

FUNCTIONAL SERVICE AND SWM REPORT

**PROPOSED SEVERANCE
2045 HEARTWOOD COURT
MISSISSAUGA, ON**

FEBRUARY 29, 2024

PREPARED BY

**PREMIER ENGINEERING SOLUTIONS
3294 ALPACA AVENUE, MISSISSAUGA
ONTARIO, L5M 7V3**

PREMIER ENGINEERING SOLUTIONS

CIVIL ENGINEERS

3294 ALPACA AVENUE, MISSISSAUGA, ONTARIO L5M 7V3

TELEPHONE: (905) 817-1294 FAX: (905) 817-1299

E-mail: mfi@p-engineeringsolutions.com

PROPOSED SEVERANCE 2045 HERATWOOD COURT MISSISSAUGA, ON

February 29, 2024

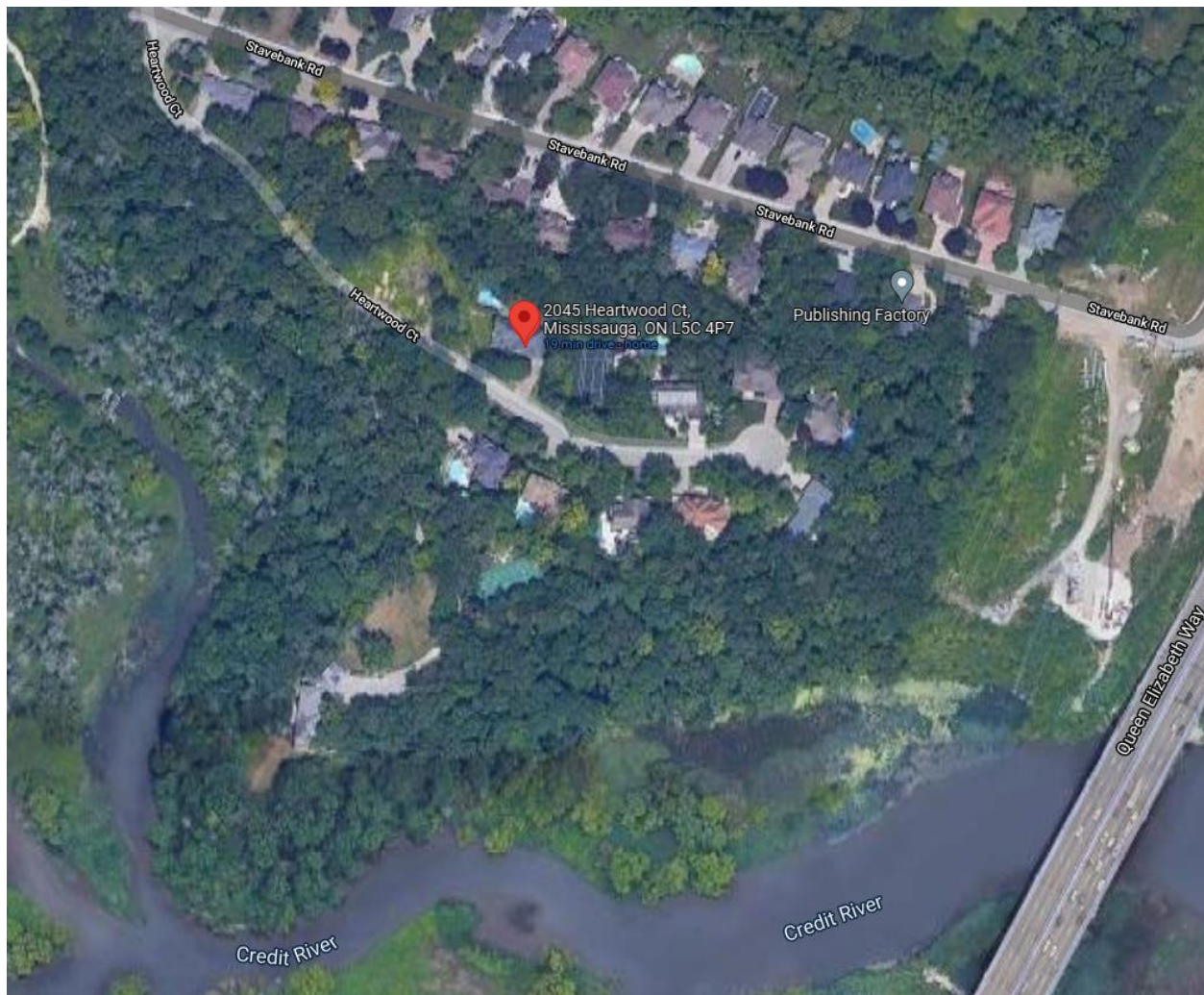
1.0 INTRODUCTION

Premier Engineering Solutions is retained to prepare a Functional Service and Stormwater Management Report to support the Severance Application to building a new Single Family House on the new severed lot. The subject property is an approximately 0.37 hectare parcel located north of Heartwood Crescent and is bounded by wooded land in the northwest and southwest. The subject property consists of a single family residence with a swimming pool in the backyard of the property. The satellite image of the site and its surrounding area is shown in **Figure 1** of this report.

This report has been prepared to demonstrate the servicing feasibility of the proposed development is in conjunction with the existing municipal services available for the severed new lot and to see how the new development affects the existing municipal services and specially to see the how the drainage is affected by the proposed development.

The subject property is fully serviced by storm, a 75mm sanitary low pressure main and a 150mm water along Heartwood Court.

The subject property is fully serviced by storm, sanitary and water. There is a 150 diameter water main, and a 525mm storm .



**Figure 1 SATELLITE IMAGE OF THE SUBJECT SITE
AND IT'S SURROUNDING AREA**

2.0 WATER SYSTEM

2.1 EXISTING SYSTEM

There is an existing 150mm watermain along the Heartwood Court. An existing fire hydrant is located in front of the new severed proposed lot.

2.2 PROPOSED SYSTEM

We are proposing a 25mm new domestic water connection from the existing 150mm along the street for the proposed single-family house.

The Existing Fire Hydrant is less than 90m from the far end of the proposed development, we don't have any issue with the fire requirement.

3.0 SANITARY SYSTEM

3.1 EXISTING SYSTEM

An existing low pressure 75mm Sanitary Low-Pressure Main runs along 0.80m south of the property line to serve the existing house along Heartwood Court. The detail of the sanitary sewer and with pumping accessories is shown the City Drawings **13034_D** and **13035_D**.

3.2 PROPOSED SYSTEM

We are proposing a new 38mm diameter sanitary service, PVC pipe as per detail shown on the City's drawing 13035_D. The sanitary flows from the proposed single family house will be collected in a pumping chamber located under the floor of the garage of the proposed development. A grinder pump will be proposed the collecting pumping chamber and pumped through 38mm sanitary PVC pipe to the city 75mm Sanitary low-pressure Main as shown in the attached City's Drawing **13035_D**. As per Region's comment, the new sanitary forced service from the severed lot can't be connected to the existing 75mm low-pressure sanitary main along the street. We are proposing a new sanitary force service connecting to the existing low-pressure sanitary service coming out from the existing house at the retained lot.

As per the Detail shown on the **Drawing 13035_D** , two grinder pumps of Model 214 series are being proposed for proposed development.

4.0 EASEMENT RESTRICTION

There are two easements, **PLAN 43R-20024 INST. LT1457005** and **PLAN 43R-15634 INST. LT879232** along the south property line. Both easements are in the retained lot. There is a catch-basin in the easement **PLAN 43R-20024 INST. LT457005** and is also functioning as an overland flow route (refer Dwg. 13035_D). The second easement purpose is not clear, the City is considering it to be redundant in the future. This easement is also encroached by the existing house on the retained- lot. The proposed low-pressure sanitary service from the severed lot will pass through this easement. The drainage Pattern will be kept same as existing shown on drawings **Dwg. 13035_D**. The Easement Plan for the Sub-Division is shown in **Appendix 'A'**. The easements are in favor of the City of Mississauga. The Transfer/Deed of Land and Schedule is attached in **Appendix 'A'**. Drawings **13034_D** and **13035_D** are restricted and need permission to include in the Appendices.

5.0 STORMWATER MANAGEMENT

5.1 5-YEAR PRE-DEVELOPMENT FLOW

The new severed lot is a vacant grass land, with of dead trees remaining.

Area of Lot	=0.2085ha
Grass/Landscape	=0.2085 ha
Runoff Coefficient	=0.25
Runoff	Q=2.78RIA
Rainfall Intensity	$I = 820 / (T_c + 4.6)^{0.78}$
	$= 820 / (15 + 4.6)^{0.78}$
	= 80.51mm/hour
Runoff	= 2.78x0.25x80.51x0.2085
	=11.67 L/sec

The Drainage Plan is shown in **Appendix 'B'**

5.2 POST-DEVELOPMENT RUNOFF COEFFICIENT (NEW SEVERED LOT)

Area of Lot	=0.2085ha
New House	=0.0263ha
Driveway(New House)	=0.00585ha
Total Hard Surface	=0.03215 ha
Grass/Landscape	=0.17635ha
Runoff Coefficient	$= (0.03215 \times 0.90 + 0.17635 \times 0.25) / 0.2085$
	=0.35
Runoff	= 2.78x0.35x80.51x0.2085
	=16.39 L/sec

The Drainage Plan is shown in **Appendix ‘B’**. As the post-development runoff flow is more than the pre-development flow, we need to apply techniques to reduce the runoff flow to pre-development levels

6.1 QUANTITY CONTROL

It can be seen from **Section 5.2** that the Post-Development runoff flow from the severed lot is exceeding from Pre-Development runoff flows. To control 5- Year Post-Development flow to equal or less than the Pre-Development flows we are proposing Soakaway pits. We will design soakaway pits such that the runoff from the roof will infiltrate into the ground in 48 hours or less.

Adopting two 20mx2m soakaway Pits with Bottom Area	=20x2m ² =40.0m ²
Percolation Rate (See Appendix ‘C’)	=12.8mm/hour
Infiltration into the ground	=40x12.8/3600 L/sec =0.14L/sec

Spreadsheet calculations have been used to determine the detention volume requirements when flow is controlled to 0.14 L/sec. Required detention volume has been computed as **8.7m³**. The storage calculations are shown in **Appendix ‘D’**.

The storage volume provided	=40x0.60(Height)x0.40 =9.6m ³ > 8.7m ³ O.K.
-----------------------------	--

The volume of storage should be at least 20mm of rainfall volume on the roof Area as per MOE guidelines

Volume of rainfall to infiltrate as per MOE guidelines	=263x0.020 =5.26 < 9.6m ³ (Provided)
--	--

Drawdown Time(T)	= dx1000/P = 0.60x1000/12.8 =46.88 hrs < 48hrs
------------------	--

6.0 DISCHARGE TO STORM SEWER DURING CONSTRUCTION (SEVERED LOT)

During the construction, ground surface rainwater or groundwater will be discharged to the storm system with the approval of City of Mississauga, Transportation and Works Department Environmental Services Section. 2-Year runoff from the severed lot is being proposed to collect in a pond and pumped to the storm system. The groundwater will be tested and found to suitable

from the Environmental Department, will be discharge to storm system. If found unsuitable to discharge to he storm system, the groundwater will be disposed off to the suitable MOE sites.

2-Year runoff from the severed lot = 2.78 AIR

Where A = Catchment area of the severed lot
= 0.2085 ha

I = Rainfall Intensity
= $610 / (T_c + 4.6)^{0.78}$

$T_c = 15$ minutes

$I = 610 / (15 + 4.6)^{0.78}$
= 59.89 mm/hr

Rainwater Discharge = $2.78 \times 0.2085 \times 59.85 \times 0.35$
= 12.14 L/sec

Please find attached Storm Discharge Letter (**Appendix 'E'**) as required by the City's Environmental Department.

7.0 CONCLUSION

All necessary services such as roads, sanitary sewers, water, storm outlet and utilities are available and have sufficient capacity to accommodate the proposed development. Overland flow route is kept same as in the original design shown on Drawing **13035_D**

Based on the availability of municipal services and other utilities and the fact that the proposed development is compatible with the existing land use and complements the existing landscape,

