

Almega Asset Management
25 Watline Ave, Suite 501,
Mississauga, ON L4Z 2Z1

File No. 21-067
May 31, 2021

Attention: Spencer Shafran

**Subject: Preliminary Assessment of Long Term Stable Slope Crest
60 Dundas Street East, Mississauga, Ontario**

Grounded Engineering Inc. ("Grounded") is pleased to provide you with this Preliminary Assessment of Long Term Stable Slope Crest position for the site known as 60 Dundas Street East, in Mississauga, Ontario.

1 Introduction

The subject site is currently a commercial plaza with existing parking lots. Almega Asset Management proposes to construct 3 new towers, with a common P4 underground parking structure beneath the entire site. Assuming a ground floor elevation of $111\pm$ m, a proposed P4 level is assumed to have a Finished Floor Elevation (FFE) about 13 m below grade, or Elev. $98\pm$ m.

Cooksville Creek is east of the subject site on public property. The creek is at a lower elevation compared to the subject site. The sides of the creek are retained by retaining walls ranging in height from approximately $4.5\pm$ m (at the north end of the site) to $3\pm$ m (at the south end of the site). The retaining walls are located on public property. The Cooksville Creek watershed is regulated by Credit Valley Conservation (CVC).

Grounded is providing a preliminary assessment of the Long Term Stable Slope Crest (LTSSC) position. Grounded has completed a geotechnical and hydrogeological feasibility letter under a separate cover. Additional boreholes with wells in the proximity of the creek, topographic mapping, and a detailed slope stability study are required at a later date.

2 Ground Conditions

As a part of the geotechnical and hydrogeological feasibility scope of work, three (3) boreholes were advanced on the site. The borehole locations and borehole logs are appended.

In general, three stratigraphic units were encountered, including:

1. very loose to loose earth fill extending to depths varying from 1.7 m to 2.0 m in Boreholes 101 and 103 and extending to 4.0 m depth in Borehole 102, overlying
2. stiff to very stiff cohesive clayey still glacial till, overlying
3. inferred bedrock was encountered at approximately $6\pm$ m below grade (Elev. 104.6 to 103.9 m).



The groundwater table is approximately $4\pm$ m below grade, measured from the monitoring wells installed on site.

3 Visual Slope Inspection

A visual slope inspection was conducted at the property on April 20th, 2021 by Jory Hunter and Deepak Kanraj of Grounded Engineering. Photographs of the slope are appended, with photo locations shown on Figure 2. An MNR slope rating chart was completed for the subject slope. Based on the slope rating chart, the slope has a rating of 33 to 40, which indicates a slight to moderate potential for instability.

For the purposes of this discussion, Dundas Street East runs in the west to east direction. The subject site is present west of Cooksville Creek and the associated retaining walls, which are on public property. The subject site is occupied by an asphalt parking lot and a low rise commercial building.

On public property, the tableland is occupied by a sidewalk and a vegetated area. There is a concrete retaining wall at the north end of the site and an armoustone block retaining wall at the south end of site. The retaining walls are approximately 4.5 to 3.0 m in height. The retaining walls appear to be in a good state of maintenance.

Cooksville Creek is present at the toe of the retaining wall flowing from the north to the south in a meandering fashion. No erosion was observed along the creek.

The detailed visual slope inspection is appended, and summarized in the following table:

	Visual Observations within Study Area
Structures at Risk?	No
Slope Height	4.5 to 3.0 m
Slope Inclination	N/A - Near-vertical at retaining walls present along entire study area
Distance, structure to slope	Retaining walls are present along the edge of the creek
Seepage or wet ground?	None observed
Watercourse within 15 m?	Yes, Cooksville Creek
Fallen/leaning trees?	None observed
Surficial erosion features	None observed
Slide features	None observed
Downspouts?	Outlets observed through the retaining wall face
Retaining Walls or Structures?	Concrete retaining wall ($4.5\pm$ m) at the north end of site Armoustone Block retaining wall ($3.0\pm$ m) at the south end of site
Decks, Stairs?	None observed
Sheds?	None observed



	Visual Observations within Study Area
Pools or Tubs?	None observed
Storm Water Outfalls?	None Observed
MNR Slope Rating	33-40 (i.e. slight to moderate potential)

4 Preliminary Long Term Stable Slope Crest

There is no slope on the subject property. East of the subject property on public land, there are retaining walls (concrete and armoustone) along Cooksville Creek. The requirements for the determination of the limits of the development next to Cooksville Creek and associated retaining walls must be confirmed by the CVC.

There are two components of the LTSSC position, including the toe erosion allowance and the stable slope inclination. The toe erosion allowance is outlined by MNR Guidelines for rivers within 15 m of the toe of slope. The stable slope inclination is determined through a stability analysis conducted to determine the inclination(s) at which the slope profile is stable to a minimum factor of safety of 1.5.

4.1 Preliminary Toe Erosion Allowance

An outline of the MNR Guideline for determining the toe erosion allowance is summarized in the table below.

Soil Type	Evidence of Active Erosion ² OR Bankfull Flow Velocity > Competent Flow Velocity ³	No evidence of Active Erosion ² OR Bankfull Flow Velocity << Competent Flow Velocity ³		
		Bankfull Width < 5 m	Bankfull Width 5 – 30 m	Bankfull Width > 30 m
Hard Rock (e.g. granite)	0 – 2 m	0 m	0 m	1 m
Soft Rock (e.g. shale, limestone) Cobbles, Boulders	2 – 5 m	0 m	1 m	2 m
Stiff/Hard Cohesive Soils (e.g. clays, clayey silt) Coarse Granular (e.g. gravels) Glacial Till	5 – 8 m	1 m	2 m	4 m
Soft/Firm Cohesive Soil Fine Granular (e.g. sand, silt) Fill	8 – 15 m	1 – 2 m	5 m	7 m

1. If a valley floor is > 15 m in width, still may require study or inclusion of a toe erosion allowance
2. Action Erosion is defined as: bank material is bare and exposed directly to stream flow under normal or flood flow conditions and, where undercutting, over-steepening, slumping of a bank or high downstream sediment loading is occurring. An area may be exposed to river flow but may not display "active erosion" (i.e. is not bare or undercut) either as a result of shifting of the channel or because flows are relatively low velocity. The toe erosion allowances presented in the right half of the table are suggested for sites with this condition.
3. Competent Flow Velocity is defined as: the flow velocity that the bed material in the stream can support without resulting in erosion or scour.

