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April 1, 2022
File: PE2392-LET.05

Tamarack Homes
3187 Albion Road South
Ottawa, Ontario
K1V 8Y3

Geotechnical Engineering
Environmental Engineering
Hydrogeology
Geological Engineering
Materials Testing
Building Science

Attention: **Mr. Tim Lee**

www.patersongroup.ca

Subject: **Phase I - Environmental Site Assessment Update
Cardinal Creek Village – Proposed Subdivision, Phase 7
Ottawa, Ontario**

Dear Sir,

Further to your request, Paterson Group (Paterson) conducted a Phase I - Environmental Site Assessment (Phase I ESA) Update for the aforementioned property. This report updates a previous Phase I ESA report completed by Paterson, dated November 13, 2013, and is intended to meet the requirements of a Phase I ESA, as per the MECP Standard O.Reg. 153/04, as amended, under the Environmental Protection Act. This report is to be read in conjunction with the previous report.

Site Information

The Phase I Property is a vacant lot that is part of a larger tract of land addressed 1101 Canot d'Ecorce Street, which was formerly part of and referred to as 1211 Old Montreal Road. The Phase I Property is situated approximately 160 m north of Old Montreal Road and approximately 215 m west of Ted Kelly Lane, in the City of Ottawa, Ontario. The footprint of the site is 6.4 hectares in a R3Z – Residential 3rd Density Zone and is situated in a rural residential area, which consists of a newly developed subdivision to the west and undeveloped land to the north, east and south. An updated configuration of the Phase I Property is shown on Drawing PE2392-8 - Site Plan, which is appended to this report.

Records Review

Phase I ESA Study Area Determination

A radius of approximately 250 m was determined to be appropriate as a Phase I ESA Study Area for this assignment. Properties outside the 250 m radius are not considered to have the potential to impact the Phase I Property, based on their separation distance.

First Developed Use Determination

Based on the available aerial photographs, the Phase I Property has never been formally developed.

Previous Engineering Reports

- ❑ 'Phase I Environmental Site Assessment, Proposed Cardinal Creek Village Subdivision Lands, Old Montreal Road, Ottawa (Cumberland), Ontario', prepared by Paterson Group, dated November 13, 2013.

The original Phase I ESA (PE2392-3) was completed for a much larger tract of land that included the current Phase I Property. Based on the findings of the Phase I ESA, no past or current environmental concerns were identified on the subject land. Two (2) off-site potentially contaminating activities (PCAs) were noted to the far west of the site; however, based on their respective distances from the site, these PCAs did not represent areas of potential environmental concern (APECs). A Phase II ESA was not recommended for the subject property at that time.

Geotechnical investigations were conducted by Paterson in 2012, 2013 and 2014 (for 1211 Old Montreal Road). No signs of environmental contamination or deleterious fill material were observed throughout the course of the subsurface investigations.

Plan of Survey

A plan of the proposed subdivision, prepared by Stantec Geomatics Ltd., was reviewed as part of this assessment. The proposed plan shows the Phase I Property in its current configuration.

Environment Canada

A search of the National Pollutant Release Inventory (NPRI) was conducted electronically on March 30, 2022. The Phase I Property was not listed in the NPRI database. No new records of pollutant release were listed in the database for properties located within the Phase I Study Area.

Ministry of the Environment, Conservation and Parks (MECP) Instruments

A request was submitted to the MECP Freedom of Information (FOI) office for information with respect to certificates of approval, permits to take water, certificates of property use or any other similar MECP issued instruments for the site. At the time of issuing this report, a response had not been received from the MECP. A copy of the response will be forwarded to the client if it contains any pertinent information.

MECP Submissions

A request was submitted to the MECP FOI office for information with respect to reports related to environmental conditions for the property. At the time of issuing this report, a response had not been received from the MECP. A copy of the response will be forwarded to the client if it contains any pertinent information.

MECP Incident Reports

A request was submitted to the MECP FOI office for information with respect to records concerning environmental incidents, orders, offences, spills, discharges of contaminants or inspections maintained by the MECP for the site or adjacent properties. At the time of issuing this report, a response had not been received from the MECP. A copy of the response will be forwarded to the client if it contains any pertinent information.