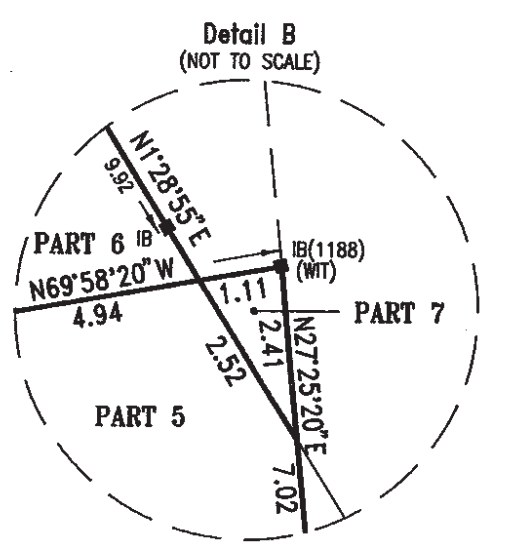
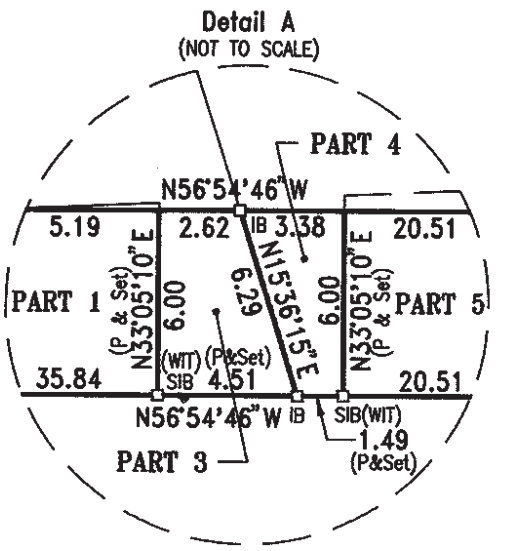
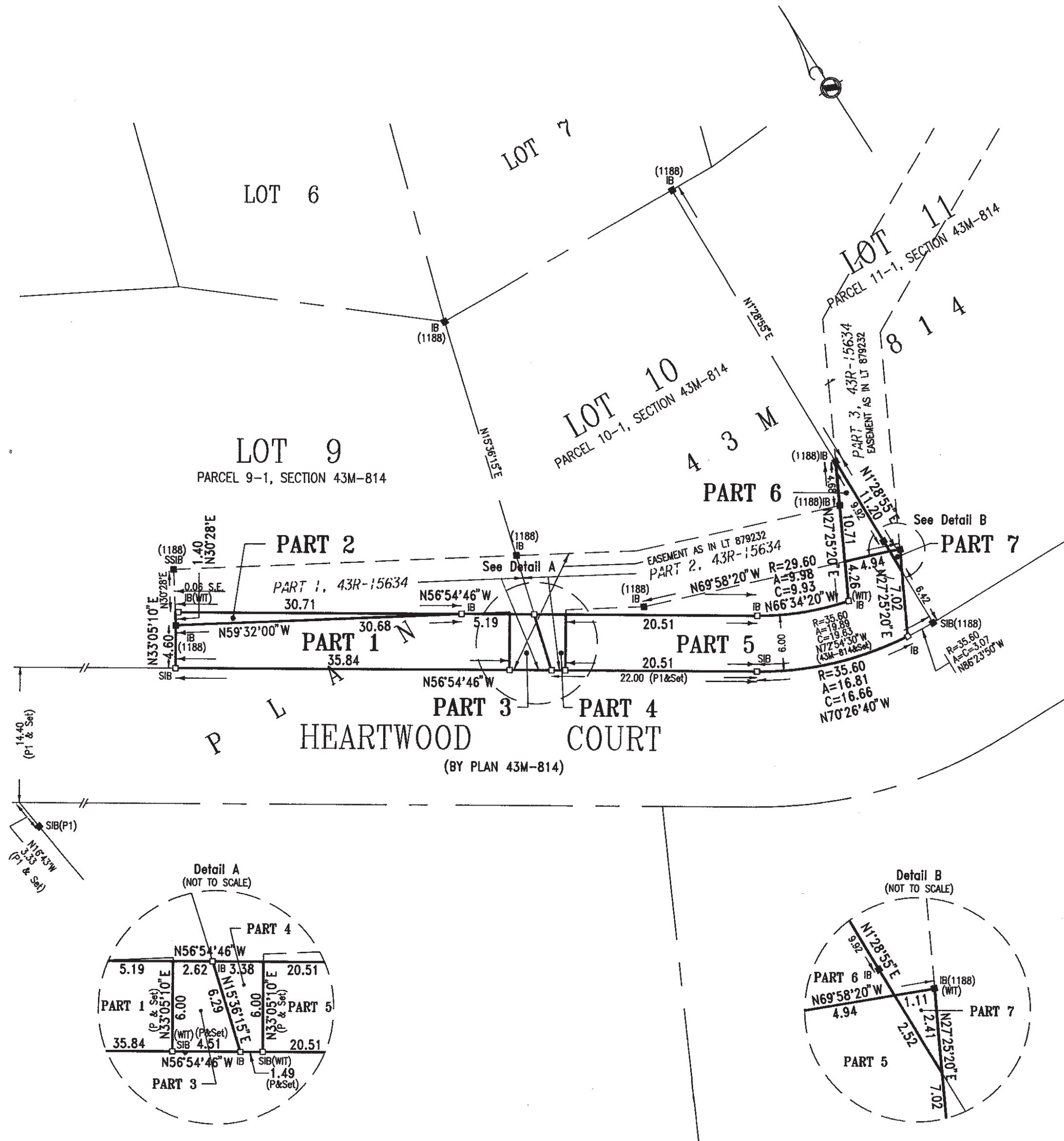
we recommend approval to be granted to the proposed development. The proposed development will also generate impost fee for the City, which will assist in financing of other projects, in addition to the creation of healthy tax base.

Prepared by:

Muhammad Ismail P.Eng.



Appendix 'A'
Background Information



I REQUIRE THIS PLAN TO BE DEPOSITED UNDER THE LAND TITLES ACT.

PLAN 43R-20024
RECEIVED AND DEPOSITED

DATE Aug 26/93

DATE September 8, 1993

T.S. FLUKE
T.S. FLUKE
ONTARIO LAND SURVEYOR

Vicki McArthur
Vicki McArthur
LAND REGISTRAR FOR THE LAND TITLES
DIVISION OF PEEL (No.43)

CAUTION: THIS PLAN IS NOT A PLAN OF SUBDIVISION WITHIN THE MEANING OF THE PLANNING ACT.

SCHEDULE			
PART	LOT	PLAN	PARCEL/SECTION
1	PL.9	43M-814	PART OF PCL.9-1, SEC.43M-814
2			
3			
4	PL.10	43M-814	PART OF PCL.10-1, SEC.43M-814
5			
6	PL.11	43M-814	PART OF PCL.11-1, SEC.43M-814
7			

PARTS 2,3,4 & 6 - SUBJECT TO EASEMENT AS IN LT 879232

PLAN OF SURVEY OF
PART OF LOTS 9, 10 & 11
PLAN 43M-814
CITY OF MISSISSAUGA
REGIONAL MUNICIPALITY OF PEEL

SEXTON McKay LIMITED
ONTARIO LAND SURVEYORS
1993



METRIC
DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND CAN
BE CONVERTED TO FEET BY DIVIDING BY 0.3048.

NOTE
BEARINGS ARE ASTRONOMIC AND ARE REFERRED TO THE LIMIT BETWEEN LOTS 10 & 11,
PLAN 43M-814, HAVING A BEARING OF N1°28'55"E.

- LEGEND
- DENOTES SURVEY MONUMENT FOUND
 - DENOTES SURVEY MONUMENT SET
 - SIB DENOTES STANDARD IRON BAR
 - IB DENOTES IRON BAR
 - SSIB DENOTES SHORT STANDARD IRON BAR
 - 1188 DENOTES C.A. SEXTON, O.L.S.
 - P DENOTES PLAN 43R-15634
 - P1 DENOTES PLAN 43M-814

SURVEYOR'S CERTIFICATE

- I CERTIFY THAT
- THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT AND THE LAND TITLES ACT AND THE REGULATIONS MADE THEREUNDER;
 - THE SURVEY WAS COMPLETED ON THE 12th DAY OF JULY, 1993.

Aug 26/93
DATE

T.S. FLUKE
T.S. FLUKE
ONTARIO LAND SURVEYOR

DRAWN BY: B. CONNOY	JOB No. 93-9402
CHECKED BY: T.S. FLUKE	
SEXTON McKay LIMITED - ONTARIO LAND SURVEYORS 12 CENTRE STREET THORNHILL, ONT. L4J-1E9 Tel:(416)889-9103 Fax:(416)889-8941	

20024



Transfer/Deed of Land

Form 1 — Land Registration Reform Act, 1984

DYE & DURHAM CO. LIMITED
Form No. 870

A

FOR OFFICE USE ONLY 1879232 Plan-11 43M-814 MAY 19 1984 ASS. DEP. LAND REGISTRATION CERTIFICATE OF REGISTRY PEEL RD 43 BURLINGTON New Property Identifiers Executions Additional: See Schedule ☐		(1) Registry ☐ Land Titles ☒	(2) Page 1 of 3 pages ☒
		(3) Property Identifier(s) Block Property	Additional: See Schedule ☐
		(4) Consideration imposed as a condition of development approval Two Dollars \$2.00	
		(5) Description This is a: Property Division ☐ Property Consolidation ☐ Part of Parcel Plan-1 Section 43M-814 being parts of Lots 8, 9, 10, 11, 12 and 13 and Block 26, Registered Plan 43M-814 designated as Parts 1 to 7 inclusive on Plan 43R-15634 in the City of Mississauga, in the Regional Municipality of Peel	
(6) This Document Contains (a) ☒ New Easement ☒ Plan ☒ (b) Schedule for: Description ☐ Additional Parties ☐ Other ☒	(7) Interest/Estate Transferred ☒ Fee ☒ EASEMENT		
(8) Transferor(s) The transferor hereby transfers the land to the transferee and certifies that the transferor is at least 18 years of age and that Name(s) UNITED LANDS CORPORATION LIMITED Signature(s) David Welton Vice-President Date of Signature Y M D 1987 07 28			
(9) Spouse(s) of Transferor(s) I hereby consent to this transaction Name(s) Signature(s) Date of Signature Y M D			
(10) Transferor(s) Address for Service 2275 Speakman Drive, Mississauga, Ontario, L5K 1B1			
(11) Transferee(s) THE CORPORATION OF THE CITY OF MISSISSAUGA Date of Birth Y M D			
(12) Transferee(s) Address for Service 300 City Centre Drive, Mississauga, Ontario, L5B 3C1			
(13) Transferor(s) The transferor verifies that to the best of the transferor's knowledge and belief, this transfer does not contravene section 49 of the Planning Act, 1983. Signature Date of Signature Y M D Signature Date of Signature Y M D Signature Date of Signature Y M D Name and Address of Solicitor Signature			
(14) Solicitor for Transferee(s) I have investigated the title to this land and to abutting land where relevant and I am satisfied that the title records reveal no contravention as set out in subclause 49 (21a) (c) (ii) of the Planning Act, 1983 and that to the best of my knowledge and belief this transfer does not contravene section 49 of the Planning Act 1983. I act independently of the solicitor for the transferor(s) and I am an Ontario solicitor in good standing. Name and Address of Solicitor Signature Date of Signature Y M D			
(15) Assessment Roll Number of Property		Cty. Mun. Map Sub. Par.	not assigned
(16) Municipal Address of Property		(17) Document Prepared by: WOOLLEY, DALE & DINGWALL BARRISTERS & SOLICITORS BOX 65 • TORONTO DOMINION CENTRE TORONTO, CANADA M5K 1E7 ATTENTION: J. David McPhail	
not assigned		FOR OFFICE USE ONLY	
		Fees and Tax	
		Registration Fee	20.00
		Land Transfer Tax	105.00
		Total	20.00

Additional Property Identifier(s) and/or Other Information

CATCHBASINS SWALES AND OPEN WATERCOURSES (basic form)

THE TRANSFEROR hereby transfers to the Transferee(s), the right, interest and easement on, over, under and through the lands of the Transferor, hereinbefore described as the servient tenement, for the following purposes, namely, to construct, install, operate, maintain, inspect, alter, remove, replace, reconstruct, enlarge and repair catchbasins, leads, drainage, swales and open watercourses, and appurtenances thereto, hereinafter referred to as the "works";

AND for every such purpose and for all purposes necessary or incidental to the exercise of the rights hereby created, the Transferee(s) shall have access to the servient tenement at all times by its or their servants, agents, contractors and its or their vehicles, supplies and equipment, as appurtenant to the dominant tenement of the Transferee(s), consisting in the system of pipes of the Transferee(s), situate in the City of Mississauga in the Regional Municipality of Peel together with the buildings and plants of the Transferee(s) situate on land owned by the Transferee(s) and including in part the public highways proximate thereto and vested in the Transferee(s).

The Transferor, for itself, its successors and assigns, covenants with the Transferee(s), its or their successors and assigns, to remove from and keep the said lands free and clear of any trees, buildings, structures or obstructions; to use the said land only as a lawn, garden, flower bed, walkway, roadway, driveway or parking area, none of which shall be paved with a hard concrete surface; not to deposit on or remove any fill from the said land except as may be approved in writing by the Transferee(s) and not to do or suffer to be done any other thing which might injure or damage the said works.

The Transferor, for itself, its successors and assigns, covenants with the Transferee(s), its or their successors and assigns, that the Transferee(s) shall have the right to enter upon the servient tenement and to remove any and all trees, buildings, structures or obstructions, concrete pavement or any unauthorized fill or any other thing which might injure or damage the said sewers or drains.

NOTWITHSTANDING any rule of law or equity, any part of the works consisting of fixtures, equipment and structures and appurtenances thereto, located upon the servient tenement pursuant to this easement, shall be the property of the Transferee(s), eventhough the same may have become annexed or affixed to the servient tenement.

Form 1 - Land Transfer Tax Act
Affidavit of Residence and of Value of the Consideration
Refer to all instructions on reverse side.

DYE & DURHAM CO. LIMITED
Form No. 500
(Amended Aug. 1, 1988)

3

IN THE MATTER OF THE CONVEYANCE OF (insert brief description of land) Parts of Lots 8, 9, 10, 11, 12 and 13 and Block 26, Registered Plan 43M-814, in the City of Mississauga, in the Regional Municipality of Peel
BY (print names of all transferors in full) UNITED LANDS CORPORATION LIMITED

TO (see instruction 1 and print names of all transferees in full) THE CORPORATION OF THE CITY OF MISSISSAUGA

I, (see instruction 2 and print name(s) in full) JOSEPHINE A. MATERA, of the City of Toronto, in the Municipality of Metropolitan Toronto

MAKE OATH AND SAY THAT:

1. I am (place a clear mark within the square opposite that one of the following paragraphs that describes the capacity of the deponent(s)): (see instruction 2)

- ☐ (a) A person in trust for whom the land conveyed in the above described conveyance is being conveyed;
☐ (b) A trustee named in the above described conveyance to whom the land is being conveyed;
☐ (c) A transferee named in the above described conveyance;
☒ (d) The authorized agent or solicitor acting in this transaction for (insert name(s) of principal(s)) THE CORPORATION OF THE CITY OF MISSISSAUGA

☐ (e) The President, Vice-President, Manager, Secretary, Director, or Treasurer authorized to act for (insert name(s) of corporation(s)) XXXXXXX described in paragraph(s) (a), (b), (c) above; (strike out references to inapplicable paragraphs)

☐ (f) A transferee described in paragraph () (insert only one of paragraph (a), (b) or (c) above, as applicable) and am making this affidavit on my own behalf and on behalf of (insert name of spouse) XXXXXXX who is my spouse described in paragraph () (insert only one of paragraph (a), (b) or (c) above, as applicable) and as such, I have personal knowledge of the facts herein deposed to.

2. (To be completed where the value of the consideration for the conveyance exceeds \$250,000).

