

# 8700 Huntington Road Vaughan, ON

# CULTURAL HERITAGE IMPACT ASSESSMENT

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# 1 CITY OF VAUGHAN CHIA GUIDELINES

In support of the preparation of this report, the City of Vaughan's Guidelines for Cultural Heritage Impact Assessment Reports (2022) has been included as Appendix A.

# 2 STATEMENT OF PROFESSIONAL QUALIFICATIONS

ERA Architects Inc. (ERA) specializes in heritage conservation, architecture, planning and landscapes as they relate to historical places. This work is driven by our core interest in connecting heritage issues to wider considerations of urban design and city building, and to broader sets of cultural values that provide perspectives to our work at different scales.

In our 30 years of work, we have provided the highest level of professional services to our clients in both the public and private sector out of offices in Toronto, Montreal and Ottawa. We have a staff of more than 100, and our Principals and Associates are members of associations that include: the Ontario Association of Architects (OAA), the Canadian Association of Heritage Professionals (CAHP) and the Royal Architectural Institute of Canada (RAIC).

The project team for this report includes the following personnel:

**Graeme Stewart** is a registered architect and planner and is a Principal at ERA Architects. Graeme has been involved in numerous urban design, cultural planning, conservation and architecture projects with particular focus on neighbourhood design and regional sustainability. Graeme was a key initiator of the Tower Renewal Partnership, is a founding director of the Centre for Urban Growth and Renewal (CUG+R), and the co-editor of Concrete Toronto: A Guidebook to Concrete Architecture from the Fifties to the Seventies. Graeme has studied architecture in Canada and Germany and received his Master of Architecture from the University of Toronto.

**Jessie Grebenc CAHP** is a Senior Associate at ERA Architects and holds a BA in Fine Art History and Architectural Studies and an MArch from University of Toronto. She has also studied a number of specialized conservation practices through programs at Parks Canada and Willlowbank School of Restoration Arts, as well as the Scottish Lime Centre Trust, the Prince's Foundation, and West Dean College, UK. Jessie has a special interest in the conservation of masonry structures, and has gained extensive experience in building analysis, field review, contract documents production, and project administration for a range of complex masonry projects. Jessie has also worked on several properties that involve renovation, major additions, and new construction.

**Sharon Hong MScPl, RPP, MCIP** is an associate with the heritage planning team at ERA. She holds a Master of Science in Planning from the University of Toronto and has over 10 years of experience working in both the public and private sectors in heritage, urban design, and community planning.

**Max Berg** is a Project Manager at ERA and holds a Master's degree in Architecture from the University of Toronto. With over 12 years of experience in architectural design, project coordination and contract administration, Max has experience on all a wide variety of project scales and types. He brings a thorough approach and attention to detail to a portfolio which covers a wide range of Heritage projects including restoration, conservation, and adaptive re-use. A recently completed project in Max's portfolio, the revitalization of University College at UofT, was the recipient of several awards including the OAA Design Excellence Award (2022) and Lieutenant Governor's Ontario Heritage Award for Excellence in Conservation (2021).

**Abbi Kusch, BArch, MArch**, completed her Master of Architecture from the Royal Danish Academy of Arts in Copenhagen, Denmark and a Bachelor of Architectural Studies in Design from the Azrieli School of Architecture & Urbanism at Carleton University.

**Brenton Nader, MA, MScPl** is a heritage planner at ERA. He holds a Master of Arts degree in urban and social history from McGill University, a Master of Science in Planning degree from the University of Toronto, and is currently completing a PhD in Planning at the University of Waterloo. His doctoral dissertation explores the history and future trajectories of artisanal manufacturing in Toronto.

# 3 EXECUTIVE SUMMARY

#### Background

This Cultural Heritage Impact Assessment ("CHIA") has been prepared by ERA Architects Inc. ("ERA") for the proposed redevelopment of the property municipally known as 8700 Huntington Road in Vaughan (the "Site").

The Site contains a one-and-a-half-storey vernacular house-form building, originally built c. 1855 as a residence for Robert Agar and Margaret Lawrie. This heritage resource is known as the "Robert Agar House," and is currently in use as part of the Vaughan campus training facilities for the Laborers' International Union of North America ("LiUNA"). The Site has evolved considerably since LiUNA's occupation of the Site in 1991. It has evolved from its historical use as a working farmstead into a remnant house-form building within an evolving industrial context. Most recently, this has included the construction of a

NB: Unless otherwise indicated, all current photos were taken by ERA.

one-storey storage facility to facilitate the ongoing use and expansion of LiUNA's operation of the Site.

#### **Cultural Heritage Value**

The Robert Agar House is designated under Part IV of the Ontario Heritage Act ("OHA") (By-law 46-82). It was designated on architectural grounds as representative of a vernacular interpretation of the Classical Revival style. Later reports identify Georgian, Gothic Revival, and Regency Style characteristics in the building.

It should be noted that there are no heritage attributes on the interior of the Robert Agar House, nor any interior attributes identified in the designation by-law.



2. Robert Agar House, primary (east) elevation, as seen in 2005, with portions of the existing campus visible to the rear (City of Vaughan Archives).



3. Labourers' Monument and landscaping in front of the Robert Agar House, facing the primary (east) street entrance to the lot at 8700 Huntington Road.



4. South elevation of the existing LiUNA training campus, with street-level parking to the south and west. There is an outdoor training ground, as well as a storage facility and transport truck training facility on the west half of the lot (not shown). The Robert Agar House (largely obscured by tree cover) can be seen at the far right of the image, to the east of the existing campus buildings (Google Maps, 2022).

#### **Proposed Development**

The proposed development will conserve the Site's historic house-form building in situ, retaining and reinforcing its relationship to and visibility along Huntington Road, while expanding the existing LiUNA training facility.

Described as Building "A" in the architectural drawing set (Appendix D) and intended to be used for administration and classroom activities, the proposed new building is designed in a modified "U-shape," with a two-storey rectilinear wing running north-south, connecting the heritage structure to the existing campus buildings, as well as two rectilinear two-storey wings running eastwest, flanking and extending proud of the heritage house. The southern east-west wing will be perpendicular to the conjoining Building A, while the northern east-west wing will be slightly offset from perpendicular to align with the northern property line and to create sight lines to the heritage structure from Huntington Road.

To the rear (west) of the "U-shaped" Building "A", the development proposes to include a one-storey workshop, identified as Building "E" in the architectural drawing set.

Building "E" will connect to the existing campus structures, identified as Buildings "F1," "F2," and "F3," respectively.

Two existing buildings will be retained on the west half of the lot (Buildings "S" and "T"), with a proposed open grid gravel system punctuating the lot perimeter between the existing asphalt driveway and the southern property line, and along the north perimeter of Building "T" to the west end of the lot; the latter extending the existing north driveway in length with a different material, transitioning from asphalt to gravel. South of this added treatment at grade will be an existing tunnel below grade connecting to an existing manhole shaft at the northwest corner of the Site to the existing training facility identified as Building "T."

#### Impact of the Development

The proposed development will retain the Robert Agar House.

The impacts of the proposed development to the cultural heritage value of the Site are outlined below:

• The post-1970 bay window on the south elevation will be removed and replaced with a new entrance;



5. Rendering of the proposed development looking west from the east side of Huntington Road with the heritage resource in the centre of the image (Standard Practice, 2024).

- The north-south wing of Building "A" will abut the rear (west) of the Robert Agar House, modifying the existing opening on its west facade to facilitate the connection of the mechanical system of the new school with the heritage resource;
- Removal of the existing interior (not a heritage attribute) of the Robert Agar House, which is to be replaced with a structural stability system allowing for a lowered floor-plate to grade and a raised ceiling height;
- East-west wings of Building "A" will flank and extend proud of the heritage resource; and,
- Continued evolution of the Site and area context from agricultural to industrial.

#### **Mitigation Strategies**

The impacts of the proposed development will be mitigated through the following measures:

- Whole building in-situ retention, with the restoration of all exterior heritage attributes;
- Accessibility accommodations facilitated through the creation of a new entrance at grade;
- Rehabilitation of the heritage resource to activate educational and instructional use aligned with the rest of the training facility;
- Continued use of the Site by LiUNA Local 183, from its 19th century rural origins, through its adaptation for training the LiUNA Local 183 trade union members (est. 1991), to the present growth of the training facility;

- An expansive view of the heritage structure from within the glazed corridor of the northern east-west wing;
- Reconfiguration of landscaping features, including trees, to establish a view corridor to the Robert Agar House from Huntington Road;
- Building A is proposed to be clad in a material that is in keeping with the heritage resource, existing campus structure, and evolving character of Huntington Road.

#### **Conservation Strategy**

The Robert Agar House is proposed to be retained in-situ; all exterior heritage attributes will be conserved and restored, including the porches on the primary (east) and secondary (north) facades.

The primary conservation treatment is rehabilitation to allow the heritage resource to be adapted for educational, event, instructional, and mechanical uses.

The full scope of conservation work will be detailed in a forthcoming Conservation Plan, which will address interior and exterior alterations to the existing heritage resource, as well as its interface between existing and proposed building components.

Future Interpretation, Signage, and Lighting plans are encouraged to determine the most appropriate way to communicate the Site's cultural heritage value, evolution, and historic location.

### Statement of Professional Opinion

ERA finds that the proposed development will conserve the Site's cultural heritage value, which includes its continued use as a LiUNA training facility. The proposed development incorporates a number of design considerations

intended to mitigate the impact on the cultural heritage value of on-site and adjacent recognized heritage resources.

The proposed development reinforces historic themes related to the Site's evolution, including its orientation to Huntington Road, association with the Agar family, and its use as training campus for skilled labourers (est. 1991), which is now expanding to accommodate growth on the Site and industrial changes to the surrounding context.

Although the proposed development will create new building wings that will extend beyond the front (east) facade of the Robert Agar House, the historic structure will be re-activated as a centrepiece of the new physical arrangement and functional programming of the campus expansion. The structure will form the visual focus of a forecourt with landscaping elements creating a view corridor to the heritage structure from Huntington Road. Additionally, the northern east-west wing will feature a single-loaded corridor on its southern side with full-height glazing that will offer an expansive view of the Robert Agar House from within the new classroom and institutional space.

ERA finds that the proposal meets the recognized professional standards and best practices in the field of heritage conservation in Canada. The proposal conforms to applicable policies and guidelines including the Heritage policies of the City of Vaughan's Official Plan ("OP") and the Parks Canada Standards and Guidelines for the Conservation of Historic Places in Canada.

# 4 INTRODUCTION

ERA has been retained by LiUNA (Laborers' International Union of North America) (the "Client") to provide a CHIA for the proposed redevelopment of the Site. This report considers the impact of the proposed development on the heritage resource which is designated under Part IV of the Ontario Heritage Act ("OHA") on the Site.

According to the City of Vaughan's guidelines for Cultural Heritage Impact Assessments, the purpose of a CHIA is to assess the significance of a heritage resource, identify impacts of the proposed development, and recommend a conservation approach.

This report was prepared with reference to the following:

- Parks Canada Standards and Guidelines (2010);
- Provincial Policy Statement ("PPS") (2020);
- Ontario Regulation 9/06 Criteria for Determining Cultural Heritage Value;
- Ontario Heritage Toolkit ("OHT");
- A Place to Grow: Growth Plan for the Greater Golden Horseshoe ("GPGGH") (2020, as amended);
- York Region Official Plan (2010);
- City of Vaughan Official Plan ("OP") (2010); and,
- City of Vaughan Terms of Reference for Cultural Heritage Impact Assessments (2022).

# 5 PROPERTY OWNER

LiUNA Local 183 Training Centre Labourers' International Union of North America 8700 Huntington Rd Vaughan, ON LOJ 1C0 416-242-7551

# 6 OWNER'S REPRESENTATIVE OR AGENT

Oliver Laumeyer Standard Practice 209-213 Sterling Rd Toronto, ON M6R 2B2 647-895-0887

# 7 PROPERTY OVERVIEW

The Site is comprised of a single property located on the northeast quadrant of Lot 12, Concession 10, known municipally as 8700 Huntington Road in the City of Vaughan. The Site is bound by Huntington Road to the east and Longo's Support Centre and Hunter's Valley Road to the north. To the west is the southerly extension of Hunter's Valley Road, construction of which is nearing completion. Further west are vacant lands that are proposed for industrial development. Beyond Highway 50 is residential in character. Directly to the south, the new LiUNA Headquarter office building is under construction at 8500 Huntington Road (not shown on map).



6. Satellite image of 8700 Huntington Road (outlined in pink), City of Vaughan (Google Maps, 2022, annotated by ERA).



7. Property Data Map of 8700 Huntington Road (outlined in pink), City of Vaughan (City of Vaughan, annotated by ERA).



8. Existing Site Plan, showing the entirety of the property located at 8700 Huntington Road, including the heritage resource, existing campus buildings, and training facilities, both indoor and outdoor (Standard Practice, 2023).

The current LiUNA campus, located at 8700 Huntington Road, includes the following buildings:

#### 1850s-1870s

*Building "H"* - existing one-a-half-storey building (Robert Agar House) Original House (c. 1855) Addition (c. 1870)

#### 1990s-2010s

"Seminar Building" - existing one-storey concrete block/brick building Building "F1" - existing one-storey building Building "F2" - existing one-storey building Building "F3" - existing one-storey building



#### 2022

Building "S" - one-storey building, awaiting BP approval

The east end of the lot features landscaping with a pond and LiUNA statue close to the east property line. Beyond this, the Robert Agar House is situated on soft landscaped grass, consistent with the east half of the property.

### 7.1 On-Site Heritage Resource

Located at 8700 Huntington Road, the Robert Agar House is a mid-nineteenth century Ontario farmhouse. It is composed of a principal street facing volume fronting onto Huntington Road to the east, and a perpendicular rear volume to the west. The easternmost portion was constructed in c. 1855 with elements of the Classical Revival style. An addition at the rear was completed in c. 1870 with elements of the Gothic Revival style.

It is a brick masonry structure built with red brick set in Flemish bond on the primary east elevation and common bond elsewhere. This red brick is accented with quoins, flat and segmental arches over windows in the primary volume, and a patterned band below the eave on the primary elevation all set in buff brick. It has an irregular fieldstone foundation. There is a wide porch across the full primary (east) elevation. While some elements of this porch are likely later alterations, the porch represents the original design intent. A later concrete porch has been added to the north of the rearvolume, likely replacing a similar wooden porch. Some wood elements at this location may date from that earlier assembly.

A later concrete pad and bay window entry were added to the south elevation of the rear volume after 1970, and as such, not a heritage attribute. The building is joined to the adjacent campus structure by a glazed vestibule against the west elevation.



9. The primary (east) facade of the Robert Agar House.



10. View of the south and east facades of the Robert Agar House.

## 7.2 1990s LiUNA Local 183 Vaughan Campus

Attached to the rear facade (west) of the heritage resource is a single-storey gabled walkway, constructed in glass, that connects the heritage resource to a much larger addition that comprises the LiUNA campus facilities. Constructed in 1991, the centralized one-storey gabled structure extends westward, with two north-south branches that remain congruent with the heritage resource in scale and materials.

A further monumental one-storey structure connects to the gabled campus buildings. Its upper elevation features continuous glazing and a similar gabled



11. View of the south facade of the Robert Agar House. To the far left, the gabled glass walkway connecting the structure to the campus is visible.

roof treatment to the one-storey campus building. The use of red and buff brick for the late 20th century addition, as well as glass, helps to retain the historic character of the agricultural lot. Both campus buildings are visible to the rear (west) of the heritage resource from the street view. As such, the LiUNA building functions as the backdrop for the Robert Agar House, having done so for over 30 years, and also serves as a screen for the heritage resource from the surface parking and training facilities located at the rear (west) half of the Site.



12. Partial view of the north facade of the Robert Agar House with the original building to the left and the rear addition to the right. To the right, the gabled glass breezeway connecting the home to the campus is visible.



13. The south facade of the Robert Agar House, and the first north-south arm of the LiUNA campus expansion, with signage appended to its east wall (Google Maps, 2022).



15. The south facade of the LiUNA campus extension towards the eventual location of the proposed storage building (Google Maps, 2022).



14. View of the south facade of the LiUNA training campus. To the right, the second north-south arm of the building is visible. The expansion of the final extension, both in width and height, increases its visibility on the lot (Google Maps, 2022).



16. View of the southwest rear campus extension. The proposed storage building would be situated roughly where the transport truck is pictured in this image. View across the rear parking pad of the lot.

### 7.3 Landscaping

The Site is accessible via a single entrance point from Huntington Road that branches into two internal access roads that encircle the existing heritage resource known as the Robert Agar House (c.1855), as well as the attached campus facilities for LiUNA. The internal road to the north, running parallel to Hunter's Valley Road, extends further along the lot line to provide access to the rear training facilities that support the campus.

A mix of manicured lawns, shrubbery, and paths surround the heritage resource and one-storey campus structure on the east half of the lot. The space between the Robert Agar House and Huntington Road is populated by a kidney-shaped pond with a central fountain feature. In front of this are three flag poles bearing the Canadian, Ontarian, and Local 183 flags. Anchoring this arrangement is a statue representing a construction worker.



18. The south parking pad from the pergola, directly south of the Robert Agar House, looking west towards the rear of the lot. The mature landscaping screens the heritage resource from the street.



17. View of access point from Huntington Road. The Robert Agar House is visible just beyond the fork in the driveway (Google, 2020).



19. View of the landscaped front yard near the east lot line showing the three flag poles and a statue honouring labourers on the Site.

### 7.4 Later Additions

Two square parking pads are situated to the north and south of the heritage resource & glass vestibule. The two-storey campus building, just east of the lot centre, is surrounded by asphalt ground cover, which accommodates parking at grade.

The rear (west) half of the lot is distinguished from the front (east) in its ensemble of various permanent and temporary structures used for educational and training purposes. These structures are different in materiality, scale, and function, and remain obscured from the Huntington Road frontage by a mixture of mature landscaping, the heritage resource, and its brick-workshop and seminar building extension. Near the southwest corner of the campus facility there is a recently completed storage building. Following the northern edge of the square campus building, a training facility for tunnel rescue, completed in summer 2022, is situated just north of the centre of the lot. There are currently parking spaces at grade to its south, and to the west are various temporary structures intended for construction training usage.

Overall, the evolution of the Site allows for the labourers' continued use of this land, historically agricultural with the Robert Agar House, and currently trade union training ground for LiUNA Local 183 to coexist in a compatible manner suitable to the evolving peri-urban and industrial character of the surroundings.



20. View towards the rear (west) end of the lot from the south laneway. Temporary construction training structures can be seen in the background.



21. View towards the rear (west) half of the lot, with temporary construction training structures visible beyond a large asphalt parking pad.



22. View of the rear campus extension from the southwest curve of the laneway. The proposed storage building would be situated near the visible transport trucks in this image.



23. This view represents the sightline from the north face of the proposed building, looking across the lot to the south face of the tunnel training facility, and retaining visibility of the west end of the campus.

# 8 CULTURAL HERITAGE VALUE

# *N.B.:* Sources for figures included in the following sections are included in Section 17: References.

The Site contains one property that was designated on the City of Vaughan's *Register of Properties of Cultural Heritage Value* in 1982. The cultural heritage value of the Robert Agar House (c.1855), can be ascertained from its Designation By-law (46-82), which indicates that:

The Robert Agar House is recommended for designation on architectural grounds as a good example of a mid-nineteenth century, red-brick Ontario farmhouse exhibiting particular features designed in the Classical Revival style. The front facade is embellished by white brick dating providing a stylized entablature and simulated corner quoins while the front doorway, with its rectangular glazed transom and sidelight, exhibits further elements borrowed from the Classical Revival Style. 1

The property was once again assessed in 2016-2017 as part of a Cultural Heritage Assessment Report to identify Cultural Heritage Landscapes and Built Heritage Resources (BHRs) within the Class Environmental Assessment (EA) Study Part A. This assessment also identified the Robert Agar House as exhibiting both Georgian and Regency Style characteristics.

Notably, this EA does not identify 8700 Huntington Road as a Cultural Heritage Landscape.<sup>2</sup> Relatedly, 8700 Huntington Road is not included as a Cultural Heritage Landscape within the "Cultural Heritage Landscape Inventory and Policy Study" of the City of Vaughan's Official Plan.<sup>3</sup>

3 Section 2.0, Cultural Landscape Inventory, City of Vaughan Official Plan, Cultural Heritage Inventory and Policy Study, Archaeological Services Inc., 2010.

# 9 ADJACENT HERITAGE RESOURCES

The Site is not considered adjacent to any properties that are listed on the City of Vaughan's *Register of Properties of Cultural Heritage Value*, nor designated under Part IV of the OHA.

<sup>1 &</sup>quot;The Robert Agar House," Part IV Designation By-law 46-82, Ontario Heritage Act.

<sup>2</sup> Unterman McPhail Associates, "Cultural Heritage Landscapes and Built Heritage Resources," Class Environmental Assessment (EA) Study (Part A) Huntington Road from Langstaff Road to McGillivray Road and (Part B) from Major Mackenzie Drive to Nashville Road, City of Vaughan, Ontario, Cultural Heritage Assessment Report (CHAR), prepared by Unterman McPhail Associates for Parsons, January 2016, Revised August 2017.

# 10 SITE HISTORY & EVOLUTION

#### 9.1 Indigenous Connection to the Landscape<sup>1</sup>

This Site history was prepared from a non-Indigenous perspective, based on written and archaeological records.

Since time immemorial, the Site has formed part of the traditional territory of diverse Indigenous peoples, including the Haudenosaunee, Anishinabek, Petun, Wendake-Nionwentsïo, and Mississaugas of the Credit First Nation. As Lake Iroquois receded, the area north of present-day Lake Ontario provided ideal conditions for larger and more permanent settlements. The geological formations of sandy ridges overlooking streams permitted the establishment of secure villages, with locations near waterways for convenient fishing and travel. The Site is located within the Humber River watershed which offered a rich natural environment that supported Indigenous lifeways and incubated cultural practices sustaining multiple communities.

The Humber River is also known as Cobechenonk in Anishinaabe which means "leave the canoes and go back" and Niwa'ah Onega'gaih'ih which means "little thundering waters". The area now known as Vaughan was located along a major portage route in Ontario, known as the "Humber Portage," the "Toronto Passage," and the "Carrying Place Trail." This 45 kilometre-long trail formed a route for transportation and trade via one large portage that linked Lake Ontario to Lake Simcoe by way of the Humber and Holland River Trail Systems. Woodbridge was a settlement along the Toronto Carrying Place Trail. It was one of several stops that travelers would pass through while journeying in either direction. This trail was in use for trade by 1500, and included a fork



<sup>24.</sup> Archaeological map showing the location of the Wilcox Lake Site (A1Gu-17) on the Oak Ridges Moraine. Colonial communities, including those near the Site, followed the pattern of settlement of Indigenous communities, as can be seen on this map of the waterways and watershed between Lake Ontario and Lake Simcoe. Over time, these colonial communities grew to replace many of the nearby indigenous sites and alter natural landscape (Austin, 1999; annotated by ERA).

<sup>1</sup> For an in-depth investigation into the Pre-Contact Period, Post-Contact Period, and the Euro-Canadian Settlement History, see Archeoworks Inc., Stage 1 Archaeological Assessment.

that carried the Humber River to Kleinburg, near to the Site<sup>2</sup>. An Indigenous village was located at a confluence of the Humber River (near present-day Woodbridge). The siting of colonial settlement in the area, including farmsteads such as the Site as well as hamlets and villages, were informed by the nearby Indigenous communities who were present there since time immemorial.

2 "Archaeological History," City of Vaughan, https://www.vaughan.ca/services/vaughan\_ archives/historyofvaughan/Pages/ Archaeological-History.aspx, accessed 11 July 2023.



25. Excerpt of Sacred Feather's World: Mississauga Place-Names at the Western end of Lake Ontario. The Humber River is also known as Cobechenonk in Anishinaabe which means "leave the canoes and go back" and Niwa'ah Onega'gaih'ih which means "little thundering waters" (Mississaugas of the Credit First Nation).





26. Map of the Toronto Carrying Place trail. The Site is located close to the western route of the Carrying Place Trail, the Humber River, two Indigenous communities, and historic colonial communities. Colonial communities often developed in proximity to Indigenous villages as a means of increasing the likelihood of survival in a new and unfamiliar context (University of Toronto Press).

### 9.2 Establishment of Vaughan Township & Related Villages

Following the British conquest of New France in 1763, the Crown issued a royal proclamation, which established guidelines for the colonization of Indigenous territories in North America. The proclamation stated that Indigenous Peoples held title to their territory until it was ceded by a treaty.<sup>3</sup> The British government acquired the area comprising Vaughan Township from the Mississauga Nation as part of the Toronto Purchase in 1787. The township survey of Vaughan began in 1795, but was not completed until 1851, and the east and west boundaries of the township were resurveyed in 1861.

The township was divided into a grid pattern with 10, north-south concessions, and for the most part, with 200 acre rectangle-shaped lots.<sup>4</sup> Unlike the lots in other Concessions, the lots in Concessions 9, 10 and 11, which includes the Site, were irregularly shaped due to the original survey line of the Toronto Purchase. The east to west side roads were placed one and a quarter miles apart. The 200-acre lots were usually divided into 100 acre lots on the east and west side. The Site is located on Lot 12, Concession 10 (80-acres) within Vaughan Township in York County.

From the 1840s to the 1870s, the township prospered as a farming area, with Toronto as a major market. The local road system was consolidated and cleared allowing farmsteads to transition from subsistence farming to more prosperous enterprises. Earlier log farmhouses were replaced by brick, frame and some stone residences, larger barns were built accompanied by agricultural outbuildings, while churches, cemeteries and schoolhouses were being established.<sup>5</sup>

<sup>4</sup> Unterman McPhail Associates, "Cultural Heritage Assessment Report: Built Heritage and Cultural Heritage Landscapes Class EA (Part A) Huntington Road from Langstaff Road to McGillivray Road and (Part B) from Major Mackenzie Drive to Nashville Road, City of Vaughan, Ontario, January 2016, revised January 2017. 5 Ibid.



<sup>27. 1805</sup> Toronto Purchase Maps, where the left shows the area's boundaries and the right provides additional details. Note the location of the Site within the Toronto Purchase and in relation to relevant township boundaries, nearby communities, waterbodies, and railway lines (Toronto Public Library).

<sup>3</sup> ERA Architects Inc., "910 Rutherford Road, Vaughan, Ontario," Cultural Heritage Impact Assessment (CHIA), 23 March 2021.



#### 1851

The majority of the lots in the area have been granted to early settlers in the area.

Agar family owned another property located further north on Huntington Road closer to Nashville and Kleinburg.

Elder's Mills was the closest village to the Site.

Villages along the Humber River such as Woodbridge & Pine Grove experienced the most intense development in the area. Note these villages are illustrated through solid blacks blocks.

The "Indian Line" / Hwy 50 served as the border between York County (to the east) and Peel County (to the west).

Note the concession lines greatly influenced the present-day street network.



28. 1851 Map of Vaughan Township with Lot 12, Concession 10 outlined in pink (City of Vaughan Archives).





29. 1940s Pioneer Map of York County depicting an artist's romanticization of York County which highlights a curated selection of sites. Note the presence of an Indigenous community at a confluence of the Humber River as well as the Site's location next to the western boundary of the "Toronto Purchase" also known as the "Indian Line." The Site as well as other nearby farmsteads and villages benefitted from developing in proximity to Indigenous communities (York Region).

### 9.3 Establishment of the Agar Family in Vaughan

During this era, the Agar family acquired multiple lots along Huntington Road and Highway 50. Significantly, the Agar family would become prominent members of Vaughan Township, particularly within Nashville. They initially lived further south at the Site on Huntington Road; however, as the villages formed, the Agars re-situated themselves closer to the more densely populated areas.

In 1831, Lot 12, Concession 10 (the Site) was granted to the Canada Company, a British land development company. Thomas Agar immigrated to Canada in 1830 and homesteaded on Lot 11, Concession 10 with his wife, Hannah, and children until he could afford to purchase both lots in 1840.<sup>6</sup> In 1860, Richard Agar, son of Thomas and Hannah, owned Lots 23W and 24W, Concession 9, and by 1878, he acquired Lot 28E, Concession 9, and the northeastern corner of Lot 23, Concession 10. Consequently, by the mid 19th century, the use of the Site was evolving, becoming separated from the villages developing to its north and east.

Robert, Thomas and Hannah's eldest son, built a one-and-a-half-storey house-form building (c. 1855) on the Site to the northwest of the intersection of present-day Huntington and Langstaff Roads.<sup>7</sup> This vernacular one-and-a half storey dichromatic brick building has a centre gable roof with return eave detail, end chimneys and a full width "Regency style" front verandah with trellis detailing. In 1858, Robert inherited the property after the death of his father.<sup>8</sup>



<sup>30.</sup> Diagram from Agar Family Fonds of the 1860 Tremaine Map of the County of York that highlights sites of note for the Agar family along Huntington Road (City of Vaughan Archives).

<sup>6</sup> Ibid.

<sup>7</sup> Paul Oberst, Heritage Impact Statement: Agar House, 10436 Huntington Road, City of Vaughan, August 2020.

<sup>8</sup> Ibid.

### 9.4 Development of Villages in Western Vaughan Township

The Site is associated with the historic village of Kleinberg and is also located near the historic communities of Elder's Mills and Nashville. These settlements are typical examples of early Ontario's development. Transportation difficulties required local production of many essential goods. Where the road grid intersected with rivers, the establishment of mills to cut timber and grains was a critical part of the early pattern of settlement. The rivers powered the mills, and the roads allowed the import of raw material and the export of finished goods. A mill and the traffic it generated would attract supporting trades and shopkeepers, and a village would grow up around it<sup>9</sup>. The later completion of the railway through the area further facilitated the transportation of goods and people in a way previously not possible through road and river travel.



32. Partial view of the north facade of the Robert Agar House. Note the Gothic Revival style addition at the rear of the heritage resource.

9 Oberst, HIS: Agar House.



31. The heritage resource on the Site known as Robert Agar House. "Built c.1855, this vernacular 1 ½ storey dichromatic brick building has a centre gable roof with return eave detail, end chimneys and a full width "Regency style" front verandah with trellis detailing. The Vaughan Heritage Inventory refers to a c.1855 "Georgian" style house on site. The property is associated with the community of Elder's Mills."



33. The farmhouse known as Agar House/Farm Complex is located north of the Site at 10436 Huntington Road. The date of construction is c. 1875 and the building is in the Gothic Revival style. The 1 ½ story red brick farmhouse features decorative dichromatic detailing and decorative woodwork.

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#### 1859/1860

Most of the nearby lots in York and Peel Counties have been granted to early settlers in the area.

Agar family acquired a second property located further north on Huntington Road closer to Nashville and Kleinburg.

Additional Agar property located to the southwest of the Site on the other side of Highway 50, in Peel County.

Note the completion of a road between Woodbridge and Kleinburg and beyond which was generally built following the path of the Humber River.

The nearby villages in Peel County include Claireville, Castlemore, Coleraine, and Crantville.



34. George Tremaine's 1859 Map of Peel County on the left and 1860 Tremaine Map of the County of York with Lot 12, Concession 10 outlined in pink (Canadian County Atlas Digital Project).



#### 1877/1878

Agar family sold Lot 12, Concession 10 to Laughlin Cameron.

Agar family holdings centred around Nashville with four properties between Concession 9 and 10.

Members of Agar family sought to live closer together and become more involved in village of Nashville.

Note the completion of the Bruce Railway which was generally built following the path of the Humber River.

The map indicates the route of a proposed Toronto and Georgian Bay Ship Canal.



35. 1877 Peel County Atlas and 1878 Township of Vaughan County Atlas with Lot 12, Concession 10 highlighted in pink (Canadian County Atlas Digital Project).

The proximity of Kleinberg, Elder's Mills, and Nashville to each other helped to facilitate their growth. Kleinburg developed around a mill in the late 1840s in the Humber River on Lots 24 and 25, Concession 9. Lot 24 was subdivided into smaller individual lots by 1848, which formed the nucleus of the village. First recorded in 1869, Elder's Mills developed as a farming community along Rutherford Road and Highway 27. Early area settlers included, but are not limited to, the Burton, Fleming and Somerville families. Nashville was established at the Toronto, Grey and Bruce Railway station in the latter part of the 19th century on Lots 25 and 16, Concession 9.<sup>10</sup> The Agar family are tied to a number of properties including Nashville Cemetery at 10445 Huntington Road and Nashville Church at 926 Nashville Road.

Richard, Robert's younger brother, established a farmstead with his family on Lot 23W, Concession 9. The 1860 Tremaine Map of the County of York indicates that Richard also purchased Lot 24W Concession 9. A Gothic Revival addition at the rear of the Site was completed around 1870. Additionally, some descendants of the Agar family continued to reside in Vaughan.<sup>11</sup>

During this era, the Site was one of numerous farmsteads in the area. The Agar family moved north along Huntington Road closer to the burgeoning hamlets, such as Kleinberg and Nashville, leaving the original farmstead isolated twenty years after its construction. In the 1880s, the railway is shown on the Vaughan Township map in the Illustrated Historical Atlas (1878); however, Nashville is not shown as a community. In 1873, Robert sold the property to Laughlin Cameron, a Scottish immigrant. The property remained within the Cameron family for several decades. Little change occurred on the Site during this period. The Site's context was still rural, remaining situated among many large farmstead lots away from the denser villages of Vaughan Township.



36. 1954 aerial photograph of the area context. Note the large agricultural lots and rural landscape which surround the Agar House. The present-day street grid is overlaid on the historical aerial photograph (York Maps).

<sup>10</sup> Unterman McPhail Associates, "Cultural Heritage Assessment Report: Built Heritage and Cultural Heritage Landscapes Class EA (Part A) Huntington Road from Langstaff Road to McGillivray Road and (Part B) from Major Mackenzie Drive to Nashville Road, City of Vaughan, Ontario, January 2016, revised January 2017.

<sup>11</sup> Reamon, G. Elmore. A History of Vaughan Township." Vaughan, ON: Vaughan Township Historical Society, 1971, ch. X.

### 9.5 Subdivision of Rural Farmsteads

Vaughan Township's population remained relatively steady until the mid 1930s. Following World War II, however, there was a steady influx of immigration to the area. Kleinburg continued as a local and area service centre during the mid-20th century. In the 1960s, Kleinburg became known as the site of the McMichael Canadian Art Collection. In 1971, the provincial government created the new regional government of York Region, and Vaughan Township was merged with the Village of Woodbridge to form the Town of Vaughan. By 1991, it officially changed its legal status to the City of Vaughan.<sup>12</sup>

Twentieth century aerial photos continue to illustrate the rural character of the landscape in southwest corner of Vaughan into the latter part of the century. Despite steady development within Vaughan during this period, especially within its larger towns such as Woodbridge, Maple, and Thornhill, the Site and its nearby surroundings remained agricultural.

The Cameron family owned Lot 12, Concession 10 (containing the Site) until 1950, when they sold it to Gilbert Garbutt. Shortly thereafter, Garbutt sold the property to an investment company that divided it into 10 acre lots. Remnant hedges and road circulation in the 1954 aerial photo indicate the approximate division of the original 80-acre lot. Alexander Thain and his wife purchased one of these lots, the Site, in 1969 and restored the Robert Agar House to its original state.<sup>13</sup> Note that a key alteration to the Robert Agar House included the introduction of a bay window on the south elevation to expand the dining room. The Site was designated Part IV under the Ontario Heritage Act in 1982.



37. Pre-1990 view of the primary (east) elevation of the heritage structure after the property was restored by the Thains and prior to the arrival of LiUNA. Note the picturesque rural farmstead landscape, deep setback from Huntington Road, and a structure north of Robert Agar House that has since been removed (York Region).

<sup>12</sup> Unterman McPhail Associates, CHAR (2017).

<sup>13</sup> Unterman McPhail Associates, CHAR (2017).

## 9.6 Context Shift from Agricultural to Industrial

As the City of Vaughan continued to grow, areas within the municipality that were once distinctly rural became increasingly suburban. Satellite photographs of the surrounding area show a major shift beginning in the early 2000s as the rural landscape was cleared for large-scale subdivision. West of Highway 50 and south of Rutherford Road has become is predominantly low-density residential. This development has been further intensified following the completion of the Highway 427 Expansion project in September 2021, which extended the highway north from Highway 7 to Major Mackenzie Drive.



 1995 and 2005 satellite photographs showing the area context. Note the completion of the LiUNA 183 Training Centre and roadway around the campus (York Region). For the past 20 years, the Huntington Road corridor has begun gradually shifting from large rural farmsteads to an office park and industrial area. Nearby examples include Longo Brothers Fruit Distribution (8800 Huntington Road) and State Window Corporation (220 Hunter's Valley Road).

Heritage conservation is a focus of redevelopment efforts for rural farmstead buildings in the area, with many sites incorporating elements of existing heritage fabric into their new developments, while maximizing building retention and ensuring adaptive reuse of heritage resources.



39. 2015 and 2022 satellite photographs showing the area context. Note the completion of various warehouse style buildings directly to the north and northwest (York Region).

