SCOPED HERITAGE IMPACT ASSESSMENT

8 Main Street
City of Vaughan, ON

FINAL REPORT

Date: 7 March 2025
Project #: LHC0487

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HERITAGE PLANNING
& ARCHAEOLOGY

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REPORT LIMITATIONS

The qualifications of the heritage consultants who authored this report are provided in Appendix A.

All comments regarding the condition of any buildings on the Property are based on a superficial visual inspection and are not a structural engineering assessment of the buildings unless directly quoted from an engineering report. The findings of this report do not address any structural or physical condition related issues associated with any buildings on the property or the condition of any heritage attributes.

The review of policy and legislation was limited to information directly related to the proposed new building and its consistency with the policies and guidelines from the *Kleinburg-Nashville Heritage Conservation District Plan*.

EXECUTIVE SUMMARY

The Executive Summary only provides key points from the report. The reader should examine the complete report including background, results, as well as limitations.

LHC was retained on 23 October 2024 by M5V The Niagara Inc. on behalf of the property owner (the '**Owner**') to prepare a scoped Cultural Heritage Impact Assessment (**CHIA**) for the property located at 8 Main Street (the '**Property**') in the City of Vaughan, Ontario (the '**City**').

The Property is located in the Kleinburg-Nashville Heritage Conservation District (**KNHCD**) and is designated under Section 41 Part V of the *Ontario Heritage Act* (***OHA***). The Property is classified as non-contributing in the *Kleinburg-Nashville Heritage Conservation District Plan (**KNHCD Plan***). The owner is proposing to demolish the existing c. 1960 one-storey frame house and three sheds on the Property to facilitate the construction of a new, single detached, two-storey residence and one-and-a-half-storey pool house.

The proposed house is generally compliant with policies and guidelines in the *KNHCD Plan*. Noncompliance and partial compliance with the policies and guidelines is typically related to the size and massing of the proposed house. The removal of mature trees from the Property is also noncompliant with the *KNHCD Plan*; however, a Tree Preservation Plan and Post-Construction Restoration Plan have been prepared by a qualified arborist that recommended remediation measures to be integrated on the property following development. These measures mitigate the removal of trees. The recommendations in the Tree Preservation Plan and Post-Construction Restoration Plan prepared by Lothlorien Garden Consulting should be implemented.

To help support the proposed house's compliance with the policies and guidelines in the *KNHCD Plan*, the following measures could be considered in the context of other constraints as detailed design progresses:

- Modifications to the outermost (garage) sections of the proposed house's southeast elevation to reduce the overall size and massing of the proposed house to allow it to better integrate into the existing streetscape. This would also allow the three central sections of the proposed house's southeast elevation to better align with design principles common of the neoclassical architectural style. Specifically:
    - A different cladding material and/or colour palette could be used on the outermost sections of the proposed house's southeast elevation.
    - The façade stepback distance of the outermost sections could be increased, to the extent possible.

    - The roof height of the outermost sections could be decreased, to the extent possible.

- As detailed design progresses, downspout and utility and service equipment location; window, door, portico, and exposed foundation materials; and flashing and caulking colour should be considered in accordance with the *KNHCD Plan*.

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1 INTRODUCTION TO THE PROPERTY

LHC was retained on 23 October 2024 by M5V The Niagara Inc. on behalf of the property owner (the '**Owner**') to prepare a scoped Cultural Heritage Impact Assessment (**CHIA**) for the property located at 8 Main Street (the '**Property**') in the City of Vaughan, Ontario (the '**City**').

The Property is located in the Kleinburg-Nashville Heritage Conservation District (**KNHCD**) and is designated under Section 41 Part V of the *Ontario Heritage Act* (***OHA***). The Property is classified as a non-contributing in the *Kleinburg-Nashville Heritage Conservation District Plan (**KNHCD Plan***). The owner is proposing to demolish the existing c. 1960 one-storey frame house and three sheds on the Property to facilitate the construction of a new, single detached, two-storey residence and one-and-a-half-storey pool house.

This CHIA was prepared in accordance with the City's *Guidelines for Preparing Cultural Heritage Impact Assessments* (2022), and the Ministry of Citizenship and Multiculturalism's (**MCM**) *Ontario Heritage Toolkit* (2006).

1.1 PROPERTY LOCATION

The Property is located on the northwest side of Main Street to the northwest of the intersection of Main Street and Lester B. Pearson Street (Figure 1). It is in the Kleinburg Village Character Area and the Historic Village Core of Kleinburg near the geographic centre of the KNHCD (Figure 2). The Property is legally described as LT 12 PL 268, EXCEPT PT 1, PL 65R31715; LT 13, PL 268; PT LT 19, PL 210; PT LT 24 CON 8 VAUGHAN; PT LT 25 CON 8 VAUGHAN AS IN VA72800; S/T.

1.2 PROPERTY DESCRIPTION

The Property is an irregularly shaped lot with an approximate area of 0.7 hectares. It is occupied by a one-storey frame residential house built c. 1960 and three sheds (Figure 3).

1.3 PROPERTY OWNER

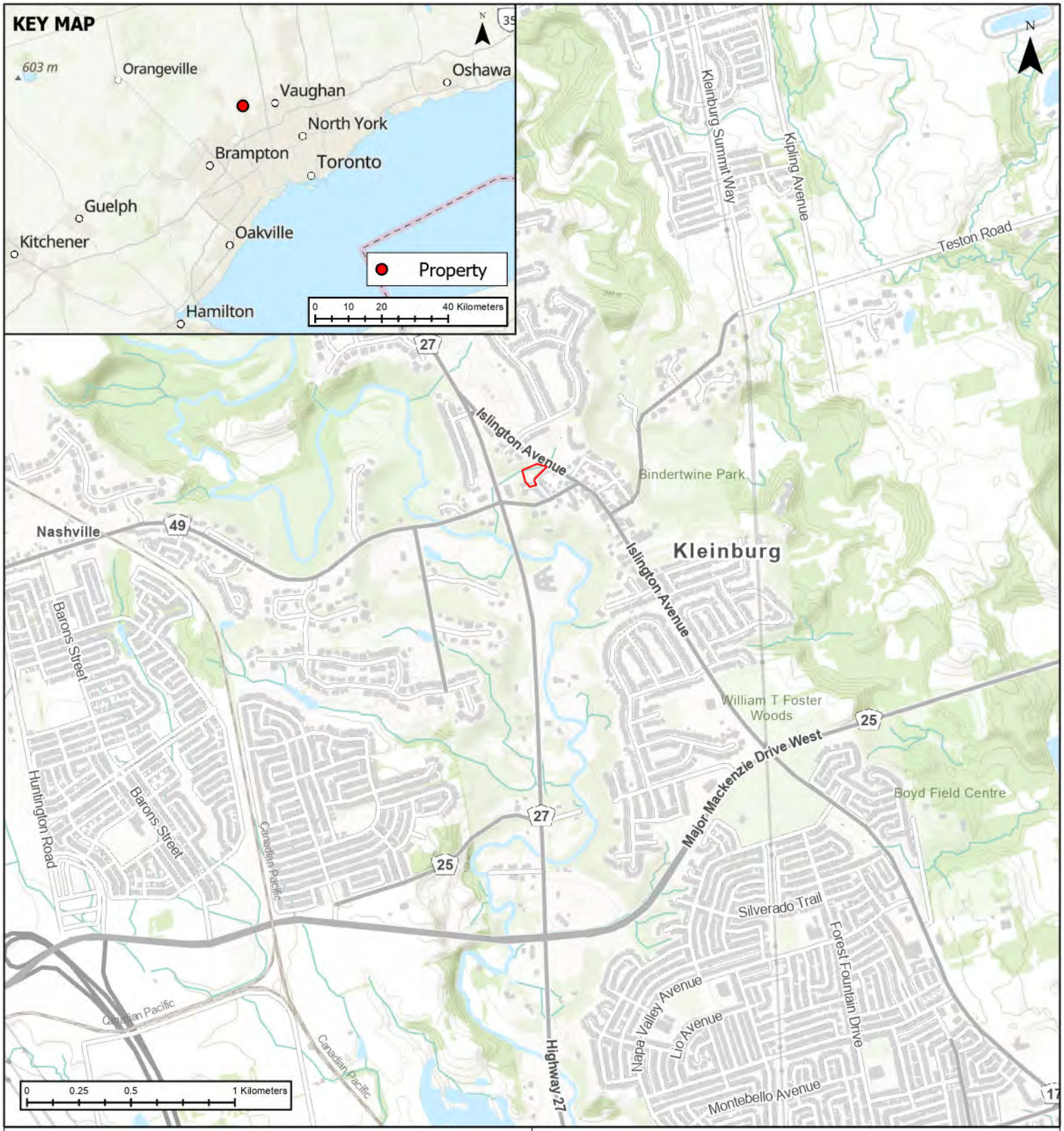
The Property's Owner is being represented by M5V The Niagara Inc.

1.4 PROPERTY HERITAGE STATUS

The Property is designated under Section 41 Part V of the *OHA*. The Property is classified as non-contributing in the *KNHCD Plan*.

1.5 ADJACENT HERITAGE PROPERTIES

The Property is adjacent to four heritage properties including 21 Bell Court, 10626 Islington Avenue, 27 Main Street, and 110 Nashville Road. All four properties are designated under Section 41 Part V of the *OHA* and are classified as non-contributing in the *KNHCD Plan*.



Legend

Property

NOTE(S) 1. All locations are approximate.

TITLE
Location of the Property

CLIENT
M5V Developments Inc.

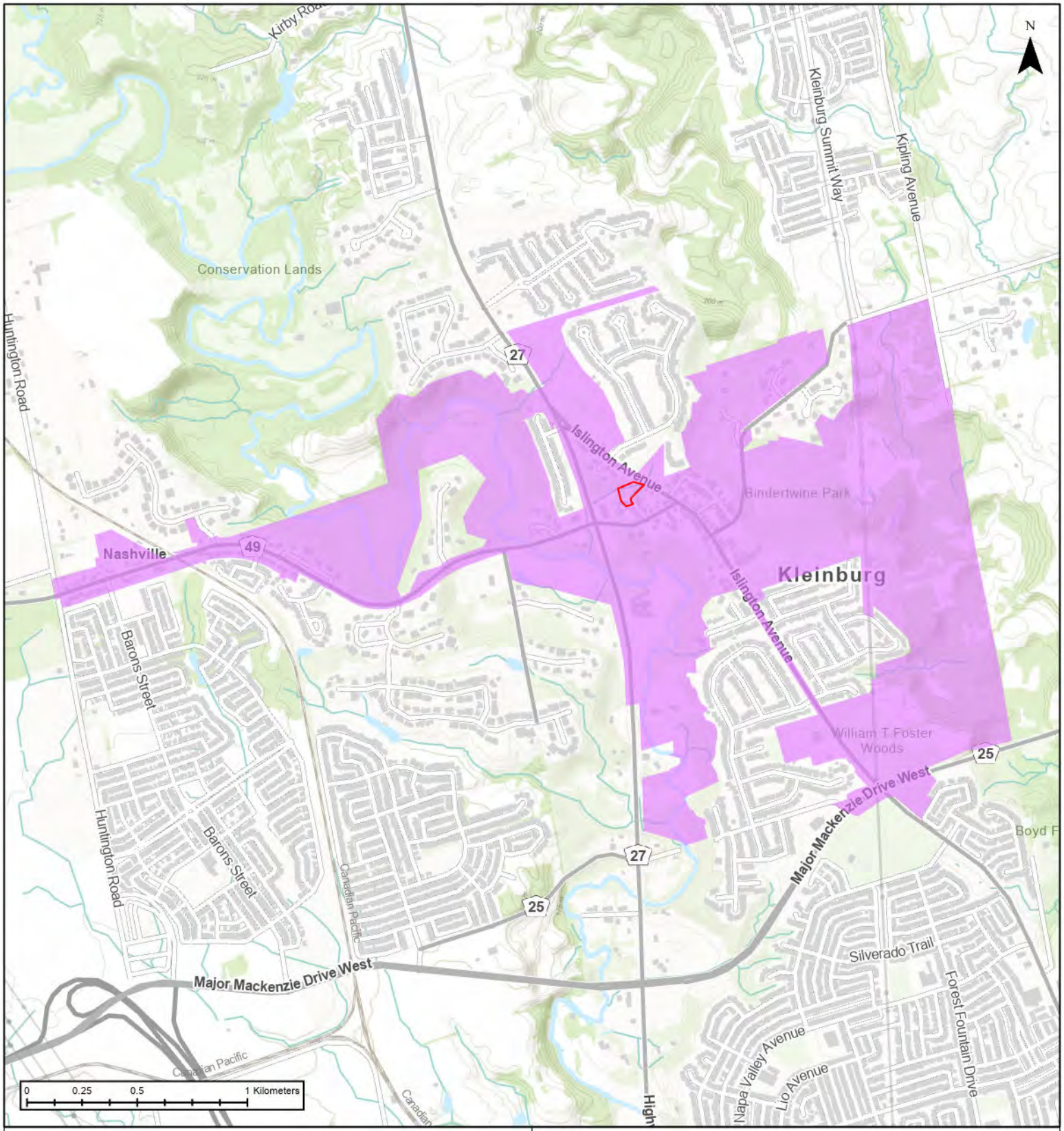
PROJECT
Scoped Heritage Impact Assessment, 8 Main Street, City of Vaughan, ON

PROJECT NO. LHC0487

LHC HERITAGE PLANNING & ARCHAEOLOGY

YYYY-MM-DD 2024-11-15

FIGURE # 1



Legend

Property

Kleinburg-Nashville HCD

NOTE(S) 1. All locations are approximate.

REFERENCE(S)

1. City of Vaughan. "Kleinburg-Nashville Heritage Conservation District Plan Update: Part 2 – The Plan." Last updated September 2021. Accessed 14 December 2023. https://www.vaughan.ca/sites/default/files/2023-02/KNHCD%20Plan%20Update%202022%20Final_0.pdf?file-verison=1703165767437.
2. Sources: Esri, Maxar, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatastyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap, and the GIS user community

TITLE
Location of the Property in the KNHCD

CLIENT
M5V Developments Inc.

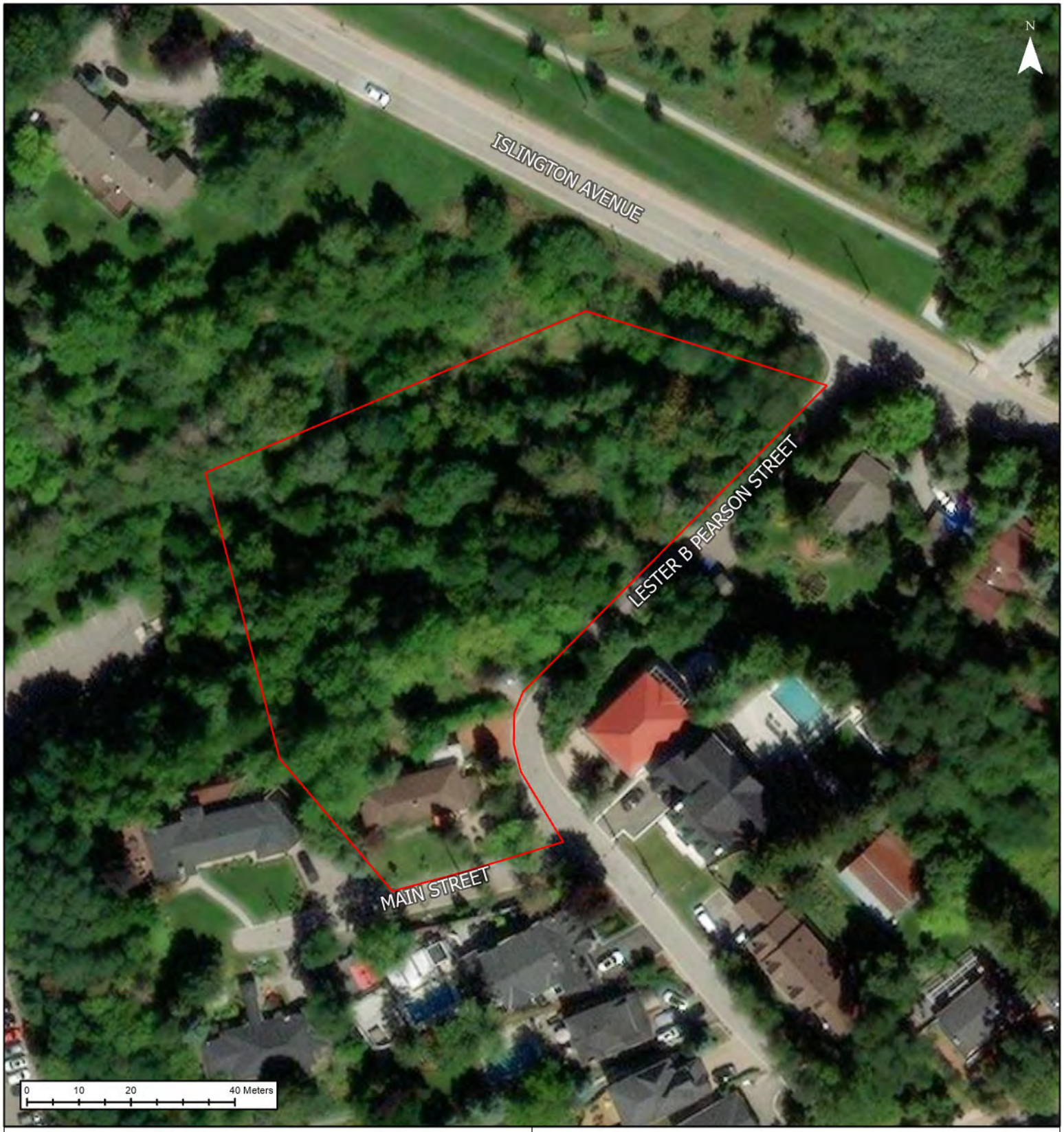
PROJECT
Scoped Heritage Impact Assessment, 8 Main Street, City of Vaughan, ON

PROJECT NO. LHC0487

LHC HERITAGE PLANNING & ARCHAEOLOGY

YYYY-MM-DD 2024-11-15

FIGURE # 2



Legend

Property

TITLE
Current Conditions of the Property

CLIENT
M5V Developments Inc.

PROJECT
Scoped Heritage Impact Assessment, 8 Main Street, City of Vaughan, ON

PROJECT NO. LHC0487

NOTE(S) 1. All locations are approximate.
REFERENCE(S) 1. City of Toronto, ON, Peel Region, Maxar, Microsoft

LHC HERITAGE PLANNING & ARCHAEOLOGY

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FIGURE # 3

2 STUDY APPROACH

LHC generally follows a three-step approach to understanding and planning for cultural heritage resources based on the understanding, planning, and intervening guidance from the Canada's Historic Places St*andards and Guidelines for the Conservation of Historic Places in Canada* and the MCM's *Ontario Heritage Tool Kit*. Understanding the cultural heritage resource involves:

- Understanding the significance of the cultural heritage resource (known and potential) through research, consultation, and evaluation–when necessary.
- Understanding the setting, context, and condition of the cultural heritage resource through research, site visit, and analysis.
- Understanding the heritage planning regulatory framework around the cultural heritage resource.

In the context of this CHIA, emphasis was placed on understanding the setting, context, and condition of the Property. The heritage planning regulatory framework surrounding the Property, adjacent heritage properties, and the KNHCD were also primary points of focus. This approach is consistent with the recommended methodology outlined by the MCM in the *Ontario Heritage Tool Kit: Heritage Property Evaluation*.

2.1 LEGISLATION AND POLICY REVIEW

This CHIA includes review of policy and legislation focused on information directly related to the proposed new building and its consistency with the policies identified within the *KNHCD Plan*.

2.2 SITE VISIT

A site visit was conducted on 14 November 2024 by Intermediate Heritage Planner Ben Daub. The purpose of this site visit was to document and gain an understanding of the Property and its surrounding context. Access to the Property was granted by the Owner's agent. Unless otherwise attributed, all photographs in this CHIA were taken during the site visit. A selection of photographs from the site visit that document the Property are included in Section 5.

2.3 UNDERSTANDING OF CULTURAL HERITAGE VALUE OR INTEREST

A description of the heritage character of the area, cultural heritage value of Main Street and Lester B. Pearson Street as part of the KNHCD, and any relevant heritage attributes of the KNHCD are included in this CHIA to inform the impact assessment and design advice or mitigation measures.

2.4 DESCRIPTION OF THE PROPOSED DEVELOPMENT

This CHIA includes a description of the single detached, two-storey residence and one-and-a-half-storey pool house that are proposed for development on the Property.

2.5 IMPACT ASSESSMENT

The impact assessment considers the compliance of the proposed new buildings with the policies and guidelines identified in the *KNHCD Plan* (see Section 3) as well as its compliance with the MCM's *Info Sheet #5* and Parks Canada's *Standards and Guidelines for the Conservation of Historic Places in Canada*, as described below. The impact assessment considers direct and indirect impacts to the Property itself; to the adjacent heritage properties at 1 Bell Court, 10626 Islington Avenue, 27 Main Street, and 110 Nashville Road; and to the KNHCD.