MECP Waste Management Records

A request was submitted to the MECP FOI office for information with respect to waste management records. At the time of issuing this report, a response had not been received from the MECP. A copy of the response will be forwarded to the client if it contains any pertinent information.

MECP Coal Gasification Plant Inventory

The Ontario Ministry of Environment document titled "Municipal Coal Gasification Plant Site Inventory, 1991" was reviewed to reference the locations of former plants with respect to the site. No Municipal Coal Gasification Plant Sites are located within the Phase I study area.

MECP Brownfields Environmental Site Registry

A search of the MECP Brownfields Environmental Site Registry was conducted as part of this assessment for the site, neighbouring properties and the general area of the site. No Records of Site Condition (RSCs) were filed for properties within the Phase I ESA Study Area.

Areas of Natural Significance

A search for areas of natural significance and features within the Phase I study area was conducted on the website of the Ontario Ministry of Natural Resources (MNR) on March 30, 2022. The search did not reveal any areas of natural significance within the Phase I study area.

Technical Standards and Safety Authority (TSSA)

The TSSA, Fuels Safety Branch in Toronto was contacted electronically on March 31, 2022 to inquire about current and former underground storage tanks, spills and incidents for the site and neighbouring properties. A response from the TSSA indicated that no records were listed in the TSSA registry for the Phase I Property or the adjacent properties.

City of Ottawa Historical Land Use Inventory (HLUI)

A requisition form was sent to the City of Ottawa's Historical Land Use Inventory (HLUI) as part of the original 2013 Phase I-ESA for a large property addressed at that time, 1211 Old Montreal Road, which included the Phase I Property (eastern portion of 1211 Old Montreal Road). The City's HLUI 2005 database has been recently updated, however, it is not expected that a new inquiry would reveal any new information or activities on the Phase I Property or on properties within the study area, as the subject land and surrounding properties have always existed as vacant land until very recently (circa 2021). Therefore, an additional HLUI request was not submitted as part of this Phase I ESA Update.

The HLUI 2005 database results for the 1211 Old Montreal Road did not identify any activities on the site which included the current Phase I Property or on properties surrounding the Phase I Property within the study area.

Aerial Photographs

The latest aerial image in the 2013 Phase I ESA report was from 2011. A review of aerial photographs from 2014 and 2019 did not reveal any significant changes on the Phase I Property with the exception of the trees on the site in 2014 have been cleared in the 2019 aerial image – in other word, they are no longer present. The Phase I Property remains undeveloped.

The neighbouring land to the east, which was previously undeveloped is now occupied by a residential subdivision. No potential concerns were identified from reviewing the 2014 and 2019 aerial images.

Topographic Maps

Topographic information was obtained from Natural Resources Canada – The Atlas of Canada website. The topographic maps indicate that the elevation of the Phase I Property is approximately 90 m ASL, and that the regional topography in the general area of the site slopes down towards the Ottawa River, approximately 200 m north. An illustration of the referenced topographic map is presented on Figure 2 – Topographic Map, appended to this report.

Physiographic Maps

A Physiographic Map was reviewed from the Natural Resources Canada - The Atlas of Canada website. According to this physiographic map, the site is located in the St. Lawrence Lowlands. According to the mapping description provided: “The lowlands are plain-like areas that were all affected by the Pleistocene glaciations and are therefore covered by surficial deposits and other features associated with the ice sheets.” The Phase I Property is located in the Central St. Lawrence Lowland, “where the land is rarely more than 150 m above sea level, except for the Monteregion Hills, which consist of intrusive igneous rocks.”

Geological Maps

The Geological Survey of Canada website on the Urban Geology of the National Capital Area was consulted as part of this assessment. Based on the information from NRCAN, bedrock in the area of the site consists of limestone of the Bobcaygeon Formation in the eastern portion of the site, and interbedded limestone and dolomite of the Gull River Formation in the western portion of the site. Overburden in the area consisted of exposed bedrock, till and nearshore marine sediments with a drift thickness ranging from 10 to 50m.