## 9.7 LiUNA Local 183: Union Training Campus

LiUNA purchased the Site in 1990 for use as the Local 183 Training Centre, a training campus for the union.<sup>14</sup> Aerial photos and architectural drawings indicate that this included a substantial addition to the rear of the house, a driveway around the complex, and landscaping between the house and the roadway. Several commemorative elements have been added to the Site over time, including a statue honouring union workers. LiUNA is currently expanding their presence in the area through construction of a new headquarters on the adjacent property to the south at 8500 Huntington Road.

14 Unterman McPhail Associates, CHAR (2017).



40. 2001 photograph of the south elevation. Note the at-grade condition and view of the glass walkway connecting the Robert Agar House to the LiUNA 183 Training Centre. The bay window and concrete steps were added post-1970 to expand the dining room (City of Vaughan Archives).



41. 2002 photograph of the primary (east) elevation of the building. Note the screen door and flanking glass on the building as well as presence of three flag poles located in front of the building (City of Vaughan Archives).



42. View from the east lot line looking southwest to the adjacent property of 8500 Huntington Road. The building in the photo is LiUNA's new Headquarters.

# 11 CONDITION ASSESSMENT

### 11.1 General

The Site contains a one-and-a-half storey historical structure, the Robert Agar House, which is designated under Part IV of the Ontario Heritage Act ("OHA").

## 11.2 Definition of Terms

The building components were graded using the following assessment system:

Good: Normal result. Functioning as intended; normal deterioration observed; no maintenance anticipated within the next five years.

Fair: Functioning as intended; Normal deterioration and minor distress observed; maintenance will be required within the next three to five years to maintain functionality.

Poor: Not functioning as intended; significant deterioration and distress observed, maintenance and some repair required within the next year to restore functionality.

Defective: Not functioning as intended; significant deterioration and major distress observed.

### 11.3 Masonry

## 11.3.1 Brick

- Brickwork was in generally good condition with limited individual damaged units across all elevations and limited locations of concentrated deteriorated brick in poor condition on the south elevation of the rear volume;
- Existing pointing was in generally in good condition, with limited instances of open joints. Some locations showed evidence of later repointing repairs in non-matching mortar;
- Open joints and damaged bricks at window sills were filled with a later non-sympathetic caulking;
- Concentrated deteriorated brickwork was observed adjacent to areas of later rebuilding on either side of the later bay window entry on the south elevation;
- Stepped cracking with later repointing was observed between first and second level windows on the south elevation;
- Slipped bricks were observed in one flat arch on the south elevation at level one;
- Slipped bricks were observed in one segmental arch above the window on the south elevation dormer;
- Indications of later resetting with unsympathetic mortar were observed at the arch above the door on the north elevation;

- Most of the west elevation at the rear volume had been rebuilt. Later brick appears to have been used for rebuilding inside the glass vestibule with salvaged brick set with cementitious mortar above it. Cementitious mortar appears to have been used throughout the rebuilt area;
- Large gaps were observed below the roofline at each corner at the interface between the original walls and the rebuilt portion at the west elevation;
- An area of later rebuilding was observed adjacent to the south elevation entry; and,
- Brick at later low walls on the west elevation adjacent to concrete pads were built with salvaged brick and found to be in poor condition with some areas in defective condition.

### 11.3.2 Stone

- Stone foundations at the principal volume were in generally good condition with indications of later repointing; and,
- Cast-in-place concrete had been built up against foundations at the north and south elevations of the rear volume concealing existing conditions.



43. Primary (east) elevation of the Robert Agar House showing porch and primary entry.



44. South elevation showing primary volume (right) and rear volume with later bay window entrance (left).



45. North elevation showing primary volume (left) and rear volume (right) with later porch incorporating earlier wood elements.



47. Representative caulking repair at window sill.



46. Glazed vestibule joining rear volume to adjacent later structure at west elevation.



48. Typical condition of brickwork and mortar joints showing indented joints (right).



49. Areas of deteriorated brick observed adjacent to rebuilding adjacent to the later bay window on the south elevation



50. Stepped crack and repointing between first and second level windows at south elevation.



51. Arch at south elevation level 1 showing slipped bricks



52. Condition of brick and joints at interface between later cementitious repointing (left) and earlier mortar (right).



53. Salvaged brick rebuilding with cementitious mortar at exterior portion of west elevation.



55. Later brick rebuilding inside glazed vestibule on west elevation



54. Indications of later resetting in arch at north elevation door opening



56. View of west elevation showing interface between masonry and wood porch and soffits.


57. Gap at interface between south wall and later rebuilt west elevation brickwork, similar to interface with north wall.



59. Typical condition of existing fieldstone foundation.



58. Area of later rebuilding adjacent to south elevation entry.



60. Interface at cast-in-place concrete built up against existing foundation.

## 11.4 Wood

Most wood elements are later replacements with the possible exception of scrollwork at the north porch and fascia at the east elevation eaves. The building has a non-original wood verandah in good condition with a bell-cast wood roof assembly in good condition and wooden trellis in good condition on the principal elevation. It has a porch with wooden posts, canopy and scrollwork trim in fair condition on the north elevation of the rear volume. There are wood shutters in poor condition at most windows and windows and doors have wood sills which are typically in fair condition with isolated instances of poor condition. Existing soffits are wood in good condition. The bay window entry assembly is a later addition dating from renovations in the '90's with wood elements designed in a style that refers to older elements on the building. The conditions of the wood elements of the structure are as follows:

- Wood soffits were in generally good condition;
- Wood fascia were in generally good condition;
- Later wood structure at bell-cast roof over east elevation porch was in good condition;
- Later wood trellis at east elevation porch was in good condition;
- Later trellis screen below east elevation porch was in defective condition;
- Decorative wood scrollwork trim at the north elevation porch was in fair condition with some localized deterioration. Posts and other elements in this assembly were later additions and posts were in poor condition with deterioration at the base;

- Tongue and groove soffit at the north elevation porch was in good condition;
- Tongue and groove half gable end at the north elevation porch was in fair condition with general soiling throughout and deteriorated paint and overcladding with metal flashing at the exterior. Flashing may conceal underlying wood deterioration;
- Wood shutters were in generally defective condition on all elevations;
- Wood sills within covered porches were in generally good condition with some soiling;
- Exposed wood sills were in generally fair condition. Typically, paint finishes were peeling and sills showed limited signs of underlying deterioration;
- Isolated sills were in defective condition, with significant wood rot and failed paint finish; and,
- One first level sill at the south elevation appeared to be a recent replacement and was in good condition.



61. Wood fascia at east elevation.



63. Bell-cast roof structure at east elevation porch.



62. Representative condition of soffit showing later metal fascia at dormer gable.



64. East elevation with bell cast roof and later trellis.



65. Representative condition of scrollwork at north elevation porch. Note that posts and other elements appear to be more recent than scrollwork.



67. Detail of soiling and localized splitting at interior face of north elevation porch scrollwork.



66. Representative localized deterioration at north elevation porch scrollwork with wood split across cut pattern.



68. Deterioration at base of north elevation porch post.



69. Representative condition of tongue and groove soffit at north elevation porch.



70. Tongue and groove half gable end at north elevation porch showing paint deterioration and metal overcladding.



71. Interior condition of tongue and groove half gable end at north elevation porch.



72. Representative defective condition of wood shutters.



73. Representative condition of wood sill within covered porch with light soiling.



74. Representative condition of exposed wood sills with flaking paint and limited signs of underlying deterioration.



76. Wood sill in defective condition.



75. Representative condition of upward facing surface of exposed wood sills with flaking paint and limited signs of underlying deterioration.



77. Later wood sill in good condition.

## 11.5 Openings

- Wood sash windows were in generally fair to poor condition with flaking exterior finishes, isolated instances of advanced soiling on interior finishes, and isolated instances of individual failed lights. Putty at window exteriors was in generally poor to defective condition;
- Window Frames, sashes, and muntins were intact. Interior window surrounds had been altered to varying degrees. Windows were generally operable as intended with some snapped sash cords;

- Two upper level windows showed advanced interior soiling including signs of organic growth;
- There were limited instance of individual broken lights; and,
- The wood surround and lights at the east elevation door were in good condition. These elements had been heavily overpainted but appeared to be otherwise intact. Paint at this location may conceal existing conditions. Corresponding profiled trim and paneling were not present at the interior of this assembly.



78. Representative exterior condition of existing sash window.



79. Representative interior condition of existing sash window.



80. Deteriorated interior finishes and signs of organic growth at upper level window.





81. Examples of individual broken lights.



83. Interior of east door surround.



82. East door surround with representative detail showing overpainted trim and panelling in otherwise good condition.

## 11.6 Metals

• Later flashings, rainwater leaders, and metal overcladding were later additions and were observed to be in good condition.

## 11.7 Roofing

- Later asphalt shingle roofing was in good condition throughout; and,
- The copper bell-cast roof over the '90's bay window addition on the south elevation was in good condition.

# 11.8 Interiors

• No significant heritage elements were observed at the building interior.



84. Representative condition of metal flashing and later asphalt roofing.



85. Later copper roofing at '90's bay window.

# 12 DESCRIPTION OF THE PROPOSED DEVELOPMENT

The complete architectural drawing set, prepared by Standard Practice, dated 9 April 2024, can be found in Appendix D.



The development proposes to add the following buildings:

Future

Building "A" - proposed two-storey building Building "E" - proposed one-storey building

The proposed courtyard in front of the heritage structure is hardscaped, with four tree 'islands' for natural respite including the retention of one historic tree and establishing a viewshed of the heritage structure from Huntington Road.

Extant training facilities, identified as Buildings "F1," "F2," "F3," "S," and "T" will remain on the Site during construction, and are to be integrated as part of the overall LiUNA Local 183 Training Campus. There is an existing circulation road that wraps around the building to the north and south of the heritage resource. This road will help to facilitate construction of the proposed development.

The proposed development, as shown in the drawings prepared by Standard Practice dated 9 April 2024, retains the existing Robert Agar House and the western portions of the LiUNA Training Campus in-situ, and proposes to add the following:

- A two-storey, "U-shaped" building, described in the plans as Building "A," to be used for classrooms and administration;
- Building "A"s two rectilinear wings extend the built structure of the campus, proud of and flanking the heritage resource;
- An exterior covered area situated between the heritage resource and the south arm of Building "A";
- To the rear (west) of the "U-shaped" Building "A," the development proposes to include a one-storey workshop, identified as Building "E" in the architectural drawing set;
- Building "E" will connect to the existing campus structure, identified as Buildings "F1," "F2," and "F3," respectively;
- Two existing buildings, one for storage (Building "S") and one for training (Building "T"), will be retained on the west half of the lot, with a proposed open grid gravel system punctuating the lot perimeter between the

existing asphalt driveway and the southern property line, and along the north perimeter of Building "T" to the west end of the lot;

- The latter extending the existing north driveway in length with a different material, transitioning from asphalt to gravel; and
- South of this added treatment at grade is a tunnel below grade connecting to an existing manhole shaft at the northwest corner of the Site to the existing training facility identified as Building "T."

The drawing package is included as Appendix D of this report.

### Demolition & Alterations

- The glass throughway that currently connects the "Seminar Building" to the heritage resource will be removed along with the "Seminar Building" itself and replaced with Building "E" and Building "A." The existing altered opening on the west elevation of the heritage resource will be enlarged to facilitate an accessible connection between the structures;
- The post-1970 bay window on the Robert Agar house will be removed and the opening altered for AODA compliancy, creating an accessible entrance at grade;
- The interior of the Robert Agar House, which contains no remaining heritage attributes, will be altered and replaced with a stabilizing structure aligning the floorplates and roof height with Building "A;" and,
- The north-south wing of Building "A" will connect to the west facade of the Robert Agar House, facilitating the connection of the mechanical systems to the heritage resource.



86. Rendering of the proposed development looking west from the east side of Huntington Road with the heritage resource in the centre of the image (Standard Practice, 2024).



87. Roof plan of the proposed development and adjacent structures (Standard Practice, 2024).



88. Primary (east) elevation of the heritage resource, to be conserved. The front porch will be restored (Standard Practice, 2024).



89. North elevation of the heritage resource showing the 1990s walk way which will be removed and replaced with a new connection to the proposed building (Standard Practice, 2024).



Restoration of heritage attributes







Practice, 2024).

DATEND OF NEW SCHOOL

Non-heritage building proposed to be demolished

the concrete terrace, as well as the removal of the 1990s glass walkway (Standard

91. West elevation of the heritage resource showing removal of the bay window and



90. South elevation of the heritage resource showing removal of the bay window and the concrete terrace (highlighted in blue) to create a new accessible entrance (Standard Practice, 2024).





92. Proposed 3D view of the Robert Agar House looking south. Note the widened opening at the rear (west) elevation to allow barrier free connection to the new school (Standard Practice, 2024).



93. Proposed 3D view of the Robert Agar House looking north. Note the widened opening at the south elevation to allow barrier free connection to the exterior courtyard (Standard Practice, 2024).



94. Primary (east) elevation of the proposed development, with frontage onto Huntington Road (Standard Practice, 2024).



95. North elevation of the proposed development facing Longo's Support Centre (8800 Huntington Road) (Standard Practice, 2024).



96. South elevation of the proposed development facing LiUNA Headquarters (8500 Huntington Road) (Standard Practice, 2024).



97. South facing north courtyard elevation (Standard Practice, 2024).



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98. North facing south courtyard elevation (Standard Practice, 2024).



99. North-south section of the proposed development (Standard Practice, 2023).



100. West-east section of the proposed development (Standard Practice, 2024).



101. North-south section of the proposed development (Standard Practice, 2024).

# 13 IMPACT ASSESSMENT

This section evaluates the potential impacts of the proposed development on the Site's cultural heritage value using the criteria provided in the Ontario Heritage Tool Kit (refer to sidebar).

The proposed development will be constructed on land currently occupied by a landscaped area on the Site to the east of the existing buildings. The existing building is designated under Part IV of the OHA.

## 13.1 Impact

The Robert Agar House is to be retained in-situ, conserving its massing and building footprint. Further impacts are outlined below:

- The post-1970 bay window on the south side will be removed and replaced with a new entrance;
- The north-south wing of Building "A" will abut the rear of the Robert Agar House, modifying the existing opening on its west facade to facilitate the connection of the mechanical system of the new school with the heritage resource;
- Removal of the existing interior of the Robert Agar House, to be replaced with a structural stability system allowing for a lowered floor-plate to grade and a raised ceiling height. No interior attributes have been identified within the heritage resource;
- East-west wings of Building "A" will flank and extend proud of the heritage resource; and,
- Continued evolution of the Site and area context from agricultural to industrial.

Additional mitigation measures in the design are further discussed in Section 14.

# 13.2 Shadow Impact

ERA has reviewed the shadow study prepared by Standard Practice dated 3 April 2024. While the proposed development may cast new net shadows on the heritage resource, the impact of these new shadows is minimal. No shadow-sensitive attributes were identified in the Designation By-Law for this property. The shadow study is included as Appendix E of this report.

*Negative impact* on a cultural heritage resource include, but are not limited to:

Destruction of any, or part of any, significant heritage attributes or features;

Alteration that is not sympathetic, or is incompatible, with the historic fabric and appearance;

- *Shadows* created that alter the appearance of a heritage attribute or change the viability of a natural feature or plantings, such as a garden;
- *Isolation* of a heritage attribute from its surrounding environment, context or a significant relationship;
- *Direct or indirect obstruction* of significant views or vistas within, from, or of built and natural features;
- *A change in land use* such as rezoning a battlefield from open space to residential use, allowing new development or site alteration to fill in the formerly open spaces;

Land disturbances such as a change in grade that alters soils, and drainage patterns that adversely affect an archaeological resource.

(Ontario Heritage Toolkit).

# 14 MITIGATION STRATEGY

The proposed development incorporates a number of design considerations intended to mitigate potential negative impacts on the cultural heritage value and attributes of the Robert Agar House, and the character of the area, and include:

- 1. Whole building in-situ retention;
- 2. Restoration of all exterior attributes;
- 3. Rehabilitation of the heritage resource to activate an educational and instructional use aligned with the rest of the training facility;
- 4. Introduction of appropriate landscaping to re-contextualize the Robert Agar house and to enhance sightlines of the structure from Huntington Road;
- 5. Accessibility accommodations facilitated through the creation of a new entrance at grade;

- 6. Continued use of the Site by LiUNA Local 183, from its 19th century rural origins, through its adaptation for training the LiUNA Local 183 trade union members (est. 1991), to the present growth of the training facility;
- 7. Building "A" is proposed to be clad in precast veneer brick that is complementary with the heritage resource;
- 8. Architectural treatment of Building "A" establishes a rhythm of bays and windows that articulates the massing of the building establishing proportions that are subordinate to the heritage building; and,
- 9. The northern east-west wing will feature a single-loaded corridor on its southern edge with full-height glazing that will offer an expansive view of the Robert Agar House from within the new classroom and institutional space.



102. Render looking west at the proposed development with the approximate location of mitigation measures (indicated with numbered blue circles) (Standard Practice, 2024).



103. Render looking west across Huntington Road at the proposed development. Note the improved visibility of the heritage resource from the roadway (Standard Practice, 2024).

#### Avoidance Mitigation:

"Avoidance mitigation may allow the alterations or proposed development to proceed while retaining the cultural heritage resources in situ and intact. Avoidance strategies for heritage resources typically would require provisions for maintaining the integrity of the cultural heritage resource and to ensure it does not become structurally unsound or otherwise compromised.

Feasible options for the adaptive re-use of built heritage structure or cultural heritage resources should be clearly outlined."

(City of Vaughan, Cultural Heritage Impact Assessment Terms of Reference, 2022).



104. Render looking southwest from the inner courtyard at the proposed development. Note the articulation of bays that breaks down the massing of the proposed development, establishing proportions that relate to the heritage resource (Standard Practice, 2024).

# 15 CONSERVATION STRATEGY

The Robert Agar House is proposed to be retained in-situ; all exterior attributes will be conserved and restored, including the porches on the primary (east) and secondary (north) facades.

The primary conservation treatment is rehabilitation to allow the heritage resource to be adapted for educational, instructional, and mechanical uses.

The scope of conservation work will be further detailed in a forthcoming Conservation Plan, which will address interior and exterior alterations to the existing heritage resource, as well as its interface between existing and proposed building components.

The interior will be altered to accommodate a lowered main floor for accessibility. The second floor will be retained; however, its floorplate will be raised to accommodate connections to the mechanical and electrical systems of the proposed campus structure. The current insulation will remain in tact.

There are neither extant nor identified interior attributes, nor historical materials to be conserved or salvaged.

A future Interpretation, Signage, and Lighting plan is encouraged to determine the most appropriate way to communicate the Site's cultural heritage value, evolution, and historic location. The proposed lighting plan prepared by WSP is included as Appendix F of this report.

# 16 CONCLUSION

ERA finds that the proposed development will conserve the Site's cultural heritage value, which includes its continued use as a LiUNA training facility. The proposed development incorporates a number of design considerations intended to mitigate the impact on the cultural heritage value of on-site and adjacent recognized heritage resources.

The proposed development reinforces historic themes related to the Site's evolution, including its orientation to Huntington Road, association with the Agar family, and its use as training campus for skilled labourers (est. 1991), which is now expanding to accommodate growth on the Site and industrial changes to the surrounding context.

Although the proposed development will create new building wings that will extend beyond the front (east) facade of the Robert Agar House, the historic structure will be re-activated as a centrepiece of the new physical arrangement and functional programming of the campus expansion. The structure will form the visual focus of a forecourt with landscaping elements creating a view corridor to the heritage structure from Huntington Road. Additionally, the northern east-west wing will feature a single-loaded corridor on its southern edge with full-height glazing that will offer an expansive view of the Robert Agar House from within the new classroom and institutional space.

ERA finds that the proposal meets the recognized professional standards and best practices in the field of heritage conservation in Canada. The proposal conforms to applicable policies and guidelines including the Heritage policies of the City of Vaughan's OP and the Parks Canada Standards and Guidelines for the Conservation of Historic Places in Canada.

# 17 REFERENCES

### List of Figures

- Figure 7: Drawing, Standard Practice, 2023, Toronto, Ontario, Canada. Figure 23: Photo, City of Vaughan Archives, 2005, Vaughan, Ontario, Canada. Figure 26: Map, Austin, 1999, Toronto, Ontario, Canada.
- Figure 27: Illustration, 2013, Mississaugas of the Credit First Nation, Mississauga, Ontario, Canada.
- Figure 28: Map, 1933, Taiaiako'n Historical Preservation Society, Toronto, Ontario, Canada.
- Figure 29: Maps, 1805, Toronto Public Library, Toronto, Ontario, Canada.
- Figure 30: Map, 1851, City of Vaughan Archives, Vaughan, Ontario, Canada.
- Figure 31: Map, 1940s, York Region, Newmarket, Ontario, Canada.
- Figure 33: Map, 1860, City of Vaughan Archives, Vaughan, Ontario, Canada.
- Figure 37: Map, 1859-1860, Canadian County Atlas Digital Project, Montreal, Quebec, Canada.
- Figure 38: Map, 1877-1878, Canadian County Atlas Digital Project, Montreal, Quebec, Canada.
- Figure 39: Photo, 1954, York Maps, Newmarket, Ontario, Canada.
- Figure 40: Photo, pre-1990, York Region, Newmarket, Ontario, Canada. Figure 41: Photos, 1995 & 2005, York Maps, Newmarket, Ontario, Canada. Figure 42: Photos, 2015 & 2022, York Maps, Newmarket, Ontario, Canada. Figure 43: Photo, 2001, City of Vaughan Archives, Vaughan, Ontario, Canada. Figure 44: Photo, 2002, City of Vaughan Archives, Vaughan, Ontario, Canada. Figure 91: Rendering, 2023, Standard Practice, Toronto, Ontario, Canada.

Figure 93: Drawing, 2023, Standard Practice, Toronto, Ontario, Canada. Figure 94: Drawing, 2023, Standard Practice, Toronto, Ontario, Canada. Figure 95: Drawing, 2023, Standard Practice, Toronto, Ontario, Canada. Figure 96: Drawing, 2023, Standard Practice, Toronto, Ontario, Canada. Figure 97: Drawing, 2023, Standard Practice, Toronto, Ontario, Canada. Figure 98: Drawing, 2023, Standard Practice, Toronto, Ontario, Canada. Figure 99: Drawing, 2023, Standard Practice, Toronto, Ontario, Canada. Figure 100: Drawing, 2023, Standard Practice, Toronto, Ontario, Canada. Figure 100: Drawing, 2023, Standard Practice, Toronto, Ontario, Canada. Figure 101: Drawing, 2023, Standard Practice, Toronto, Ontario, Canada. Figure 102: Drawing, 2023, Standard Practice, Toronto, Ontario, Canada. Figure 103: Drawing, 2023, Standard Practice, Toronto, Ontario, Canada. Figure 104: Rendering, 2023, Standard Practice, Toronto, Ontario, Canada. Figure 105: Rendering, 2023, Standard Practice, Toronto, Ontario, Canada.

#### List of Sources

- "Archaeological History," City of Vaughan, https://www.vaughan.ca/services/ vaughan\_archives/historyofvaughan/Pages/Archaeological-History. aspx, accessed 19 August 2022.
- City of Vaughan Official Plan, Cultural Heritage Inventory and Policy Study, Archaeological Services Inc., 2010.
- Elder's Mills: Ghost Towns of the GTA," hiking the gta.com, accessed 7 September 2022.
- ERA Architects Inc., "910 Rutherford Road, Vaughan, Ontario," Cultural Heritage Impact Assessment (CHIA), 23 March 2021.
- Oberst, Paul. Heritage Impact Statement: Agar House, 10436 Huntington Road, City of Vaughan, August 2020.
- Retrospective Vaughan, retrospectivevaughan.ca/firstnations, accessed 9 September 2022.
- "The Robert Agar House," Part IV Designation By-law 46-82, Ontario Heritage Act.
- Unterman McPhail Associates, "Cultural Heritage Landscapes and Built Heritage Resources," Class Environmental Assessment (EA) Study (Part A) Huntington Road from Langstaff Road to McGillivray Road and (Part B) from Major Mackenzie Drive to Nashville Road, City of Vaugha, Ontario, Cultural Heritage Assessment Report (CHAR), prepared by Unterman McPhail Associates for Parsons, January 2016, Revised August 2017.

# APPENDIX A: CITY OF VAUGHAN GUIDELINES FOR PREPARING A CULTURAL HERITAGE IMPACT ASSESSMENT

## GUIDELINES FOR PREPARING A CULTURAL HERITAGE IMPACT ASSESSMENT

#### **PURPOSE**

The purpose of a **Cultural Heritage Impact Assessment (CHIA)** report is to identify and evaluate heritage resources and cultural landscapes in a given area (i.e. "subject property"), and to assess the impacts on the cultural heritage attributes that may result from a proposed development or alteration on the subject property. The CHIA report assists staff in the evaluation of development and heritage permit applications, including the determination of compliance with all applicable cultural heritage policies.

### **GOOD HERITAGE CONSERVATION PRACTICE**

The CHIA report shall be conducted and based on good heritage conservation practice aligned with international, federal, provincial, and municipal statutes and guidelines. This includes (but is not limited to):

- Venice Charter 1964
- Appleton Charter 1983
- Burra Charter 1999
- ICOMOS Charter 2003
- UNESCO's Recommendation on the Historic Urban Landscape 2011
- Park Canada's Standards and Guidelines for the Conservation of Historic Places in Canada 2nd Edition
- Ministry of Tourism, Culture and Sport's Ontario Heritage Toolkit - Heritage Property Evaluation section
- Ministry of Tourism, Culture and Sport's Eight Guiding Principles in the Conservation of Built Heritage Properties 2007
- Applicable Heritage Conservation District Guidelines

## **CULTURAL HERITAGE LANDSCAPES**

Cultural heritage landscapes include neighbourhoods, landforms, roadways, waterways and other landscapes. These cultural heritage resources are often included on or adjacent to properties identified on the City's built heritage inventory. Should the proposed alteration or development be deemed to impact the known or potential cultural heritage landscape, as determined by Cultural Heritage staff, the CHIA report requirements for the landscape component shall include the following:

- A site plan drawing/survey of existing conditions (reviewed by a licensed Landscape Architect), including buildings, structures, roadways, driveways, drainage features, trees and tree canopy, fencing, and topographical features of the subject property.
- A written and visual inventory of all elements of the subject property that contribute to its cultural heritage value, including overall site views. For buildings, internal and external photographs and measured floor plans to scale are also required.
- For cultural heritage landscapes or features that transcend a single property, a tree inventory and streetscape measured drawing is required, in addition to photographs of the adjacent properties.

#### a. Addressing the Cultural Heritage Landscape or Feature Criteria

The CHIA report for a potential cultural heritage landscape must demonstrate how the proposed development will preserve/conserve the criteria that render the landscape a cultural heritage landscape and/or feature. Each cultural heritage landscape and feature includes a checklist of criteria. The CHIA report need only address the checked criteria for the pertinent cultural heritage landscapes or features. Please note, some properties constitute more than one cultural heritage landscape. Criteria include the following:

#### b. Landscape Environment

- 1. Scenic and visual quality
- 2. Natural environment
- 3. Horticultural interest
- 4. Cemeteries
- 5. Landscape design, type and technological interest

#### c. Built Environment

- 1. Aesthetic/visual quality
- 2. Consistent scale of built features
- 3. Unique architectural features/buildings
- 4. Designated structures

#### d. Historical Associations

- 1. Illustrates a style, trend or pattern
- 2. Direct association with important person or event
- 3. Illustrates an important phase of social or physical development
- 4. Illustrates the work of an important designer

#### e. Other

- 1. Historical or archaeological interest and/or value
- 2. Outstanding features/interest and/or value
- 3. Significant ecological interest and/or value
- 4. Landmark value

#### **REQUIREMENTS OF A CULTURAL HERITAGE IMPACT ASSESSMENT**

The requirement to submit a CHIA report will be identified by Cultural Heritage staff during the Pre-Application Consultation (PAC) meeting for the proposed development. Cultural Heritage staff will identify the known cultural heritage resources on a subject property that are of interest or concern (based on criteria listed in O.Reg. 9/06). Where there are the potential archaeological resources noted by Cultural Heritage staff (based on available GIS information), an Archaeological Resources Assessment must also be undertaken as an additional study.

The following items are considered the required components of a CHIA report. Additional information may be required by Cultural Heritage staff based on their initial review of the CHIA report.

1. The CHIA report must be prepared by a **qualified heritage specialist**. Refer to the Canadian Association of Heritage Professionals (CAHP) which lists members by their specialization. (<u>https://cahp-acecp.ca/)</u>

- 2. Applicant and owner **contact information**.
- 3. A **description of the subject property**, both built form and landscape features, and its context including nearby cultural heritage resources. If the requirement for the CHIA is to evaluate potential a cultural heritage landscape, a topographic map will be required within this report.
- 4. A chronological description of the **history of the subject property** to date and past owners, supported by archival and historical material.
- 5. A **development history** and **architectural evaluation** of the built cultural heritage resources found on the subject property, the site's physical features, and their heritage significance within the local context.
- 6. A condition assessment of the cultural heritage resources found on the subject property.
- 7. The documentation of all cultural heritage resources on the subject property by way of photographs (interior and exterior) and /or measured drawings, and by mapping the context and setting of the cultural heritage resource. For properties located within Heritage Conservation Districts, include documentation of contributing character attributes regarding massing, mature landscaping and trees and how it contributes the heritage streetscape within the Heritage Conservation District.
- 8. A statement of cultural heritage value if one does not already exist.
  - a. Part IV individually designated properties will have statements provided in the existing City by-law. For older designation statements, a new statement may be requested.
  - Part V properties will have an inventory entry that identifies features of interest on the property. Also identify the property's contributing status in the applicable HCD Plan. An updated statement of cultural heritage value that reflects any new information about the property may be requested.
  - c. For non-designated built heritage resources, this statement shall be based on Ontario Regulation 9/06 – Criteria for Determining Cultural Heritage Value or Interest.
  - d. For, Cultural Heritage Landscapes and Character Areas, this evaluation should analyze the findings of the possible heritage resource against the policy criteria outlined above in the "Provincial and Municipal Heritage Policies" section.
- 9. An **summary of the development proposal** for the subject property and the potential impact, both adverse and beneficial, the proposed development will have on identified cultural heritage resources and/or the surrounding heritage conservation district. The proposed alteration and/or development should be assessed to determine how closely it follows the heritage conservation principles as outlined in Sections 6.2.2.6-6.2.2.9 of the Vaughan Official Plan 2010. A site plan and tree inventory/arborist report are required for this section.

Adverse impacts on a cultural heritage resource(s) as stated in the <u>Ontario Heritage Tool Kit</u> include, but are not limited to:

- Destruction of any, or part of any, significant heritage attributes or features;
- Removal of natural heritage features, including trees;
- Alteration that is not sympathetic, or is incompatible, with the historic fabric and appearance;
- Shadows created that alter the appearance of a heritage attribute or change the viability of an associated natural feature, or plantings, such as a garden;
- Isolation of a heritage attribute from its surrounding environment, context or a significant relationship;
- Direct or indirect obstruction of significant views or vistas within, from, or of built and natural features;
- A change in land use where the change in use negates the subject property's cultural heritage value, and
- Land disturbances such as change in grade that alter soils, and drainage patterns that adversely affect cultural heritage resources.
- 10. An **assessment of alternative options, mitigation measures, and conservation methods** that may be considered to avoid or limit the negative impact on the cultural heritage resource(s). Methods of minimizing or avoiding a negative impact on a cultural heritage resource(s) as stated in the *Ontario Heritage Tool Kit* include, but are not limited to:
  - Alternative development approaches
  - Isolating development and site alteration from significant built and natural features and vistas
  - Design guidelines that harmonize mass, setback, setting, and materials
  - Limiting height and density
  - Allowing only compatible infill and additions
  - Reversible alterations

The preferred strategy would be directed at conservation should any impact be discerned. Conservation strategies may include the following:

- A mitigation strategy including the proposed methods
- A conservation scope of work including the proposed methods
- An implementation and monitoring plan

Recommendations for additional studies/plans related to, but not limited to conservation, site specific design guidelines, interpretation/commemoration, lighting, signage, landscape, stabilization, additional record and documentation prior to demolition, and long-term maintenance.

#### **Avoidance Mitigation**

Avoidance mitigation may allow the alterations or proposed development to proceed while retaining the cultural heritage resources in situ and intact. Avoidance strategies for heritage resources typically would require provisions for maintaining the integrity of the cultural heritage resource and to ensure it does not become structurally unsound or otherwise compromised. Feasible options for the adaptive re-use of built heritage structure or cultural heritage resources should be clearly outlined.

Where conservation of the entire structure is not feasible, consideration may be given to the conservation of the heritage structure/resource in part, such as the main portion of a building without its rear, wing or lateral addition.

#### Salvage Mitigation

In situations where cultural heritage resources are evaluated as being of minor significance or the conservation of the heritage resource in its original location is not considered feasible on reasonable and justifiable grounds, the relocation of a structure or (as a last resort) the salvaging of its architectural components may be considered. This option is often accompanied by the recording of the structure through photographs and measured drawings.

#### **Historical Commemoration**

While this option is not encouraged and does not conserve the cultural heritage of the subject property or structure, historical commemoration by way of interpretive plaques, the incorporation of reproduced heritage architectural features in new development, or erecting a monument-like structure commemorating the history of the subject property may be considered as a final mitigating solution. This option may be accompanied by the recording of the structure through photographs and measured drawings.

## **REVIEW / APPROVAL PROCESS**

CHIA reports must be completed to the satisfaction of the City. Cultural Heritage staff will review the submitted documentation and determine whether the minimum requirements of the CHIA report have been met and to review the conclusions and recommendations outlined in the CHIA report. Revisions and amendments to the CHIA report will be required if the guidelines are not met. Cultural Heritage staff may meet with the owner/applicant to discuss the CHIA report and recommendations contained therein. CHIA reports that are not completed to the satisfaction of the Cultural Heritage staff will be subject to revision and resubmission and may be subject to critique by peer review (at the expense of the owner/applicant) or a similar process to determine if the report meets recognized standards and practices.

The preparation and submission of a CHIA report may be a required as a condition of approval for Site Development and Draft Plan of Subdivision applications.

Two hard copies plus two digital copies of the CHIA report shall be distributed to the City of Vaughan:

- one hard copy plus one digital copy to the Development Planning Department, and
- one hard copy plus one digital copy to the Urban Design and Cultural Heritage Division

Any questions or comments relating to these guidelines may be directed to the Urban Design and Cultural Heritage Division, Development Planning Department, City of Vaughan.

# APPENDIX B: DESIGNATION BY-LAW 46-82 (8700 HUNTINGTON ROAD)

#### REGISTERED MAIL

In The Matter Of The Ontario Heritage Act, R.S.O. 1980 Chapter 337

- and -

file

In The Matter Of The Lands and Premises Known Municipally as "The Robert Agar House" 8700 Huntington Road, Kleinburg in the Town of Vaughan in the Province of Ontario

TO: The Ontario Heritage Foundation 77 Bloor Street, West Toronto, Ontario M7A 2R9

Notice of Passing of By-law

Take Notice that the Council of The Corporation of the Town of Vaughan has passed By-law Number 46-82 to designate the following property as being of architectural value or interest under Part IV of the Ontario Heritage Act, R.S.O. 1980, Chapter 337:

"The Robert Agar House" 8700 Huntington Road, Kleinburg, Ontario.

Reasons for the Proposed Designation

The Robert Agar House is recommended for designation on architectural grounds as a good example of a mid-nineteenth century, red-brick Ontario farmhouse exhibiting particular features designed in the Classical Revival style. The front facade is embellished by white brick detailing providing a stylized entablature and simulated corner quoins while the front doorway, with its rectangular glazed transom and sidelight, exhibits further elements borrowed from the Classical Revival style.

DATED at the Town of Vaughan this 5th day of May, 1982

F.G. Jackman Town Clerk

Town of Vaughan 2141 Major Mackenzie Drive Maple, Ontario, LOJ 1EO

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# THE CORPORATION OF THE TOWN OF VAUGHAN

## BY-LAW NUMBER 46-82

с.

A By-law to designate the building known municipally as 8700 Huntington Road, Kleinburg, as being of architectural value or interest.

WHEREAS Section 29 of the Ontario Heritage Act, R.S.O. 1980, authorizes the Council of a municipality to enact by-laws to designate real property, including all buildings and structures thereon, to be of architectural or historical value or interest; and,

WHEREAS the Council of The Corporation of the Town of Vaughan has caused to be served on the owners of the lands and premises known as the "Robert Agar House" at 8700 Huntington Road, Kleinburg, and upon the Ontario Heritage Foundation, notice of intention to so designate the building located on the aforesaid real property and has caused such notice of intention to be published in the same newspaper having general circulation in the municipality once for each of three consecutive weeks; and,

WHEREAS no notice of objection to the proposed designation has been served on the Clerk of the municipality;

THEREFORE The Corporation of the Town of Vaughan ENACTS AS FOLLOWS:

1. There is designated as being of architectural value or interest the building known as the "Robert Agar House" situated at 8700 Huntington Road, Kleinburg, and located on that part of Lot 12, Concession 10, in the Town of Vaughan in the Regional Municipality of York and more particularly described" in "Schedules "20" rattached hereto.