2.5.1 INFO SHEET #5

The MCM's *Info Sheet #5 Heritage Impact Assessments and Conservation Plans* outlines seven potential negative impacts to be considered with any proposed development or site alteration. The impacts include, but are not limited to:

1. **Destruction** of any part of any significant heritage attribute or features;
2. **Alteration** that is not sympathetic or is incompatible, with the historic fabric and appearance;
3. **Shadows** created that alter the appearance of a heritage attribute or change the viability of a natural feature or planting, such as a garden;
4. **Isolation** of a heritage attribute from its surrounding environment, context, or a significant relationship;
5. **Direct or indirect obstruction** of significant views or vistas within, from, or built and natural features;
6. **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; and
7. **Land disturbances** such as a change in grade that alters soils, drainage patterns that adversely affect an archaeological resource.[1]

[1] Ministry of Citizenship & Multiculturalism, "Ontario Tool Kit: Info Sheet #5 Heritage Impact Assessments and Conservation Plans," published 2006, accessed 13 November 2024, https://www.cambridge.ca/en/learn-about/resources/East-Galt-HCD/Heritage_Tool_Kit_Heritage_PPS_infoSheet.pdf, 3.

2.5.2 STANDARDS AND GUIDELINES FOR THE CONSERVATION OF HISTORIC PLACES IN CANADA

The *Standards and Guidelines for the Conservation of Historic Places in Canada* (*S&G*) has been adopted by most federal agencies (including Parks Canada), provinces, heritage agencies (such as the Ontario Heritage Trust), and many municipalities, including the City of Toronto, as the guiding document for heritage work. They are considered best practice guidance for heritage conservation in Canada. The City reviews the *S&G*s as part of heritage permit applications.

The *S&G* document is a tool to help guide change for cultural heritage resources. It provides an overview to the conservation decision-making process, identifies appropriate conservation treatments, and provides standards and guidelines appropriate for conservation. The *S&G*s view conservation as a sequence of actions — from understanding the historic place, to planning for its conservation and intervening through projects or maintenance. In the context of the *S&G*s, conservation is understood to embrace several key concepts including preservation, rehabilitation, and restoration.

Since the destruction of the existing buildings and development of a new house and pool house on the Property does not fall under the purview of preservation, rehabilitation, or restoration, as they are defined in the *S&G*s, the applicability of the *S&G*s are limited. Additionally, the Property is classified as non-contributing in the *KNHCD Plan*; however, it is contained in the Kleinburg Village Character Area and the Historic Village Core of Kleinburg and has several relevant heritage attributes including the mature trees in its front, side, and rear yards; its contribution to the variety of setbacks present in the residential area in which it is located; and its contribution to the low-density scale and massing of the area in which it is located. The following standards in the *S&G*s apply:

1. Conserve the heritage value of a historic place. Do not remove, replace or substantially alter its intact or repairable character- defining elements. Do not move a part of an historic place if its current location is a character-defining element.

3. Conserve heritage value by adopting an approach calling for minimal intervention.

7. Evaluate the existing condition of character-defining elements to determine the appropriate intervention needed. Use the gentlest means possible for any intervention. Respect heritage value when undertaking an intervention.[2]

[2] Canada's Historic Places, "Standards and Guidelines for the Conservation of Historic Places in Canada," last modified 2010 (Second Edition), accessed 13 November 2024, https://www.historicplaces.ca/media/18072/81468-parks-s+g-eng-web2.pdf, 22.

3 POLICY AND LEGISLATION CONTEXT

The *Kleinburg-Nashville Heritage Conservation District Study* (*KNHCD Study*) and *KNHCD Plan* were prepared by Dillon Consulting, ARA, and AREA in 2021.

Per Section 1.3 of the *KNHCD Plan*, activities in the KNHCD that are subject to review include:

- All exterior construction activity, including **new buildings or structures**, additions and alterations to existing buildings and structures, and maintenance and repair activity on existing buildings and structures that affects the heritage character of the HCD.
- Demolition or removal of any building or structure.
- All activity in the HCD that falls under the purview of Site Plan Control, the Sign By-Law, the *Building Code Act*, and the *Planning Act*. These include activities that require planning permission, site plan review, building permits, signage permits, and demolition and relocation permits.[3]

Section 2.1 of the *KNHCD Plan* defines its objectives, among them is to "[m]anage designs for new development to ensure appropriate contribution to the heritage character". The intent of this objective is:

> Within the design of any individual building, architectural elements contribute to the character of the public realm of the street. Massing, materials, scale, proportions, rhythm, composition, texture, and siting all contribute to the perception of whether or not a building fits its context. Reiterating again that lot consolidation, particularly in the residential areas, shall be discouraged in order to protect and maintain the original lot design of the 19th century as much as possible, new developments will be restricted to the original lot fabric.[4]

Section 2.4.2 of the *KNHCD Plan* identifies **policy** for alterations and additions to non-contributing properties. It states:

> Many of the buildings and properties within the HCD are non-contributing and many of these non-contributing properties are 'good neighbours' to adjacent existing historic and contributing properties with appropriate scale, massing and design.

[3] City of Vaughan, "Kleinburg-Nashville Heritage Conservation District Plan Update: Part 2 – The Plan," last updated September 2021, accessed 18 November 2024, https://www.vaughan.ca/sites/default/files/2023-02/KNHCD%20Plan%20Update%202022%20Final_0.pdf?file-verison=1703165767437, 6.
[4] City of Vaughan, "Kleinburg-Nashville Heritage Conservation District Plan Update: Part 2 – The Plan," 20.

> Additions and alterations to non-contributing buildings have an impact on their contributing neighbours, the streetscape and the overall character of the HCD. As non-contributing buildings are altered and added to, these shall aim not to detract from the heritage character of the HCD overall and to adjacent properties. Any irreversible alterations or modiciations [sic] proposed will require a Cultural Heritage Impact Assessment within the HCD. Designs shall be sympathetic in nature and materials without recreating heritage styles.[5]

Section 2.4.3 of the *KNHCD Plan* identifies **policy** for the demolition of non-contributing properties. It states:

> The process of evaluation of a building's design (scale, massing and/or architectural design) will be completed through a formal Cultural Heritage Impact Assessment drafted by a member with professional qualifications. Their assessment will determine if the property is sympathetic and supportive to the adjacent properties and the overall character of the HCD. They will provide their conclusion based on the distinctions within the assessment and either support or not support the proposed demolition.[6]

Section 2.5 of the *KNHCD Plan* identifies **policies** for new development. The following description is provided:

> **New development shall complement and enhance the character of the HCD and shall be sympathetic in siting, scale, material, texture, and general design to the heritage buildings around them**. New development shall be limited to vacant sites or to sites currently occupied by unsympathetic buildings. Even the most skillfully executed heritage-friendly building cannot replace the value of a real heritage building. The City may require a Cultural Heritage Impact Assessment when new development is proposed within the HCD…
>
> Within the District, new development as reflected in any zoning, variance, subdivision, consent or part lot control exemption application, will be designed to respect and reinforce the existing physical character and uses of the surrounding area, specifically respecting and reinforcing the following elements:
>
> A. the local pattern of lots, streets and blocks;
>
> B. the size and configuration of lots;

[5] City of Vaughan, "Kleinburg-Nashville Heritage Conservation District Plan Update: Part 2 – The Plan," 36.
[6] City of Vaughan, "Kleinburg-Nashville Heritage Conservation District Plan Update: Part 2 – The Plan," 36.

C. the building type of nearby residential properties;

D. the orientation of buildings;

E. the heights and scale of adjacent and immediately surrounding residential properties;

F. the setback of buildings from the street;

G. the pattern of rear and side-yard setbacks;

H. the presence of mature trees and general landscape character of the streetscape;

I. the existing topography and drainage pattern on the lot and in the adjacent and immediately surrounding properties; and,

J. conservation and enhancement of heritage buildings, heritage districts and cultural heritage landscapes.

The above elements are not meant to discourage the incorporation of features that can increase energy efficiency (e.g. solar configuration, solar panels) or environmental sustainability (e.g. natural lands, rain barrels).

Different uses and different settings within the HCD have different characters and requirements for new development. These are outlined in the following sections.[7]

Section 2.5.1 identified **policies** pertaining to new residential development in the KNHCD. Each of the relevant policies from this section of the *KNHCD Plan* are described in Section 8.3.1 of this CHIA along with commentary on how the proposed development does or does not comply with the *KNHCD Plan* policy.

Section 4.4 of the *KNHCD Plan* identifies design and architectural **guidelines** for new development. The following description is provided:

> The overall heritage character of the District is composed of buildings, streetscapes, landscapes, and vistas. This overall character has more significance than any individual building, even if it is one of the finest. Within the design of any individual building, architectural elements contribute to the character of the public realm of the street. Massing, materials, scale, proportions, rhythm, composition, texture, and siting all contribute to the perception of whether or not a building fits its context. Different settings within the district have different

[7] City of Vaughan, "Kleinburg-Nashville Heritage Conservation District Plan Update: Part 2 – The Plan," 37.

characters of siting, landscaping and streetscaping.

New development within the District shall conform to qualities established by neighbouring contributing buildings which form the heritage context, and the overall character of the setting. Designs shall reflect a suitable local heritage precedent style. Research shall be conducted so that the style chosen is executed properly, with suitable proportions, decoration, and detail. The following guidelines, describing the dominant elements that contribute to the heritage character of the District, are divided according the principal settings found in the District.[8]

Section 4.4.2 addresses new development specifically in residential areas of the KNHCD. It is prefaced with the following discussion:

The historical residential villages were laid out with large lots, ranging between a quarter- to a half-acre. Houses were mostly of a modest scale, leaving generous yards on all sides. Front- yard setbacks vary somewhat, but are small compared to the rear yards, where space was needed for stabling, herb and vegetable gardens, and orchards. An early village household needed these means for self-sufficiency, and lawns and decorative planting were minimal. The use of the yards has changed, and they provide more pleasure and less production now, but to a great extent the original village scale has persisted. Building height, lot coverage, and density are all low. The streetscapes are unified by a canopy of trees, planted in front of, behind, and beside most houses.[9]

Relevant guidelines are presented in Section 8.3.2 of this CHIA along with commentary on how the proposed development does or does not comply with the *KNHCD Plan* guideline.

[8] City of Vaughan, "Kleinburg-Nashville Heritage Conservation District Plan Update: Part 2 – The Plan," 134.
[9] City of Vaughan, "Kleinburg-Nashville Heritage Conservation District Plan Update: Part 2 – The Plan," 135.

4 HISTORIC CONTEXT

The Property comprises Lot 12 and Lot 13 of Plan 268 and part of Lot 19 of Plan 210. The *KNHCD Plan* identifies that the house on the Property was built c. 1960. Aerial photographs from 1954 and 1970 confirm this general construction window, as the house is not present in the former but is present in the latter. In addition to the house, the west shed had also been built by 1970 (Figure 4).

On 20 December 1955, Eleanor Rawley granted Lot 12 and Lot 13 of Plan 268 to Sidney H. Fagan for $2,200.00.[10] Shortly thereafter, on 3 September 1957, Sidney H. and Agnes M. Fagan granted Lot 12 and Lot 13 of Plan 268 to William R. and Meriam R. Book for $1.00 etc.[11] By this time, William R. and Meriam R. Book also owned part of Lot 19 Plan 210.[12]

On 2 November 1964, William R. and Meriam R. Book granted Lot 12 and Lot 13 of Plan 268 and part of Lot 19 of Plan 210 to Pearson J. Neal for $2.00 etc. and provided him with a $17,000.00 mortgage.[13] This group of lots forms the Property as its currently exists. Also on 2 November 1964, Pearson J. Neal granted the Property to his wife, Mary A. Neal, for $2.00 etc.[14] It is most likely that the house and west shed were built during Neal's ownership between 1964 and 1970 (Figure 4). On 7 June 1973, Mary A. Neal granted the Property to Frederick G. S. and Daria Forbes for $2.00.[15]

The east shed was built between 1978 and 1988, and the north shed was built between 2007 and 2009 (Figure 4 and Figure 5). No other major discernable alterations have been made to the Property (Figure 5).

[10] York Region Land Registry Office (LRO 65), "VAUGHAN, Book 467, PLAN 268," accessed 11 November 2024, https://www.onland.ca/ui/65/books/71482/viewer/318800417?page=47, Instrument No. 35365.
[11] LRO 65, "Book 467," Instrument No. 38651.
[12] LRO 65, "VAUGHAN, Book 413, PLAN 210," accessed 11 November 2024, https://www.onland.ca/ui/65/books/71334/viewer/318931714?page=108, Instrument No. 39027.
[13] LRO 65, "Book 467," Instrument No. 53847; 53848.
[14] LRO 65, "Book 467," Instrument No. 53883.
[15] LRO 65, "Book 467," Instrument No. 73800.

TITLE
1954, 1970, 1978, and 1988 Air Photos Showing the Property

CLIENT
M5V Developments Inc.

PROJECT
PROJECT NO. LHC0487
Scoped Heritage Impact Assessment, 8 Main Street, City of Vaughan, ON

Legend

Property

NOTE(S) 1. All locations are approximate.

REFERENCE(S)

York Region

1954. YR_Imagery1954. ArcGIS Map Service. Accessed 15 November, 2024. https://ww2.yorkmaps.ca/arcgis/rest/services/CacheMaps/YR_Imagery1954/MapServer

1970. YR_Imagery1970. ArcGIS Map Service. Accessed 15 November, 2024. https://ww2.yorkmaps.ca/arcgis/rest/services/CacheMaps/YR_Imagery1970/MapServer

1978. York Region Historical Imagery (1978). Web Map. Accessed 18 November, 2024. https://apps.yorkmaps.ca/vertigisstudio/web/?app=86ee7c18ca3a4016814e966908a8b7a9

1988. YR_Imagery1988. ArcGIS Map Service. Accessed 15 November, 2024. https://ww2.yorkmaps.ca/arcgis/rest/services/CacheMaps/YR_Imagery1988/MapServer

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YYYY-MM-DD 2024-11-19

FIGURE # 4

TITLE
2002, 2009, 2016, and 2023 Air Photos Showing the Property

CLIENT
M5V Developments Inc.

PROJECT PROJECT NO. LHC0487
Scoped Heritage Impact Assessment, 8 Main Street, City of Vaughan, ON

Legend

Property

NOTE(S) 1. All locations are approximate.

REFERENCE(S)
YorkRegion
2002. York Region Historical Imagery (2002). Web Map. Accessed 19 November, 2024.
https://apps.yorkmaps.ca/vertigisstudio/web/?app=86ee7c18ca3a4016814e966908a8b7a9
2009. York Region Historical Imagery (2009). Web Map. Accessed 19 November, 2024.
https://apps.yorkmaps.ca/vertigisstudio/web/?app=86ee7c18ca3a4016814e966908a8b7a9
2016. 2016 Imagery. ArcGIS Map Service. Accessed 15 November, 2024.
https://ww2.yorkmaps.ca/arcgis/rest/services/CacheMaps/YR_Imagery2016/MapServer
2023. York Region Historical Imagery (2023). Web Map. Accessed 19 November, 2024.
https://apps.yorkmaps.ca/vertigisstudio/web/?app=86ee7c18ca3a4016814e966908a8b7a9

LHC HERITAGE PLANNING & ARCHAEOLOGY

YYYY-MM-DD 2024-11-19

FIGURE # 5

5 EXISTING CONDITIONS

5.1 SURROUNDING CONTEXT

The Property is located on the northwest side of Main Street to the northwest of the intersection of Main Street and Lester B. Pearson Street. It is in the Kleinburg Village Character Area and the Historic Village Core of Kleinburg near the geographic centre of the KNHCD. The KNHCD is in the City of Vaugan's northwest corner.

The Property is bounded by Main Street to the southeast, 27 Main Street and 110 Nashville Road to the southwest, 21 Bell Court and 10626 Islington Avenue to the northwest, and Lester B. Pearson and Islington Avenue to the northeast. All properties that bound the Property as described in Section 5.2.

Main Street is a local road that branches off Lester B. Pearson Street. Near the Property, it has an asphalt driving surface with one eastbound and one westbound lane and a concrete mower edge curb on both sides (Image 1). Islington Avenue is a minor collector road that extends between Highway 27 to the north and Lake Shore Boulevard West in the City of Toronto to the south. Near the Property, it has an asphalt driving surface with one northbound and one southbound lane. A concrete mower edge curb is on both sides of the road. A boulevard composed of cobbles and manicured grass, concrete sidewalk, wood electrical poles, and streetlights are present on the east side of the road (Image 2). Lester B. Pearson Street is a local road providing access between Islington Avenue and Nashville Road. Near the Property, it has an asphalt driving surface with one northbound and one southbound lane. A concrete mower edge curb is on both sides of the road and wood electrical poles are on the east side of the road between Nashville Road and Main Street (Image 3 and Image 4).

The topography in the vicinity of the Property is hilly. The top of a hill is located to the south of the intersection of Main Street and Lester B. Pearson Street. From this point, all roads slope downwards. Mature deciduous trees are common along property lines in the area, as well as in front, side, and rear yards. Properties in the area typically have a manicured front lawn with hedges, shrubs, and gardens with perennial flowers.

The area is typically contained within a First Density Residential (R1B) zone. Other land uses in the area include Main Street Mixed-Use – Kleinburg Zone (KMS), Estate Residential (RE), Environmental Protection (EP), Open Space (OS), and Institutional (I1). Single detached houses are the most common building type in the area. Houses range from one to two-and-a-half storeys. Brick and clapboard siding are the most common cladding materials in the area, with board and batten and stucco also being present (Image 5 and Image 6). Properties in the area are most often rectangular in shape and have a narrow lot frontage and deep length.

Buildings typically have a setback from the road ranging from no less than approximately 6.8 metres to no more than approximately 18.8 metres.

Image 1. View northeast showing Main Street near the Property

Image 2. View southeast showing Islington Avenue near the Property

Image 3. View southeast showing Lester B. Pearson Street near the Property

Image 4. View northeast showing Lester B. Pearson Street near the Property

Image 5. View northeast showing two single-detached houses on Lester B. Pearson Street

Image 6. View northwest showing two single-detached houses on Lester B. Pearson Street

5.2 ADJACENT HERITAGE PROPERTIES

The City's *Official Plan* defines 'adjacent', as it pertains to cultural heritage, as "those lands contiguous to a protected heritage property."[16] Using this definition, the Property is adjacent to four heritage properties including 21 Bell Court, 10626 Islington Avenue, 27 Main Street, and 110 Nashville Road.

5.2.1 21 BELL COURT

The adjacent heritage property at 21 Bell Court is designated under Section 41 Part V of the *OHA* and is classified as non-contributing in the *KNHCD Plan*. It is an irregularly shaped lot with an approximate area of 0.6 hectares. It is occupied by a one-storey residential house clad in red brick, angelstone, and aluminum siding (Image 7). The property is accessed from a circular asphalt driveway located to the northwest of the house. Manicured grass encompasses most of the front yard, with flowerbeds and mature deciduous and coniferous trees also present. Mature deciduous and coniferous trees are also present in the backyard and along the property's side and rear property lines.

The *KNHCD Plan* provides the following description of the house on the property:

> Modern bungalow with front verandah tucked under full-width, low-pitch roof (c.1960)
>
> **Comments**
>
> A most distinctive bungalow, generally typical of suburban Kleinburg though unique of its specific type. Casement windows are not in keeping with original style of building, which otherwise appears little changed. Restoration of original window type might one day be considered, and brickwork and Angelstone should remain exposed. Any addition to this house should not rise above height of existing roof peaks. See the Plan and Guidelines.
>
> **Description**
>
> Asymmetrical and distinctive bungalow combines a number of materials and elements, and is built primarily of red brick, with Angelstone cladding at RH side and horizontal aluminum siding throughout enormously wide front gable. Verandah is set in wide recess throughout centre of house, with front door at right-hand side. Windows are tall (replacement) casement units, except quadrilateral windows at high level, which presumably light hallway within. Soffits are plywood-clad and are supported on widely spaced projecting beams. Front

[16] City of Vaughan, "Vaughan Official Plan – Volume 1," last consolidated December 2020, accessed 18 November 2024, https://www.vaughan.ca/sites/default/files/2023-11/VOP%20Volume%201%20-%20OPA%20101%20Correction%20%28October%2017%202023%29%20Clean%20to%20Upload.pdf?file-verison=1733168245770, 323.

fascia is aluminum-clad, and there are no gutters nor downspouts at front, nor is roofing material (assumed to be tar and gravel) visible. Garage, at LH side, has double garage door in horizontally ribbed aluminum. Single-vent, red-brick chimneys rise at both sides of house.[17]

Image 7. View southeast showing the house on the property at 21 Bell Court

5.2.2 10626 ISLINGTON AVENUE

The adjacent heritage property at 10626 Islington Avenue is designated under Section 41 Part V of the *OHA* and is classified as non-contributing in the *KNHCD Plan*. It is an irregularly shaped lot with an approximate area of 0.4 hectares. It is occupied by a one-storey residential house clad in red brick (Image 8). The property is accessed from a semi-circular asphalt driveway that extends along the northeast elevation of the house. Manicured grass encompasses most of the front yard, with flowerbeds and mature deciduous and coniferous trees also present. Mature deciduous and coniferous trees are also present in the backyard and along the property's side and rear property lines.

[17] City of Vaughan, "Kleinburg-Nashville Heritage Conservation District Plan Update: Part 3 – The Inventory," last updated September 2021, accessed 18 November 2024, https://www.vaughan.ca/sites/default/files/2023-02/KNHCD%20Plan%20Update%202022%20Final_0.pdf?file-verison=1703165767437, 3.

