

A green vertical bar runs down the left side of the page. A horizontal arrow points to the right from the bar, containing the date. At the bottom of the bar, there are several thin, curved green lines resembling grass.

2017/10/24

Phase I Environmental Site Assessment  
5155 Mississauga Rd., Mississauga, ON

Project 15\*4249 BRUCE A. BROWN ASSOCIATES LIMITED  
Consultants in the Environmental & Applied Earth Sciences

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**Appendix A:** Statement of Limitations for Phase 1 Investigations

**Appendix B:** Site Location Plan, MNR Topographic map,  
Property Based Map, Phase 1 Study Area Map

**Appendix C:** Historic Air Photographs

**Appendix D:** Site Survey

**Appendix E:** Peel County Atlas Mapping 1877 and historical photographs

**Appendix F:** Past and Current Uses Table

**Appendix G:** Phase One Conceptual Site Model Figure

**Appendix H:** Site Photographs

**Appendix I:** TSSA Response

**Distribution:** 2 copies to client

1 copy to client as pdf file

1 copy to file

Project 15\*4249  
October 24, 2017

Attn: Mr. Chris Zeppa

City Park (Old Barber) Homes Inc.  
950 Nashville Road,  
Kleinburg, ON  
L0J 1C0

By e-mail: [chriszeppa@rogers.com](mailto:chriszeppa@rogers.com)

Dear Sir;

Re: Phase I Environmental Site Assessment Update  
5155 Mississauga Road, Mississauga, ON

## 1.0 Summary

Bruce A. Brown Associates Limited completed a Phase I Environmental Site Assessment update for the property located at 5155 Mississauga Road, City of Mississauga, Ontario. The scope of work included an interview with the property manager, research from secondary sources and agencies, as well as general physical inspections which included access to all parts of the building and site. This Phase I investigation was conducted in conjunction with a geotechnical evaluation, and in general conformity with CSA (Z768-01) Standards and to O.Reg. 153/04 Phase I Standards. Therefore, no intrusive investigation such as drilling of test holes or construction of wells for soil or groundwater chemistry was carried out as a part of this effort.

The property is in a stable, mature residential neighbourhood on the south end of Streetsville, and just west of the Credit River.

This investigation found no potential sources of environmental impacts which would affect the real value of the property or require further investigation or require mitigation to meet or assure current environmental standards. There was no cause found to carry out additional Phase 2 investigations in the form of test holes or wells to characterize soil or groundwater conditions.

The existing building and lands may continue to be used for any purpose for which they are physically suited.

## **2.0 Introduction**

### **2.1 Phase One Property Information**

#### **2.1.1 Municipal Address**

The address for the phase one property is 5155 Mississauga Road, City of Mississauga. The property can be further described as part Lot 1 Concession IV, W.H.S, and Part 1, Plan 43R-8989, City of Mississauga, Regional Municipality of Peel. Assessment role number is 21-05-040-097-09900-0000. PIN is 13196 – 0746 (LT).

#### **2.1.2 Contact Information for Property Owner**

The registered owner of the property is as below:

City Park (Old Barber) Homes Inc.  
950 Nashville Road  
Kleinburg, ON  
L0J 1C0

Attn: Chris Zeppa

#### **2.1.3 Client Contact Information**

Brown Associates was initially retained by Mr. Chris Zeppa of City Park (Streetsville) Inc., who requested a Phase One Environmental Evaluation update to reflect current site conditions and support a proposed re-development of this property and to assist the plans approvals process for residential redevelopment. This Phase One ESA Update has also been prepared to support a submission to the Ontario Ministry of the Environment and Climate Change for acknowledgement of a Record of Site Condition (RSC), required to support a change in environmental sensitivity with the introduction of residential uses.

## **2.2 Terms of Reference**

Bruce A. Brown Associates Limited completed a Phase I Environmental Site Assessment Update on the property located at 5155 Mississauga Road, Mississauga to meet O.Reg. 153/04 requirements. The purpose of this investigation was to conduct a non-intrusive evaluation to (1) establish the presence of any hazardous, regulated or deleterious materials or other potentially hazardous conditions, (2) to establish and document any other site condition(s) that could have an influence on the present and future use of the property, or on its real value, and (3) to provide reliance to the City of Mississauga and its agents in support of a proposed development of the lands, and

(4) to support a RSC submission to the Ministry of the Environment and Climate Change.

The report has also been prepared within the terms of reference set out in the Statement of Limitations, which is attached as **Appendix A**, and forms an integral part of the report. This Phase I assessment update was carried out in general accordance with CSA Standard (Z 768-01) and O.Reg 153/04, and is subject to the limitations as set out in the attached statement.

### 2.3 General Description of the Phase One Property

The property is located on the northeast corner of Mississauga Road and Barbertown Road in the City of Mississauga. It is approximately 450m north of Eglinton Avenue West, and 1650m north of Highway 403, and about 550m east of the Credit River. A site location plan based on a current air photograph is found in **Appendix B**. The property was surrounded on all immediate sides by substantial single-family residences on large lots. Currently the property to the north is vacant, with recent demolition of residences and installation of internal services and road base in preparation for residential redevelopment. The core of the restaurant was a substantial two-story brick residence constructed in 1851, and remained in residential use until 1986 when it was converted into a restaurant. A north addition for banquet facilities was constructed in about 2004. The restaurant uses ended in 2017 and the building is currently vacant.

### 3.0 Scope of Investigation

This report is prepared to meet the requirements of a Phase I investigation in conformity with CSA Standard Z768-01, and for an “enhanced” study to support a RSC submission. The phase one study area includes the Phase One property and other properties located wholly or in part within a 250m radius of the phase one property boundary.

The following tasks were undertaken in December 2015, January 2016 and October 2017 to prepare this report:

- Review of historical air photos, 1877 Peel County Map, and environmental maps
- Review of MOE online Water Well data
- Review of the MOE “*Ontario Inventory of PCB Storage Sites*” (September 1989)
- Review of “*Waste Disposal Site Inventory*” (June 1980), and Intera Technologies Ltd.
- Review of “*Inventory of Coal Gasification Plant Waste Sites in Ontario*” (April 1987)
- Site visits by the senior writer and review of the surrounding study area
- Review of findings from other projects on nearby lands
- Interview with the restaurant manager
- Preparation and submission of this report.

## 4.0 Records Review

Historical data were obtained from a review of aerial photographs of various years from the Region of Peel Interactive Mapping site, with more recent air photos obtained from Google Earth, Ontario Ministry of the Environment databases, and our in-house library of archive data. The findings from our records review were recorded as follows:

### 4.1 General

#### 4.1.1 Phase One Study Area

The QP determined that the distance of 250m from the Phase One property was adequate for defining the phase one study area for all records reviewed. Several industries located just beyond this perimeter were investigated. The QP also determined that a 1 km radius surrounding the subject property was appropriate for a records review of active and former coal gasification plants, PCB storage sites, pits and quarries and waste disposal sites.

A Phase One site location plan and a property based map can be found in **Appendix B**.

#### 4.1.2 First Developed Use Determination

First rural settlement and clearing of lands for agriculture commenced in the 1780s in the general area, with first milling on the Credit River by the turn of the 19<sup>th</sup> century. By 1850, there were about 60 mills on the Credit River including several in Streetsville and one in Barbertown, about 550m to the east of the Phase One lands. This dated from the early 1800s. The ADM Milling Company industrial site is just down river from the original mill location.

The Credit Valley Railroad was constructed through Streetsville by about 1877, and became part of the Ontario & Quebec Railway in 1883, eventually to become a part of Canadian Pacific Railway where it remains. The main line is located on the other side of the river and a spur which serves the Hayhoe Mills about 450m to the north also has an extension southward to cross Barbertown Road about 340m east of the subject lands. It serves ADM Milling Company which is part of Archer, Daniels Midland multinational, operating 265 facilities in 190 countries, including 42 sites in Canada. The Barbertown facility has active rail spurs for receiving product and silos for loading trucks, and produces and distributes wheat flour and other commercial baking products. The original farmhouse and orchard on the Phase 1 site date from 1851 and are the first developed use of the lands. A rendering of the William Barber House *circa* 1877 and the adjacent Robert Barber House to the east is attached in **Appendix E**. Infill residential use of surrounding lands took place mainly in the 1960s.