Source: Ontario Ministry of Natural Resources, "Technical Guide River & Stream Systems: Erosion Hazard Limit", dated 2002, page 38.



Cooksville Creek is present at the toe of the retaining walls. There was no evidence of erosion observed along Cooksville Creek. The bankfull width of Cooksville Creek is approximately 7 to 13 m. The primary soil type at the edge of the Creek are hard retaining walls (cast in place concrete wall, or armourstone wall) and behind the retaining walls is either earth fill or hard cohesive glacial till. Based on this information, the following toe erosion allowances may be applicable:

- 0 m toe erosion allowance: if the retaining walls along Cooksville Creek are municipally maintained and the CVC agrees to a 0 m toe erosion allowance.
- 2 m toe erosion allowance: where there is hard cohesive glacial till at the Creek's edge.
- 5 m toe erosion allowance: where there is earth fill present at the Creek's edge.

4.2 Preliminary Stable Slope Inclination

Based on the results of the subsurface investigation, the soils behind the full height of the retaining walls are assumed to comprise compact earth fill. Based on this information, a stable slope inclination of 2.5H:1V has been chosen for the preliminary estimate of the LTSSC Position. Depending on the results of future investigations, the final stable slope inclination for detailed design may end up between 2.0H:1V and 3.0H:1V.

4.3 Preliminary Long Term Stable Slope Crest Position

A topographic survey was not available for the determination of the LTSSC. The maximum height of the retaining walls is approximately 4.5 m at the north end of the site and 3.0 m at the south end of the site based on visual observation and simple measurements on site.

The preliminary LTSSC position is provided in plan on Figure 2, where the toe erosion allowance and stable slope inclination in section intersect the tableland. The preliminary LTSSC was determined using an estimated stable slope inclination of 2.5H:1V and a toe erosion allowance of 0 m or 5 m.

Based on the applicable toe erosion allowance and stable slope inclination, the LTSSC position is approximately 11.3 to 16.3 m from the existing top of slope at the north end of the site, and approximately 7.5 to 12.5 m from the existing top of slope at the south end of the site.

The MNR and CVC guidelines generally require an additional setback ("erosion access allowance") for developments, in addition to the LTSSC. The applicable setback for the development must be confirmed by the CVC.

To protect the slope, site development and construction activities should be designed in a manner that does not erode the surface slope. Of particular importance, site drainage and grading must not produce concentrated overland flow directed towards the slope crest or face. Existing outlets that drain on to the slope face should be directed to the toe of slope. Although concentrated overland flow must not be allowed to flow over the slope, a minor sheet flow may be acceptable. A healthy vegetative cover should be created and maintained on the slope.



5 Closure

The geotechnical engineering advice provided in this report is based on the factual observations made from the site investigations as reported. It is intended for use by the owner and their retained design team. If there are changes to the features of the development or to the scope, the interpreted subsurface information, geotechnical engineering design parameters, advice, and discussion on construction considerations may not be relevant or complete for the project. Grounded should be retained to review the implications of such changes with respect to the contents of this report.

This report provides preliminary geotechnical engineering advice intended for use by the owner and their retained design team for due diligence only. These preliminary interpretations, design parameters, advice, and discussion on construction considerations are not complete. A detailed site-specific geotechnical investigation and slope stability modelling must be conducted by Grounded during detailed design to confirm and update the preliminary LTSSC recommendations provided here.

This report has been prepared for the use of Almega Asset Management and their design consultants. This report is copyright of Grounded Engineered Inc.

The local municipal/regional governing bodies and CVC may also make use of and rely upon this report, subject to the limitations as stated.

We trust that the information contained in this letter is sufficient for your present requirements. If we can be of further assistance, please do not hesitate to contact us.



Jory Hunter, B.Sc.(Eng.), EIT
Geotechnical and Environmental Group

Jason Crowder, Ph.D., P.Eng.
Principal



Enclosed:

Figure 1 – Site Location Plan

Figure 2 – Borehole and Monitoring Well Location Plan

Appendix A – Borehole Logs; Abbreviations and Terminology

Appendix B – Geotechnical Laboratory Results

Appendix C – Slope Photographs

Appendix D – Slope Inspection Form and MNR Slope Rating Chart

FIGURES





GROUND
ENGINEERING

12 Banigan Drive, Toronto, Ont., M4H 1E9
www.groundedeng.ca

LEGEND

— APROXIMATE PROPERTY
BOUNDARY

Note

Reference

ArcGIS Map 2021

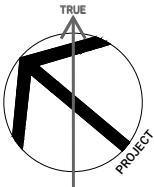
Project

**60 DUNDAS STREET
EAST, MISSISSAUGA, ON**

Figure Title

SITE LOCATION PLAN

North



Date

MAY, 2021

Scale

AS INDICATED

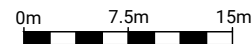
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21-067







Figure No

FIGURE 1

PIN 13157-0083 (LT)



LEGEND

- | | |
|---|--------------------------------|
|  | APPROXIMATE PROPERTY BOUNDARY |
|  | EXISTING BUILDING STRUCTURE |
|  | MONITORING WELL BY GROUNDWATER |
|  | CATCHBASIN |
|  | MAINTENANCE HOLE |
|  | PHOTOGRAPH LOCATIONS |

note

Reference

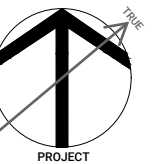
Project

60 DUNDAS STREET
EAST, MISSISSAUGA, ON

Figure Title

BOREHOLE AND MONITORING WELL LOCATION PLAN

North



Date _____

MAY, 2021

Scale

AS INDICATED

Job No

21-067

Figure No

FIGURE 2





APPENDIX A



SAMPLING/TESTING METHODS

SS: split spoon sample
 AS: auger sample
 GS: grab sample
 FV: shear vane
 DP: direct push
 PMT: pressuremeter test
 ST: shelby tube
 CORE: soil coring
 RUN: rock coring