- I have read and considered the definition of "single family residence" set out in clause 1(1)(j) of the Act. The land conveyed in the above described conveyance
- ☐ contains at least one and not more than two single family residences. Note: Clause 2(1) (d) imposes an additional tax at the rate of one-half of one per cent upon the value of consideration in excess of \$250,000 where the conveyance contains at least one and not more than two single family residences.
☐ does not contain a single family residence.
☐ contains more than two single family residences. (see instruction 3)

3. I have read and considered the definitions of "non-resident corporation" and "non-resident person" set out respectively in clauses 1(1)(f) and (g) of the Act and each of the following persons to whom or in trust for whom the land is being conveyed in the above described conveyance is a "non-resident corporation" or a "non-resident person" as set out in the Act. (see instructions 4 and 5) none

4. THE TOTAL CONSIDERATION FOR THIS TRANSACTION IS ALLOCATED AS FOLLOWS:

- | | | |
|---|---------|---------|
| (a) Monies paid or to be paid in cash | \$ 2.00 | |
| (b) Mortgages (i) Assumed (show principal and interest to be credited against purchase price) | \$ nil | |
| (b) Mortgages (ii) Given back to vendor | \$ nil | |
| (c) Property transferred in exchange (detail below) | \$ nil | |
| (d) Securities transferred to the value of (detail below) | \$ nil | |
| (e) Liens, legacies, annuities and maintenance charges to which transfer is subject | \$ nil | |
| (f) Other valuable consideration subject to land transfer tax (detail below) | \$ nil | |
| (g) VALUE OF LAND, BUILDING, FIXTURES AND GOODWILL SUBJECT TO LAND TRANSFER TAX (Total of (a) to (f)) | \$ 2.00 | \$ 2.00 |
| (h) VALUE OF ALL CHATTELS - Items of tangible personal property (Retail Sales Tax is payable on the value of all chattels unless exempt under the provisions of the "Retail Sales Tax Act", R.S.O. 1980, c.454, as amended) | \$ nil | |
| (i) Other consideration for transaction not included in (g) or (h) above | \$ nil | |
| (j) TOTAL CONSIDERATION | \$ 2.00 | |

All Blanks
Must Be
Filled In.
Insert "Nil"
Where
Applicable.

5. If consideration is nominal, describe relationship between transferor and transferee and state purpose of conveyance. (see instruction 6) n/a

6. If the consideration is nominal, is the land subject to any encumbrance? no

7. Other remarks and explanations, if necessary. gratuitous conveyance to municipality pursuant to subdivision agreement

Sworn before me at the City of Mississauga
in the Regional Municipality of Peel
this 7th day of March 1988

Andrew Gomes
A Commissioner for taking Affidavits, etc.

ANDREW GOMES, a Commissioner, etc., Judicial District of Peel, for the Corporation of the City of Mississauga for work in connection with the

1988
Lapsed March 21, 1989
Property Information Record

Josephine A. Matera
signature(s)

A. Describe nature of instrument: Transfer of Easement

B. (i) Address of property being conveyed (if available) not assigned

(ii) Assessment Roll No. (if available) not assigned

C. Mailing address(es) for future Notices of Assessment under the Assessment Act for property being conveyed (see instruction 7)

300 City Centre Drive, Mississauga, Ontario L5B 3C1

D. (i) Registration number for last conveyance of property being conveyed (if available)

(ii) Legal description of property conveyed: Same as in D.(i) above. Yes ☐ No ☐ Not known ☐

E. Name(s) and address(es) of each transferee's solicitor

BRUCE E. THOM, Q.C., City Solicitor
Legal Department
300 City Centre Drive
Mississauga, Ontario L5B 3C1
JAM/lcs (43M-814)

For Land Registry Office use only

REGISTRATION NO.

Land Registry Office No.

Registration Date

Appendix 'B'
Storm Drainage Plans

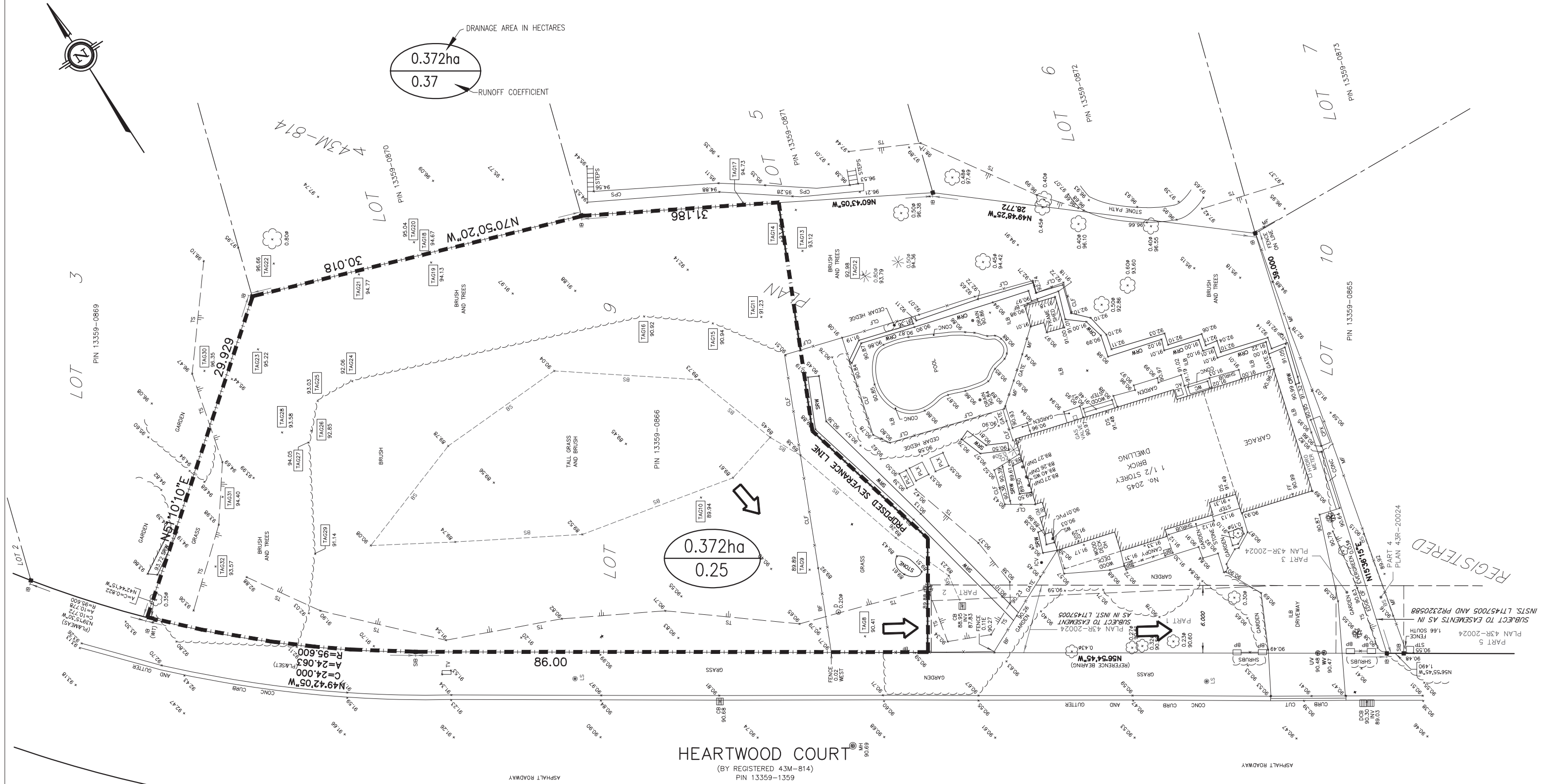
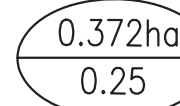
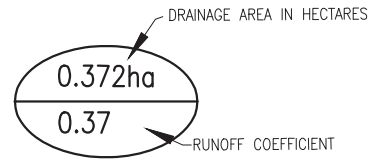
PRE-DEVELOPMENT DRAINAGE PLAN

LEGEND

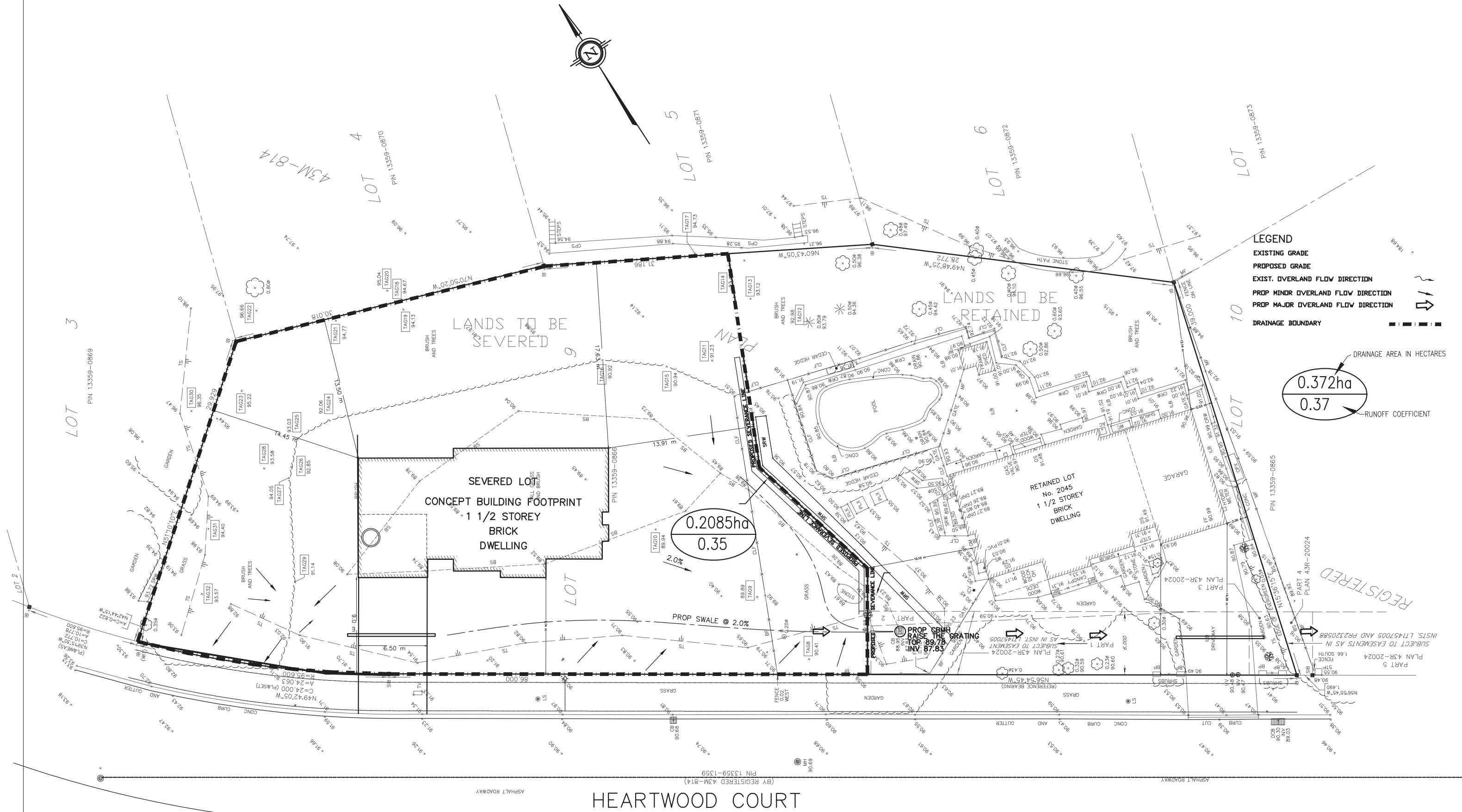
EXISTING GRADE

PROP MAJOR OVERLAND FLOW DIRECTION

DRAINAGE BOUNDARY



POST-DEVELOPMENT DRAINAGE PLAN



Appendix 'C'
Percolation Rate Test

PREMIER ENGINEERING SOLUTIONS

CIVIL ENGINEERS AND CAD SPECIALIST

3294 ALPACA AVENUE, MISSISSAUGA, ONTARIO L5M 7V3

TELEPHONE: (905) 817-1294

E-mail: mfi@p-engineeringsolutions.com

August 20, 2021

**Re: Percolation Test Determination of Soil in Test Pit at 2045 Heartwood Court,
Mississauga, Ontario**

On the request of the client we visited the site, 2045 Heartwood Court, Mississauga to carry a percolation test, we visited the site on September 26, 2021.

Test Procedure

The trench was excavated before the percolation test team arrival. The top 2m soil found to be hard shale. Below that depth, it was fine sand. A 18 inches deep pit was dug on the bottom of the trench. No free water was found in the test pit.

After digging was completed, the test pit was then partially filled with potable water from buckets. The drop of the water levels in the pit were measured at select time intervals and recorded, a total drop of 12" in 30 minutes was observed. The test was stopped when three consecutive drops in water levels monitored over consecutive 10 minute.

Using the rates of drops of the water levels, the rate of percolation (T) was calculated for the test pit. The permeability of the soil around and below the test pit was extrapolated.

From the above measurements of the drops of water levels (30cm in 30 minutes), we calculated the T-Time to be approximately 1 min/cm and a permeability of 600mm/hour. We will apply a factor of safety of 3, thus rate of percolation comes to 3 min/cm and a permeability of 200mm/hour for the soil in Test Pit. Thus for the design of infiltration trench/Soakaway pit we will adopt permeability rate of 200mm/hour safely.

We trust that this report meets your requirements. Please call the undersigned if you have any questions.

Report prepared by,

M Furqan Ismail, P.Eng.