#### **4.1.3 Previous Reporting**

Brown Associates completed a preliminary Phase 1 report to CSA standards, dated January 12, 2016, from time of property acquisition. Initial assessment also included a geotechnical investigation dated October 4, 2016. Brown Associates also carried out geo-environmental testing on the large parcel of vacant lands between Melody Drive and the CPR on the east side of Mississauga Road, about 200m m to the north. The geotechnical investigation of the Old Barber House property determined depths to competent shale bedrock ranging from 2 to 3m below grade and did not identify any environmental or geotechnical issues.

### **4.2 Environmental Source Information**

#### **4.2.1 Ontario Ministry of the Environment**

A request for information regarding the phase one property was filed with the Ontario Ministry of the Environment and Climate Change (MOECC) Freedom of Information office on October 19, 2017. Because new Freedom of Information requests can take up to 100 days or more for a full response, no information has been provided to time of writing. If there are significant findings when reporting has been received, a supplementary report will be provided.

#### **4.2.2 Ontario Ministry of Natural Resources**

The Ontario Land Information Directory is accessible via the website of the Ontario Ministry of Natural Resources (MNR). No information specific to the subject lands was found on this site. No areas of natural or scientific interest, water bodies or wetlands or major groundwater recharge areas were found within 200m of the site. The Credit River Valley, located farther to the east, is designated in the directory.

#### **4.2.3 Technical Standards and Safety Authority**

A request for information on the subject property was filed with the Technical Standards & Safety Authority (TSSA) on January 12, 2016. A response dated January 13, 2016 confirmed that TSSA has no records in their database of any underground or above-ground storage tanks licensed or registered at the subject address. It also has no records of any incident reports, fuel oil spills, or contamination records for the Phase One Property. A copy of this response is attached in **Appendix G**.

It should be noted that the TSSA cannot guarantee having information on sites that have not been licensed since 1987. The Phase One property originally would have relied on coal for comfort heating, mainly from fireplaces (five original chimneys were constructed for fireplaces) and was probably converted to fuel oil for comfort heating but for certain was converted to gas when extensive renovations and upgrades were completed by 1986, with the conversion to restaurant use.



#### 4.2.4 Waste Disposal Sites, Coal Gasification Plants and PCB Storage Sites

The MOECC “*Ontario Inventory of PCB Storage Sites*” (September 1989), “*Waste Disposal Site Inventory*” (June 1980), Intera Technologies Ltd. “*Inventory of Coal Gasification Plant Waste Sites in Ontario*” (April 1987) were reviewed by Bruce A. Brown Associates, and the following data were found:

The subject site is not registered as a former municipal coal gasification plant. There are no former coal gasification plants reported for any City of Mississauga communities. The nearest former coal gasification site is in the core of the Oakville urban area and was used for street lighting for several decades up to about 1910.

The subject site property is not listed as a former PCB storage location. No former PCB site was listed within the Phase One study area. The subject property is not listed as an active or closed waste disposal site. No former places of disposal are noted within 1 km distance from the site.

### 4.3 Physical Setting Sources

#### 4.3.1 Air Photos Review

Historic air photos, attached in **Appendix C**, include photographs from the City of Mississauga.

The earliest available photograph from 1954 shows the Barber House with a small addition on the north side, surrounded by agricultural fields on three sides and another vintage house (the Robert Barber House) to the east. The rail line to the flour mill was in place and Barbertown Road crossed the Credit River east of the mill. A dam was located about 200m upstream from the mill and a mill race with standing water extended towards the mill site. The CP rail river crossing is noted in the upper left side of the photograph.

No changes were noted in the 1966 photo, except for the addition of two small detached residences immediately to the north of Barber House. The dam and Barbertown bridge remained in place. In a 1980 photograph, the only difference from previous images is the dam has been breached in the centre and the Credit River flows in a middle channel. The Barbertown bridge is still in place.

A 1985 photograph shows the former Robert Barber property redeveloped with single family homes on Amana Place and Melody Drive. What is now the rear parking lot was graded flat and is free of vegetation as well as lands to the west and south of it. There is still no redevelopment to the south across Mississauga Road.

A 1995 photograph shows one single family house constructed to the immediate east on Barbertown Road and the balance of lands east to Amana still vacant. Residential subdivisions with single family homes are built out to the south and across Mississauga Road. The parking area for the community church has been graded out. A

graveled parking lot and the original church building have been constructed. There is considerable expansion of the mill building complex and many bulk carrier trailers are parked surrounding the site.

By December 2004, the remaining surrounding detached residences have been infilled. The community church to the southeast has been expanded and the north addition to the restaurant completed. By 2010, there is improved paved parking surrounding the restaurant and some landscaping features on the north side. No changes are noted in the May 2015 image.

#### **4.3.2 Topography, Hydrology, Geology**

A review of OGS Quaternary mapping confirms the subject property is underlain with a shallow blanket of sand and silt overlying Queenston Formation shale bedrock in the order of 3 to 10m below grade. Shale bedrock outcrops in the bed of the Credit River, which is about 10m below surrounding table lands. The surrounding lands are nearly flat lying, with minimal slopes generally to the northeast to the river valley. Shallow groundwater would appear to follow surface topography, flowing generally toward the northeast.

#### **4.3.3 Water Bodies and Areas of Natural Significance**

There are no major water bodies within the Phase One study area. The nearest water body is the Credit River about 400m to the east. This is recognized by MNR and Credit Valley Conservation as a coldwater fishery, particular with an important salmon run. The subject property is located within a Settlement Area in MNR Greenbelt mapping, and the nearest Greenbelt designations of Protected Countryside or Natural Heritage are located in the river valley. Mullett Creek, a minor watercourse and warm water fishery, is located about 270m to the east and joins the Credit River south of Burnhamthorpe Road.

#### **4.3.4 Water Well Records**

There are two records of municipal wells within the study area. Both wells are located just north of the subject property. According to MOE online records, both wells were advanced in July of 2015, located at 5201 Mississauga Road. No other information was provided. No other water wells were reported within the 250m radius. Two wells located to the southeast of the phase one property just beyond the 250m study area are listed as being advanced in June of 1967. Well number 4902643 is listed as not being used, but reported blue shale at a depth of 13.4 m. Well Number 4902642 was advanced for industrial use. Overburden material contacts with blue shale at a depth of 8.8 m.

There is no longer reliance on the underlying groundwater for potable purposes. No evidence of any dug or drilled well was noted on the Phase One lands during inspections, and the vendor did not know of any existing or former well. The two nearest reported wells are both located in the mill complex about 320m east of the Barber House

where fill with boulders was reported overlying shale at depths of 4.3 and 6.1m below grade, respectively, in conformity with depth of the adjacent river bed which has shale outcrop.

#### **4.3.5 Other Mapping**

In addition to Pleistocene geological mapping, mapping records consulted during this evaluation were the 1877 Peel County Atlas Map, and the City of Mississauga Natural Areas Survey map. Mapping from 1877, found in **Appendix E**, shows the phase one lands as being rural and agricultural as part of a larger farm holding. The lands were generally cleared and planted by the early 1800s. The Natural Areas map indicates the Phase One property lies in between two natural areas. The site is itself is located in a built area.

#### **5.0 Interview**

During the initial site inspection in 2016, the senior writer interviewed Mr. Victor Petrovsky who is manager for the restaurant. He advised he has worked at this property for his entire career and that his father had bought the former residence and had completed the conversion to restaurant use in 1986. He was not aware of any fires or other incidents with potential for adverse impacts on the property or any nearby lands.

