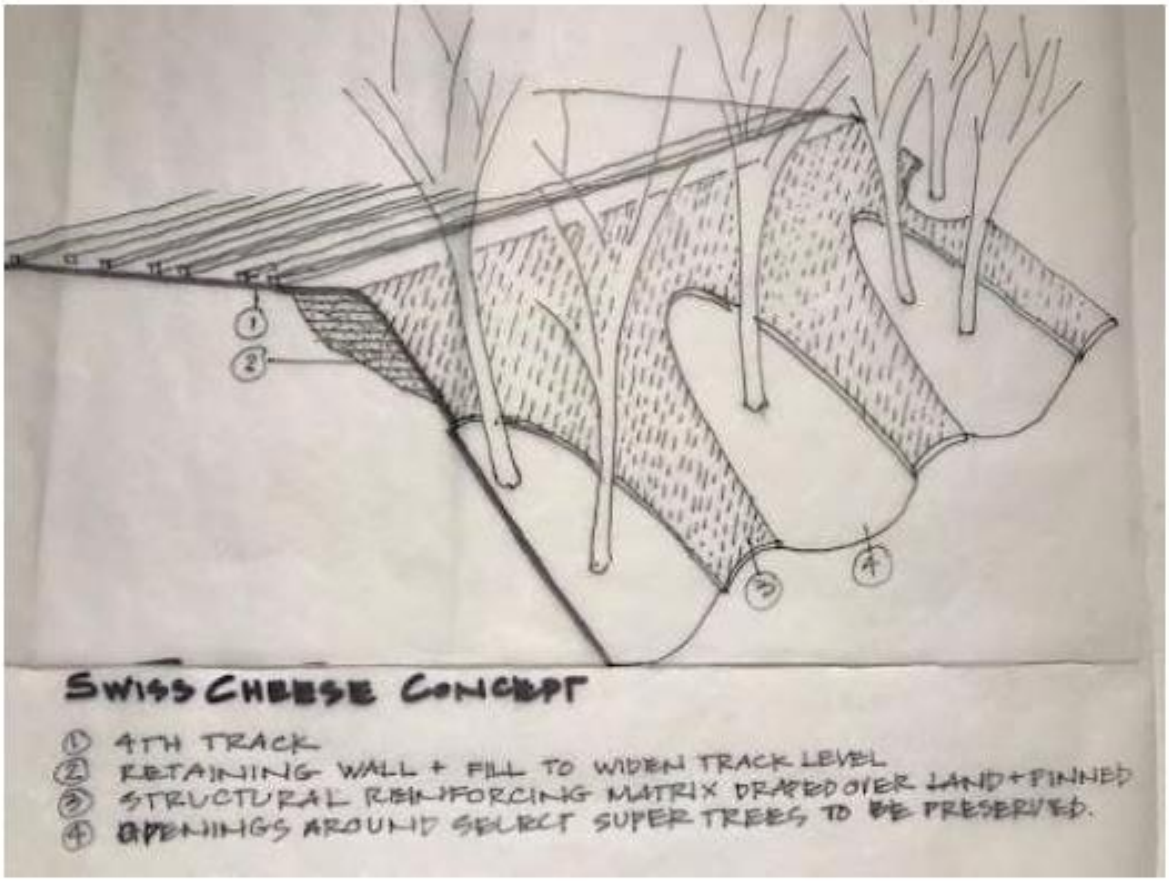
7. INDEPENDENT JUDGEMENTS OF CLIENT

The information, interpretations and conclusions in the Report are based on Thurber's interpretation of conditions revealed through limited investigation conducted within a defined scope of services. Thurber does not accept responsibility for independent conclusions, interpretations, interpolations and/or decisions of the Client, or others who may come into possession of the Report, or any part thereof, which may be based on information contained in the Report. This restriction of liability includes but is not limited to decisions made to develop, purchase or sell land.