Appendix 'D'
Storage Calculations

APPENDIX D
STORAGE CALCATIONS
2045 HEARTWOOD COURT, MISSISSAUGA

Formula Used for Runoff Calculations:	Modified Rational Formula
Runoff Flow=	2.78CIA
Return Period	5 Year
Rainfall Intensity:	$820/(t_c + 4.6)^{0.78}$
Area to be Controlled (50% of the Roof Area)	0.0263 Hectares
Composite Runoff Coefficient=	0.90
Time of concentration =	15.000
Infiltration Rate in the Proposed Soakaway	0.14 Liters/sec

Time (min.)	Rainfall Intensity mm/hr	Storm Runoff (l/s)	Runoff Volume (m ³)	Release Volume (m ³)	Storage Volume (m ³)
5	140.49	9.24	2.77	0.04	2.73
10	101.30	6.67	4.00	0.08	3.92
15	80.51	5.30	4.77	0.13	4.64
20	67.43	4.44	5.32	0.17	5.16
25	58.37	3.84	5.76	0.21	5.55
30	51.68	3.40	6.12	0.25	5.87
35	46.52	3.06	6.43	0.29	6.13
40	42.40	2.79	6.70	0.34	6.36
45	39.02	2.57	6.93	0.38	6.56
50	36.21	2.38	7.15	0.42	6.73
55	33.82	2.23	7.34	0.46	6.88
60	31.76	2.09	7.52	0.50	7.02
65	29.96	1.97	7.69	0.55	7.14
70	28.38	1.87	7.84	0.59	7.26
75	26.98	1.78	7.99	0.63	7.36
80	25.73	1.69	8.13	0.67	7.46
85	24.60	1.62	8.26	0.71	7.54
90	23.58	1.55	8.38	0.76	7.62
95	22.66	1.49	8.50	0.80	7.70
100	21.81	1.43	8.61	0.84	7.77
105	21.03	1.38	8.72	0.88	7.83
110	20.31	1.34	8.82	0.92	7.90
115	19.64	1.29	8.92	0.97	7.95
120	19.02	1.25	9.01	1.01	8.01
125	18.45	1.21	9.11	1.05	8.06

130	17.91	1.18	9.19	1.09	8.10
135	17.41	1.15	9.28	1.13	8.15
140	16.94	1.11	9.36	1.18	8.19
145	16.50	1.09	9.44	1.22	8.23
150	16.08	1.06	9.52	1.26	8.26
155	15.68	1.03	9.60	1.30	8.30
160	15.31	1.01	9.67	1.34	8.33
165	14.96	0.98	9.74	1.39	8.36
170	14.62	0.96	9.81	1.43	8.39
175	14.30	0.94	9.88	1.47	8.41
180	14.00	0.92	9.95	1.51	8.44
185	13.71	0.90	10.02	1.55	8.46
190	13.44	0.88	10.08	1.60	8.48
195	13.17	0.87	10.14	1.64	8.50
200	12.92	0.85	10.20	1.68	8.52
205	12.68	0.83	10.26	1.72	8.54
210	12.45	0.82	10.32	1.76	8.56
215	12.23	0.80	10.38	1.81	8.57
220	12.01	0.79	10.44	1.85	8.59
225	11.81	0.78	10.49	1.89	8.60
230	11.61	0.76	10.55	1.93	8.61
235	11.42	0.75	10.60	1.97	8.63
240	11.24	0.74	10.65	2.02	8.64
245	11.07	0.73	10.70	2.06	8.65
250	10.90	0.72	10.75	2.10	8.65
255	10.73	0.71	10.80	2.14	8.66
260	10.57	0.70	10.85	2.18	8.67
265	10.42	0.69	10.90	2.23	8.68
270	10.27	0.68	10.95	2.27	8.68
275	10.13	0.67	11.00	2.31	8.69
280	9.99	0.66	11.04	2.35	8.69
285	9.85	0.65	11.09	2.39	8.69
290	9.72	0.64	11.13	2.44	8.70
295	9.60	0.63	11.18	2.48	8.70
300	9.47	0.62	11.22	2.52	8.70
305	9.35	0.62	11.26	2.56	8.70
310	9.24	0.61	11.31	2.60	8.70
315	9.12	0.60	11.35	2.65	8.70
320	9.01	0.59	11.39	2.69	8.70
325	8.91	0.59	11.43	2.73	8.70
330	8.80	0.58	11.47	2.77	8.70
335	8.70	0.57	11.51	2.81	8.70
340	8.60	0.57	11.55	2.86	8.69
345	8.51	0.56	11.59	2.90	8.69
350	8.41	0.55	11.63	2.94	8.69
355	8.32	0.55	11.67	2.98	8.68
360	8.23	0.54	11.70	3.02	8.68

365	8.15	0.54	11.74	3.07	8.67
370	8.06	0.53	11.78	3.11	8.67
375	7.98	0.53	11.81	3.15	8.66
380	7.90	0.52	11.85	3.19	8.66
385	7.82	0.51	11.88	3.23	8.65
390	7.74	0.51	11.92	3.28	8.64
395	7.67	0.50	11.95	3.32	8.64
400	7.59	0.50	11.99	3.36	8.63
405	7.52	0.49	12.02	3.40	8.62
410	7.45	0.49	12.06	3.44	8.61
415	7.38	0.49	12.09	3.49	8.60
420	7.31	0.48	12.12	3.53	8.60
425	7.24	0.48	12.16	3.57	8.59
430	7.18	0.47	12.19	3.61	8.58
435	7.12	0.47	12.22	3.65	8.57
440	7.05	0.46	12.25	3.70	8.56
445	6.99	0.46	12.28	3.74	8.55
450	6.93	0.46	12.32	3.78	8.54
455	6.87	0.45	12.35	3.82	8.53
460	6.82	0.45	12.38	3.86	8.51
465	6.76	0.44	12.41	3.91	8.50
470	6.70	0.44	12.44	3.95	8.49
475	6.65	0.44	12.47	3.99	8.48
480	6.59	0.43	12.50	4.03	8.47
485	6.54	0.43	12.53	4.07	8.45
490	6.49	0.43	12.56	4.12	8.44
495	6.44	0.42	12.59	4.16	8.43
500	6.39	0.42	12.61	4.20	8.41
505	6.34	0.42	12.64	4.24	8.40
510	6.29	0.41	12.67	4.28	8.39
515	6.25	0.41	12.70	4.33	8.37
520	6.20	0.41	12.73	4.37	8.36
525	6.15	0.40	12.76	4.41	8.35
530	6.11	0.40	12.78	4.45	8.33
535	6.06	0.40	12.81	4.49	8.32
540	6.02	0.40	12.84	4.54	8.30
545	5.98	0.39	12.86	4.58	8.29
550	5.94	0.39	12.89	4.62	8.27
555	5.89	0.39	12.92	4.66	8.25
560	5.85	0.39	12.94	4.70	8.24
565	5.81	0.38	12.97	4.75	8.22
570	5.77	0.38	13.00	4.79	8.21
575	5.74	0.38	13.02	4.83	8.19
580	5.70	0.37	13.05	4.87	8.17
585	5.66	0.37	13.07	4.91	8.16
590	5.62	0.37	13.10	4.96	8.14
595	5.59	0.37	13.12	5.00	8.12

600	5.55	0.37	13.15	5.04	8.11
605	5.51	0.36	13.17	5.08	8.09
610	5.48	0.36	13.20	5.12	8.07
615	5.44	0.36	13.22	5.17	8.05
620	5.41	0.36	13.24	5.21	8.04
625	5.38	0.35	13.27	5.25	8.02
630	5.34	0.35	13.29	5.29	8.00
635	5.31	0.35	13.32	5.33	7.98
640	5.28	0.35	13.34	5.38	7.96
645	5.25	0.35	13.36	5.42	7.95
650	5.22	0.34	13.39	5.46	7.93
655	5.19	0.34	13.41	5.50	7.91
660	5.15	0.34	13.43	5.54	7.89
665	5.12	0.34	13.46	5.59	7.87
670	5.10	0.34	13.48	5.63	7.85
675	5.07	0.33	13.50	5.67	7.83
680	5.04	0.33	13.52	5.71	7.81
685	5.01	0.33	13.55	5.75	7.79
690	4.98	0.33	13.57	5.80	7.77
695	4.95	0.33	13.59	5.84	7.75
700	4.93	0.32	13.61	5.88	7.73
705	4.90	0.32	13.63	5.92	7.71
710	4.87	0.32	13.66	5.96	7.69
715	4.84	0.32	13.68	6.01	7.67
720	4.82	0.32	13.70	6.05	7.65
725	4.79	0.32	13.72	6.09	7.63
730	4.77	0.31	13.74	6.13	7.61
735	4.74	0.31	13.76	6.17	7.59
740	4.72	0.31	13.78	6.22	7.57
745	4.69	0.31	13.80	6.26	7.55
750	4.67	0.31	13.82	6.30	7.52
755	4.64	0.31	13.85	6.34	7.50
760	4.62	0.30	13.87	6.38	7.48
765	4.60	0.30	13.89	6.43	7.46
770	4.57	0.30	13.91	6.47	7.44
775	4.55	0.30	13.93	6.51	7.42
780	4.53	0.30	13.95	6.55	7.39
785	4.51	0.30	13.97	6.59	7.37
790	4.48	0.30	13.99	6.64	7.35
795	4.46	0.29	14.01	6.68	7.33
800	4.44	0.29	14.03	6.72	7.31
805	4.42	0.29	14.05	6.76	7.28
810	4.40	0.29	14.07	6.80	7.26
815	4.38	0.29	14.08	6.85	7.24
820	4.36	0.29	14.10	6.89	7.22
825	4.34	0.29	14.12	6.93	7.19
830	4.32	0.28	14.14	6.97	7.17

835	4.30	0.28	14.16	7.01	7.15
840	4.28	0.28	14.18	7.06	7.12
845	4.26	0.28	14.20	7.10	7.10
850	4.24	0.28	14.22	7.14	7.08
855	4.22	0.28	14.24	7.18	7.06
860	4.20	0.28	14.26	7.22	7.03
865	4.18	0.28	14.27	7.27	7.01
870	4.16	0.27	14.29	7.31	6.98
875	4.14	0.27	14.31	7.35	6.96
880	4.12	0.27	14.33	7.39	6.94
885	4.11	0.27	14.35	7.43	6.91
890	4.09	0.27	14.37	7.48	6.89
895	4.07	0.27	14.38	7.52	6.87
900	4.05	0.27	14.40	7.56	6.84
905	4.04	0.27	14.42	7.60	6.82
910	4.02	0.26	14.44	7.64	6.79
915	4.00	0.26	14.46	7.69	6.77
920	3.98	0.26	14.47	7.73	6.74
925	3.97	0.26	14.49	7.77	6.72
930	3.95	0.26	14.51	7.81	6.70
935	3.93	0.26	14.53	7.85	6.67
940	3.92	0.26	14.54	7.90	6.65
945	3.90	0.26	14.56	7.94	6.62
950	3.89	0.26	14.58	7.98	6.60
955	3.87	0.25	14.59	8.02	6.57
960	3.85	0.25	14.61	8.06	6.55
965	3.84	0.25	14.63	8.11	6.52
970	3.82	0.25	14.65	8.15	6.50
975	3.81	0.25	14.66	8.19	6.47
980	3.79	0.25	14.68	8.23	6.45
985	3.78	0.25	14.70	8.27	6.42
990	3.76	0.25	14.71	8.32	6.40
995	3.75	0.25	14.73	8.36	6.37
1000	3.73	0.25	14.75	8.40	6.35
1005	3.72	0.24	14.76	8.44	6.32
1010	3.71	0.24	14.78	8.48	6.29
1015	3.69	0.24	14.79	8.53	6.27
1020	3.68	0.24	14.81	8.57	6.24
1025	3.66	0.24	14.83	8.61	6.22
1030	3.65	0.24	14.84	8.65	6.19
1035	3.64	0.24	14.86	8.69	6.17
1040	3.62	0.24	14.88	8.74	6.14
1045	3.61	0.24	14.89	8.78	6.11
1050	3.60	0.24	14.91	8.82	6.09
1055	3.58	0.24	14.92	8.86	6.06
1060	3.57	0.23	14.94	8.90	6.03
1065	3.56	0.23	14.95	8.95	6.01

1070	3.54	0.23	14.97	8.99	5.98
1075	3.53	0.23	14.99	9.03	5.96
1080	3.52	0.23	15.00	9.07	5.93
1085	3.51	0.23	15.02	9.11	5.90
1090	3.49	0.23	15.03	9.16	5.88
1095	3.48	0.23	15.05	9.20	5.85
1100	3.47	0.23	15.06	9.24	5.82
1105	3.46	0.23	15.08	9.28	5.80
1110	3.44	0.23	15.09	9.32	5.77
1115	3.43	0.23	15.11	9.37	5.74
1120	3.42	0.23	15.12	9.41	5.72
1125	3.41	0.22	15.14	9.45	5.69
1130	3.40	0.22	15.15	9.49	5.66
1135	3.38	0.22	15.17	9.53	5.63
1140	3.37	0.22	15.18	9.58	5.61
1145	3.36	0.22	15.20	9.62	5.58
1150	3.35	0.22	15.21	9.66	5.55
1155	3.34	0.22	15.23	9.70	5.53
1160	3.33	0.22	15.24	9.74	5.50
1165	3.32	0.22	15.26	9.79	5.47
1170	3.31	0.22	15.27	9.83	5.44
1175	3.30	0.22	15.29	9.87	5.42
1180	3.28	0.22	15.30	9.91	5.39
1185	3.27	0.22	15.31	9.95	5.36
1190	3.26	0.21	15.33	10.00	5.33
1195	3.25	0.21	15.34	10.04	5.31
1200	3.24	0.21	15.36	10.08	5.28
1205	3.23	0.21	15.37	10.12	5.25
1210	3.22	0.21	15.39	10.16	5.22
1215	3.21	0.21	15.40	10.21	5.19
1220	3.20	0.21	15.41	10.25	5.17
1225	3.19	0.21	15.43	10.29	5.14
1230	3.18	0.21	15.44	10.33	5.11
1235	3.17	0.21	15.46	10.37	5.08
1240	3.16	0.21	15.47	10.42	5.05
1245	3.15	0.21	15.48	10.46	5.03
1250	3.14	0.21	15.50	10.50	5.00
1255	3.13	0.21	15.51	10.54	4.97
1260	3.12	0.21	15.53	10.58	4.94
1265	3.11	0.20	15.54	10.63	4.91
1270	3.10	0.20	15.55	10.67	4.89
1275	3.09	0.20	15.57	10.71	4.86
1280	3.08	0.20	15.58	10.75	4.83
1285	3.07	0.20	15.59	10.79	4.80
1290	3.06	0.20	15.61	10.84	4.77
1295	3.06	0.20	15.62	10.88	4.74
1300	3.05	0.20	15.63	10.92	4.71

1305	3.04	0.20	15.65	10.96	4.69
1310	3.03	0.20	15.66	11.00	4.66
1315	3.02	0.20	15.67	11.05	4.63
1320	3.01	0.20	15.69	11.09	4.60
1325	3.00	0.20	15.70	11.13	4.57
1330	2.99	0.20	15.71	11.17	4.54
1335	2.98	0.20	15.73	11.21	4.51
1340	2.98	0.20	15.74	11.26	4.48
1345	2.97	0.20	15.75	11.30	4.46
1350	2.96	0.19	15.77	11.34	4.43
1355	2.95	0.19	15.78	11.38	4.40
1360	2.94	0.19	15.79	11.42	4.37
1365	2.93	0.19	15.81	11.47	4.34
1370	2.92	0.19	15.82	11.51	4.31
1375	2.92	0.19	15.83	11.55	4.28
1380	2.91	0.19	15.84	11.59	4.25
1385	2.90	0.19	15.86	11.63	4.22
1390	2.89	0.19	15.87	11.68	4.19
1395	2.88	0.19	15.88	11.72	4.16
1400	2.88	0.19	15.89	11.76	4.13
1405	2.87	0.19	15.91	11.80	4.11
1410	2.86	0.19	15.92	11.84	4.08
1415	2.85	0.19	15.93	11.89	4.05
1420	2.84	0.19	15.94	11.93	4.02
1425	2.84	0.19	15.96	11.97	3.99
1430	2.83	0.19	15.97	12.01	3.96
1435	2.82	0.19	15.98	12.05	3.93
1440	2.81	0.19	15.99	12.10	3.90
1445	2.81	0.18	16.01	12.14	3.87
1450	2.80	0.18	16.02	12.18	3.84
1455	2.79	0.18	16.03	12.22	3.81
1460	2.78	0.18	16.04	12.26	3.78
1465	2.78	0.18	16.06	12.31	3.75
1470	2.77	0.18	16.07	12.35	3.72
1475	2.76	0.18	16.08	12.39	3.69
1480	2.75	0.18	16.09	12.43	3.66
1485	2.75	0.18	16.10	12.47	3.63
1490	2.74	0.18	16.12	12.52	3.60
1495	2.73	0.18	16.13	12.56	3.57
1500	2.73	0.18	16.14	12.60	3.54
1505	2.72	0.18	16.15	12.64	3.51
1510	2.71	0.18	16.16	12.68	3.48
1515	2.70	0.18	16.18	12.73	3.45
1520	2.70	0.18	16.19	12.77	3.42
1525	2.69	0.18	16.20	12.81	3.39
1530	2.68	0.18	16.21	12.85	3.36
1535	2.68	0.18	16.22	12.89	3.33