Mr. Petrovsky was not aware of any wells or other underground structures or tanks on the property.

#### **6.0 Site Reconnaissance**

Brown Associates initially attended onsite on January 7, 2016 to carry out a visual site inspection. Weather conditions were clear and above freezing. There was no snow cover or frost penetration in the ground. Access was available to all parts of the property and building. There were no impediments to physical inspection.

Both flanking roads have full municipal services, including water, gas, storm and sanitary sewers. A private manhole was located to the rear of the kitchen near the back corner of the adjacent residential property. An antibacterial three compartment grease trap was located flush to the kitchen floor. The site has a PUC owned transformer on the south side, feeding the electrical room on the second floor, which contains three dry type transformers. There are closed-circuit security cameras in critical areas.

The lands to the immediate north were vacant former residential lots for which only the most southern *circa* 1966 bungalow remained vacant and is currently boarded up. The Barber House property has driveway access on both flanking streets and approximately 96 parking spaces, most in a large area to the rear, backing on rear yards of surrounding properties. There are private storm catch basins to serve pavement areas. All areas were extensively landscaped and well-maintained.

The original house is of load-bearing masonry construction with local red Streetsville produced brick, and wood floor joists and overlay. Roof is wood trusses with wide wood plank supporting shingles on a pitched roof. The 2004 addition to the north has a full basement used for storage and mechanicals, and a flat, built-up roof. Main floor and roof are supported with steel beams and open web steel trusses.

The original main floor is developed with formal dining areas in front rooms, and a bar in the central reception-lobby area. Original fireplaces had been converted with gas insets. Upper floor rooms include a service bar and private dining rooms, as well as one room on the southeast devoted to electrical distribution with 600/3/60 supply and three dry type step-down transformers, all apparently dated from the renovation. Finishes reflect original 19<sup>th</sup> century materials and fabrics throughout.

The commercial kitchen as a rear addition has a large service dish wash line, three compartment pot sinks and an entire wall of commercial ranges and ovens, plus a deep fry unit. It is served with a large flush-mounted antibactic grease trap. A Halon fire suppression system is present and air exhaust vents to exterior above the rear roofline.

The original basement has limited headroom in some areas, and concrete pits where original boilers were probably located. There was no evidence of any former HVAC system. All distribution pipes were either free of insulation or had glass fibre insulation in as new condition. Only modern gas fired HVAC system were located, feeding from at grade heat exchange units located on the southeast corner for the original house and on the north side at grade for the separate air management system in the basement of the addition located along the north wall. There are central sanitary and storm sumps located in the southeast corner of the addition basement.

A second inspection by the senior writer took place on July 18, 2016, at time of supervision of five geotechnical boreholes. No issues were noted with soil or groundwater quality. The restaurant continued operations and the property and landscaping were well maintained.

A third inspection of the property by the senior writer took place on October 20, 2017, at which time the business had vacated. The accesses were gated. No outside storage of any materials was noted, and no evidence of any issue inviting subsurface testing was apparent.

On the property to the immediate north, former residences had been demolished, all trees removed, and newly constructed underground services were in place for redevelopment. No other changes were noted in the surrounding community.

## **6.1 Below-Ground Structures**

No below-grade structures were observed in the course of inspection except for the sump pits in the basement. No vent or filler pipes were in evidence.

## **6.2 Storage Tanks**

No above-grade fuel oil tank was noted. No tanks or residual vent or filler pipes were noted on visual inspection. Gas was not available to this community at the time of building construction and the building likely relied on coal and possibly also on fuel oil for comfort heating until renovation, when gas was provided.

## **6.3 Potable and Non-Potable Water Sources**

The building is served with municipal water. There is no evidence of an existing or former private well for water supply, although one must have existed for the first century of family use.

## **6.4 Sewage Works**

The building is served with municipal sanitary sewers. No evidence of any private wastes system was noted, although one originally must have existed for the first century of family occupancy.

## **6.5 Stained Soil or Stressed Vegetation**

No stained or stressed vegetation was noted during inspections. All landscaped areas were formally planted and well maintained.

## **6.6 Current Uses and Adjacent Uses**

The Phase One building has been occupied as a restaurant continuously since 1986 through to December 2016 when restaurant uses ceased. The building has been vacant since. All contiguous uses are or were single family homes on large lots. Surrounding non-residential uses include the Portico Community Church, a new facility, located 300m to the southeast, and ADM Milling Company, located 350m and beyond to the southeast, east of the church, beyond the Phase 1 study area. This facility receives wheat by bulk carriers and by rail car, mills flour and related bakery products which are trucked out by bulk carriers. The only impact is truck traffic on the public road on the south side of the restaurant during business hours. As a food product handling facility, no environmental issues are anticipated for soil or groundwater. Similarly, the Hayhoe Mills about 550m to the north on the other side of the CP rail, store food-grade materials and would not be anticipated to have any adverse

impacts on soil or groundwater. Testing on a large tract of vacant lands between Hayhoe and the subject property by Brown Associates did not find any environmental issues. Neither industrial property is up-gradient from the subject lands.

## **6.7 Designated Substances**

Fluorescent lamp devices in service and basement areas are all newer than 1986 and are unlikely to contain small quantities of PCB in ballasts, since bases and ballasts are too new. Care is recommended to ensure bulbs are not broken during handling and replacement, since they contain small amounts of mercury gas. All transformers on site are noted to be of the dry type. The transformer at grade on the south lotline belongs to the local PUC and did not exhibit any evidence of leaks or staining.

No asbestos containing materials or urea formaldehyde foam insulation was noted. CFCs are present in the fire suppression system over cooking ranges and ovens and in all five of the HVAC systems which serve both sides of the building.

## **7.0 Review and Evaluation of Information**

### **7.1 Current and Past Uses**

The property is currently vacant but remains developed with a *circa* 1850s heritage building with modern additions. Use between 1986 and December 2016, was a restaurant with supplementary attached private banquet facilities. Prior to this the lands were in residential use, and early use included surrounding agricultural fields.

### **7.2 Potentially Contaminating Activities**

No potentially contaminating activities requiring attention for further investigation or remediation were observed, either on the Phase One lands or within the Phase One study area.

### **7.3 Areas of Potential Environmental Concern**

No areas of potential environmental concern were identified.

### **7.4 Phase One Conceptual Site Model**

The Phase One Property was cleared around the beginning of the 19<sup>th</sup> century and was farmed until about the 1850s when the site was developed with the original farmhouse. It remained a part of a larger farm property with a kitchen orchard. Peel County 1877 mapping confirms first developed use when the phase one property was developed with a single structure located on the southwest corner of the property and owned by the Barber

Brothers. Mixed uses, including residential and agricultural, continued up until about 1981 when surrounding properties had been developed for residential, and the existing residual residence was renovated for restaurant use. Benign restaurant and banquet uses continued until recently when the restaurant closed.

The Phase one lands will be converted back to residential use. No industrial activities are located within the Phase One study area nor have there been historically. Two Industrial uses are located beyond the phase one study area and downgradient of the phase one property. The general area is residential in nature.

No potentially contaminating activities were identified within the phase one study area and no areas of potential environmental concern were identified on the phase one property. Adjacent uses are low density residential. An institutional use is noted to the southeast, where a church is located beyond the study area. There is no heavy industry or other potentially contaminating activities located within the phase one study area.

The Phase One Property building has been vacant since December 2016. Prior to demolition, the addition to the north will be used as a future sales office for the proposed residential development in which the original heritage structure will remain.

There is no evidence of any significant regrading of the lands, which are nearly flat. Between 2 to 4 meters of silty sands overlie competent, flat-lying Queenston Shale bedrock, of Ordovician age. There is no perched or permanent water table in the overburden. Redevelopment is not likely to require any services or structures to be installed any deeper than the bedrock interface and excavation into shale bedrock is not anticipated.