We understand that the design is in conflict with 4 large trees, as follows:

- #870, Red Oak with a 1.1 m trunk at Sta 530+190, approximately 8 m from the new slope crest
- #712, Red Oak with a 0.9 m trunk at Sta 530+248, approximately 6 m from the new slope crest
- #845, Red Oak with a 0.95 m trunk at Sta 530+278, approximately 12 m from the new slope crest
- #685, Red Oak with a 0.85 m trunk at Sta 530+286, approximately 6 m from the new slope crest

Metrolinx has requested that an engineering review be completed to determine if an alternative slope design could be incorporated, which would allow the trees to safely remain on the new slope configuration. The concept that was provided for review was referred to as the “Swiss Cheese Concept”, which involves the use of a small retaining wall and earth fill at the top of the embankment and a surficial pinned down reinforcing matrix over areas with no trees. The following is the concept sketch provided:



THURBER

SITE CONDITIONS

The existing north embankment slope near Small's Creek has an inclination ranging between approximately 1.5H:1V to 2H:1V, with localized areas with steeper inclinations. We understand the slope to generally be vegetation and tree covered. A slope inspection has not been completed by Thurber to assess the presence of slope erosion or other signs of instability.

Based on the subsurface investigations completed by Thurber, the ground conditions within the existing embankment consist of rail ballast over sand fill, overlying competent native sand soils. Hard native clayey silt soils were encountered at the base of the embankment.

The existing embankment supports three rail lines. We understand that the safe rail operation must be maintained during reconstruction of the slope.

REVIEW OF ALTERNATIVE

As noted above, the Swiss Cheese concept to slope stabilization was developed in an attempt to allow the track expansion to occur while saving the four large trees noted.

The following comments and recommendation are provided based on our review:

- The Swiss Cheese Concept approach results in increased destabilizing loads at the slope crest, without providing restorative support at the base/toe of the slope. The slope would be subject to additional soil loads as well as significant rail loads near the slope crest. Based on slope stability analyses completed to date, the proposed configuration would not be stable using a shallow founded retaining structure. Proposed erosion matting will not provide significant additional structural support.

- Existing slope grades and trees are a constructability concern for the slope work and rail construction. Since the rail must remain in operation it is anticipated that the work will require temporary slope regrading to safely complete the north track installations. Slope regrading for safe construction operations would not be possible due to the presence of the existing trees.

- Other soil stabilizing options have been considered, such as soil nailing or use of vertical soil anchors, however, these options are not considered constructible given the existing slope inclinations and trees.

- Large older trees on a slope pose a risk to slope stability and long term rail operation. Such trees can be pushed over in a wind storm and could either impede new tracks or result in destabilizing the slope and causing loss of track support. It is Thurber's recommendation that these trees and other large trees be removed from the rail slope and replaced with deep rooted ground cover vegetation to support slope stability.

THURBER

CLOSURE

We trust this memo provides you with the information that you require at this time. Please do not hesitate to contact us should you have any questions.

Yours truly,
Thurber Engineering Ltd.