1540	2.67	0.18	16.24	12.94	3.30
1545	2.66	0.18	16.25	12.98	3.27
1550	2.66	0.17	16.26	13.02	3.24
1555	2.65	0.17	16.27	13.06	3.21
1560	2.64	0.17	16.28	13.10	3.18
1565	2.64	0.17	16.29	13.15	3.15
1570	2.63	0.17	16.30	13.19	3.12
1575	2.62	0.17	16.32	13.23	3.09
1580	2.62	0.17	16.33	13.27	3.06
1585	2.61	0.17	16.34	13.31	3.03
1590	2.60	0.17	16.35	13.36	2.99
1595	2.60	0.17	16.36	13.40	2.96
1600	2.59	0.17	16.37	13.44	2.93
1605	2.59	0.17	16.38	13.48	2.90
1610	2.58	0.17	16.40	13.52	2.87
1615	2.57	0.17	16.41	13.57	2.84
1620	2.57	0.17	16.42	13.61	2.81
1625	2.56	0.17	16.43	13.65	2.78
1630	2.55	0.17	16.44	13.69	2.75
1635	2.55	0.17	16.45	13.73	2.72
1640	2.54	0.17	16.46	13.78	2.69
1645	2.54	0.17	16.47	13.82	2.66
1650	2.53	0.17	16.49	13.86	2.63
1655	2.52	0.17	16.50	13.90	2.59
1660	2.52	0.17	16.51	13.94	2.56
1665	2.51	0.17	16.52	13.99	2.53
1670	2.51	0.16	16.53	14.03	2.50
1675	2.50	0.16	16.54	14.07	2.47
1680	2.50	0.16	16.55	14.11	2.44
1685	2.49	0.16	16.56	14.15	2.41
1690	2.48	0.16	16.57	14.20	2.38
1695	2.48	0.16	16.58	14.24	2.35
1700	2.47	0.16	16.60	14.28	2.32
1705	2.47	0.16	16.61	14.32	2.28
1710	2.46	0.16	16.62	14.36	2.25
1715	2.46	0.16	16.63	14.41	2.22
1720	2.45	0.16	16.64	14.45	2.19
1725	2.44	0.16	16.65	14.49	2.16
1730	2.44	0.16	16.66	14.53	2.13
1735	2.43	0.16	16.67	14.57	2.10
1740	2.43	0.16	16.68	14.62	2.07
1745	2.42	0.16	16.69	14.66	2.03
1750	2.42	0.16	16.70	14.70	2.00
1755	2.41	0.16	16.71	14.74	1.97
1760	2.41	0.16	16.72	14.78	1.94
1765	2.40	0.16	16.73	14.83	1.91
1770	2.40	0.16	16.74	14.87	1.88

1775	2.39	0.16	16.76	14.91	1.85
1780	2.39	0.16	16.77	14.95	1.81
1785	2.38	0.16	16.78	14.99	1.78
1790	2.38	0.16	16.79	15.04	1.75
1795	2.37	0.16	16.80	15.08	1.72
1800	2.37	0.16	16.81	15.12	1.69
1805	2.36	0.16	16.82	15.16	1.66
1810	2.35	0.15	16.83	15.20	1.62
1815	2.35	0.15	16.84	15.25	1.59
1820	2.34	0.15	16.85	15.29	1.56
1825	2.34	0.15	16.86	15.33	1.53
1830	2.33	0.15	16.87	15.37	1.50
1835	2.33	0.15	16.88	15.41	1.47
1840	2.32	0.15	16.89	15.46	1.43
1845	2.32	0.15	16.90	15.50	1.40
1850	2.32	0.15	16.91	15.54	1.37
1855	2.31	0.15	16.92	15.58	1.34
1860	2.31	0.15	16.93	15.62	1.31
1865	2.30	0.15	16.94	15.67	1.27
1870	2.30	0.15	16.95	15.71	1.24
1875	2.29	0.15	16.96	15.75	1.21
1880	2.29	0.15	16.97	15.79	1.18
1885	2.28	0.15	16.98	15.83	1.15
1890	2.28	0.15	16.99	15.88	1.11
1895	2.27	0.15	17.00	15.92	1.08
1900	2.27	0.15	17.01	15.96	1.05
1905	2.26	0.15	17.02	16.00	1.02
1910	2.26	0.15	17.03	16.04	0.99
1915	2.25	0.15	17.04	16.09	0.95
1920	2.25	0.15	17.05	16.13	0.92
1925	2.24	0.15	17.06	16.17	0.89
1930	2.24	0.15	17.07	16.21	0.86
1935	2.24	0.15	17.08	16.25	0.83
1940	2.23	0.15	17.09	16.30	0.79
1945	2.23	0.15	17.10	16.34	0.76
1950	2.22	0.15	17.11	16.38	0.73
1955	2.22	0.15	17.12	16.42	0.70
1960	2.21	0.15	17.13	16.46	0.66
1965	2.21	0.15	17.14	16.51	0.63
1970	2.20	0.15	17.15	16.55	0.60
1975	2.20	0.14	17.16	16.59	0.57
1980	2.20	0.14	17.17	16.63	0.53
1985	2.19	0.14	17.18	16.67	0.50
1990	2.19	0.14	17.19	16.72	0.47
1995	2.18	0.14	17.20	16.76	0.44
2000	2.18	0.14	17.21	16.80	0.41
2005	2.17	0.14	17.21	16.84	0.37

2010	2.17	0.14	17.22	16.88	0.34
2015	2.17	0.14	17.23	16.93	0.31
2020	2.16	0.14	17.24	16.97	0.28
2025	2.16	0.14	17.25	17.01	0.24
2030	2.15	0.14	17.26	17.05	0.21
2035	2.15	0.14	17.27	17.09	0.18
2040	2.15	0.14	17.28	17.14	0.14
2045	2.14	0.14	17.29	17.18	0.11
2050	2.14	0.14	17.30	17.22	0.08
2055	2.13	0.14	17.31	17.26	0.05
2060	2.13	0.14	17.32	17.30	0.01
2065	2.13	0.14	17.33	17.35	-0.02

Appendix 'E'

Discharge to Storm Sewer Letter

PREMIER ENGINEERING SOLUTIONS

CIVIL ENGINEERS

3294 ALPACA AVENUE, MISSISSAUGA, ONTARIO CANADA L5M 7V3

TELEPHONE: (905) 817-1294

E-mail: mfi@p-engineeringsolutions.com

City of Mississauga
Transportation and Works Department
Environmental Services Section
201 City Centre Drive, 8th Floor
Mississauga, Ontario L5B 2T4

Subject: Discharge to Storm Sewer
Address: 2045 Heartwood Court, Mississauga, ON L5C 4P7
Property Owner/Company: Lisa Miron Ernesto Rambaldini
Development Application File No.: OZ 21-18 W7

As an authorized representative of the owner of the subject property as referenced above, I, {insert full name} of {insert legal corporate name of company}, am aware of the City of Mississauga ("City") [Storm Sewer Use By-law No. 0046-2022](#) and do commit to apply for and obtain a Temporary Storm Sewer Discharge Approval from the Transportation and Works Department, prior to any discharge from the subject property to the City's storm sewer system, if applicable.

Otherwise, if water and/or wastewater will be discharged to the Region of Peel's sanitary sewer system, then an application for such discharge will be made to the Region of Peel.

I acknowledge that the City requires a plan and supporting documentation to ensure that any discharge of groundwater and surface water to the storm sewer system will at all times comply with the City of Mississauga Storm Sewer Use By-law No. 0046-2022.

When details regarding discharge become available, then I, or my designate, will send an e-mail to env.inquiries@mississauga.ca with "Discharge Approval Request" in the subject line, and work with the Transportation and Works Department to acquire the correct approval prior to discharge. I understand that the discharge approval requires the collection and laboratory analysis of water quality samples and that it could take approximately one to two weeks to coordinate the approval and will therefore contact the addressee with sufficient lead time prior to any discharge.

I further acknowledge that I will need to provide a Dewatering Discharge Plan prior to approval of a Shoring Permit or prior to construction dewatering activities where water will be discharged to the City's storm sewer system.

I certify that I have authority to sign on behalf of the above-referenced company.

Signature:  _____ Title: Principal Engineer _____

Date: January 16, 2023 _____

PREMIER ENGINEERING SOLUTIONS

CIVIL ENGINEERS

3294 ALPACA AVENUE, MISSISSAUGA, ONTARIO CANADA L5M 7V3

TELEPHONE: (905) 817-1294

E-mail: mfi@p-engineeringsolutions.com

City of Mississauga
Transportation and Works Department
Environmental Services Section
201 City Centre Drive, 8th Floor
Mississauga, Ontario L5B 2T4

Subject: Discharge to Storm Sewer
Address: 2045 Heartwood Court, Mississauga, ON L5C 4P7
Property Owner/Company: Lisa Miron Ernesto Rambaldini
Development Application File No.: OZ 21-18 W7

As an authorized representative of the owner of the subject property as referenced above, I, Muhammad Ismail of Premier Engineering Solutions Inc., am aware of the City of Mississauga ("City") [Storm Sewer Use By-law No. 0046-2022](#) and do commit to apply for and obtain a Temporary Storm Sewer Discharge Approval from the Transportation and Works Department, prior to any discharge from the subject property to the City's storm sewer system, if applicable.

Otherwise, if water and/or wastewater will be discharged to the Region of Peel's sanitary sewer system, then an application for such discharge will be made to the Region of Peel.

I acknowledge that the City requires a plan and supporting documentation to ensure that any discharge of groundwater and surface water to the storm sewer system will at all times comply with the City of Mississauga Storm Sewer Use By-law No. 0046-2022.

When details regarding discharge become available, then I, or my designate, will send an e-mail to env.inquiries@mississauga.ca with "Discharge Approval Request" in the subject line, and work with the Transportation and Works Department to acquire the correct approval prior to discharge. I understand that the discharge approval requires the collection and laboratory analysis of water quality samples and that it could take approximately one to two weeks to coordinate the approval and will therefore contact the addressee with sufficient lead time prior to any discharge.

I further acknowledge that I will need to provide a Dewatering Discharge Plan prior to approval of a Shoring Permit or prior to construction dewatering activities where water will be discharged to the City's storm sewer system.

I certify that I have authority to sign on behalf of the above-referenced company.

Signature:  _____ Title: Principal Engineer _____

Date: January 16, 2023 _____



Transfer/Deed of Land

Form 1 — Land Registration Reform Act, 1984

DYE & DURHAM CO. LIMITED
Form No. 870

A

FOR OFFICE USE ONLY 1879232 Plan-11 43M-814 MAY 19 1984 ASS. DEP. LAND REGISTRATION CERTIFICATE OF REGISTRY PEEL RD 43 BURLINGTON New Property Identifiers Executions Additional: See Schedule ☐		(1) Registry ☐ Land Titles ☒	(2) Page 1 of 3 pages ☒
		(3) Property Identifier(s) Block Property	Additional: See Schedule ☐
		(4) Consideration imposed as a condition of development approval Two Dollars \$2.00	
		(5) Description This is a: Property Division ☐ Property Consolidation ☐ Part of Parcel Plan-1 Section 43M-814 being parts of Lots 8, 9, 10, 11, 12 and 13 and Block 26, Registered Plan 43M-814 designated as Parts 1 to 7 inclusive on Plan 43R-15634 in the City of Mississauga, in the Regional Municipality of Peel	
(6) This Document Contains (a) ☒ New Easement ☒ Plan ☒ (b) Schedule for: Description ☐ Additional Parties ☐ Other ☒	(7) Interest/Estate Transferred ☒ Fee ☒ EASEMENT		
(8) Transferor(s) The transferor hereby transfers the land to the transferee and certifies that the transferor is at least 18 years of age and that Name(s) UNITED LANDS CORPORATION LIMITED Signature(s) David Welton Vice-President Date of Signature 1987 07 28			
(9) Spouse(s) of Transferor(s) I hereby consent to this transaction Name(s) Signature(s) Date of Signature			
(10) Transferor(s) Address for Service 2275 Speakman Drive, Mississauga, Ontario, L5K 1B1			
(11) Transferee(s) THE CORPORATION OF THE CITY OF MISSISSAUGA Date of Birth			
(12) Transferee(s) Address for Service 300 City Centre Drive, Mississauga, Ontario, L5B 3C1			
(13) Transferor(s) The transferor verifies that to the best of the transferor's knowledge and belief, this transfer does not contravene section 49 of the Planning Act, 1983. Signature Date of Signature Signature Date of Signature Signature Date of Signature Name and Address of Solicitor Signature			
(14) Solicitor for Transferee(s) I have investigated the title to this land and to abutting land where relevant and I am satisfied that the title records reveal no contravention as set out in subclause 49 (21a) (c) (ii) of the Planning Act, 1983 and that to the best of my knowledge and belief this transfer does not contravene section 49 of the Planning Act 1983. I act independently of the solicitor for the transferor(s) and I am an Ontario solicitor in good standing. Name and Address of Solicitor Signature			
(15) Assessment Roll Number of Property		Cty. Mun. Map Sub. Par.	not assigned
(16) Municipal Address of Property		(17) Document Prepared by: WOOLLEY, DALE & DINGWALL BARRISTERS & SOLICITORS BOX 65 • TORONTO DOMINION CENTRE TORONTO, CANADA M5K 1E7 ATTENTION: J. David McPhail	
not assigned		FOR OFFICE USE ONLY	
		Fees and Tax	
		Registration Fee	20.00
		Land Transfer Tax	105.00
		Total	20.00

Additional Property Identifier(s) and/or Other Information

CATCHBASINS SWALES AND OPEN WATERCOURSES (basic form)

THE TRANSFEROR hereby transfers to the Transferee(s), the right, interest and easement on, over, under and through the lands of the Transferor, hereinbefore described as the servient tenement, for the following purposes, namely, to construct, install, operate, maintain, inspect, alter, remove, replace, reconstruct, enlarge and repair catchbasins, leads, drainage, swales and open watercourses, and appurtenances thereto, hereinafter referred to as the "works";

AND for every such purpose and for all purposes necessary or incidental to the exercise of the rights hereby created, the Transferee(s) shall have access to the servient tenement at all times by its or their servants, agents, contractors and its or their vehicles, supplies and equipment, as appurtenant to the dominant tenement of the Transferee(s), consisting in the system of pipes of the Transferee(s), situate in the City of Mississauga in the Regional Municipality of Peel together with the buildings and plants of the Transferee(s) situate on land owned by the Transferee(s) and including in part the public highways proximate thereto and vested in the Transferee(s).