The only potential areas of environmental concern would relate to renovation of the vintage residence. Although no materials issues were noted during inspection, designated substances could be uncovered during stripping out and replacement of mechanical systems. Fire suppression and air conditioning systems which employ CFCs must be decommissioned by a licensed technician to recover CFCs, with equipment tagged off prior to removal. Issues related to renovation may potentially include asbestos in floor tiles or other areas, or possible presence of lead-based paint, requiring care if stripping old painted surfaces. In surrounding excavations, it is possible to find an abandoned well, septic tank or a fuel oil tank, each of which requires intervention if encountered, and direction from the environmental consultant.

## **8.0 Conclusions and Recommendations**

### **8.1 Is a Phase Two ESA Required?**

Based on all the above, we believe no intrusive Phase 2 investigations are required to assess soil or groundwater quality at 5155 Mississauga Road. Services and structures should not extend any deeper than the bedrock interface, and rock is not likely to be disturbed. For new residential uses, a Record of Site Condition (RSC) will be required, with acknowledgement by MOECC and posting to the Environmental Registry, in order to release building permits by the City of Mississauga.

## 9.0 Reliance

This report may be relied on by a mortgage lender for purposes of consideration to provide mortgage financing, subject to the standard limitations statement contained herein. A reliance letter naming a third party for this purpose is available on request.

This report may also be relied on by the City of Mississauga and staff for purposes of supporting a reversion from commercial to residential use of the existing building and new residential development on the balance of the site.

## 10.0 References

ADM Milling. Corporate Website for Archer, Daniels, Midland Corporation.

City of Mississauga Interactive Mapping Site, Natural Areas System Map, Historical Air Photos, years reviewed 1954 – 2015. Mississauga, ON.

Greenbelt Plan Area, 2005. Ministry of Agriculture & Food, Ministry of Municipal Affairs & Housing and Ministry of Natural Resources.

Intra Technologies Limited, 1987, Waste Management Branch. Directory of 699417 Coal Gasification Locations in Ontario.

“MISSISSAUGA, ON.” 43.571784° N and 79.699358°W. Google Earth. Photography 2004, 2010, and 2015.

Ontario Ministry of the Environment (MOECC), 1989. Ontario Inventory of PCB Storage Sites.

Ontario Ministry of the Environment (MOECC), November 17, 2013. *Well Record Data Set*, Ontario Well Records on-line database. Water Well Information System.

Ontario Ministry of the Environment (MOECC), 1980. *Waste Disposal Site Inventory*.

Ontario Ministry of Natural Resources and Forestry (MNRF), Queens Printer for Ontario, 2017, with *topographic base mapping*.

The Canadian Atlas Digital Project. 1877 Peel County Atlas Map, Township of Toronto North, McGill University.

Wikipedia. “*The Credit River Railway*.”



## 11.0 Qualification

Brown Associates Limited is a full-services environmental consulting firm which has carried out more than 4,000 environmental evaluations over the past 47 years. The firm is qualified to manage asbestos, PCBs, pre-demolition surveys, designated substances inventories and other abatement programs.

Dr. Brown is a Professional Engineer and a Qualified Person recognized by the Ontario Ministry of the Environment and Climate Change for purposes of submitting Records of Site Condition for Phase I, II and III site evaluations. He has a B.Sc. in Geology and Chemistry from Queen's University 1968, and a Doctorate in Geochemistry from Oxford University in 1970. Eva Mitsche has an Honours degree in environmental studies from University of Toronto and twelve years' experience in environmental research, including preparation of Phase 1 environmental reports.

Brown Associates Limited carries \$5 million in environmental liability insurance (\$2 million per incident) and \$2 million in errors and omissions insurance, and enjoys a claims-free status.

## 12.0 Closure

We trust that this information is sufficient for your present requirements. Should any questions arise, please do not hesitate to call. Thank you for this opportunity to be of service.

Yours very truly,

BRUCE A. BROWN ASSOCIATES LIMITED



Bruce A. Brown, Ph. D., RPP, P. Eng., QP  
Principal Engineer  
*Senior Reviewer*



Eva Mitsche, Hons. BA  
Environmental Researcher

## Appendix A: Phase I Statement of Limitations

## Bruce A. Brown Associates Limited

### Statement of Limitations for Phase I Environmental Evaluations

The conclusions and recommendations of this report are applicable only to the net area described in the report, and to the time of inspection. This report may be used only by the client to which it is addressed and for the purposes stated in the introduction. Bruce A. Brown Associates Limited does not permit use of this report by any third party or for any purpose other than stated unless written authorization is provided by this firm.

This Phase I evaluation is a preliminary environmental quality assessment of real property. Sources which are relied upon include visual inspection, general inquiries to management, tenants, and approvals agencies as stated in the report. Secondary sources are limited to historical insurance maps, air photographs, street directories and like materials as stated in the body of the report.

A Phase I Environmental Evaluation does not generally include intrusive investigations or materials sampling, laboratory analyses or monitoring. As a consequence, it is recognized that site specific conditions which are not visually apparent to a qualified and experienced investigator may not be discovered at this level of evaluation. A confirmation of presence or absence of any impaired condition, its extent or possible liabilities associated with such a condition cannot be firmly established at the Phase I level of investigation.

Where site conditions or history of use of a site and/or neighbouring lands, or age of facility suggest potential for impaired conditions, a supplementary Phase II evaluation may be required to confirm the presence or extent of any impaired condition to permit continued or proposed future uses of a property.

With the exception of instances where this firm is specifically retained to confirm field conditions, or to supervise demolition, construction, excavation, or other remediation, the responsibility of Bruce A. Brown Associates Limited shall be restricted to accurate interpretation of available information from sources cited.

All costing and figures are rough estimates based on the current guidelines and market costs, and several quotes from contractor should be obtained prior to site work. Costs will depend on extent of work and approach and in some cases the best approach cannot be determined until after site work has commenced.

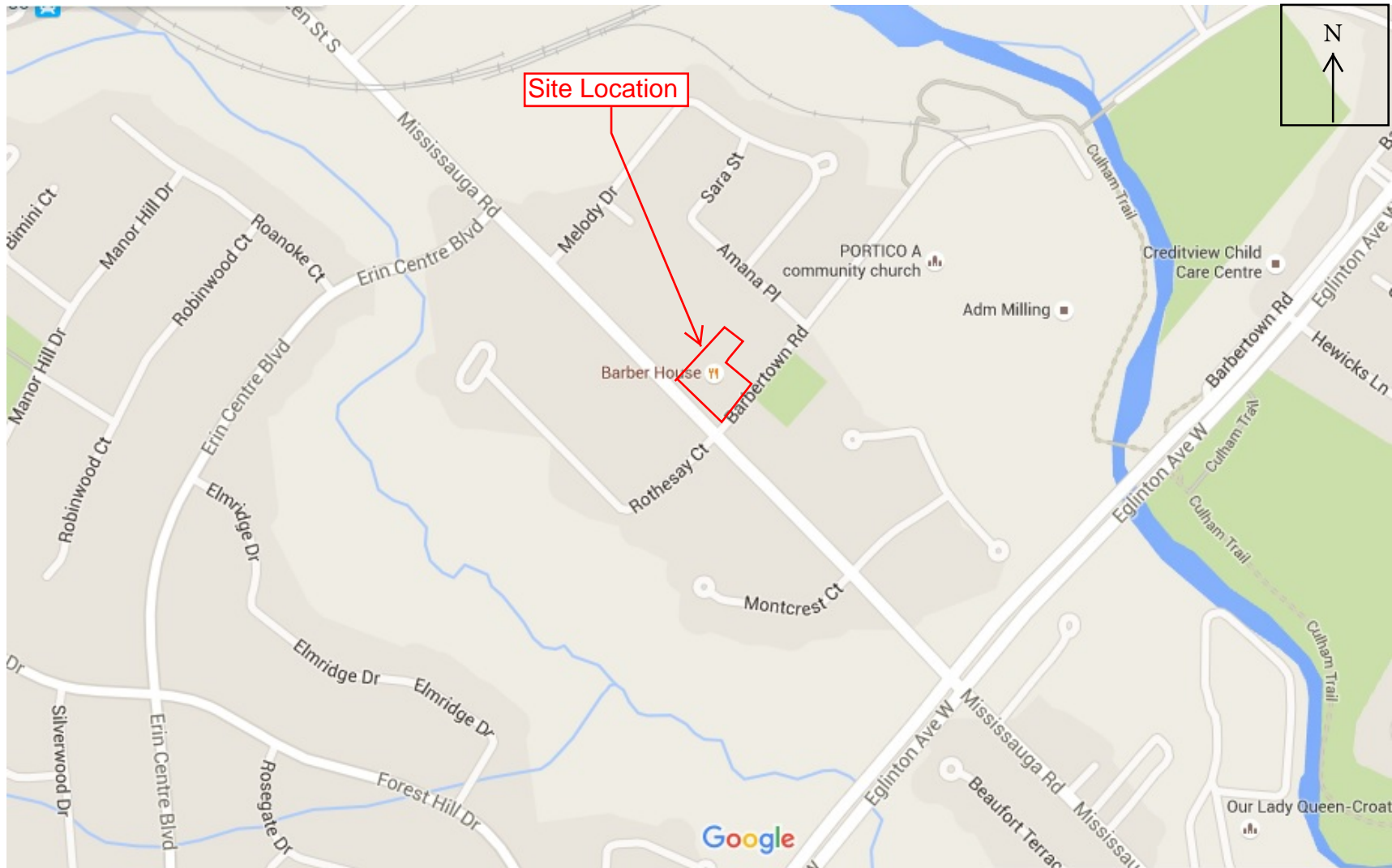
Communication of all matters concerning on-site materials, identified hazardous wastes, soils or groundwater quality or remediation and other matters shall be to the firm or individual authorizing site investigations. Where recommendations are made by Bruce A. Brown Associates Limited to an authorizing agent, it shall be the responsibility of that agent to