Water Well Records

A search of the MECP 's website for all drilled well records within 250 m of the Phase I Property was conducted on March 30, 2022. The search returned five (5) domestic wells located to further to the east and southeast. The wells were drilled to depths ranging from 26 to 91 m below the ground surface (mbgs) to fresh water. The stratigraphy in the area varied significantly; the overburden thickness ranged from 0 to 91 mbgs underlying limestone or shale bedrock.

Property Owner Representative Interview

Mr. Tim Lee, of Taramack Homes, the current landowner, was interviewed as part of this update. No new information was revealed about the Phase I Property as it remains undeveloped, vacant land. The Phase I Property is slated for a new residential development. Mr. Lee is unaware of any potential environmental concerns on the adjacent and neighbouring properties.

The information obtained in the interview is considered to be consistent with site information obtained from other sources and with observations made during the site assessment and is considered to be valid.

Site Reconnaissance

Our site reconnaissance visit was conducted on March 30, 2022. Weather conditions were overcast, with a temperature of approximately -1° C. Ms. Mandy Witteman from the Environmental Department of Paterson Group conducted the site inspection. In addition to the site, the uses of neighbouring properties within the Phase I Study Area were also assessed at the time of the site visit.

The site is largely vacant with some trees on the northern portion, while the southern portion was cleared of trees and vegetation. No buildings or temporary structures are on-site.

The topography of the site is undulating and slopes down to the north towards the Ottawa River. Site drainage is primarily infiltration. No discoloured snow or vegetation was observed on the property.

No unidentified substances, private sewage systems or domestic wells were observed on the Phase I Property. No evidence of current or former railway or spur lines was observed on the subject property at the time of the site inspection. The surrounding properties were also observed during the site visit and are shown on Drawing PE2392-9 - Surrounding Land Use Plan.

Neighbouring Land Use

Neighbouring land use in the Phase I Study Area is primarily vacant, with the exception of a new residential and community development to the west and some residences further to the east along Ted Kelly Lane, while the remaining exist as undeveloped land. No environmental concerns were identified with the use of neighbouring lands.

Review and Evaluation of Information

Land Use History

Based on the available historical records, the Phase I Property has always existed as undeveloped land. The Phase I Property is partially cleared of trees on the southern portion of the site.

Potentially Contaminating Activities and Areas of Potential Environmental Concern

No potentially contaminating activities (PCAs) were identified on the Phase I Property or within the Phase I Study Area. Therefore, no areas of potential environmental concern were identified on the Phase I Property.

Contaminants of Potential Concern

No Contaminants of Potential Concern (CPCs) were identified on the Phase I Property.

Conceptual Site Model

Geological and Hydrogeological Setting

The Geological Survey of Canada website on the Urban Geology of the National Capital Area was consulted as part of this assessment. Based on the information, bedrock in the area of the site consists of limestone of the Bobcaygeon Formation in the eastern portion of the site, and interbedded limestone and dolomite of the Gull River Formation in the western portion of the site. Overburden in the area consists of exposed bedrock, plain till and nearshore marine sediments with a drift thickness ranging from 10 to 50 m.

The regional topography slopes downwards in a northerly direction. The inferred groundwater flows in a northerly direction towards the Ottawa River.

Existing Buildings and Structures

There are presently no buildings or temporary structures on-site.

Areas of Natural Significance and Water Bodies

No areas of natural significance or water bodies were identified on the Phase I Property or within the Phase I Study Area.

Drinking Water Wells

The Phase I Property has never been developed and as such, no potable water wells are expected to be present. The well record search identified 5 domestic wells on the residential properties along Ted Kelly Lane. It is expected that the Phase I Property will be municipally serviced, based on the proposed development and any new developments in the immediate area.

Neighbouring Land Use

Neighbouring land use in the Phase I Study Area is primarily vacant, with the exception of a new residential development to the west with some residential dwellings to the far east, while the remaining lands exist as undeveloped land.

Potentially Contaminating Activities and Areas of Potential Environmental Concern

As previously discussed, no potentially contaminating activities (PCAs) were identified on the Phase I Property or within the Phase I Study Area. Therefore, there are no areas of potential environmental concern on the Phase I Property.

Contaminants of Potential Concern

As previously discussed, no Contaminants of Potential Concern (CPCs) were identified on the Phase I Property.