2. <sup>T</sup>The Town Solicitor is hereby, authorized to cause a copy of <sup>C</sup> this birlawh to ebe registered against the property." described in Schedule "A" hereto in the proper land registry office. 3. The Town Clerk is hereby authorized to cause a copy of this by-law to be served on the owner of the aforesaid property and on the Ontario Heritage Foundation and to cause notice of the passing of this by-law to be published in the same newspaper having general circulation in the municipality once for each of three consecutive weeks.

READ a FIRST and SECOND time this 15th day of March, 1982.

Saul and MAYOR

READ a THIRD time and finally passed this 15th day of March, 1982.

Gaeulla MAYOR TOIZA **KHE** TOWN CLERI



# SCHEDULE "A" TO BY-LAW NUMBER 46-82

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ALL AND SINGULAR that certain parcel or tract of land and premises, situate, lying and being in the Town of Vaughan, in the Regional Municipality of York and Province of Ontario and being composed of Part of Lot 12 in the Tenth Concession of the said Town containing by admeasurement 10.289 acres more or less and which parcel of land may be more particularly described as follows:

PREMISING that the Easterly limit of Highway No. 50 as widened by Plan 6990 filed in the Registry Office for the Registry Division of York Region (No. 65) has a bearing of North 22 degrees 52 minutes 45 seconds West and relating all bearings herein thereto:

COMMENCING at a point in the Eastern limit of said Lot 12 distant 704.54 feet measured South 9 degrees 42 minutes 40 seconds East along said Eastern limit from the North East angle of Lot 12 aforesaid;

THENCE South 9 degrees 42 minutes 40 seconds East still along said Eastern limit 377.39 feet.

THENCE South 73 degrees 49 minutes 50 seconds West 1173.46 feet.

THENCE North 16 degrees 19 minutes West 375.00 feet.

THENCE North 73 degrees 49 minutes 50 seconds East 1216.88 feet more or less to the point of commencement.

# APPENDIX C: HERITAGE POLICY REVIEW
# APPENDIX C: HERITAGE POLICY REVIEW

The proposed development allows for the heritage resource on 8700 Huntington Road to remain in situ, in its current state with the attached campus (1991).

In its current visual and physical siting, the campus is divided into a front (eastern) half and rear (western) half, distinguishing the heritage resource from the brick-faced workshop/seminar buildings.

The proposed development preserves the cultural heritage value of the Robert Agar House, and allows for the continued use of the site by LiUNA as a training campus.

The following policy documents were reviewed in the preparation of this CHIA, as they provide the framework for the property with respect to the Site's cultural heritage resources:

- Province of Ontario's Provincial Policy Statement, 2020 (the "PPS");
- A Place to Grow: Growth Plan for the Greater Golden Horseshoe, 2020 (the "Growth Plan");
- York Regional Official Plan, consolidated 2019 (the "Region Official Plan");
- City of Vaughan Official Plan, 2010 (the "Official Plan");
- Standards and Guidelines for the Conservation of Historic Places in Canada.

## **Provincial Policy Statement**

The PPS directs land use planning in Ontario and identifies the importance of balancing growth demands with the conservation of significant *built heritage resources* and cultural heritage landscapes:

2.6.1 Significant built heritage resources and significant cultural heritage landscapes shall be **conserved.** 

2.6.3 Planning authorities shall not permit development and site alteration on **adjacent lands** to protected heritage property except where the proposed development and site alteration has been evaluated and it has been demonstrated that the heritage attributes of the protected heritage property will be conserved.

Built heritage resource: a building, structure, monument, installation or any manufactured or constructed part or remnant that contributes to a property's cultural heritage value or interest as identified by a community, including an Indigenous community. Built heritage resources are located on property designated under Parts IV or V of the Ontario Heritage Act, or that may be included on local, provincial, federal and/or international registers (PPS, 2020).

*Significant*: e) in regard to cultural heritage and archaeology, resources that have been determined to have cultural heritage value or interest. Processes and criteria for determining cultural heritage value or interest are established by the Province under the authority of the Ontario Heritage Act (PPS, 2020).

**Conserved**: the identification, protection, management and use of built heritage resources, cultural heritage landscapes and archaeological resources in a manner that ensures their cultural heritage value or interest is retained. This may be achieved by the implementation of recommendations set out in a conservation plan, archaeological assessment, and/ or heritage impact assessment that has been approved, accepted or adopted by the relevant planning authority and/or decision-maker. Mitigative measures and/or alternative development approaches can be included in these plans and assessments (PPS, 2020).

## A Place to Grow: Growth Plan for the Greater Golden Horseshoe

The Growth Plan supports the development of prosperous and complete communities across the Greater Golden Horseshoe Region. This approach includes the recognition and conservation of cultural heritage resources and identifies the importance of built heritage and cultural landscapes to local identity, the tourist sector and the investment potential of communities.

Section 4.2.7 of the Growth Plan directs the following:

1. Cultural heritage resources will be conserved in order to foster a sense of place and benefit communities, particularly in strategic growth areas. York Region Official Plan

## York Region Official Plan

The Region's Official Plan discusses elements necessary to promote healthy communities throughout the Region, including the conservation of natural and cultural heritage resources. Section 3.4 of the Regional Official Plan notes one of the objectives for the Region's cultural heritage include, "to recognize, conserve and promote cultural heritage and its value and benefit to the community."

## City of Vaughan Official Plan

Policies within Section 6 of the Official Plan guide the conservation of heritage resources in the City of Vaughan. The policies ensure that heritage properties are conserved in accordance with good heritage conservation practice. Further, the policies allow for adaptive reuse in a manner that does not impact the heritage attributes of the resource. Policy 6.2.2.6 states, *that, in reviewing heritage permit applications, the City be guided by the following heritage conservation principles*:

a. Good heritage conservation practices;

- b. protecting heritage resources, Cultural heritage landscapes and archaeological sites including their environs from any adverse impacts of the proposed alterations, additions, works or development;
- *c. retaining and repairing original building fabric and architectural features;*
- d. new additions and features should generally be no higher than the existing building and wherever possible be placed to the rear of the building or set back substantially from the principal façade so as to make the addition unobtrusive from the pedestrian realm; and
- e. new development on vacant lots or lots currently occupied by nonheritage structures in Heritage Conservation Districts designated under Part V of the Ontario Heritage Act be designed to fit harmoniously with the immediate physical or broader district context and streetscapes, and be consistent with the existing heritage architectural style through such means as:

*i. being similar in height, width, mass, bulk and disposition;* 

*ii. providing similar setbacks;* 

iii. using like materials and colours; and

iv. using similarly proportioned windows, doors and roof shape.

## Standards and Guidelines for the Conservation of Historic Places in Canada

This proposed development has been analyzed against Parks Canada's Standards and Guidelines for the Conservation of Historic Places in Canada ("the Standards and Guidelines").

# APPENDIX D: ARCHITECTURAL DRAWINGS PREPARED BY STANDARD PRACTICE

# LiUNA EXPANSION 8700 Huntington Road Vaughan ON L4H 3N5 Architectural Drawing Set Issued for Site Plan Approval # 2 - 2024-04-05

8700 HUNTINGTON RD







01Issued for Site Plan Approval2023-11-3002Issued for Site Plan Approval # 22024-04-05

	SPA - DRAWING LIST	Issued
A-0.0	Cover Page	$\boxtimes$
A-1.01	Renderings	$\boxtimes$
A-1.02	Context & Project Statistics	$\boxtimes$
A-1.03	Survey (Existing Site Condition)	$\boxtimes$
A-1.04	Interim Site Plan	$\boxtimes$
A-1.05	Ultimate Site Plan	$\boxtimes$
A-1.06	Roof Plan	$\boxtimes$
A-2.01	Ground Floor	$\boxtimes$
A-2.02	Second Floor	$\boxtimes$
A-2.03	Roof Plan	$\boxtimes$
A-4.01	Overall Elevations	$\boxtimes$
A-4.02	Building Signage	$\boxtimes$
A-4.31	Enlarged Elevations Building 'H' Proposed	$\boxtimes$
A-4.32	Enlarged Elevations Building 'H' Existing	$\boxtimes$
A-5.01	Overall Sections	$\boxtimes$
A-10.01	Material Board of Exterior Samples	

Standard Practice 213 Sterling Road Suite 209 Toronto ON M6R 2B2 416 918 7715 infor@standard-practice.ca LiUNA Local 183

8700 Huntington Road Vaughan ON L4H 3N5 #Client Phone Number #Client E-mail

LIUNA EXPANSION

**Cover Page** 

Juvel Page

 Date of Issue:
 2024-04-05

 Project No.:
 18003

 Print Date:
 2024-04-05 [3:46 PM]

Document Source :

BIMcloud: SPserver - BIMcloud Basic for Archicad 26/21001 LiUNA/LiUNA CAMPUS 15

- -





EXTERIOR VIEW OF MAIN COURTYARD & EAST ENTRANCE OF BUILDINGS 'A' & 'H'



EXTERIOR VIEW OF NORTH ELEVATIONS OF BUILDINGS 'A' & 'E'





INTERIOR VIEW OF BUILDING 'E'



01 Issued for Site Plan Approval 2023-11-30 2024-04-05 02 Issued for Site Plan Approval # 2

Standard Practice 213 Sterling Road Suite 209 Toronto ON M6R 2B2 416 918 7715 info@standard-practice.ca LiUNA Local 183

8700 Huntington Road Vaughan ON L4H 3N5 #Client Phone Number #Client E-mail

LIUNA EXPANSION

Renderings

2024-04-05 18003 2024-04-05 [3:46 PM]

Document Source :

Date of Issue: Project No.: Print Date:

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LIUNA CAMPUS   GCA					
BUILDING	FLOOR	AREA	STATUS		
Building A					
	GCA 2F	2,802	New		
	GCA GF	2,788	New		
Building E					
	GCA GF	1,599	New		
Building F					
	GCA GF	3,018	Existing		
Building H					
	GCA 2F	130	Existing		
	GCA GF	130	Existing		
Building S					
	GCA GF	843	Existing		
	GCA MEZZANINE	80	Existing		
Building T					
	GCA GF	790	Existing		
		12,180 m <sup>2</sup>			

LIUNA CAMPUS   GFA DEDUCTIONS				
BUILDING	STOREY	AREA		
Building A				
	GFA DEDUCTIONS 2F	46		
	GFA DEDUCTIONS GF	304		
Building H				
	GFA DEDUCTION 2F	130		
		480 m <sup>2</sup>		

BUILDING COVERAGE					
BUILDING	AREA SQM	STATUS			
BUILDING A	2,906	New			
BUILDING E	1,599	New			
BUILDING F	3,018	Existing			
BUILDING H	130	Existing			
BUILDING S	843	Existing			
BUILDING T	790	Existing			
	9,286 m²				

Asphalt	4,494	Existing
Asphalt	1,205	New
Curbs	164	Existing
Curbs	173	New
Gravel	6,059	Existing
Hard Landscape	960	Existing
Hard Landscape	3,899	New
Open Grid Gravel	1,519	Existing
Open Grid Gravel	797	New
Permeable Pavers	2,515	New
Soft Landscape	7,182	Existing
Soft Landscape	1,063	New
	30,030 m²	

Name	of Project:		
Liuna	CAMPUS		
Locatio 8700 H	on: luntington Road, Vaughan, Ont	ario, L4H 3N5	
Date: 2	2024-03-27		
		Ontario Building Code Data Matrix Part 3	Building Cod Reference
3	Building Code Version:	O. Reg. 332/12     Last Amendment     O. Reg. 191/14	[4] 1 1 0
3.01	Floject Type.	Description: TEACHING FACILITY FOR SKILLED LABOUR	[A] 1.1.2.
3.02	Major Occupancy Classification:	Group A, Division 2 Assembly, Group D Personal Services/ Offices, Group F3 Low Hazard Industrial	3.1.2.1.(1)
3.03	Superimposed Major Occupancies:	□ No X Yes	3.2.2.7.
	Building Area (m2)	Description:         Group A, Div 2 Assembly/ Educational           Description:         Existing         New         Total	
2.04		Ground Floor (Building A, E & H)         130         4,387         4,517           2nd Floor (Building A & H)         130         2,802         2,932	
3.04		Total 260 7189 7449	[A] 1.4.1.2.
	Insert additional lines as	10(a) 200 7,105 7,455	
	Gross Area (m2)	Description:         Existing         New         Total           Ground Floor (Building A, E & H)         130         4,083         4,213	
3.05		2nd Floor (Building A & H) 0 2,756 2,756	[A] 1.4.1.2.
	Incost orbitize 11	Total 130 6,839 6,969	
	Insert additional lines as Mezzanine Area (m2)	Description: Existing New Total	
3.06		Tatl	3.2.1.1.
	Insert additional lines as	10141	
3.07	Building Height	2 Storeys above grade 15.35 (m) Above grade 0 Storeys below grade	[A] 1.4.1.2. & 3.2.1.1.
3.08	High Building Number of Streets/	x No 🗆 Yes	3.2.6. 3.2.2.10 &
3.09	Building Classification:	3.2.2. Group A/Div 2	3.2.2.20 83
0 11	(Size and Construction	X Required  Not Required	3.2.1.5. &
3.11	Standnine System	Proposed: X entire building  selected compartments  selected floor areas  basement  in lieu of roof rating  none Not required X Required	3.2.2.17. 3.2.9.
3.13	Fire Alarm System	X Required D Not required	3.2.4.
3.14	Water Service / Supply is	Proposed:  Single stage X   wo stage  None No X Yes	
3.15	Construction Type:	Restriction:  Combustible permitted X Non-combustible required Actual:  Combustible  Non-combustible X Combination	3.2.2.20 83
	······	Heavy Timber Construction: X No 🗆 Yes	& 3.2.1.4.
3 16	Importance Category:		4.1.2.1.(3) &
0.10	iniportance category.	High X Minor     Explosive or hazardous substances     Post-disaster	T4.1.2.1.B
2 17	Solemic Hazard Indov:	(IE Fa Sa(0.2)) = 0.167	4.1.2.1.(3)
3.17	Seisinic Hazard Index.	( (IE Fa Sa (0.2)) ≥ 0.35 or Post-disaster) X No $\Box$ Yes	4.1.0.10.(2)
	Occupant Load	Floor Level/Area         Occupancy         Based On         Occupant Load           Ground Floor         A2, F3         OBC table 3.1.17.1         402	
3.18		2nd Floor A2, D & number of 521	3.1.17.
	Insert additional lines as	_ persons to which     area is designed	
3.19	Barrier-free Design:	x Yes 3.8.1.1 Application No (b) buildings of Group A, Division 2 major occupancy.	3.8.
3.2	Hazardous Substances:	Yes Explanation	3.3.1.2. & 3.3.1.19
3.21	Required Fire Resistance	Horizontal Assembly Rating (H) Supporting Noncombustible	
	Ratings	Assembly (H)         in lieu of rating?           Floors over basement         N/A         Q         No         Yes X N/A	3.2.2.20 83
		Floors         1         1         No X Yes         N/A           Mezzanine         N/A         0         No T Yes X N/A	& 3.2.1.4.
		Roof         0H/ not occupied         0         No         Yes X N/A	
3.22	Spatial Separation	Wall         EBF Area (m2)         L.D. (m)         L/H or H/L         Required         Construction Type         Cladding Type           ERR (H)         Required         Required <td>3.2.3.</td>	3.2.3.
		North         unlimited         > 9 m         0         0         Noncombustible         Noncombustible           South         unlimited         > 9 m         0         0         Noncombustible         Noncombustible	
		East unlimited >9 m 0 0 □ Noncombustible □ Noncombustible	
	Insert additional lines as		
3.23	Plumbing Fixture	Ratio: Male:Female = 2:1 Except as noted otherwise	
	Requirements	Eloor Level/Area         Occupant Load         OBC Reference         Fixtures Reg'd         Fixtures Prov'd           Ground Floor         402         3.7.4.2. (7) &         3 (M) + 2 (F)         5 (M) + 3 (F) + 1 (Univ.)	3.7.4.2 &
	Insert additional lines as	2nd Floor 521 3.7.4.3.(15) 3 (M) + 3 (F) 3 (M) + 3 (F)	3.7.4.3
3.24	Energy Efficiency:	Compliance Path:	
	Notes:	Climatic Zone: Zone 5	
3.25			

# LiUNA CAMPUS - Project Summary

				March 27, 2024
GFA Definition as ner Zoning Rv-law No. 001-2021				March 27, 2024
(all areas in square meters)				
SITE STATISTICS				
ZONING BY LAW	А			
PERMITTED USE	SCHOOL	(TECHNICAL SCHOOL)		
IOTAL SITE AREA	39,315.50	sqm		
BUILDING SETBACKS				LANDSCAPE BUFFER
YARD	REQUIRED	PROVIDED	REQUIRED	PROVIDED
FRONT	15 m	15 m	6 m FRONT (STREET)	6 m
REAR	15 m	15 m		0.0 m
Side	1511	15111	0.0 111 SIDE	0.0 M
GROSS CONSTRUCTION AREA (GCA)	EXISTING	TO BE DEMOLISHED	PROPOSED/NEW	<b>NEW/OLD COMBINED</b>
BUILDING F (Workshops)	3,018			3,018
BUILDING T (Tunneling Building)	790			790
SUILDING S (Storage Building)	923			923
Soliding H (Heritage Building)	260	פדד		260
Seminar Bullding	//3	//3		0
SCHOOL BUILDING A			5,590	5,590
WORKSHOP BUILDING E			1,599	1,599
TOTAL GCA EXISTING, DEMOLISHED AND PROPOSED	5,764	773	7,189	12,180
GROSS FLOOR AREA (GFA)	l evel	GCA	DEDUCTIONS	GFA
SCHOOL BUILDING A (NEW)	GF	2,788	304	2,484
	2F	2,802	46	2,756
NORKSHOP BUILDING E (NEW)	GF	1,599	0	1,599
BUILDING H (EXISTING HERITAGE)	GF	130	0	130
ΓΟΤΑΙ	2F	130	130  <b>480</b>	0 6 969
		,,,	100	0,707
COVERAGE CALCULATIONS		SQM	SQFT	%
3UILDING AREA / SITE AREA		9,286	99,948	23.6
PAVED COVERAGE		6 026	64.071	15 /
2DAVELED AREA (ASPHALL + CORDS/ NEW + EAIST.)		6,050	04,971	15.4
DERMEARI E PAVERS AREA (NEW)		2 515	27 071	6.4
DPEN GRID GRAVELED AREA (NEW + EXIST.)		2,316	24,929	5.9
SUB-TOTAL		16,926	182,190	43.1
ANDSCAPED COVERAGE ANDSCAPED AREA (HARDSCAPE + SOFTSCAPE/ NEW + EXIST )		13 104	141 050	33.3
TOTAL		39,316	423,188	100.0
PARKING SPACES		EXISTING	PROPOSED	τοται
STANDARD PARKING	1	95	50	145
CCESSIBLE PARKING	2	5	4	9
TOTAL		100	54	154
BICYLE PARKING		RATIO	REQUIRED	PROPOSED
/IN. BICYCLE PARKING RATES PER 100 m2 GFA				
ONG TERM	4	0.05	3.5	4
	3	0.2	13.9 17 <i>A</i>	14
			17.4	18
' STANDARD PARKING STALL TO BE 2.7m x 6.0m <sup>2</sup> ACCESSIBLE PARKING STALL TO BE:				
TYPE A: 3.4m x 6.0m				
TYPE B: 2.4m x 6.0m				
Y BICYCLE PARKING SPACE TO BE U.6M X 1.8 M				

# CONTEXT MAP





Insert additional lines as

# LiUNA CAMPUS - OBC Matrix



01 Issued for Site Plan Approval 2023-11-30 2024-04-05 02 Issued for Site Plan Approval # 2

Standard Practice 213 Sterling Road Suite 209 Toronto ON M6R 2B2 416 918 7715 info@standard-practice.ca LiUNA Local 183

8700 Huntington Road Vaughan ON L4H 3N5 #Client Phone Number #Client E-mail

LIUNA EXPANSION

# Context & Project Statistics

2024-04-05 18003 2024-04-05 [3:46 PM]

Document Source : BIMcloud: SPserver - BIMcloud Basic for Archicad 26/21001 LiUNA/LiUNA CAMPUS 15







Date of Issue: 20 Project No.: 18 Print Date: 20

2024-04-05 18003 2024-04-05 [3:46 PM]

# Survey (Existing Site Condition)

Document Source : BIMcloud: SPserver - BIMcloud Basic for Archicad 26/21001 LiUNA/LiUNA CAMPUS 15

# LIUNA EXPANSION

8700 Huntington Road Vaughan ON L4H 3N5 #Client Phone Number #Client E-mail

LiUNA Local 183

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	÷	DENOTES	ANCHOR			
		DENOTES	BENCH			
	•	DENOTES	BOLLARD			
	B		BELL TERMINAL BOX			
	CB (^^	DENOTES	DECIDIOUS TREE			
		DENOTES	FIRE HYDRANT			
	P	DENOTES	FLAG POLE			
		DENOTES	DECK DRAIN			
	GK	DENOTES	GAS KEY			
	$\mathbb{Z}$	DENOTES	GAS VALVE			
	GM	DENOTES	GAS MEIER HYDRO ROLE			
	● HP	DENOTES	LIGHT STANDARD			
		DENOTES	MANHOLE-UNKNOWN			
	<b>M</b>	DENOTES	MONITORING WELL			
	Ő	DENOTES	POLE NON-UTILITY			
	*	DENOTES	CONIFEROUS TREE			
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		DENOTES	SIGN			
	●UP	DENOTES	UTILITY POLE			
	8 .wv.	DENOTES	VENI WATER VALVE			
	۲ مهری	DENOTES	CURB AND GUTTER			
	xx	_ DENOTES	FENCE			
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		DENOTES	MINOR CONTOUR			
	<u> </u>	_ DENOTES	TOP OF SLOPE			
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 These Contract Documents are the property of the Architect. The Architect bears no responsibility for the interpretation of these documents by the Contractor. Upon written application, the Architect will provide written/graphic clarification or supplementary information regarding the intent of the Contract Documents. The Architect will review Shop Drawings submitted by the Contractor for design conformance only.
 Drawings are not to be scaled for construction. The Contractor is to verify all existing conditions and dimensions required to perform the work and report any discrepancies with the Contract Documents to the Architect before commencing any work.
 Positions of exposed finished mechanical or electrical devices, fittings, and fixtures are indicated on architectural drawings. The locations shown on the architectural drawings govern over the Mechanical and Electrical drawings. Those items not clearly located will be located as directed by the Architect.
 These drawings are not to be used for construction unless noted below as "Issuance: For Construction"
 All work is to be carried out in conformance with the Code and Bylaws of the authorities having jurisdiction.
 The Architect of these plans and specifications gives no warranty or representation to any party about the constructoin satisfy themselves when bidding and at all times ensure that they can properly construct the work represented by these plans.
 Standard Practice Inc.

No.IssuanceDate01Issued for Site Plan Approval2023-11-3002Issued for Site Plan Approval # 22024-04-05



STANDARD CITY OF VAUGHAN SITE PLAN NOTES: (1) Standard drawings of the City of Vaughan constitute part of the site plan drawing(s). (2) All construction work to be carried out in accordance with the requirements of the Occupational Health and Safety Act and Regulations for construction projects. (3) The Owner shall retain the services of his consultants to ensure required inspection reports and/or certification requirements are submitted to the Engineering Department and other affected City Departments. (4) The Owner and/or his representative shall rectify all disturbed are as to original condition or better and to the satisfaction of the City. (5) The location of all under/above ground utilities and structures is approximate only and where shown on the drawing(s) the accuracy of the location of such utilities is not guaranteed. The owner and/or his representative shall determine the location of all such utilities and structures by consulting the appropriate authorities or utility companies concerned. The owner shall prove the location of such utilities and structures and shall assume all liability for damage or restoration or adjustment for the same. (6) Any conflicts with existing services shall be rectified at the Owner's expense. (7) Sanitary and storm control manholes shall be in accordance with Provincial Standard OPSD 701.010. Frame and cover shall be McCoy HM331 or approved equal. The manholes shall be benched to the obvert (top) of pipes. (8) All sanitary manhole covers in the ponding are as to be watertight sealed covers. (9) All catchbasins shall be installed in accordance with City Standard Drawing K-4. All catchbasin frames and

STANDARD SITE PLAN NOTES FOR CITY OF VAUGHAN

covers shall be McCoy HM311 or approved equal.

(16) Existing the municipal sidewalk.

PROPERTY LINE EX. FIRE HYDRANT TO REMAIN - 45m EXTEND OF COVERAGE CONSTRUC EX. GRASS EXISTING PROPOSED Open grid gravel System 4,700 CONCRETE PAVING EX. CONCR. PAVING -12,000 GENERATOR WITH CONCRETE PAD LINE OF REQUIRED 15M BUILDING SETBACK REFER TO SITE SERVICING PLAN FOR MORE DETAILS EXISTING ASPHALT EXISTING 1 STOREY DRIVĖWAY BUILDING "T" GCA: 790 m<sup>2</sup> \_ \_PROPOSED -NO CHANGE PROPOSED / ଜ୍ GRASS EXISTING 1 STOREY EXISTING Concrete Paving BUILDING "F3" (RB-93) (RB-93) (RB-93) GCA: 1,167 m<sup>2</sup> NO CHANGE PROPOSED EXISTING CONCRETE PAVING TYPE "A" R:2,000 5 2 PROPOSED PROP<u>osed</u> Asphalt POLE 1 2,700 PROPOSED PROPOSED POLE 6,000 PROPOSED PROPOSED CONCRETE SIDEWALK PROPOSED ASPHALT • CONCRETĘ SIDEWALK PROPOSED PROP. DCB MANHOLE 1 PROPOSED REFER TO SITE SERVICING PLAN  $\longrightarrow$ FIRE HYDRANT OPEN GRID GRAVÈL FOR MORE DETAILS EXISTING ASPHALT DRIVEWAY SYSTEM FIRE TRUCK REF. TRAFFIC DWG <sup>/</sup> EX. CONC. Paving ⇒ ⇔ GRAVEL PROPOSED Concrete Paving -----**PROPOSED ONE STOREY + MEZZANINE** STEEL FRAME STORAGE BUILDING PROPOSED ASPHALT GCA: 924.13 m2 9 PRØPOSED Standard Parking FFE= +196.950 m PROP. DCB MANHOLE 2 REFER TO SITE SERVICING PLAN PROPOSED — DEPRESSED CURB FOR MORE DETAILS CONCRETE PAVING 150mm RIP-RAP PROP. JELLYFISH 6-6-1 IN A 2 MH OFFLINE CONFIGURATION -REFER TO SITE SERVICING PLAN FOR MORE DETAILS PROPOSED EXISTING POLE OPEN GRID GRAVEL System — 150mm RIP-RAP PROP. DIVERSION MANHOLE WITH DIVERSION WEIR -REFER TO SITE SERVICING PLAN FOR MORE DETAILS EXT. CULVERT REFER TO SITE SERVICING PLAN FOR MORE DETAIL - 150mm RIP-RAP PROPOSED \_ CONCRETE BOX CULVERT REFER TO SITE SERVICING PLAN STORM CULVERT BOX TO BE FOR MORE DETAILS REMOVED AND REUSED REFER TO SITE SERVICING PLAN

FOR MORE DETAILS

(10) All industrial/commercial/condominium watermain connections shall be constructed in accordance with City Standard Drawings C-102, C-103 and W-106	(18) Frost collars are to be provided on curb stops and valve boxes when located within the limits of the driveways.	(27) Silt fence(s) to be installed and maintained to prevent silt flowing onto adjacent lands until the completion of sodding activities
	(19) Entrance driveways shall be setback a minimum clearance of 1 Nm from all aboveground services or other	Southing activities.
(11)Watermain shall have a minimum vertical separation of 0.5m and horizontal separation of 2.5m between any sewer or manhole.	obstructions.	(28) Construction access shall be constructed with a minimum depth of 450mm crushed stone base from the municipal curb or edge of pavement to the property line, to the satisfaction of the City.
	(20) Appropriate construction details should be provided for retaining walls higher than 1.0m. Details shall be	
(12) Hydrants to be installed as per City Standard W-104 with 1.0m minimum clear from all obstructions.	designed and certified by a professional engineer upon approval. Handrail/guard/fence is required when height exceeds 0.60m (as per City Standard Drawing FRW-105 or approved equal). Upon completion retaining walls	(29) The surface of all loading spaces and related driveways, parking spaces, and maneuvering areas within the site shall be paved with a hard surface. The recommended minimum depth requirements are as follows:
(13) Entrance driveways shall be constructed with heavy duty asphalt from the back of the municipal curb or edge of pavement to the property line (area highlighted on drawing(s) in accordance with the following	greater than 1.0m to be certified by a structural and geotechnical engineer.	a. 40mm compacted depth HL3 asphalt - top course b. 50mm compacted depth HL8 asphalt - binder course
specifications: a. 50mm compacted depth of HL3 asphalt - top course	(21) Landscape shall not encroach on boulevard nor shall boulevard grades be altered.	c. 150mm compacted depth 20mm crusher run limestone - granular base d. 200mm compacted depth 50mm crusher run limestone - granular sub-base
b. 75mm compacted depth of HL8 asphalt - binder course	(22) Slopes in landscaped areas and on berms shall not exceed 3 horizontal to 1 vertical.	
c. 150mm compacted depth of 20mm crusher run limestone - granular base		(30) Condominium unit driveways - the minimum recommended depth requirements are as follows:
d. 300mm compacted depth of 50mm crusher run limestone - granular sub-base	(23)Pavement grades (min. 0.5%, max 5%).	a. 25mm compacted depth HL3 asphalt top course b. 50mm compacted depth HL8 asphalt base course
(14) All concrete curb from existing road curb to street line shall be barrier curb OPSD 600.110. All concrete curb heights shall be 150mm unless otherwise noted. Entrance driveway curb to be discontinuous at sidewalk and	(24) Drainage grassed swales with grades (min. 2%, max 5%).	c. 200mm compacted depth 20mm dia. crusher run limestone
tapered back 600mm minimum.	(25) Outside lighting shall be directed downward and inward and designed to maintain zero cut-off light level distribution at the property line.	Top course asphalt shall not be placed until the base course asphalt has been in place for one winter season. Other hard surfaces may be installed
(15) All required curb cutting at entrance driveway and curb depressions at sidewalk crossings shall be installed to		as approved by the City.
the satisfaction of the City.	(26) Sanitary, storm and water service connections which are not in place on the municipal road allowance to the property line shall be arranged for installation by the City on payment of installation costs by the owner. To	(31) The Consulting Engineer shall design, implement and monitor the erosion and sediment control measures
(16) Existing roadway curb and gutter to be continuous through the proposed new driveway entrance(s) along with	initiate the installation of the service connection(s), the owner shall file an application with the Development	during all phases of construction on the lands in accordance with the TRCA Erosion and Sediment Control

(17) Sidewalk to be 200mm thick through entrance driveway entrance per City Standard R-128.

- Inspection & Lot Grading Division of the Development Engineering Department which includes 2 copies of the approved site plan drawing(s) with Department's approval seal and if required a copy of the Regional Approval Schedule as per the executed Site Plan Agreement.
  - SITE PLAN ACCESSIBILITY NOTES ACCESSIBLE PARKING SPACES PATH OF TRAVEL: 1500 mm (min.) wide to accessible entrance. LOCATION: within 30 m of accessible entrance SURFACE: firm, stable and slip-resistant. RUNNING SLOPE: 1:50 (max.). CROSS-SLOPE: 1:50 (max.). OVERHEAD CLEARANCE: 2100 mm or 2750 mm for van accessible spaces. TYPE A SPACE: 3400 mm (min.) wide x 5800 mm (min.) long. TYPE B SPACE: 2400 mm (min.) wide x 5800 mm (min.) long. ACCESS AISLE: 1500 mm (min.) wide, clearly marked, adjacent to accessible parking space. Note: Two adjacent accessible parking spaces may share an access aisle. DIRECTIONAL SIGNAGE: provided to guide users to nearest accessible entrance. VERTICAL SIGNAGE: Width 300 mm (min.) x Height 450 mm (min.). Mounted 1500 to 2000 mm high at centre. Marked with International Symbol of Accessibility. PAVEMENT SIGNAGE: Marked with International Symbol of Accessibility. Length 1525 mm (min.) x Width 1525 mm (min). EXTERIOR PATHS OF TRAVEL: SURFACE: firm, stable and slip-resistant. HEADROOM CLEARANCE: 2400 mm (min.). LIGHTING: 50 lux (5 foot-candles) (min.) at components (e.g., stairs, ramps and rest areas). CLEAR WIDTH: 1500 mm. RUNNING SLOPE: 1:20 (5%) (Max.).Note: If walkways exceed 5%, a ramp is required. CROSS-SLOPE: 1:50 (2%) (Max.). REST AREA: provided at every 30 m along path of travel. STAIRS: SURFACE: slip-resistant and non-glare. TREAD 280 to 355 mm deep, uniform. RISER: 125 to 180 mm high, uniform. OPEN RISER: NOSING PROJECTION: 38 mm (max.). NOSING STRIP: 50 mm deep; colour contrasted, at leading edge of tread, extending full width of tread. TACTILE ATTENTION INDICATOR (TAI) SURFACES: 610 mm (min.) deep, at top of stairs, one tread back. Note: Refer to Section 2.7, Tactile Walking Surface Indicators for detailed requirements. LIGHTING: 50 lux (5 foot-candles) (min.). HANDRAIL: 865 to 965 mm high on both sides. Note: Refer to Section 2.4, Guards and Handrails for detailed requirements. **BUILDING ENTRANCE** (Main or primary entrance to be accessible, with level access (preferred)).



**A-1.04** 



Guidelines for Urban Construction dated December 12, 2006, to the satisfaction of the City and TRCA.

(32) All proposed parking spaces for disabled to include "Rb-93 BY PERMIT ONLY" traffic sign and pavement

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represented by them. All contractors or subcontractors must satisfy themselves

representation to any party about the constructability of the building(s) when bidding and at all times ensure that they can properly construct the work

authorities having jurisdiction. 7. The Architect of these plans and specifications gives no warranty or

architectural drawings govern over the Mechanical and Electrical drawings. Those items not clearly located will be located as directed by the Architect. 5. These drawings are not to be used for construction unless noted below as "Issuance: For Construction" 6. All work is to be carried out in conformance with the Code and Bylaws of the

1. Copyright of this drawing is reserved by the Architect. The drawing and all associated documents are an instrument of service by the Architect. The drawing and the information contained therein may not be reproduced in whole or in part

2. These Contract Documents are the property of the Architect. The Architect bears no responsibility for the interpretation of these documents by the Contractor. Upon

written application, the Architect will provide written/graphic clarification or supplementary information regarding the intent of the Contract Documents. The

Architect will review Shop Drawings submitted by the Contractor for design

3. Drawings are not to be scaled for construction. The Contractor is to verify all

existing conditions and dimensions required to perform the work and report any discrepancies with the Contract Documents to the Architect before commencing

without prior written permission of the Architect.

conformance only.

any work.

4. Positions of exposed finished mechanical or electrical devices, fittings, and fixtures are indicated on architectural drawings. The locations shown on the

2023-11-30 2024-04-05 02 Issued for Site Plan Approval # 2



STANDARD CITY OF VAUGHAN SITE PLAN NOTES:

(1) Standard drawings of the City of Vaughan constitute part of the site plan drawing(s).

(2) All construction work to be carried out in accordance with the requirements of the Occupational Health and Safety Act and Regulations for construction projects.

- (3) The Owner shall retain the services of his consultants to ensure required inspection reports and/or certification requirements are submitted to the Engineering Department and other affected City Departments.
- (4) The Owner and/or his representative shall rectify all disturbed are as to original condition or better and to the satisfaction of the City. (5) The location of all under/above ground utilities and structures is approximate only and where shown on the drawing(s) the accuracy of the location of such utilities is not guaranteed. The owner and/or his representative
- shall determine the location of all such utilities and structures by consulting the appropriate authorities or utility companies concerned. The owner shall prove the location of such utilities and structures and shall assume all liability for damage or restoration or adjustment for the same.
- (6) Any conflicts with existing services shall be rectified at the Owner's expense.
- (7) Sanitary and storm control manholes shall be in accordance with Provincial Standard OPSD 701.010. Frame and cover shall be McCoy HM331 or approved equal. The manholes shall be benched to the obvert (top) of pipes.

(8) All sanitary manhole covers in the ponding are as to be watertight sealed covers. (9) All catchbasins shall be installed in accordance with City Standard Drawing K-4. All catchbasin frames and

covers shall be McCoy HM311 or approved equal. (10) All industrial/commercial/condominium watermain connections shall be constructed in accordance with City Standard Drawings C-102, C-103 and W-106.