The Transferor, for itself, its successors and assigns, covenants with the Transferee(s), its or their successors and assigns, to remove from and keep the said lands free and clear of any trees, buildings, structures or obstructions; to use the said land only as a lawn, garden, flower bed, walkway, roadway, driveway or parking area, none of which shall be paved with a hard concrete surface; not to deposit on or remove any fill from the said land except as may be approved in writing by the Transferee(s) and not to do or suffer to be done any other thing which might injure or damage the said works.

The Transferor, for itself, its successors and assigns, covenants with the Transferee(s), its or their successors and assigns, that the Transferee(s) shall have the right to enter upon the servient tenement and to remove any and all trees, buildings, structures or obstructions, concrete pavement or any unauthorized fill or any other thing which might injure or damage the said sewers or drains.

NOTWITHSTANDING any rule of law or equity, any part of the works consisting of fixtures, equipment and structures and appurtenances thereto, located upon the servient tenement pursuant to this easement, shall be the property of the Transferee(s), eventhough the same may have become annexed or affixed to the servient tenement.

Form 1 - Land Transfer Tax Act
Affidavit of Residence and of Value of the Consideration
Refer to all instructions on reverse side.

DYE & DURHAM CO. LIMITED
Form No. 500
(Amended Aug. 1, 1988)

3

IN THE MATTER OF THE CONVEYANCE OF (insert brief description of land) Parts of Lots 8, 9, 10, 11, 12 and 13 and Block 26, Registered Plan 43M-814, in the City of Mississauga, in the Regional Municipality of Peel
BY (print names of all transferors in full) UNITED LANDS CORPORATION LIMITED

TO (see instruction 1 and print names of all transferees in full) THE CORPORATION OF THE CITY OF MISSISSAUGA

I, (see instruction 2 and print name(s) in full) JOSEPHINE A. MATERA, of the City of Toronto, in the Municipality of Metropolitan Toronto

MAKE OATH AND SAY THAT:

1. I am (place a clear mark within the square opposite that one of the following paragraphs that describes the capacity of the deponent(s)): (see instruction 2)

- ☐ (a) A person in trust for whom the land conveyed in the above described conveyance is being conveyed;
☐ (b) A trustee named in the above described conveyance to whom the land is being conveyed;
☐ (c) A transferee named in the above described conveyance;
☒ (d) The authorized agent or solicitor acting in this transaction for (insert name(s) of principal(s)) THE CORPORATION OF THE CITY OF MISSISSAUGA

☐ (e) The President, Vice-President, Manager, Secretary, Director, or Treasurer authorized to act for (insert name(s) of corporation(s)) XXXXXXX described in paragraph(s) (a), (b), (c) above; (strike out references to inapplicable paragraphs)

☐ (f) A transferee described in paragraph () (insert only one of paragraph (a), (b) or (c) above, as applicable) and am making this affidavit on my own behalf and on behalf of (insert name of spouse) XXXXXXX who is my spouse described in paragraph () (insert only one of paragraph (a), (b) or (c) above, as applicable) and as such, I have personal knowledge of the facts herein deposed to.

2. (To be completed where the value of the consideration for the conveyance exceeds \$250,000).

- I have read and considered the definition of "single family residence" set out in clause 1(1)(j) of the Act. The land conveyed in the above described conveyance
- ☐ contains at least one and not more than two single family residences. Note: Clause 2(1) (d) imposes an additional tax at the rate of one-half of one per cent upon the value of consideration in excess of \$250,000 where the conveyance contains at least one and not more than two single family residences.
☐ does not contain a single family residence.
☐ contains more than two single family residences. (see instruction 3)

3. I have read and considered the definitions of "non-resident corporation" and "non-resident person" set out respectively in clauses 1(1)(f) and (g) of the Act and each of the following persons to whom or in trust for whom the land is being conveyed in the above described conveyance is a "non-resident corporation" or a "non-resident person" as set out in the Act. (see instructions 4 and 5) none

4. THE TOTAL CONSIDERATION FOR THIS TRANSACTION IS ALLOCATED AS FOLLOWS:

- | | | | |
|---|----|-------------|----------------|
| (a) Monies paid or to be paid in cash | \$ | <u>2.00</u> | |
| (b) Mortgages (i) Assumed (show principal and interest to be credited against purchase price) | \$ | <u>nil</u> | |
| (ii) Given back to vendor | \$ | <u>nil</u> | |
| (c) Property transferred in exchange (detail below) | \$ | <u>nil</u> | |
| (d) Securities transferred to the value of (detail below) | \$ | <u>nil</u> | |
| (e) Liens, legacies, annuities and maintenance charges to which transfer is subject | \$ | <u>nil</u> | |
| (f) Other valuable consideration subject to land transfer tax (detail below) | \$ | <u>nil</u> | |
| (g) VALUE OF LAND, BUILDING, FIXTURES AND GOODWILL SUBJECT TO LAND TRANSFER TAX (Total of (a) to (f)) | \$ | <u>2.00</u> | \$ <u>2.00</u> |
| (h) VALUE OF ALL CHATTELS - Items of tangible personal property (Retail Sales Tax is payable on the value of all chattels unless exempt under the provisions of the "Retail Sales Tax Act", R.S.O. 1980, c.454, as amended) | \$ | <u>nil</u> | |
| (i) Other consideration for transaction not included in (g) or (h) above | \$ | <u>nil</u> | |
| (j) TOTAL CONSIDERATION | \$ | <u>2.00</u> | |

All Blanks
Must Be
Filled In.
Insert "Nil"
Where
Applicable.

5. If consideration is nominal, describe relationship between transferor and transferee and state purpose of conveyance. (see instruction 6) n/a

6. If the consideration is nominal, is the land subject to any encumbrance? no

7. Other remarks and explanations, if necessary. gratuitous conveyance to municipality pursuant to subdivision agreement

Sworn before me at the City of Mississauga
in the Regional Municipality of Peel
this 7th day of March 1988

Andrew Gomes
A Commissioner for taking Affidavits, etc.

ANDREW GOMES, a Commissioner, etc., Judicial District of Peel, for the Corporation of the City of Mississauga for work in connection with the

1988
Lapsed March 21, 1989
Property Information Record

Josephine A. Matera
signature(s)

A. Describe nature of instrument: Transfer of Easement

B. (i) Address of property being conveyed (if available) not assigned

(ii) Assessment Roll No. (if available) not assigned

C. Mailing address(es) for future Notices of Assessment under the Assessment Act for property being conveyed (see instruction 7)

300 City Centre Drive, Mississauga, Ontario L5B 3C1

D. (i) Registration number for last conveyance of property being conveyed (if available)

(ii) Legal description of property conveyed: Same as in D.(i) above. Yes ☐ No ☐ Not known ☐

E. Name(s) and address(es) of each transferee's solicitor

BRUCE E. THOM, Q.C., City Solicitor
Legal Department
300 City Centre Drive
Mississauga, Ontario L5B 3C1
JAM/lcs (43M-814)

For Land Registry Office use only

REGISTRATION NO.

Land Registry Office No.