Assessment of Uncertainty and/or Absence of Information

The information available for review as part of the preparation of this Phase I- ESA Update is considered to be sufficient to conclude that there are no PCAs or APECs on the Phase I Property. A variety of independent sources were consulted as part of this assessment, and as such, the conclusions of this report are not affected by uncertainty which may be present with respect to the individual sources.

Conclusions

Based on the results of this Phase I ESA Update, **it is our opinion, that a Phase II Environmental Site Assessment is not required for the property.**

Statement of Limitations

This Phase I - Environmental Site Assessment Update report has been prepared under the supervision of a Qualified Person in general accordance with the agreed scope-of-work and O.Reg. 153/04. The conclusions presented herein are based on information gathered from a historical review and field inspection program.

The findings of the Phase I ESA Update are based on a review of readily available geological, historical and regulatory information and a cursory review made at the time of the field assessment. The historical research relies on information supplied by others, such as local, provincial, and federal agencies and was limited within the scope-of-work, time, and budget of the project herein.

Should any conditions be encountered at the Phase I Property and/or historical information that differ from our findings, we request that we be notified immediately in order to allow for a reassessment.

This report was prepared for the sole use of Taramack Homes. Permission and notification from Taramack Homes and this firm will be required to release this report to any other party.

We trust that this submission satisfies your current requirements. Should you have any questions please contact the undersigned.

Paterson Group Inc.



Mandy Witteman, M.A.Sc.



Mark S. D'Arcy, P.Eng., QP_{ESA}



Report Distribution:

- Taramack Homes (1 copy)
- Paterson Group (1 copy)

Attachments:

- Figure 1 - Key Plan
- Figure 2 - Topographic Map
- Drawing PE2392-8 - Site Plan
- Drawing PE2392-9 - Surrounding Land Use Plan
- TSSA Correspondence