The *KNHCD Plan* provides the following description of the house on the property:

> Elongated, pitched-roof, brick-bungalow, apparently extended at both ends (c. 1960/2000).
>
> **Comments**
>
> Building is in good repair, but generally without visible heritage features. Original house is assumed to have been Ranch-style bungalow typical of suburban Kleinburg, and present house, though altered, falls within this type. Glass vestibule towards north end is incongruous at front of building, and uniformity of window types is encouraged. Any further expansion of this already large house should not be visible from Islington Avenue, and for future development of this site see the Plan and Guidelines.
>
> **Description**
>
> Very long bungalow is without heritage features. Mottled, textured, reddish brick forms entire cladding, from grade to eaves, including at sills and at hidden steel lintels. Present cladding appears to replace original, unknown materials. Projecting, gabled, central bay contains bank of four, adjacent, 3/1 windows (behind metal storm windows). Front door, set in RH wall projecting bay, is reached via terrace of interlocking brick set within pressure-treated sleepers. Large, shed roof of porch is supported by plain brick pier at corner. Windows elsewhere are a variety of bottom-sliders with large fixed panes above. A second entry, with multiple-panel doors, is set within aluminum-framed, lean-to glass shed towards north end. Soffits and rainwater goods are conventional aluminum profiles, and roof is clad in grey asphalt shingles. Single vent chimney at rear pitch of roof may indicate original type of brick at exterior. Large gabled garage, with two separate, unpainted panelled doors, is attached to south end of house.[18]

[18] City of Vaughan, "Kleinburg-Nashville Heritage Conservation District Plan Update: Part 3 – The Inventory," 64.

Image 8. View south showing the house on the property at 10626 Islington Avenue

5.2.3 27 MAIN STREET

The adjacent heritage property at 27 Main Street is designated under Section 41 Part V of the *OHA* and is classified as non-contributing in the *KNHCD Plan*. It is an irregularly shaped lot with an approximate area of 0.1 hectares. It is occupied by a one-storey residential house clad in brick and stucco (Image 9). The property is accessed from an asphalt driveway that provides access to the house's garage and from a concrete walkway leading to the house's main entrance. Manicured grass encompasses most of the front yard. Flowerbeds are also present along the house's southeast elevation. Mature deciduous and coniferous trees are present in the backyard and along the property's side and rear property lines.

The *KNHCD Plan* provides the following description of the house on the property:

> Ranch-style house with board-and-batten siding, Angelstone cladding and varied fenestration (c. 1960 and later).
>
> **Comments**
>
> House appears to be generally original and is again typical of the suburban Village periphery. Storm windows at main front window should be removed and double-glazed units should be installed within original mullions and transoms. Any future addition to house should not be visible from front elevation. See also the Plan and Guidelines.

Description

Long, low bungalow, clad in board-and-batten, is dominated by tall, modern gable to left of entry. Front door is slab-type door (behind glass storm), and is tucked under overhang of front gable roof, next to robust Angelstone wall of living room chimney. Principal front window comprises central square panes over small awning units, with quadrilateral panes at peak. Post to ridge above forms large, eccentric mullion. All windows have exterior metal storm windows. Fenestration elsewhere is a variety of replacement, single-pane casement units and, at RH side, band of six, 1/1 units set above low Angelstone wall in what may be a later addition. Single-car garage at extreme east end is a later addition, with front gable over panelled door. Soffits are clad in plywood throughout and rainwater goods are conventional aluminum profiles. Roof is clad in light brown asphalt shingles.[19]

Image 9. View northwest showing the house on the property at 27 Main Street

[19] City of Vaughan, "Kleinburg-Nashville Heritage Conservation District Plan Update: Part 3 – The Inventory," 82.

5.2.4 110 NASHVILLE ROAD

The adjacent heritage property at 110 Nashville Road is designated under Section 41 Part V of the *OHA* and is classified as non-contributing in the *KNHCD Plan*. It is an irregularly shaped lot with an approximate area of 1.1 hectares. It is occupied by a one-and-a-half to two storey commercial building clad in red brick, buff brick, and board and batten siding (Image 10 through Image 12). The property is accessible from asphalt driveways connected to Nashville Road and Highway 27. The driveways provide access to an asphalt parking lot. Manicured grass encompasses most of the front yard. Flowerbeds with shrubs, bushes, and mature deciduous and coniferous trees are also present. Mature deciduous and coniferous trees are present along the property's side and rear property lines.

The building is divided into four distinct sections. The southeast section is the tallest and it has influences from the Georgian architectural style, as described in Section 2.3.2 of the *KNHCD Plan*. It is two storeys, has a rectangular floor plan, and has a five-bay southeast façade. It is clad in red brick with buff brick quoins, voussoirs, belt course, and chimney stacks and has a side gable roof with projecting eaves and eave returns on the gable ends (Image 10). The southwest section is also two storeys; however, it is shorter than the southeast section. The southwest section has influences from the Victorian Gothic Revival architectural style, as is described in Section 2.3.2 of the *KNHCD Plan*. It has an "L" shaped floor plan, is clad in board and batten siding, and has a cross-gable roof with open gables of varying pitch (Image 11). The west section is one-and-a-half storeys and has some influences from the Georgian architectural style, as described in Section 2.3.2, predominantly through its use of red brick with buff brick accents (Image 11 and Image 12). The west part of this section of the building has a side-gable roof with return eaves and four gabled dormers. The east section of the building has a flat roof. The north section is one-and-a-half storeys. It is not evidently influenced from a specific architectural style; however, it shares some common design elements found on the building's southwest section, including the use of board and batten siding (Image 12).

The *KNHCD Plan* does not provide a description of the building on the property.

Image 10. View southeast showing the southeast section of the building on 110 Nashville Road

Image 11. View northeast showing the southwest and part of the west sections of the building on 110 Nashville Road

Image 12. View southeast showing the north and part of the west sections of the building on 110 Nashville Road

5.3 THE PROPERTY

The Property is located on the northwest side of Main Street to the northwest of the intersection of Main Street and Lester B. Pearson Street (Image 13). It is an irregularly shaped lot with an approximate area of 0.7 hectares. The Property is on a bank that gently slopes downward when travelling north (Image 14). A second, crescent-shaped steep bank is situated within the Property and divides it into a mostly cleared and developable area and an undeveloped woodlot area (Image 15).

The Property is occupied by a one-to-two storey frame residential house built c. 1960 and three sheds. All four buildings are located on the gently sloped, developable area of the Property. The house's primary, southeast elevation is at the top of the slope and is one storey and its northwest elevation is closer to the base of the slope and is two storeys. The Property can be accessed from two driveways and a walkway. The southmost driveway is graveled with red stones and provides access to the house's garage and parking spaces immediately adjacent to the house (Image 16). The northmost driveway is asphalted and provides access to the east shed (Image 17). The walkway is cobbled and provides access to the house's front porch and primary entrance (Image 18). A stone stairway accessed on the south side of the southmost driveway provides access to a cobbled walkway that extends around the southeast

corner of the house (Image 19). This walkway connects the southmost driveway with the walkway that provides access to the Property.

The Property's front, side, and rear yards each have manicured grass. Extensive landscaping is present on the Property's front yard and part of its side (northeast) yard, where shrubs, bushes, and flowerbeds containing perennial flowers are situated (Image 13 and Image 20). Trees are also situated along the house's southwest elevation and part of its northwest elevation (Image 21 and Image 22). Several large, mature deciduous and coniferous trees are present in the Property's front, side, and rear yards and the undeveloped woodlot section of the Property is densely populated with deciduous and coniferous trees (Image 23).

Image 13. View northwest showing the Property

Image 14. View northeast showing the gentle slope in the Property's backyard

Image 15. View northeast showing the transition to the steep bank in the Property's backyard

Image 16. View southwest showing the Property's southmost driveway

Image 17. View west showing the Property's northmost driveway

Image 18. View northwest showing the walkway

Image 19. View southwest showing the stone stairway and cobbled walkway

Image 20. View northwest showing the front yard landscaping

Image 21.View northwest showing the side yard (southwest) landscaping

Image 22. View southeast showing the landscaping along the house's northwest elevation

Image 23. View west showing the woodlot

5.3.1 HOUSE

The house is a single detached, rectangular plan building measuring approximately 20.0 metres wide by 9.0 metres deep (Image 24). A side wing is offset towards the south of the main house's northeast elevation and a rear wing is on the east corner of the main house's northwest elevation (Image 25 and Image 26). The main house has a one storey southeast (primary) elevation and two storey northwest elevation (Image 27 and Image 28). The southeast elevation has a seven-bay façade composed of the house's main entrance and six windows (Image 29 through Image 31). The main exterior wall is composed of brick that is clad in stucco. Board and batten siding is present on the rear wing's northeast and northwest elevations and vertical board is present on the main house's northeast elevation, southeast corner, and all elevations of the side wing. The main house has a low hip roof with projecting eave and plain wood soffit. The side wing has a shed roof with flush eave and the rear wing has a flat roof that is used as a rear deck. The roofs of the main house and side wing are clad in brown asphalt shingles (Image 32). The main house has two chimneys, one that is centrally located within the building and one that is externally located near the middle of the building's southwest elevation. Both chimneys have a single stack massing composed of grey brick arranged in a stretcher bond pattern, concrete cap, and metal flashing (Image 33 and Image 34).

Windows typically have a flatheaded opening, plain wood trim outside the structural opening along the header and sides, and a plain slip sill (Image 35). Windows set into walls that are clad in board and batten or vertical board siding, as well as bay windows, have plain wood trim at their base in place of a slip sill. All windows were boarded up during LHC's site visit. Accordingly, pane arrangement and opening mechanism type were not observed.

The house's main entrance is in the eastmost bay of the building's southeast elevation. Although it was boarded up and not observed in full, it has a flatheaded opening, moulded trim outside the structural opening along the header and sides, and sidelights (Image 36). The main entrance is accessed from the main house's front porch. The porch has an open platform with no roof. It has a wood deck, wood handrail, and is accessed from a straight run of four wood risers (Image 37 and Image 38). Five additional doors provide access to the house, including one on the second storey of its northeast elevation, one on the second storey of its northwest elevation, one on the first storey of its northwest elevation, one on the north elevation of side wing, and one on the northeast elevation of the rear wing. Both second storey entrances share the same general characteristics as the house's main entrance (Image 39). The first storey door on the northwest elevation and the door on the side wing area have flatheaded openings and plain trim outside the structural opening along the header and sides

(Image 40 and Image 41). The entrance on the rear wing is a garage door with no trim (Image 42).

Image 24. View northwest showing the house's primary, southeast elevation

Image 25. View southwest showing the house's rear wing

Image 26. View northwest showing the house's side wing

Image 27. View northwest showing the house's one storey southeast elevation

Image 28. View southeast showing the house's two storey northwest elevation

Image 29. View northwest showing the east three bays on the house's southeast elevation

Image 30. View northwest showing the west three bays on the house's southeast elevation

Image 31. View north showing the west two bays on the house's southeast elevation

Image 32. View northwest showing the house's roof

Image 33. View northwest showing the chimney that is centrally located within the house

Image 34. View northeast showing the chimney that externally located on the house's southwest elevation

Image 35. View northwest showing a typical window

Image 36. View northwest showing the house's main entrance

Image 37. View west showing the house's front porch

Image 38. View northwest showing the stairway leading to the house's front porch

Image 39. View southwest showing the second storey entrance on the house's northeast elevation

Image 40. View southeast showing the first storey entrance on the house's northwest elevation

Image 41. View southwest showing the entrance on the northwest elevation of the side wing

Image 42. View southwest showing the entrance on the northeast elevation of the rear wing

DESCRIPTION FROM THE *KNHCD PLAN*

The *KNHCD Plan* provides the following description of the house on the property:

> Elongated bungalow with sunroom at west end, recently stuccoed over original brick, and with alterations at front door and adjacent bay window (c. 1960 and later).
>
> **Comments**
>
> Recent alterations to house are unfortunately not in keeping with spirit of original, including stucco exterior and new front door and sidelights, and bay window to left of door now seems somewhat incongruous. Sunroom at southwest corner is attractive feature, as is somewhat similar treatment at northwest corner, though recent door is out of place. Any additions to this house should not rise above existing rooflines. See also the Plan and Guidelines for further possible alterations.
>
> **Description**
>
> Long, hip-roofed bungalow has apparently been recently stuccoed, with correspondingly dramatic change in appearance. At south elevation, access if via broad flight of wooden stair leading to uncovered stained deck with simple railing and peripheral bench as typically found are rear of suburban house. Front door is

quasi-heritage installation unsuitable to house type, with gilded kames at door window and at sidelights, and with false, stamped panels below. Bay window, to left is, in contract, modern in appearance, with sloping, aluminum-clad sides below, and bottomslider front window with single pane above. Windows beyond are apparently original, 1/1 within vertical apertures. At extreme west end is attractive sunroom, having multiple, tall casement windows set within wall clad in vertical boards. East elevation has lean-to sunroom, apparently added at intermediate level between floors, with full peripheral fenestration of wide sashes. At RH side, corner is largely glazed, with recent, vinyl door incongruous within dark stained wood elements as at opposite corner. Soffits are finished in painted plywood, rainwater goods are conventional, modern aluminum, and roofs are clad throughout in brown asphalt shingles. Lone, whitebrick chimney at centre of front roof pitch indicates original exterior material. To north, an unpainted, vertically boarded garage is in keeping with the rustic nature of peripheral Kleinburg Village.[20]

5.3.2 EAST SHED

The east shed is a single detached, rectangular, one-storey building. It has a concrete foundation and is clad in board and batten siding (Image 43 through Image 45). It has a medium front gable roof with projecting eaves and plain verges. Two windows are on the east shed's northeast elevation. They have plain trim outside of the structural opening on all sides and have slider windows. The east shed's main entrance is centrally located on its southeast elevation. The main entrance is composed of two solid board and batten leaves. A second entrance is near the north corner of the shed's southwest elevation. This entrance was boarded up and not observed during LHC's site visit.

[20] City of Vaughan, "Kleinburg-Nashville Heritage Conservation District Plan Update: Part 3 – The Inventory," 80.

Image 43. View northwest showing the east shed's southeast elevation

Image 44. View southwest showing the east shed's northwest and northeast elevations

Image 45. View northeast showing the east shed's southwest elevation

5.3.3 NORTH SHED

The west shed is a single detached, rectangular, one-storey building that is clad in clapboard siding (Image 46 and Image 47). It has a medium front gable roof with projecting eaves. One window is on the north shed's northwest elevation. It has plain trim outside of the structural opening, wood lug sill, and two mulled double-hung windows. The east shed's main entrance is centrally located on its southeast elevation. The main entrance door has been removed.

Image 46. View northwest showing the north shed's southeast elevation

Image 47. View south showing the north shed's northwest and southwest elevations

5.3.4 WEST SHED

The west shed is a single detached, rectangular, one-storey building. It has a concrete foundation and is clad in board and batten siding. It has a medium front gable roof with projecting eaves and plain verges (Image 48 and Image 49). One window is on the shed's southwest elevation. It has plain trim outside the structural opening and appears to have been a single fixed pane. The west shed's main entrance is offset towards the south of its northeast elevation. The main entrance door has been removed.

Image 48. View northwest showing the west shed's northeast and southeast elevations

Image 49. View southeast showing the west shed's southwest and northwest elevations

6 UNDERSTANDING OF CULTURAL HERITAGE VALUE OR INTEREST

6.1 KLEINBURG-NASHVILLE HERITAGE CONSERVATION DISTRICT

6.1.1 STATEMENT OF SIGNIFICANCE

The *KNHCD Study* provides the following statement of significance for the KNHCD:

> The Kleinburg-Nashville Heritage Conservation District contains the historic villages of Kleinburg and Nashville, portions of the Humber River valley and historic road linkages. The HCD boundary is generally centred around the Kleinburg's historic core at the intersections of Islington Avenue, Nashville Road and County Road 27. It extends westerly along Nashville Road to encompass the Hamlet of Nashville, also known as Kleinburg Station, which is historically connected to the Village of Kleinburg. It includes the Humber River Valley which was the reason for development of mills at this location, thus the functional tie between the river and the villages has been preserved.[21]

6.1.2 HERITAGE ATTRIBUTES

The *KNHCD Study* identifies the following list of heritage attributes:

- Landmark properties:
    - Pierre Berton Heritage Centre, 10418 Islington Avenue, (Former Kleinburg United Church Building)
    - McMichael Art Gallery, 10365 Islington Avenue
    - Railway Station, 10415 Islington Avenue (By-law 144-78)
    - 10535 Islington Avenue (By-law 30-85)
    - 10483 Islington Avenue (By-law 32-85)
    - Arthur McNeil House, 10499 Islington Avenue (By-law 39-88)
    - Doctor's House, 21 Nashville Road (By-law 48-79)
    - Kline House, 8 Nashville Road (By-law 73-83)
- Cultural heritage landscapes, including:
    - Humber River and Valleys
    - McMichael Canadian Collection Property (10365 Islington Avenue)

[21] City of Vaughan, "Kleinburg-Nashville Heritage Conservation District Plan Update: Part 2 – The Plan," 163.

  - Historic Village Core of Kleinburg
  - Historic Village Core of Nashville
  - Windrush Co-operative (properties on Valley Road, Windrush Road, and No. 30 Stegman's Mill Road)
  - Kleinburg Cemetery (59 Nashville Road)
- Mature trees in front, side and rear yards of residential and commercial properties;
- Collection of structures dating from the mid-19th to early-20th century representing different architectural styles and materials expressed in rural Ontario villages during this era;
- Collection of modernist architecture;
- Commercial core of Kleinburg that is pedestrian oriented with narrow setbacks from the street, and the building entrances that face the street;
- Variety of setbacks in the residential areas;
- Islington Avenue as a remnant of the Carrying Place Trail;
- Nashville Road as an historic link between Kleinburg and Nashville;
- Rural curbless cross-section, with drainage ditches on both sides of the roadway of Islington Avenue from Major Mackenzie to Pennon Road, and Nashville Road intermittently from Lester B. Pearson Street to Highway 27, and west of the bridge along Nashville Road to Huntington Road;
- Low-density scale and massing of structures ranging from one to two-and-a-half storeys in building heights; and
- Views to/from heritage attributes including
  - Classic village views exist along Islington Avenue within the business district of Kleinburg generally extending between Redcroft House (west side) and the McMichael Canadian Art Collection (east side) to the intersection with Nashville Road. In particular the views looking north in the vicinity of Stegman's Road and south from Nashville Road.
  - Between Howland Road and Klein's Ridge Road, Nashville Road curves northward and crosses the Humber River affording views up and down the valley, particularly to the north. Driving eastward through this area gives long range views to the hilly terrain that surrounds Kleinburg.

- View directly south from the Nashville Road along the railway to the relic of the grain elevator that portrays the early industrial history of Nashville.
- Highway 27, at the crossing of the Humber River, views of the river and valley, particularly to the west.[22]

6.1.3 KLEINBURG VILLAGE

The Property is in the Kleinburg Village character area, which is given the following description in the *KNHCD Plan*: "Kleinburg Village, which is set on the narrow ridge between the valleys of the two branches of the Humber River and centred on what is now Islington Avenue. The village was founded in 1848 around the existence of several mills." Additional description is provided in Section 2.7.2 of the KNHCD Plan, which states:

> Within the historic Village Core of Kleinburg, the major artery is Islington Avenue, with Nashville Road as a secondary route. The remaining streets within the Village Core include: Stegmans Mill Road, Main Street, Lester B Pearson Street, John Street, Napier Street, and Kellam Street. The streetscapes are unified by a canopy of trees, planted in front of, behind, and beside most houses. The existing condition is a great deal more urban than that of the Village of Nashville, and in some areas the new development along the west side of Islington Avenue are over-urbanized which dampen the visual quality of the village character, which has been buried under an array of standard pavers, bollards, and planting tubs. Reconfiguring these elements can help to restore the village character of Kleinburg.
>
> Majority of the houses along the Islington Avenue do not front onto the street and thus require reinforcing of the sense of place. Other buildings within the Kleinburg Village Core include a few commercial properties which front onto the street and have a shorter setback. Building frontages and mature trees enhance the streetscape. The width of the right of way creates space for a wide range of activities and programs. Currently, the roadway is busy and should be designed to calm traffic and focus on transforming the street into a pedestrian-oriented place.[23]

There is an existing set of streetscape guidelines, Village of Kleinburg: Islington Avenue Streetscape Master Plan Study (2011), for the stretch of Islington Avenue from Major Mackenzie Road north to Regional Road 27 and also along Nashville Road from Regional Road

[22] City of Vaughan, "Kleinburg-Nashville Heritage Conservation District Plan Update: Part 2 – The Plan," 166-167.
[23] City of Vaughan, "Kleinburg-Nashville Heritage Conservation District Plan Update: Part 2 – The Plan," 42.

27 to Islington Avenue. The guidelines support the pedestrian-oriented road design and village character of Kleinburg.

6.2 APPLICATION TO THE PROPERTY

The Property is within the KNHCD and is designated under Section 41 Part V of the *OHA*; however, it is classified as a non-contributing in the *KNHCD Plan*. The house on the Property is not considered to be either an 'Existing Historic and Contributing Style' or an 'Existing Non-Historic and Contributing Style'.