# STANDARD SITE PLAN NOTES FOR CITY OF VAUGHAN



sewer or manhole.

specifications:

(15) All required curb cutting at entrance driveway and curb depressions at sidewalk crossings shall be installed to the satisfaction of the City. (16) Existing roadway curb and gutter to be continuous through the proposed new driveway entrance(s) along with the municipal sidewalk.

driveways.

(11)Watermain shall have a minimum vertical separation of 0.5m and horizontal separation of 2.5m between any

(12) Hydrants to be installed as per City Standard W-104 with 1.0m minimum clear from all obstructions.

(13) Entrance driveways shall be constructed with heavy duty asphalt from the back of the municipal curb or edge of pavement to the property line (area highlighted on drawing(s) in accordance with the following

a. 50mm compacted depth of HL3 asphalt - top course b. 75mm compacted depth of HL8 asphalt - binder course c. 150mm compacted depth of 20mm crusher run limestone - granular base d. 300mm compacted depth of 50mm crusher run limestone - granular sub-base

(14) All concrete curb from existing road curb to street line shall be barrier curb OPSD 600.110. All concrete curb heights shall be 150mm unless otherwise noted. Entrance driveway curb to be discontinuous at sidewalk and tapered back 600mm minimum.

(17) Sidewalk to be 200mm thick through entrance driveway entrance per City Standard R-128.

(18) Frost collars are to be provided on curb stops and valve boxes when located within the limits of the

(19) Entrance driveways shall be setback a minimum clearance of 1.0m from all aboveground services or other obstructions.

(20) Appropriate construction details should be provided for retaining walls higher than 1.0m. Details shall be designed and certified by a professional engineer upon approval. Handrail/guard/fence is required when height exceeds 0.60m (as per City Standard Drawing FRW-105 or approved equal). Upon completion retaining walls greater than 1.0m to be certified by a structural and geotechnical engineer.

(21) Landscape shall not encroach on boulevard nor shall boulevard grades be altered.

(22) Slopes in landscaped areas and on berms shall not exceed 3 horizontal to 1 vertical.

(23)Pavement grades (min. 0.5%, max 5%).

(24) Drainage grassed swales with grades (min. 2%, max 5%).

(25) Outside lighting shall be directed downward and inward and designed to maintain zero cut-off light level distribution at the property line.

(26) Sanitary, storm and water service connections which are not in place on the municipal road allowance to the property line shall be arranged for installation by the City on payment of installation costs by the owner. To initiate the installation of the service connection(s), the owner shall file an application with the Development Inspection & Lot Grading Division of the Development Engineering Department which includes 2 copies of the approved site plan drawing(s) with Department's approval seal and if required a copy of the Regional Approval Schedule as per the executed Site Plan Agreement.

(27) Silt fence(s) to be installed and maintained to prevent silt flowing onto adjacent lands until the completion of sodding activities.

(28) Construction access shall be constructed with a minimum depth of 450mm crushed stone base from the municipal curb or edge of pavement to the property line, to the satisfaction of the City.



GENERAL NOTE: UNLESS OTHERWISE NOTED: STANDARD PARKING STALL TO Be 2.7m x 6.0 m, Accessible Parking Stall to be "type a"

> PROPOSED OPEN GRID GRAVEL SYSTEM PROPOSED PERMEABLE PAVER SYSTEM ASPHALT PAVING Concrete Sidewalk / Hardscape

3.4m x 6.0m, and "TYPE B" 2.4m x 6.0m.

ARCHITECTURAL LEGEND:

EXISTING GRAVEL

SOFT LANDSCAPE

2.7 x 6.0 m EXISTING

EXISTING RELOCATED STANDARD PARKING STALL

SIGNAGE





Guidelines for Urban Construction dated December 12, 2006, to the satisfaction of the City and TRCA. (32) All proposed parking spaces for disabled to include "Rb-93 BY PERMIT ONLY" traffic sign and pavement disabled symbol marking in accordance with City Standard Drawing.

(31) The Consulting Engineer shall design, implement and monitor the erosion and sediment control measures

during all phases of construction on the lands in accordance with the TRCA Erosion and Sediment Control

Top course asphalt shall not be placed until the base course asphalt has been in place for one winter season. Other hard surfaces may be installed as approved by the City.

- b. 50mm compacted depth HL8 asphalt base course c. 200mm compacted depth 20mm dia. crusher run limestone
- (30) Condominium unit driveways the minimum recommended depth requirements are as follows: a. 25mm compacted depth HL3 asphalt top course
- d. 200mm compacted depth 50mm crusher run limestone granular sub-base
- a. 40mm compacted depth HL3 asphalt top course b. 50mm compacted depth HL8 asphalt - binder course c. 150mm compacted depth 20mm crusher run limestone - granular base

(29) The surface of all loading spaces and related driveways, parking spaces, and maneuvering areas within the site shall be paved with a hard surface. The recommended minimum depth requirements are as follows:

#### No. Issuance Date 2023-11-30 01 Issued for Site Plan Approval 2024-04-05 02 Issued for Site Plan Approval # 2

Architect will review Shop Drawings submitted by the Contractor for design conformance only. 3. Drawings are not to be scaled for construction. The Contractor is to verify all existing conditions and dimensions required to perform the work and report any discrepancies with the Contract Documents to the Architect before commencing 4. Positions of exposed finished mechanical or electrical devices, fittings, and fixtures are indicated on architectural drawings. The locations shown on the architectural drawings govern over the Mechanical and Electrical drawings. Those items not clearly located will be located as directed by the Architect. 5. These drawings are not to be used for construction unless noted below as "Issuance: For Construction" 6. All work is to be carried out in conformance with the Code and Bylaws of the authorities having jurisdiction. 7. The Architect of these plans and specifications gives no warranty or representation to any party about the constructability of the building(s) represented by them. All contractors or subcontractors must satisfy themselves when bidding and at all times ensure that they can properly construct the work represented by these plans.

1. Copyright of this drawing is reserved by the Architect. The drawing and all

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2. These Contract Documents are the property of the Architect. The Architect bears no responsibility for the interpretation of these documents by the Contractor. Upon

written application, the Architect will provide written/graphic clarification or supplementary information regarding the intent of the Contract Documents. The

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Standard Practice 213 Sterling Road Suite 209 Toronto ON M6R 2B2 416 918 7715 infoldstandard-practice.ca

LiUNA Local 183

8700 Huntington Road Vaughan ON L4H 3N5 #Client Phone Number #Client E-mail

LIUNA EXPANSION

2024-04-05 18003 2024-04-05 [3:46 PM]

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**A-1.06** 

**Roof Plan** 

Date of Issue: Project No.: Print Date:



![](_page_82_Figure_1.jpeg)

# FILLED AREA DENOTES ROAD CONVEYANCE REGISTERED REFERENCE PLAN 65R-38873 Standard Practice 213 Sterling Road Suite 209 Toronto ON M6R 2B2 416 918 7715 infoſdstandard-practice.ca LiUNA Local 183 8700 Huntington Road Vaughan ON L4H 3N5 #Client Phone Number #Client E-mail

LIUNA EXPANSION

**Ground Floor** 

Date of Issue: Project No.: Print Date:

Document Source :

![](_page_82_Picture_3.jpeg)

DASHED LINE DENOTES ELEMENTS TO BE DEMOLISHED HATCHED AREA DENOTES ROAD CONVEYANCE REGISTERED REFERENCE PLAN 65R-38165

![](_page_82_Picture_5.jpeg)

ARCHITECTURAL LEGEND: EXISTING GRAVEL
PROPOSED OPEN GRID GRAVEL SYSTEM PROPOSED OF EN ORID ORAVEL STATEM PROPOSED PERMEABLE PAVER SYSTEM ASPHALT PAVING CONCRETE SIDEWALK / HARDSCAPE SOFT LANDSCAPE

EXISTING RELOCATED Standard Parking Stall 2.7 x 6.0 m

GENERAL NOTE: UNLESS OTHERWISE NOTED: STANDARD PARKING STALL TO BE 2.7m x 6.0 m, ACCESSIBLE PARKING STALL TO BE "TYPE A" 3.4m x 6.0m, and "TYPE B" 2.4m x 6.0m.

![](_page_82_Picture_8.jpeg)

No. Issuance Date 01 Issued for Site Plan Approval 2023-11-30 02 Issued for Site Plan Approval # 2 2024-04-05

![](_page_82_Picture_10.jpeg)

BIMcloud: SPserver - BIMcloud Basic for Archicad 26/21001 LiUNA/LiUNA CAMPUS 15

2024-04-05 18003 2024-04-05 [3:46 PM]

![](_page_83_Picture_0.jpeg)

![](_page_83_Figure_1.jpeg)

![](_page_83_Figure_2.jpeg)

#Lavl

BUILDING A FOOTPRINT GCA 2F 2,911.8 m<sup>2</sup>

![](_page_83_Picture_70.jpeg)

01 Issued for Site Plan Approval 2023-11-30 02 Issued for Site Plan Approval # 2 2024-04-05

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8700 Huntington Road Vaughan ON L4H 3N5 #Client Phone Number #Client E-mail

LIUNA EXPANSION

Second Floor

Date of Issue: Project No.: Print Date:

2024-04-05 18003 2024-04-05 [3:46 PM]

Document Source : BIMcloud: SPserver - BIMcloud Basic for Archicad 26/21001 LiUNA/LiUNA CAMPUS 15

**A-2.02** 

![](_page_84_Picture_0.jpeg)

![](_page_84_Figure_3.jpeg)

![](_page_84_Figure_4.jpeg)

![](_page_84_Figure_5.jpeg)

![](_page_84_Figure_41.jpeg)

![](_page_84_Figure_42.jpeg)

![](_page_84_Picture_45.jpeg)

01 Issued for Site Plan Approval 2023-11-30 2024-04-05 02 Issued for Site Plan Approval # 2

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8700 Huntington Road Vaughan ON L4H 3N5 #Client Phone Number #Client E-mail

LIUNA EXPANSION

Roof Plan

Date of Issue: Project No.: Print Date: 2024-04-05

18003 2024-04-05 [3:46 PM]

Document Source :

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![](_page_84_Picture_56.jpeg)

+208,555 T/O Paranet +		ROOF MECH.
+206,850 1/0 Roof		ZING, SHADOW BIRD-FRIENDLY
200, (20	PRE ହୃତ୍ତୁ PANE	CAST PREFAB L W/ BRICK VE
+202,600 2nd Floor	≝,	Z <u>ING, SHADOW</u> Bird-Friendly
	) (W/ W/	:W GLAZING, C BIRD-FRIENDL\
+197,000 <u>Ground Floor</u>		
405 A-2.01	SITE   NORTH FA SCALE: 1:200	CING SC
		ME A-
+208,555 <u>T/O Parapet</u>	ROOF MECH. UN	IT
+206,850 T/O Roof 🔶	BUILDING SIGNAG	е, <u>нимали и</u> нимали 6, )X
+202 600	CW GLAZING, CLE/ 疑 W/ BIRD-FRIENDLY FR PRECAST PAN W/ BRICK VENEI	AR ARAN ARAN ARAN ARAN ARAN ARAN ARAN A
2nd Floor +	PRECAST WALL PAN	
107.000	W/ BRICK VENER	R DR DR
+197,000 Ground Floor		
403 A-2.01	SITE   NORTH EL SCALE: 1:200	EVATIO
402 A-2.01	SITE   SOUTH EL scale: 1:200	EVATIO

	Drawing(s) at first site plan submission. Drawing(s) to be stamped and signed by an OAA member.
and	latory Primary Treatments for all site and draft plan applications.
t Gr	ade Condition (check to confirm the below is applied)
X	Bird safe treatment (s) are applied on minimum 90% of contiguous glass panel area, and within 16m from finished grade or to the height of the adjacent mature tree canopy, whichever is greater.
X	Treatments are applied to all glass panel areas that creates fly-through conditions and are adjacent to natural heritage features.
X	Treatments are identified and redlined on the elevation drawing(s)
oof	Landscape Conditions (check to confirm the below is applied)
X	Development contains no glass panel within 16m from roof level finished grade.
X	If glazing is adjacent to green roofs and/or rooftop vegetation, bird safe treatment is applied at a height of 4m from the surface of the green roof or the height of the adjacent mature vegetation, whichever is greater

1 202301 Vaughan Bird Safe Standards Info Package\_SP

![](_page_85_Figure_2.jpeg)

![](_page_85_Figure_4.jpeg)

![](_page_85_Figure_5.jpeg)

![](_page_85_Figure_6.jpeg)

![](_page_85_Figure_7.jpeg)

![](_page_85_Figure_10.jpeg)

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**A-4.01** 

![](_page_86_Figure_2.jpeg)

![](_page_86_Figure_3.jpeg)

![](_page_86_Picture_5.jpeg)

![](_page_86_Picture_6.jpeg)

No. Issuance Date 01 Issued for Site Plan Approval # 2 2024-04-05

![](_page_86_Picture_8.jpeg)

- BIRD SAFE TREATMENT(S) ARE APPLIED ON MINIMUM 90% OF Contiguousglass panel area, and within 16m from finish grade or to the height of the adjacent mature tree CANOPY, WHICHEVER IS GREATER. - TREATMENTS ARE APPLIED TO ALL GLASS PANEL AREAS THAT CREATE FLY-THROUGH CONDITIONS AND ARE ADJACENT TO NATURAL HERITAGE FEATURES. - TREATMENTS ARE IDENTIFIED AND REDLINED ON THE ELEVATION DRAWING(S). CITY OF VAUGHAN'S BIRD SAFE DESIGN STANDARDS - APPLIED TO ALL CLEAR GLAZING ON LIUNA CAMPUS 2.0 + • • \* • • • •

**BIRD SAFE TREATMENT EXTERIOR SPECIFICATION** 

![](_page_86_Figure_10.jpeg)

![](_page_86_Figure_11.jpeg)

![](_page_86_Figure_12.jpeg)

![](_page_86_Figure_13.jpeg)

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LiUNA Local 183

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Building Signage

Date of Issue: Project No.: Print Date:

2024-04-05 18003 2024-04-05 [3:46 PM]

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Document Source :

![](_page_86_Picture_23.jpeg)

![](_page_87_Picture_0.jpeg)

![](_page_87_Figure_1.jpeg)

![](_page_88_Picture_0.jpeg)

![](_page_88_Figure_4.jpeg)

441EAST ELEVATIONA-2.01scale: 1:50

![](_page_88_Picture_8.jpeg)

![](_page_89_Figure_0.jpeg)

![](_page_89_Figure_1.jpeg)

![](_page_89_Figure_2.jpeg)

501SITE SECTION N-SA-2.01SCALE: 1:200

	H I J (	K L		N Nx (	
CLASS ROOMS					SS ROOMS
COMPUTER LAB/ SIMULATOR	5,500 COVERED OUTDOOR	ARD	6.738		WORK SHOPS
BULDING A SOUTH WING [] 3 050 3 050 3 050 825 2 225 2 580		4 100 9 0		2 915 2 596	BUILDING A NORTH WING
		71,396	00 / 0,401	<u> </u>	

E5 E6 E7 1 1x + 207,000 + 207,000 + 205,170 U/S Crane CLASS ROOMS	2 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
5 5 6,750 402 402 402 402 402 402 402 40			

![](_page_89_Picture_6.jpeg)

![](_page_89_Figure_7.jpeg)

![](_page_89_Figure_8.jpeg)

- TREATMENTS ARE IDENTIFIED AND REDLINED ON THE <u>≁ <sup>50</sup> ⊀</u>  $+ \bullet \bullet \bullet^{+}$ min 4mm Ø HIGH-CONTRAST DOT, ACID ETCH OR CERAMIC FRIT ON SURFACE #1 + • •\* • • • • • • • • • • **BIRD SAFE DESIGN STANDARDS** 

**BIRD SAFE TREATMENT EXTERIOR SPECIFICATION** - BIRD SAFE TREATMENT(S) ARE APPLIED ON MINIMUM 90% OF CONTIGUOUSGLASS PANEL AREA, AND WITHIN 16m FROM FINISH GRADE OR TO THE HEIGHT OF THE ADJACENT MATURE TREE CANOPY, WHICHEVER IS GREATER. - TREATMENTS ARE APPLIED TO ALL GLASS PANEL AREAS THAT Create Fly-through conditions and are adjacent to NATURAL HERITAGE FEATURES. ELEVATION DRAWING(S). CITY OF VAUGHAN'S BIRD SAFE DESIGN STANDARDS - APPLIED TO ALL CLEAR GLAZING ON LIUNA CAMPUS 2.0 

![](_page_89_Picture_11.jpeg)

Date of Issue: Project No.: Print Date:

Standard Practice

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LiUNA Local 183

8700 Huntington Road Vaughan ON L4H 3N5 #Client Phone Number #Client E-mail

**Overall Sections** 

LIUNA EXPANSION

2024-04-05 18003 2024-04-05 [3:46 PM]

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![](_page_90_Figure_0.jpeg)

MB E-01 ENLARGED SOUTH ELEVATION AT ENTRANCE TO BUILDING 'A' & 'E' scale: 1:50

MB E-03 ENLARGED NORTH ELEVATION AT WORKSHOP TO BUILDING 'A' scale: 1:50

MB E-02 ENLARGED NORTH ELEVATION AT ENTRANCE TO BUILDING 'A' scale: 1:50 

![](_page_90_Figure_5.jpeg)

# EXTERIOR FINISHES FOR BUILDING 'A' & 'E'

![](_page_90_Picture_8.jpeg)

1A 1/3 RUNNING BOND

![](_page_90_Picture_10.jpeg)

**1B RUNNING BOND** 

![](_page_90_Picture_12.jpeg)

2 WOVEN BOND, ALTERNATING SIZE & THICKNESS

![](_page_90_Picture_14.jpeg)

![](_page_90_Picture_16.jpeg)

4 ZINC MTL. CLADDING QUARTZ/ OXIDIZED

BUILDING 'A' ENDICOTT - MANGANESE IRONSPOT, SMOOTH THIN BRICK, 1/2" MODULAR OR NORMAN 1/3 RUNNING BOND

![](_page_90_Picture_19.jpeg)

5 ZINC MTL. CLADDING ANTHRA ZINC/ BLACK

BUILDING 'A' ENDICOTT - MANGANESE IRONSPOT, SMOOTH THIN BRICK, 1/2" MODULAR OR NORMAN 1/2 RUNNING BOND

![](_page_90_Picture_22.jpeg)

6 METAL CLADDING - GRAPHITE GRAY

![](_page_90_Picture_24.jpeg)

BUILDING 'A'

ENDICOTT - MANGANESE IRONSPOT, SMOOTH THIN BRICK, 1/2" & 1" MODULAR & NORMAN WOVEN BOND

BUILDING 'A' ENDICOTT - MANGANESE IRONSPOT, SMOOTH THIN BRICK, 1/2" MODULAR OR NORMAN STACK BOND

BUILDINGS 'A', 'H'

METAL CLADDING FOR NORTH & SOUTH ENTRANCES, SOFFIT, LINK TO HERITAGE BUILDING

VM ZINC - QUARTZ-ZINC

![](_page_90_Picture_32.jpeg)

7 CLEAR TEMPERED IGU FOR CURTAIN WALL GLAZING

![](_page_90_Picture_34.jpeg)

8 FROSTED GLASS

![](_page_90_Picture_36.jpeg)

9 CONCRETE CURB

![](_page_90_Picture_39.jpeg)

BUILDING 'A'

METAL CLADDING FOR SOUTH ENTRANCE CANOPY

VM ZINC - ANTHRA-ZINC/ BLACK PIGMENT

![](_page_90_Picture_43.jpeg)

01 Issued for Site Plan Approval 2023-11-30 02 Issued for Site Plan Approval # 2 2024-04-05

![](_page_90_Picture_45.jpeg)

WORKSHOP 'E'

PPG - DURANAR XL - GRAPHITE GRAY -UC115095XL or SIMILAR

WORKSHOP 'E' TO BE METAL CLAD AND OF ONE COLOUR, GRAPHITE GREY. THIS COLOUR IS NEARLY BLACK BUT WITH JUST ENOUGH SPECKLE WITHIN TO ALLOW FOR SOME DEPTH AND REFLECTION PENDING ANGLE OF SUN, SO THE PROPOSED BUILT FORM DOES NOT APPEAR FLAT.

BUILDINGS 'A', 'E', 'H'

ALL CLEAR GLASS & SHADOW BOX/ SPANDREL TO HAVE BIRD-FRIENDLY ACID ETCH PATTERN ON SURFACE #1.

GUARDIAN GLASS - SN54-DX22 ULTRA CLEAR

![](_page_90_Picture_52.jpeg)

WORKSHOP 'E'

FROSTED GLASS FOR FIXED GLAZING AT **GRADE & SKYLIGHTS** 

GUARDIAN GLASS - SN54 ULTRA CLEAR W/

ACID ETCH SATIN FINISH

CONCRETE CURB AT GRADE FOR ALL EXTERIOR WALL CLADDING, 750MM (H)

WORKSHOP 'E'

# Date of Issue: Project No.: Print Date: 2024-04-05 18003 2024-04-05 [3:46 PM]

BIMcloud: SPserver - BIMcloud Basic for Archicad 26/21001 LiUNA/LiUNA CAMPUS 15

# Material Board of Exterior Samples

LIUNA EXPANSION

8700 Huntington Road Vaughan ON L4H 3N5 #Client Phone Number #Client E-mail

LiUNA Local 183

Standard Practice 213 Sterling Road Suite 209 Toronto ON M6R 2B2 416 918 7715 info@standard-practice.ca

![](_page_90_Picture_67.jpeg)

![](_page_90_Picture_68.jpeg)

- TREATMENTS ARE APPLIED TO ALL GLASS PANEL AREAS THAT CREATE FLY-THROUGH CONDITIONS AND ARE ADJACENT TO NATURAL HERITAGE FEATURES. - TREATMENTS ARE IDENTIFIED AND REDLINED ON THE ELEVATION DRAWING(S). CITY OF VAUGHAN'S BIRD SAFE DESIGN STANDARDS - APPLIED TO ALL CLEAR GLAZING ON LIUNA CAMPUS 2.0 <del>\* <sup>50</sup> \*</del> \*• • • \* <u>,</u> • • • 00 min 4mm Ø HIGH-CONTRAST DOT, ACID ETCH OR CERAMIC FRIT ON SURFACE #1 + • •\* • • • •

**BIRD SAFE TREATMENT EXTERIOR SPECIFICATION** 

CANOPY, WHICHEVER IS GREATER.

- BIRD SAFE TREATMENT(S) ARE APPLIED ON MINIMUM 90% OF

CONTIGUOUSGLASS PANEL AREA, AND WITHIN 16m FROM FINISH GRADE OR TO THE HEIGHT OF THE ADJACENT MATURE TREE

. . . . . . . BIRD SAFE DESIGN STANDARDS

A-10.01

Document Source :

# APPENDIX E: SHADOW STUDY PREPARED BY STANDARD PRACTICE

![](_page_92_Picture_0.jpeg)

March 21 - 9:18 AM

![](_page_92_Picture_2.jpeg)

March 21 - 2:18 PM

![](_page_92_Picture_4.jpeg)

![](_page_92_Picture_5.jpeg)

March 21 - 3:18 PM

![](_page_92_Picture_7.jpeg)

September 21 - 9:18 AM

![](_page_92_Picture_9.jpeg)

![](_page_92_Picture_10.jpeg)

September 21 - 3:18 PM

September 21 - 2:18 PM

March 21 - 4:18 PM

![](_page_92_Picture_15.jpeg)

![](_page_92_Picture_16.jpeg)

![](_page_92_Picture_17.jpeg)

September 21 - 11:18 AM

September 21 - 4:18 PM

![](_page_92_Picture_21.jpeg)

March 21 - 6:18 PM

![](_page_92_Picture_23.jpeg)

March 21 - 5:18 PM

![](_page_92_Picture_25.jpeg)

September 21 - 12:18 PM

![](_page_92_Picture_27.jpeg)

September 21 - 5:18 PM

![](_page_92_Picture_29.jpeg)

September 21 - 1:18 PM

![](_page_92_Picture_31.jpeg)

September 21 - 6:18 PM

![](_page_92_Picture_33.jpeg)

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 These Contract Documents are the property of the Architect. The Architect bears no responsibility for the interpretation of these documents by the Contractor. Upon written application, the Architect will provide written/graphic clarification or supplementary information regarding the intent of the Contract Documents. The Architect will review Shop Drawings submitted by the Contractor for design conformance only. conformance only. conformance only. 3. Drawings are not to be scaled for construction. The Contractor is to verify all existing conditions and dimensions required to perform the work and report any discrepancies with the Contract Documents to the Architect before commencing around the contract documents of the Architect before commencing any work.
4. Positions of exposed finished mechanical or electrical devices, fittings, and fixtures are indicated on architectural drawings. The locations shown on the architectural drawings govern over the Mechanical and Electrical drawings. Those items not clearly located will be located as directed by the Architect.
5. These drawings are not to be used for construction unless noted below as "Issuance: For Construction"
6. All work is to be carried out in conformance with the Code and Bylaws of the authorities baying inrividuation. 6. All work is to be carried out in conformance with the Code and Bylaws of the authorities having jurisdiction.
7. The Architect of these plans and specifications gives no warranty or representation to any party about the constructability of the building(s) represented by them. All contractors or subcontractors must satisfy themselves when bidding and at all times ensure that they can properly construct the work represented by these plans.
© Standard Practice Inc.

No. Issuance

Date

![](_page_92_Picture_37.jpeg)

Standard Practice 213 Sterling Road Suite 209 Toronto ON M6R 2B2 416 918 7715 info@standard-practice.ca LiUNA Local 183

8700 Huntington Road Vaughan ON L4H 3N5 #Client Phone Number #Client E-mail

LIUNA EXPANSION

Shadow Study

2024-04-03 18003 2024-04-03 [10:44 AM]

BIMcloud: SPserver - BIMcloud Basic for Archicad 26/21001 LiUNA/LiUNA CAMPUS 15

![](_page_92_Picture_61.jpeg)

Document Source :

# APPENDIX F: LIGHTING PLAN PREPARED BY WSP

L	IGHTING SYMBOLS
SYMBOL	DESCRIPTION
	CEILING RECESSED MOUNTED LINEAR LED LUMINAIR SEE LUMINAIRE SCHEDULE FOR TYPE AND SPECIFICATION.
Q	WALL MOUNTED LED LUMINAIRE. SEE LUMINAIRE SCHEDULE FOR TYPE AND SPECIFICATION.
•□	POLE MOUNTED LED LUMINAIRE. SEE LUMINAIRE SCHEDULE FOR TYPE AND SPECIFICATION.
	POLE MOUNTED LED LUMINAIRE. SEE LUMINAIRE SCHEDULE FOR TYPE AND SPECIFICATION.
	POLE MOUNTED LED LUMINAIRE. SEE LUMINAIRE SCHEDULE FOR TYPE AND SPECIFICATION.
S Swp	CEILING/PENDANT MOUNTED EXIT LIGHT, COMPLETE WITH DIRECTIONAL ARROWS AS INDICATED ON DRAWINGS. WP DENOTES WEATHERPROOF TYPE.
S DWP	WALL MOUNTED EXIT LIGHT, COMPLETE WITH DIRECTIONAL ARROWS AS INDICATED ON DRAWINGS. WP DENOTES WEATHERPROOF TYPE.
\$\$\$\$	ONE, TWO, THREE GANG, ETC. LINE VOLTAGE TOGGLE SWITCH MOUNTED 4'-0" (1.2m) ABOVE FINISHED FLOOR LEVEL. UNLESS OTHERWISE NOTED.
Ts	TIME SWITCH.
	LINE VOLTAGE CONTROL CONNECTION BETWEEN SWITCH AND FIXTURE THERMOSTAT AND HEATER, ETC.
С	LINE VOLTAGE CONTACTOR.
Ф	DIMMER SWITCH. TYPE TO MATCH LOAD. SHALL NOT BE GANGED DIMMERS TOGETHER WITH OTHER DEVICES.
OS	CEILING MOUNTED OCCUPANCY SENSOR.
<u>(S)</u>	CEILING SUSPENDED OCCUPANCY SENSOR.
DL	DAY LIGHT SENSOR.
Р	"P" WHERE SHOWN, DENOTES DEVICE EQUIPPED WITH PILOT LIGHT
3	"3" WHERE SHOWN, DENOTES 3-WAY DEVICE
4	"4" WHERE SHOWN, DENOTES 4-WAY DEVICE
LV	"LV" WHERE SHOWN, DENOTES LOW VOLTAGE, WITH BAS INTEGRATION
OS	"OS" WHERE SHOWN, DENOTES DEVICE EQUIPPED WITH AN OCCUPANCY SENSOR, CAN BE PROGRAMMED IN OCCUPANCY OR VACANCY MODE
НВ	"HB" DENOTES HIGH-BAY
LK	"LK" DENOTES LOCKED DEVICE, OR DEVICE IN A SECURED ENCLOSURE
	LIGHTING CONTROL ZONES

GENERAL SYMBOLS								
SYMBOL	DESCRIPTION							
SDC	SDC DENOTES SEPARATE DEDICATED CIRCUITS							
MD	MD DENOTES MOTORIZED DAMPER							
HD	HD DENOTES HAND DRIER							
PP	PP DENOTES SUMP PUMP							
HP	HP DENOTES HEAT PUMP							
CU	CU DENOTES CONDENSING UNIT							
EF	EF DENOTES EXHAUST FAN							
EDHW	EDHW DENOTES ELECTRIC DOMESTIC WATER HEATER							
Н	H DENOTES HUMIDIFIER							
AC	AC DENOTES AIR CURTAIN							
EIH	EIH DENOTES ELECTRIC INFRARED HEATER							
CUH	CUH DENOTES CABINET UNIT HEATER							
RTU	RTU ROOF TOP UNIT							
E	EXISTING							
N/L	NIGHT LIGHT							
D	DEMOLITION							
DO	DOOR OPERATOR							
H.O.A	HAND OFF AUTO							
AIP	AIPHONE TWO WAY COMMUNICATION DEVICE							
WP	WEATHER PROOF							
BAS	BUILDING AUTOMATION SYSTEM							
	— DETAIL NUMBER — DRAWING NUMBER							

	DRAWING LIST
DWG. No.	TITLE DESCRIPTION
E001	LEGEND AND DRAWING LIST
E100	SITE PLAN - ELECTRICAL
E102	LUMINAIRE SCHEDULE
E200	SITE PLAN - LIGHTING
E200A	SITE PLAN - LIGHTING PHOTOMETRIC CALCULATION

![](_page_94_Figure_4.jpeg)

![](_page_95_Picture_1.jpeg)

	TRADEVALLEY	Y DRIVE		
CLARKWAY DRIVE	HIGHWAY 50	HUNTER'S VALLEY ROAD	HUNTINGTON ROAD	
KEY PL	AN	ANGSTAFF ROAD		NTS
LEGEND	)			
JOB STATUS:				
JOB STATUS:				
JOB STATUS:	UED FOR SECO	ND SPA SUBMISSION		2024.04.03
JOB STATUS: 3. ISS 2. ISS 1. ISS NO.	SUED FOR SECO SUED FOR FIRST SUED FOR 50% S	ND SPA SUBMISSION SPA SUBMISSION UBMISSION DESCRIPTION		2024.04.0 2023.11.3 2023.05.1 DATE
JOB STATUS: 3. ISS 2. ISS 1. ISS NO.	SUED FOR SECO SUED FOR FIRST SUED FOR 50% S	ND SPA SUBMISSION SPA SUBMISSION UBMISSION DESCRIPTION REVISIONS	PG PG PG BY	2024.04.0 2023.11.3 2023.05.1 DATE
JOB STATUS: 3. ISS 2. ISS 1. ISS NO.	SUED FOR SECO SUED FOR FIRST SUED FOR 50% S	ND SPA SUBMISSION SPA SUBMISSION UBMISSION DESCRIPTION REVISIONS	PG PG PG BY	2024.04.04 2023.05.12 2023.05.12 DATE
JOB STATUS: 3. ISS 2. ISS 1. ISS NO.	SUED FOR SECO SUED FOR FIRST SUED FOR 50% S	ND SPA SUBMISSION SPA SUBMISSION UBMISSION DESCRIPTION REVISIONSIONS	PG PG PG BY	2024.04.03 2023.11.30 2023.05.12 DATE
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JOB STATUS: 3. ISS 2. ISS 1. ISS NO. ENGINEER'S	SUED FOR SECO SUED FOR FIRST SUED FOR 50% S	ND SPA SUBMISSION SPA SUBMISSION UBMISSION DESCRIPTION REVISIONS APPROVED E	PG PG PG BY	2024.04.04 2023.11.34 2023.05.15 DATE
JOB STATUS: 3. ISS 2. ISS 1. ISS NO.	SUED FOR SECO SUED FOR FIRST SUED FOR 50% S	ND SPA SUBMISSION SPA SUBMISSION UBMISSION DESCRIPTION REVISIONS		2024.04.0 2023.11.3 2023.05.1 DATE
JOB STATUS: 3. ISS 2. ISS 1. ISS NO. ENGINEER'S	STAMP:		PG PG PG BY	2024.04.0 2023.11.3 2023.05.1 DATE
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![](_page_96_Picture_1.jpeg)

Avg 28.74 23.11	Max 33.5	Min 24.8	Avg/Min
Avg 28.74 23.11	Max 33.5	Min 24.8	Avg/Min
28.74 23.11	33.5	24.8	
23.11		1	1.16
	50.8	12.3	1.88
20.23	25.9	13.8	1.47
34.63	62.3	11.3	3.06
20.11	228.3	0.5	40.22
113.40	152.2	30.3	3.74
59.49	190.3	4.3	13.83
21.78	100.6	0.7	31.11
48.93	185.5	0.6	81.55
7.09	55.2	0.9	7.88
31.08	82.9	1.3	23.91
21.87	99.5	3.3	6.63
29.65	42.0	6.0	4.94
62.89	141.5	12.5	5.03
43.33	89.9	6.9	6.28
Ava	Max	Min	Ava/Min
0.58	10	100	
0.53	1.5	0.0	N A
0.00	1.5	0.0	N A
0.20	0.0	0.0	- N.A.
	34.63 20.11 113.40 59.49 21.78 48.93 7.09 31.08 21.87 29.65 62.89 43.33 43.33	34.63         62.3           20.11         228.3           113.40         152.2           59.49         190.3           21.78         100.6           48.93         185.5           7.09         55.2           31.08         82.9           21.87         99.5           29.65         42.0           62.89         141.5           43.33         89.9           V         100.58           0.58         1.0           0.58         1.0           0.24         1.1	34.63         62.3         11.3           20.11         228.3         0.5           113.40         152.2         30.3           59.49         190.3         4.3           21.78         100.6         0.7           48.93         185.5         0.6           7.09         55.2         0.9           31.08         82.9         1.3           21.87         99.5         3.3           29.65         42.0         6.0           62.89         141.5         12.5           43.33         89.9         6.9           X         1.0         0.0           0.58         1.0         0.0           0.24         1.1         0.0

Label	Description	LLF	Luminaire Lumens	Luminaire Watts	Qty	Filename
EX	WALL MOUNT CYLINDRICAL LED DOWNLIGHT	0.400	7948	71	18	DSXW2 LE
OB1	ILLUMINATED LED BOLLARD	0.800	326	6	6	BLDB-TM1
OL6-X	RECESSED LED LINEAR LUMINAIRE	0.800	2002	20.27	12	V3SEALPI
OP1	POLE MOUNTED LED LUMINARE	0.800	6602	140	17	BLDS-SD-
OP2	POLE MOUNTED LED LUMINARE	0.800	5803	140	10	BLDS-SD-
OP3	POLE MOUNTED LED LUMINARE	0.800	8808	140	1	BLDS-SD-
OP4	POLE MOUNTED LED LUMINARE	0.800	9330	140	17	BLDS-SD-
OP6	ILLUMINATED LED COLUMN	0.800	8949	70	5	84992_BE
OWI	WALL MOUNT CYLINDRICAL LED DOWNLIGHT	0.800	3608	34.7	38	TA-31861
OW2	WALL MOUNT CYLINDRICAL LED DOWNLIGHT	0.800	5774	48.44	4	WDGE2_I
OW4	WALL MOUNT CYLINDRICAL LED DOWNLIGHT	0.800	3648	34.6	33	TA-31861
OW5	WALL MOUNT CYLINDRICAL LED UPLIGHT/ DOWNLIGHT	0.800	7257	69	6	TA-31881