Geoff Lay, P.Eng.
Geotechnical Engineer

Renato Pasqualoni, P.Eng.
Principal

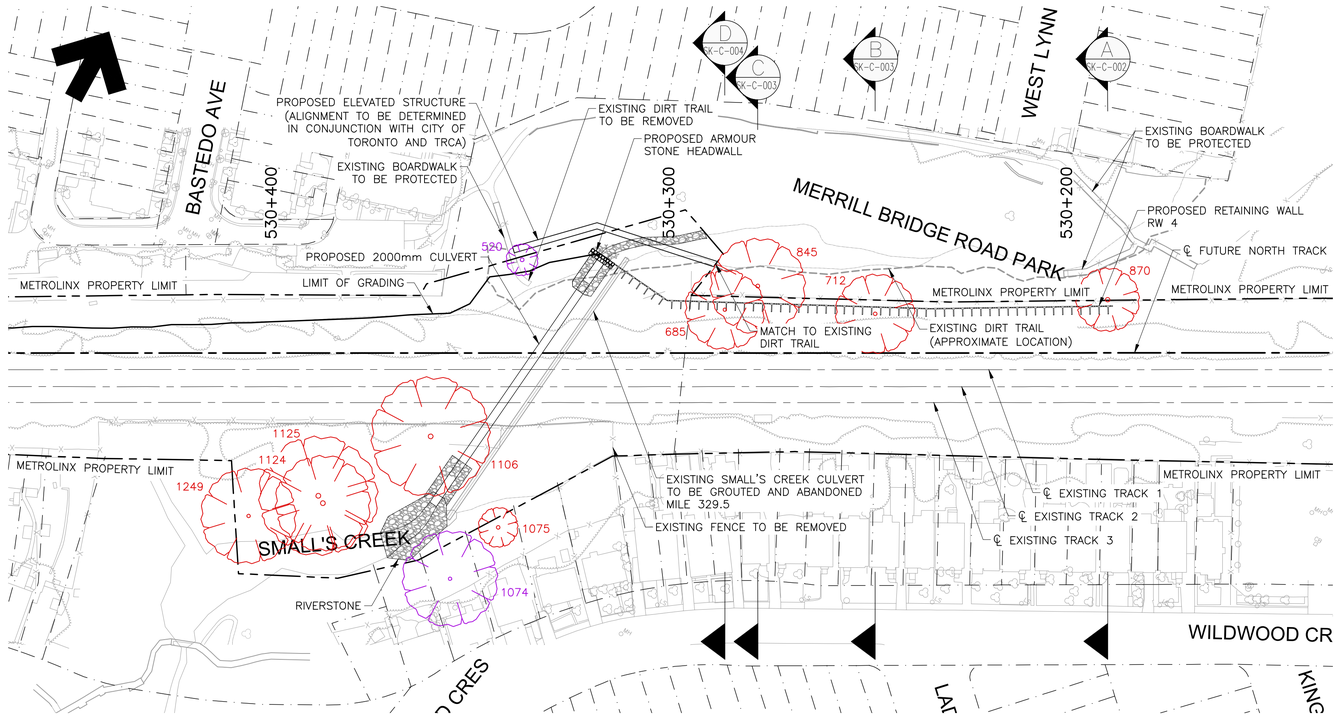
THURBER

Appendix A

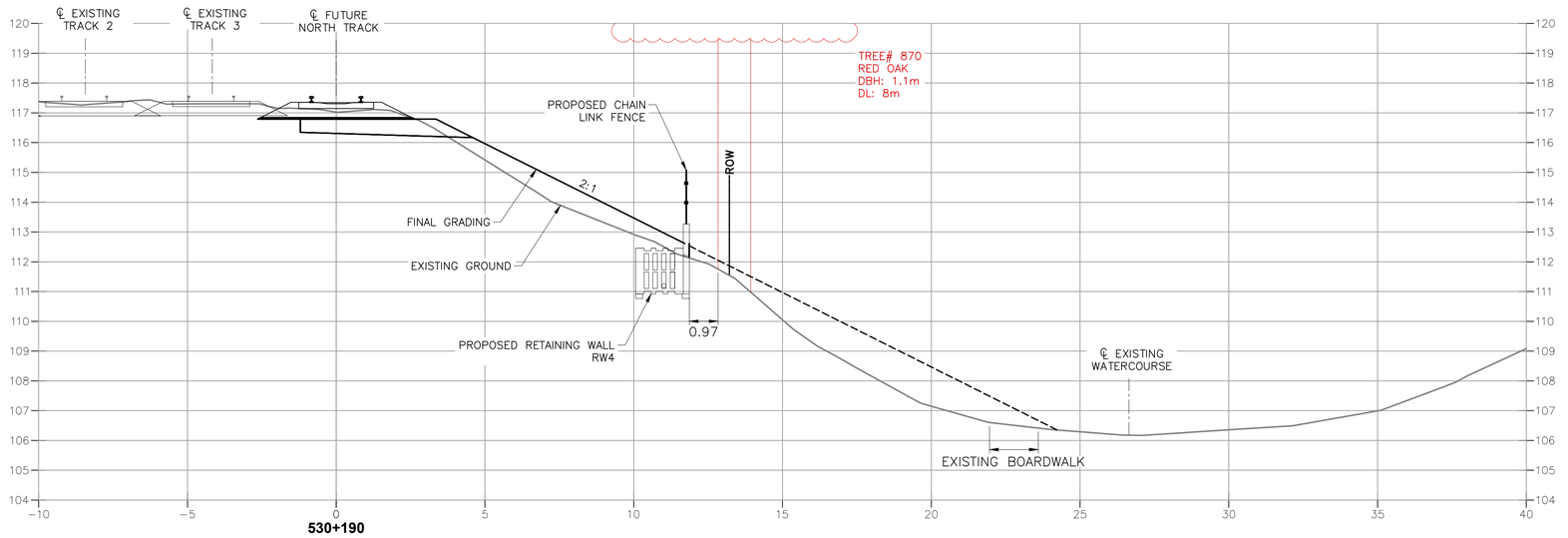
Drawings

METRIC

ALL DIMENSIONS SHOWN ARE IN METRES AND/OR MILLIMETRES UNLESS OTHERWISE NOTED.



PLAN



SECTION

SCALE 1:100

A
SK-C-002

NOTES:

1. TREE NUMBER, SPECIES, LOCATION, DIAMETER AT BASE HEIGHT (DBH), AND RADIAL DRIPLINE (DL) ARE FROM THE ARBORIST REPORT(S).
2. TREE HEIGHT SHOWN ON THE DRAWINGS IS ARBITRARY AND FOR VISUAL PURPOSES ONLY.

LEGEND:

POTENTIAL PRUNING

TO BE REMOVED

METROLINX PROJECT NO. 166310

REFERENCE DRAWINGS		ISSUE			REVISIONS		
		P1	21/03/16	ISSUED FOR INFORMATION			
DWG NO.	TITLE	NO.	DATE	ISSUED FOR	REV.	DATE	