SYMBOLS & ABBREVIATIONS

MC: moisture content
 LL: liquid limit
 PL: plastic limit
 PI: plasticity index
 γ : soil unit weight (bulk)
 G_s : specific gravity
 S_u : undrained shear strength
 unstabalized water level
 1st water level measurement
 2nd water level measurement most recent
 water level measurement

ENVIRONMENTAL SAMPLES

M&I: metals and inorganic parameters
 PAH: polycyclic aromatic hydrocarbon
 PCB: polychlorinated biphenyl
 VOC: volatile organic compound
 PHC: petroleum hydrocarbon
 BTEX: benzene, toluene, ethylbenzene and xylene
 PPM: parts per million

FIELD MOISTURE (based on tactile inspection)

DRY: no observable pore water
MOIST: inferred pore water, not observable (i.e. grey, cool, etc.)
WET: visible pore water

COMPOSITION

Term	% by weight
trace silt	<10
some silt	10 - 20
silty	20 - 35
sand and silt	>35

COHESIONLESS

Relative Density	N-Value
Very Loose	<4
Loose	4 - 10
Compact	10 - 30
Dense	30 - 50
Very Dense	>50

COHESIVE

Consistency	N-Value	Su (kPa)
Very Soft	<2	<12
Soft	2 - 4	12 - 25
Firm	4 - 8	25 - 50
Stiff	8 - 15	50 - 100
Very Stiff	15 - 30	100 - 200
Hard	>30	>200

ASTM STANDARDS**ASTM D1586 Standard Penetration Test (SPT)**

Driving a 51 mm O.D. split-barrel sampler ("split spoon") into soil with a 63.5 kg weight free falling 760 mm. The blows required to drive the split spoon 300 mm ("bpf") after an initial penetration of 150 mm is referred to as the N-Value.

ASTM D3441 Cone Penetration Test (CPT)

Pushing an internal still rod with a outer hollow rod ("sleeve") tipped with a cone with an apex angle of 60° and a cross-sectional area of 1000 mm² into soil. The resistance is measured in the sleeve and at the tip to determine the skin friction and the tip resistance.

ASTM D2573 Field Vane Test (FVT)

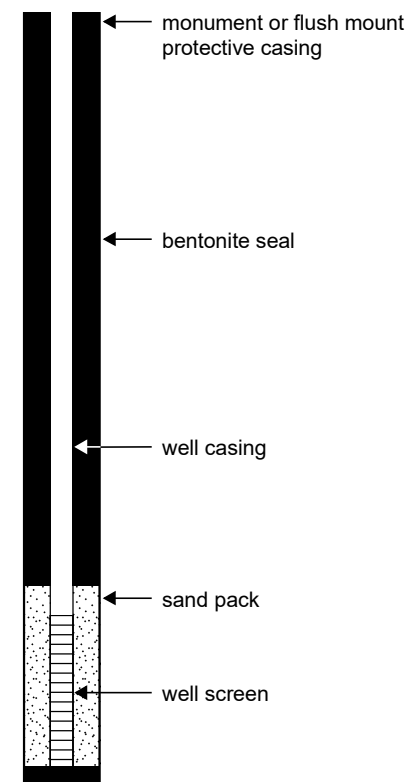
Pushing a four blade vane into soil and rotating it from the surface to determine the torque required to shear a cylindrical surface with the vane. The torque is converted to the shear strength of the soil using a limit equilibrium analysis.

ASTM D1587 Shelby Tubes (ST)

Pushing a thin-walled metal tube into the in-situ soil at the bottom of a borehole, removing the tube and sealing the ends to prevent soil movement or changes in moisture content for the purposes of extracting a relatively undisturbed sample.

ASTM D4719 Pressuremeter Test (PMT)

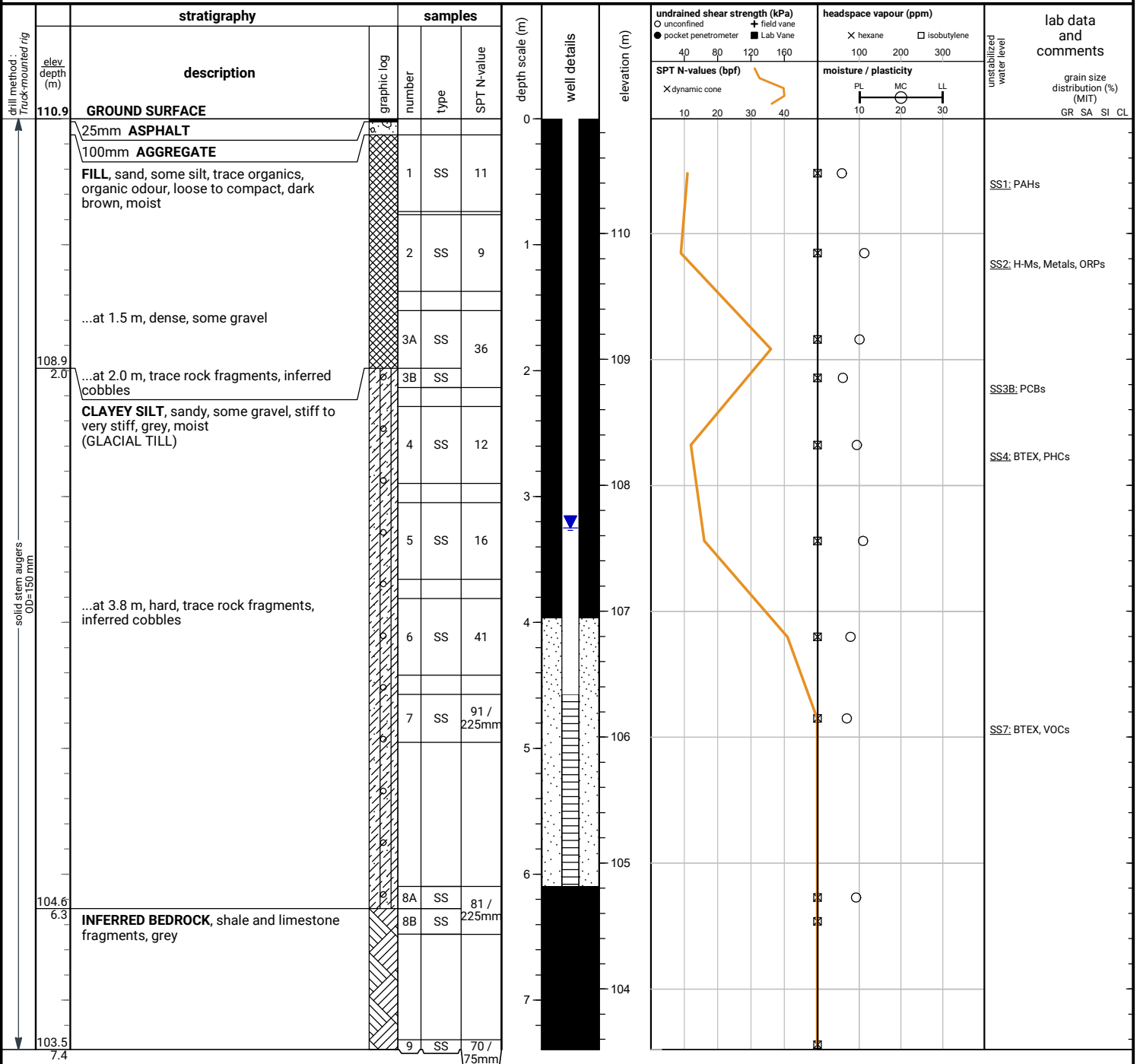
Place an inflatable cylindrical probe into a pre-drilled hole and expanding it while measuring the change in volume and pressure in the probe. It is inflated under either equal pressure increments or equal volume increments. This provides the stress-strain response of the soil.