The Property is contained in the Kleinburg Village Character Area and the Historic Village Core of Kleinburg. Some of the heritage attributes described in Section 6.1.2 of this CHIA apply to the Property, including the mature trees in its front, side, and rear yards; its contribution to the variety of setbacks present in the residential area in which it is located; and its contribution to the low-density scale and massing of the area in which it is located.

7 DESCRIPTION OF THE PROPOSED DEVELOPMENT

7.1 HOUSE

The proposed development includes a new house and pool house. The new house is a single-detached, irregular plan building with a footprint of 578.1m^2 that measures a maximum of 32.82 m wide by 24.64 m deep. Its southeast (primary) elevation has two storeys, and its northwest elevation has three storeys. The southeast elevation of the proposed house has a maximum height of 9.5 metres measured from average grade. The southeast elevation is composed of twelve-bays and is generally divided into five distinct sections. A frontispiece comprises the central bay and contains the proposed house's primary entrance. The frontispiece is setback no less than 9.02 m from the southeast property line. The sections adjacent to the frontispiece are stepped back 0.46 m, are symmetrical, and have three bays composed of a window and two French doors. The outermost sections are stepped back an additional 0.30 m (0.76 m total) from the frontispiece and the maximum roof height is lowered. The stepback paired with the lower massing help to visually differentiate the outmost sections. The eastmost section has two bays – garage doors – and is 6.35 m wide and the westmost section has three bays – two garage doors and a recessed door – and is 8.79 m wide.

The proposed house has a full below grade basement and sub-basement with concrete foundation walls and the main exterior walls will be clad in stucco. A superimposed stucco belt course is situated between the first and second storey on the building's southeast and northeast elevations. The proposed house has a truncated high hipped roof with projecting eaves and prefabricated aluminum soffit and eavestrough. A dentilled frieze is present along the southeast, northwest, and the southmost parts of the northeast and southwest elevation, and a plain frieze is present along the central and northmost parts of the northeast and southwest elevation. Five nonfunctional pedimented, gabled dormers are evenly spaced along the southeast roofline. A single stack chimney is offset towards the right (northeast) and rear (northwest) of the house. Four skylights are set into the roof.

A typical window is flatheaded, has a plain jack arch, trim, and lug sill. All windows are either single or double sashed. A six-pane arrangement is most common with four-pane also being present in certain locations (i.e., the dormers).

The house has a total of twenty-nine doors. The main entrance is flatheaded, has a plain jack arch, plain trim, sidelights, transom, and two solid door leaves. Most other doors share similar characteristics including a flatheaded opening, plain jack arch, plain trim, transom, and two door leaves. Most other doors, including the French doors on the proposed house's southeast

elevation, have glazed door leaves. The four garage doors have flatheaded openings, plain flat arches, and plain trim.

The main exterior walls of the proposed house will be clad in light beige stucco. The roofs of both buildings will be clad in black asphalt shingles. Windows frames, fascia, eavestroughs, and downspouts will be black.

A full drawing package for the proposed house is in Appendix C.

7.2 POOL HOUSE

The pool house is located to the north of the proposed house. It is a single-detached, rectangular building measuring 11.89 m wide by 6.15 m deep. The pool house is one-and-a-half storeys and has a maximum height of 6.4 metres measured from the top of the finished first floor to the top of the steep section of the mansard roof. The southeast (primary) elevation is composed of five bays. A frontispiece comprises the central bay and contains the proposed pool house's primary entrance. The other four bays comprise windows.

The proposed pool house has a full below grade basement with concrete foundation walls and the main exterior walls will be clad in stucco. A superimposed stucco belt course is situated along the base of the first storey on the building's southeast, northeast, and southwest elevations. It has a mansard roof with projecting eaves and plain frieze. Two dormers are present on the southeast elevation and northwest elevation and one dormer is present on the northeast elevation. All dormers are pedimented and set into a broken eave. A partially exterior, single stack chimney is centrally located on the proposed pool house's southwest elevation.

A typical window is flatheaded, has a plain jack arch, trim, and lug sill. All windows are either single or double sashed. A six-pane arrangement is most common with four-pane also being present in certain locations (i.e., the dormers). The pool house has two doors. The main entrance is flatheaded, has a plain jack arch, plain trim, and a solid single leaf door. The secondary entrance is flatheaded, has a plain jack arch, plain trim, and two glazed leaves.

The main exterior walls of the proposed pool house will be clad in light beige stucco. The roofs of both buildings will be clad in black asphalt shingles. Windows frames, fascia, eavestroughs, and downspouts will be black.

A full drawing package for the proposed house is in Appendix C.

7.3 LANDSCAPE

Much of the existing vegetation on the Property will be removed to permit the development of the proposed house and pool house. A Tree Preservation Plan dated 11 April 2024 prepared by Lothlorien Garden Consulting identified twenty-one trees on/within six metres of the

Property. Fourteen of twenty-one trees on the Property will be removed to permit development of the proposed house and pool house. Retained trees include the mature Manitoba maple tree adjacent to the intersection of Main Street and Lester B. Pearson Street, a crab apple tree adjacent to Lester B. Pearson Street, and four additional trees to the rear of the existing and proposed house. To restore the loss of the tree canopy, ten large/medium growing trees will be planted on the Property following construction of the proposed house and pool house. All trees to be planted following development will be located to the rear of the proposed house and pool house.

See Appendix D and Appendix E for Lothlorien Garden Consulting's Tree Preservation Plan and Post-Construction Restoration Plan.

7.4 INTEGRATION INTO THE EXISTING STREETSCAPE

As described in Section 5.1, the Property's immediate context is composed of single detached houses that range from one to two-and-half storeys and are setback approximately 6.8 to 18.8 metres from the street. Houses are most commonly clad in brick and clapboard siding, with board and batten and stucco also being present. Mature deciduous trees are common along property lines in the area, as well as in front, side, and rear yards. Properties in the area typically have a manicured front lawn with hedges, shrubs, and gardens with perennial flowers.

The proposed house and pool house's residential use, setback distance, height, and material composition are in keeping with the established character in the Property's vicinity. The size and scale of the proposed house exceeds the existing house on the Property and houses on several adjacent and immediately surrounding residential properties, including those on 25 Main Street and 27 Main Street. Nevertheless, the size and scale of the proposed house is similar to the house on the adjacent and nearby houses on 9 Lester B. Pearson Street, 24 Lester B. Pearson Street, 27 Lester B. Pearson Street, and 33 Lester B. Pearson Street.

Removal of fourteen trees, including several in the Property's front and side yards, is proposed. Retained trees include the mature Manitoba maple tree at adjacent to the intersection of Main Street and Lester B. Pearson Street, a crab apple tree adjacent to Lester B. Pearson Street, and four additional trees to the rear of the existing and proposed house. These trees will retain some of the Property's tree canopy and will partially obscure views of the proposed house and pool house.

Views of the Property from the public realm will be primarily affected when approaching from the southeast along Lester B. Pearson Street and southwest on Main Street (Figure 6 and Figure 7). Views of Property from the public realm will be minimally affected when

approaching southwest and southeast along Lester B. Pearson Street because of the existing vegetation along the street (Image 50 and Image 51).

Figure 6. Rendering showing the proposed house and pool house when approaching the Property from the southeast along Lester B. Pearson Street

Figure 7. Rendering showing the proposed house when approaching the Property from the southwest along Main Street

Image 50. View southwest showing the vegetation along Lester B. Pearson Street when approaching the Property from the northeast

Image 51. View southeast showing Lester B. Pearson Street when beside the Property

8 IMPACT OF THE PROPOSED DEVELOPMENT

8.1 POTENTIAL IMPACTS TO THE PROPERTY

The Property is within the KNHCD and is designated under Section 41 Part V of the *OHA*; however, it is classified as a non-contributing in the *KNHCD Plan*. The house on the Property is not considered to be either an 'Existing Historic and Contributing Style' or an 'Existing Non-Historic and Contributing Style'. Therefore, its demolition will not result in any direct negative impacts.

The Property is contained in the Kleinburg Village Character Area and the Historic Village Core of Kleinburg and has several heritage attributes that contribute to these areas including the mature trees in its front, side, and rear yards; its contribution to the variety of setbacks present in the residential area in which it is located; and its contribution to the low-density scale and massing of the area in which it is located. Because the proposed development will result in the removal of several trees, direct negative impacts to the KNHCD are possible.

8.2 POTENTIAL IMPACTS TO ADJACENT HERITAGE PROPERTIES

Given that the adjacent heritage properties at 21 Bell Court, 10626 Islington Avenue, 27 Main Street, and 110 Nashville Road are classified as non-contributing properties in the KNHCD, the proposed development of the Property will not result in direct or indirect impacts to those properties.

8.3 COMPLIANCE WITH THE POLICIES AND GUIDELINES IN THE KNHCD PLAN

8.3.1 COMPLIANCE WITH POLICIES IN THE KNHCD PLAN

Table 1 assesses the proposed development against relevant policies in the *KNHCD Plan*.

Table 1. Compliance with Relevant Policies in the *KNHCD Plan*

Policy #	Policy	Discussion
2.2 Policies for Cultural Heritage Landscapes	CHLs and associated historic vegetation shall be afforded the same consideration and protection from intensification pressures and new development as the built form.	This policy is not met because several mature deciduous and coniferous trees in the front, side, and rear yards that contribute to the Kleinburg Village Cultural Heritage Landscape will be removed. A Tree Preservation Plan and Post-Construction Restoration Plan have been prepared by a qualified arborist that recommend remediation measures to be integrated on the property following development. These measures mitigate the removal of trees.
2.4.2 Alteration and Additions to Non-Contributing Properties	Additions and alterations to non-contributing buildings have an impact on their contributing neighbours, the streetscape and the overall character of the HCD. As non-contributing buildings are altered and added to, these shall aim not to detract from the heritage character of the HCD overall and to adjacent properties. Any irreversible alterations or modiciations [sic] proposed will require a Cultural Heritage Impact Assessment within the HCD. Designs shall be sympathetic in nature and materials without recreating heritage styles.	This policy is met through the preparation of this CHIA.

Policy #	Policy	Discussion
2.4.3 Demolition of Non-Contributing Properties	The process of evaluation of a building's design (scale, massing and/or architectural design) will be completed through a formal Cultural Heritage Impact Assessment drafted by a member with professional qualifications. Their assessment will determine if the property is sympathetic and supportive to the adjacent properties and the overall character of the HCD. They will provide their conclusion based on the distinctions within the assessment and either support or not support the proposed demolition.	This policy is met through the preparation of this CHIA.
2.5 New Development	Within the District, new development … will be designed to respect and reinforce the existing physical character and uses of the surrounding area, specifically respecting and reinforcing the following elements: A. the local pattern of lots, streets and blocks; B. the size and configuration of lots; C. the building type of nearby residential properties; D. the orientation of buildings; E. the heights and scale of adjacent and immediately surrounding residential properties;	This policy is partially met. The proposed development will retain the local lot pattern, residential building type, building orientation, building height, setback of the building from Main Street, pattern of rear and side yards, and existing topography with minor changes from the existing conditions. The size and scale of the proposed house exceeds the existing house on the Property and houses on several adjacent and immediately surrounding residential properties, including those on 25 Main Street and 27 Main Street. Nevertheless, the size and scale of the proposed house is similar to the house on the adjacent and nearby houses on 9 Lester B. Pearson Street, 24

Policy #	Policy	Discussion
	F. the setback of buildings from the street; G. the pattern of rear and side-yard setbacks; H. the presence of mature trees and general landscape character of the streetscape; I. the existing topography and drainage pattern on the lot and in the adjacent and immediately surrounding properties; and, J. conservation and enhancement of heritage buildings, heritage districts and cultural heritage landscapes.	Lester B. Pearson Street, 27 Lester B. Pearson Street, and 33 Lester B. Pearson Street.
2.5.1.1 Site Planning	The historical residential villages of Kleinburg and Nashville were laid out with large lots, ranging between a quarter- to a half-acre. Houses were mostly of a modest scale, leaving generous yards on all sides. Frontyard setbacks vary somewhat, but are small compared to the rear yards, where space was needed for stabling, herb and vegetable gardens, and orchards. An early village household needed these means for self sufficiency, and lawns and decorative planting were minimal. The use of the yards has changed, and they provide more pleasure and less production now, but to a great extent the original village scale has persisted. Building height, lot	This policy is partially met. The proposed house retains the general setbacks of the existing house and is consistent with building setbacks in the immediate vicinity. Several mature deciduous and coniferous trees in the front, side, and rear yards that contribute to the Kleinburg Village Cultural Heritage Landscape will be removed. A Tree Preservation Plan and Post-Construction Restoration Plan have been prepared by a qualified arborist that recommend remediation measures to be integrated on the property following development. These measures mitigate the removal of trees.

Policy #	Policy	Discussion
	coverage, and density are all low. The streetscapes are unified by a canopy of trees, planted in front of, behind, and beside most houses. Elements that define the heritage character of the residential village include: • Generous lot sizes and modest house sizes, compared to historic urban development or recent suburban development; • A variety of front-yard setbacks; • Original yards may have been enclosed with low picket fencing. Currently, fenced front yards are rare; and, • The generous presence of mature trees, in addition to decorative shrubbery, in the front, side, and rear yards.	
2.5.1.2 Architectural Style	New construction in the residential villages shall be sympathetic and complementary to the historic built form of neighbouring properties. New buildings shall be designed with local heritage styles in mind. Designs shall not look to re-create but rather incorporate and highlight appropriate features. In particular, windows, doors and trim shall be similarly attenuated and	This policy is met. The proposed house and pool house have been designed with influences from the neoclassical architectural style which is a historic and contributing style in the KNHCD. Influences of this style present on the proposed house are predominantly visible in the symmetry of the central section of the its southeast elevation, windows, and doors. Likewise, influences present on the proposed pool house include

Policy #	Policy	Discussion
	architectural detailing should be visible in spirit but not a direct duplication. Materials shall be of a similar palette those found within the HCD.	its symmetry, windows, and doors. The applied architectural influences do not directly duplicate any other buildings in the KNHCD.
2.5.1.3 Scale and Massing	New residential construction in the residential villages shall respect local heritage precedents in scale and massing. In almost every case, new construction will be replacement houses on existing built lots. Underground parking shall not be permitted as it is a permanent alteration to the entire residential lot and has long term detrimental affects to existing vegetation and mature tree canopy.	This policy is partially met. The scale and massing of the proposed house exceeds the existing house on the Property and houses on several adjacent and immediately surrounding residential properties, including those on 25 Main Street and 27 Main Street. Nevertheless, the size and scale of the proposed house is similar to the house on the adjacent and nearby houses on 9 Lester B. Pearson Street, 24 Lester B. Pearson Street, 27 Lester B. Pearson Street, and 33 Lester B. Pearson Street. One below grade parking space is proposed; however, it is accessed from the proposed house's above grade garage and is not discernable from the public realm.
2.9.1 Landscaping Treatment	Existing historical landscapes are to be protected and conserved. Mature trees will be preserved except where removal is necessary due to disease, damage or they pose a risk to public health and safety. Existing vegetation performing a visual screening function shall not be removed.	This policy is not met. Several of the mature deciduous and coniferous trees in the front, side, and rear yards will be removed. A Tree Preservation Plan and Post-Construction Restoration Plan have been prepared by a qualified arborist that recommend remediation measures to be integrated on the property following development.

Policy #	Policy	Discussion
	New complementary landscaping and tree plantings shall be used to enhance the HCD character. Plantings can be used to screen modern elements such as parking lots, fenced playing fields etc. New vegetation shall not obstruct existing views and vistas and shall not create visual barriers.	These measures mitigate the removal of trees.

8.3.2 COMPLIANCE WITH GUIDELINES IN THE KNHCD PLAN

Table 2 assesses the proposed development against relevant guidelines in the *KNHCD Plan*.

Table 2. Compliance with Relevant Guidelines in the *KNHCD Plan*

Guideline #	Guideline	Discussion
4.4.2 Residential Area: Site Planning	New development shall respect the overall setback pattern of the streetscape on which it is proposed. In case the minimum requirement for front yards does not permit this, appropriate variances to the zoning by -laws shall be sought.	This guideline is met. The proposed house and pool house respect the overall pattern of the streetscape.
4.4.2 Residential Area: Site Planning	Where there are areas of significant variation in the location of adjacent buildings, the front yard setbacks of new residential infill shall be defined either as the average of the setbacks of the adjoining properties, or where appropriate for historical reasons, aligned with the adjacent	This guideline is met. There is not significant variation in the location or front yard setback distance. The proposed house respects the overall pattern of the streetscape. The proposed pool house is located to the rear of the house and is in an appropriate location for an accessory building.

Guideline #	Guideline	Discussion
	heritage buildings.	
4.4.2 Residential Area: Site Planning	New buildings shall generally be located with the front façade parallel to the roadway.	This guideline is met. The front façades of the proposed house and pool house are parallel with Main Street and Lester B. Pearson Street, respectively.
4.4.2 Residential Area: Site Planning	Ancillary buildings shall be located towards the rear of the lot. Garages, in particular, shall not form part of the front façade.	This guideline is met. One ancillary building – a pool house – is proposed. It is located to the rear of the proposed house and does not form part of the proposed house's front façade.
4.4.2 Residential Area: Site Planning	New construction on corner lots shall be designed to present a heritage-friendly face to the flanking street.	This guideline is met. The proposed house's northeast elevation retains many of the influences from the neoclassical architectural style present on its southeast elevation.
4.4.2 Residential Area: Site Planning	In the village setting, setbacks are generally consistent, but not identical.	This guideline is met. The proposed house respects the overall setback pattern of the streetscape.
4.4.2 Residential Area: Site Planning	Extreme difference in setback from neighbouring houses is not appropriate.	This guideline is met. The proposed house respects the overall setback pattern of the streetscape.
4.4.2 Residential Area: Site Planning	Underground parking shall not be permitted.	This guideline is partially met. One below grade parking space is proposed; however, it as accessed from the proposed house's above grade garage and is not discernable from the public realm.

Guideline #	Guideline	Discussion
4.4.2 Residential Area: Scale and Massing	New residential construction in the residential villages shall respect local heritage precedents in scale and massing and shall not predominate over the existing adjacent buildings.	This guideline is partially met. The scale and massing of the proposed house exceeds the existing house on the Property and houses on several adjacent and immediately surrounding residential properties, including those on 25 Main Street and 27 Main Street. Nevertheless, the size and scale of the proposed house is similar to the house on the adjacent and nearby houses on 9 Lester B. Pearson Street, 24 Lester B. Pearson Street, 27 Lester B. Pearson Street, and 33 Lester B. Pearson Street.
4.4.2 Residential Area: Scale and Massing	New development shall not exceed a building height of 9.5 metres.	This guideline is met. The proposed house is a maximum of 9.5 metres measured from the average grade of the southeast elevation to the top of the roof. The proposed pool house is 6.4 metres measured from the top of the finished first floor to the top of the steep section of the mansard roof.
4.4.2 Residential Area: Scale and Massing	New development shall not be designed to a greater height or scale than the surrounding buildings, it should fit in with the existing streetscape in terms of rhythm, alignment and spacing. For example, an existing 1½-storey house could be replaced by a 2-storey house with a plan that included an extension to the rear. This might double the floor area without affecting the scale of	This guideline is partially met. The scale and massing of the proposed house exceeds the existing house on the Property and houses on several adjacent and immediately surrounding residential properties, including those on 25 Main Street and 27 Main Street. Nevertheless, the size and scale of the proposed house is similar to the house on the adjacent and nearby houses on 9 Lester B. Pearson Street, 24 Lester

Guideline #	Guideline	Discussion
	the streetscape.	B. Pearson Street, 27 Lester B. Pearson Street, and 33 Lester B. Pearson Street.
4.4.2 Residential Area: Scale and Massing	New buildings shall be designed to preserve the generous side yards typical in the villages. As far as possible, modern requirements for larger houses shall be accommodated without great increases in building frontage.	This guideline is not met. The setback of the proposed house's northeast elevation is setback no less than 2.84 m from the northeast property line along Lester B. Pearson Street. The setback of the proposed house's southwest elevation is no less than 1.52 m from the southeast property bordering 27 Main Street. These setback distances are considerably narrower than the existing house.
4.4.2 Residential Area: Scale and Massing	Where a building is proposed that is substantially larger than the typical buildings found on the street, the scale of the structure can be reduced by breaking up the façade and overall building mass into elements that proportionally reflect the adjacent building forms.	This guideline is partially met. The proposed house's southeast façade is divided into five prevailing sections. The central section of the house has the shallowest setback from Main Street and is the tallest part of the building. The sections adjacent to the central entrance are stepped back 0.46 metres and the outermost sections are stepped back 0.76 metres from the central entrance. The outermost four sections are also slightly shorter than the central section. The setback and height differences help to divide the mass of the proposed house; however, the proposed building still the scale and massing of the existing house and houses on several adjacent and

Guideline #	Guideline	Discussion
		immediately surrounding residential properties, including those on 25 Main Street and 27 Main Street.
4.4.2 Residential Area: Scale and Massing	New residential construction shall reflect the typical directional emphasis and building form of the surrounding streetscape. It shall not overwhelm the heritage character of the district.	This guideline is met. The proposed building reflects the horizontal directional emphasis that prevails in the immediate vicinity, and it does not overwhelm the heritage character of the district.
4.4.2 Residential Area: Scale and Massing	In order to ensure that height and massing of new development are compatible, all proposals for new buildings in the District shall include a detailed streetscape elevation of the adjoining structures and features. Corner lots require two streetscapes. If necessary, photographs may also be used.	This guideline is met. Massing models and renderings that integrate the proposed development into the existing streetscape have been prepared and are include in this CHIA.
4.4.2 Residential Area: Architectural Styles	The new construction can be contemporary in their construction and composition but shall be compatible by employing the materials, scale, massing or proportions typically found in the heritage buildings within the Heritage Conservation District.	This guideline is partially met. The proposed house and pool house employ materials and proportions that are similar to other heritage buildings within the KNHCD. Specifically, the proposed house and pool house use materials and proportions that are typical of neoclassical buildings. The scale and massing of the proposed house is in excess of typical, contributing buildings found in the KNHCD.