DRAWN BY: N.A. 21/03/16	DESIGNED BY:
CHECKED BY:	APPROVED BY:
SCALE: 1:750 FULL SIZE ONLY	0 15 30m

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METROLINX

LAKESHORE EAST CORRIDOR INFRASTRUCTURE

WEST CORRIDOR EXPANSION – PACKAGE C

SMALL'S CREEK – SUPER TREES

SHEET 1 OF 3

CONTRACT NO.	DWG. NO.	REV.	SHEET
RFP-2020-AFPC-199	SK-C-002	P1	/

METRIC

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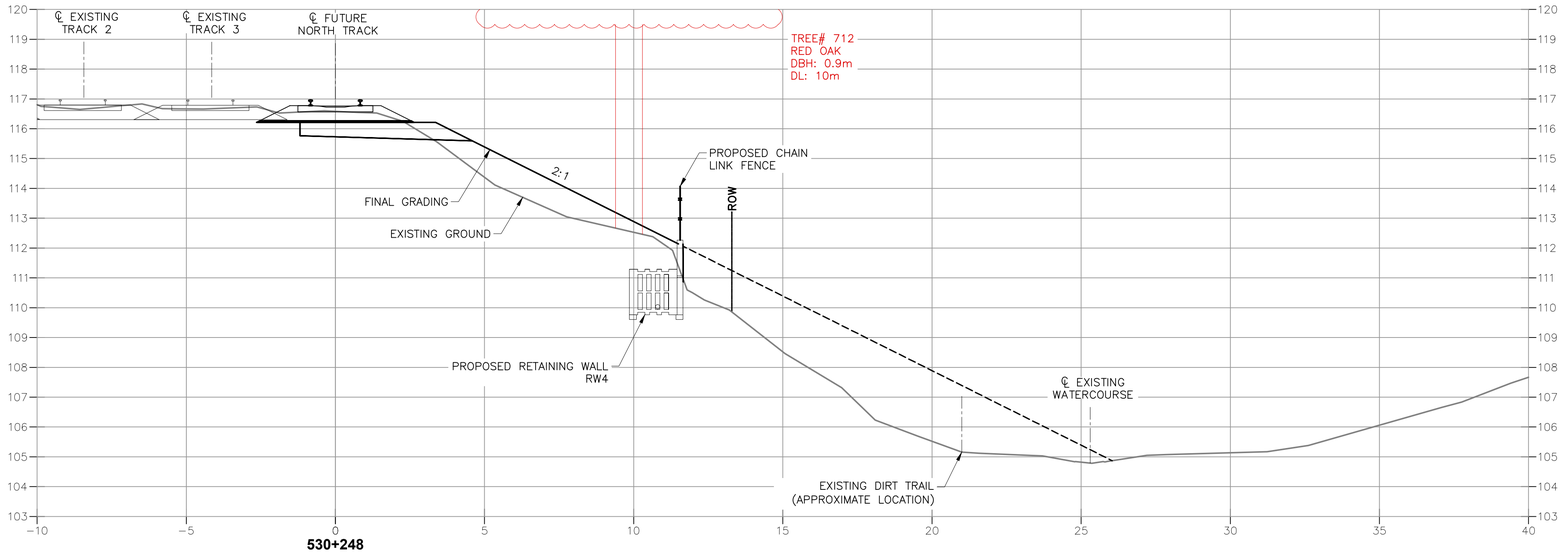

SECTION B
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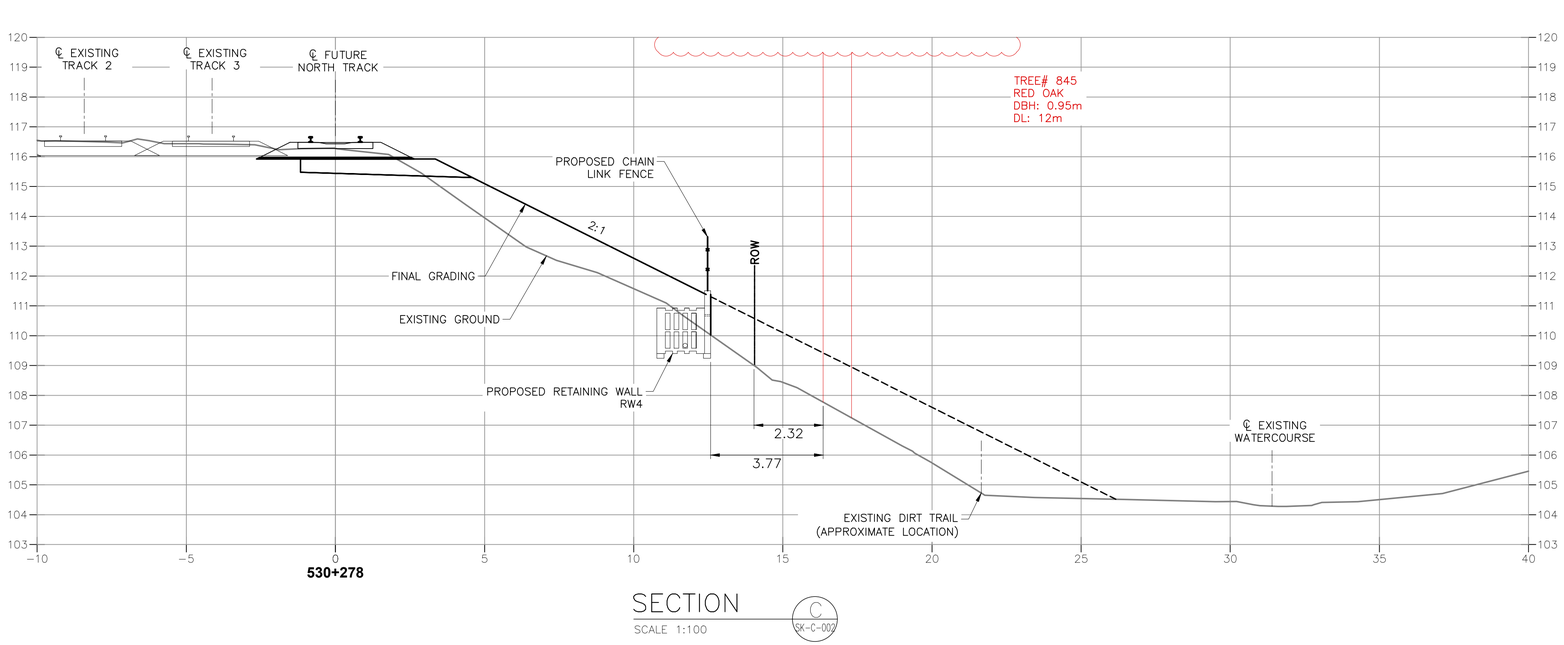