		NTER'S	ļ		
	TRADEVAL	LEY DRIVE	-		'/
CLARKIN		HUNTER'S VALLEY ROAD			
	HIGHWA	SIT	HUNT		
	YY 50		INGTON ROA		
			6		
		LANGSTAFF ROAD		<u> </u>	
KEY LEGI	PLAN END				NTS
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JOB ST 3. 2. 1. NO.	ATUS: ISSUED FOR SEC ISSUED FOR FIR ISSUED FOR 50%	COND SPA SUBMISSION ST SPA SUBMISSION SUBMISSION 6 SUBMISSION DESCRIPTION REVISIONS	3	PG PG PG BY	2024.04.05 2023.05.12 DATE
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JOB ST 3. 2. 1. NO.	ATUS: ISSUED FOR SEC ISSUED FOR SEC ISSUED FOR FIR ISSUED FOR 509	COND SPA SUBMISSION ST SPA SUBMISSION ST SPA SUBMISSION 6 SUBMISSION DESCRIPTION REVISIONS REVISIONS APPROVE		PG PG PG BY	2024.04.05 2023.05.12 2023.05.12 DATE
JOB ST 3. 2. 1. NO.	ATUS: ISSUED FOR SEC ISSUED FOR FIR ISSUED FOR 509	COND SPA SUBMISSION ST SPA SUBMISSION & SUBMISSION DESCRIPTION REVISIONS APPROVE		PG PG PG BY	2024.04.05 2023.05.12 2023.05.12 DATE
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JOB ST 3. 2. 1. NO.	ATUS: ISSUED FOR SEQ ISSUED FOR FIR ISSUED FOR 50%	COND SPA SUBMISSION ST SPA SUBMISSION SUBMISSION DESCRIPTION REVISIONS APPROVE		ROJEC	2024.04.05 2023.05.12 2023.05.12 DATE
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•
ED 30C 700 40K T2M MVOLT.ies
1-120_277-CSL-N05-30K-CRI 80-4.ies
D-EPDO-80-500-30-4FT.ies
120_277-CSL-L140-30K-CRI 80-3 BLS.ies
120_277-CSL-L140-30K-CRI 80-4 BLS.ies
120_277-CSL-L140-30K-CRI 80-4.ies
120_277-CSL-L140-30K-CRI 80-2.ies
GA_IES.ies
-T4-W30.IES
LED_P5_30K_80CRI_VF.ies
-T2-W30.IES
-T2-T4-W30.ies

	LUMINAIRE SCHEDULE																										
ТҮРЕ	IMAGE	MANUFACTURER	DESCRIPTION		LUMINAIRE	DIMENSION	s	VOLTS		1		U			I	CE				MOUNTI	NG		FINISH	OPTIC	LOCATION	APPROVED EQUALS	NOTES
OB1	r	CATALOG NUMBER	BOLLARD LED LUMINAIRE, TYPE 3 DISTRIBUTION. WET LOCATION IP65, B0-U0-G0, MOUNTING HEIGHT: 0.914M	D N.A.	Н 76	L 205	W 152	120	6	380	LPW 78	сст 3000	CRI 80	LED	0-10V	T-BAR (	GYP OTH	IER F	REC	SURF	WALL	PEND	TBD	TYPE 3	WALKWAY		1. CONTRACTOR TO PROVIDE ALL THE MOUNTING ACCESSORIES, AND HARDWARE.
OL6-X		LUMENWERX V3SEALR-D-WETL-EPDO-SW-80-500-30-X-120-D1-1C-XX-DTR-XX	RECESSED LED LINEAR LUMINAIRE, DIRECT OPTIC, CONTINUOUS FLUSH FROSTED LENS, WET LISTED IP54, X=LENGTH	N.A.	95	x	76	120	500LM/FT	5W/FT	101	3000	80	LED	0-10V		~		✓				TBD	WIDE	ENTRANCES BELOW CANOPY		2. CONTRACTOR TO CONFIRM THE FINISH WITH THE ARCHITECT. 1. CONTRACTOR TO CONFIRM THE FINISH WITH THE ARCHITECT. 2. CONTRACTOR TO VERIFY LENGTHS PER ARCHITECTURAL DRAWINGS AND SITE VERIFY PRIOR TO ORDER.
OP1	٢	LUMENPULSE BLDS-SD-120-CSL-L140-30K-CRI 80-3 BLS-XX-DIM-XX-XX	POLE MOUNTED LUMINAIRE, TYPE 3 DISTRIBUTION WITH INTERNAL BACKLIGHT SHIELD, WET LOCATION IP66, B0-U0-G2, MOUNTING HEIGHT: 7M	N.A.	76	1016	102	120	140	6602	88	3000	80	LED	0-10V					~	-		TBD	TYPE 3 C/W BACKLIGHT SHIELD	DRIVEWAY, PARKING LOT		<ol> <li>CONTRACTOR TO PROVIDE ALL THE MOUNTING ACCESSORIES, AND HARDWARE.</li> <li>CONTRACTOR TO CONFIRM THE FINISH WITH THE ARCHITECT.</li> <li>CONTRACTOR TO PROVIDE MANUFACTURER RECOMMENDED POLE.</li> <li>PROVIDE PL-S-5-STL-S-23-M-TBD-P-AB. PROVIDE POLE AS REQUIRED PER DRAWINGS, REFER TO SITE PLAN DRAWING E200 FOR QUANTITY AND LOCATION OF 'OP' TYPE HEADS REQUIRED PER POLE.</li> </ol>
OP2	٢	LUMENPULSE BLDS-SD-120-CSL-L140-30K-CRI 80-4 BLS-XX-DIM-XX-XX	POLE MOUNTED LUMINAIRE, TYPE 4 DISTRIBUTION WITH INTERNAL BACK LIGHT SHIELD, WET LOCATION IP66, B0-U0-G2, MOUNTING HEIGHT: 7M	N.A.	76	1016	102	120	140	5803	70	3000	80	LED	0-10V					~	_		TBD	TYPE 4 C/W BACKLIGHT SHIELD	DRIVEWAY, PARKING LOT		1. CONTRACTOR TO PROVIDE ALL THE MOUNTING ACCESSORIES, AND HARDWARE. 2. CONTRACTOR TO CONFIRM THE FINISH WITH THE ARCHITECT. 3. CONTRACTOR TO PROVIDE MANUFACTURER RECOMMENDED POLE. PROVIDE PL-S-5-STL-S-23-M-TBD-P-AB. PROVIDE POLE AS REQUIRED PER DRAWINGS, REFER TO SITE PLAN DRAWING E200 FOR QUANTITY AND LOCATION OF 'OP' TYPE HEADS REQUIRED PER POLE.
OP3	٢	LUMENPULSE BLDS-SD-120-CSL-L140-30K-CRI 80-4-XX-DIM-XX-XX	POLE MOUNTED LUMINAIRE, TYPE 4 DISTRIBUTION, WET LOCATION IP66, B2-U0-G2, MOUNTING HEIGHT: 7M	N.A.	76	1016	102	120	140	8808	70	3000	80	LED	0-10V					~			TBD	TYPE 4	DRIVEWAY, PARKING LOT		<ol> <li>CONTRACTOR TO PROVIDE ALL THE MOUNTING ACCESSORIES, AND HARDWARE.</li> <li>CONTRACTOR TO CONFIRM THE FINISH WITH THE ARCHITECT.</li> <li>CONTRACTOR TO PROVIDE MANUFACTURER RECOMMENDED POLE.</li> <li>PROVIDE PL-S-5-STL-S-23-M-TBD-P-AB. PROVIDE POLE AS REQUIRED PER DRAWINGS, REFER TO SITE PLAN DRAWING E200 FOR QUANTITY AND LOCATION OF 'OP' TYPE HEADS REQUIRED PER POLE.</li> </ol>
OP4	٢	LUMENPULSE BLDS-SD-120-CSL-L140-30K-CRI 80-2-XX-DIM-XX-XX	POLE MOUNTED LED LUMINAIRE, TYPE 2 DISTRIBUTION, WET LOCATION IP66,B2-U0-G2, MOUNTING HEIGHT: 7M	N.A.	76	1016	102	120	140	9330	78	3000	80	LED	0-10V					~			TBD	TYPE 2	DRIVEWAY, PARKING LOT		1. CONTRACTOR TO PROVIDE ALL THE MOUNTING ACCESSORIES, AND HARDWARE. 2. CONTRACTOR TO CONFIRM THE FINISH WITH THE ARCHITECT. 3. CONTRACTOR TO PROVIDE MANUFACTURER RECOMMENDED POLE. PROVIDE PL-S-5-STL-S-23-M-TBD-P-AB. PROVIDE POLE AS REQUIRED PER DRAWINGS, REFER TO SITE PLAN DRAWING E200 FOR QUANTITY AND LOCATION OF 'OP' TYPE HEADS REQUIRED PER POLE.
OP6		BEGA 88 065 -0K3	ILLUMINATED LED COLUMN, TYPE 5 DISTRIBUTION, WET LOCATION IP65, B2-U0-G1, MOUNTING HEIGHT: 3.6M	N.A.	76	711	102	120	59	5748	80	3000	80	LED	0-10V					~			TBD	TYPE 5	COURTYARD		1. CONTRACTOR TO CONFIRM THE FINISH WITH THE ARCHITECT.
OW1		LIGMAN LIGHTING TA-31861-T4-8030-DI-	WALL MOUNTED CYLINDRICAL LED DOWNLIGHT, HIGH PRESSURE DIE-CAST HOUSING, TYPE 4 DISTRIBUTION, IP65 AND IK08 RATING, B1-U0-G1. MOUNTING HEIGHT: 7M	186	274	N.A.	286	120	35	3608	99	3000	80	LED	0-10V						✓ -		TBD	TYPE 4	EXTERIOR FAÇADE - BUILDING F		1. CONTRACTOR TO CONFIRM THE FINISH WITH THE ARCHITECT.
OW4		LIGMAN LIGHTING TA-31861-T2-8030-DI-	WALL MOUNTED CYLINDRICAL LED DOWNLIGHT WITH HIGH PRESSURE DIE-CASTING, TYPE 2 DISTRIBUTION, IP65 AND IK08 RATING, B1-U0-G1. MOUNTING HEIGHT: 3.6M	186	274	N.A.	286	120	35	3648	99	3000	80	LED	0-10V						✓		TBD	TYPE 2	EXTERIOR FAÇADE - BUILDINGS E & A		1. CONTRACTOR TO CONFIRM THE FINISH WITH THE ARCHITECT.
OW5		LIGMAN LIGHTING TA-31881-T2-T4-8030-DI-	WALL MOUNTED CYLINDRICAL DIRECT/INDIRECT LED DOWNLIGHT WITH HIGH PRESSURE DIE-CASTING, TYPE 2 DIRECT DISTRIBUTION, TYPE 4 INDIRECT DISTRIBUTION, IP65 AND IK08 RATING. MOUNTING HEIGHT: 3.6M	186	274	N.A.	286	120	70	7256	104	3000	80	LED	0-10V						✓		TBD	DIRECT: TYPE 2	COLUMN MOUNTED BELOW COVERED COLONADE		1. CONTRACTOR TO CONFIRM THE FINISH WITH THE ARCHITECT.

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# APPENDIX G: STAGE 1 ARCHAEOLOGICAL ASSESSMENT PREPARED BY ARCHEOWORKS INC.

**ARCHEOWORKS INC** 

Stage 1 Archaeological Assessment for the: Proposed Development of the LiUNA Local 183 Training Centre 8700 Huntington Road Within Lot 12, Concession 10 In the Geographic Township of Vaughan Historical County of York City of Vaughan Ontario

> Project #: 007-VA1304-14 Licensee (#): Alvina Tam (P1016) PIF#: P1016-0014-2014

> > **Original Report**

May 5<sup>th</sup>, 2015

Presented to: MMM Group Limited 100 Commerce Valley Drive West Thornhill, Ontario L3T 0A1 T: 905.882.4211 F: 905.882.0055

Prepared by: Archeoworks Inc. 16715-12 Yonge Street, Suite 1029 Newmarket, Ontario L3X 1X4 T: 416.676.5597 F: 416.676.5810

# **EXECUTIVE SUMMARY**

Archeoworks Inc. was retained by MMM Group Limited, to conduct a Stage 1 AA of 8700 Huntington Road (herein referrered to as the "study area"), as part of the proposed development for a new one-storey tunnelling training centre at the Vaughan campus of the Labourers' International Union of North America (LiUNA) Local 183. The study area is situated within Lot 12, Concession 10 in the Geographic Township of Vaughan, historical County of York, now the City of Vaughan, in the Regional Municipality of York, Ontario

The Stage 1 AA identified the elevated potential for the recovery of archaeologically significant materials within undisturbed portions of the study area. Archaeological potential was determined based on proximity to a designated heritage property, a historic structure, and historic transportation route (present-day Huntington Road).

A field review has revealed that the study area is situated within a rural and increasingly industrial setting. Disturbances including existing strucutures, paved driveways, sidewalks and parking lots, grading, underground utilities and an artificial pond were observed throughout the study area. Potentially undisturbed areas with archaeological potential include the manicured grassed areas around the Robert Agar House and within the northwest portion of the study area.

In light of these results, the following recommendations are presented:

- 1. All identified areas which contain archaeological potential must be subjected to a Stage 2 AA employing a test-pit archaeological survey at five metre intervals in accordance with *Section 2.1.2* of the *2011 S&G*.
- 2. As per *Section 1.4, Standard 1* of the *2011 S&G,* areas that exhibit disturbed conditions, are recommended to be exempt from a Stage 2 AA.

No excavation activities shall take place within the study area prior to the *Ministry of Tourism, Culture and Sport* (Archaeology Program Unit) and the City of Vaughan's *Cultural Services Division* confirming in writing that all archaeological licensing and technical review requirements have been satisfied

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# **PROJECT PERSONNEL**

Project and Field Director	Alvina Tam - MTCS licence P1016
Report Preparation	Alvina Tam - MTCS licence P1016
Report Review	Nimal Nithiyanantham – MTCS licence P390 Kim Slocki – MTCS licence P029
Historical and Archival Research	Lee Templeton – MTCS licence R454
Graphics	

# **1.0 PROJECT CONTEXT**

# 1.1 Objective

The objectives of a Stage 1 Archaeological Assessment (AA), as outlined by the 2011 *Standards and Guidelines for Consultant Archaeologists* ('2011 S&G') (2011), are as follows:

- To provide information about the property's geography, history, previous archaeological fieldwork and current land condition;
- To evaluate in detail the property's archaeological potential, which will support recommendations for Stage 2 survey for all or parts of the property; and
- To recommend appropriate strategies for Stage 2 survey.

# **1.2 Development Context**

Archeoworks Inc. was retained by MMM Group Limited, to conduct a Stage 1 AA of 8700 Huntington Road (herein referrered to as the "study area"), as part of the proposed development for a new one-storey tunnelling training centre at the Vaughan campus of the Labourers' International Union of North America (LiUNA) Local 183. The study area is situated within Lot 12, Concession 10, in the Geographic Township of Vaughan, historical County of York, now the City of Vaughan, in the Regional Municipality of York, Ontario (*see Appendix A – Map 1*).

This study was triggered by the *Ontario Planning Act* in support of a Draft Plan Application filed to the City of Vaughan. This Stage 1 AA was conducted pre-submission under the project direction of Ms. Alvina Tam, under the archaeological consultant licence number P1016, in accordance with the *Ontario Heritage Act* (2009). Permission to investigate the study area was granted by *MMM Group Limited Partnership* on July 16<sup>th</sup>, 2014.

# **1.3 Historical Context**

The 2011 S&G, published by the Ministry of Tourism, Culture, and Sport (MTCS) considers areas of early Euro-Canadian settlement, including places of early military pioneer or pioneer settlement (e.g., pioneer homesteads, isolated cabins, and farmstead complexes), early wharf or dock complexes, and pioneer churches and early cemeteries, as having archaeological potential. There may be commemorative markers of their history, such as local, provincial, or federal monuments or heritage parks. Early historical transportation routes (trails, passes, roads, railways, portage routes), properties listed in a municipal register or designated under the Ontario Heritage Act or a federal, provincial, or municipal historic landmark or site, and properties that local histories or informants have identified with possible archaeological sites, historical events, activities, or occupations are also considered to have archaeological potential.

To establish the archaeological and historical significance of the study area, *Archeoworks Inc.* conducted a comprehensive review of listed and designated heritage properties, and registered archaeological sites within close proximity to its limits. Furthermore, a review of the physiography of the overall area and its correlation to locating archaeological remains, as well as consultation of available historical documentation was performed.

The results of this background research are documented below and summarized in **Appendix B** – **Summary of Background Research.** 

# 1.3.1 Pre-Contact Period

# 1.3.1.1 The Paleoindian Period

The region in which the study area is situated was first inhabited after the final retreat of the North American Laurentide ice sheet 15,000 years ago (or 13,000 B.C.) (Stewart, 2013, p.24). Massive amounts of glacial till, loose sand and soil was deposited across Vaughan, as the ice retreated over the Oak Ridges Moraine, creating low-relief till and lake plains of the Peel Plain (Barnett et al., 1998, p.1153). Initial vegetation of Southern Ontario was tundra-like. As the average climatic temperature warmed and spruce trees were replaced by birch, red pine and jack pine, small groups of Paleoindians entered Southern Ontario (Karrow and Warner, 1990, p.22; Stewart, 2013, p.28). Paleoindians are thought to have been small groups of nomadic hunter-gathers who depended on naturally available foodstuff such as game or wild plants (Ellis and Deller, 1990, p.38). For much of the year, Paleoindians "hunted in small family groups; these would periodically gather into a larger grouping or bands during a favourable period in their hunting cycle, such as the annual caribou migration" (Wright, 1994, p.25).

Paleoindian sites are extraordinarily rare and consist of "stone tools clustered in an area of less than 200-300 metres" (Ellis, 2013, p.35). These sites appear to have been campsites used during travel episodes and can be found on well-drained soils in elevated situations, which would have provided a more comfortable location in which to camp and view the surrounding territory (Ellis and Deller, 1990, p.50). Traditionally, Paleoindian sites have been located primarily along abandoned glacial lake strandlines or beaches. However, this view is biased as these are the only areas in which archaeologists have searched for sites, due to current understanding the region's geological history (Ellis and Deller, 1990, p.50; Ellis, 2013, p.37). In areas where attention has been paid to non-strandline areas and to older strandlines, sites are much less concentrated and are more ephemeral (Ellis and Deller, 1990, p.51). The artifact assemblage from this period is characterized by fluted and lanceolate stone points, scrapers, and small projectile points produced from specific chert types (Ellis and Deller, 1990). Distinctive dart heads were used to kill game, and knives for butchering and other tasks (Wright, 1994, p.24). These items were created and transported over great distances while following migratory animals within an extensive territory.

# 1.3.1.2 The Archaic Period

As the climate steadily warmed, deciduous trees slowly began to permeate throughout Southern Ontario, creating mixed deciduous and coniferous forests (Karrow and Warner, 1990,

#### STAGE 1 AA FOR THE: PROPOSED DEVELOPMENT OF THE LIUNA LOCAL 183 TRAINING CENTRE, CITY OF VAUGHAN, R.M. OF YORK, ONTARIO

p.30). The "Archaic peoples are the direct descendants of Paleoindian ancestors" that have adapted to meet new environmental and social conditions (Ellis, 2013, p.41; Wright, 1994, p.25). The Archaic Period is divided chronologically and cultural groups are divided geographically and sequentially. Archaic Aboriginals lived in "hunter-gatherer bands whose social and economic organization was probably characterized by openness and flexibility" (Ellis et al., 1990, p.123). This fluidity creates 'traditions' and 'phases' which encompass large groups of Archaic Aboriginals (Ellis et al., 1990, p.123).

Few Archaic sites have faunal and floral preservation and lithic scatters are often the most commonly encountered Archaic Aboriginal site type (Ellis et al., 1990, p. 123). House structures have "left no trace" due to the high acidic content of Ontario soils (Wright, 1994, p.27). Burial, grave goods and ritual items appear, although very rarely. By the Late Archaic, multiple individuals were buried together suggesting semi-permanent communities were in existence (Ellis, 2013, p.46). Ceremonial and decorative items also appear on Archaic Aboriginal sites through widespread trade networks, such as conch shells from the Atlantic coast and galena from New York (Ellis, 2013, p.41). Through trade with the northern Archaic Aboriginals situated around Lake Superior, native copper was initially utilized to make hooks and knives but gradually became used for decorative and ritual items (Ellis, 2013, p.42).

During the Archaic period, stone points were reformed from the fluted and lanceolate points to stone points with notched bases to be attached to a wooden shaft (Ellis, 2013, p.41). The artifact assemblage from this period is characterized by a reliance on a wide range of raw lithic materials in order to make stone artifacts, the presence of stone tools shaped by grinding and polishing, and an increase in the use of polished stone axes and adzes as wood-working tools (Ellis et al., 1990, p. 65; Wright, 1994, p.26). Ground-stone tools were also produced from hard stones and reformed into tools and throwing weapons (Ellis, 2013, p.41). The bow and arrow was first used during the Archaic period (Ellis, 2013, p.42).

# 1.3.1.3. The Woodland Period

The Woodland period is divided chronologically into subsequent stages of cultural development. Early Woodland cultures evolved out of the Late Archaic period (Ferris and Spence, 1995, p. 89; Spence et al, 1990, p.168). The distinguishing characteristic of the Early Woodland period is the introduction of pottery (ceramics), where the earliest forms were coilformed, "thick, friable and often under fired, and must have been only limited to utility" useage (Ferris and Spence, 1995, p.89; Williamson, 2014, p.48). The Early Woodland period is divided into two complexes: the Meadowood complex and the Middlesex complex. The Middlesex complex appears to be restricted to Eastern Ontario, particularly along the St. Lawrence River while Meadowood materials depict a broad extent of occupation in southwestern Ontario (Spence et al, 1990, p.134, 141).

Cache Blades or 'quaternary blanks', a formal chipped stone technology during the Early Woodland period, were employed to make tool types from secondary chipping using primarily Onondaga chert (Ferris and Spence, 1995, p.93; Spence et al, 1990, p.128). Meadowood sites have produced a number of distinctive material cultures that function in both domestic and

ritual spheres (Ferris and Spence, 1995, p.90; Spence et al, 1990, p. 128), which allows correlations to be made between habitations and mortuary sites to create a well-rounded view of Meadowood culture (Ferris and Spence, 1995, p.90; Spence et al, 1990, p. 128). However, their settlement-subsistence system is poorly understood as only a "few settlement types have been adequately investigated, and not all of these are from the same physiographic regions" (Ferris and Spence, 1995, p.93; Spence et al, 1990, p. 136). Generally, Meadowood sites are in association with the Point Peninsula and Saugeen complexes which "then eventually changed or were absorbed into the Point Peninsula complex" (Wright, 1994, pp. 29-30).

During the Middle Woodland Period, the Point Peninsula complex was "distributed throughout south-central and eastern Southern Ontario, the southern margins of the Canadian Shield, the St. Lawrence River down river to Quebec City, most of southeastern Quebec, along the Richelieu River into Lake Champlain" (Spence et al, 1990, p.157; Wright, 1999, p.633). Subsequently, the Saugeen complex occupied "southwestern Southern Ontario from the Bruce Peninsula on Georgian Bay to the north shore of Lake Erie" (Wright, 1999, p.629). The Saugeen and Point Peninsula cultures shared Southern Ontario ,but the Saugeen culture appears to have "occupied the region between Lake Huron and Lake Erie to the west of Toronto" (Wright, 1994, p.30). The borders between cultures are not well defined, and many academics believe that the Niagara Escarpment formed a natural frontier between the Saugeen complex and the Point Peninsula complex (Spence et al, 1990, p.143; Wright, 1999, p.629; Ferris and Spence, 1995, p.98). Consequently, the dynamics of hunter-gatherer societies shifted territorial boundaries, resulting in regional clusters throughout southwestern Southern Ontario that have been variously assigned to Saugeen, Point Peninsula, or independent complexes (Spence et al, 1990, p.148; Wright, 1999, p.649).

Middle Woodland pottery appears as globular pots where decoration was stamped producing scallop-edge or tooth-like impressions (Williamson, 2014, p.49; Ferris and Spence, 1995, p. 97). Major changes in settlement-subsistence systems occurred in the Middle Woodland, particularly the introduction of large 'house' structures and substantial middens associated with these structures (Spence et al, 1990, p.167; Ferris and Spence, 1995, p. 99). The larger sites likely indicate a prolonged period of macroband settlement and a more consistent return to the same site, rather than an increase in band size (Spence et al, 1990, p. 168). Environmental constraints in different parts of Southern Ontario all produce a common implication of increased sedentism caused by the intensified exploitation of local resources (Ferris and Spence, 1995, p. 100). Burial offerings became more ornate and encompassed many material mediums, including antler, whetstones, copper and pan pipes (Ferris and Spence, 1995, p. 99). Burial sites during this time were set away from occupation sites and remains were buried at time of death; secondary burials were not common (Ferris and Spence, 1995, p. 101). Small numbers of burial mounds are present, particularly around Rice Lake, and both exotic and utilitarian items were left as grave goods (Williamson, 2014, p.51; Ferris and Spence, 1995, p.102).

After A.D. 900, during the Late Woodland Period, the Ontario Iroquoian culture flourished throughout much of southern Ontario (Bursey et al., 2013a). Multiple sub-stages and

#### STAGE 1 AA FOR THE: PROPOSED DEVELOPMENT OF THE LIUNA LOCAL 183 TRAINING CENTRE, CITY OF VAUGHAN, R.M. OF YORK, ONTARIO

complexes have been assigned to this period, which are divided spatially and chronologically, and eventually progressed into the historic Contact Period groups of the Late Ontario Iroquois Stage (Williamson, 1990; Dodd et al., 1990). Although several migration theories have been suggested explaining the Iroquoian origins, "available date from southern Ontario strongly suggests continuity (*in situ*) from the transitional Princess Point complex and Late Woodland cultural groups" (Ferris and Spence, 1995, p. 105; Smith, 1990, p.283). Villages developed as horticulture gradually began to take on a more central importance in subsistence patterns, particularly the farming of maize, squash, and beans, supplemented by fishing, hunting, and gathering. "Communities established a base camp around which land was cleared for crops, while hunting, fishing and gathering parties were sent out to satellite camps" (Williamson, 2014, p.55). With the introduction of farming, descent was traced matrilineally and matrilocal residence was practiced (Williamson, 1990, p.317; Williamson, 2014, p.55). House structures were initially oval and gradually became longhouses. Later, villages were fortified (Williamson, 1990; Dodd et al, 1990).

Consequently, as horticulture the became the primary mode of subsistence, native groups gradually relocated from the northern shores of Lake Ontario to further inland, likely as a result of depleting resources and growing aggression between native communities. During the Late Ontario Iroquoian stage, the historic Contact Period Iroquoian-speaking linguistic groups developed. Neighbouring Iroquois-speaking nations united to form several confederacies known as the Huron (Wendat), Neutral (called Attiewandaron by the Wendat), Petun (Tionnontaté or Khionontateronon) in Ontario, and the Five Nations of the Iroquois (Haudenosaunee) of upper New York State (Birch, 2010, p.31; Warrick, 2013, p.71). These groups are located primarily in south and central Ontario. Each group was distinct but shared a similar pattern of life already established by the sixteenth century (Trigger, 1994, p.42).

## 1.3.2 Contact Period

From Samuel de Champlain's visit of the Huron-Wendat territory to the great epidemics of 1630, the Huron-Wendat population was reported to be approximately 30,000 individuals (Heidenreich, 1978, p.369). Their territorial homeland and hunting grounds, known as Wendake, stretched roughly between the Canadian Shield along the Frontenac Axis, Lake Ontario and the Niagara Escarpment (Warrick, 2008, p.12). The western boundary is often contested, with a number of sites between the Niagara Escarpment and the Humber River occupied by a mixed Neutral-Wendat population (Warrick, 2008, p.15). It is speculated that four nations, the Attignawantan, Tahontaenrat, Attigneenongnahac, and Arendahronon, amalgamated to form a single Huron-Wendat Confederacy in defense against the continual aggression of the Haudenosaunee (Warrick, 2008, p.11; Trigger, 1994, p.41).

Settlement patterns were complex. Village sites were chosen for their proximity to sources of "water, arable soils, available firewood, [and] a young secondary forest, [as well as] a defendable position" (Heidenreich, 1978, p.375). Longhouse sizes depended on the size of the extended family that inhabited it; however, archaeological evidence suggests that the average longhouse was 25 feet by 100 feet, with heights about the same as widths (Heidenreich, 1978, p.366). Villages consisted of up to 100 longhouses clustered closely together, and only the
largest villages on the frontier were fortified (Heidenreich, 1978, p.377). Subsistence patterns reflect a horticultural diet that was supplemented with fish rather than meat (Heidenreich, 1978, p.377). 'Slash-and-burn' farming was used to quickly and efficiently clear trees and brushwood for flour and flint corn fields (Heidenreich, 1978, p.380). These were consistently cultivated until no longer productive, at which point the village was abandoned, an event that took place about every eight to twelve years (Heidenreich, 1978, p.381).

By 1609, Samuel de Champlain had encountered the Huron-Wendat, in particular the Arendahronon. Desiring greater quantities of furs, the French concluded a trading relationship with the Huron-Wendat (Trigger, 1994, p.68; Heidenreich, 1978, p.386). Consequently, the Huron-Wendat became the middlemen for trade goods between the French and their Algonquin, Nipissing, Tionnontaté, and Attiewandaron neighbours. By mid-1620, the Huron-Wendat had exhausted all available pelts in their own hunting territories and opted to trade European goods for tobacco and furs from their neighbours (Trigger, 1994, pp.49-50).

During the 1630s, Jesuit missionaries attempted to convert the entire Huron-Wendat Confederacy to Christianity as the initial phase of a missionary endeavour to convert all native people in Southern Ontario (Trigger, 1994, p.51). However, the Jesuits' presence in the region had become precarious after a series of major epidemics of European diseases that killed nearly two-thirds of the Huron-Wendat population, lowering the total population to approximately 10,000 individuals (Warrick 2008, p.245; Heidenreich, 1978, p.369). These epidemics affected children and elderly the worst. The death of their elders deprived the Huron-Wendat of their experienced political, military, and spiritual leaders, leaving them more susceptible to Christian missions and conversion (Trigger, 1994, p.52; Heidenreich, 1978, p.371).

By 1645, having grown dependent on European goods and with their territory no longer yielding enough animal pelts, the Haudenosaunee became increasingly aggressive towards the Huron-Wendat Confederacy (Trigger, 1994, p.53). Armed with Dutch guns and ammunition, the Haudenosaunee engaged in warfare with the Huron-Wendat Confederacy and brutally attacked and destroyed several Huron-Wendat villages throughout Southern Ontario (Trigger, 1994, p.53). After the massacres of 1649-50, the Huron-Wendat Confederacy dispersed widely through the Great Lakes region (Schmalz, 1991, p.17).

## 1.3.3 Post-Contact Period

Although their homeland was located south of the Great Lakes, the Haudenosaunee controlled most of Southern Ontario in the 1660s, occupying at "least half a dozen villages along the north shore of Lake Ontario and into the interior" (Schmalz, 1991, p.17; Williamson, 2013, p.60). The Haudenosaunee established "settlements at strategic locations along the trade routes inland from the north shore of Lake Ontario. Their settlements were on canoe-and-portage routes that linked Lake Ontario to Georgian Bay and the upper Great Lakes (Williamson, 2013, p.60). Such trade routes included the ancient Toronto Carrying Place Trail or "Humber Passage", a crucial trade and travel route that connected Lake Ontario to Lake Simcoe by means of the Humber River over the Oak Ridges Moraine and up to the Holland River, to Lake Simcoe. It was an ancient highway, about 46 kilometres in length, in use for hundreds of years by many groups.

The origins of the trail are not known; however its place in the history of the region is undisputed.

As early as 1653, the Ojibwa of the Anishinaabeg, an Algonquin-speaking linguistic group, wanted control of the land between Lake Huron and Lake Ontario in order to further their role in the fur trade (Johnston, 2004, p.9). Before contact with the Europeans, the Ojibwa territorial homeland was situated inland from the north shore of Lake Huron (MNCFN, ND, p.3). In 1640, the Jesuit fathers had recorded the name "oumisagai, or Mississaugas, as the name of the group who resided near the Mississagi River on the northwestern shore of Lake Huron. The French, and later English, applied this same designation to all Algonquian-speaking groups settling on the north shore of Lake Ontario (Smith, 2002, p. 107).

After a major smallpox epidemic in 1662, the capture of New Netherland by the English in 1664 curtailing access to guns and powder, and a series of successful attacks against the Haudenosaunee by the Ojibwa from 1653 to 1662, the Haudenosaunee dominance in the region began to fail (Warrick, 2008, p.242; Schmalz, 1991, p.20). By 1680, the Ojibwa had begun to settle just north of the evacuated Huron-Wendat territory and with the English entering the fur-trading market, the Ojibwa began to expand into southern Ontario (Gibson, 2006, p. 36; Schmalz, 1991, p.18). The Mississauga moved southward against the Haudenosaunee utilizing the Carrying Place Trail to defeat the Haudenosaunee at the mouth of the Humber River (Gibson, 2006, p. 37; Schmalz, 1991, p.27). By the 1690s, Haudenosaunee settlements along Lake Ontario were abandoned (Williamson, 2013, p.60). In 1701, Ojibwa parties met the Haudenosaunee at Burlington Bay and on the Bruce Peninsula in a final push to expel the Haudenosaunee from Ontario (Gibson, 2006, p.37).

In 1701, representatives of several bands within the Ojibwa Nation and the Haudenosaunee assembled in Montreal to participate in Great Peace negotiations, sponsored by the French (Johnston, 2004, p.10; Trigger, 2004, p.58). The Mississaugas were granted sole possession of the territory to the north of Lake Ontario and Lake Erie, while the Haudenosaunee, or Six Nations as the British referred them with the inclusion of the Tuscarora group, retained their territory along the Grand River (Hathaway, 1930, p.433; Tooker, 1978, p.428).

From 1701 to the fall of New France in 1759, the Ojibwa experienced a "golden age" of trade, holding no conclusive alliance with either the British or the French while maintaining their middle-man position between native groups to the north and in southwestern Ontario (Schmalz, 1991, p. 35). As the Seven Years War between the French and British continued in North America, both the Ojibwa bands and the French were weakened by famine, lack of supplies, and disease (Schmalz, 1991, p.53). In 1763, the Royal Proclamation declared the Seven Years War over, giving the British control of New France and creating a western boundary for British colonization. The British did not earn the respect of several Ojibwa bands, as the British did not respect fair trade nor the Ojibwa occupancy of the land as the French had, and the Pontiac Uprising, also known as the Beaver Wars, began that same year (Schmalz, 1991, p.70). Pontiac, an Ottawa-Ojibwa, rallied several bands against British occupation of New France, but many groups also sought to avoid military action (Schmalz, 1991, p.71). After numerous attacks

on the British, the Pontiac Uprising was over by 1766 when a peace agreement was concluded with Sir William Johnson, the Superintendent of Indian Affairs, which depended mostly on the integrity of the British (Schmalz, 1991, p.81).

## **1.3.4 Euro-Canadian Settlement History**

By the end of the 1700s, the Mississaugas claimed portions of the County of York, along with the majority of Ontario (Surtees, 1994, p.94). After the American War of Independence in the late 1700s, a large number of United Empire Loyalists and American immigrants began to move into Southern Ontario. This put greater demand on the amount of available lands for Euro-Canadian and American immigrant settlement within Upper Canada.

In 1787, senior officials from the Indian Department met with the Mississaugas of the Carrying Place on the Bay of Quinte and Toronto to acquire land along the northern shores of Lake Ontario extending northward to Lake Simcoe (Surtees, 1994, p.107). In 1805, William Claus, the Deputy Superintendent of Indian Affairs, entered into negotiations with the Mississaugas to purchase a greater tract of land consisting of 100,000 hectares in and around the Town of York, known as the Toronto Purchase (Surtees, 1994, p.110). The Mississauga confirmed the land had been previously ceded in 1787, however, documentation which formalized the 1787 transaction did not include a description of the area surrendered, and therefore the matter of land cession within York County remained a legal issue (Surtees, 1994, p.107). After the Anishinaabe continually pressured the Federal government to review the land cession documents for lands south of Lake Simcoe, it became apparent that the land had not been correctly purchased by the British (Surtees, 1994, p.107; Surtees, 1986, p.19). The William's Treaty provided for the last surrender of the last substantial portion of the territory that had not been given up to the government (Surtees, 1986, p.19).

Due to the consistent American threat, Lieutenant-Governor John Graves Simcoe saw the necessity of constructing a road north from the Town of York to Holland Landing in order to provide a military road to the fort at Penetanguishene, should the Americans provoke war. Completed in 1796, Yonge Street utilized known ancient native trails east of the Carrying Place Trail by way of Bond Lake and branches of the Don River (Neilson, 2012). Briefly used as a military road, its ultimate function was to define the land boundaries of the northern townships of York County.

The Township of Vaughan was first surveyed by Surveyor Tredell in 1795, and was named after Benjamin Vaughan who negotiated the Peace Treaty with the United States on Britain's behalf in 1783 (Mulvany and Adams, 1885, p.124; Reaman, 1971, p.20). The survey of Vaughan Township was not complete until 1851 (Reaman, 1971, p.45).

The earliest settlers to Vaughan Township were United Empire Loyalists and Hessian soldiers who served in the American War, Quakers and Pennsylvania Dutch, and later, Scottish, Irish and English settlers attracted by the 200-acre land grants from the Crown (Reaman, 1971, p.20). These settlers focused on agriculture as their primary means of subsistence, as 35,000 acres of the total 67,510 acres of the township was regarded to be first-class agricultural land and was

devoted to staple agricultural products (Mulvany and Adams, 1885, p.129). The Humber River proved to be an equally fundamental source of wealth for settlers in Vaughan with the construction of multiple saw mills, grist mills and paper mills along the entire length of the river, the first being constructed in 1801 on Lot 32, Concession 1 (Mulvany and Adams, 1885, p.126).