WELL LEGEND

File No. : 21-067

Project : 60 Dundas Street East, Mississauga, ON

Client : Almega Asset Management



END OF BOREHOLE

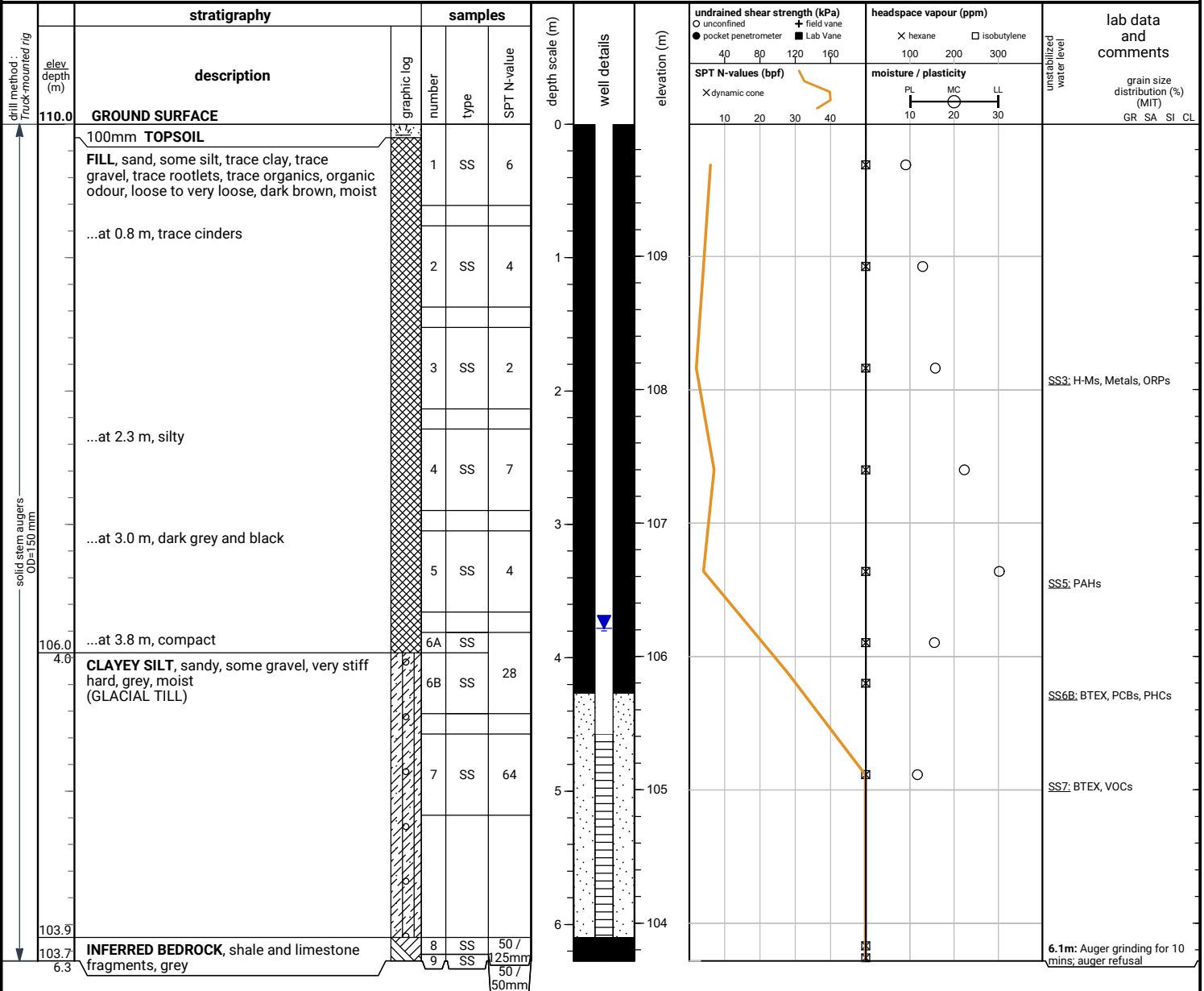
Dry and open upon completion of drilling.
50 mm dia. monitoring well installed.
No. 10 screen

GROUNDWATER LEVELS		
Date	Water Depth (m)	Elevation (m)
May 4, 2021	4.7	106.2
May 6, 2021	3.5	107.4
May 10, 2021	3.3	107.6