SECTION C
SCALE 1:100 SK-C-002

NOTES:

1. TREE NUMBER, SPECIES, LOCATION, DIAMETER AT BASE HEIGHT (DBH), AND RADIAL DRIPLINE (DL) ARE FROM THE ARBORIST REPORT(S).
2. TREE HEIGHT SHOWN ON THE DRAWINGS IS ARBITRARY AND FOR VISUAL PURPOSES ONLY.

LEGEND:

POTENTIAL PRUNING

TO BE REMOVED

METROLINX PROJECT NO. 166310

REFERENCE DRAWINGS		ISSUE			REVISIONS		
		P1	21/03/16	ISSUED FOR INFORMATION			
DWG NO.	TITLE	NO.	DATE	ISSUED FOR	REV.	DATE	

DRAWN BY: N.A. 21/03/16	DESIGNED BY:
CHECKED BY:	APPROVED BY:
SCALE: 1:750 FULL SIZE ONLY	0 15 30m

HATCH

METROLINX

LAKESHORE EAST CORRIDOR INFRASTRUCTURE
WEST CORRIDOR EXPANSION – PACKAGE C
SMALL'S CREEK – SUPER TREES
SHEET 2 OF 3

CONTRACT NO.	DWG. NO.	REV.	SHEET
RFP-2020-AFPC-199	SK-C-003	P1	/

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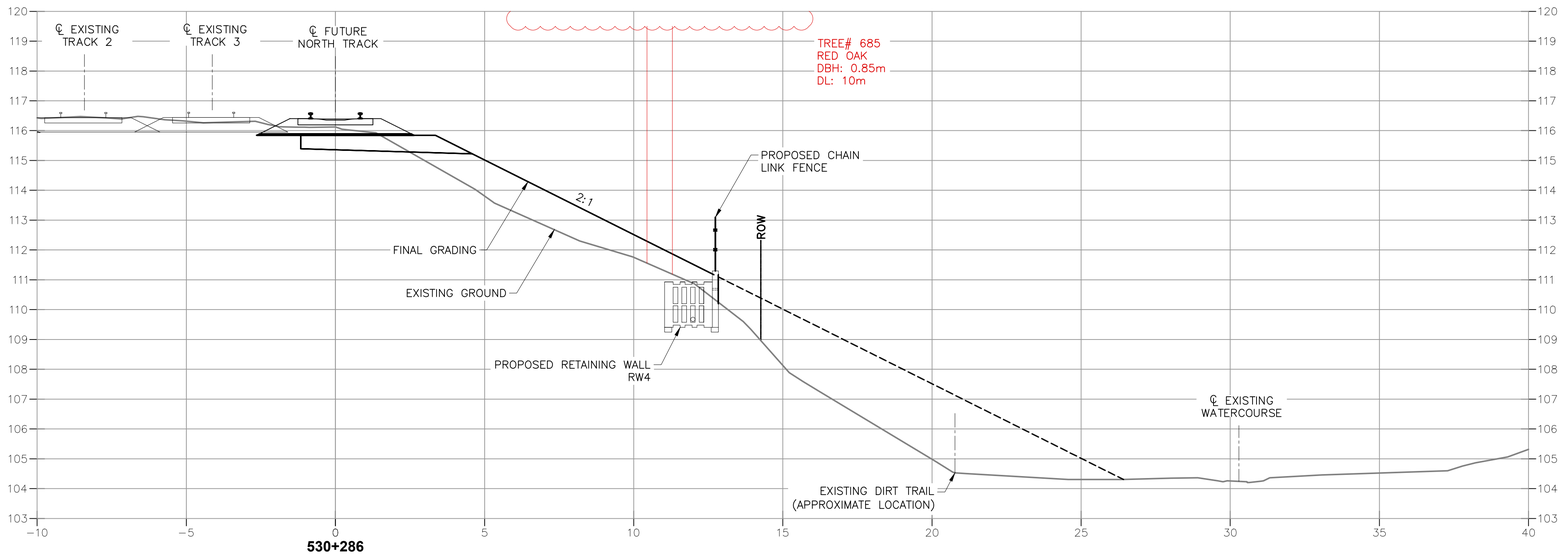

SECTION

SCALE 1:100

D

SK-C-002

NOTES:

1. TREE NUMBER, SPECIES, LOCATION, DIAMETER AT BASE HEIGHT (DBH), AND RADIAL DRIPLINE (DL) ARE FROM THE ARBORIST REPORT(S).
2. TREE HEIGHT SHOWN ON THE DRAWINGS IS ARBITRARY AND FOR VISUAL PURPOSES ONLY.

LEGEND:

POTENTIAL PRUNING

TO BE REMOVED

METROLINX PROJECT NO. 166310

REFERENCE DRAWINGS		ISSUE			REVISIONS		
		P1	21/03/16	ISSUED FOR INFORMATION			
DWG NO.	TITLE	NO.	DATE	ISSUED FOR	REV.	DATE	