Guideline #	Guideline	Discussion
4.4.2 Residential Area: Architectural Styles	Design houses to reflect one of the local heritage Architectural Styles in spirit (i.e. massing, scale, and proportions) example Victorian, Georgian but not a direct replica.	This guideline is met. The proposed house and pool house have been designed with influences from the neoclassical architectural style which is a historic and contributing style in the KNHCD.
4.4.2 Residential Area: Architectural Styles	A consistent approach to design detail for the chosen style shall be used for all building elements. Hybrid designs that mix elements from different historical styles are not appropriate. Historical styles that are not historically found in the area, such as Tudor or French Manor, are not appropriate.	This guideline is met. The proposed house and pool house do not mix elements from different historical styles and is not influenced by styles that are not historically found in the KNHCD.
4.4.2 Residential Area: Architectural Styles	In order to reflect a village pattern, adjacent detached buildings shall not be identical.	This guideline is met. The proposed house and pool house are not identical to any adjacent or nearby houses.
4.4.2 Residential Area: Architectural Styles	Inappropriate “vintage” materials and assemblies that do not belong to the period or chosen style shall not be used.	This guideline is met. The proposed house and pool house use materials that are appropriate for the neoclassical style.
4.4.2 Residential Area: Architectural Styles	Architectural details that reinterpret traditional ones responding to the chosen style are encouraged. Contemporary interpretations of traditional details e.g. new designs for windows and door surrounds can provide visual interest and	This guideline is met. The proposed house and pool house appropriately interpret the neoclassical architectural style. Details that are atypical of a neoclassical building

Guideline #	Guideline	Discussion
	also convey the fact that the building is new. These contemporary reinterpretations shall be similar in scale and proportions to those used historically.	include the proposed house's truncated high hipped roof and French doors, and the proposed pool house's mansard roof. Nevertheless, these design elements introduce contemporary interpretation and help to convey that the buildings are new. Additionally, these design elements are compatible within the KNHCD.
4.4.2 Residential Area: Roof Form, Materials and Features	Roof design (both form and overhang) in the District shall be compatible with the historic roof types in the village and the selected building style.	This guideline is met. The proposed house has a truncated high hipped roof that gives the impression of a mansard roof when observed from the public realm. The proposed pool house has a mansard roof. Mansard roofs are compatible within the KHHCD. The proposed house's roof also has a dentilled frieze, which is supportive of the proposed building's neoclassical influences and is compatible in the KNHCD.
4.4.2 Residential Area: Roof Form, Materials and Features	The use of asphalt shingles, simulated slate in a colour that complements the architecture of the building is acceptable. Traditional shingle colours such as greys, blacks and browns are encouraged as these are commonly used in the District.	This guideline is met. The proposed house and pool house roofs will be clad in black asphalt shingles.

Guideline #	Guideline	Discussion
4.4.2 Residential Area: Roof Form, Materials and Features	The use of wood shingle roofs (cedar) is acceptable depending on the architectural style of the dwelling; standing seam metal roofing, if appropriate to the style.	This guideline does not apply. Wood shingles are not proposed.
4.4.2 Residential Area: Roof Form, Materials and Features	Not all new roofing material is necessarily appropriate for use in a Heritage District. The use of the following roofing materials is not supported: clay tile or metal tile roofs, and plastics and other synthetics.	This guideline is met. Clay tile or metal tile roofs, and plastics and other synthetics are not proposed.
4.4.2 Residential Area: Roof Form, Materials and Features	Roof vents, dormers, mechanical equipment, solar panels, skylights and satellite dishes shall be located away from the public view and shall be as inconspicuous as possible.	This guideline is partially met. All skylights are located away from view from the public realm. The proposed house and pool house's dormers are visible from public view; however, they are supportive of their architectural styles. Moreover, dormers are common in the Property's immediate vicinity.
4.4.2 Residential Area: Roof Form, Materials and Features	Eavestroughs shall co-ordinate with or match the building's trim colour. Traditional eavestrough profiles are encouraged.	This guideline is met. The proposed house and pool house eavestroughs will be black and will match the trim colour.
4.4.2 Residential Area: Roof Form, Materials and Features	Flashing and caulking shall co-ordinate with the wall color.	The colour of flashing and caulking should be considered as design progresses.

Guideline #	Guideline	Discussion
4.4.2 Residential Area: Roof Form, Materials and Features	Downspouts shall not obscure architectural features.	The location of downspouts should be considered as design progresses.
4.4.2 Residential Area: Roof Form, Materials and Features	The design of historic chimneys shall be used as a reference in new chimney design. Chimneys on large roofs can be used as a means of breaking up the massing to a more appropriate scale.	This guideline is met. The proposed house's chimney has a single brick stack and two flues. The proposed pool house's chimney has a single brick stack and one flue. These general characteristics are in keeping with the neoclassical architectural style.
4.4.2 Residential Area: Roof Form, Materials and Features	Pot lights in the eaves are not supported.	Pot lights in the proposed house's eaves should be avoided. This should be considered as design progresses.
4.4.2 Residential Area: Roof Form, Materials and Features	Flat roofs, shallow roofs, overly massive roof and roof-top patios or decks are not supported.	This guideline is met. The proposed house has a truncated hip roof, and the proposed pool house has a mansard roof. Neither roof is flat (when viewed from the public realm), shallow, or overly massive. Roof-top patios or decks are not proposed.
4.4.2 Residential Area: Dormer	Dormers in new construction shall be consistent with the style of the house and shall be consistent with traditional dormer scale and proportions.	This guideline is met. The pedimented, gabled dormers are consistent with the style of the proposed house and pool house and with traditional dormer scale and proportions.

Guideline #	Guideline	Discussion
4.4.2 Residential Area: Dormer	Dormers shall reflect the traditional hierarchy of windows on a structure, in that the windows in the dormer shall be of a lesser scale than the windows on the lower part of the building.	This guideline is met. The dormer windows on the proposed house are of a lesser scale than the windows on the lower part of the building. The dormers on the proposed pool house are the same as the windows on the lower part of the building.
4.4.2 Residential Area: Dormer	The predominant type of dormer in the district is the roof dormer.	This guideline is met. The dormers are roof dormers.
4.4.2 Residential Area: Windows	Windows on new construction shall appear similar in scale, proportion and character to those used traditionally and be consistent with the style of the house.	This guideline is met. The windows are similar scale, proportion and character to those used traditionally and are consistent with the style of the proposed house and pool house.
4.4.2 Residential Area: Windows	New windows for a new development shall use materials such as wood, aluminum, composites, wood clad. Use of Vinyl is not acceptable.	Window material should be considered as design progresses.
4.4.2 Residential Area: Windows	Notwithstanding the material of the window: the shape, configuration and profile of the new window shall complement or reflect the architectural design of the new building.	This guideline is met. The shape, configuration, and profile of the windows compliment the architectural design of the proposed house and pool house.
4.4.2 Residential Area: Windows	A consistent approach to window proportion and type shall be followed in the design of a new building. As a general principle, windows shall be taller than their width (usually 2:1 ratio of length to width).	This guideline is met. Windows are taller than their width.

Guideline #	Guideline	Discussion
4.4.2 Residential Area: Windows	Divided windows shall include real, externally perceivable muntin bars (external, permanently adhered muntin bars are also acceptable). The type, size and profile of muntin bar division shall be compatible with the architectural style of the house.	Window divisions/muntin bar layout and organization should be considered as design progresses.
4.4.2 Residential Area: Windows	Skylights or roof windows are not appropriate on elevations of the building visible from the street.	This guideline is met. Skylights are not visible from the street.
4.4.2 Residential Area: Windows	Bay windows on new construction shall be applied in an orderly manner, extend to the ground and reflect historic bay window forms. Modern bay windows such as those with minimal mullions, multi-paned casement windows, or which do not extend to the ground are not appropriate.	This guideline does not apply. Bay windows are not proposed.
4.4.2 Residential Area: Windows	The new shutters if proposed shall be compatible with the architectural style of the house. Shutters shall be half the width of a window and attached at the frame, not the wall, in order to appear functional. The use of wood shutters is preferred. Shutters made from more modern materials may be used. Consultations with staff on the appropriateness will be required.	This guideline does not apply. Shutters are not proposed.

Guideline #	Guideline	Discussion
4.4.2 Residential Area: Windows	All windows shall have sills. Window sills shall be made of wood, stone, or concrete; brick sills shall not be used. Sills are not only part of traditional architecture, they represent good construction practice for contemporary buildings.	This guideline is met. All windows have lug sills. The material of the sills should be considered as design progresses.
4.4.2 Residential Area: Windows	New construction shall respect the traditional ratio of 15–20% of window-to-wall coverage. Greater window-to-wall ratios shall be avoided.	This guideline is met. The window-to-wall coverage respects the traditional ratio.
4.4.2 Residential Area: Windows	On façades that are visible from the street, new windows shall maintain historic proportions and placement patterns typically found in the District.	This guideline is met. Windows on façades that are visible from the street maintain historic proportions and placement patterns.
4.4.2 Residential Area: Doors	Doors on new construction shall visually reflect the historic doors in the District and be consistent with the style of the house.	This guideline is met. The doors visually reflect the historic doors in the district and are generally consistent with the neoclassical architectural style. French doors present on the proposed house are not typical of the neoclassical architectural style; however, their design – including jack arch headers, transoms, and dado panels – allows them to support the proposed house's interpretation of the neoclassical style.
4.4.2 Residential Area: Doors	New doors for a new development shall use materials such as wood, aluminium, composites, wood clad materials. Use of Vinyl is not acceptable.	Door material should be considered as design progresses.

Guideline #	Guideline	Discussion
4.4.2 Residential Area: Doors	Door surrounds shall be consistent with the traditional design of these elements seen in the District.	This guideline is met. Door surrounds including jack arch headers, transoms, and sidelights are consistent with the traditional design of the neoclassical architectural style.
4.4.2 Residential Area: Doors	Modern doors of compositions and materials that are not consistent with the character of the District shall be avoided.	Door material should be considered as design progresses.
4.4.2 Residential Area: Doors	On façades that are visible from the street, new doors shall maintain historic proportions and placement patterns typically found in the District.	This guideline is met. Doors on façades that are visible from the street maintain historic proportions and placement patterns.
4.4.2 Residential Area: Wall Materials	The use of traditional materials and products for any new structure shall be visually compatible with the adjacent historical buildings. Traditional cladding materials in KNHCD include red clay brick, stucco and wood siding.	This guideline is met. The proposed house and pool house will be clad stucco.
4.4.2 Residential Area: Porches and Verandahs	The traditional porches and verandahs are encouraged as features of new construction in the District.	This guideline is met. The proposed house and pool house have porticos with a flat, pedimented roofs. This type of porch is common of buildings influenced by the neoclassical architectural style.
4.4.2 Residential Area: Porches and Verandahs	The new porch design shall be appropriate to the style of the building and/or district.	This guideline is met. The porticos are appropriate for buildings influenced by the neoclassical architectural style.

Guideline #	Guideline	Discussion
4.4.2 Residential Area: Porches and Verandahs	Flooring used on porches and verandas is to be laid perpendicular to the adjacent wall.	The flooring used for the portico should be considered as design progresses.
4.4.2 Residential Area: Porches and Verandahs	Incorporating porches on buildings where their style or historic evidence does not support them is not supported.	This guideline is met. The porticos are appropriate for buildings influenced by the neoclassical architectural style..
4.4.2 Residential Area: Porches and Verandahs	Lighting fixtures shall complement the historic character of the building. Pot lights in the eaves are not supported.	This guideline is met. The lighting fixtures complement the character of the proposed building. Pot lights in the proposed house's eaves should be avoided. This should be considered as design progresses.
4.4.2 Residential Area: Porches and Verandahs	The introduction of front yard decks is not supported.	This guideline does not apply. A front yard deck is not proposed.
4.4.2 Residential Area: Porches and Verandahs	Modern glass porches are not supported.	This guideline does not apply. A modern glass porch is not proposed.
4.4.2 Residential Area: Colours	The use of colours complementary to the character of the contemporary style of architecture, appropriate to the period and style of the building, and compatible with surrounding heritage buildings is considered appropriate.	This guideline is met. The proposed house and pool house will be clad in light beige stucco. The roofs of both buildings will be clad in black asphalt shingles. Windows frames, fascia, eavestroughs, and downspouts will be black. These colours are

Guideline #	Guideline	Discussion
		complementary to the style of architecture, appropriate to the period and style of the building, and compatible with surrounding heritage buildings.
4.4.2 Residential Area: Foundations	Foundations on new construction shall be of a height that is appropriate to the historic architectural forms of the District.	This guideline is met. The height of the proposed house and pool house foundations are appropriate to the historic architectural forms of the KNHCD. Exposed sections of the foundation wall are minimized on all elevations.
4.4.2 Residential Area: Foundations	Exposed foundation walls above grade shall appear structural, as in a traditional fieldstone foundation, or cultured stone with a similar appearance. The stone shall be of mixed colours and types representative of locally found fieldstone. The stone shall not be laid in a flagstone pattern resembling modern stone veneering.	The appearance of the exposed foundation walls above grade should be considered as design progresses.
4.4.2 Residential Area: Landscape	Landscape features around a building and the overall streetscape like trees, fencing, walkways, driveways, sheds can contribute to the special character of the District and shall be incorporated within the new design.	This guideline is met. Trees, fencing, walkways, driveways, and a shed (pool house) will be incorporated into the design.

Guideline #	Guideline	Discussion
4.4.2 Residential Area: Landscape	Maintain greenspace by having generous setbacks between buildings and presence of mature trees, in addition to decorative shrubbery, in the front, side, and rear yards. The ratio of greenspace to building mass and the side yard setbacks shall be generally consistent with the character of adjacent properties.	This guideline is met. The proposed house and pool house have generous setbacks and the ratio of greenspace to building mass is generally consistent with adjacent and nearby properties. Decorative shrubbery is also proposed.
4.4.2 Residential Area: Landscape	New parking areas shall be introduced in a manner that has minimal impact on lawns, gardens, mature vegetation and the views of the building.	This guideline is met. The proposed parking areas consume a significant portion of the Property's front yard; however, in the context of the proposed development, they impact is minimal. Lawns, gardens, vegetation, and views of the building are generally not significantly affected.
4.4.2 Residential Area: Landscape	Visual impact assessments and other guidelines such as Built Features and Vegetation shall be integrated at an early stage in project planning so that any potential impacts on the heritage value of the cultural landscape can be mitigated or even avoided.	This guideline has been considered within the CHIA.
4.4.2 Residential Area: Landscape	Front yard fences are to be low (3 feet or so) of a variety of wooden picket fencing in a simple design. Appropriate materials include wood. Inappropriate materials include: metal, wrought iron, brick, chain link, stock trellis.	This guideline does not apply. A front yard fence is not proposed.

Guideline #	Guideline	Discussion
4.4.2 Residential Area: Landscape	Back yard fences must meet existing bylaws regarding height and other safety measures. Simple design and can be higher than front yard fencing. Appropriate materials include wood. Inappropriate materials [sic] include: metal, brick, stone. Black or dark green chain link shall [sic] only be used to enclose a pool.	This guideline does not apply. A back yard fence is not proposed.
4.4.2 Residential Area: Utility Equipment	Utility and service equipment shall not be readily visible, especially on the front or side façades.	The location of utility and service equipment should be considered as design progresses.
4.4.2 Residential Area: Utility Equipment	The following equipments [sic] shall be screened if placed In front of the building – telephone connection boxes, utility meters, cable.	The location of utility and service equipment should be considered as design progresses.
4.4.2 Residential Area: Utility Equipment	Wall mounted air-conditioning units, ground-mounted heat pumps, transformers shall not be installed on the front elevations or shall be screened in a proper manner.	The location of utility and service equipment should be considered as design progresses.
4.4.2 Residential Area: Garages and Outbuildings	Garages shall be lower in profile than the principle [sic] building and complementary in design and colour	This guideline is met. The pool house (outbuilding) is lower in profile than the principal building. The design and colour of the pool house matches the proposed house.

Guideline #	Guideline	Discussion
4.4.2 Residential Area: Garages and Outbuildings	A garage shall be located in such a way that the house not the garage is the focal point of the new construction. Below grade garages for single family dwellings is not supported.	This guideline is met. The house is the focal point of the new construction.
4.4.2 Residential Area: Garages and Outbuildings	Windows and doors shall be compatible with the District character.	This guideline is met. The proposed pool house's windows and doors are consistent with the proposed house and are compatible with the District character.
4.4.2 Residential Area: Garages and Outbuildings	The use of traditional materials and products such as wood windows and sidings, is always preferred.	This guideline is met. The proposed pool house's materials are consistent with the proposed house.
4.4.2 Residential Area: Garages and Outbuildings	Non-traditional materials and products (aluminium, cement board) in historical configurations and profiles that provide the appearance of traditional materials may be used.	The materials, configuration, and profile used for the pool house should be considered as design progresses.
4.4.2 Residential Area: Garages and Outbuildings	New garage doors shall reflect simple historic doors in a form that is consistent with the historic vernacular architecture of Kleinburg-Nashville HCD.	This guideline does not apply. The proposed pool house does not have garage doors.
4.4.4.1 List of Appropriate Materials	Exterior Finish: Use materials compatible with the nearby contributing buildings which form the heritage context. Roofs: Slopes and layouts compatible with the nearby contributing buildings which form the	This guideline is generally met. The proposed house's exterior finish, doors, and windows are compatible with the nearby contributing properties. Truncated high hipped roofs and mansard roofs are compatible within the KHHCD; however, this roof type

Guideline #	Guideline	Discussion
	heritage context. Doors: Use materials and designs compatible with the nearby contributing buildings which form the heritage context. Windows: Use windows compatible with the nearby contributing buildings which form the heritage context. Refer to Section 4.2.2 for a list of appropriate materials used in the HCD.	is not common the neoclassical buildings.
4.4.4.2 Inappropriate Materials	Exterior Finish: • Concrete block; calcite or concrete brick; • Textured, clinker, or wire cut brick; • Precast concrete panels or cast-in-place concrete; • Prefabricated metal or plastic siding; • Stone or ceramic tile facing; and, • "Rustic" clapboard or "rustic" board and batten siding; wood shake siding. Exterior Detail: • Prefinished metal fascias and soffits; • "Stock" suburban pre-manufactured shutters, railings, and trims; • Unfinished pressure-treated wood decks,	This guideline is generally met. Inappropriate exterior finishes, doors, windows, and flashings are not proposed. Prefinished metal fascias and soffits are proposed; however, they do not detract from the proposed house's neoclassical architectural style influences. Truncated high hipped roofs and mansard roofs are compatible within the KHHCD; however, this roof type is not common the neoclassical buildings. Specific materials should be considered as design progresses.

Guideline #	Guideline	Discussion
	porches, railings, and trim; Roofs: • Slopes or layouts not suitable to the architectural style; • Non-traditional metal roofing such as prefinished or corrugated metal; and, • Modern skylights, when facing the street. Doors: • "Stock" suburban door assemblies; • Flush doors. Sidelights on one side only; • Aluminum storm and screen doors; • Sliding patio doors; and, • Double-bay, slab, or metal garage doors. Windows: • Large "picture" windows; • Curtain wall systems; • Metal and plastic frames; • Metal or plastic cladding; • Awning, hopper, or sliding openers; and, • "Snap-in" or tape simulated glazing bars. Flashings: • Pre-finished metal in inappropriate colours	

Guideline #	Guideline	Discussion
4.5.3.2 Residential Streets: Design Guidelines for Streetwall/ Setbacks on Residential Street	New development shall be sited to be either in line with adjacent contributing buildings or mid-way between new development and contributing buildings.	This guideline is met. The setback of the proposed house's southeast elevation is similar to that of the building on the adjacent property at 27 Main Street.
4.5.3.2 Residential Streets: Design Guidelines for Streetwall/ Setbacks on Residential Street	Setbacks shall be consistent but not identical.	This guideline is met. The setback of the proposed house is consistent but not identical to buildings on adjacent and nearby properties.
4.5.3.2 Residential Streets: Design Guidelines for Streetwall/ Setbacks on Residential Street	Extreme variation from the existing neighbouring setbacks is not appropriate.	This guideline is met. The setback of the proposed house is consistent but not identical to buildings on adjacent and nearby properties.