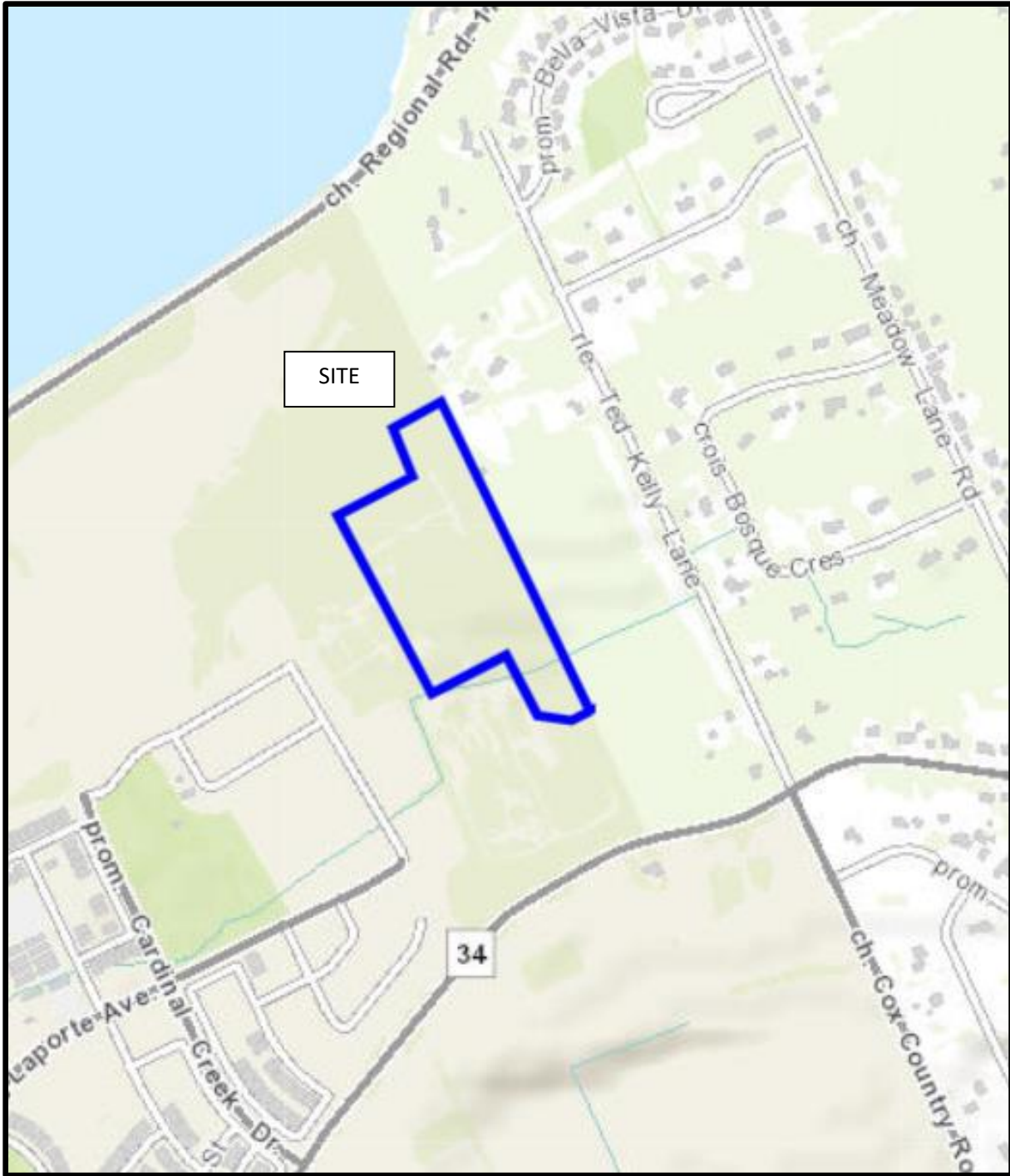


FIGURE 1
KEY PLAN