Registration Date

Appendix 'B'
Storm Drainage Plans

PRE-DEVELOPMENT DRAINAGE PLAN

LEGEND

EXISTING GRADE

PROP MAJOR OVERLAND FLOW DIRECTION

DRAINAGE BOUNDARY



DRAINAGE AREA IN HECTARES

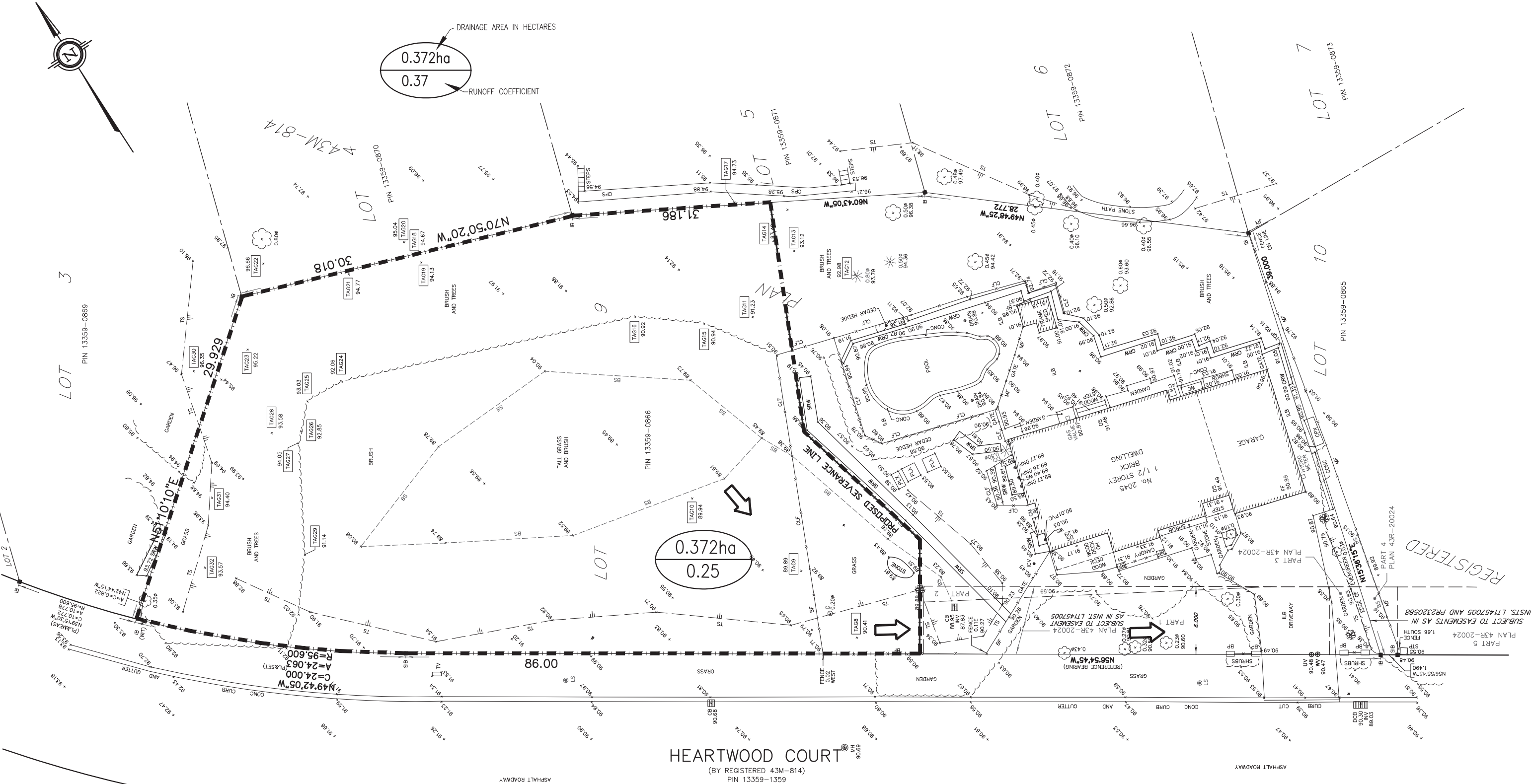
0.372ha

RUNOFF COEFFICIENT

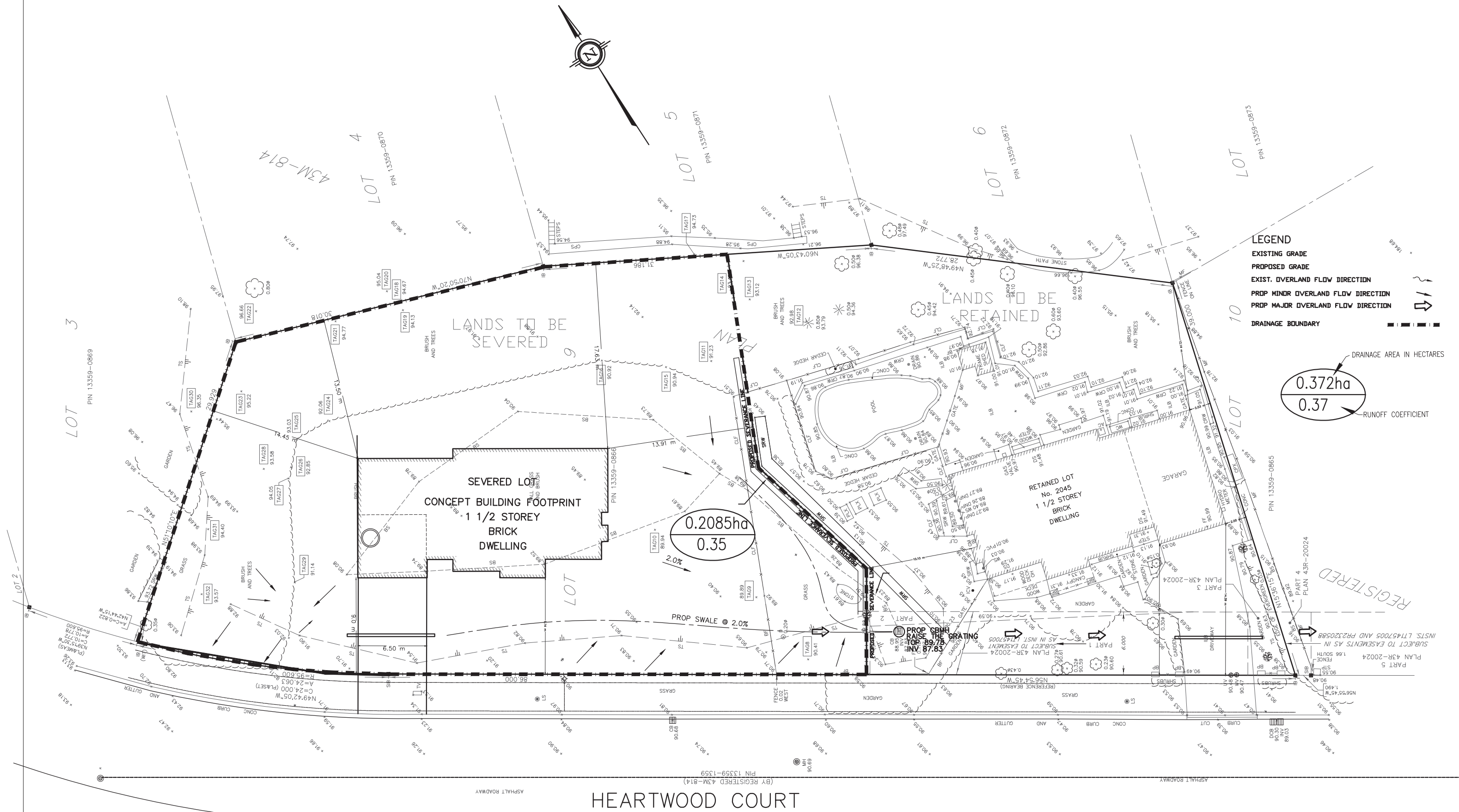
0.37

HEARTWOOD COURT®

(BY REGISTERED 43M-814)
PIN 133559-1359



POST-DEVELOPMENT DRAINAGE PLAN



Appendix 'C'
Percolation Rate Test

PREMIER ENGINEERING SOLUTIONS

CIVIL ENGINEERS AND CAD SPECIALIST

3294 ALPACA AVENUE, MISSISSAUGA, ONTARIO L5M 7V3

TELEPHONE: (905) 817-1294

E-mail: mfi@p-engineeringsolutions.com

August 20, 2021

**Re: Percolation Test Determination of Soil in Test Pit at 2045 Heartwood Court,
Mississauga, Ontario**

On the request of the client we visited the site, 2045 Heartwood Court, Mississauga to carry a percolation test, we visited the site on September 26, 2021.

Test Procedure

The trench was excavated before the percolation test team arrival. The top 2m soil found to be hard shale. Below that depth, it was fine sand. A 18 inches deep pit was dug on the bottom of the trench. No free water was found in the test pit.

After digging was completed, the test pit was then partially filled with potable water from buckets. The drop of the water levels in the pit were measured at select time intervals and recorded, a total drop of 12" in 30 minutes was observed. The test was stopped when three consecutive drops in water levels monitored over consecutive 10 minute.

Using the rates of drops of the water levels, the rate of percolation (T) was calculated for the test pit. The permeability of the soil around and below the test pit was extrapolated.

From the above measurements of the drops of water levels (30cm in 30 minutes), we calculated the T-Time to be approximately 1 min/cm and a permeability of 600mm/hour. We will apply a factor of safety of 3, thus rate of percolation comes to 3 min/cm and a permeability of 200mm/hour for the soil in Test Pit. Thus for the design of infiltration trench/Soakaway pit we will adopt permeability rate of 200mm/hour safely.

We trust that this report meets your requirements. Please call the undersigned if you have any questions.

Report prepared by,

M Furqan Ismail, P.Eng.



Appendix 'D'
Storage Calculations

APPENDIX D
STORAGE CALCATIONS
2045 HEARTWOOD COURT, MISSISSAUGA

Formula Used for Runoff Calculations:	Modified Rational Formula
Runoff Flow=	2.78CIA
Return Period	5 Year
Rainfall Intensity:	$820/(t_c + 4.6)^{0.78}$
Area to be Controlled (50% of the Roof Area)	0.0263 Hectares
Composite Runoff Coefficient=	0.90
 Time of concentration =	 15.000
 Infiltration Rate in the Proposed Soakaway	 0.14 Liters/sec

Time (min.)	Rainfall Intensity mm/hr	Storm Runoff (l/s)	Runoff Volume (m ³)	Release Volume (m ³)	Storage Volume (m ³)
5	140.49	9.24	2.77	0.04	2.73
10	101.30	6.67	4.00	0.08	3.92
15	80.51	5.30	4.77	0.13	4.64
20	67.43	4.44	5.32	0.17	5.16
25	58.37	3.84	5.76	0.21	5.55
30	51.68	3.40	6.12	0.25	5.87
35	46.52	3.06	6.43	0.29	6.13
40	42.40	2.79	6.70	0.34	6.36
45	39.02	2.57	6.93	0.38	6.56
50	36.21	2.38	7.15	0.42	6.73
55	33.82	2.23	7.34	0.46	6.88
60	31.76	2.09	7.52	0.50	7.02
65	29.96	1.97	7.69	0.55	7.14
70	28.38	1.87	7.84	0.59	7.26
75	26.98	1.78	7.99	0.63	7.36
80	25.73	1.69	8.13	0.67	7.46
85	24.60	1.62	8.26	0.71	7.54
90	23.58	1.55	8.38	0.76	7.62
95	22.66	1.49	8.50	0.80	7.70
100	21.81	1.43	8.61	0.84	7.77
105	21.03	1.38	8.72	0.88	7.83
110	20.31	1.34	8.82	0.92	7.90
115	19.64	1.29	8.92	0.97	7.95
120	19.02	1.25	9.01	1.01	8.01
125	18.45	1.21	9.11	1.05	8.06

130	17.91	1.18	9.19	1.09	8.10
135	17.41	1.15	9.28	1.13	8.15
140	16.94	1.11	9.36	1.18	8.19
145	16.50	1.09	9.44	1.22	8.23
150	16.08	1.06	9.52	1.26	8.26
155	15.68	1.03	9.60	1.30	8.30
160	15.31	1.01	9.67	1.34	8.33
165	14.96	0.98	9.74	1.39	8.36
170	14.62	0.96	9.81	1.43	8.39
175	14.30	0.94	9.88	1.47	8.41
180	14.00	0.92	9.95	1.51	8.44
185	13.71	0.90	10.02	1.55	8.46
190	13.44	0.88	10.08	1.60	8.48
195	13.17	0.87	10.14	1.64	8.50
200	12.92	0.85	10.20	1.68	8.52
205	12.68	0.83	10.26	1.72	8.54
210	12.45	0.82	10.32	1.76	8.56
215	12.23	0.80	10.38	1.81	8.57
220	12.01	0.79	10.44	1.85	8.59
225	11.81	0.78	10.49	1.89	8.60
230	11.61	0.76	10.55	1.93	8.61
235	11.42	0.75	10.60	1.97	8.63
240	11.24	0.74	10.65	2.02	8.64
245	11.07	0.73	10.70	2.06	8.65
250	10.90	0.72	10.75	2.10	8.65
255	10.73	0.71	10.80	2.14	8.66
260	10.57	0.70	10.85	2.18	8.67
265	10.42	0.69	10.90	2.23	8.68
270	10.27	0.68	10.95	2.27	8.68
275	10.13	0.67	11.00	2.31	8.69
280	9.99	0.66	11.04	2.35	8.69
285	9.85	0.65	11.09	2.39	8.69
290	9.72	0.64	11.13	2.44	8.70
295	9.60	0.63	11.18	2.48	8.70
300	9.47	0.62	11.22	2.52	8.70
305	9.35	0.62	11.26	2.56	8.70
310	9.24	0.61	11.31	2.60	8.70
315	9.12	0.60	11.35	2.65	8.70
320	9.01	0.59	11.39	2.69	8.70
325	8.91	0.59	11.43	2.73	8.70
330	8.80	0.58	11.47	2.77	8.70
335	8.70	0.57	11.51	2.81	8.70
340	8.60	0.57	11.55	2.86	8.69
345	8.51	0.56	11.59	2.90	8.69
350	8.41	0.55	11.63	2.94	8.69
355	8.32	0.55	11.67	2.98	8.68
360	8.23	0.54	11.70	3.02	8.68

365	8.15	0.54	11.74	3.07	8.67
370	8.06	0.53	11.78	3.11	8.67
375	7.98	0.53	11.81	3.15	8.66
380	7.90	0.52	11.85	3.19	8.66
385	7.82	0.51	11.88	3.23	8.65
390	7.74	0.51	11.92	3.28	8.64
395	7.67	0.50	11.95	3.32	8.64
400	7.59	0.50	11.99	3.36	8.63
405	7.52	0.49	12.02	3.40	8.62
410	7.45	0.49	12.06	3.44	8.61
415	7.38	0.49	12.09	3.49	8.60
420	7.31	0.48	12.12	3.53	8.60
425	7.24	0.48	12.16	3.57	8.59
430	7.18	0.47	12.19	3.61	8.58
435	7.12	0.47	12.22	3.65	8.57
440	7.05	0.46	12.25	3.70	8.56
445	6.99	0.46	12.28	3.74	8.55
450	6.93	0.46	12.32	3.78	8.54
455	6.87	0.45	12.35	3.82	8.53
460	6.82	0.45	12.38	3.86	8.51
465	6.76	0.44	12.41	3.91	8.50
470	6.70	0.44	12.44	3.95	8.49
475	6.65	0.44	12.47	3.99	8.48
480	6.59	0.43	12.50	4.03	8.47
485	6.54	0.43	12.53	4.07	8.45
490	6.49	0.43	12.56	4.12	8.44
495	6.44	0.42	12.59	4.16	8.43
500	6.39	0.42	12.61	4.20	8.41
505	6.34	0.42	12.64	4.24	8.40
510	6.29	0.41	12.67	4.28	8.39
515	6.25	0.41	12.70	4.33	8.37
520	6.20	0.41	12.73	4.37	8.36
525	6.15	0.40	12.76	4.41	8.35
530	6.11	0.40	12.78	4.45	8.33
535	6.06	0.40	12.81	4.49	8.32
540	6.02	0.40	12.84	4.54	8.30
545	5.98	0.39	12.86	4.58	8.29
550	5.94	0.39	12.89	4.62	8.27
555	5.89	0.39	12.92	4.66	8.25
560	5.85	0.39	12.94	4.70	8.24
565	5.81	0.38	12.97	4.75	8.22
570	5.77	0.38	13.00	4.79	8.21
575	5.74	0.38	13.02	4.83	8.19
580	5.70	0.37	13.05	4.87	8.17
585	5.66	0.37	13.07	4.91	8.16
590	5.62	0.37	13.10	4.96	8.14
595	5.59	0.37	13.12	5.00	8.12

600	5.55	0.37	13.15	5.04	8.11
605	5.51	0.36	13.17	5.08	8.09
610	5.48	0.36	13.20	5.12	8.07
615	5.44	0.36	13.22	5.17	8.05
620	5.41	0.36	13.24	5.21	8.04
625	5.38	0.35	13.27	5.25	8.02
630	5.34	0.35	13.29	5.29	8.00
635	5.31	0.35	13.32	5.33	7.98
640	5.28	0.35	13.34	5.38	7.96
645	5.25	0.35	13.36	5.42	7.95
650	5.22	0.34	13.39	5.46	7.93
655	5.19	0.34	13.41	5.50	7.91
660	5.15	0.34	13.43	5.54	7.89
665	5.12	0.34	13.46	5.59	7.87
670	5.10	0.34	13.48	5.63	7.85
675	5.07	0.33	13.50	5.67	7.83
680	5.04	0.33	13.52	5.71	7.81
685	5.01	0.33	13.55	5.75	7.79
690	4.98	0.33	13.57	5.80	7.77
695	4.95	0.33	13.59	5.84	7.75
700	4.93	0.32	13.61	5.88	7.73
705	4.90	0.32	13.63	5.92	7.71
710	4.87	0.32	13.66	5.96	7.69
715	4.84	0.32	13.68	6.01	7.67
720	4.82	0.32	13.70	6.05	7.65
725	4.79	0.32	13.72	6.09	7.63
730	4.77	0.31	13.74	6.13	7.61
735	4.74	0.31	13.76	6.17	7.59
740	4.72	0.31	13.78	6.22	7.57
745	4.69	0.31	13.80	6.26	7.55
750	4.67	0.31	13.82	6.30	7.52
755	4.64	0.31	13.85	6.34	7.50
760	4.62	0.30	13.87	6.38	7.48
765	4.60	0.30	13.89	6.43	7.46
770	4.57	0.30	13.91	6.47	7.44
775	4.55	0.30	13.93	6.51	7.42
780	4.53	0.30	13.95	6.55	7.39
785	4.51	0.30	13.97	6.59	7.37
790	4.48	0.30	13.99	6.64	7.35
795	4.46	0.29	14.01	6.68	7.33
800	4.44	0.29	14.03	6.72	7.31
805	4.42	0.29	14.05	6.76	7.28
810	4.40	0.29	14.07	6.80	7.26
815	4.38	0.29	14.08	6.85	7.24
820	4.36	0.29	14.10	6.89	7.22
825	4.34	0.29	14.12	6.93	7.19
830	4.32	0.28	14.14	6.97	7.17

835	4.30	0.28	14.16	7.01	7.15
840	4.28	0.28	14.18	7.06	7.12
845	4.26	0.28	14.20	7.10	7.10
850	4.24	0.28	14.22	7.14	7.08
855	4.22	0.28	14.24	7.18	7.06
860	4.20	0.28	14.26	7.22	7.03
865	4.18	0.28	14.27	7.27	7.01
870	4.16	0.27	14.29	7.31	6.98
875	4.14	0.27	14.31	7.35	6.96
880	4.12	0.27	14.33	7.39	6.94
885	4.11	0.27	14.35	7.43	6.91
890	4.09	0.27	14.37	7.48	6.89
895	4.07	0.27	14.38	7.52	6.87
900	4.05	0.27	14.40	7.56	6.84
905	4.04	0.27	14.42	7.60	6.82
910	4.02	0.26	14.44	7.64	6.79
915	4.00	0.26	14.46	7.69	6.77
920	3.98	0.26	14.47	7.73	6.74
925	3.97	0.26	14.49	7.77	6.72
930	3.95	0.26	14.51	7.81	6.70
935	3.93	0.26	14.53	7.85	6.67
940	3.92	0.26	14.54	7.90	6.65
945	3.90	0.26	14.56	7.94	6.62
950	3.89	0.26	14.58	7.98	6.60
955	3.87	0.25	14.59	8.02	6.57
960	3.85	0.25	14.61	8.06	6.55
965	3.84	0.25	14.63	8.11	6.52
970	3.82	0.25	14.65	8.15	6.50
975	3.81	0.25	14.66	8.19	6.47
980	3.79	0.25	14.68	8.23	6.45
985	3.78	0.25	14.70	8.27	6.42
990	3.76	0.25	14.71	8.32	6.40
995	3.75	0.25	14.73	8.36	6.37
1000	3.73	0.25	14.75	8.40	6.35
1005	3.72	0.24	14.76	8.44	6.32
1010	3.71	0.24	14.78	8.48	6.29
1015	3.69	0.24	14.79	8.53	6.27
1020	3.68	0.24	14.81	8.57	6.24
1025	3.66	0.24	14.83	8.61	6.22
1030	3.65	0.24	14.84	8.65	6.19
1035	3.64	0.24	14.86	8.69	6.17
1040	3.62	0.24	14.88	8.74	6.14
1045	3.61	0.24	14.89	8.78	6.11
1050	3.60	0.24	14.91	8.82	6.09
1055	3.58	0.24	14.92	8.86	6.06
1060	3.57	0.23	14.94	8.90	6.03
1065	3.56	0.23	14.95	8.95	6.01