communicate, as required, to any contractor, owner, agency, or other consultant who may be affected by such recommendations, or shall require such data to carry out their duties in a safe and responsible manner as they relate to the subject property and ensure compliance with all regulatory requirements and guidelines affecting the environment or matters of occupational health and safety.

Appendix B: Site Location Plan, MNR Topographic map,  
Property Based Map, Study Area Map

Project: 15\*4249

5155 Mississauga Road, Mississauga

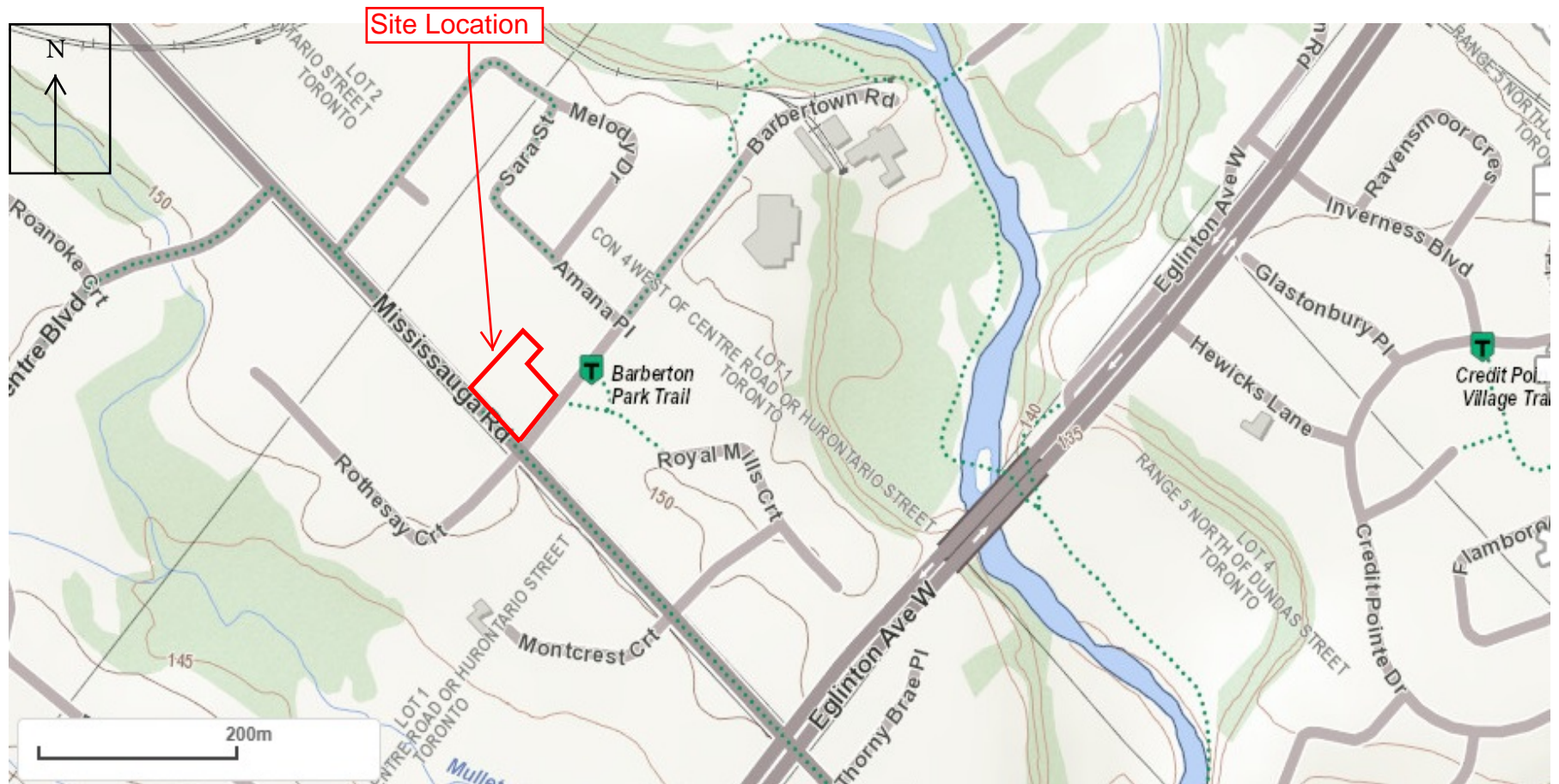


Air Photo: 2015

Site Location Plan

Project: 15\*4249

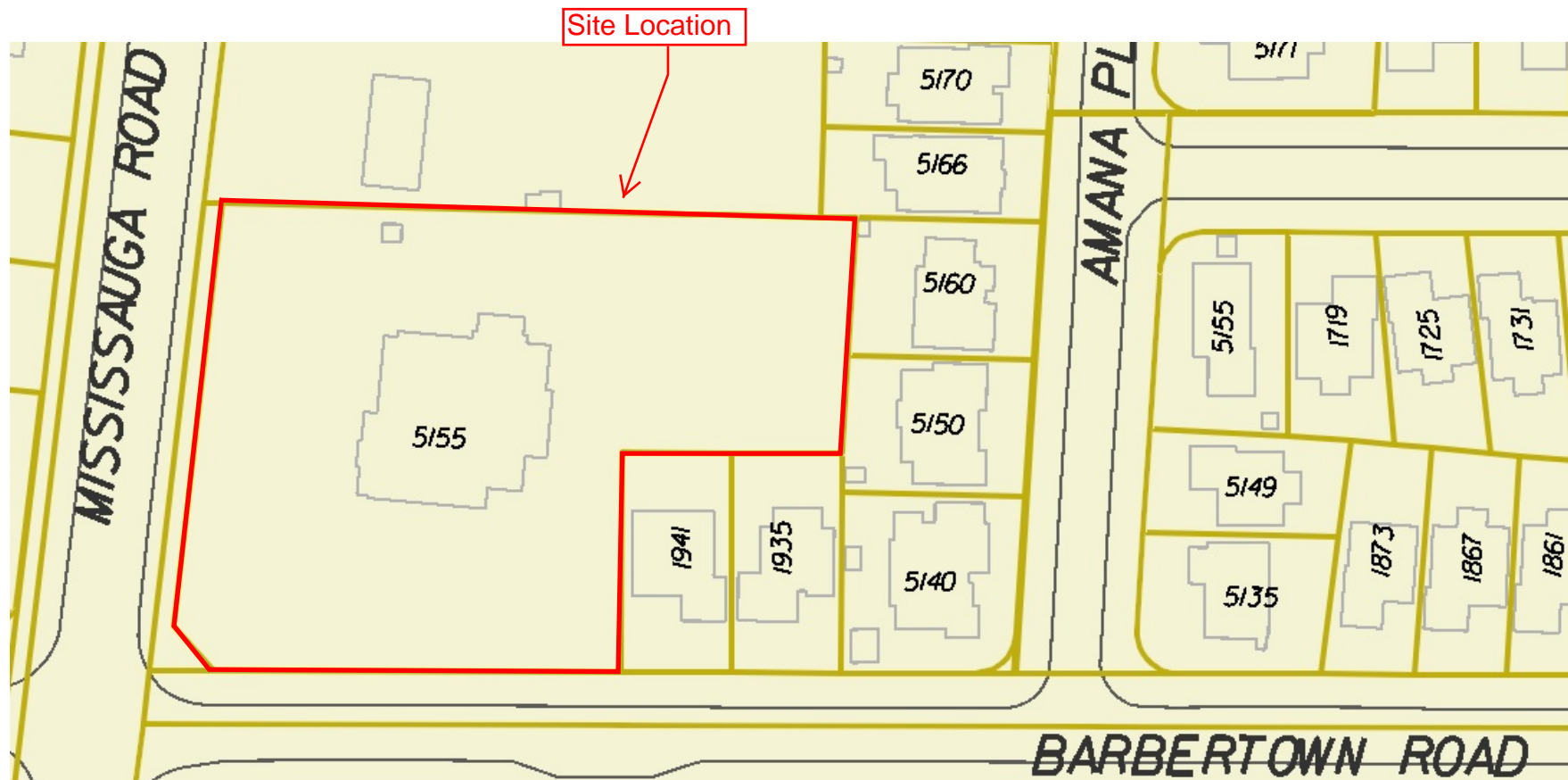
5155 Mississauga Road, Mississauga



Ministry of Natural Resources: Topographical Mapping

Project: 15\*4249

5155 Mississauga Road, Mississauga



Property Based Map



Project: 15\*4249