File No. : 21-067

Project : 60 Dundas Street East, Mississauga, ON

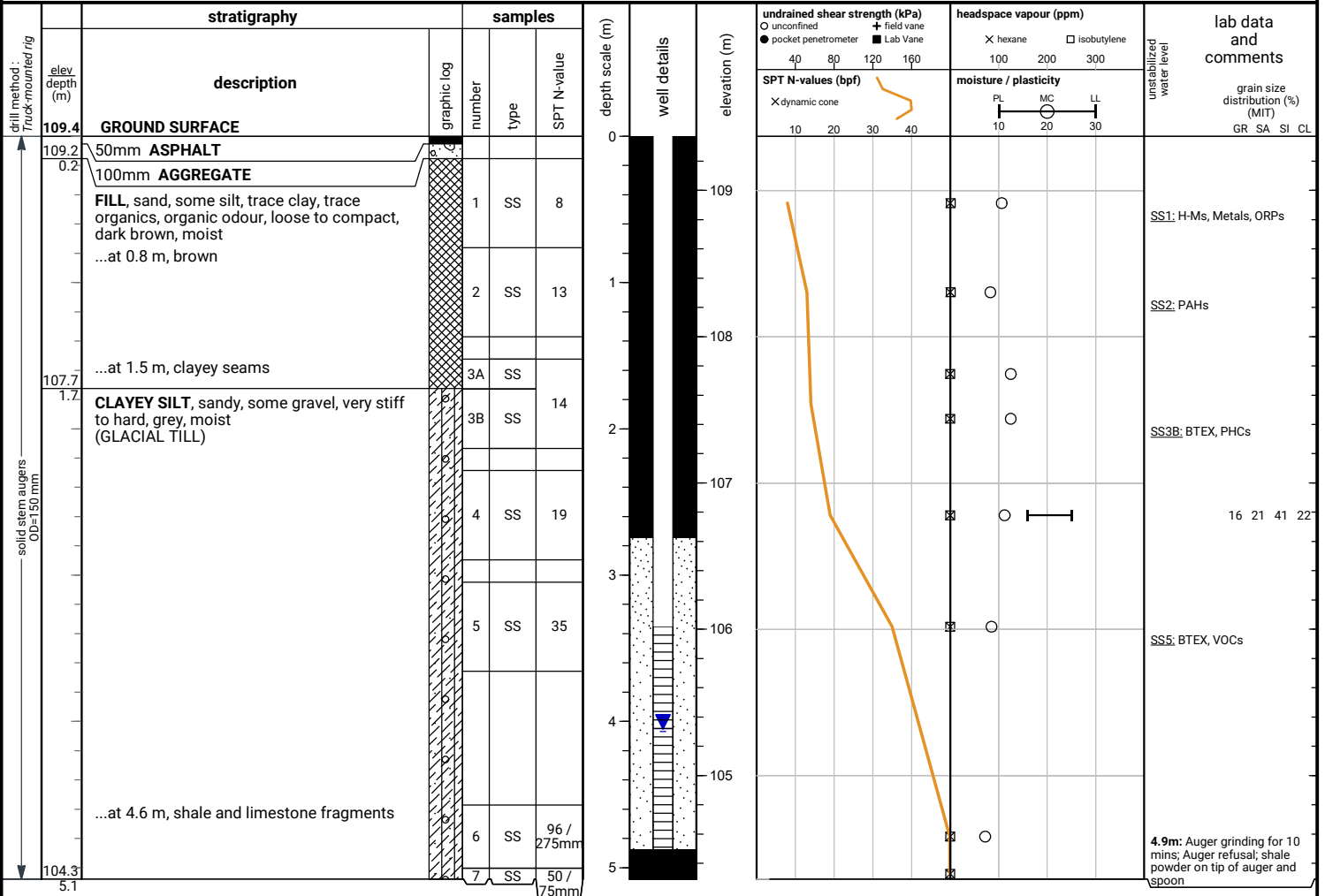
Client : Almega Asset Management



File No. : 21-067

Project : 60 Dundas Street East, Mississauga, ON

Client : Almega Asset Management



END OF BOREHOLE
Auger refusal on inferred bedrock

Dry and open upon completion of drilling.

50 mm dia. monitoring well installed.
No. 10 screen

GROUNDWATER LEVELS

Date	Water Depth (m)	Elevation (m)
May 4, 2021	4.6	104.8
May 6, 2021	4.1	105.3
May 10, 2021	4.1	105.3

APPENDIX B



ATTERBERG LIMITS - LIQUID AND PLASTIC

LABORATORY NO.:	2102782 B	PROJECT NO.:	21TM720	DATE:	May 18, 2021
BOREHOLE NO.:	103	SAMPLE NO.:	SS4	TESTED BY:	L. Gowry
SAMPLE DEPTH:	7.5-9 ft	DESCRIPTION:		CHECKED BY:	J. Noor