DRAWN BY: N.A. 21/03/16	DESIGNED BY:
CHECKED BY:	APPROVED BY:
SCALE: 1:750 FULL SIZE ONLY	0 15 30m

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METROLINX

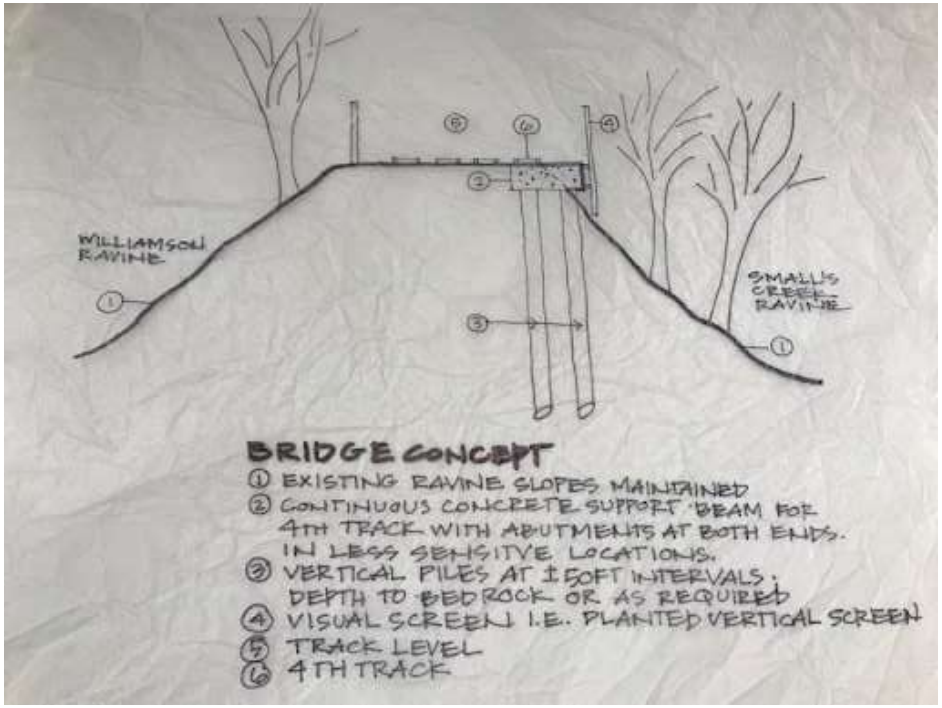
LAKESHORE EAST CORRIDOR INFRASTRUCTURE

WEST CORRIDOR EXPANSION – PACKAGE C

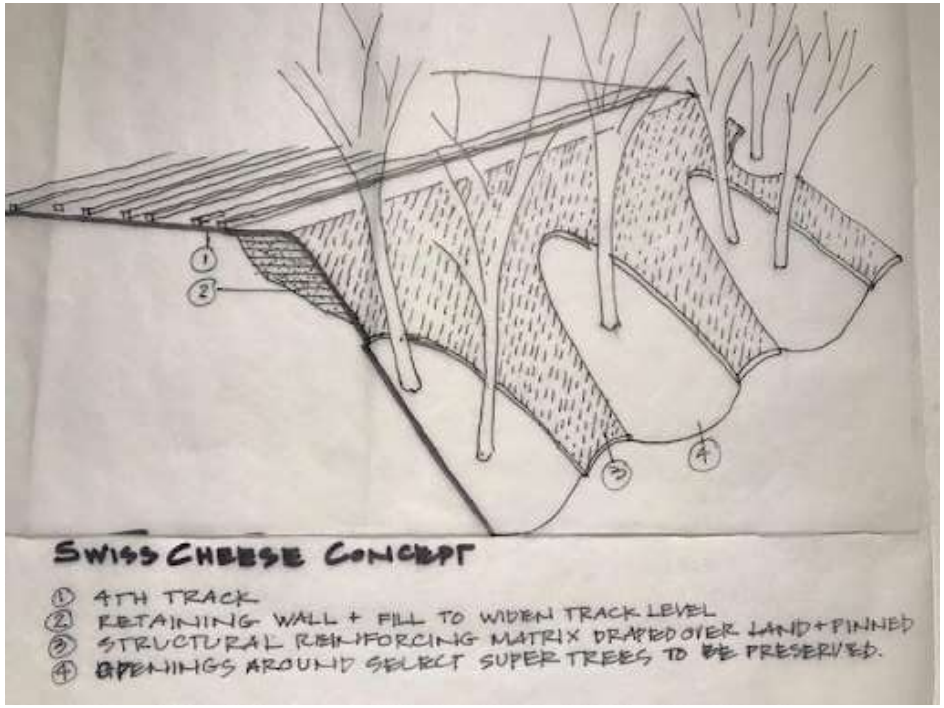
SMALL'S CREEK – SUPER TREES

SHEET 3 OF 3

CONTRACT NO.	DWG. NO.	REV.	SHEET
RFP-2020-AFPC-199	SK-C-004	P1	/



SK-01



SK-02

Title: Conceptual Sketches for Alternate Track Stabilization Approaches
scale: Not to Scale

Project Name: Smalls Creek
Date: 2021.01.27

smallscreek@gmail.com

RESPECT TORONTO RAVINES
SmallsCreek.ca

Title: The Largest Trees at Risk of Removal in Smalls Creek & Williamson Park Ravines

scale: Not to Scale

Project Name: Smalls Creek

Date: 2021.01.27

smallscreek@gmail.com

RESPECT TORONTO RAVINES

SmallsCreek.ca