5155 Mississauga Road, Mississauga



Air Photo: 2015

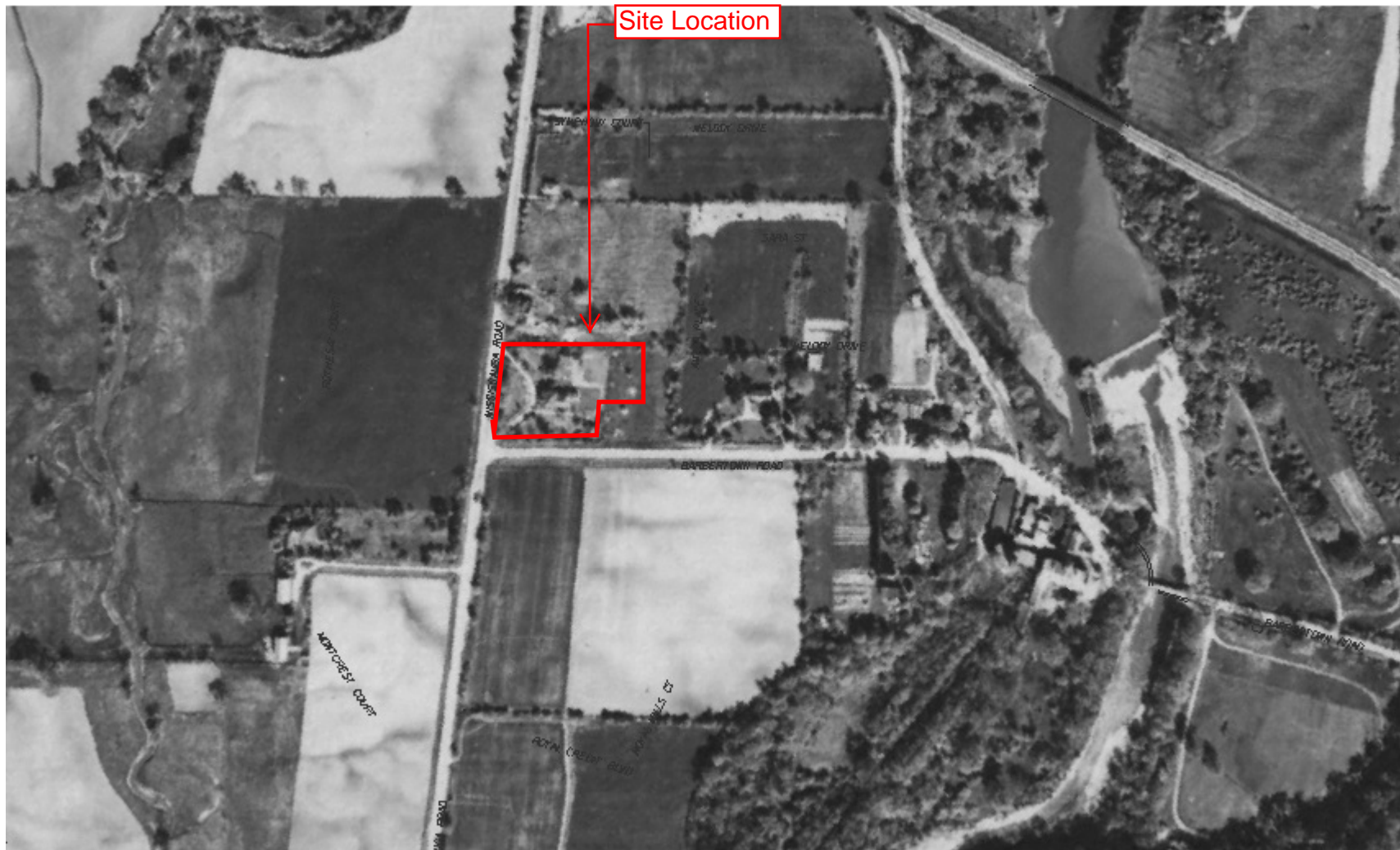
Phase One Study Area Map

## Appendix C: Air Photographs



Project: 15*4249	5155 Mississauga Road, Mississauga
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Project: 15*4249	5155 Mississauga Road, Mississauga
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Historical Air Photo: 1954

Project: 15\*4249

5155 Mississauga Road, Mississauga



Historical Air Photo: 1966

Project: 15\*4249

5155 Mississauga Road, Mississauga



Historical Air Photo: 1980



Project: 15\*4249

5155 Mississauga Road, Mississauga



Historical Air Photo: 1985

Project: 15*4249	5155 Mississauga Road, Mississauga
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Project: 15*4249	5155 Mississauga Road, Mississauga
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Historical Air Photo: 1995