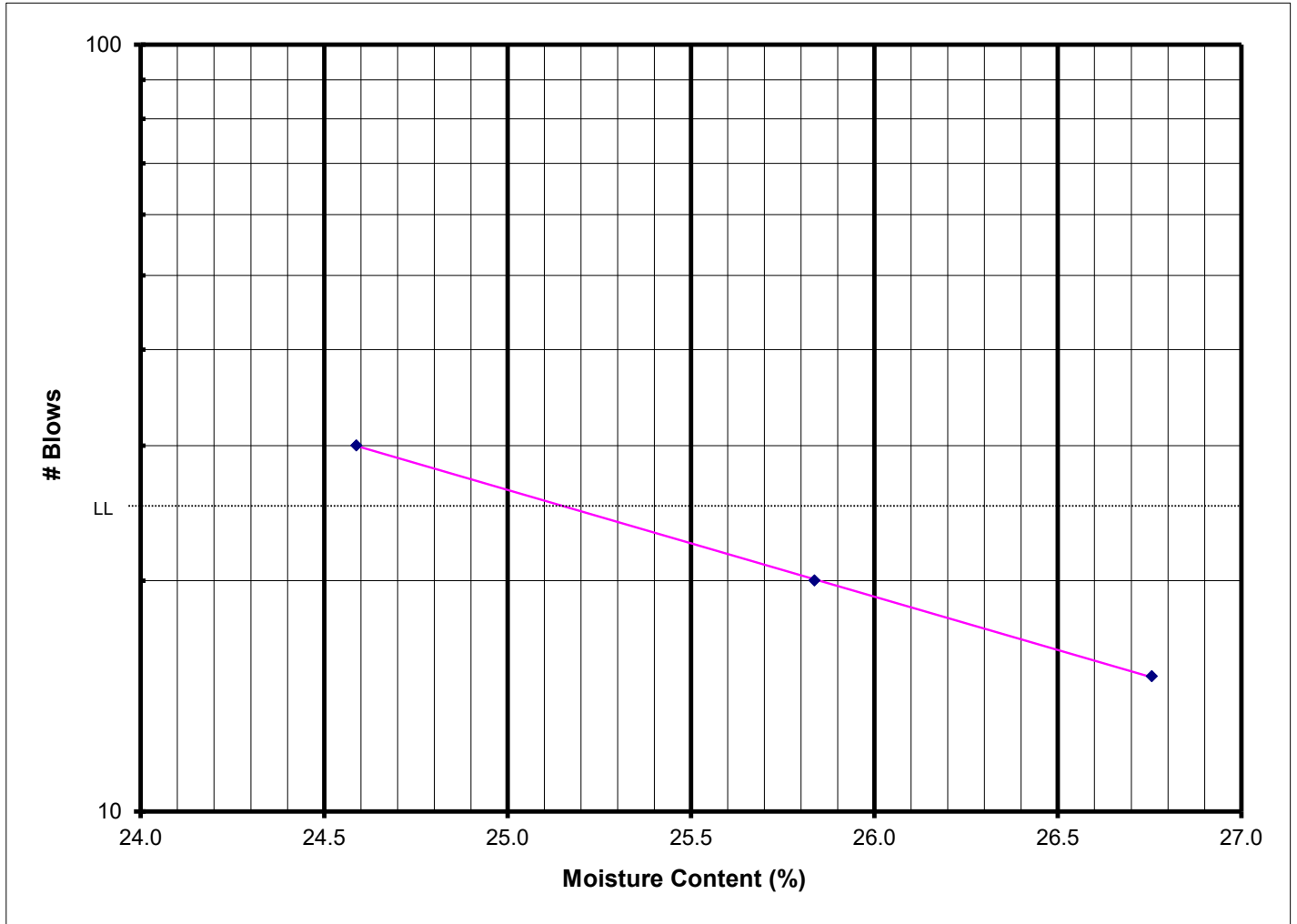
LIQUID LIMIT					
TRIAL	1	2	3	4	5
NUMBER OF BLOWS	30	20	15		
TARE NUMBER	H1	P4	N4		
WT. TARE & WET SOIL	43.42	42.92	39.09		
WT. TARE & DRY SOIL	38.79	38.21	35.09		
WT. OF WATER	4.63	4.71	4.00		
WT. OF TARE	19.96	19.98	20.14		
WT. OF DRY SAMPLE	18.83	18.23	14.95		
MOISTURE CONTENT	24.6	25.8	26.8		

ATTERBERG LIMITS		PLASTIC LIMIT		
LIQUID LIMIT	25	TRIAL	1	2
PLASTIC LIMIT	16	TARE NUMBER	P10	x23
PLASTICITY INDEX	9	WT. TARE & WET SOIL	27.75	27.57
		WT. TARE & DRY SOIL	26.65	26.53
		WT. OF WATER	1.10	1.04
		WT. OF TARE	19.83	20.03
		WT. OF DRY SAMPLE	6.82	6.50
		MOISTURE CONTENT	16.1	16.0

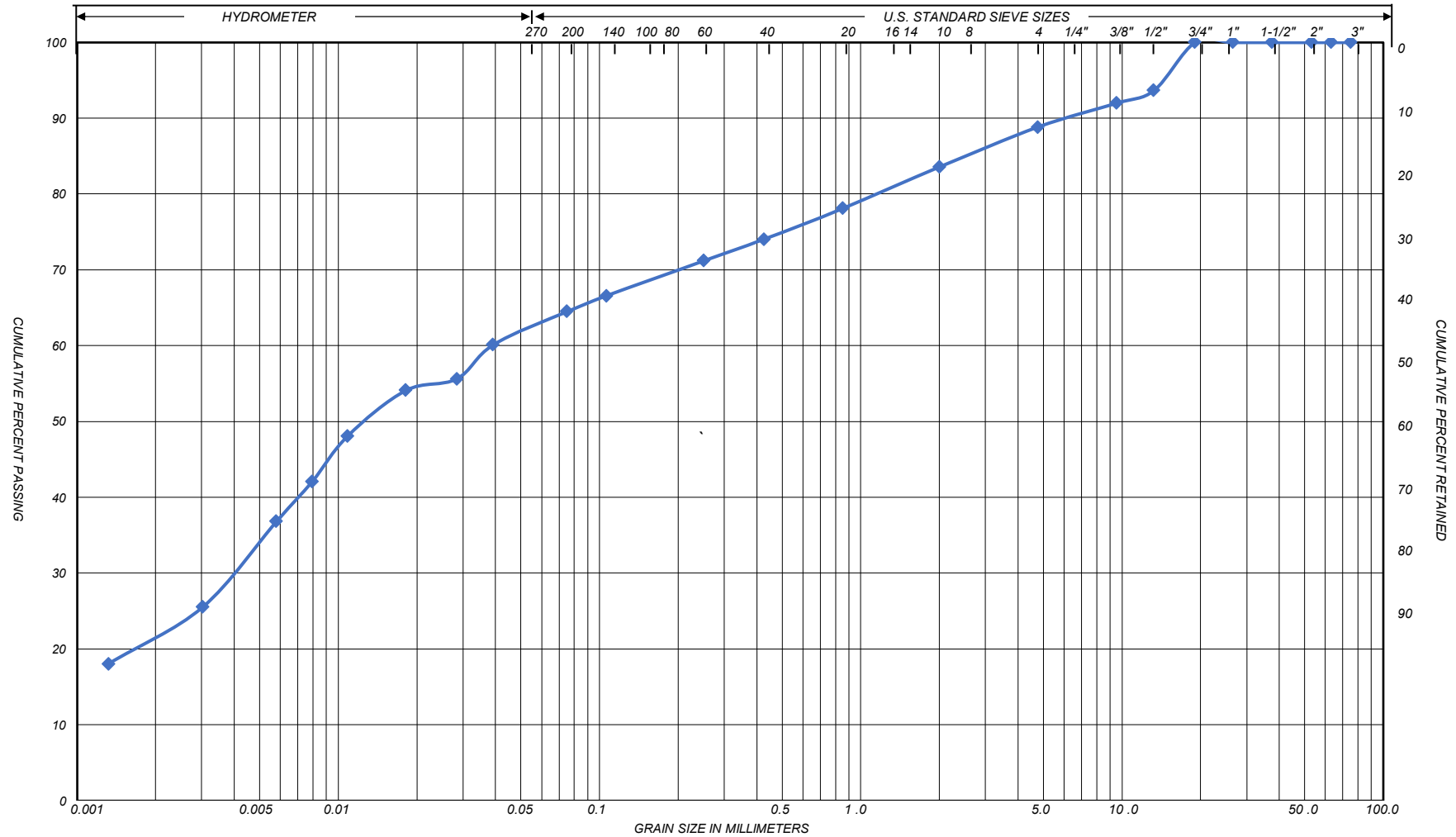
LIQUID LIMIT BEST-LINE CALCULATION & ASSESSMENT						
LOG OF BLOWS	MOISTURE CONTENTS		ERROR EVALUATION			
1.4771213	24.6		BLOW COUNT	MOISTURE CONTENT	DIFFERENCE	WITHIN 1%?
1.30103	25.8		30	24.6	0.0	TRUE
1.1760913	26.8		20	25.8	0.0	TRUE
			15	26.7	0.0	TRUE
SLOPE	INTERCEPT					
-7.19268	35.20747		ERROR ASSESSMENT			PASSES