1070	3.54	0.23	14.97	8.99	5.98
1075	3.53	0.23	14.99	9.03	5.96
1080	3.52	0.23	15.00	9.07	5.93
1085	3.51	0.23	15.02	9.11	5.90
1090	3.49	0.23	15.03	9.16	5.88
1095	3.48	0.23	15.05	9.20	5.85
1100	3.47	0.23	15.06	9.24	5.82
1105	3.46	0.23	15.08	9.28	5.80
1110	3.44	0.23	15.09	9.32	5.77
1115	3.43	0.23	15.11	9.37	5.74
1120	3.42	0.23	15.12	9.41	5.72
1125	3.41	0.22	15.14	9.45	5.69
1130	3.40	0.22	15.15	9.49	5.66
1135	3.38	0.22	15.17	9.53	5.63
1140	3.37	0.22	15.18	9.58	5.61
1145	3.36	0.22	15.20	9.62	5.58
1150	3.35	0.22	15.21	9.66	5.55
1155	3.34	0.22	15.23	9.70	5.53
1160	3.33	0.22	15.24	9.74	5.50
1165	3.32	0.22	15.26	9.79	5.47
1170	3.31	0.22	15.27	9.83	5.44
1175	3.30	0.22	15.29	9.87	5.42
1180	3.28	0.22	15.30	9.91	5.39
1185	3.27	0.22	15.31	9.95	5.36
1190	3.26	0.21	15.33	10.00	5.33
1195	3.25	0.21	15.34	10.04	5.31
1200	3.24	0.21	15.36	10.08	5.28
1205	3.23	0.21	15.37	10.12	5.25
1210	3.22	0.21	15.39	10.16	5.22
1215	3.21	0.21	15.40	10.21	5.19
1220	3.20	0.21	15.41	10.25	5.17
1225	3.19	0.21	15.43	10.29	5.14
1230	3.18	0.21	15.44	10.33	5.11
1235	3.17	0.21	15.46	10.37	5.08
1240	3.16	0.21	15.47	10.42	5.05
1245	3.15	0.21	15.48	10.46	5.03
1250	3.14	0.21	15.50	10.50	5.00
1255	3.13	0.21	15.51	10.54	4.97
1260	3.12	0.21	15.53	10.58	4.94
1265	3.11	0.20	15.54	10.63	4.91
1270	3.10	0.20	15.55	10.67	4.89
1275	3.09	0.20	15.57	10.71	4.86
1280	3.08	0.20	15.58	10.75	4.83
1285	3.07	0.20	15.59	10.79	4.80
1290	3.06	0.20	15.61	10.84	4.77
1295	3.06	0.20	15.62	10.88	4.74
1300	3.05	0.20	15.63	10.92	4.71

1305	3.04	0.20	15.65	10.96	4.69
1310	3.03	0.20	15.66	11.00	4.66
1315	3.02	0.20	15.67	11.05	4.63
1320	3.01	0.20	15.69	11.09	4.60
1325	3.00	0.20	15.70	11.13	4.57
1330	2.99	0.20	15.71	11.17	4.54
1335	2.98	0.20	15.73	11.21	4.51
1340	2.98	0.20	15.74	11.26	4.48
1345	2.97	0.20	15.75	11.30	4.46
1350	2.96	0.19	15.77	11.34	4.43
1355	2.95	0.19	15.78	11.38	4.40
1360	2.94	0.19	15.79	11.42	4.37
1365	2.93	0.19	15.81	11.47	4.34
1370	2.92	0.19	15.82	11.51	4.31
1375	2.92	0.19	15.83	11.55	4.28
1380	2.91	0.19	15.84	11.59	4.25
1385	2.90	0.19	15.86	11.63	4.22
1390	2.89	0.19	15.87	11.68	4.19
1395	2.88	0.19	15.88	11.72	4.16
1400	2.88	0.19	15.89	11.76	4.13
1405	2.87	0.19	15.91	11.80	4.11
1410	2.86	0.19	15.92	11.84	4.08
1415	2.85	0.19	15.93	11.89	4.05
1420	2.84	0.19	15.94	11.93	4.02
1425	2.84	0.19	15.96	11.97	3.99
1430	2.83	0.19	15.97	12.01	3.96
1435	2.82	0.19	15.98	12.05	3.93
1440	2.81	0.19	15.99	12.10	3.90
1445	2.81	0.18	16.01	12.14	3.87
1450	2.80	0.18	16.02	12.18	3.84
1455	2.79	0.18	16.03	12.22	3.81
1460	2.78	0.18	16.04	12.26	3.78
1465	2.78	0.18	16.06	12.31	3.75
1470	2.77	0.18	16.07	12.35	3.72
1475	2.76	0.18	16.08	12.39	3.69
1480	2.75	0.18	16.09	12.43	3.66
1485	2.75	0.18	16.10	12.47	3.63
1490	2.74	0.18	16.12	12.52	3.60
1495	2.73	0.18	16.13	12.56	3.57
1500	2.73	0.18	16.14	12.60	3.54
1505	2.72	0.18	16.15	12.64	3.51
1510	2.71	0.18	16.16	12.68	3.48
1515	2.70	0.18	16.18	12.73	3.45
1520	2.70	0.18	16.19	12.77	3.42
1525	2.69	0.18	16.20	12.81	3.39
1530	2.68	0.18	16.21	12.85	3.36
1535	2.68	0.18	16.22	12.89	3.33

1540	2.67	0.18	16.24	12.94	3.30
1545	2.66	0.18	16.25	12.98	3.27
1550	2.66	0.17	16.26	13.02	3.24
1555	2.65	0.17	16.27	13.06	3.21
1560	2.64	0.17	16.28	13.10	3.18
1565	2.64	0.17	16.29	13.15	3.15
1570	2.63	0.17	16.30	13.19	3.12
1575	2.62	0.17	16.32	13.23	3.09
1580	2.62	0.17	16.33	13.27	3.06
1585	2.61	0.17	16.34	13.31	3.03
1590	2.60	0.17	16.35	13.36	2.99
1595	2.60	0.17	16.36	13.40	2.96
1600	2.59	0.17	16.37	13.44	2.93
1605	2.59	0.17	16.38	13.48	2.90
1610	2.58	0.17	16.40	13.52	2.87
1615	2.57	0.17	16.41	13.57	2.84
1620	2.57	0.17	16.42	13.61	2.81
1625	2.56	0.17	16.43	13.65	2.78
1630	2.55	0.17	16.44	13.69	2.75
1635	2.55	0.17	16.45	13.73	2.72
1640	2.54	0.17	16.46	13.78	2.69
1645	2.54	0.17	16.47	13.82	2.66
1650	2.53	0.17	16.49	13.86	2.63
1655	2.52	0.17	16.50	13.90	2.59
1660	2.52	0.17	16.51	13.94	2.56
1665	2.51	0.17	16.52	13.99	2.53
1670	2.51	0.16	16.53	14.03	2.50
1675	2.50	0.16	16.54	14.07	2.47
1680	2.50	0.16	16.55	14.11	2.44
1685	2.49	0.16	16.56	14.15	2.41
1690	2.48	0.16	16.57	14.20	2.38
1695	2.48	0.16	16.58	14.24	2.35
1700	2.47	0.16	16.60	14.28	2.32
1705	2.47	0.16	16.61	14.32	2.28
1710	2.46	0.16	16.62	14.36	2.25
1715	2.46	0.16	16.63	14.41	2.22
1720	2.45	0.16	16.64	14.45	2.19
1725	2.44	0.16	16.65	14.49	2.16
1730	2.44	0.16	16.66	14.53	2.13
1735	2.43	0.16	16.67	14.57	2.10
1740	2.43	0.16	16.68	14.62	2.07
1745	2.42	0.16	16.69	14.66	2.03
1750	2.42	0.16	16.70	14.70	2.00
1755	2.41	0.16	16.71	14.74	1.97
1760	2.41	0.16	16.72	14.78	1.94
1765	2.40	0.16	16.73	14.83	1.91
1770	2.40	0.16	16.74	14.87	1.88

1775	2.39	0.16	16.76	14.91	1.85
1780	2.39	0.16	16.77	14.95	1.81
1785	2.38	0.16	16.78	14.99	1.78
1790	2.38	0.16	16.79	15.04	1.75
1795	2.37	0.16	16.80	15.08	1.72
1800	2.37	0.16	16.81	15.12	1.69
1805	2.36	0.16	16.82	15.16	1.66
1810	2.35	0.15	16.83	15.20	1.62
1815	2.35	0.15	16.84	15.25	1.59
1820	2.34	0.15	16.85	15.29	1.56
1825	2.34	0.15	16.86	15.33	1.53
1830	2.33	0.15	16.87	15.37	1.50
1835	2.33	0.15	16.88	15.41	1.47
1840	2.32	0.15	16.89	15.46	1.43
1845	2.32	0.15	16.90	15.50	1.40
1850	2.32	0.15	16.91	15.54	1.37
1855	2.31	0.15	16.92	15.58	1.34
1860	2.31	0.15	16.93	15.62	1.31
1865	2.30	0.15	16.94	15.67	1.27
1870	2.30	0.15	16.95	15.71	1.24
1875	2.29	0.15	16.96	15.75	1.21
1880	2.29	0.15	16.97	15.79	1.18
1885	2.28	0.15	16.98	15.83	1.15
1890	2.28	0.15	16.99	15.88	1.11
1895	2.27	0.15	17.00	15.92	1.08
1900	2.27	0.15	17.01	15.96	1.05
1905	2.26	0.15	17.02	16.00	1.02
1910	2.26	0.15	17.03	16.04	0.99
1915	2.25	0.15	17.04	16.09	0.95
1920	2.25	0.15	17.05	16.13	0.92
1925	2.24	0.15	17.06	16.17	0.89
1930	2.24	0.15	17.07	16.21	0.86
1935	2.24	0.15	17.08	16.25	0.83
1940	2.23	0.15	17.09	16.30	0.79
1945	2.23	0.15	17.10	16.34	0.76
1950	2.22	0.15	17.11	16.38	0.73
1955	2.22	0.15	17.12	16.42	0.70
1960	2.21	0.15	17.13	16.46	0.66
1965	2.21	0.15	17.14	16.51	0.63
1970	2.20	0.15	17.15	16.55	0.60
1975	2.20	0.14	17.16	16.59	0.57
1980	2.20	0.14	17.17	16.63	0.53
1985	2.19	0.14	17.18	16.67	0.50
1990	2.19	0.14	17.19	16.72	0.47
1995	2.18	0.14	17.20	16.76	0.44
2000	2.18	0.14	17.21	16.80	0.41
2005	2.17	0.14	17.21	16.84	0.37

2010	2.17	0.14	17.22	16.88	0.34
2015	2.17	0.14	17.23	16.93	0.31
2020	2.16	0.14	17.24	16.97	0.28
2025	2.16	0.14	17.25	17.01	0.24
2030	2.15	0.14	17.26	17.05	0.21
2035	2.15	0.14	17.27	17.09	0.18
2040	2.15	0.14	17.28	17.14	0.14
2045	2.14	0.14	17.29	17.18	0.11
2050	2.14	0.14	17.30	17.22	0.08
2055	2.13	0.14	17.31	17.26	0.05
2060	2.13	0.14	17.32	17.30	0.01
2065	2.13	0.14	17.33	17.35	-0.02

Appendix 'E'

Discharge to Storm Sewer Letter

PREMIER ENGINEERING SOLUTIONS

CIVIL ENGINEERS

3294 ALPACA AVENUE, MISSISSAUGA, ONTARIO CANADA L5M 7V3

TELEPHONE: (905) 817-1294

E-mail: mfi@p-engineeringsolutions.com

City of Mississauga
Transportation and Works Department
Environmental Services Section
201 City Centre Drive, 8th Floor
Mississauga, Ontario L5B 2T4

Subject: Discharge to Storm Sewer
Address: 2045 Heartwood Court, Mississauga, ON L5C 4P7
Property Owner/Company: Lisa Miron Ernesto Rambaldini
Development Application File No.: OZ 21-18 W7

As an authorized representative of the owner of the subject property as referenced above, I, {insert full name} of {insert legal corporate name of company}, am aware of the City of Mississauga ("City") [Storm Sewer Use By-law No. 0046-2022](#) and do commit to apply for and obtain a Temporary Storm Sewer Discharge Approval from the Transportation and Works Department, prior to any discharge from the subject property to the City's storm sewer system, if applicable.

Otherwise, if water and/or wastewater will be discharged to the Region of Peel's sanitary sewer system, then an application for such discharge will be made to the Region of Peel.

I acknowledge that the City requires a plan and supporting documentation to ensure that any discharge of groundwater and surface water to the storm sewer system will at all times comply with the City of Mississauga Storm Sewer Use By-law No. 0046-2022.

When details regarding discharge become available, then I, or my designate, will send an e-mail to env.inquiries@mississauga.ca with "Discharge Approval Request" in the subject line, and work with the Transportation and Works Department to acquire the correct approval prior to discharge. I understand that the discharge approval requires the collection and laboratory analysis of water quality samples and that it could take approximately one to two weeks to coordinate the approval and will therefore contact the addressee with sufficient lead time prior to any discharge.

I further acknowledge that I will need to provide a Dewatering Discharge Plan prior to approval of a Shoring Permit or prior to construction dewatering activities where water will be discharged to the City's storm sewer system.

I certify that I have authority to sign on behalf of the above-referenced company.

Signature:  _____ Title: Principal Engineer _____

Date: January 16, 2023 _____