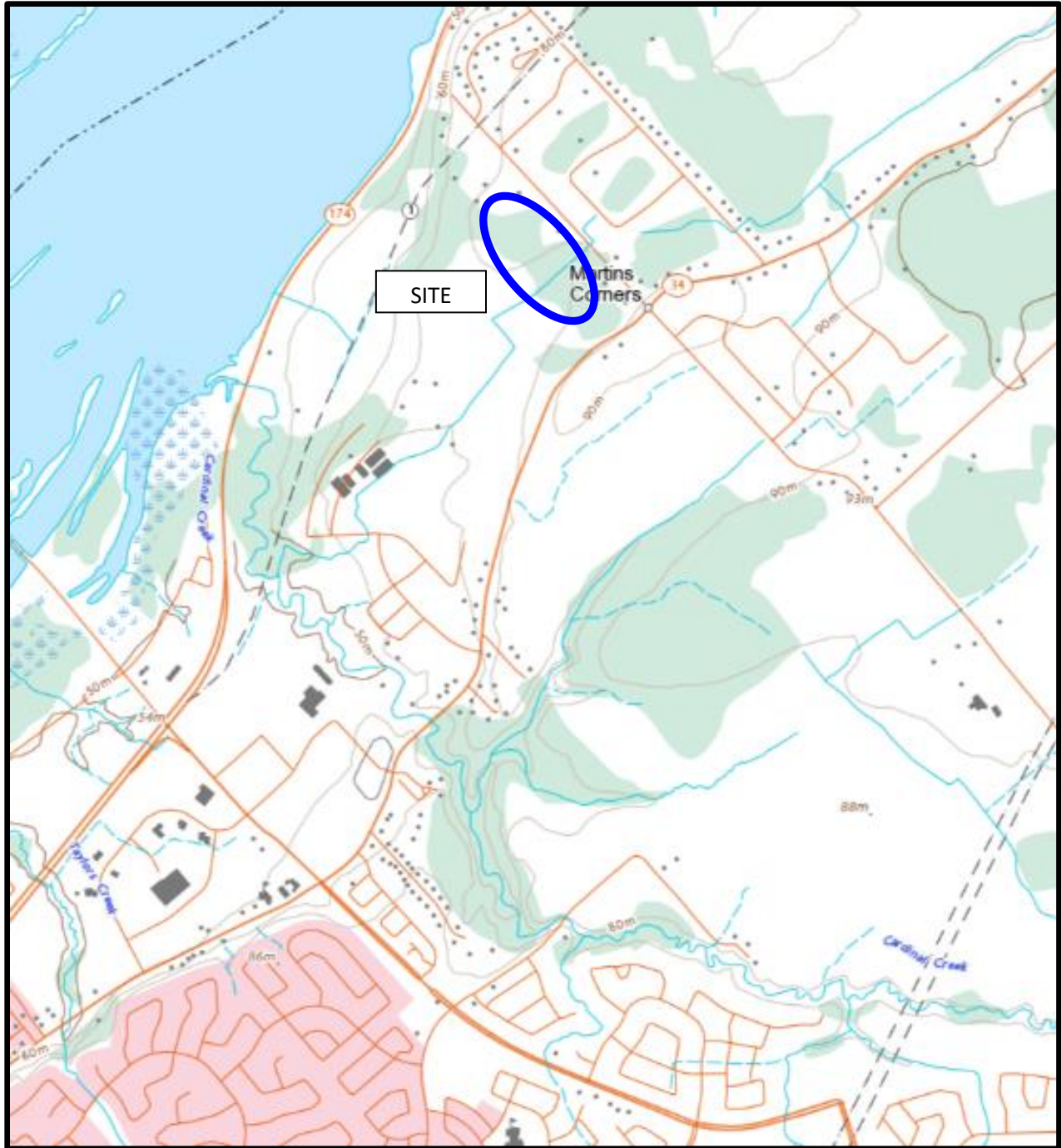
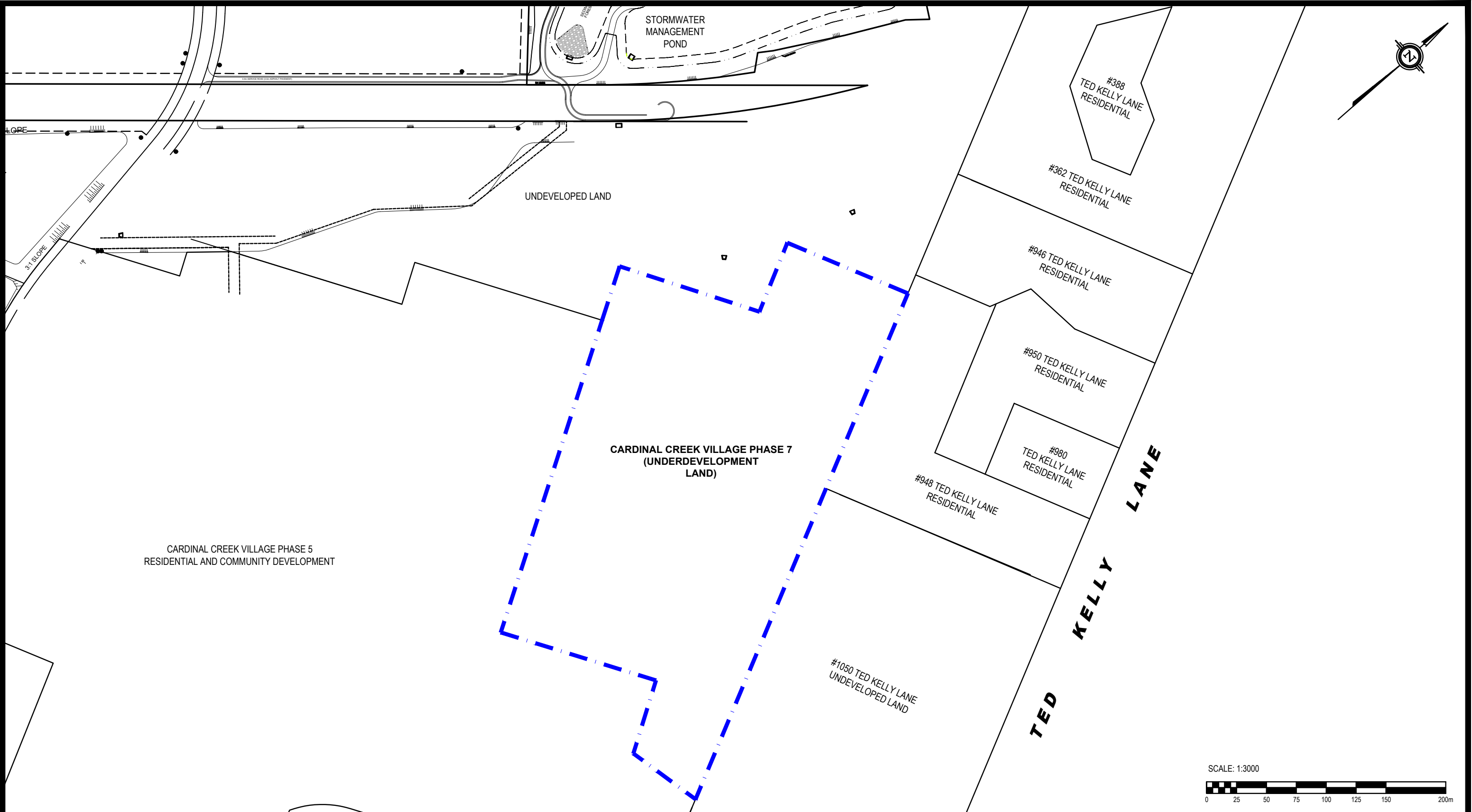