Guideline #	Guideline	Discussion
4.5.3.2 Residential Streets: Design Guidelines for Streetwall/ Setbacks on Residential Street	An average of the front setbacks shall be maintained for the new building.	This guideline is met. The setback of the proposed house is consistent but not identical to buildings on adjacent and nearby properties.
4.5.3.2 Residential Streets: Design Guidelines for Streetwall/ Setbacks on Residential Street	For frontages larger than 18 metres, the building mass shall be subdivided into discrete elements. These elements shall reflect the historical scale and shall have varied setbacks in keeping with the village character.	This guideline is generally met. The Property's frontage exceeds 18 metres. The proposed house is subdivided into discrete elements using stepbacks and changes in building height. Extending the stepbacks, further lowering the sides of the building, and material changes would further support subdivision of the proposed building's mass.
4.5.3.3 Streetwall Height and Scale – II. Residential Village	Building heights shall not exceed maximums outlined in the Zoning By-law.	This guideline is met. The Property is located in an area zoned as R1B and RE zone. The RE zone is more restrictive in allowed height, with a maximum of 9.5 metres allowed. The proposed house reaches a maximum of 9.5 metres.
4.5.3.3 Streetwall Height and Scale – II. Residential Village	Heights shall be sympathetic to neighbouring properties.	This guideline is met. The height of the proposed house is generally sympathetic to the buildings on adjacent and nearby properties.

Guideline #	Guideline	Discussion
4.5.4.1 Transitions of New Buildings in Relation to Heritage Resources: Side and Rear Yard Setbacks	New buildings and additions to contributing buildings may be given consideration if and when: • the new construction/addition is not visible from the public realm; • the new construction/addition is set back from the street frontage to maintain views to the contributing building; • the portions of the contributing building that will have obstructed views do not contain significant heritage attributes; and, • The new construction/addition is of a good architectural quality and design and contributes to the character of the HCD.	This guideline is met. The proposed house and pool house are set back from the street frontage and views to nearby contributing buildings is not affected. Additionally, the proposed house and pool house contribute to the character of the HCD.
4.5.4.1 Transitions of New Buildings in Relation to Heritage Resources: Front Setback	New buildings must have sympathetic setbacks to existing contributing buildings.	This guideline is met. The proposed house has sympathetic setbacks to existing contributing building.
4.5.6.2 Front Gardens/Yards	Existing mature trees shall be preserved, and new tree planting shall be designed to reflect the traditional village pattern described above.	This guideline is partially met. New tree planting will be designed to reflect the traditional village pattern. Several mature deciduous and coniferous trees in the front, side, and rear yards that contribute to the

Guideline #	Guideline	Discussion
		Kleinburg Village Cultural Heritage Landscape will be removed. A Tree Preservation Plan and Post-Construction Restoration Plan have been prepared by a qualified arborist that recommend remediation measures to be integrated on the property following development. These measures mitigate the removal of trees.
4.6.2 Residential Lawns	Minimize the size of manicured lawns.	This guideline is met. The size of manicured lawns is minimized.
4.6.4 Street and Residential Trees	Conserve existing natural forest stands or groupings of trees.	This guideline is met. Although existing mature trees will be removed, they generally do not exist in groupings.
4.6.4 Street and Residential Trees	Streetscapes shall conserve the existing green canopy and provide new tree planting where none exists, in order to create a continuous tree canopy along the street.	This guideline is not met. Several mature deciduous and coniferous trees in the front, side, and rear yards that contribute to the Kleinburg Village Cultural Heritage Landscape will be removed. A Tree Preservation Plan and Post-Construction Restoration Plan have been prepared by a qualified arborist that recommend remediation measures to be integrated on the property following development. These measures mitigate the removal of trees.

Guideline #	Guideline	Discussion
4.6.4 Street and Residential Trees	Trees on public and private property, having a tree diameter of twenty (20) centimetres or more or having a base diameter of twenty (20) centimetres or more, must be conserved, and the requirements of the City of Vaughan Tree Bylaw 185-2007 must be adhered to.	This guideline is not met. Several mature deciduous and coniferous trees in the front, side, and rear yards that contribute to the Kleinburg Village Cultural Heritage Landscape will be removed. A Tree Preservation Plan and Post-Construction Restoration Plan have been prepared by a qualified arborist that recommend remediation measures to be integrated on the property following development. These measures mitigate the removal of trees.

8.3.3 SUMMARY OF COMPLIANCE WITH POLICIES AND GUIDELINES IN THE KNHCD PLAN

The proposed house is generally compliant with policies and guidelines in the *KNHCD Plan*. Noncompliance and partial compliance with the policies and guidelines is typically related to the size and massing of the proposed house. The removal of mature trees from the Property is also noncompliant with the *KNHCD Plan*; however, a Tree Preservation Plan and Post-Construction Restoration Plan have been prepared by a qualified arborist that recommended remediation measures to be integrated on the property following development. These measures mitigate the removal of trees.

As detailed design progresses, the location of downspouts and utility and service equipment; window, door, portico, and exposed foundation materials; and colour of flashing and caulking require consideration.

8.4 IMPACT ASSESSMENT – ONTARIO HERITAGE TOOL KIT INFO SHEET #5

Table 3 assesses the proposed development against the impacts identified in the *Ontario Heritage Tool Kit* (see Section 2.5).

Table 3. Impact Assessment Against the *Ontario Heritage Tool Kit*

Impact	Possibility of Impact (Y/N)	Discussion
Destruction	Yes	The existing house on the Property does not contribute to the KNHCD and its destruction will not result in an adverse impact to the Property, any adjacent properties, or to the KNHCD. The mature trees on the Property contribute to the KNHCD. Their destruction will have a direct negative impact on the Property's contribution to the character of the KNHCD.
Alteration	Yes	The proposed alteration of the Property through the construction of a new house and pool house will result in a negative impact. As described in Section 8.3, the proposed development is generally compliant with policies and guidelines in the *KNHCD Plan*; however, there are several inconsistencies that generally relate to the proposed house's size and massing and the

Impact	Possibility of Impact (Y/N)	Discussion
		removal of several trees.
Shadows	No	Shadows that alter the appearance of a heritage attribute or change the viability of a natural feature or planting are not anticipated.
Isolation	No	Isolation of heritage attributes is not anticipated.
Direct or Indirect Obstruction	No	Direct or indirect obstruction of significant views or vistas within, from, or built and natural features are not anticipated.
Change in Land Use	No	A change is and use is not anticipated. The Property will retain its residential use.
Land Disturbances	No	Land disturbances that directly or indirectly affect any heritage attributes are not anticipated.

8.5 IMPACT ASSESSMENT – STANDARDS AND GUIDELINES FOR THE CONSERVATION OF HISTORIC PLACES IN CANADA

Table 4 assesses the proposed development against relevant standards from the *S&G*s (see Section 2.5.2).

Table 4. Impact Assessment Against Relevant Standards from the *S&G*s

Standard	Discussion
1. Conserve the heritage value of an historic place. Do not remove, replace or substantially alter its intact or repairable character- defining elements. Do not move a part of an historic place if its current location is a character-defining element.	This standard is not met. The removal of mature trees is not supported. The setback of the proposed house and its low-density, residential use is consistent with this standard.
3. Conserve heritage value by adopting an approach calling for minimal intervention.	This standard is not met. The removal of mature trees is not a minimal intervention. The demolition of the existing house on the Property is also not a minimal intervention; however, the house is classified as non-

Standard	Discussion
	contributing in the *KNHCD Plan*. In the context of the proposed development, the setback and its low-density, residential use is consistent with this standard.
7. Evaluate the existing condition of character-defining elements to determine the appropriate intervention needed. Use the gentlest means possible for any intervention. Respect heritage value when undertaking an intervention.	This guideline is outside of the scope of this CHIA; however, it is recommended that a qualified arborist be retained to assess the condition of the trees on the Property.

8.6 IMPACT ASSESSMENT SUMMARY

The proposed house and pool house are generally compliant with policies and guidelines in the *KNHCD Plan*. Noncompliance and partial compliance with the policies and guidelines in the *KNHCD Plan*, as well as possible impacts identified in the *Ontario Heritage Tool Kit* and noncompliance with relevant standards from the *S&G*s, is typically related to the size and massing of the proposed house. The removal of mature trees from the Property is also noncompliant with the *KNHCD Plan*; however, a Tree Preservation Plan and Post-Construction Restoration Plan have been prepared by a qualified arborist that recommended remediation measures to be integrated on the property following development. These measures mitigate the removal of trees.

As detailed design progresses, downspout and utility and service equipment location; window, door, portico, and exposed foundation materials; and flashing and caulking colour require consideration.

9 MITIGATION OPTIONS, CONSERVATION METHODS, AND PROPOSED ALTERNATIVES

9.1 ALTERNATIVE OPTIONS

The following range of possible development alternatives was explored. All options have been considered in relation to the applicable planning framework outlined in Section 3. The options have also taken existing conditions into consideration. An evaluation of options is identified below.

9.1.1 DO NOTHING AND RETAIN CURRENT USE

One option for the Property would be to do nothing. This option would leave the Property as is and the existing house would remain in situ. The 'do nothing' option would have no direct impact on the cultural heritage value or interest of the Property or the KNHCD because no changes would be made. This option would see the current house on the Property retain its residential use. Regular upkeep and maintenance would still be required if this option were selected.

The house on the Property is not considered to be either an 'Existing Historic and Contributing Style' or an 'Existing Non-Historic and Contributing Style'. Therefore, its demolition will not result in any direct negative impacts on the Property itself or on the KNHCD. From a purely cultural heritage perspective, there is no reason that demolition of the existing house should not be permitted.

9.1.2 DEMOLITION AND DEVELOPMENT OF THE PROPOSED HOUSE AND POOL HOUSE

This option would see the demolition of the existing house and construction of the proposed house and pool house described in Section 7. The design of the proposed house and pool house has been altered in response to City comments and to better align with the policies and guidelines in the *KNHCD Plan*. Changes to the proposed house and pool house primarily involved architectural characteristics of the buildings' elevations. The height, size, massing, and internal layout of the proposed house and pool house has seen few changes.

The first plan was prepared in February 2024. Plan and elevation drawings included in this drawing package only detailed the proposed house. This design for the house used architectural design characteristics from the Italian Villa and Italianate architectural styles. The southeast elevation of the proposed house was composed of twelve bays and was generally divided into five distinct sections. A frontispiece comprised the central bay and contained the proposed house's primary entrance. The frontispiece had decorative engaged columns, decorative parapet, circular reliefs, and semi-circular reliefs. The sections adjacent to the frontispiece were stepped back. They were symmetrical and included a window and

two French doors. The outermost sections were stepped back from the sections adjacent to the frontispiece. The eastmost section had two bays – garage doors –and the westmost section had three bays – two garage doors and a recessed door.

The proposed house's southeast elevation was clad in limestone veneer. The material of the other walls was not specified. The proposed house had a truncated high hipped roof with projecting eaves, prefabricated aluminum soffit and eavestrough, and a shaped frieze. Four nonfunctional decorated, semi-circular dormers were evenly spaced along the southeast roofline. A single stack chimney was offset towards the right (northeast) and rear (northwest) of the house.

Several window styles were present. The most common style was flatheaded and had plain trim outside the structural opening. On the southeast elevation, windows of this style had a decorated lug sill. On all other elevations, windows of this style had a plain lug sill. Elliptical and round-headed windows were also present. These windows all had plain trim outside of their structural openings. The main entrance was flatheaded, had an entablature with semi-circular, elliptical, and triangular reliefs; plain trim along its sides; and two glazed door leaves. The four French doors on the southeast elevation shared the same general characteristics as the main entrance. Doors on the other elevations either had flatheaded or circular openings and had plain trim. Figure 8 shows the primary elevation of the February 2024 design.

A revised plan was prepared in October 2024. Plan and elevation drawings included in this drawing package only detailed the proposed house. This design for the house used architectural design characteristics from the neoclassical architectural style. The October 2024 design is nearly identical to the design described in Section 7.1 of this CHIA.

The outermost bays on the proposed house's southeast elevation were lowered, reducing the building's overall mass. In addition to the stepback of the outermost bays – which was present in the February 2024 design – reducing their height helps create the appearance that they are later additions to an existing building (the central three sections of the building). The cladding material was changed to brick set in an English bond pattern. The roof retained the same shape; however, the frieze was changed. A dentilled frieze was present along the southeast, northwest, and part of the northeast roofline and a plain frieze was present along the southwest and part of the northeast roofline. Five nonfunctional pedimented, gabled dormers were evenly spaced along the southeast roofline.

A typical window was flatheaded, had a coursed jack arch, plain trim, and plain lug sill. The main entrance was flatheaded, had a coursed jack arch, plain trim, sidelights, transom, and two solid door leaves. Most other doors shared similar characteristics including flatheaded openings, coursed jack arches, plain trim, transom, and two door leaves. Most other doors,

including the French doors on the proposed house's southeast elevation, had glazed door leaves. Figure 9 shows the primary elevation of the February 2024 design.

The current design was prepared in February 2025 and is described in detail in Section 7.1 of this CHIA. The primary change from the October 2024 design is the cladding material, which was changed to stucco.

Figure 8. February 2024 Design

Figure 9. October 2024 Design

9.2 MITIGATION OPTIONS AND CONSERVATION METHODS

To help support the proposed house's compliance with the policies and guidelines in the *KNHCD Plan*, the following measures could be considered in the context of other constraints as detailed design progresses:

- Modifications to the outermost (garage) sections of the proposed house's southeast elevation to reduce the overall size and massing of the proposed house to allow it to better integrate into the existing streetscape. This would also allow the three central sections of the proposed house's southeast elevation to better align with design principles common of the neoclassical architectural style. Specifically:
    - A different cladding material and/or colour palette could be used on the outermost sections of the proposed house's southeast elevation.
    - The façade stepback distance of the outermost sections could be increased, to the extent possible.
    - The roof height of the outermost sections could be decreased, to the extent possible.
- As detailed design progresses, downspout and utility and service equipment location; window, door, portico, and exposed foundation materials; and flashing and caulking colour should be considered in accordance with the *KNHCD Plan*.

10 CONCLUSION AND RECOMMENDATIONS

LHC was retained on 23 October 2024 by M5V The Niagara Inc. on behalf of the property Owner to prepare a scoped CHIA for the property located at 8 Main Street in the City of Vaughan, Ontario.

The Property is located in the KNHCD and is designated under Section 41 Part V of the *OHA*. The Property is classified as non-contributing in the *KNHCD Plan*. The owner is proposing to demolish the existing c. 1960 one-storey frame house and three sheds on the Property to facilitate the construction of a new, single detached, two-storey residence and one-and-a-half storey pool house.

The proposed house is generally compliant with policies and guidelines in the *KNHCD Plan*. Noncompliance and partial compliance with the policies and guidelines is typically related to the size and massing of the proposed house. The removal of mature trees from the Property is also noncompliant with the *KNHCD Plan*; however, a Tree Preservation Plan and Post-Construction Restoration Plan have been prepared by a qualified arborist that recommended remediation measures to be integrated on the property following development. These measures mitigate the removal of trees. The recommendations in the Tree Preservation Plan and Post-Construction Restoration Plan prepared by Lothlorien Garden Consulting should be implemented.

To help support the proposed house's compliance with the policies and guidelines in the *KNHCD Plan*, the following measures could be considered in the context of other constraints as detailed design progresses:

- Modifications to the outermost (garage) sections of the proposed house's southeast elevation to reduce the overall size and massing of the proposed house to allow it to better integrate into the existing streetscape. This would also allow the three central sections of the proposed house's southeast elevation to better align with design principles common of the neoclassical architectural style. Specifically:
    - A different cladding material and/or colour palette could be used on the outermost sections of the proposed house's southeast elevation.
    - The façade stepback distance of the outermost sections could be increased, to the extent possible.
    - The roof height of the outermost sections could be decreased, to the extent possible.

- As detailed design progresses, downspout and utility and service equipment location; window, door, portico, and exposed foundation materials; and flashing and caulking colour should be considered in accordance with the *KNHCD Plan*.

11 SIGNATURES

Sincerely,

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Intermediate Heritage Planner

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APPENDIX A Qualifications

Ben Daub, MA RPP MCIP CAHP Intern – Intermediate Heritage Planner

Ben Daub is an intermediate heritage planner with LHC. He holds a Bachelor of Applied Technology in Architecture – Project and Facility Management from Conestoga College and a Master of Arts in Planning from the University of Waterloo. His master's thesis analyzed the relationship between urban intensification and the ongoing management of built heritage resources using a mixed methods approach. During his academic career, Ben gained a detailed understanding of the built environment through exposure to architectural, engineering, and urban planning principles and processes. His understanding of the built environment ranges from building specific materials and methods to large scale planning initiatives.

Ben has been the primary or contributing author of over 60 technical cultural heritage reports with LHC. He has worked on Heritage Impact Assessments, Cultural Heritage Evaluation Reports, Environmental Assessments, Heritage Conservation District Studies, and Municipal Heritage Register Reviews. He has worked with properties with cultural heritage value recognized at the municipal, regional, provincial, and federal levels and has prepared reports for urban, suburban, and rural sites.

In addition to his work at LHC, Ben instructs the Urban and Community Planning course in Conestoga College's Architecture – Project and Facility Management degree program and has presented his master's thesis research at ICOMOS Canada's Next Generation: Research from Canadian Emerging Professionals event. Ben is a Registered Professional Planner (RPP), full member with the Ontario Professional Planners Institute (OPPI), full member with the Canadian Institute of Planners (MCIP), and an intern member of the Canadian Association of Heritage Professionals (CAHP).

Christienne Uchiyama, MA CAHP - Principal LHC

Christienne Uchiyama MA CAHP is Principal and Manager of Heritage Consulting Services with LHC. She is a Heritage Consultant and Professional Archaeologist (P376) with more than two decades of experience working on cultural heritage aspects of planning and development projects. She received her MA in Heritage Conservation from Carleton University School of Canadian Studies. Her thesis examined the identification and assessment of impacts on cultural heritage resources in the context of Environmental Assessment.

Chris has provided archaeological and heritage conservation advice, support and expertise as a member of numerous multi-disciplinary project teams for projects across Ontario, including such major projects as: all phases of archaeological assessment at the Canadian War Museum site at LeBreton Flats, Ottawa; renewable energy projects; natural gas pipeline routes; railway lines; hydro powerline corridors; and highway/road realignments. She has completed more than 300 cultural heritage technical reports for development proposals at all levels of government, including cultural heritage evaluation reports, heritage impact assessments, and archaeological licence reports and has a great deal of experience undertaking peer reviews. Her specialties include the development of Cultural Heritage Evaluation Reports, under both O. Reg. 9/06 and 10/06, and Heritage Impact Assessments.

Jordan Greene, BA (Hons) – Mapping Technician

Jordan Greene, BA joined LHC as a mapping technician following the completion of her undergraduate degree. In addition to completing her B.A. in Geography at Queen's University, Jordan also completed certificates in Geographic Information Science and Urban Planning Studies. During her work with LHC Jordan has been able to transition her academic training into professional experience and has deepened her understanding of the applications of GIS in the fields of heritage planning and archaeology. Jordan has contributed to over 100 technical studies and has completed mapping for projects including, but not limited to, cultural heritage assessments and evaluations, archaeological assessments, environmental assessments, hearings, and conservation studies. In addition to GIS work she has completed for studies Jordan has begun developing interactive maps and online tools that contribute to LHC's internal data management. In 2021 Jordan began acting as the health and safety representative for LHC.

APPENDIX B Glossary

Definitions are based on those provided in the *Provincial Planning Statement* (*PPS*), *Ontario Heritage Act (OHA)*, and the *Vaughan Official Plan* (*OP*). In some instances, documents have different definitions for the same term, all definitions have been included and should be considered.

Adjacent when applied to cultural or built heritage means, those lands contiguous to a protected heritage property (*OP*).

Alter means to change in any manner and includes to restore, renovate, repair, or disturb. "Alteration" has a corresponding meaning (*OHA*).

Built Heritage Resource means 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 (*PPS*).

Conserved means 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 should be included in these plans and assessments (*PPS*).

Cultural Heritage Landscape means a defined geographical area that may have been modified by human activity and is identified as having cultural heritage value or interest by a community, including an Indigenous community. The area may include features such as buildings, structures, spaces, views, archaeological sites or natural elements that are valued together for their interrelationship, meaning or association (*PPS*).

Cultural Heritage Impact Assessment a document prepared by a qualified professional with appropriate expertise comprising text and graphic material including plans, drawings and photographs that contains the results of historical research, field work, survey, and analysis, and descriptions of cultural heritage resources together with a description of the process and procedures in deriving potential effects and mitigation measures. The document shall include: a. a description of the cultural heritage values of the Property; b. contextual information, including any adjacent heritage properties; c. the current condition and use of all

constituent features; d. relevant planning and land use considerations; e. a description of the proposed development and potential impacts, both adverse and beneficial, on the cultural heritage values; f. alternative strategies to mitigate adverse impacts; and g. recommendations to conserve the cultural heritage values (*OP*).

Designated Heritage Property real property designated under Parts IV, V or VI of the Ontario Heritage Act or real property that is subject to a heritage conservation easement under Parts II or IV of the Act (*OP*).

Heritage attributes means, in relation to real property, and to the buildings and buildings on the real property, the attributes of the Property, buildings and buildings that contribute to their cultural heritage value or interest ("attributs patrimoniaux") (*OHA*).

Heritage attributes means, as defined under the *Ontario Heritage Act*, in relation to real property, and to the buildings and structures on the real property, the attributes of the property, buildings and structures that contribute to their cultural heritage value or interest (*PPS*).