ATTERBERG LIMITS - LIQUID AND PLASTIC

LABORATORY NO.:	2102782 B	PROJECT NO.:	21TM720	DATE:	May 18, 2021
BOREHOLE NO.:	103	SAMPLE NO.:	SS4	TESTED BY:	L. Gowry
SAMPLE DEPTH:	7.5-9 ft	DESCRIPTION:		CHECKED BY:	J. Noor



PARTICLE SIZE DISTRIBUTION CHART



SILT & CLAY				FINE		MEDIUM		COARSE	GRAVEL		COBBLES	UNIFIED
CLAY	FINE	MEDIUM	COARSE	SAND								
				FINE	MEDIUM	COARSE	GRAVEL				COBBLES	M.I.T.
CLAY		SILT		VERY FINE	FINE	MEDIUM	COARSE	GRAVEL				U.S. BUREAU
				SAND								

REMARKS Bore Hole 103, Sample No.SS4, Depth 7.5-9, Lab No.2102782-B,

APPENDIX C





Photograph 1

Position: Tableland, north east of site

Direction/Object: South, down Cooksville Creek

Description: Cooksville Creek is present east of the subject site on private property. The sides of the creek are retained by a concrete retaining wall at the north end of the site and a block retaining wall at the south end of the site. The wall ranges from approximately 4.5 to 3.0 m in height.



Photograph 2

Position: Tableland, east of site

Direction/Object: South, along crest

Description: There is a chain link fence along the top of the retaining walls. The tableland is slightly sloping towards the retaining walls. The tableland is vegetated with grass and young trees.



Photograph 3

Position: Valleyland, south east of site

Direction/Object: North, along toe

Description: At the south end of site there is a block retaining wall that decreases in height. The retaining walls appear to be in a good state of maintenance.



APPENDIX D



SLOPE INSPECTION FORM

1. INSPECTION DATE (DD-MM-YYYY): **20-04-2021**

FILE NO. **21-067**

WEATHER (circle): ☒ sunny ☐ partly cloudy ☐ cloudy ☐ calm ☐ breeze ☐ windy
☐ clear ☐ fog ☐ rain ☐ snow ☐ cold ☐ cool ☒ warm
☐ hot

INSPECTED BY (name): **J. Hunter**

2. SITE LOCATION / DIRECTIONS (describe main roads, features)

60 Dundas St E

SKETCH

3. WATERSHED

Cooksville Creek at toe of slope

4. PROPERTY OWNERSHIP (name, address, phone):

TBD

LEGAL DESCRIPTION

Lot

Concession

Township

County

CURRENT LAND USE (circle and describe)

☐ **vacant** - field, bush, woods, forest, wilderness, tundra,

☐ **passive** - recreational parks, golf courses, non-habitable structures, buried utilities, swimming pools,

☒ **active** - habitable structures, residential, commercial, industrial, warehousing and storage,

☐ **infra-structure or public use** - stadiums, hospitals, schools, bridges, high voltage power lines, waste management sites,

SLOPE INSPECTION FORM

5. SLOPE DATA

HEIGHT ☒ 3 - 6 m ☐ 6 - 10 m ☐ 10 - 15 m ☐ 15 - 20 m

☐ 20 - 25 m ☐ 25 - 30 m ☐ > 30 m

estimated height (m): **3 to 4.5 m**

INCLINATION AND SHAPE

☒ 4:1 or flatter 25 % 14 deg. ☐ up to 3:1 33 % 18½ deg. ☐ up to 2:1 50 % 26½ deg.

☐ up to 1:1 100 % 45 deg. ☐ up to ½:1 200 % 63½ deg. ☐ steeper than > 63½ deg.