Accessible transportation routes were limited in Vaughan Township, as it is entirely land-locked. In 1846, the Albion Road Company constructed a planked road, a wooden road that was unobstructed, which ran from Albion Road to Claireville and continued north along Highway 50 (Reaman, 1971, p.79; City of Vaughan, 2013). In 1853, the Ontario, Simcoe and Huron Railway, later known as the Northern Railway Company, was built through Vaughan, providing commuter and freight lines from Toronto through Maple to north of Lake Simcoe (City of Vaughan, 2013). By 1860, the Vaughan Plank Road Company, founded in 1860, completed the plank road as far north as the King Township boundary (Reaman, 1971, p.79). To afford the continual repair for this plank road, toll booths were constructed along the routes of major thoroughfares to collect toll charges. By 1880, these tolled roads were in great disrepair and 10 years later, a violent revolt broke out over the continuation of tolled roads, and tolls were subsequently removed in favour of municipally managed roadways (Reaman, 1971, p.80; City of Vaughan, 2013).

## 1.3.5 Past Land Use

To assess the study area's potential for the recovery of historic pre-1900 remains, several documents were reviewed, namely the 1860 *Tremaine's Map of the County of York* and the 1878 *Illustrated Historical Atlas of the County of York* (*see Maps 2-3*). The study area encompasses part of Lot 12, Concession 10 in the Geographic Township of Vaughan, in the historic County of York, now the City of Vaughan, in the Regional Municipality of York.

Both the 1860 Map and 1878 Atlas depict the majority of the study area falling primarily within agricultural lands of two landowners. Additionally, a historic structure is depicted within 50 metres of the southern limits of the study area (*see Table 1*).

Con.	Lot	Occupant/Owner	Structure(s)		
1860 Tremaine's Map of the County of York – Township of Vaughan					
10	12, All	Robert Agar	No structure(s)		
1878 Illustrated Historical Atlas of the County of York – Township of Vaughan					
10	12, All	Laughlin Cameron	No structure(s)		

### Table 1: Historical Structures within the Study Area

The 1860 Tremaine's Map depicts no historic structures within the study area. One additional historic homestead was depicted within 50 metres of the southern limits of the study area. By 1878, the Illustrated Atlas depicts no historic structures within the study area. One historic homestead was depicted within 50 metres of the southern limits of the study area and one historic homestead is depicted within 300 metres of the eastern limits of the study area.

In addition to the study area's documented proximity to and the presence of Euro-Canadian historic structures, the study area traverses a historic settlement road, present- day Huntington Road, which was originally laid out during the survey of Township of Vaughan. In Southern Ontario, the 2011 S&G considers undisturbed lands within 300 metres of early Euro-Canadian settlements and 100 metres of early historic transportation routes (e.g., trails, passes, roads, railways, portage routes) to be of elevated archaeological potential. Therefore, based on the proximity of several historic structures and proximity to historic transportation routes, potential for the location of Euro-Canadian archaeological resources (pre-1900) within undisturbed portions of the study area can be established.

## 1.3.6 Present Land Use

The present land use of the study area can be categorized as educational/industrial.

# **1.4 Archaeological Context**

## 1.4.1 Designated and Listed Cultural Heritage Resources

Consultation of the Ontario Heritage Properties Database which records heritage resources that have been designated for their cultural value or interest under the *Ontario Heritage Act*, confirmed the presence of one provincially designated heritage property, the Robert Agar House, within the study area<sup>1</sup> (*see Table 2*). The Robert Hagar House still stands today.

Consultation of the document entitled 'Designated Property Under the Ontario Heritage Act, Part IV, Section 29' (City of Vaughan, 2014a) which identifies buildings or structures that have individually been designated under Part IV of the Ontario Heritage Act, confirmed one designated heritage property is located within the study area (*see Table 2*). Given that the structure was established in 1855, this property exemplifies how the absence of structures within the historical maps (*see Maps 2-3*) does not necessarily mean an absence of cultural material. A fee was usually required in order for a property to be depicted within the historical maps and often, some property owners did not wish to pay this fee, hence a supposed "absence" of occupations. No other designated heritage properties are located within 300 metres of the study area.

Name	Address	Description	Designation
The Robert Agar House	8700 Huntington Rd	ca. 1855 Residential Building	Designated – Part 4

Table 2: Designated Heritage Properties within the Study Area

Additional consultation of the document entitled, 'Register of Properties of Cultural Heritage Value as per Part IV, Subsection 27" (City of Vaughan, 2005) which identifies buildings or structures that are listed for architectural and historical value, confirmed no listed heritage properties are located within and within 300 metres of the study area.

<sup>&</sup>lt;sup>1</sup> **Clarification:** As of 2005, the Ontario Heritage Properties Database is no longer being updated. The Ministry of Tourism, Culture and Sport is currently updating a new system which will provide much greater detail to users and will become publicly accessible in the future. (http://www.hpd.mcl.gov.on.ca)

According to Section 1.3.1, Standard 1 of the 2011 S&G, undisturbed lands within 300 metres of properties listed in a municipal register or designated under the Ontario Heritage Act or a federal, provincial, or municipal historic landmark or site, are considered to have elevated archaeological potential. Therefore, based on the presence of one designated heritage property within the study area, there is elevated potential for the location of Euro-Canadian archaeological resources (pre-1900) within undisturbed portions of the study area.

### **1.4.2 Heritage Conservation Districts**

A Heritage Conservation District (HCD) includes areas that have been protected under Part V of the Ontario Heritage Act. An HCD can be found in both urban and rural environments and may include residential, commercial and industrial areas, rural landscapes or entire villages or hamlets with features or land patterns that contribute to a cohesive sense of time or place and contribute to an understanding and appreciation of the cultural identity of a local community, region, province or nation. An HCD may comprise an area with a group or complex of buildings, or a large area with many buildings and properties. They often extend beyond their built heritage, structures, streets, landscapes, and other physical and spatial elements, to include important vistas and views between and towards buildings and spaces within the district (MTCS, 2006, p.5). HCDs are a valuable cultural heritage and must be taken into consideration during municipal planning to ensure that they are conserved.

According to Section 1.3.1, Standard 1 of the 2011 S&G, undisturbed lands within 300 metres of designated heritage resources under the Ontario Heritage Act or a federal, provincial, or municipal historic landmark or site, are considered to have elevated archaeological potential. To determine if the study area is located within an HCD, the document entitled, "Heritage Conservation Districts" (City of Vaughan, 2014b), which identifies cultural heritage streetscapes and landscapes designated under Part V of the Ontario Heritage Act, confirmed the study area does not fall within or within 300 metres of an HCD. With no heritage properties being located within a 300-metre radius of the study area, this feature does not aid in elevating archaeological potential within the study area.

## **1.4.3 Commemorative Plaques or Monuments**

According to Section 1.3.1, Standard 1 of the 2011 S&G, undisturbed lands within 300 metres of Euro-Canadian settlements where commemorative markers of their history, such as local, provincial, or federal monuments, cairns or plaques, or heritage parks, are considered to have elevated archaeological potential. To determine if any historical plaques are present, the Ontario's Historical Plaques inventory, which contains a catalogue of all federal Historic Sites and Monuments Board of Canada plaques, all the provincial Ontario Heritage Trust plaques, all the plaques from the various historical societies and all other publish plaques located in Ontario, confirmed no historical plaques are located within and within 300 metres of the study area (Ontario Plaques, 2014). With no commemorative markers being located within a 300-metre radius of the study area, elevated archaeological potential cannot be established based on this feature.

## **1.4.4 Registered Archaeological Sites**

In order for an inventory of archaeological resources to be compiled for this study area, the *Ontario Archaeological Sites Database* (OASD) maintained by the *MTCS* was consulted (MTCS, 2014). Every archaeological site is registered according to the Borden System, which is a numbering used throughout Canada to track archaeological sites and their artifacts. The study area is located within Borden block AkGv.

According to the *MTCS* (2014), four registered archaeological sites have been registered within a one kilometre radius of the study area and none of these sites lie within 300 metres of the study area (*see Table 3*). The 2011 S&G considers undisturbed lands within 300 metres of a registered archaeological site to be of elevated archaeological potential..

Borden #	Name		Cultural Affiliation		Туре
Sites greater than 300 metres of the Study Area					
AkGv-276	Burton	Euro-	Canadian	Far	n
AkGv-277	Hunter	Late \	Noodland	Sca	tter
AkGv-278	*	Pre-C	ontact	Find	dspot
AkGw-209		Abori	ginal	Find	dspot

### Table 3: Registered Archaeological Sites within One Kilometre of the Study Area

\*denotes no site name was provided by the Ontario Archaeological Sites Database

Although there is an absence of archaeological resources within close proximity to the study area, it is useful to provide the cultural history of occupation in Southern Ontario (*see Table 4*). This data provides a further understanding of the potential cultural activity that may have occurred within the study area (Ferris, 2013, p.13).

Period	Archaeological Culture	Date Range	Attributes	
PALEO-INDIAN				
Early	Gainey, Barnes, Crowfield	≥11500-8500 BC	Big game hunters. Fluted projectile points	
Late	Holcombe, Hi-Lo, Lanceolate	8500-7500 BC	Small nomadic hunter-gatherer bands. Lanceolate projectile points	
ARCHAI	3			
Early	Side-notched, corner notched, bifurcate-base	7800-6000 BC	Small nomadic hunter-gatherer bands; first notched and stemmed points, and ground stone celts.	
Middle	Otter Creek, Brewerton	6000-2000 BC	Transition to territorial settlements	
Late	Narrow, Broad and Small Points Normanskill, Lamoka, Genesee, Adder Orchard etc.	2500-500 BC	More numerous territorial hunter-gatherer bands; increasing use of exotic materials and artistic items for grave offerings; regional trade networks	
WOODLAND				
Early	Meadowood, Middlesex	800BC-0BC	Introduction of pottery, burial ceremonialism; panregional trade networks	

### Table 4: History of Occupation in Southern Ontario

Period	Archaeological Culture	Date Range	Attributes
Middle	Point Peninsula, Saugeen, Couture: Jack's Reef Corner	200 BC-AD 900	Cultural and ideological influences from Ohio Valley complex societies; incipient
	Notched		horticulture
Late	Algonquian, Iroquoian, Western Basin	AD 900-1250	Transition to village life and agriculture
	Algonquian, Iroquoian, Western Basin	AD 1250-1400	Establishment of large palisaded villages
	Algonquian, Iroquoian	AD 1400-1600	Tribal differentiation and warfare
HISTORI	С		
Early	Huron, Neutral, Petun, Odawa, Ojibwa, Five Nations Iroquois	AD 1600 – 1650	Tribal displacements
Late	Six Nations Iroquois, Ojibwa, Mississauga	AD 1650 – 1800s	Migrations and resettlement
	Euro-Canadian	AD 1780 - present	European immigrant settlements

### **1.4.5 Previous Archaeological Assessments**

In order to further establish the archaeological context of the study area, reports documenting previous archaeological fieldwork carried out within the limits of, or immediately adjacent (i.e., within 50 metres) to the study area, were consulted. No reports were identified.

### **1.4.6 Physical Features**

An investigation of the study area's physical features was conducted to aid in the development of an argument for archaeological potential based on the environmental conditions of the study area. Environmental factors such as close proximity to water, soil type, and nature of the terrain, for example, can be used as predictors to determine where human occupation may have occurred in the past.

The study area is located within the Peel Plain physiographic region of Southern Ontario. The Peel Plain is described as a level-to-undulating region of clay soils, with a gradual and fairly uniform slope toward Lake Ontario. Till, containing large amounts of shale and limestone underlies clay that is generally heavy in texture. This clay is presumably brought by meltwater from the predominantly limestone regions to the north and east. Some well-drained soils are found within the Peel Plain, but the most dominant soil is Peel clay, imperfectly drained, dark brown, stone-free clay often underlain by dull brownish grey, calcareous clay till or stone-free clay. With the underlying shales not being able to retain water well, compounded by the almost complete deforestation of the region which results in a high degree of evaporation, the Peel Plain has somewhat of a water supply problem. Practically all utilized for agriculture until 1940, the land within much of the region has been urbanized, now occupying two-thirds of the Peel Plain and taking more than 50,000 hectares of good farmland out of agricultural production (Chapman & Putnam, 1984, pp. 174-176).

The native soil within the study area is classified as Peel clay. It is a stonefree lacustrine clay over gritty clay till at depth of 3' or less from the Grey Brown Podzolic great soil group. It has

good drainage, is stonefree, and has a smooth gently sloping topography (Ontario Agricultural College, 1954).

In terms of archaeological potential, potable water is a highly important resource necessary for any extended human occupation or settlement. As water sources have remained relatively stable in Southern Ontario since post-glacial times, proximity to water can be regarded as a useful index for the evaluation of archaeological site potential. Indeed, distance from water has been one of the most commonly used variables for predictive modeling of site location. In Southern Ontario, the 2011 S&G considers undisturbed lands in proximity to a water source to be of elevated archaeological potential. Hydrological features such as lakes, rivers, creeks, swamps, and marshes would have helped supply plant and food resources to the surrounding area, and consequently support high potential for locating archaeological resources within 300 metres of their limits. A watershed is an area drained by a river and its tributaries. As surface water collects and joins a collective water body, it picks up nutrients, sediment and pollutants, which may altogether, affect ecological processes along the way.

The study area is located within the Humber River watershed and lies within 750 metres northeast of a tributary of the Humber River. This primary water source would have helped supply plant and food resources to their surrounding areas, and consequently support elevated potential for locating archaeological resources within undistributed portions of the study area that fall within 300 metres of its limits.

# **1.4.7 Current Land Conditions**

The study area is situated within a rural, increasingly industrial landscape at the western edge of the City of Vaughan, and encompasses the Vaughan campus of the LiUNA Local 183 Training Centre. The western portion of the study area serves as a practical training facility with on-site building construction projects. As previously mentioned, the Robert Agar House, a designated structure, still stands today, and was incorporated into the construction of the main building structure of the training centre. The topography within the study area is generally level, with the elevation averaging around 185 metres above sea level.

## 1.4.8 Date(s) of Field Review

The optional Stage 1 property inspection of the study area was undertaken on August 6<sup>th</sup>, 2014. The weather and ground conditions were conducive to identifying features and assessing the land's archaeological potential.

# **1.5 Confirmation of Archaeological Potential**

Based on the information gathered from background research documented in the preceding sections, potential for the recovery of archaeological resources within any undisturbed portions of the study area limits has been established. Features contributing to archaeological potential are summarized in **Appendix B**.

# **2.0 PROPERTY INSPECTION**

This property inspection was conducted in compliance with the 2011 S&G. Photographic images of the study area are presented within **Appendix C** - **Images 1-22**. Location and orientation information associated with all photographs taken in the field are provided within **Map 19**. Due to on-site construction training activities at the time of field inspection, systematic review of the western extent of the study area could not occur; however, historic aerial photos clearly show this area was previously graded. The weather and lighting conditions during the Stage 1 investigation permitted good visibility of the inspected parts of the study area and were conducive to the verification of undisturbed and disturbed areas. The results of this property inspection are detailed below.

# **3.0 ANALYSIS AND CONCLUSIONS**

# **3.1 Historical Imagery**

Data gathered from background research (*see Sections 1.3 and 1.4*), in combination with an onsite visual inspection (*see Section 2.0*), were used to perform an assessment of archaeological potential.

Additionally, a review of aerial photographs and satellite imagery taken from 1954 to 2013 (*see Maps 4-15*), reveal that the study area has greatly changed since 1954.

In 1954, the study area primarily consisted of ploughed agricultural fields. The Richard Agar House is present within the eastern half of the study area (*see Map 4*). The aerial photograph from 1978 provides a closer and clearer depiction of the study area, which reveals that in addition to the main house, there was a barn structure west of the house and an additional structure to the north of the house which was also connected to the driveway (*see Map 5*).

In 1982, the study area remains relatively unchanged, with the exception of some light grading within the "square" field immediately adjacent to the west of the barn structure (*see Map 6*). By 1984, the "square" field has been completely cleared, as well as the immediate area surrounding the barn (*see Map 7*). From 1984 to 1987, the study area still remains relatively unchanged; however it appears that the cleared area south of the barn structure is now a parking area for vehicles. Additionally, the field within the southewestern portion of the study area now appears to have been used as a horse track (*see Map 8*).

By 1992, the two structures within the study area to the west and north of the Robert Agar House were demolished, and the main building of the LiUNA training centre had been established. Some of the landscaping fronting the building, including the southern driveway path and a man-made pond, are complete. The northern driveway path and the branching of the entrance driveway are still in progress. It appears that a considerable amount of grading was undertaken within the east half of the study area to accommodate these construction activities (*see Map 9*).

In 1995, the landscaping fronting the training centre is complete, including the northern driveway, a second parking lot on the north side of the building, and a paved pathway leading to the artificial pond from the driveway. A fountain can be seen in the centre of the pond. Grading activities are evident on the west side of the training centre, and undisturbed fallow field lays in the remainder of the western portion of the study area (*see Map 10*). By 1999, some of the graded areas are now overgrown and a second paved pathway was constructed leading towards the pond from the southern parking lot. The remainder of the study area is unchanged (*see Map 11*). In 2002, the fallow field was used for agricultural purposes again, showing evidence of ploughing activities, and continued to do so up until at least 2005 (*see Maps 12-14*).

In 2007, the entire western one-third of the study area was completely graded. The remainder of the study area is unchanged (*see Map 15*). From 2009 to 2012, some vegetation has grown over some of the graded areas while the remainder of the study area remains the same (*see Maps 16-17*).

In 2013, an additional parking lot between the main building and graded area was established. Some vegetation has grown over the graded areas within the southwest portion of the study area. Additionally, several structures appear within the graded area, which now serves as a practice area for the training centre: one in the northwest corner of the study area, a small shed southwest of the main building (east of the newly paved area) and a larger structure within the southwest portion of the study area (*see Map 18*).

# **3.2 Identified Deep and Extensive Disturbances**

The study area was further evaluated through an on-site inspection for extensive disturbances that have removed archaeological potential. Disturbances may include but are not limited to: grading below topsoil, quarrying, building footprints or sewage and infrastructure development. *Section 1.3.2* of the 2011 S&G's counts infrastructure development among those "features indicating that archaeological potential has been removed." Disturbances were documented throughout the study area, and include existing buildings, the Harold Green parkette, grading and filling activities tied to previous and current developments, paved areas (sidewalks, driveways and parking lots), artificial landscapes (fronting the main building to Huntington Road), and utilities (hydro poles, underground lights, gas/water lines, etc.) (*see Images 1-28*). Based on the field inspection, as well as the historical aerial photographs and satellite imagery, it is apparent that the majority of the study area, with the exception of the far northeast corner, has undergone deep and extensive disturbances that have removed the archaeological potential of the study area.

# **3.3 Identified Areas of Archaeological Potential**

Portions of the study area that do not exhibit extensive disturbances are considered to have archaeological potential. This includes the lawn areas adjacent to the Robert Agar House, located in the northeast corner of the subject lands. A review of historic aerial photos and the property inspection did not reveal obvious ground disturbance in this location; therefore, owing to the proximity of the designated heritage structure, Stage 2 AA of these lawns will be required in accordance with *Section 2.1.2* of the *2011 S&G* (*see Map 19; Images 1-3, 16-18, and 21*).

# **4.0 RECOMMENDATIONS**

The following recommendations are presented:

- 1. All identified areas which contain archaeological potential, as illustrated in *Map 19*, must be subjected to a Stage 2 AA employing a test-pit archaeological survey at five metre intervals in accordance with *Section 2.1.2* of the *2011 S&G* (*see Section 3.3*).
- 2. As per *Section 1.4, Standard 1* of the *2011 S&G,* areas that exhibit disturbed conditions, as illustrated in *Map 19*, are recommended to be exempt from a Stage 2 AA.

No construction activities shall take place within the study area prior to the *MTCS* (Archaeology Programs Unit) and the City of Vaughan's *Cultural Services Division* confirming in writing that all archaeological licensing and technical review requirements have been satisfied.

# **5.0 ADVICE ON COMPLIANCE WITH LEGISLATION**

- 1. This report is submitted to the *MTCS* as a condition of licensing in accordance with Part VI of the *Ontario Heritage Act*, R.S.O. 1990, c0.18. The report is reviewed to ensure that it complies with the standards and guidelines that are issued by the Minister, and that the archaeological fieldwork and report recommendations ensure the conservation, protection and preservation of the cultural heritage of Ontario. When all matters relating to archaeological sites within the project area of a development proposal have been addressed to the satisfaction of the *MTCS*, a letter will be issued by the ministry stating that there are no further concerns with regard to alterations to archaeological sites by the proposed development.
- 2. It is an offence under Sections 48 and 69 of the *Ontario Heritage Act* for any party other than a licensed archaeologist to make any alteration to a known archaeological site or to remove any artifact or other physical evidence of past human use or activity from the site, until such time as a licensed archaeologist has completed archaeological fieldwork on the site, submitted a report to the Minister stating that the site has no further cultural heritage value or interest, and the report has been filed in the Ontario Public Register of Archaeology Reports referred to in Section 65.1 of the *Ontario Heritage Act*.
- 3. Should previously undocumented archaeological resources be discovered, they may be a new archaeological site and therefore subject to Section 48 (1) of the *Ontario Heritage Act*. The proponent or person discovering the archaeological resources must cease alteration of the site immediately and engage a licensed consultant archaeologist to carry out archaeological fieldwork, in compliance with Section 48 (1) of the *Ontario Heritage Act*.
- 4. The *Cemeteries Act*, R.S.O. 1990 c. C.4 and the *Funeral, Burial and Cremation Services Act*, 2002, S.O. 2002, c.33 require that any person discovering human remains must notify the police or coroner and the Registrar of Cemeteries at the *Ministry of Consumer Services*.

# 6.0 BIBLIOGRAPHY AND SOURCES

Barnett, P.J., Sharpe, D.R., Russell, H.A.J., Brennand, T.A., Gorrell, G., Kenny, F., and Pugin A. (1998). *On the Origin of the Oak Ridges Moraine*. [Online]. Available at: <u>http://stormcoalition.org/resources/Barnett-</u> On%20the%20origin%20of%20the%20Oak%20Ridges%20Moraine.pdf [Accessed 23 July 2014].

Bing Maps. (2014). 2012 Aerial View – Bing Maps. [Online]. Available at: http://www.bing.com/maps/#Y3A9NDMuODY3OTAxfi03OS40NDEwMDImbHZsPTQmc3R5PXIm d2hlcmUxPTg3MDAIMjBodW50aW5ndG9uJTIwcm9hZA== [Accessed 06 August 2014].

Birch, J. (2010). *Coalescence and Conflict in Iroquoian Ontario*. [Online]. Available at: <u>http://uga.academia.edu/JenniferBirch/Papers/183903/Coalescence and Conflict in Iroquoia</u> <u>n Ontario</u> [Accessed 23 July 2014].

Bursey, J., Daechsel, H., Hinshelwood, A., and Murphy, C. (2013a). *The Archaeology of Ontario – The Late Woodland Period*. [Online]. Available at: <u>http://www.ontarioarchaeology.on.ca/summary/latew.htm</u> [Accessed 23 July 2014].

Chapman, L. J. and Putnam, D. F. (1984). *Physiography of Southern Ontario. 3rd ed. Ontario Geological Survey, Special Volume 2.* Toronto: Ministry of Natural Resources.

City of Vaughan. (2005). *Register of Property of Cultural Heritage Value as per Part IV, Subsection 27*. [Online]. Available at:

https://www.vaughan.ca/services/cultural/General%20Documents/Heritage/Reference%20Doc uments/Register%20of%20Property%20of%20Cultural%20Heritage%20Value.pdf [Accessed 23 July 2014].

City of Vaughan. (2013). *Roads, Tolls and Automobiles*. [Online]. Available at: <u>https://www.vaughan.ca/services/vaughan\_archives/historyofvaughan/VaughanDocuments/Roads%20Tolls%20and%20Automobiles.pdf</u> [Accessed 23 July 2014].

City of Vaughan. (2014a). *Designated Properties Under the Ontario Heritage Act, Part IV, Section 29.* [Online]. Available at: <u>https://www.vaughan.ca/services/cultural/General%20Documents/</u> Heritage/Reference%20Documents/Individually%20Designated%20under%20Part%20IV%20of %20the%20Ontario%20Heritage%20Act.pdf [Accessed 23 July 2014].

City of Vaughan. (2014b). Heritage Conservation Districts. [Online]. Available at: <u>https://www.vaughan.ca/services/cultural/heritage\_preservation/heritage\_conservation\_districts/Pages/default.aspx</u> [Accessed 23 July 2014].

City of Vaughan. (2014c). (1978-1992). Aerial Vaughan Township. C7759 24.4.78 - N78019 L3 - 98., c2136 21-5-82 - N82063 L3-39.; t4086 12-04-84 - N84014 L5-43; AF87009 L4 205; 006 L\$ 103.

Dodd, C.F., Poulton, D. R., Lennox, P.A., Smith, D.G., and Warrick, G.A. (1990). The Middle Ontario Iroquoian Stage. In Ellis, C.J. and N. Ferris (Eds.) *The Archaeology of Southern Ontario to A.D. 1650*. London, Ontario: Occasional Publication of the London Chapter, OAS, pp. 321-359.

Ellis, C.J. and Deller, D.B. (1990). Paleo-Indians. In C.J. Ellis, and N. Ferris, (Eds.). *The Archaeology of Southern Ontario to A.D. 1650*. London, Ontario: Occasional Publication of the London Chapter, OAS, pp. 37-64.

Ellis, C.J., Kenyon, I.T., and Spence, M.W. (1990). The Archaic. In C.J. Ellis, and N. Ferris, (Eds.). *The Archaeology of Southern Ontario to A.D. 1650*. London, Ontario: Occasional Publication of the London Chapter, OAS, pp. 65-124.

Ellis, C. J. (2013). Before Pottery: Paleoindian and Archaic Hunter-Gathers. In Munson, M.K. and Jamieson, S.M (Eds.) *Before Archaeology: The Archaeology of a Province*. Montreal & Kingston, Ontario: McGill Queen's University Press.

Energy, Mines and Resources. (1994). *National Topographic Survey of Canada, Series A 751, Map 30 M/13. 7th ed.* Ottawa.

Ferris, N. and Spence, M.W. (1995). The Woodland Traditions in Southern Ontario. *Revista de Arquiologia Americana* (9), 83-138.

Ferris, N. (2013). Seeing Ontario's Past Archaeologically. In Munson, M.K. and Jamieson, S.M (Eds.) *Before Ontario: The Archaeology of a Province*. Montreal & Kingston, Ontario: McGill Queen's University Press, p.3-20.

Fox, W. A. (1990). The Middle Woodland to Late Woodland Transition. In C.J. Ellis, and N. Ferris, (Eds.). *The Archaeology of Southern Ontario to A.D. 1650*. London, Ontario: Occasional Publication of the London Chapter, OAS, pp. 171-188.

Gibson, M. M. (2006). *In the Footsteps of the Mississaugas*. Mississauga, Ontario: Mississauga Heritage Foundation.

Google Earth. (2014). Satellite Imaging. [Online]. Available at: <u>http://www.google.com/earth/</u>. [Accessed 06 August 2014].

Hathaway, E. (1930). The River Credit and the Mississaugas. In Ontario Historical Society Papers and Records Vol. xxvi. Toronto: Ontario Historical Society.

Heidenreich, C.E. (1978). Huron. In B.G. Trigger (Ed.). *Volume 15: Northeast*. Washington: Smithsonian Institution, pp.368-388.

Hunting Survey Corporation Limited (1954). *Digital Aerial Photographs, Southern Ontario*. [Online]. Available at http://maps.library.utoronto.ca/data/on/AP\_1954/index.html [Accessed 06 August 2014].

Johnston, D. (2004). *Connecting People to Place: Great Lakes Aboriginal History in Cultural Context*. [Online]. Available at: <u>http://www.attorneygeneral.jus.gov.on.ca/inquiries/ipper</u>wash/transcripts/pdf/P1 Tab 1.pdf [Accessed 23 July 2014].

Karrow, P.F. and Warner, B.G. (1990). The Geological and Biological Environment for Human Occupation in Southern Ontario. In C.J. Ellis, and N. Ferris (Eds.). *The Archaeology of Southern Ontario to A.D. 1650*. London, Ontario: Occasional Publication of the London Chapter, OAS, pp. 5-35.

Miles & Co. (1878). Illustrated Historical Atlas of the County of York, Ontario. Toronto.

Mississaugas of the New Credit First Nation (MNCFN). (N.D.a.). *The History of the Mississauga of the New Credit First Nation*. Ottawa, Ontario: Praxis Research Associates.

Mulvany, C.P. and Adam, G. M. (1885). *History of Toronto and County of York, Ontario: containing an outline of the history of the Dominion of Canada, a history of the city of Toronto and the county of York, with the townships, towns, villages, churches, schools; general and local statistics; biographical sketches, etc., etc. Volume 1.* [Online]. Available at: <u>http://www.ourroots.ca/toc.aspx?id=3668</u> [Accessed 23 July 2014].

Neilson, L. (2012). *Yonge Street – Governor Simcoe's Military Road*. [Online]. Available at: <u>http://thecanadianencyclopedia.com/featured/</u> [Accessed 23 July 2014].

Ontario Agricultural College (1954). *Soil Map of York County, Soil Survey Report No. 19.* Guelph: Soil Research Institute.

Ontario Ministry of Tourism, Culture and Sport. (2006). *Heritage Conservation Districts: A Guide to District Designation under the Ontario Heritage Act*. [Online]. Available at: <u>http://www.mtc.gov.on.ca/en/publications/Heritage Tool Kit HCD English.pdf</u> [Accessed 23 July 2014].

Ontario Ministry of Tourism, Culture and Sport. (2011). *Standards and Guidelines for Consultant Archaeologists*. Toronto: Ministry of Tourism, Culture and Sport.

Ontario Plaques. (2014). *Ontario's Historical Plaques*. [Online]. Available at: <u>http://www.ontarioplaques.com/Menu\_Map.html</u> [Accessed 23 July 2014].

Reaman, G.E. (1971). *A History of Vaughan Township*. [Online]. Available at: <u>http://www.ourroots.ca/e/toc.aspx?id=8222</u> [Accessed 23 July 2014].

Schmalz, P.S. (1991). *The Ojibwa of Southern Ontario*. Toronto, Canada: University of Toronto Press.

Smith, D.A. (1990). Iroquois Research. In C.J. Ellis, and N. Ferris, (Eds.). *The Archaeology of Southern Ontario to A.D. 1650*. London, Ontario: Occasional Publication of the London Chapter, OAS, pp. 279-290.

Smith, D.G. (2002). Their Century and a Half on the Credit: The Mississaugas in Mississauga. In *Mississauga: The First 10,000 Years*. Toronto, Ontario: The Mississauga Heritage Foundation Inc., 123-138.

Spence, M.W., Pihl, R.H., and Murphy, C.R. (1990). Cultural Complexes of the Early and Middle Woodland Periods. In Ellis, C.J. and N. Ferris (Eds.) *The Archaeology of Southern Ontario to A.D. 1650*. London, Ontario: Occasional Publication of the London Chapter, OAS, pp. 125-169.

Stewart, A.M. (2013). Water and Land. In Munson, M.K. and Jamieson, S.M (Eds.) *Before Archaeology: The Archaeology of a Province*. Montreal & Kingston, Ontario: McGill Queen's University Press

Surtees, R. J. (1986). *Treaty Research Report: The Williams Treaties*. [Online]. Available at <u>http://www.aadnc-aandc.gc.ca/DAM/DAM-INTER-HQ/STAGING/texte-</u> <u>text/traw\_1100100029001\_eng.pdf</u> [Accessed 09 23 July 2014].

York Region. (2014). *1995-2002 Aerials*. [Online]. Available at: <u>http://ww4.yorkmaps.ca/YorkMaps/CommunityServices/index.html</u> [Accessed 07 August 2014].

# **APPENDICES**

# **APPENDIX A: MAPS**



MAP 1 National Topographical System Map (Natural Resources Canada, 1998) identifying the Stage 1 AA study area.



MAP 2 Study Area within Tremaine's Map of the County of York (Tremaine, 1860)



MAP 3 Study Area within the Illustrated Historical Atlas of the County of York (Miles & Co., 1878)



MAP 4 Study Area within a 1954 aerial photograph (Hunting Survey Corporation Ltd., 1954)



MAP 5 Study Area within a 1978 aerial photograph (City of Vaughan, 2014c)



MAP 6 Study Area within a 1982 aerial photograph (City of Vaughan, 2014c)



MAP 7 Study Area within a 1984 aerial photograph (City of Vaughan, 2014c)



MAP 8 Study Area within a 1987 aerial photograph (City of Vaughan, 2014c)



MAP 9 Study Area within a 1992 aerial photograph (City of Vaughan, 2014c)



MAP 10 Study Area within a 1995 aerial photograph (York Region, 2014)



MAP 11 Study Area within a 1999 aerial photograph (York Region, 2014)



MAP 12 Study Area within a 2002 satellite image (York Region, 2014)



MAP 13 Study Area within a 2004 satellite image (Google Earth, 2014)



Map 14: Study Area within a 2005 satellite image (Google Earth, 2014)



Map 15: Study Area within a 2007 satellite image (Google Earth, 2014)



Map 16: Study Area within a 2009 satellite image (Google Earth, 2014)



Map 17: Study Area within a 2012 satellite image (Bing Maps, 2014)



Map 18: Study Area within a 2013 satellite image (Google Earth, 2014)
#### STAGE 1 AA FOR THE: PROPOSED DEVELOPMENT OF THE LIUNA LOCAL 183 TRAINING CENTRE, CITY OF VAUGHAN, R.M. OF YORK, ONTARIO



MAP 19: Stage 1 AA results of the study area with photo locations indicated.

## APPENDIX B: SUMMARY OF BACKGROUND RESEARCH

	Feature of Archaeological Potential	Yes	No	Unknown	Comment
1	Known archaeological sites within 300 m?		х		If Yes, potential confirmed
	Physical Features	Yes	No	Unknown	Comment
2	Is there water on or near the property?		Х		An artificial, aesthetic pond.
2a	Presence of primary water source within 300 metres of the study area (lakes, rivers, streams, creeks)		Х		If Yes, potential confirmed
2b	Presence of secondary water source within 300 metres of the study area (intermittent creeks and streams, springs, marshes, swamps)		х		If Yes, potential confirmed
2c	Features indicating past presence of water source within 300 metres (former shorelines, relic water channels, beach ridges)		х		If Yes, potential confirmed
2d	Accessible or inaccessible shoreline (high bluffs, swamp or marsh fields by the edge of a lake, sandbars stretching into marsh)		х		If Yes, potential confirmed
3	Elevated topography (knolls, drumlins, eskers, plateaus, etc)		х		If Yes to two or more of 3-5 or 7-10, potential confirmed
4	Pockets of well-drained sandy soil, especially near areas of heavy soil or rocky ground		Х		If Yes to two or more of 3-5 or 7-10, potential confirmed
5	Distinctive land formations (mounds, caverns, waterfalls, peninsulas, etc)		х		If Yes to two or more of 3-5 or 7-10, potential confirmed
	Cultural Features	Yes	No	Unknown	Comment
6	Is there a known burial site or cemetery that is registered with the Cemeteries Regulation Unit on or directly adjacent to the property?		х		If Yes, potential confirmed
7	Associated with food or scarce resource harvest areas (traditional fishing locations, food extraction areas, raw material outcrops, etc)		х		If Yes to two or more of 3-5 or 7-10, potential confirmed
8	Indications of early Euro-Canadian settlement (monuments, cemeteries, structures, etc) within 300 metres	Х			If Yes to two or more of 3-5 or 7-10, potential confirmed
9	Associated with historic transportation route (historic road, trail, portage, rail corridor, etc) within 100 metres of the property	Х			If Yes to two or more of 3-5 or 7-10, potential confirmed
	Property-specific Information	Yes	No	Unknown	Comment
10	Contains property designated under the Ontario Heritage Act	Х			If Yes to two or more of 3-5 or 7-10, potential confirmed
11	Local knowledge (aboriginal communities, heritage organizations, municipal heritage committees, etc)		X		If Yes, potential confirmed
12	Recent ground disturbance, not including agricultural cultivation (post-1960, extensive and deep land alterations)	Х			If Yes, low archaeological potential is determined

### **APPENDIX C: IMAGES**



IMAGE 1: Looking slightly southwest at the designated heritage property, the Robert Agar House.



IMAGE 3: Looking slightly northwest at disturbances associated with paved sidewalk, parking lot and existing building; and manicured grass lawn with identified archaeological potential around the Robert Agar House.



IMAGE 2: Looking northwest at Robert Agar House and building addition attached to the designated heritage property.



IMAGE 4: Looking northeast at disturbances associated with paved parking lot, sidewalk, grading, and man-made pond.