APPENDIX C Drawing Package

SURVEYOR'S REAL PROPERTY REPORT OF

PART 1 :
PLAN OF LOTS 12 & 13
REGISTERED PLAN 268
AND
PART OF LOT 19
REGISTERED PLAN 210
AND
PART OF LOTS 24 & 25
CONCESSION 8

CITY OF VAUGHAN

(REGIONAL MUNICIPALITY OF YORK)

5 0 5 10 metres

SCALE = 1 : 300

A. AZIZ SURVEYORS INC., O.L.S.

METRIC: DISTANCES SHOWN HEREON ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048.

PART 2 :

REPORT
* THIS REPORT WAS PREPARED FOR TRIPAR IMPROVEMENT, AND THE UNDERSIGNED ACCEPTS NO RESPONSIBILITY FOR ITS USE BY OTHER PARTIES.

BOUNDARIES
* PART OF LOT 12 & LOT 13, REGISTERED PLAN 268 & PART OF 24, CONCESSION 8

TITLE SEARCH INDICATES
* TILE SEARCH INDICATES THAT THE SUBJECT PROPERTY IS SUBJECT TO AN EASEMENT OVER PART 1 & PART 2, PLAN 598387

ZONING
* NO INVESTIGATION WITH RESPECT TO MUNICIPAL ZONING BY LAW HAS BEEN MADE FOR THE SUBJECT PROPERTY (PROPERTIES).

FENCES
* PLEASE NOTE THE POSITION OF THE FENCES IN RELATION TO THE NORTHERLY & WESTERLY BOUNDARIES; THEY ARE LOCATED OVER THE SUBJECT BOUNDARIES TO THE EXTENT SHOWN ON THE PLAN.

BEARING NOTE
* BEARING ARE ASTRONOMIC AND ARE REFERRED TO THE NORTHERLY LIMIT OF MAIN STREET HAVING A BEARING OF N80°00'00"E AS SHOWN ON PLAN 65R-31715

GEODETIC:
* ELEVATIONS SHOWN GEODETIC DRIVEN FROM CITY OF VAUGHAN BENCH MARK # 00819708050, ELEVATION 183.937 M

LEGEND:

■	DENOTES SURVEY MONUMENT FOUND	IB	DENOTES IRON BAR
□	" SURVEY MONUMENT SET	MH	" MANHOLE
SIB	" STANDARD IRON BAR	OU	" ORIGIN UNKNOWN
N,E,S,W	" NORTH,EAST, SOUTH, WEST	MS	" MEASURED
BF	" BOARD FENCE	DT.	" DECIDUOUS TREE
WF	" WIRES FENCE	CT.	" CONIFEROUS TREE
P	" SURVEY BY VLADIMIR DOSEN SURVEYING, O.L.S., DATED OCTOBER 26, 2016	DS	" DOOR SILL
P1	" PLAN 65R-31715	CB	" CATCH BASIN
P2	" PLAN 598387	S	" SIGN
1188	" SEXTON MCKAY LTD., O.L.S.	HP/LP	" HYDRO POLE/LAMP POST
1215	" OTTO ERTL, O.L.S.	TFH	" TOP OF FIRE HYDRANT
967	" W.N. WILDMAN, O.L.S.	OHW	" OVERHEAD WIRES
1457	" RONALD JAMES STEWARD, O.L.S.	RW	" RETAINING WALL
HJU	" HOLDING JONES VANDERVEEN INC., O.L.S.	WV	" WATER VALVE
W	" HAROLD WHEELER, O.L.S.		
NTS	" NOT TO SCALE		
IT	" IRON TUBE		

SURVEYOR'S CERTIFICATE

I CERTIFY THAT:
1. THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT, THE SURVEYORS ACT AND THE REGULATIONS MADE UNDER THEM.
2. THE SURVEY WAS COMPLETED ON THE 31st DAY OF OCTOBER, 2020

DATE: NOVEMBER 10, 2020

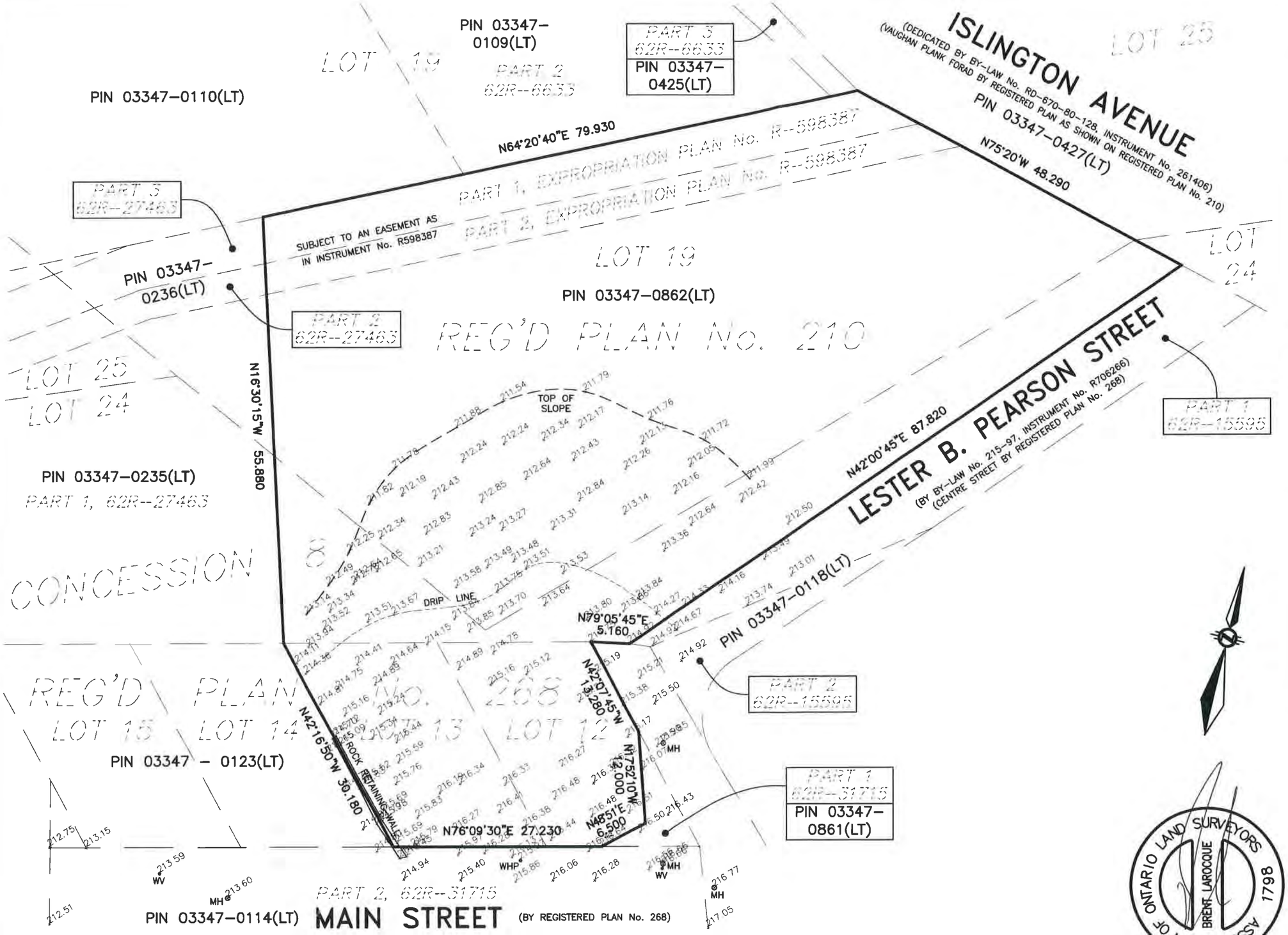
A. ABDELSHAHID
ONTARIO LAND SURVEYOR

ASSOCIATION OF ONTARIO LAND SURVEYORS
PLAN SUBMISSION FORM
2141602

THIS PLAN IS NOT VALID UNLESS IT IS AN EMBOSSED ORIGINAL COPY ISSUED BY THE SURVEYOR, in accordance with Regulation 1026, Section 29(3).

A. AZIZ SURVEYORS INC
ONTARIO LAND SURVEYORS
120 NEWKIRK ROAD- #31, RICHMOND HILL, ONT. L4C-9S7
Tel. (905) 237-8224 Fax: (416) 477-5465
Website : M-Azizsurveyors.ca
E-Mail : aziz@m-azizsurveyors.ca

PROJECT NUMBER	PROJECT
20-230	8 MAIN STREET (SR-PR)
DRAWN BY C.H	CHECKED BY A.A



CITY OF VAUGHAN
INDIVIDUAL LOT GRADING CERTIFICATE

PART OF LOTS 24 & 25
CONCESSION 8
(GEOGRAPHIC TOWNSHIP OF VAUGHAN)
PART OF LOT 19
REGISTERED PLAN No. 210
LOT 13 & PART OF LOT 12
REGISTERED PLAN No. 268

SCALE 1:500 METRIC

BENCHMARK: ELEVATIONS HEREON ARE ORTHO-METRIC AND ARE RELATED TO CGVD28, HT2, AS PREVIOUSLY ESTABLISHED BY THE LAROCQUE GROUP.

CAUTION: THIS IS NOT A PLAN OF SURVEY AND SHALL NOT BE USED FOR TRANSACTION OR MORTGAGE PURPOSES.

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

LEGEND

90.00	DENOTES	EXISTING ELEVATION
(90.00)	DENOTES	PROPOSED ELEVATION
[90.00]	DENOTES	FINISHED ELEVATION
⇦	DENOTES	DRAINAGE DIRECTION
• DS	DENOTES	DOWNSPOUT
MH	DENOTES	MANHOLE
WHP	DENOTES	WOOD HYDRO POLE
WV	DENOTES	WATER VALVE

PROPOSED GRADING CERTIFICATE

I HEREBY CERTIFY THAT THE PROPOSED GRADING SHOWN DOES NOT ADVERSLY AFFECT THE ADJACENT PROPERTIES AND THIS LOT WILL DRAIN SATISFACTORILY.

NAME: BRENT LAROCQUE
FIRM: RICHARD LAROCQUE LIMITED
SIGNATURE: _____
DATE: JULY 17, 2023
FILED BY TOWN: _____
DATE: _____

AS CONSTRUCTED GRADING CERTIFICATE

I HEREBY CERTIFY THAT THE FINISHED GRADES SHOWN GENERALLY CONFORM WITH WHAT WAS PROPOSED.

NAME: _____
FIRM: _____
SIGNATURE: _____
DATE: _____
FILED BY TOWN: _____
DATE: _____

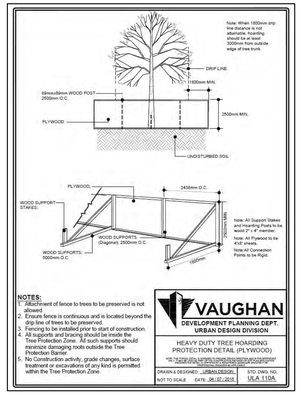
ONTARIO LAND SURVEYORS ASSOCIATION OF BRENT LAROCQUE 1798

RICHARD LAROCQUE LIMITED
ONTARIO LAND SURVEYORS & CONSULTANTS
12 LYMAN STREET, ST. CATHARINES, ONTARIO
905-688-1413
6385 COLBORNE STREET, NIAGARA FALLS, ONTARIO
905-358-8400
www.larocquegroup.ca

DATE: JULY 17, 2023 FILE No. : 2023-039
DWG No. : 2023-039-01

TRCA NOTES

#	Standard Notes
Section 1: Site Management	
1	"Erosion and Sediment Control (ESC) measures will be implemented prior to, and maintained during the construction phases, to prevent entry of sediment into the water. All damaged erosion and sediment control measures should be repaired and/or replaced within 48 hours of the inspection."
2	"disturbed areas will be minimized to the extent possible, and temporarily or permanently stabilized or restored as the work progresses."
3	"All in-water and near water works will be conducted in the dry with appropriate erosion and sediment controls."
4	"The erosion and sediment control strategies outlined on the plans are not static and may need to be upgraded/amended as site conditions change to minimize sediment laden runoff from leaving the work areas. If the prescribed measures on the plans are not effective in preventing the release of a deleterious substance, including sediment, then alternative measures must be implemented immediately to minimize potential ecological impacts. TRCA Enforcement Officer should be immediately contacted. Additional ESC measures to be kept on site and used as necessary."
5	"An Environmental Monitor will attend the site to inspect all new controls, as well as on a regular basis, or following rain/snowmelt event, to monitor all works, and in particular works related to erosion and sediment controls, dewatering or unwatering, restoration and in- or near- water works. Should concerns arise on site the Environmental Monitor will contact the TRCA Enforcement Officer as well as the proponent."
6	"All activities, including maintenance procedures, will be controlled to prevent the entry of petroleum products, debris, rubble, concrete or other deleterious substances into the water. Vehicular refueling and maintenance will be conducted a minimum of 30 metres from the water."
7	"All grades within the Regulatory Flood Plain will be maintained or matched."
8	"The proponent/contractor shall monitor the weather several days in advance of the onset of the project to ensure that the works will be conducted during favourable weather conditions. Should an unexpected storm arise, the contractor will remove all unfixed items from the Regional Storm Flood Plain that would have the potential to cause a spill or an obstruction to flow, e.g., fuel tanks, porta-potties, machinery, equipment, construction materials, etc."
9	"All dewatering/unwatering shall be treated and released to the environment at least 30 metres from a watercourse or wetland and allowed to drain through a well-vegetated area. No dewatering effluent shall be sent directly to any watercourse, wetland or forest, or allowed to drain onto disturbed soils within the work area. These control measures shall be monitored for effectiveness and maintained or revised to meet the objective of preventing the release of sediment laden water."
10	"All access to the work site shall be from either side of the watercourse. No equipment or vehicles are permitted to cross through the watercourse unless approved by TRCA."
Section 2: Construction Timing	
11	"In order to comply with the *Migratory Birds Convection Act*, TRCA recommends that tree removals be completed between August 1 and April 1."
12	"To protect local fish populations during their spawning, nursery and migratory periods, **in-water/near water activities may only occur** during the following time period [TRCA TO CONFIRM TIMING WINDOW DURING REVIEW OF FIRST SUBMISSION].
Section 3: Fish and Wildlife Relocation	
13	"Fish and wildlife stranded within the work area shall be captured and released live in suitable habitat upstream of the work area under the supervision of a qualified aquatic biologist. A permit from the Ministry of Natural Resources is required."
Section 4: Environmental Compliance	
14	"Please notify TRCA Enforcement Officer (xxx at 416.xxx cell) and TRCA Project Manager (xxx at 416.661.6600 x xxx) 48 hours prior to commencing construction."
15	"An Environmental Monitor will be on site, and provide advice, to ensure that activities that could have a negative impact to the natural environment are effectively mitigated as construction proceeds. The Environmental Monitor shall notify the TRCA Enforcement Officer and Project Manager if an issue arises."



NOTE: THIS DETAIL REPRESENTS AN IDEAL SCENARIO. SITE CONDITIONS VARY AND EROSION AND SEDIMENT CONTROL MEASURES SHOULD BE TAILORED FOR EACH SITE AND PROJECT

TRCA ESC DESIGN DETAIL	SCALE: N.T.S.	REV:	DATE: MARCH 2016
DRAWING TITLE: SEDIMENT FENCE (UNFROZEN CONDITIONS)	DWG NO:		03

CROSS-ASSER TOWCANTO AND REGION CONSERVATION AUTHORITY (TRCA) IS NOT LIABLE FOR ANY INTERPRETATION SHOWN ON THIS DRAWING. PLEASE READ THE REFERENCE NOTES

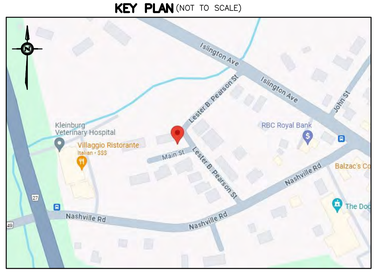
NOTES:
1. Attachment of fence to trees to be preserved is not allowed
2. Ensure fence is continuous and is located beyond the drip line of trees to be preserved.
3. Fencing to be installed prior to start of construction.
4. No signs, cords and bracing should be inside the Tree Protection Zone. All such supports should minimize damage to roots outside the Tree Protection Barrier.
5. No Construction activity, grade changes, surface treatment or excavations of any kind is permitted within the Tree Protection Zone.

VAUGHAN
DEVELOPMENT PLANNING DEPT.
URBAN DESIGN DIVISION

HEAVY DUTY TREE HOARDING PROTECTION DETAIL (PLYWOOD)

DRAWN & DESIGNED: URBAN DESIGN	STD. DWG. NO.
NOT TO SCALE DATE: JAN 15th 2016	ULA 110A

KEY PLAN (NOT TO SCALE)



CAUTION

- THIS IS NOT A PLAN OF SURVEY AND SHOULD NOT BE USED FOR ANY REAL ESTATE TRANSACTIONS.
- BEFORE EXCAVATION THE CONTRACTOR MUST VERIFY IF GRAVITY CONNECTION TO SANITARY SEWER AND STORM IS ACHIEVABLE
- BEFORE EXCAVATION THE CONTRACTOR OR PERMIT APPLICANT MUST PROVIDE TO THE SURVEYOR THE LATEST APROVED SITE GRADING PLAN.

NOTE

THE OWNER IS RESPONSIBLE TO ENSURE ALL CONSTRUCTION AND GRADING IS IN CONFORMITY WITH THIS APPROVED PLAN AND TO THE SATISFACTION OF CITY STAFF.
ANY DEVIATION FROM THIS PLAN COULD RESULT IN AN AMENDMENT TO THE SITE PLAN AGREEMENT AND/OR DELAY RELEASE OF SECURITY DEPOSIT.

CONTRACTOR/BUILDER

IS RESPONSIBLE FOR CONFIRMING ALL EXISTING GRADES AND ELEVATIONS, THE LOCATION OF ALL EXISTING SERVICES AND UTILITIES, AND THE INVERT ELEVATIONS OF ALL SERVICE CONNECTIONS PRIOR TO CONSTRUCTION.

SITE DRAINAGE TO BE SELF CONTAINED. DRAINAGE ON ADJACENT PROPERTIES NOT TO BE ADVERSELY AFFECTED

LEGEND

MH	DENOTES	MANHOLE
CB	"	CATCH BASIN
WV	"	WATER VALVE
BB	"	BOTTOM OF BANK
TB	"	TOP OF BANK
BF	"	BOARD FENCE
RWS	"	STONE RETAINING WALL
RWW	"	WOODEN RETAINING WALL
UP	"	UTILITY POLE
DS	"	DOOR SILL
CR	"	CENTERLINE
SWI	"	INTERLOCKING PAVEMENT
O/H	"	OVERHEAD
PL	"	PLANTER
WS	"	WOODEN STAKE
N,S,E,W	"	NORTH, SOUTH, EAST, WEST
P/N	"	PROPERTY IDENTIFIER NUMBER
ø	"	DIAMETER
	"	DECIDUOUS TREE
	"	CONIFEROUS TREE
	"	BUSH
293.05	"	ELEVATION ON THE GROUND
293.05	"	ELEVATION ON THE TOP OF WALL
	"	TREES TO BE REMOVED
999.99	"	PROPOSED ELEVATION
PROP.	"	PROPOSED
FFE	"	FINISHED FIRST FLOOR ELEVATION
TW	"	TOP OF WALL ELEVATION
BS	"	BASEMENT SLAB
USF	"	UNDERSIDE OF FOOTING ELEVATION
SBE	"	SUB-BASEMENT ELEVATION
USBE	"	UNDERSIDE OF SUB-BASEMENT ELEVATION
	"	DRAINAGE DIRECTION

BENCHMARK NOTE

ELEVATIONS SHOWN HEREON ARE GEODETIC AND ARE REFERRED TO BENCHMARK No.00819708050 (ALSO KNOWN AS 50-70) HAVING AN ELEVATION OF 183.937 METERS.
LOCATED ON CONCRETE BRIDGE CARRYING HIGHWAY 27 OVER THE HUMBER RIVER, 220.4 METERS SOUTH OF JUNCTION OF HIGHWAY 27 AND YORK REGIONAL ROAD 49 AT KLEINBURG, AND 3.4 KILOMETERS NORTH OF RUTHERFORD ROAD.
TABLET IS SET HORIZONTALLY IN WEST FACE OF CONCRETE COPING, 1.46 METERS SOUTH OF NORTHWEST CORNER OF BRIDGE, 37 CENTIMETERS BELOW TOP OF COPING AND 7.9 M WEST CENTERLINE OF HWY 27.

GRADING CONSULTANT APPROVAL

I HAVE REVIEWED THE SITE AND GRADING PLAN FOR THE PROPOSED BUILDING TO BE CONSTRUCTED AND I HEREBY CERTIFY THAT:

1.) THE PROPOSED GRADES ARE IN CONFORMITY WITH EXISTING DRAINAGE PATTERNS.

2.) THE PROPOSED GRADE WILL NOT ADVERSELY AFFECT ADJOINING PROPERTIES.

THE FIELD OBSERVATIONS REPRESENTED ON THIS PLAN WERE COMPLETED ON THE 11TH DAY OF JUNE, 2024.