6. SLOPE DRAINAGE (describe)

TOP **No concentrated flow of water observed over slope face**

FACE **Drainage pipe outlets out of retaining wall faces**

BOTTOM **Cooksville Creek**

7. SLOPE SOIL STRATIGRAPHY (describe, positions, thicknesses, types)

TOP **earth fill - based on boreholes advanced on the site, earth fill appears to be present for the full height of the retaining walls along Cooksville Creek**

FACE **earth fill - based on boreholes advanced on the site, earth fill appears to be present for the full height of the retaining walls along Cooksville Creek**

BOTTOM **cohesive glacial till is present underlying the earth fill
underlying the cohesive glacial till, shale bedrock is inferred**

8. WATER COURSE FEATURES (circle and describe)

SWALE, CHANNEL

GULLY

STREAM, CREEK, RIVER **Cooksville Creek at toe of slope**

POND, BAY, LAKE

SPRINGS

MARSHY GROUND

SLOPE INSPECTION FORM

9. VEGETATION COVER (grasses, weeds, shrubs, saplings, trees)

TOP

The tableland is vegetated with landscaped grass
There are some small shrubs and young trees

FACE

Retaining wall, no vegetation

BOTTOM

Retaining wall, no vegetation
No vegetation in the Creek

10. STRUCTURES (buildings, walls, fences, sewers, roads, stairs, decks)

TOP

Adjacent to the slope crest is public property with a sidewalk
The tableland is occupied by an asphalt parking lot

FACE

There is a concrete retaining wall at the north end of Cooksville Creek and a block retaining wall at the south end of site. The retaining wall ranges from 4.5 to 3 m in height and appears to be in good condition.

BOTTOM

No structures were observed in the valleyland

11. EROSION FEATURES (scour, undercutting, bare areas, piping, rills, gully)

TOP

No erosion observed in the tableland

FACE

No erosion observed at the slope face

BOTTOM

No erosion observed at the toe of slope

SLOPE INSPECTION FORM



12. SLOPE SLIDE FEATURES (tension cracks, scarps, slumps, bulges, grabens, ridges, bent trees)

TOP

No slope slide features observed in the tableland

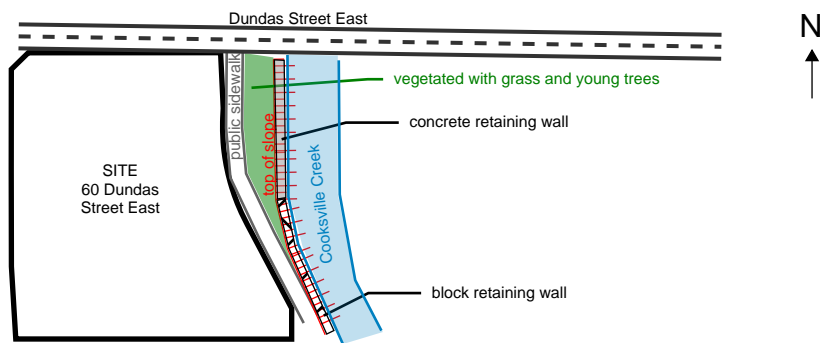
FACE

No slope slide features observed at the slope face

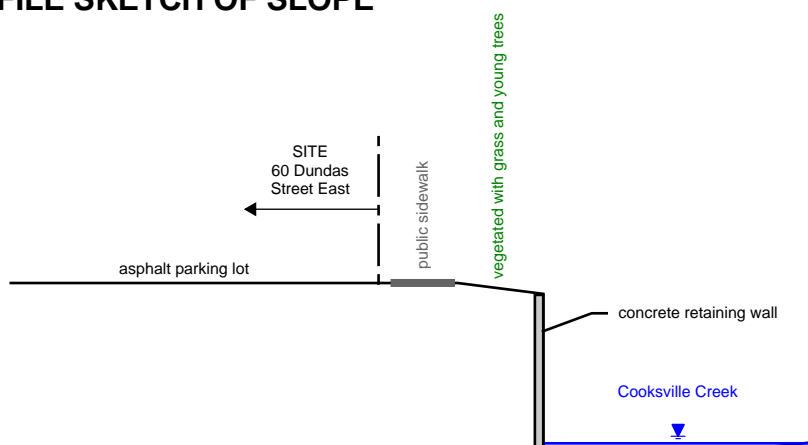
BOTTOM

No slope slide features observed at the toe of slope

13. PLAN SKETCH OF SLOPE



14. PROFILE SKETCH OF SLOPE



SLOPE RATING CHART

Site Location: **60 Dundas Street East**

File No. **21-067**

Property Owner:

Inspection Date: **April 20, 2021**

Inspected By: **J. Hunter**

Weather: **Sunny, warm**

1. SLOPE INCLINATION			Rating Value
	degrees	horiz. : vert.	
a)	18 or less	3 : 1 or flatter	0
b)	18 - 26	2 : 1 to 3 : 1	6
c)	more than 26	steeper than 2 : 1	16
2. SOIL STRATIGRAPHY			
a)	Shale, Limestone, Granite (Bedrock)		0
b)	Sand, Gravel		6
c)	Glacial Till		9
d)	Clay, Silt		12
e)	Fill		16
f)	Leda Clay		24
3. SEEPAGE FROM SLOPE FACE			
a)	None or Near bottom only		0
b)	Near mid-slope only		6
c)	Near crest only or, From several levels		12
4. SLOPE HEIGHT			
a)	2 m or less		0
b)	2.1 to 5 m		2
c)	5.1 to 10 m		4
d)	more than 10 m		8
5. VEGETATION COVER ON SLOPE FACE			
a)	Well vegetated; heavy shrubs or forested with mature trees		0
b)	Light vegetation; Mostly grass, weeds, occasional trees, shrubs		4
c)	No vegetation, bare		8
6. TABLE LAND DRAINAGE			
a)	Table land flat, no apparent drainage over slope		0
b)	Minor drainage over slope, no active erosion		2
c)	Drainage over slope, active erosion, gullies		4
7. PROXIMITY OF WATERCOURSE TO SLOPE TOE			
a)	15 metres or more from slope toe		0
b)	Less than 15 metres from slope toe		6
8. PREVIOUS LANDSLIDE ACTIVITY			
a)	No		0
b)	Yes		6
			TOTAL
			33-40
	SLOPE INSTABILITY RATING	RATING VALUES TOTAL	INVESTIGATION REQUIREMENTS
1.	Low potential	< 24	Site inspection only, confirmation, report letter.
2.	Slight potential	25-35	Site inspection and surveying, preliminary study, detailed report.
3.	Moderate potential	> 35	Boreholes, piezometers, lab tests, surveying, detailed report.
NOTES:			
a)	Choose only one from each category; compare total rating value with above requirements.		
b)	If there is a water body (stream, creek, river, pond, bay, lake) at the slope toe; the potential for toe erosion and undercutting should be evaluated in detail and, protection provided if required.		