Project: 15\*4249

5155 Mississauga Road, Mississauga



Historical Air Photo: 2004



Project: 15\*4249

5155 Mississauga Road, Mississauga

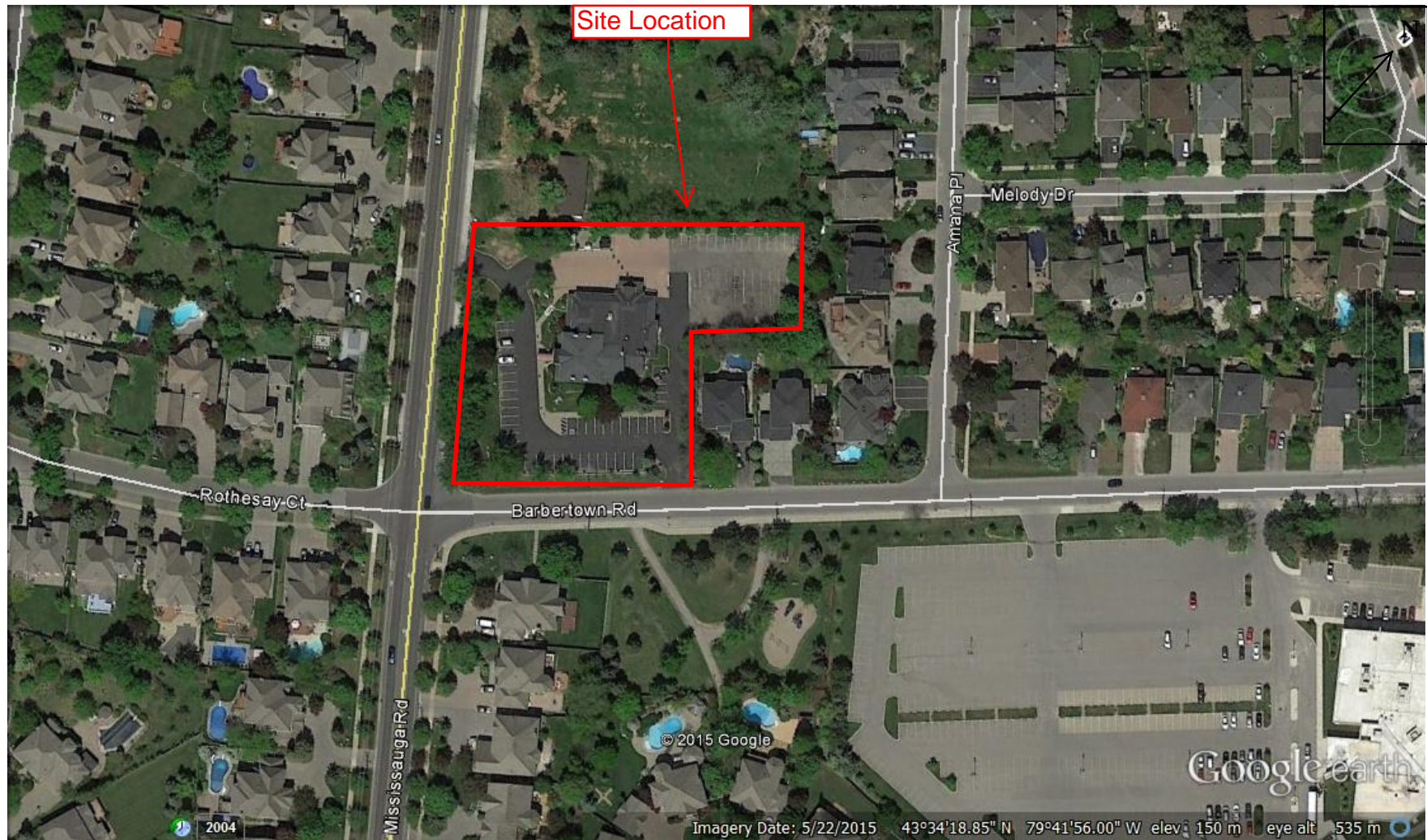


Historical Air Photo: 2010



Project: 15\*4249

5155 Mississauga Road, Mississauga



Historical Air Photo: 2015

#### Appendix D: Site Survey





Appendix E: Peel County Atlas Map 1877 &  
Historical Photographs



Project: 15\*4249

5155 Mississauga Road, Mississauga



County of Peel: North Toronto Township - 1877



Project: 15\*4249

5155 Mississauga Road, Mississauga



View of R. Barber's Residence Located to the East of the Subject Lands



Project: 15\*4249

5155 Mississauga Road, Mississauga



View of Subject Property in 1877 - W. Barber's Residence



Appendix F: Past and Current Uses Table

## “TABLE OF CURRENT AND PAST USES OF THE PHASE ONE PROPERTY”

Project Number 16\*4249

5155 Mississauga Road, Mississauga

YEAR	NAME OF OWNER	DESCRIPTION OF PROPERTY USE	PROPERTY USE	OTHER OBSERVATIONS FROM AERIAL PHOTOGRAPHS, FIRE INSURANCE PLANS, ETC.
Prior to March 8, 1828	Crown Land	Vacant undeveloped land	Agriculture or other use	Title Search: PIN 13196-0746
March 8, 1820	Henry Stiver	Vacant undeveloped land	Agriculture or other use	No other observations available
March 24, 1828	William J. Comfort	Vacant undeveloped land	Agriculture or other use	No other observations available
September 11, 1844	William Barber	Vacant undeveloped land	Agriculture or other use	No other observations available
May 5, 1870	Robert Barber	First developed use of the property where a farmhouse was built, located at the southwesterly corner of the phase one property indicating a mixed use of agricultural and residential	Residential	According to historical data, the first developed use of the phase one property was its original farmhouse and orchard. The farmhouse was built by about 1851.

## “TABLE OF CURRENT AND PAST USES OF THE PHASE ONE PROPERTY”

Project Number 16\*4249

5155 Mississauga Road, Mississauga

May 5, 1870	William Barber	Phase one lands continue a mix of agricultural and residential uses	Residential	1877 mapping indicates that the phase one property was part of a larger farm acreage owned by the Barber Brothers. This mapping indicates the lands were in agricultural use. An orchard was located in the eastern third of the farm property. 1877 mapping confirms first developed use where a farm house can be seen in the very southwesterly corner on the phase one property itself.
September 9, 1884	Elizabeth Barber	Phase one lands continue a mix of agricultural and residential uses	Residential	Title Search: “Between 1870 and 1884, the original Barber brothers’ purchase was divided into a number of smaller parcels, 7 acres being the most common size parcel. It is recorded in Registry Office records that William Barber sold 7 acres to Robert B. Barber in 1876. It appears that this 7 acre parcel is the subject property.”
May 11, 1889	John C. Hurst	Phase one lands continue a mix of agricultural and residential uses	Residential	No other observations available
May 21, 1889	Patrick Mahoney	Phase one lands continue a mix of agricultural and residential uses	Residential	No other observations available
February 12, 1895	Stephen Mahoney	Phase one lands continue a mix of agricultural and residential uses	Residential	No other observations available

## “TABLE OF CURRENT AND PAST USES OF THE PHASE ONE PROPERTY”

Project Number 16\*4249

5155 Mississauga Road, Mississauga

June 23, 1906	Henry Everton Hern	Phase one lands continue a mix of agricultural and residential uses	Residential	No other observations available
April 8, 1909	Elizabeth Charlotte Poliwka	Phase one lands continue a mix of agricultural and residential uses	Residential	No other observations available
November 30, 1919	Alfred Stong	Phase one lands continue a mix of agricultural and residential uses	Residential	No other observations available
October 30, 1919	Barbara M. Riches	Phase one lands continue a mix of agricultural and residential uses	Residential	No other observations available
June 22, 1935	Joseph Maski	Phase one lands continue a mix of agricultural and residential uses	Residential	No other observations available
December 22, 1938	Hattie Maski	Phase one lands continue a mix of agricultural and residential uses	Residential	No other observations available