FIGURE 2
TOPOGRAPHIC MAP



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consulting engineers

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NO.	REVISIONS	DATE	INITIAL

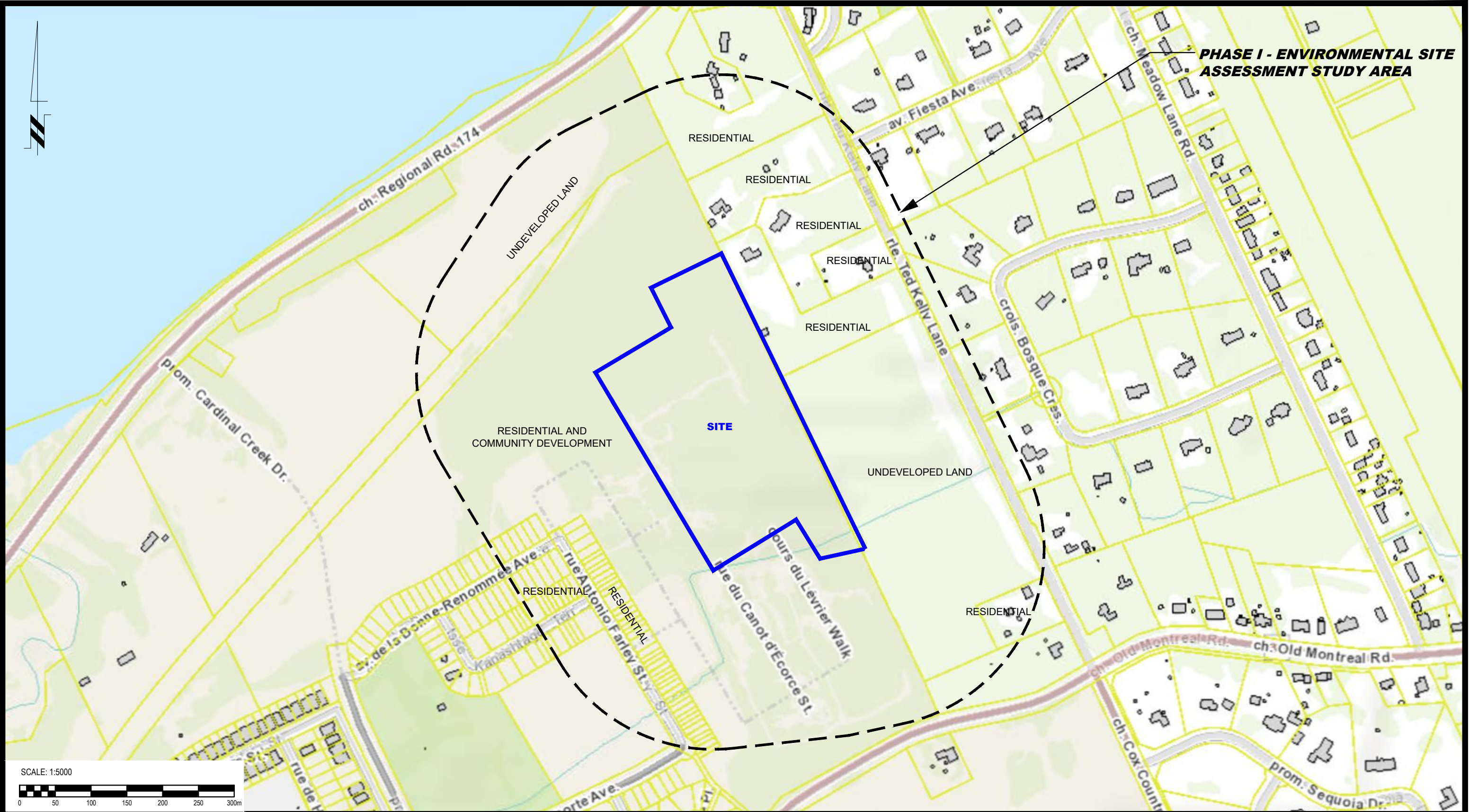
TAMARACK HOMES
PHASE I - ENVIRONMENTAL SITE ASSESSMENT UPDATE
CARDINAL CREEK VILLAGE, PHASE 7