IMAGE 5: Looking southwest at disturbances associated with paved driveway, utilities, graded landscaping, and existing building.



IMAGE 6: Looking southwest at disturbance associated with grading and concrete placement



IMAGE 7: Looking slightly southwest at disturbance associated with grading, a building and utilities within the study area



IMAGE 8: Looking southwest at overgrown grassed area previously disturbed by grading, and building construction in the background within the study area

#### STAGE 1 AA FOR THE: PROPOSED DEVELOPMENT OF THE LIUNA LOCAL 183 TRAINING CENTRE, CITY OF VAUGHAN, R.M. OF YORK, ONTARIO



IMAGE 9: Looking northwest at gravel fill and disturbed ground conditions within the middle portion of the study area.



IMAGE 11: Looking slightly southwest at disturbances associated with paved road, construction activities, and utilities.



IMAGE 10: Looking slightly southwest at disturbances associated with a paved parking lot and construction activities within the western half of the study area



IMAGE 12: Looking at disturbed ground conditions associated with grading

#### STAGE 1 AA FOR THE: PROPOSED DEVELOPMENT OF THE LIUNA LOCAL 183 TRAINING CENTRE, CITY OF VAUGHAN, R.M. OF YORK, ONTARIO



IMAGE 13: Looking northeast at disturbances associated with paved road, existing building and utilities



IMAGE 14: Looking southeast at disturbance associated with the existing building, previously graded manicured grass, concrete installation, and underground utilities



IMAGE 15: Looking slightly southeast at disturbances associated with the existing building and paved parking lot



IMAGE 16: Looking slightly northeast at undisturbed manicured lawn with identified archaeological potential.



IMAGE 17: Looking southeast at disturbed paved driveway and a concrete disturbance and within manicured lawn with identified archaeological potential.



IMAGE 19: Looking southeast at disturbances associated with hydro utilities, paved drivway and fence installation



IMAGE 18: Looking southwest at disturbances associated with paved driveway and walkway, and artificial pond within the study area; and area of manicured grass with identified archaeological potential



IMAGE 20: Looking slightly southeast at disturbances associated with fence installation, underground utiltieis, an LED sign, previously graded area of manicured grass, and paved drivway.



IMAGE 21: Looking southwest at disturbances from flag pole installation and artificial pond; as well as an area of manicured grass with identified archaeological potential



IMAGE 22: Looking slightly southeast at disturbance associated with the Harold Green Parkette (est. September, 2005).

### APPENDIX D: INVENTORY OF DOCUMENTARY AND MATERIAL RECORD

Pro	Project Information:					
Project Number:		202-TO1306-14				
Licensee:		Alvina Tam (P1016)				
MT	CS PIF:	P1016-0014-2014				
Document/ Material			Location	Comments		
1.	Research/	Digital files stored in:	Archeoworks Inc.,	Stored on Archeoworks		
	Analysis/ Reporting	/2014/007-VA1304-14 - LiUNA	16715-12 Yonge Street,	network servers		
	Material	Local 183 Training Centre -	Suite 1029, Newmarket,			
		Vaughan	ON, Canada, L3X 1X4			
2.	Digital Images	Images: 43 digital images	Archeoworks Inc.,	Stored on Archeoworks		
			16715-12 Yonge Street,	network servers		
			Suite 1029, Newmarket,			
			ON, Canada, L3X 1X4			

Under Section 6 of Regulation 881 of the *Ontario Heritage Act, Archeoworks Inc.* will, "keep in safekeeping all objects of archaeological significance that are found under the authority of the licence and all field records that are made in the course of the work authorized by the licence, except where the objects and records are donated to Her Majesty the Queen in right of Ontario or are directed to be deposited in a public institution under subsection 66 (1) of the Act."

## APPENDIX H: ARBORIST REPORT PREPARED BY WSP.

# wsp



## 8700 HUNTINGTON ROAD STORAGE BUILDING ARBORIST REPORT

LIUNA LOCAL 183 TRAINING CENTRE

APRIL 05, 2024



## 8700 HUNTINGTON ROAD STORAGE BUILDING ARBORIST REPORT

LIUNA LOCAL 183 TRAINING CENTRE

PROJECT NO.: 13M-00041-04 DATE: DECEMBER 01, 2023 R1: APRIL 5, 2024

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PREPARED BY

April 5, 2024

Jeremy Dilks, ISA, TRAQ, BLA Arborist / Landscape Designer Date

APPROVED<sup>1</sup> BY (must be reviewed for technical accuracy prior to approval)

Pater manancera

April 5, 2024

Peter McNamara, B.A, OALA Associate Senior Arborist / Landscape Designer Date

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#### **APPENDICES**

- A TREE PRESERVATION TABLES
- B SITE PHOTOS

## **1 INTRODUCTION**

WSP Canada Inc. (WSP) has been retained by LiUNA Local 183 Training Centre for the detailed design of a proposed one storey storage building and landscape improvements. As part of the SPA design submission, WSP Landscape Architecture has completed an inventory of trees within the City right-of-way (ROW) and private property that could be impacted by the proposed works. Tree Preservation Plans have been prepared in association with this report.

This report has been prepared utilizing the tree data collected as part of the Development Report and Tree Preservation Plan prepared by Canadian Canopy Consulting, dated: May 21, 2021.

## 1.1 STUDY AREA

The study area features the property of 8700 Huntington Road:

- Trees with a DBH of 10cm or greater were inventoried within the study area and up to 6m passed the property line depending on the limit of grading.
- The study area is approximately 4 hectares in size.
- The study area features the existing Liuna 183 Training Centre.
- The study area is bound by the Longo's Support Centre to the north (8800 Huntington Rd.), Huntington Rd. to the east, Labourer's International Union of North America to the south (under construction) and Hunter's Valley Rd. to the west.

#### Figure 1: Study Area



Imagery ©2023 Airbus, CNES / Airbus, First Base Solutions, Maxar Technologies, Map data ©2023 50 m

Note: The Study Limits are outlined in red. Image taken from the Google Earth (2023).

#### 1.1.1 TREE INVENTORY

• In accordance with City of Vaughn guidelines for vegetation assessments:

- Trees with a DBH of 10cm or greater within the study area and up to 6m beyond the property line were inventoried.
- Trees were assessed for species, quantity, dripline radius, condition, and location. Recommendations have been provided for tree protection, TPZ reduction, and removals based on the proposed site plan and limits of work.
  - Where the canopies of trees overlapped, trees were inventoried in groupings;
  - Trees were not affixed with metal tags.
- This report is to be read in conjunction with:
  - Appendix A: Tree Preservation Tables;
  - Appendix B: Site Photos;
  - Tree Preservation Plans (TP-1 to TP-4).

## **2 EXISTING CONDITIONS**

The study limit is the property of 8700 Huntington Road in the City of Vaughan. The land use of the property is industrial and features 2 existing buildings that are proposed to remain.

An overview of the built form and treed vegetation is described below.

## 2.1 BUILT FORM

The built form consists of:

- The existing Liuna 183 Training Centre;
- A detachted garage on the west side of the parking lot;
- Sidewalks and walkways;
- Driveways and an at-grade parking lot;
- An existing pond.

## 2.2 TREED VEGETATION

Trees are a mostly comprised of planted species that are maintained by the property owner. Trees range in size from under 10cm to 103cm DBH and are primarily young to semi-mature with some larger mature trees. Trees are a mixture of deciduous and coniferous consisting of both native and non-native species.

Vegetation composition and size is detailed below by location.

#### 2.2.1 TREE COMPOSITION

- Mixture of native and non-native trees;
- Mixture of deciduous and coniferous trees;
- Species composition includes:
  - <u>Abundant</u>: Norway Maple (*Acer platanoides*), Honey-locust (*Gleditsia triacanthos*), Austrian Pine (*Pinus nigra*);
  - <u>Frequent</u>: Eastern White Cedar (*Thuja occidentalis*), Manitoba Maple (*Acer negundo*), Red Maple (*Acer rubrum*), Crab Apple (*Malus sp.*), Colorado Spruce (*Picea pungens*), Red Maple (*Acer rubrum*), Crimson King Norway Maple (*Acer platanoides 'Crimson King'*), Weeping Willow (*Salix babylonica*);
  - <u>Occasional Rare</u>: White Ash (*Fraxinus americana*), Common Buckthorn (*Rhamnus cathartica*), Callery Pear (*Pyrus calleryana*), Corkscrew Willow (*Salix matsudana*), European Horsechestnut (*Aesculus hippocastanum*); Bigtooth Aspen (*Populus grandidentata*), Scots Pine (*Pinus sylvestris*), Eastern White Pine (*Pinus strobus*).

### 2.3 CONDITION

Tree health ranged between good and poor, with a majority observed to be in good condition. Signs of decline and defects were observed on some trees including:

- Codominant stems;
- Broken branches and limbs;
- Chlorosis;
- Girdling roots;
- Cavities;
- Lean;
- Exposed roots;
- Curved trunk / stem;
- Poor structure;
- Epicormic shoots;
- Deadwood;
- Pruning cuts;
- Weak union;
- Conks;
- Poor soil quality;
- Dying / dead.

## **3 POLICY CONTEXT**

This section summarizes the various municipal, regional, provincial, and federal planning policies and regulations related to the tree inventory and which apply to the project. Thus, they provide the policy context for this Arborist Report.

## 3.1 REGION OF YORK - FOREST CONSERVATION BY-LAW

The Regional Municipality of York has a By-Law that prohibits or regulates the destruction or injuring of trees in the Regional Municipality of York (By-Law No. 2013-68).

'WOODLAND' means land at least 1 ha in area with at least:

- 1000 trees, of any size, per ha;
- 750 trees, measuring over 5 cm DBH, per ha;
- 500 trees, measuring over 12 cm DBH, per ha; or,
- 250 trees, measuring over 20 cm DBH, per ha.

'WOODLOT' means land at least 0.2 ha in area and no greater than 1ha in area, with at least:

- 200 trees, of any size, per 0.2 ha;
- 150 trees, measuring over 5 cm DBH, per 0.2ha;
- 100 trees, measuring over 12 cm DBH, per 0.2ha; or,
- 50 trees, measuring over 20 cm DBH, per 0.2ha.

#### Applicability to Project

- Woodlands are located in the northern section of the study area, woodlands are present on either side of the ROW along Dufferin Street. Trees within the Maple Nature Reserve on the east side as well as trees along the East Don River on the west side are within woodlands, as defined above.
- In the middle section of the study area, there is a private woodlot on the golf course grounds. Since this area is between 0.2 ha and 1 ha and contains over 200 trees of any size, trees in this area are subject to this By-law.
- Not applicable. This by-law will not be applicable due to an exemption under the bylaw as per Section 3.1(a) of the York Region Forest Conservation By-law which states that 'bylaw does not apply to: Activities or matters undertaken by a municipality or a local board of a municipality.'

## 3.2 REGION OF YORK – STREET TREE INVENTORIES OR INVENTORIES ON LANDS OWNED BY THE REGION

The York Region Street Tree and Forest Preservation Guidelines (2022) applies to Region-owned street trees and natural vegetation within the road allowance or lands owned by the Region. These Guidelines apply where site disturbance is proposed in the Regional road allowance and specifically:

- For any site disturbance proposed in the Regional road allowance, the tree inventory will include;
  - Region-owned street trees or natural vegetation of any size, situated within 10 m or less of the limit of potential site disturbance; and/or,
  - Existing trees greater than 10 cm DBH are situated outside the Regional road allowance and within 10 m of the limit of potential site disturbance; and/or,

- Existing trees 10 cm DBH and above where the site disturbance is proposed outside of the Regional road allowance and Region-owned street trees or natural vegetation are situated within 10 m of the limit of potential site disturbance;
- Existing trees 10 cm DBH and above where the site disturbance is proposed outside of the Regional ROW and Region-owned street trees are situated more than 10 m from the limit of potential site disturbance, but may be adversely impacted by the proposed site disturbance; and/or,
- Complete and prepare a Street Tree Management Plan that outlines recommendations for each street tree in the study area (e.g. replace, preserve, protect, compensation value).

#### Applicability to Project

• Not applicable. There are no regional roads within or adjacent to the study area, and therefore this By-law applies to trees within the ROW.

### 3.3 CITY OF VAUGHAN – TREE PROTECTION BY-LAW

This By-law (052-2018) prohibits or regulates the protection, destruction or injuring of trees located on public and private property. The By-law applies to trees of any size located on public property and trees 20 cm or greater on private property.

#### Applicability to Project

• **Applicable.** There are both private and City trees located within the study area. The proposed works are expected to encroach within some of the TPZ's of the trees located within the study area .

### 3.4 CANADA FOOD AND INSPECTION AGENCY

Canada Food and Inspection Agency (CFIA) Directive D-03-08: Phytosanitary Requirements to Prevent the Introduction into and Spread within Canada of the Emerald Ash Borer (EAB), *Agrilus planipennis* (Fairmaire) applies to Ash species (*Fraxinus spp.*) observed on properties that are located within the EAB Regulated Areas of Canada, prepared by the CFIA and dated March 2021. This area covers all south and central Ontario and western Quebec. Ash trees that require removal are subject to this directive.

#### Applicability to Project

- The CFIA restricts the movement of all Ash material including wood, bark, chips or bark chips from being transported outside of the Regulated Area. A Movement Certificate is required by the CFIA for any Ash material leaving the Regulated Area.
- Ash are permitted to be chipped on site and/or removed or cut down and removed from site. Chipped Ash material that is to remain on site must be ground or chipped to a size of less than 2.5 cm in any two dimensions. All Ash material chipped or whole that is to be removed from site must be disposed of within the Regulated Areas of Canada.
- Refer to the CFIA website for a current map of the 'Emerald Ash Borer Regulated Areas of Canada'
- There is two Ash trees located within the study limits. Evidence of EAB was not observed on the trees.

## 3.5 TORONTO AND REGION CONSERVATION AUTHORITY REGULATION LIMIT

The Toronto and Region Conservation Authority (TRCA), as mandated under O. Reg. 166/06 TRCA Regulation of Development, Interference with Wetlands and Alteration to Shorelines and Watercourses, regulates and may

prohibit work that may take place within a regulated area ("an area that represents the greatest physical extent of the combined hazards, plus a prescribed allowance, as set out in the Conservation Authorities Act"). This includes valley and stream corridors, wetlands and associated areas of interference and the Lake Ontario waterfront.

#### Applicability to Project

• Not Applicable. The address is located within TRCA's jurisdiction, however it does not fall within the TRCA's regulated area.

### 3.6 ENDANGERED SPECIES ACT, 2007

Species designated as Threatened or Endangered by the Committee on the Status of Species at Risk in Ontario (COSSARO), otherwise known as Species at Risk in Ontario (SARO), and their habitats (i.e., areas essential for breeding, rearing, feeding, hibernation and migration) are automatically afforded legal protection under the Endangered Species Act, 2007 (ESA) (Government of Ontario 2007). The ESA (Subsection 9 (1)) states that:

- "No person shall,
  - a) kill, harm, harass, capture or take a living member of a species that is listed on the SARO List as an extirpated, endangered or threatened species;
  - b) possess, transport, collect, buy, sell, lease, trade or offer to buy, sell, lease or trade;
    - (i) a living or dead member of a species that is listed on the Species at Risk in Ontario List as an extirpated, endangered or threatened species;
    - (ii) any part of a living or dead member of a species referred to in subclause (i);
    - (iii) anything derived from a living or dead member of a species referred to in subclause (i); or,
  - c) sell, lease, trade or offer to sell, lease or trade anything that the person represents to be a thing described in subclause (b) (i), (ii) or (iii)".
- Clause 10(1) (a) of the ESA states that:
- "No person shall damage or destroy the habitat of a species that is listed on the SARO list as an endangered or threatened species".

#### Applicability to Project

• Not Applicable. No woody Species at Risk were found within the project limits.

## 4 FIELDWORK

## 4.1 TREE INVENTORY METHODOLOGY

The field observations were conducted on May 17, 2021 (Canadian Canopy Consulting) within the study limits. The trees within the site were reassessed on November 15, 2023 (WSP Canada Inc.) to ensure that all by-law applicable sized trees within the study area were inventoried as per the following criteria:

- Trees were assessed for species, quantity, DBH, dripline radius, and general health condition;
- Tree locations were identified using the topographic survey and site plan / aerial photography;
- Representative photographs were taken, refer to Appendix B for photos of the assessed trees;
- Trees within the study area were assigned tree inventory numbers (e.g. 1 to 93-G);
- Some of the trees were inventoried as tree groupings (e.g. 50-G), trees within groupings were given a DBH size range rather than individual DBH measurements.
- Trees 1 to 85 were assessed on May 17, 2021. The trees condition and size were reassessed and trees 86-G to 93-G were added to the inventory on November 15, 2023.
- Trees were assessed in accordance with the City of Vaughan By-laws.

## TREE INVENTORY RESULTS

136 total trees were assessed for this report:

- 89 individual trees were labelled numerically (1 to 49, 51 to 69, 71 to 85, and 87 to 91)
- 47 trees were assessed within 5 tree groupings (50-G, 70-G, 86-G, 92-G and 93-G)

Refer to the following table for a breakdown of trees per location noted in Section 2.2.

#### Table 4.1 – Tree Location

LOCATION	TREE NUMBERS	
City (Huntington Rd. ROW)	1, 9 to 10, 29	4
Private (Study Area, 8700 Huntington Rd.)	2 to 8, 11 to 28, 31 to 40, 42 to 93-G	130
Private (Adjacent, 8800 30, 41 Huntington Rd.)		2
Total		136

## **5 DEFINITIONS**

The following are the definitions of the assessment categories utilized in our tree assessment:

#### Table 5.1 – Definitions

TERM / ACRONYM	DEFINITION
Tree Number	This number refers to the number on the on the tree tag or alpha-numeric, alphabetical or tree grouping label listed in Table 1: Tree Inventory and Preservation Charts and labelled on the Tree Preservation Plans (e.g. 142 or A1).
Tree Grouping	A tree grouping is more than one (1) tree located within proximity of other trees with no separation between the canopies.
DBH	This refers to diameter (in centimetres) at breast height and is measured at 1.4 m above the ground for each tree.
Tree Protection Zone	This is the area around a tree that is to be protected through tree protection measures e.g. hoarding. No construction activities are to be undertaken within this zone.
Suppressed	Refers to trees that have their crowns completely overtopped by adjacent trees and received limited to very limited sunlight.
Co-dominant Stem	Stems equal in size and relative importance that make up the overall crown of the tree.
Union	Junction point where two or more stems meet. A 'U' shaped junction indicates a well-formed union. A 'V' shaped junction indicates a weakly formed union, whereas stems grow and increase in girth, weak bark called 'included bark' forms within the junction and stems start to push apart causing vertical cracks and loss of structure.
Compartmentalization	This is a naturally occurring process by which chemical and physical barriers are synthesized to prevent the spread of decay and disease in trees.
Irregular Tree Form	Refers to branches and stems that have formed irregularly often resulting in contorted growth, weak attachments, weakly formed unions and codominant stems. The irregular growth of scaffold (lateral) branches typically leads to damage to other scaffold branches.
Imminently Hazardous Tree	Refers to a destabilized or structurally compromised tree that is in imminent danger of causing damage or injury to life or property.
Injure and Injury	Described as any act that will harm a tree's health, including failure to protect in accordance with standards set by the City's tree protection / preservation policy.
Root Zone	Refers to the subterranean area around the tree measured from the trunk to up to 2 to 3 m beyond the dripline.
Critical Root Zone	The minimum area of the root system necessary to maintain vitality or stability of the tree. Typically, this area extends to the dripline of the tree. The severing of one root can cause approximately 5-20% loss of the root system. A reduction of this area by greater than 30% can pose stability concerns for the tree.

#### Table 5.2 – Tree Assessment Criteria

TERM	DEFINITION
Trunk Integrity (T.I.)	This is an assessment of the trunk for any defects or weaknesses. It is measured on a scale of poor, fair, good.
Canopy Structure (C.S.)	This is an assessment of the scaffold branches, unions and the canopy of the tree. This is measured on a scale of poor, fair, good.
Canopy Vigour (C.V.)	This is an assessment of the health of the tree and assesses the amount of deadwood and live growth in the crown as compared to a 100% healthy tree. The size, colour and amount of foliage are also considered in this category. This is measured on a scale of poor, fair, good.
Good	Tree displays less than 15% deficiency/defect within the given tree assessment criteria (TI, CS, CV).
Fair	Tree displays 15%-40% deficiency/defect within the given tree assessment criteria (TI, CS, CV).
Poor	Tree displays greater than 40% deficiency/defect within the given tree assessment criteria (TI, CS, CV).
Dead	Tree is deceased and displays 100% deficiency/defect within the given tree assessment criteria (TI, CS, CV).

## 6 **DISCUSSION**

This section is a discussion of the retention potential, preservation and / or impacts to trees within the limits of the proposed works at 8700 Huntington Road. City of Vaughan public and private property by-laws and approval from the City's Urban Forestry department will be required for any impacts or removals of City owned trees. Vegetation recommendations, impacts and preservation are detailed in the following sections.

## 6.1 PROPOSED WORKS

The anticipated proposed works include but are not limited to:

- Proposed extension of existing building (existing building to remain);
- Proposed sidewalks and walkways;
- Proposed driveways and at-grade parking;
- Proposed landscape and hardscape improvements;
- Proposed grading improvements.

## 6.2 TREE RECOMMENDATIONS / ASSUMPTIONS

The proposed works have been proposed as part of an SPA detailed design submission prepared by WSP Canada Inc. (WSP). The proposed construction elements have been illustrated on the Tree Preservation Plans.

The following recommendations / assumptions apply to trees that are to be removed, injured (TPZ reduction), preserved, retained, or transplanted.

### 6.2.1 TREE INVENTORY

• Trees within the study area have been assessed and recorded as per the City of Vaughan's guidelines and requirements.

#### 6.2.2 TREE REMOVAL

- Tree removal is based on the degree of excavation / disturbance within the TPZ, considering tree species, size, condition and the amount of critical roots that would be impacted that are vital to sustaining the trees overall health and stability. This amount of impact and above is likely to cause a significant and irreversible decline in health of the tree.
- Where an encroachment into the root zone is less than 1m from the trunk the impact will be deemed significant and would have an adverse impact on the structural roots, affecting stability and health. In this situation the tree will be recommended to be removed (Region of York trees).
- Where an encroachment into the root zone is greater than or equal to five times the trunk's diameter at breast height, the impact will be deemed significant and would have an adverse impact on the structural roots, affecting stability and health. In this situation the tree will be recommended to be removed (City of Vaughan trees).
- This designation also may be applied to trees that are dead, in poor condition or trees that could pose future safety concerns and trees dying because of a disease or insect infestation.

### 6.2.3 TREE PRESERVATION ZONE - ENCROACHMENT / REDUCTION

- Where proposed works such as grading, topsoil and sod will encroach into a Tree Protection Zone (TPZ), a reduction will be required;
- Where reductions are moderate to significant, mitigative measures may be recommended to minimize damage to roots and canopy. Measures may consist of: root-exploratory excavation, root-sensitive excavation and root pruning, stem protection, root zone compaction protection and canopy clearance pruning,.
- The extent of the encroachment has been illustrated on the Tree Preservation Plans.

### 6.2.4 TREE PRESERVATION

- Preservation of trees is considered where an encroachment, excavation or disturbance into the TPZ is expected to be minor or nil and that tree health and stability will not be adversely impacted;
- The implementation of mitigation measures will reduce potential impacts to the tree therefore allowing for the tree to be preserved.

### 6.2.5 TREE RETENTION

• Proposed works will occur beyond the TPZ and the dripline with no impacts to the tree. Trees can be retained and do not require tree protection hoarding.

#### 6.2.6 YORK REGION AND CITY OF VAUGHAN URBAN FORESTRY BY-LAWS

• Existing trees are protected under three Urban Forestry By-laws. Trees per By-law are listed below in the following table.

LOCATION	TREE NUMBERS	TOTAL
Private (Tree Protection By-law 052- 2018)	2 to 8, 11 to 19, 21 to 24, 28, 30, 32 to 49, 52 to 69, 72 to 78, 82 to 85, 89	73
City (Tree Protection By-law 052-2018)	1, 9 to 10, 29	4
By-law Not Applicable (trees <20cm DBH)	20, 25 to 27, 31, 50-G, 70-G, 79 to 81, 86-G, 87 to 88, 90 to 91, 92-G, 93-G	59
Total	·	136

#### Table 6.1 – Tree By-Law Table

### 6.3 TREE REMOVALS

Impacts to trees will occur where trees are located within the limits of excavation. Excavation and installation of the cycle track and sidewalks, grading and concrete paving for bus pads will significantly affect the critical root zone of trees.

- Where an encroachment occurs within 1m of the trunk of the tree, tree removal is recommended. Encroachments include the limit of grading, silt fence, retaining walls, culvert work and road construction;
- Trees <10cm DBH on Region property are exempted from approvals and compensation requirements

Refer to tables 6.2 and 6.3 which detail removals by by-law relevance, tree number, species, size, reason for removal and quantity.

By-law	Tree Numbers	Quantity	Exempt from Compensation	Subtotal
Private (Tree Protection By-law 052-2018)	2 to 8, 12 to 14, 17 to 19, 21 to 24, 32 to 40, 42 to 43, 47 to 49, 51 to 53, 55 to 61 to 63, 65, 67 to 69, 71 to 78, 82 to 85, 89	58	1 (Tree 78, dead tree)	57
City (Tree Protection By-law 052-2018)	1, 9 to 10	3	0	3
By-law Not Applicable	50-G, 70-G, 79 to 81, 86-G, 87 to 88, 93-G	30	30 (Trees do not meet size requirement for compensation)	0
Total		91	31	60

#### Table 6.2 – Tree Removal Table

### 6.4 TREE INJURY

Proposed works, specifically excavation for construction, will result in tree injury and require a reduction of TPZs. This work will have the potential to damage roots and/or branches through excavation and mobilization of equipment.

• Refer to the following table which details the severity of injuries, likelihood of survival and mitigation measures and summarizes the number of injuries. Refer to Sections 7 for mitigative measures.

Tree #	Species (Common Name)	Size (DBH)	Injury	Root impact within TPZ	Mitigation and Survival
11	Austrian Pine	34	Excavation within TPZ	±0.4m encroachment into TPZ	Root pruning only. Only minor encroachment into TPZ on north side of tree.
26	Buckthorn	17	Excavation within TPZ	±0.5m encroachment into TPZ	Root pruning only. Only minor encroachment into TPZ on south side of tree.

#### Table 6.3 – Tree Injury and Mitigation Table

Tree #	Species (Common Name)	Size (DBH)	Injury	Root impact within TPZ	Mitigation and Survival	
27	Manitoba Maple	19	Excavation within TPZ	±1.2m encroachment into TPZ	Root pruning only. Only minor encroachment into TPZ on south side of tree.	
44	Crab Apple	42, 36	Excavation within TPZ	±2.5m encroachment into TPZ	Excavate north, east and south edge of tree using air-spade / hydro-vacuum excavation prior to mobilization. Exposed roots are to be pruned at the proposed limit of excavation required for the open cut trench to install the proposed curb. This will allow for pruned roots ends to sprout new roots upon completion of construction and site has been restored. See Section 7.2. Tree protection fencing to be deployed in 2	
					stages, refer to the Tree Preservation Plan (TP2) for the alignment of each stage. The first stage is to be deployed prior to rough grading works. The second stage is to be deployed prior to fine grading and construction of planter curbs.	
45	Colorado Spruce	30	Excavation within TPZ	±0.8m encroachment into TPZ	<b>Excavate north and east edge of tree using</b> <b>air-spade / hydro-vacuum excavation</b> prior to mobilization. Exposed roots are to be pruned at the proposed limit of excavation required for the open cut trench to install the proposed curb. This will allow for pruned roots ends to sprout new roots upon completion of construction and site has been restored. See Section 7.2.	
54	Norway Maple	67	Excavation within TPZ	±1.7m encroachment into TPZ	Excavate around edge of tree preservation fence using air-spade / hydro-vacuum excavation prior to mobilization. Exposed roots are to be pruned at the proposed limit of excavation required for the open cut trench to install the proposed curb. This will allow for pruned roots ends to sprout new roots upon completion of construction and site has been restored. See Section 7.2.	
					stages, refer to the Tree Preservation Plan (TP2) for the alignment of each stage. The first stage is to be deployed prior to rough grading works. The second stage is to be deployed prior to fine grading and construction of planter curbs.	
64	Austrian Pine	36	Excavation within TPZ	±1.2m encroachment into TPZ	See note for Tree 54 – single deployment of tree protection fence only.	

## 6.5 TREE PRESERVATION

Trees that are well beyond construction limits with no encroachment into the tree protection zone can be retained. These trees will not require tree protection hoarding. Trees where construction limits will either encroach into the tree protection zone or will be within close proximity of the TPZ and / or dripline, will require tree protection hoarding. The following Tables provide details on tree protection for City of Vaughan trees:

TRUNK DIAMETER	MINIMUM PROTECTION DISTANCES REQUIRED (PUBLIC AND PRIVATE TREES)	MINIMUM PROTECTION DISTANCES REQUIRED TREES IN NATURALIZED AREAS
<10cm	1.2m	The dripline or 1.2m
10 to 29cm	1.8m	The dripline or 3.6m
30 to 40cm	2.4m	The dripline or 4.8m
41 to 50cm	3.0m	The dripline or 6.0m
51 to 60cm	3.6m	The dripline or 7.2m
61 to 70cm	4.2m	The dripline or 8.4m
71 to 80cm	4.8m	The dripline or 9.6m
81 to 90cm	5.4m	The dripline or 10.8m
91 to 100cm	6.0m	The dripline or 12.0m
>100cm	6 cm protection for each 1cm of diameter	12cm protection for each 1cm of diameter or the dripline

Table 6.4 – Minimun	Tree Protection Zone	(TPZ) Determination -	- City of Vaughan
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\*City of Vaughan (2018). Tree Protection Protocol. Table 2: Minimum Tree Protection Zone Determination. City of Vaughan, Parks, Forestry and Recreation.

#### Table 6.5 – Tree Preservation Table

CATEGORY BY-LAW		TREE NUMBERS	MIN. TPZ	QUANTITY
Retain	City	29	3.6	1
	Private	30, 41	4.2	2
Preserve	City		2.4	0
	Private	13, 15, 20, 25 to 28, 31, 46, 66, 91, 92-G	1.8	33
		11, 45, 64, 90	2.4	4
		16	3.0	1
		44	3.6	1
		54	4.2	1
Total		43		

#### 6.5.1 HOARDING

Tree protective hoarding is to be installed for trees listed above under 'Preserve' and per the minimum TPZ distance.

City of Vaughan - Hoarding Notes

- Tree Protection hoarding is to be installed to minimize the impact on the trees (over 20cm at base) to be preserved prior construction and is to remain until the construction is completed (applicable to Private and Public trees) as per By-Law (052-2018);
- No construction activity, grade changes, surface treatment or excavations of any kind is permitted within the TPZ;
- Tree protection and preservation methods must be followed according to City of Vaughan By-law (052-2018);
- Tree protection shall be installed as outlined in the arborist report prior to the commencement of any construction/demolition activities;
- Hoarding inspection shall be conducted by forestry staff prior to any construction/demolition activities;
- The tree protection barriers shall be installed at the approved location and shall be maintained in their original location and condition until all construction activities within the site have ceased and all equipment is removed from the site. No equipment or material storage, flushing of fuel or washing of equipment is allowed within the TPZ. Any works within the TPZ area to be performed or supervised by a Certified Arborist;
- Hoarding to be installed per City of Vaughan details ULA 110A and ULA 110B and per By-law (052-2018):
  - Light duty tree hoarding (ULA 110B snow fence);

## 6.6 TREE PRUNING

To facilitate the proposed works some selective pruning will be necessary, specifically where work will affect low hanging branches that overhang the work area. Trees identified for pruning have a canopy that extends over the work area and branches are at a height that would interfere with construction equipment and machinery during construction. Pruning is to be undertaken by a Certified Arborist using proper arboricultural techniques and guidelines in this report prior to the start of construction. This includes trees identified as 'injured' and 'tree protection encroachments' (Sections 6.4 and 6.5).

Pruning will be dependent on the location of the existing tree, canopy size and the equipment used during construction. Tree pruning is based on the location of proposed work, sizing of equipment, tree location and dripline.

- Based on the criteria above, pruning is recommended for **0** trees;
- Pruning cannot be assessed for tree groupings as specific locations are unknown;
- Pruning may be needed for the retaining wall but will need to be assessed at a later design stage or on site.

## 7 MITIGATION MEASURES

Mitigation measures are recommended to reduce the amount of impact within the root zone of trees. These measures may include:

- Any roots exposed during grading are to be pruned using good arboricultural practices and per the guidelines in this report;
- To minimize damage to roots it is recommended that excavators scrape soil within the same direction of the roots and not across. Any roots exposed are too be pruned neatly and cleanly.
- Areas where excavation, grading and construction have compacted soil within a reduced TPZ, at the completion of construction, scarify soil to a depth of 100mm. Restore disturbed areas and apply the following methods below;
  - Water trees periodically during construction;
  - After construction it is recommended that a 75mm depth layer of mulch be placed in a 2m radius around the trunks of these trees.

## 7.1 GENERAL MITIGATION MEASURES

- Where mitigative measures are not feasible and cannot be implemented and excavation must be done mechanically, root and tree damage is to be minimized through light duty machinery i.e. bobcat, that can or excavate soil the same direction of the roots and not across and under the supervision of a qualified Arborist. Any roots exposed are too be pruned neatly and cleanly.
- Areas where excavation, grading and construction have compacted soil within a reduced TPZ, at the completion of construction, scarify soil to a depth of 100mm. Restore disturbed areas and apply the following methods below:
  - Water trees periodically during construction;
  - After construction apply a 75mm deep layer of mulch in a 2m radius around the tree trunks.
- The tree protection fencing will be maintained until all construction is completed, soils are stabilized, and all the equipment has been removed from the site.
- Prior to the commencement of tree removals, all limits of the locations of the tree preservation fencing must be clearly staked in the field, installed per approved plans, and approved by the contract administrator. All trees within the TPZ must be left standing. The tree removals must be coordinated in accordance and compliance with the Migratory Bird Convention Act (MBCA).
- All removals must be felled into the work area to ensure that damage does not occur to the trees within the TPZ.
- Upon completion of the tree removals, all felled trees are to be removed from the site, and all should be brush chipped. All brush, roots and wood debris must be shredded into pieces that are smaller than 25 mm in size to ensure that any insect pests that could be present within the wood are destroyed.
- The Canadian Food and Inspection Agency (CFIA) has issued a prohibition of movement where the Emerald Ash Borer (EAB) has been confirmed. EAB has been found within the City of Mississauga and it is within the EAB Regulated Area. This directive pertains to the movement of regulated materials (including but not limited to ash wood or bark and ash wood chips or bark chips) from a Regulated Area. EAB regulated materials moving out of a Regulated Area must be accompanied by a Movement Certificate issued by the CFIA. Refer to the EAB Regulated Areas of Canada found on the CFIA website.

- Tree protection fencing must be constructed and installed as per the details on the approved Tree Preservation Plan. Upon installation of the fencing, the contractor will contact the contract administrator to review and approve the fencing and its location prior to commencement of any grading work.
- Areas within the TPZ are not to be used for any type of storage (e.g. storage of debris, construction material, surplus soils, and construction equipment). No trenching for underground services shall be located within the TPZ or dripline of trees designated for preservation within or adjacent to the construction zone.
- No grade changes shall occur within TPZ unless approved as part of this report. If any grade changes may occur, either as a cut or fill situation, the consulting arborist must be notified prior to such work occurring to ensure that all precautions to preserve the tree are made.
- Trees shall not have any rigging cables or hardware of any sort attached or wrapped around them, nor shall any contaminants be dumped within the protective areas. Further, no contaminants shall be dumped or flushed where they may meet the feeder roots of the trees.
- If it is necessary to remove additional limbs or portions of trees after construction has commenced to accommodate the construction, the consulting arborist is to be informed and under their direction the removal is to be executed carefully and in full accordance with arboricultural techniques by a Certified Arborist.

## 7.2 AIR SPADE / HYDRO VACUUM EXCAVATION

Excavation and grading required to install the cycle track and sidewalks will encroach into the minimum tree protection zones of trees within the study limits. However, air spade / hydro vacuum excavation is only required for **4 trees (44 to 45, 54 and 64),** as identified in Section 6.4.