## “TABLE OF CURRENT AND PAST USES OF THE PHASE ONE PROPERTY”

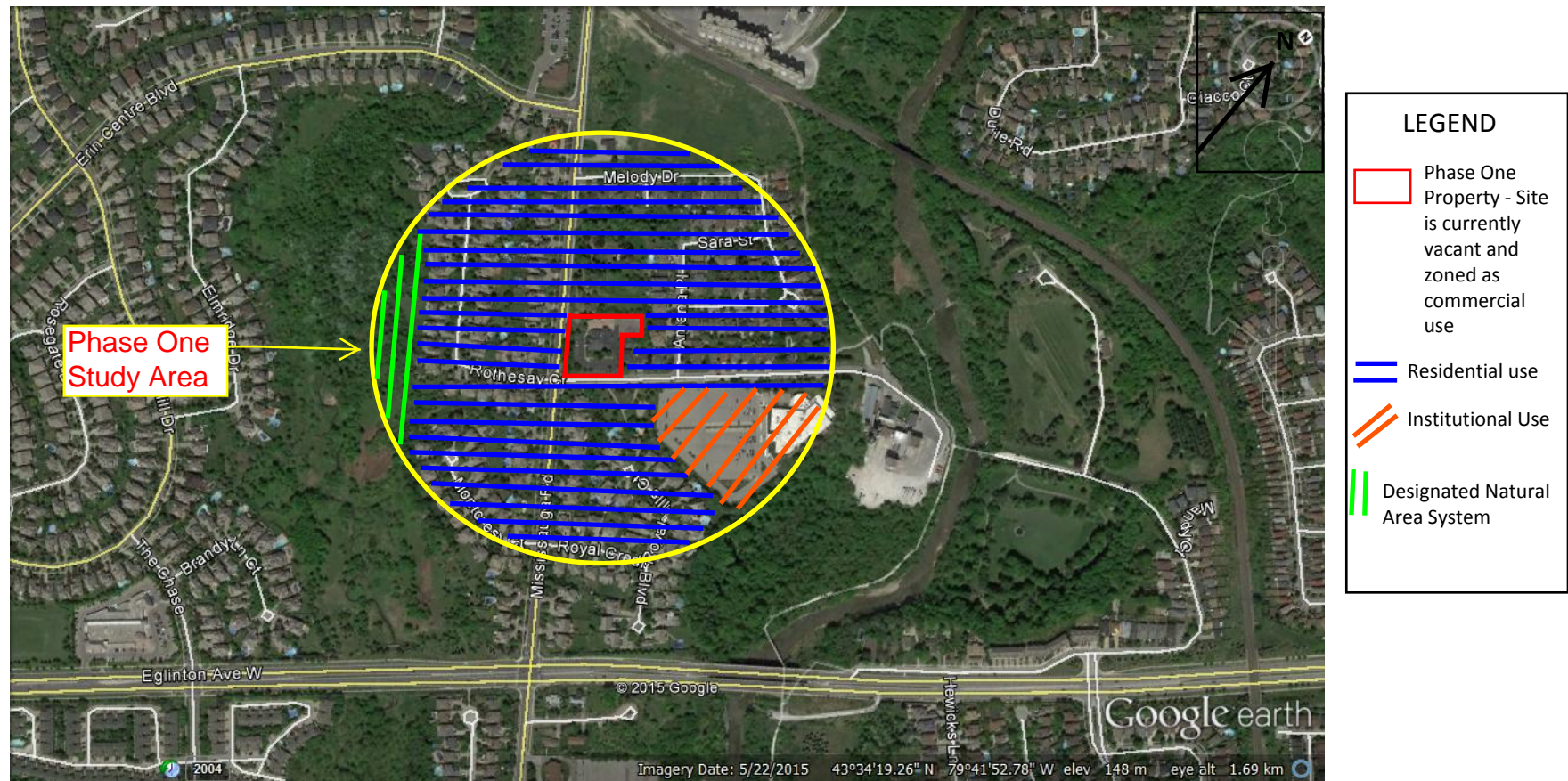
Project Number 16\*4249

5155 Mississauga Road, Mississauga

May 4, 1944	Dudley R. Dewart	Phase one lands continue a mix of agricultural and residential uses	Residential	No other observations available
November 28, 1968	Carol A. Townsend	Phase one lands continue a mix of agricultural and residential uses	Residential	Air photograph from 1954 indicates the site continues to be developed with a single structure, The Barber House, but with a small addition on the north side. The residence is surrounded by agricultural fields on all three sides. 1966 and 1980 air photos indicate no change to the phase one property.
July 31, 1981	Buccaneer Seafood & Steak House Ltd.	Change in use occurs. Subject property is renovated for restaurant use	Commercial	1985 air photography shows the phase one property developed with a similar historical structure as seen in previous air photos. Changes noted to the balance of the property indicate the lands to the rear, south and west of the existing heritage structure are now free of any vegetation. The rear portion has been re-graded and used for vehicle parking.
October 23, 1996	Name change to: The Old Barber House Restaurant Limited	The phase one property continues its use as a restaurant	Commercial	Air photography from 1995 indicates no major changes to the phase one property other than a paved entranceway and driveway leading to the rear parking lot. Google imagery from 2004 indicates an addition on the north end of the existing building was complete.
January 13, 2016	City Park (Old Barber) Homes Inc.	The phase one property continues its use as a restaurant until December 2016 when the restaurant ceased its operations and the building is currently vacant	Commercial	Google imagery from 2010 shows improved paved parking surrounding the restaurant and some landscaping features can be seen on the north side of the property. Air photography from 2015 shows no changes to the phase one property.







Air Photo: 2015

Figure 1: Phase One Conceptual Site Model

0 100  
Meters

There are no Areas of Environmental Concern from Activities on the Phase One Property and there are no Potentially Contaminating Activities in the Phase One Study Area

There are no Water Bodies and no Areas of Natural Significance within the Phase One Study Area. There is one Water Well within the Study Area, see figure 2 for details.

Inferred Groundwater Flow Direction



#### Appendix H: Site Photographs



Project: 15\*4249

5155 Mississauga Road, Mississauga



View to Northeast - View of Front and South Elevations

Project: 15\*4249

5155 Mississauga Road, Mississauga



View to Southeast - View of Front and North Elevations



Appendix I: TSSA Response

Subject:RE: Technical Dept.  
From:"Public Information Services" <publicinformationsservices@tssa.org>  
To:eva <eva@brownassociates.ca>  
Date:Wed, 13 Jan 2016 14:11:53 +0100

=====

Good morning Eva,

Thank you for your inquiry.

We have no record in our database of any fuel storage tanks at the subject address (addresses).

For a further search in our archives please submit your request in writing to Public Information Services via e-mail (publicinformationsservices@tssa.org) or through mail along with a fee of \$56.50 (including HST) per location. The fee is payable with credit card (Visa or MasterCard) or with a Cheque made payable to TSSA.

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.

Thank you and have a great day!

Regards,

Sarah

[cid:image001.png@01D14DDA.0F059B50]

Public Information Services  
Facilities & Business Services  
3300 Bloor Street West

Center Tower, 16th Floor  
Toronto, Ontario, M8X-2X4

Tel: 1-877-682-8772 Fax: (416) 734-3568 E-mail:

publicinformationsservices@tssa.org<mailto:publicinformationsservices@tssa.org>

www.tssa.org<http://www.tssa.org>

[cid:image002.png@01D14DDA.0F059B50]<https://www.facebook.com/TSSA-Technical-Standards-Safety-Authority-167153823474861/timeline/>[cid:image003.png@01D14DDA.0F059B50]<https://twitter.com/TSSAOntario>

[cid:image004.png@01D14DDA.0F059B50]<http://tssablog.org/>

From: eva [mailto:eva@brownassociates.ca]  
Sent: Tuesday, January 12, 2016 10:09 PM  
To: Public Information Services

Subject: Technical Dept.

Dear Sir/Madam:

We are requesting any information you may have regarding a property located in the City of Mississauga.

Property(ies) of Interest: 1) 5155 Mississauga Road, Mississauga

We require information on: underground and above ground storage tanks registered for the above mentioned property and any records for retail facilities, any incident reports, fuel oil spills, or contamination records for these sites.

Thank-you for your assistance.

Sincerely,

Eva Mitsche

Environmental Researcher  
Bruce A. Brown Associates Limited  
Consultants in the Environmental and Applied Earth Sciences

Office Tel: 416-424-3355 Cell: 416-450-7588

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