OTTAWA, ONTARIO

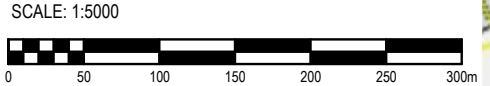
SITE PLAN

Scale:	1:3000	Date:	04/2022
Drawn by:	MPG	Report No.:	PE2392-LET.05
Checked by:	MW	Dwg. No.:	PE2392-8
Approved by:	MSD	Revision No.:	

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PHASE I - ENVIRONMENTAL SITE ASSESSMENT STUDY AREA



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NO.	REVISIONS	DATE	INITIAL

TAMARACK HOMES
PHASE I - ENVIRONMENTAL SITE ASSESSMENT UPDATE
CARDINAL CREEK VILLAGE, PHASE 7

OTTAWA, ONTARIO

SURROUNDING LAND USE PLAN

Scale:	1:5000	Date:	04/2022
Drawn by:	MPG	Report No.:	PE2392-LET.05
Checked by:	MW	Dwg. No.:	PE2392-9
Approved by:	MSD	Revision No.:	

p:\autocad\drawings\environmental\pe2392\pe2392-9-surrounding land use plan.dwg

Mandy Witteman

From: Public Information Services <publicinformationsservices@tssa.org>
Sent: March 31, 2022 1:06 PM
To: Mandy Witteman
Subject: RE: Search records request (PE2392-7)

Please refrain from sending documents to head office and only submit your requests electronically via email along with credit card payment. We are all working remotely and mailing in applications with cheques will lengthen the overall processing time.

NO RECORD FOUND

Hello,

Thank you for your request for confirmation of public information.

- We confirm that there are no records in our database of any fuel storage tanks at the subject addresses.

For a further search in our archives please complete our release of public information form found at <https://www.tssa.org/en/about-tssa/release-of-public-information.aspx?mid=392> and email the completed form to publicinformationsservices@tssa.org along with a fee of \$56.50 (including HST) per location. The fee is payable with credit card (Visa or MasterCard).

Although TSSA believes the information provided pursuant to your request is accurate, please note that TSSA does not warrant this information in any way whatsoever.

Kind regards,

Sherees



Public Information Agent

Facilities and Business Services
345 Carlingview Drive
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From: Mandy Witteman <MWitteman@patersongroup.ca>
Sent: March 31, 2022 10:55 AM
To: Public Information Services <publicinformationsservices@tssa.org>
Subject: Search records request (PE2392-7)

[CAUTION]: This email originated outside the organisation.

Please do not click links or open attachments unless you recognise the source of this email and know the content is safe.

Good morning

Could you please complete a search of your records for **underground/aboveground storage tanks, historical spills or other incidents/infractions** for the following addresses in Ottawa, ON:

1101 Canot D'Ecorce Street
1211 and 1422 Old Montreal Rd
Ted Kelly Lane: 946, 948, 950, 980, 1098

Thank you

Cheers,

Mandy Witteman, B.Eng., M.A.Sc.

patersongroup

**solution oriented engineering
over 60 years servicing our clients**

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