There are **4** trees where Air-spade / hydro-vacuum excavation is recommended to minimize the damage to roots from construction activities. The following methods may be applied:

- Install tree protection hoarding as shown on sheets TP-1 to TP-2;
- At the limit of the excavation for the multi-use trails and sidewalks, along the edge of the tree protection fencing, air-spade / hydro-vacuum excavate to a depth of 300mm and at a width of 0.5m to expose roots so they can be pruned;
- Air spade / hydro-vacuum excavation on the outside of tree protection hoarding;
- For trees with multiple stages of preservation fence (Trees 44 and 54), on the second stage of tree preservation stake the limit of the proposed planter curb and excavate along the staked line at a width of 300mm and depth of 500mm.
- Ensure that the pressure used from the air spade / hydro-vacuum is such that it will not damage roots during excavation (500 to 3000 psi for hydro-vaccum and 70 to 90 psi for air spade);
- Prune any roots in this area using good arboricultural practices per the guidelines in this report or under the supervision of a Certified Arborist;
- Backfill with excavated material or better, immediately after completion of air spade excavation to prevent roots from drying out;
- Water trees periodically during construction;
- Apply a layer of 50mm depth mulch in a 2m radius around the trees;
- It is recommended that this measure be applied while a Certified Arborist is present.

## 7.3 ROOT PRUNING PRACTICES

- All approved root pruning is to take place by or under the supervision of an arborist and in accordance good arboricultural practices.
- Pruned root ends shall be neatly and squarely trimmed, and the area shall be backfilled with clean native fill as soon as possible to prevent desiccation and promote root growth.
- The exposed roots shall not be allowed to dry out and an appropriate watering schedule shall be undertaken (e.g. water bi-weekly to field capacity between **June 1 and September 15** so that the roots maintain optimum soil moisture during construction and backfilling operations.
- Backfilling shall occur immediately and shall be with clean uncontaminated topsoil from an approved source. It is recommended that texture of backfill be coarser than existing soils, and that backfill comes into clean contact with existing soils (i.e. remove air pockets, sod, etc.).
- Pruning to be conducted by an ISA Certified Arborist.

## 7.4 BRANCH PRUNING PRACTICES

- All limbs damaged or broken during construction should be pruned cleanly, utilizing by-pass secateurs in accordance with approved horticultural practices. Should there be a potential risk of transfer of disease from infected to non-infected trees, tools must be disinfected after pruning each tree by dipping in methyl hydrate. This practice is particularly important during periods of tree stress and when pruning many members of the same genera, within which a disease could be spread quickly (i.e., Verticillium Wilt on Maples or Fireblight on genera of the Rosaceae family).
- All pruning cuts should be made to a growing point such as a bud, twig or branch, cut just outside the branch collar (the swollen area at the base of the branch that sometimes has a bark ridge), and perpendicular to the branch being pruned rather than as close to the trunk as possible. This minimizes the site of the wound. No stubs should be left. Poor cut location, poor cut angle and torn cuts are not acceptable.
- Extensive pruning is best completed before plants break dormancy. Pruning should be limited to the removal of no more than 25% of the total bud and leaf bearing branches. Pruning should include the careful removal of:
  - Deadwood;
  - o branches that are weak, damaged, diseased and those which will interfere with construction activity;
  - o secondary leaders of conifers;
  - trunk and root suckers;
  - o trunk waterspouts;
  - o tight V-shaped or weak crotches (included unions).
- Any branches that overhang the work area and require pruning are to be pruned using good arboricultural practices utilizing by-pass secateurs in accordance with approved horticultural practices and/or American National Standard (ANSI) A300 (Part 1) 2008 Pruning.
- The Contractor must report immediately any damage to trees such as broken limbs, damage to roots, or wounds to the main trunk or stem systems so that the damage can be assessed immediately.
- Pruning to be conducted by an ISA Certified Arborist.
## 8 TREE REMOVALS / COMPENSATION

To facilitate the proposed works a minimal amount of tree removal will be required. Refer to the charts below that detail removals and proposed compensation.

#### **8.1 COMPENSATION NOTES**

- City of Vaughan Private trees are subject to the City of Vaughan's Private tree compensation protocol;
- City of Vaughan Street trees are subject to City tree compensation protocol (1:1 replacement ratio).

#### 8.1.1 CITY OF VAUGHAN COMPENSATION NOTES

Replacement trees are based on the following criteria:

- 1:1 replacement ratio (Recommended) for City trees;
- City of Vaughan Replacement trees:
  - 1 tree for each tree that is 20 to 30cm DBH;
  - 2 trees for each tree that is 31 to 40cm DBH;
  - 3 trees for each tree that is 41 to 50cm DBH:
  - 4 trees for each tree that is 50cm or greater
- Tree ID's subject to compensation on City property:
  - TG11A, T23, TG23A

By-law	Removal (<20cm)	Removal (20-30cm)	Removals (31-40cm)	Removals (41-50cm)	Removals (51+cm)	Exempt	Subtotal	Replacement Ratio	Replacement Trees Required			
City	-	1	2	-	-	0	3	1:1	3			
Private	30	-	-	-	-	0	30	1:0	0			
		33	-	-	-	1	32	1:1	32			
		-	12	-	-	0	12	2:1	24			
		-	-	9	-	0	9	3:1	27			
		-	-	-	6	0	6	4:1	24			
Total	Total											

#### Table 9.1 – Removal and Compensation Table

#### 8.2 OVERALL COMPENSATION NOTES

• City compensation is **3** trees;

• Compensation for Private trees is **107** trees. It is assumed at this point trees will be replacement trees will be planted on site.

### 9 CONCLUSION

Much of the vegetation found ranges from young to semi-mature and is characterized by a mixture of naturally occurring and planted trees, both native and non-native. Trees were inventoried within and immediately adjacent to the study area.

Impacts to trees in proximity to the proposed works will be significant and will require the removal of 91 trees. Works will also encroach within the TPZs of seven (7) trees. Given the implementation of the mitigation measures enclosed in this report, including protection of trees beyond the construction and grading limits, significant impacts to trees to be preserved are not anticipated.

Care should be taken to protect trees to be retained with tree protection fencing as illustrated on the attached plans. Tree protection fencing shall be erected prior to the start of construction and demolition and maintained for the duration of the work. Priority should be given to protecting vegetation that will not be impacted by grading and construction as this vegetation along property lines provides a visual barrier, shade, noise and wind buffer between properties.

## 10 PRESERVATION AND PROTECTION RECOMMENDATIONS

The survival rates for trees, which are in proximity to construction, are dependent on the resultant changes to a variety of environmental and anthropogenic factors. These construction activities bring about changes to a variety of environmental features such as the existing microclimate that includes winds, air temperature, soil moisture, amount of available sunlight, soil quality, and the level of the water table. Increased human activities may also damage the structure and/or physiological activities of the trees. The full effects of any damage that occurs may not appear until several years after its occurrence. Thus, it is essential that both vegetative clearing and preservation methods follow the guidelines below and those generally accepted as keeping with good arboricultural and construction practices. The guidelines are subject to adjustments deemed reasonable and appropriate considering the proximity and number of trees involved and the site-specific servicing requirements.

#### **10.1 CONSTRUCTION IMPLEMENTATION**

#### Pre-Construction:

- A site meeting will be held with Contractor and Contract Administrator to review the clearing limits and confirm the installation location for the temporary tree protection fence;
- Tree removal along the tree retention limit must be carefully felled away from the tree retention limit and into the construction / development area. Stumps adjacent to trees identified for retention are to be flush cut and not chipped or grubbed to avoid impacts to retained trees.

#### Construction:

- Periodic inspections will be undertaken by the site supervisor to ensure that the mitigation measures are being maintained during construction;
- The temporary protection fence is to be maintained throughout the entire construction period. No equipment storage, flushing of fuel, washing of construction equipment, and storage of spoil or construction debris is to occur behind the temporary protection fence;
- To avoid root zone impacts on trees to be retained, excavated material will not be stored against the tree protection barrier;

#### Post-Construction:

• The temporary protection fence will be removed last after all the construction has ended, soils are stabilized, and all the equipment has been removed.

#### **10.2 MIGRATORY BIRD PROTECTION**

- To reduce the possibility of contravention of the MBCA, vegetation removal should be scheduled to occur outside of the overall bird nesting season of **March 31 to August 31**. Some birds may nest before and after this peak bird nesting season due to annual seasonal fluctuations. If a nest of a migratory bird is found within the construction area outside of this nesting period, it still receives protection.
- If vegetation must be removed during the overall bird nesting season:

- Nest and nesting activity searches will be conducted in areas defined as simple habitat (i.e., the CUM1-1 community) by a qualified Biologist no more than 24 hours prior to vegetation removal. Nesting activity will be documented when it consists of confirmed breeding evidence, as defined by OBBA criteria (Cadman, 2009).
- If an active nest or confirmed nesting activity of a migratory bird is observed in simple habitat, regardless of the timing window recommended, a species-specific buffer area following ECCC guidelines will be applied to the nest or confirmed nesting activity wherein no vegetation removal will be permitted until the young have fledged from the nest. The radius of the buffer will depend on species, level of disturbance and landscape context (ECCC 2018), which will be confirmed by a qualified Biologist, but will protect a minimum of 10 m around the nest or nesting activity.
- The results of all nest searches will be documented at the end of each survey day in a Technical Memorandum, including information on the searcher, date, time conducted, weather conditions, habitat type, vegetation community type, observations of breeding activity, observations of confirmed nests including co-ordinates, and, if required, the buffer applied to identified breeding/nesting sites.
- If vegetation removal must occur in complex habitats within the above-listed timing windows and absolutely cannot be avoided, the same Best Management Practices (BMPs) such as nest and nesting activity searches described above will be undertaken.

## **11 LITERATURE CITED**

- Cadman, M.D., D.A. Sutherland, G.G. Beck, D. Lepage and A.R. Couturier (eds). 2007. Atlas of the Breeding Birds of Ontario 2001-2005. Bird Studies Canada, Environment Canada, Ontario field Ornithologists, Ontario Ministry of Natural Resources, and Ontario Nature, Toronto, xxii + 706pp.
- Canadian Food Inspection Agency. January 14, 2021 (5<sup>th</sup> Revision). D-03-08: Phytosanitary Requirements to Prevent the Introduction Into and Spread Within Canada of the Emerald Ash Borer, Agrilus planipennis (Fairmaire).
- Canadian Food Inspection Agency. Areas Regulated for the Emerald Ash Borer. Mapping. Date Modified: 2021-03-16. <u>https://www.inspection.gc.ca/plant-health/plant-pests-invasive-species/directives/forest-products/d-03-08/areas-regulated/eng/1347625322705/1347625453892</u>
- City of Vaughan. April 11, 2008. Public and Private Tree Protection By-law No. 052-2018.
- Conservation Authorities Act, R.S.O. 1990, c. C.27. O. Reg. 166/06: Toronto and Region Conservation Authority: Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses.
- Environment and Climate Change Canada. Guidelines to Reduce Risk to Migratory Birds. Last modified on October 30, 2018.
- Government of Canada. 1994. Migratory Birds Convention Act, S.C. 1994, c. 22.
- Government of Canada. Migratory Birds Regulations. C.R.C., c. 1035. Last amended on May 30, 2018.
- Government of Ontario. 2007. Endangered Species Act, 2007, S.O. 2007, c. 6.
- Lily, Sharon. J. 2010. Arborists' Certification Study Guide. International Society of Arboriculture.
- Tree Care Industry Association. 2008. ANSI-A300-Part 1. Tree Shrub and Other Woody Plant Management Standard Practices. Pruning.
- Toronto and Region Conservation Authority. Regulated Area Search. <u>https://trca.ca/planning-permits/regulated-area-search-v3/</u>
- Toronto and Region Conservation Authority. 2014. The Living City Policies. For Planning and Development in the Watersheds of the Toronto and Region Conservation Authority. November 28, 2014.

## **12 LIMITATIONS OF ASSESSMENT**

- It is our policy to attach the following clause regarding limitations. We do this to ensure that the client is aware of what is technically and professionally realistic in retaining trees.
- The assessment of the trees presented in this report has been made using accepted arboricultural techniques. These include a visual examination of all the above ground parts of the tree for structural defects, scars, external indications of decay such as fungal fruiting bodies, evidence of attack by insects, discoloured foliage, the condition of any visible root structures, the degree and direction of lean (if any), the general condition of the trees and the surrounding site, and the proximity of property and people. Except where specifically noted, the trees were not cored, probed or climbed and there was no detailed inspection of the root crowns involving excavations.
- Notwithstanding the recommendations and conclusions made in this report, it must be recognized that trees are living organisms, and their health and vigour constantly change over time. They are not immune to changes in site conditions or seasonal variations in the weather conditions.
- While reasonable efforts have been made to ensure that the subject trees are healthy, no guarantees are offered, or implied, that these trees or any of their parts will remain standing. It is both professionally and practically impossible to predict with absolute certainty the behaviour of any single tree or its component parts under all circumstances. Inevitably, a standing tree will always pose some level of risk. Most trees have the potential for failure under adverse weather conditions, and the risk can only be eliminated if the tree is removed.



## A TREE PRESERVATION TABLES

Appendix A: Tree Preservation Tables																	
Project:	oject:       8700 Huntington Road Storage Building       Field Work Completed By: Christina Blakoe (Trees 1-85)       Additional Field Work Completed By: Jeremy Dilks (Trees 86-93-G)																
Date of Field	Date of Field Work:     May 17, 2021     Weather:     23 degrees, sunny     M													Weather: 15 degrees, sunny			
TI - Trunk Integ	grity: assessment of the trunk for any defe	ects or weaknesses.				Good (G)	: tree disp	olays less t	han 15% deficien	ncy/defect within the given tree assessm	nent criteria (TI,CS,CV)		Date of Additional Field Work:         November 15, 2023           Cumulative DBH:         Calculated by sqare rooting the sum of all stems squared. (Example. A tree with 2 stems at 10cm and 8cm = v(10X10)+(8X8) = 13cm)				
CS - Canopy St CV - Canopy vi	ructure: assessment of scaffold branches,	unions and canopy based on the % of deadwood, disea	& live crown		Fair (F): t Poor (P):	ree displa tree displ	ays 15-40% lays greate	6 deficiency/defe	ct within the given tree assessment crite iency/defect within the given tree asses	eria (TI,CS,CV) sment criteria (TLCS,CV)		TPZ: Tree Protection Zone - Determined per	City of Vaughan Standards				
Legend:	Legend: Trees to be Retained Trees to be Removed - Constru							7.0		Minimum TPZ reduction / encroachmer	nt / Mitigation Measures	/ Mitigation Measures					
Tree #	Trees to be Preserved Botanical Name	Common Name	Qtv.	Trees to be Rem DBH (cm)	noved - Health/De	ad TI	cs	cv	Dripline	Tree Location	Applicable By-law	Tree	Recommendation	Comments - Health	Comments - Impact/Mitigation		
					DBH (cm)				Radius (m)			Protection Zone (m)					
8700 Hunti	l ngton Road - Assessed May 17. 2	2021. Tree Size and Condition	l n Reass	l essed Novem	1 1ber 15. 2023	<u> </u>	L				1	1	1	1			
1	Malus sp.	Crab Apple	1	34	N/A	F	Р	F-P	5	City - Huntington Rd. ROW	Tree Protection By-	2.4	Remove - Construction	Codominant at 1m, broken limbs			
2	Pinus nigra	Austrian Pine	1	29	N/A	G	F	Р	4	Private - Subject Site	Tree Protection By- law 052-2018	1.8	Remove - Construction				
3	Pinus nigra	Austrian Pine	1	30	N/A	G	F	Р	4	Private - Subject Site	Tree Protection By-	2.4	Remove - Construction				
4	Pinus nigra	Austrian Pine	1	24	N/A	G	F	Р	3	Private - Subject Site	Tree Protection By- law 052-2018	1.8	Remove - Construction				
5	Pinus nigra	Austrian Pine	1	20	N/A	G	F	Р	4	Private - Subject Site	Tree Protection By- law 052-2018	1.8	Remove - Construction				
6	Pinus nigra	Austrian Pine	1	32	N/A	G	F	Р	4	Private - Subject Site	Tree Protection By- law 052-2018	2.4	Remove - Construction				
7	Acer platanoides	Norway Maple	1	28	N/A	G	F	F	6	Private - Subject Site	Tree Protection By- law 052-2018	1.8	Remove - Construction	Foliage chlorotic, root flare present			
8	Acer platanoides	Norway Maple	1	31	N/A	F	F	F	6	Private - Subject Site	Tree Protection By-	2.4	Remove - Construction	Some girdling roots at base			
9	Malus sp.	Crab Apple	1	27	N/A	F	F	F	6	City - Huntington Rd. ROW	Tree Protection By-	1.8	Remove - Construction				
10	Malus sp.	Crab Apple	1	33	N/A	F	F	F	5	City - Huntington Rd. ROW	Tree Protection By-	2.4	Remove - Construction	Cavity mid trunk			
11	Pinus nigra	Austrian Pine	1	34	N/A	F	F	F	5	Private - Subject Site	Tree Protection By- law 052-2018	2.4	Injure - TPZ Encroachment	Slight lean east	Root pruning		
12	Pinus nigra	Austrian Pine	1	35	N/A	F	F	F	5	Private - Subject Site	Tree Protection By- law 052-2018	2.4	Remove - Construction	Root flare present			
13	Pinus nigra	Austrian Pine	1	28	N/A	F	F	F	4	Private - Subject Site	Tree Protection By- law 052-2018	1.8	Remove - Construction	Root flare present			
14	Picea pungens	Colorado Spruce	1	30	N/A	F	F	F	4	Private - Subject Site	Tree Protection By- law 052-2018	2.4	Remove - Construction	Curve in trunk			
15	Picea pungens	Colorado Spruce	1	27	N/A	F	F	F	4	Private - Subject Site	Tree Protection By- law 052-2018	1.8	Preserve	Girdling root			
16	Acer platanoides	Norway Maple	1	49	N/A	F	F	F	9	Private - Subject Site	Tree Protection By- law 052-2018	3.0	Preserve	Codominant at 2m, girdling root, poor canopy structure			
17	Acer rubrum	Red Maple	1	28	N/A	F	Р	Р	6	Private - Subject Site	Tree Protection By- law 052-2018	1.8	Remove - Construction	Dead top, broken limbs			
18	Acer rubrum	Red Maple	1	30	N/A	G	F	F	7	Private - Subject Site	Tree Protection By- law 052-2018	2.4	Remove - Construction				
19	Salix babylonica	Weeping Willow	1	79	N/A	F	F	F	13	Private - Subject Site	Tree Protection By- law 052-2018	4.8	Remove - Construction	Some dead tips, poor structure			
20	Malus sp.	Crab Apple	1	9, 9	13	F	F	F	5	Private - Subject Site	N/A	1.8	Preserve	Codominant at base, epicormic shoots present			
21	Pinus nigra	Austrian Pine	1	27	N/A	G	F	Р	4	Private - Subject Site	Tree Protection By- law 052-2018	1.8	Remove - Construction	Slight lean, deadwood approximately 80%			
22	Pinus nigra	Austrian Pine	1	28	N/A	G	F	F	5	Private - Subject Site	Tree Protection By- law 052-2018	1.8	Remove - Construction	Approximately 30% interior deadwood			
23	Pinus nigra	Austrian Pine	1	38	N/A	G	F	F	5	Private - Subject Site	Tree Protection By- law 052-2018	2.4	Remove - Construction				
24	Salix babylonica	Weeping Willow	1	90	N/A	G	F	F	13	Private - Subject Site	Tree Protection By- law 052-2018	5.4	Remove - Construction	Dead branch tips, stubs from previous limb failures			
25	Rhamnus cathartica	Buckthorn	1	17	N/A	G	G	F	3	Private - Subject Site	N/A	1.8	Preserve				
26	Rhamnus cathartica	Buckthorn	1	17	N/A	G	G	F	3	Private - Subject Site	N/A	1.8	Injure - TPZ Encroachment	Epicormic shoots present	Root pruning		
27	Acer negundo	Manitoba Maple	1	19	N/A	G	F	F	4	Private - Subject Site	N/A	1.8	Injure - TPZ Encroachment	Epicormic shoots on trunk	Root pruning		
28	Acer negundo	Manitoba Maple	1	25	N/A	G	F	F	5	Private - Subject Site	Tree Protection By- law 052-2018	1.8	Preserve	Epicormic shoots on trunk and base			
29	Salix babylonica	Weeping Willow	1	60	N/A	G	F	G	6	City - Huntington Rd. ROW	Tree Protection By- law 052-2018	3.6	Retain				
30	Salix babylonica	Weeping Willow	1	70	N/A	G	F	F	8	Private - Adjacent Site (8800 Huntington Road)	Tree Protection By- law 052-2018	4.2	Retain	Pruned back from hydro, epicormic shoots on trunk			
31	Malus sp.	Crab Apple	1	14, 9, 8, 6	19	G	G	F	4	Private - Subject Site	N/A	1.8	Preserve				
32	Acer rubrum	Red Maple	1	33	N/A	G	F	F	5	Private - Subject Site	Tree Protection By- law 052-2018	2.4	Remove - Construction	Some lower dead limbs and dead branch tips			
33	Acer platanoides	Norway Maple	1	46	N/A	G	F	F	6	Private - Subject Site	Tree Protection By- law 052-2018	3.0	Remove - Construction	Poor structure			
34	Acer rubrum	Red Maple	1	23	N/A	F	G	G	5	Private - Subject Site	Tree Protection By- law 052-2018	1.8	Remove - Construction	Cavity mid trunk			
35	Gleditsia triacanthos	Honey Locust	1	36	N/A	G	F	F	7	Private - Subject Site	Tree Protection By- law 052-2018	2.4	Remove - Construction	Canopy leaning from tree 36			

Appendix A: Tree Preservation Tables																
Project:       8700 Huntington Road Storage Building       Field Work Completed By: Christina Blakoe (Trees 1-85)       Additional Field Work Completed By: Jeremy Dilks (Trees 86-93-G)																
Date of Field	d Work: May 17, 2021					Weathe	er:		23 degrees, s	unny			Weather: 15 degrees, sunny			
TI - Trunk Inte	n Assessment Criteria: grity: assessment of the trunk for any defe	cts or weaknesses.				Good (G)	: tree disp	olays less t	than 15% deficie	ncy/defect within the given tree assessn	nent criteria (TI,CS,CV)		Date of Additional Field Work:       November 15, 2023         Cumulative DBH: Calculated by sqare rooting the sum of all stems squared. (Example. A tree with 2 stems at 10cm and 8cm = v(10X10)+(8X8) = 13cm)			
CS - Canopy St	tructure: assessment of scaffold branches,	unions and canopy		0.11		Fair (F): t	ree displa	iys 15-40%	6 deficiency/defe	ect within the given tree assessment crit	eria (TI,CS,CV)		TPZ: Tree Protection Zone - Determined per	City of Vaughan Standards		
Legend:																
	Trees to be Retained			Trees to be Rem	noved - Constructi	on				Minimum TPZ reduction / encroachme	nt / Mitigation Measures					
Tree #	Botanical Name	Common Name	Qty.	DBH (cm)	Cumulative	ТІ	CS	cv	Dripline	Tree Location	Applicable By-law	Tree	Recommendation	Comments - Health	Comments - Impact/Mitigation	
					DBH (cm)				Radius (m)			Protection	n			
												Zone (m)				
36	Gleditsia triacanthos	Honey Locust	1	25	N/A	G	F	F	6	Private - Subject Site	Tree Protection By-	1.8	Remove - Construction	Canopy starts at approx 7m		
											law 052-2018					
37	Gleditsia triacanthos	Honey Locust	1	33	N/A	G	F	F	7	Private - Subject Site	law 052-2018	2.4	Remove - Construction	Two broken main limbs in upper canopy		
38	Gleditsia triacanthos	Honey Locust	1	26	N/A	G	F	F	6	Private - Subject Site	Tree Protection By-	1.8	Remove - Construction			
39	Gleditsia triacanthos	Honey Locust	1	21. 15	26	G	F	F	5	Private - Subject Site	Tree Protection By-	1.8	Remove - Construction	Codominant at base		
				, -				_			law 052-2018 Tree Protection By-					
40	Gleditsia triacanthos	Honey Locust	1	40	N/A	G	F	F	8	Private - Subject Site	law 052-2018	2.4	Remove - Construction	Canopy leaning from tree 39		
41	Salix babylonica	Weeping Willow	1	65	N/A	G	F	F	9	Huntington Road)	law 052-2018	4.2	Retain	Some dead tips		
42	Fraxinus americana	White Ash	1	41	N/A	F	F	F	8	Private - Subject Site	Tree Protection By-	3.0	Remove - Construction			
	• • • •						-				Tree Protection By-					
43	Acer platanoides	Norway Maple	1	29	N/A	G	F	F	6	Private - Subject Site	law 052-2018	1.8	Remove - Construction	Poor structure	Index records on the succession Trees	
															hydro-vaccum OR airspade excavation. Tree protection fencing to be deployed in 2 stages.	
11	Malucan	Crah Appla	1	12.26					7	Drivata Subject Site	Tree Protection By-	26	Injura TD7 Encroachment	Large cavities in both leaders	First stage to be deployed prior to rough	
44	wulus sp.		1	42, 50	55			G		Private - Subject Site	law 052-2018	5.0			grading works, second stage to be deployed	
															prior to fine grading and construction of	
45	Picea pungens	Colorado Spruce	1	30	N/A	G	G	F	5	Private - Subject Site	Tree Protection By-	2.4	Injure - TPZ Encroachment	Root flare present	Hydro-vaccum OR airspade excavation	
46	Picea nunaens	Colorado Spruce	1	23	Ν/Δ	G	G	F	Δ	Private - Subject Site	Tree Protection By-	1.8	Preserve	Root flare present		
40			-	25	N/A	0	0	-	-		law 052-2018 Tree Protection By-	1.0				
47	Aesculus nippocastanum	European Horsechestnut	1	26	N/A	G	G	G	5	Private - Subject Site	law 052-2018	1.8	Remove - Construction			
48	Salix matsudana	Corkscrew Willow	1	45, 38	59	F	F	F	7	Private - Subject Site	law 052-2018	3.6	Remove - Construction	Weak main union		
49	Salix matsudana	Corkscrew Willow	1	63	N/A	F	F	F	6	Private - Subject Site	Tree Protection By-	4.2	Remove - Construction	Decay present at main union		
50-G	Thuja occidentalis	White Cedar (group)	9	6-17	N/A	G	G	G	N/A	Private - Subject Site	N/A	N/A	Remove - Construction	Have been pruned for elevation, 23 stems total		
<b>E</b> 1	Acar platanoidas 'Crimson King'	Crimson King N. Manlo	1	27	N/A				6	Drivato Subject Site	Tree Protection By-	2.4	Romovo Construction	Soome/colit in trunk		
51			-	52					0		law 052-2018 Tree Protection By-	2.4		Codominant at 2m. injuries from previous branch		
52	Salix babylonica	Weeping Willow	1	103	N/A	F	F	G	10	Private - Subject Site	law 052-2018	6.2	Remove - Construction	failures		
53	Acer negundo	Manitoba Maple	1	46	N/A	F	F	F	7	Private - Subject Site	Tree Protection By- law 052-2018	3.0	Remove - Construction	Leaning over patio, two cavities in trunk, poor		
															Hydro-vaccum OR airspade excavation. Tree	
											Tree Protection By			Soom at main union with son, codominant at 1 Em	protection fencing to be deployed in 2 stages.	
54	Acer platanoides	Norway Maple	1	67	N/A	F	F	G	10	Private - Subject Site	law 052-2018	4.2	Injure - TPZ Encroachment	root flare present, some girdling roots	grading works, second stage to be deployed	
															prior to fine grading and construction of	
							-				Tree Protection By-				planter curbs.	
55	Picea pungens	Colorado Spruce	1	41	N/A	G	F	G	5	Private - Subject Site	law 052-2018	3.0	Remove - Construction	Concernment upper canopy, canopy weighted east		
56	Acer platanoides 'Crimson King'	Crimson King N. Maple	1	45	N/A	F	F	G	6	Private - Subject Site	law 052-2018	3.0	Remove - Construction	decay, cavity with conk on main leader		
57	Acer negundo	Manitoba Maple	1	50	N/A	F	F	G	10	Private - Subject Site	Tree Protection By-	3.0	Remove - Construction	Severe lean, epicormic shoots at base		
58	Aesculus hippocastanum	European Horsechestnut	1	71	N/A	G	F	G	9	Private - Subject Site	Tree Protection By-	4.8	Remove - Construction	Pruned for building clearance		
50	Eraviaus amoricana	White Ach	1		N/A	6	-		0	Drivoto Subject Cite	law 052-2018 Tree Protection By-	20	Pomovo Construction	Canony weighted over drive way		
			1	44	N/A	G	F	F	9		law 052-2018	5.0				
60	Acer platanoides 'Crimson King'	Crimson King N. Maple	1	27	N/A	F	F	F	5	Private - Subject Site	law 052-2018	1.8	Remove - Construction	Curve in trunk		
61	Picea pungens	Colorado Spruce	1	48	N/A	F	F	Р	6	Private - Subject Site	law 052-2018	3.0	Remove - Construction	deadwood		
62	Acer negundo	Manitoba Maple	1	25	N/A	F	Р	F	5	Private - Subject Site	Tree Protection By- law 052-2018	1.8	Remove - Construction	Leaning over driveway		
63	Acer negundo	Manitoba Maple	1	25	N/A	F	F	F	5	Private - Subject Site	Tree Protection By-	1.8	Remove - Construction	Broken top		
64	Pinus niara	Austrian Pine	1	36	N/A	G	F	G	6	Private - Subject Site	Tree Protection By-	24	Injure - TP7 Encroachment		Hydro-vaccum OR airspade excavation	
65	Dipus pigra	Austrian Ding	1	22		r.	-	C	r r	Driveto Subject Site	law 052-2018 Tree Protection By-	2.4	Pomovo Construction	Poor canony structure		
05			1	32	N/A	F	F	G	5	Private - Subject Site	law 052-2018	2.4	Remove - Construction			
66	Acer platanoides	Norway Maple	1	29	N/A	G	F	G	6	Private - Subject Site	law 052-2018	1.8	Preserve			

	Appendix A: Tree Preservation Tables															
Project:	roject: 8700 Huntington Road Storage Building Field Work Completed By: Christina Blakoe (Trees 1-85)												Additional Field Work Completed By: Jeremy Dilks (Trees 86-93-G)			
Date of Field	Work: May 17, 2021					Weathe	r:		23 degrees, su	inny			Weather: 15 degrees, sunny			
Tree Condition	n Assessment Criteria:		Tree Con	dition:						Date of Additional Field Work: November 15, 2023						
TI - Trunk Integ	grity: assessment of the trunk for any defe	ects or weaknesses.				Good (G)	: tree dis	olays less	than 15% deficien	ncy/defect within the given tree assessm	nent criteria (TI,CS,CV)		Cumulative DBH: Calculated by sqare rootin	g the sum of all stems squared. (Example. A tree with 2 stems at 10c	m and 8cm = v(10X10)+(8X8) = 13cm)	
CS - Canopy St	CS - Canopy Structure: assessment of scaffold branches, unions and canopy							ys 15-40%	% deficiency/defe	ct within the given tree assessment crite	eria (TI,CS,CV)		TPZ: Tree Protection Zone - Determined per	City of Vaughan Standards		
CV - Canopy vi	gour: assessment of the health of the tree	e, based on the % of deadwood, disea	ase, pests	s & live crown		Poor (P):	tree disp	ays great	er than 40% defic	iency/defect within the given tree asses	sment criteria (TI,CS,CV)					
<u>Legena:</u>	Trees to be Retained Trees to be Removed - Con									Minimum TPZ reduction / encroachme	nt / Mitigation Measures					
Tree #	Trees to be Preserved	Common Nama		Trees to be Rem	noved - Health/De		~		Drinling	Tree Location	Annlinghla Dy Jaw	Tree	Decommendation	Commente Health	Comments Impact/Mitigation	
free #	botanicai Name	Common Name			DBH (cm)		6		Radius (m)		Аррисаріе Бу-іам	Protection Zone (m)	Recommendation	Comments - Health	Comments - impact/imitigation	
67	Pinus nigra	Austrian Pine	1	30	N/A	G-F	G	F	4	Private - Subject Site	Tree Protection By- law 052-2018	2.4	Remove - Construction	Surface roots present		
68	Pinus nigra	Austrian Pine	1	30	N/A	F	F	F	3	Private - Subject Site	Tree Protection By- law 052-2018	2.4	Remove - Construction			
69	Pinus nigra	Austrian Pine	1	34	N/A	F	F	F	4	Private - Subject Site	Tree Protection By- law 052-2018	2.4	Remove - Construction			
70-G	Thuja occidentalis	White Cedar (group)	6	7-17	N/A	G	G	G	N/A	Private - Subject Site	N/A	1.8	Remove - Construction	15 stems total		
71	Acer platanoides	Norway Maple	1	26	N/A	G	F	G	6	Private - Subject Site	Tree Protection By- law 052-2018	1.8	Remove - Construction	Root flare present, small interior deadwood		
72	Acer platanoides	Norway Maple	1	29	N/A	F	F	G	6	Private - Subject Site	Tree Protection By- law 052-2018	1.8	Remove - Construction	Girdling root		
73	Picea pungens	Colorado Spruce	1	30	N/A	G	G	F	5	Private - Subject Site	law 052-2018	2.4	Remove - Construction			
74	Picea pungens	Colorado Spruce	1	35	N/A	G	G	F	5	Private - Subject Site	law 052-2018	2.4	Remove - Construction	Interior deadwood approx. 30%		
75	Gleditsia triacanthos	Honey Locust	1	24	N/A	G	F	F	6	Private - Subject Site	law 052-2018	1.8	Remove - Construction	Poor structure, root flare present		
76	Gleditsia triacanthos	Honey Locust	1	20	N/A	G	F	F	5	Private - Subject Site	law 052-2018	1.8	Remove - Construction	Poor structure, root flare present		
77	Picea pungens	Colorado Spruce	1	23	N/A	F	F	F	4	Private - Subject Site	law 052-2018 Tree Protection By-	1.8	Remove - Construction	Poor soil quality		
78	Picea pungens	Colorado Spruce	1	25	N/A	D	D	D	4	Private - Subject Site	law 052-2018	1.8	Remove - Dead	Poor soil quality		
79	Acer platanoides	Norway Maple	1	18	N/A	G	G	F	4	Private - Subject Site	N/A	1.8	Remove - Construction	Poor soil quality		
80	Acer platanoides	Norway Maple	1	18	N/A	G	G	F	4	Private - Subject Site	N/A	1.8	Remove - Construction	Poor soil quality		
81	Acer platanoides	Norway Maple	1	18	N/A	G	G	F	4	Private - Subject Site	N/A Tree Protection By-	1.8	Remove - Construction	Poor soil quality		
82	Pinus nigra	Austrian Pine	1	26	N/A	G	F	Р	5	Private - Subject Site	law 052-2018 Tree Protection By-	1.8	Remove - Construction	Poor soil quality		
83	Pinus nigra	Austrian Pine	1	26	N/A	G	G	F	5	Private - Subject Site	law 052-2018 Tree Protection By-	1.8	Remove - Construction	Poor soil quality		
84	Pinus nigra	Austrian Pine	1	25	N/A	G	G	F	5	Private - Subject Site	law 052-2018 Tree Protection By-	1.8	Remove - Construction	Poor soil quality		
85	Pinus nigra	Austrian Pine	1	25	N/A	F	F	F	6	Private - Subject Site	law 052-2018	1.8	Remove - Construction	Poor soil quality		
8700 Hunti	ngton Road - Assessed Novembe	er 15, 2023														
86-G	Thuja occidentalis	White Cedar (group)	3	8-16	N/A	G	G	G	N/A	Private - Subject Site	N/A	1.8	Remove - Construction	8 stems total		
87	Acer platanoides	Norway Maple	1	18	N/A	G	G	G	3	Private - Subject Site	N/A	1.8	Remove - Construction			
88	Pyrus calleryana	Callery Pear	1	12	N/A	G	G	F	1.5	Private - Subject Site	N/A	1.8	Remove - Construction	Minor deadwood		
89	Acer platanoides	Norway Maple	1	44	N/A	F	G	F	5	Private - Subject Site	Tree Protection By- law 052-2018	3.0	Remove - Construction	Minor deadwood, girdling root		
90	Acer negundo	Manitoba Maple	1	18, 17, 15,	31	F	F	F	3	Private - Subject Site	N/A	2.4	Preserve	Multistem, poor form		
91	Acer negundo	Manitoba Maple	1	17	N/A	Р	Р	Р	3	Private - Subject Site	N/A	1.8	Preserve	Poor form, deadwood, lean		
92-G	Thuja occidentalis	White Cedar (group)	22	8-19	N/A	G	G	G	N/A	Private - Subject Site	N/A	1.8	Preserve	buckthorn trees		
93-G	Rhamnus cathartica	Buckthorn (group)	7	8-16	N/A	G	G	G	N/A	Private - Subject Site	N/A	1.8	Remove - Construction	Multiple stems		



# B SITE PHOTOS

Appendix B: Site Photos 8700 Huntington Road Woodbridge, ON L4H 3T3





Tree #25-28



<image>

Tree #32, 33 & 34





Tree #46 & 45



Tree # 47

Tree #49 & 48



Tree #50-G



Tree #51-54



Tree #55 & 56





Tree #59



Tree #63 & 62



Tree #65, 64 & 66

Tree #71 & 72



Tree #75



Tree #76

Tree #77 & 78





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Tree #79-85
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Tree #78 (dead)





Tree #91 and #92-G



Tree #93-G