JULY 11, 2024
DATE

ALEX MARTON
ONTARIO LAND SURVEYOR

SITE AND GRADING PLAN FOR
PART OF LOTS 24 AND 25
CONCESSION 8
PART OF LOT 19
REGISTERED PLAN 210
LOT 13 AND PART OF LOT 12
REGISTERED PLAN 268
CITY OF VAUGHAN
REGIONAL MUNICIPALITY OF YORK

SCALE 1 : 300

5 0 5 10 15 20 25 30 metres

ALEX MARTON LIMITED
ONTARIO LAND SURVEYORS

METRIC

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

GRADING CRITERIA

1. All site plans, drawings and construction shall comply with the City of Vaughan Lot Grading Criteria, City of Vaughan Engineering Standards, and applicable Provincial Standards, the Ontario Building Code, Subdivision Agreement and By-Law 1-88 unless otherwise approved.
2. Approval of this site plan does not release the Builder/Applicant/Owner of their responsibilities to ensure the proposed drainage works are compatible with the overall drainage within the subdivision. Proposed lot drainage shall not adversely affect adjacent properties.
3. Alterations to existing grades shall not be permitted within 600mm of lot lines unless specifically approved as part of this permit. The approved grading/drainage pattern for this lot/block shall be maintained and alterations not approved as part of this Permit shall be restored by the Builder/Applicant/Owner to the satisfaction of the City of Vaughan.
4. Sedimentation/siltation control measures shall be installed prior to construction and offset a minimum of 600mm from lot lines. These measures shall be maintained in order to prevent adversities to adjacent lands. Refer to attached sample drawing.
5. Builder shall verify existing and proposed grade elevations prior to construction. Footings to bear on undisturbed soil and be a minimum of 1.22m below finished grade.
6. Provide elevation for: top of foundation wall; underside of footing; top of basement floor and finish floor.
7. Show reverse veneer wall where applicable.
8. Sanitary and Storm Invert Elevation shall be shown at main lateral connection and at property line. City Engineering Department/York Region approval is required for sanitary, storm and water box location and installation to the lot line prior to construction.
9. Water, storm and sanitary services that are to be reused or decommissioned are to be identified on the drawing.
10. Downspouts of Rain water Leaders shall discharge onto splash pads and drain towards the street. Splash pads shall outlet over sodded land where possible to encourage infiltration of surface runoff.
11. High Point on split lot drainage to be a minimum of 2.0m behind front downspout location to ensure drainage outlets to street.
12. Top of foundation walls, exterior cladding, window and door sills shall be a minimum of 150mm above finished grade.
13. The Designer/Consultant/Engineer/Architect is responsible to ensure that height, thickness, lateral bracing, etc. off all foundation walls conform to OBC. OBC subsection 9.15.4 shall apply.
14. All front and rear yards shall be graded at a 2% - 5% gradient within 5m of the building.
15. Drainage swales shall be graded with a 2% -5% gradient. Desirable swale depth is 250mm. Minimum swale depth is 150mm. Maximum swale depth is variable and depends on location and safety considerations, but must not exceed 450mm.
16. Centerline of swales shall be located 600mm from lot lines unless otherwise approved.
17. Centerline of swales must not be located less than 600mm from any foundation wall.
18. Artificial embankments and or retaining walls shall not be permitted unless approved as part of this Permit. The maximum embankment slope shall be 3:1 (horizontal to vertical) with a maximum grade differential of 600mm.
19. Proposed retaining walls are to be constructed in accordance with the City of Vaughan Lot Grading Criteria and By-Law 1-88. Retaining walls exceeding 1.0 metre in height shall be designed, inspected and certified by a Professional Engineer and shall be served by guards or otherwise treated to reduce any public hazard. All retaining walls shall be constructed of stone, precast blocks or concrete. A retaining wall which exceeds 1.0 metre in height must be set back from the nearest property line or distance equal to its height.
20. Driveway grades shall be 1.5% - 8% and compatible with approved sidewalk grades. Boulevard grades shall be 2% - 5%.
21. Driveways shall be a minimum of 1.0m from any tree, catch basin or above ground utility or other obstruction.
22. Water service stops are to be located in the grass portion of the front yard, as per City of Vaughan Standard I-1.
23. Driveways, curb cuts and driveway culverts shall be located, approved and constructed in accordance with the requirements of the City of Vaughan Lot Grading Criteria and By-Law 1-88. A separate permit is required from the City's Engineering/Public Works Department for curb cuts and/or proposed culverts.
24. Footings constructed next to catch basin lead pipe or other Municipal Service shall be inspected below lead pipe excavation. Footings must be constructed on undisturbed soil or Soil Consultants verification required.
25. If the proposed construction is in an area of fill a Professional Engineer is to inspect the excavation and certify the stability and bearing capacity of the soil prior to construction.
26. Prior to Letter of Credit release the Owner shall submit an as-built survey illustrating both proposed and as constructed grade elevations. A Storm Water Management report authored by a Professional Engineer and/or Lot Grading Certification by a Professional Engineer or Ontario Land Surveyor shall be submitted to the City upon their request.
27. Post construction flows, from a 5 year storm frequency, shall not exceed the flows for preconstruction conditions, for the same storm, unless it is demonstrated to the satisfaction of the City that uncontrolled flows will not adversely affect the existing drainage patterns. (Thesc flows shall be computed using the rational method only.)
28. "The building shall be located or the building site graded so that water will not accumulate at or near the building and will not adversely affect adjacent properties." OBC 9.14.6.1.(1)
29. TRCA approval required if grade changes will occur that abut regulated areas; existing natural or artificial watercourse, open channel, swale or ditch used to drain land.

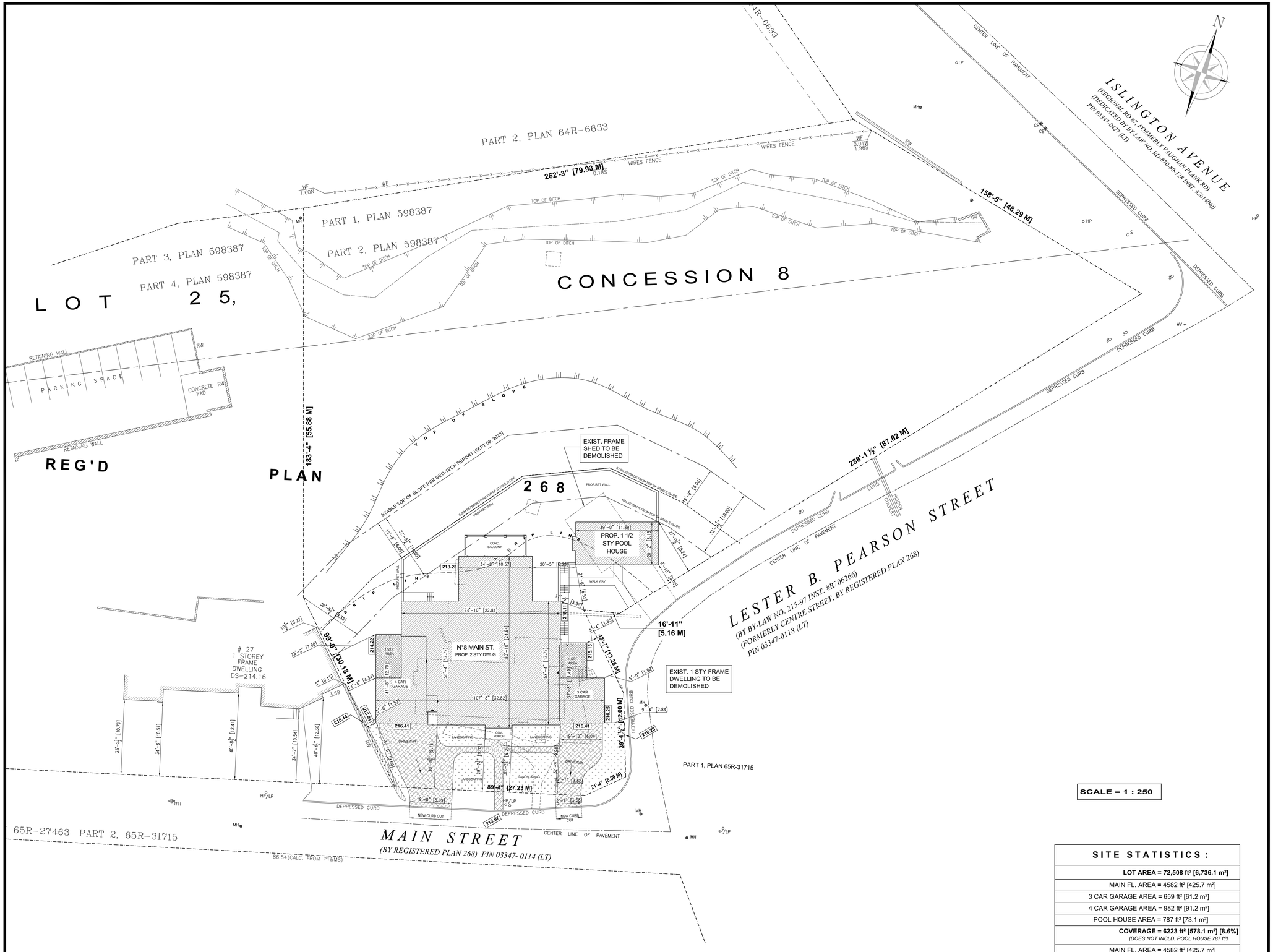
CAUTION

1. THIS IS NOT A PLAN OF SURVEY AND SHALL NOT BE USED FOR MORTGAGE OR TRANSACTION PURPOSES.
2. EXISTING SANITARY AND STORM INVERT TO BE CONFIRMED PRIOR TO CONSTRUCTION.
3. ARCHITECT TO CHECK THE ZONNING AND SETBACKS AND ELEVATIONS.
4. ARCHITECT TO CONFIRM DESIGN CONFORMS WITH ARCHITECTURAL PLANS.
5. THE EXISTING STORM AND SANITARY SERVICE LATERAL MUST BE INSPECTED AT THE PROPERTY LINE BY THE BUILDER AND THE INVERT ELEVATION MUST BE VERIFY BEFORE DO ANY EXCAVATION MINIMUM 2.0% FALL REQUIRED. OTHERWISE SUMP PUMP TO BE INSTALLED BY THE BUILDER.

BUILDER MUST VERIFY SEWER INVERTS AT TIME OF EXCAVATION.

ALEX MARTON LIMITED
ONTARIO LAND SURVEYORS
160 APPLEWOOD CRESCENT, UNIT 22,
CONCORD, ONTARIO, L4K 4H2
PHONE: 905-879-9889 FAX: 905-879-0770
E-MAIL: alex@amsurveying.ca
WEBSITE: www.amsurveying.ca

PARTY CHIEF: P.C.	FILE NAME: 2024-096.DWG
DRAWN : X.Z.	PLOT SCALE: 1:300
CHECKED : A.M.	PROJECT No. 2024-096



SITE STATISTICS :
LOT AREA = 72,508 ft² [6,736.1 m²]
MAIN FL. AREA = 4582 ft² [425.7 m²]
3 CAR GARAGE AREA = 659 ft² [61.2 m²]
4 CAR GARAGE AREA = 982 ft² [91.2 m²]
POOL HOUSE AREA = 787 ft² [73.1 m²]
COVERAGE = 6223 ft² [578.1 m²] [8.6%] *[DOES NOT INCLD. POOL HOUSE 787 ft²]*
MAIN FL. AREA = 4582 ft² [425.7 m²]
2ND FL. AREA = 5456 ft² [506.9 m²]
2ND FL. [OPEN TO BELOW] AREAS = 336 ft² [31.2 m²] *[NOT INCLUDED IN GFA]*
GFA MAIN HOUSE = 10038 ft² [932.6 m²] **GFA POOL HOUSE = 1574 ft² [146.2 m²]**
TOTAL GFA [POOL HOUSE + MAIN HOUSE] **= 11,612 ft² [1078.8 m²]**

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ISSUES:

No.	Date	Description

REVISIONS:

No.	Date	Description
1	AUG/18/2023	ADDED DRIP LINE PER STAKE OUT FROM TRCA
2	AUG/28/2023	ADDED TOP OF SLOPE PER STAKE OUT JULY 14, 2023

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QUALIFICATION INFORMATION
REQUIRED UNLESS DESIGN IS EXEMPT UNDER 2.17.5.1. OF THE BUILDING CODE

GLENN RUBINOFF		22370
NAME	SIGNATURE	BCIN/BCDN

REGISTRATION INFORMATION
REQUIRED UNLESS DESIGN IS EXEMPT UNDER 2.17.4.1. OF THE BUILDING CODE

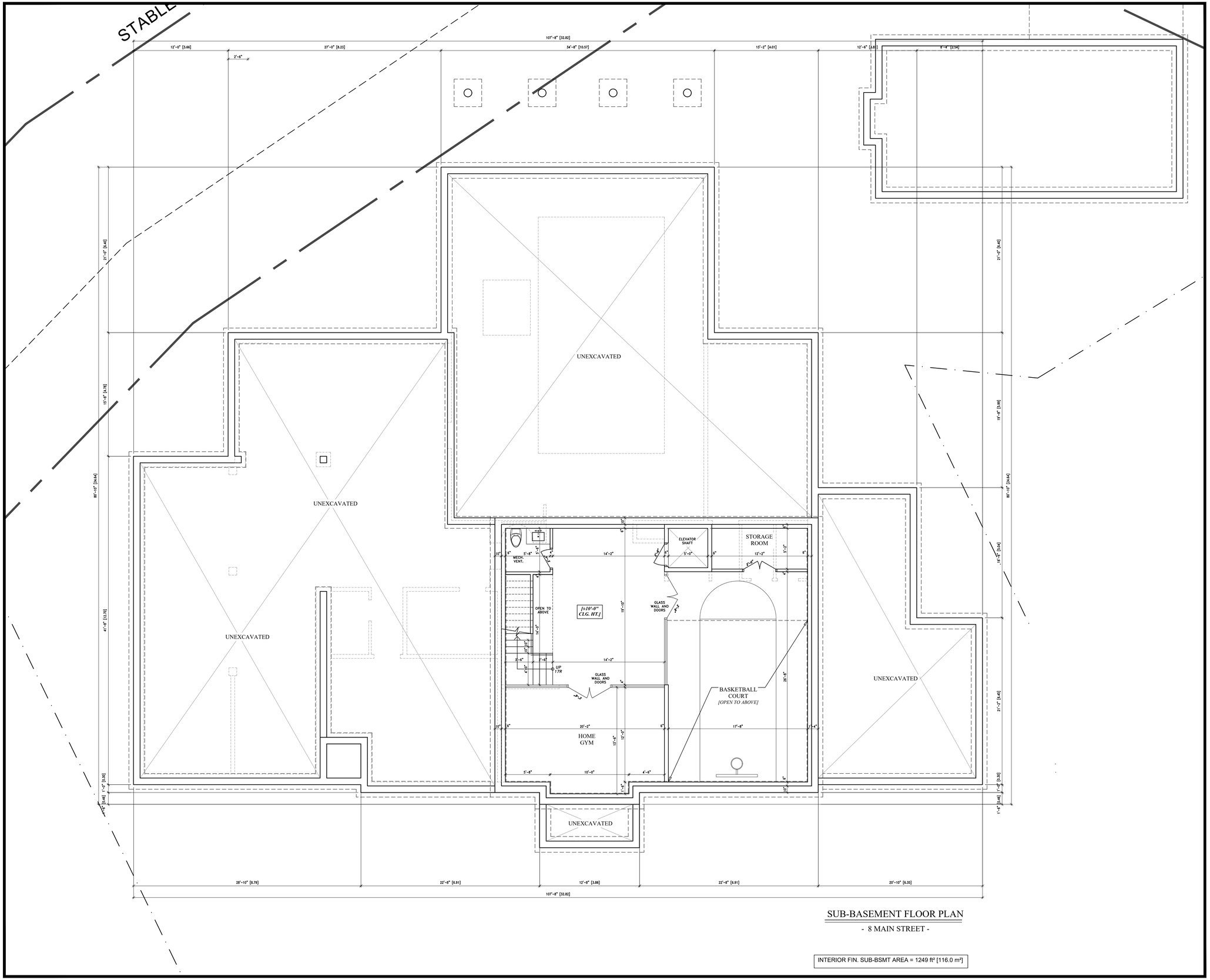
RUBINOFF DESIGN GROUP	27293
FIRM NAME	BCIN/BCDN

CLIENT:
PRIVATE RESIDENCE

PROJECT:
8 MAIN STREET
VAUGHAN, ONTARIO

DRAWING:
PROPOSED NEW SITE PLAN

PROJECT DESIGNER: G.RUBINOFF	PROJECT NO.	DRAWING NO.
DRAWN BY: P.NARANJO	DATE: FEB/07/2025	A
CHECKED BY: G.R.	SCALE: AS NOTED	



SUB-BASEMENT FLOOR PLAN

- 8 MAIN STREET -

INTERIOR FIN. SUB-BSMT AREA = 1249 ft² [116.0 m²]

ISSUES:

No.	Date	Description

REVISIONS:

No.	Date	Description

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GLENN RUBINOFF — NAME — SIGNATURE — 22370 BCIN/BCDN

REGISTRATION INFORMATION

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RUBINOFF DESIGN GROUP — FIRM NAME — 27293 BCIN/BCDN

CLIENT:

PRIVATE RESIDENCE

PROJECT:

8 MAIN STREET

VAUGHAN, ONTARIO

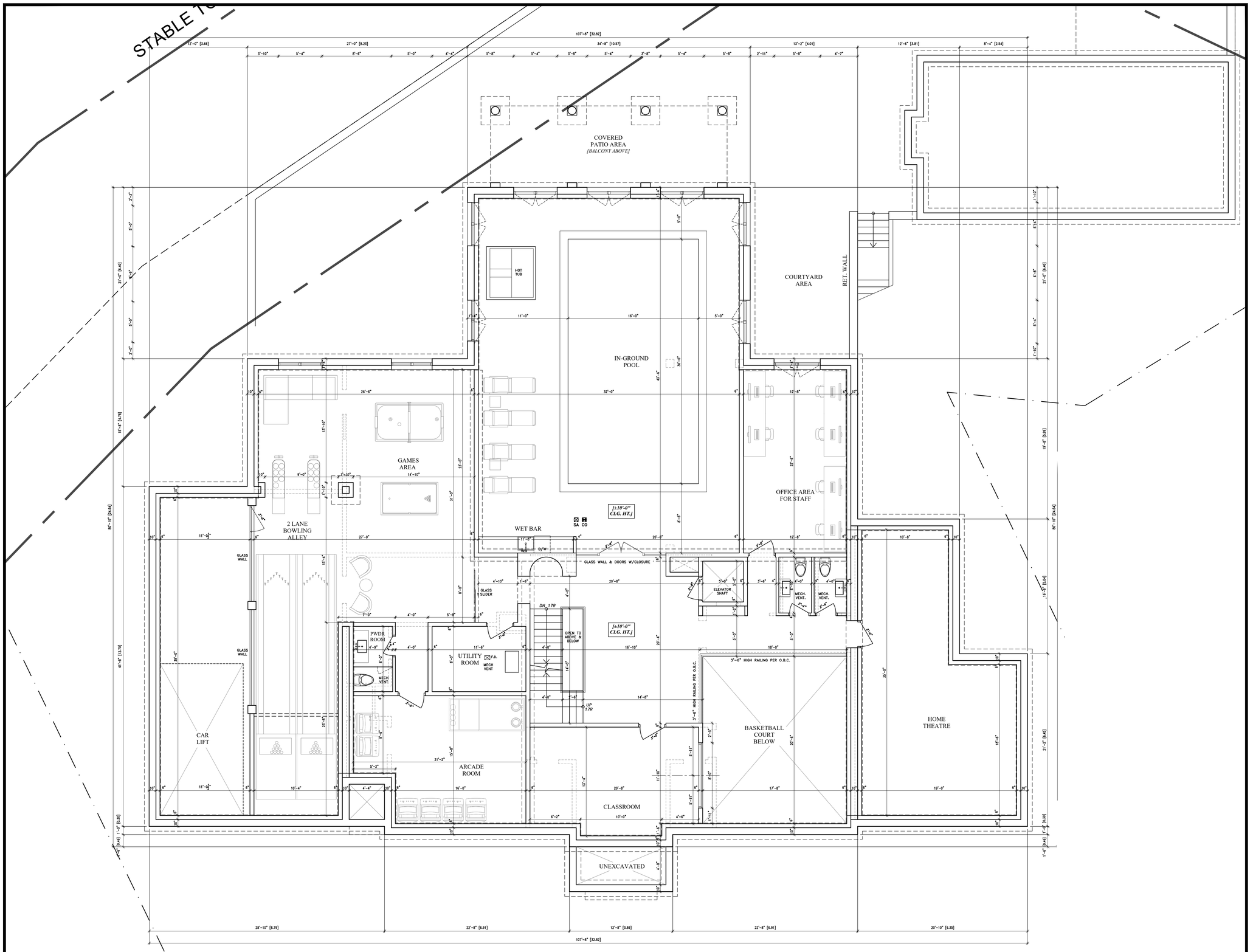
DRAWING:

PROPOSED NEW SUB-BASEMENTFLOOR PLAN

PROJECT DESIGNER: G.RUBINOFF	PROJECT NO.
DRAWN BY: P.NARANJO	DATE: FEB/24/2025
CHECKED BY: G.R.	SCALE: 3/16" = 1'-0"

DRAWING NO.

A0



BASEMENT FLOOR PLAN

- 8 MAIN STREET -

INTERIOR FIN. BSMT AREA = 5713 ft² [530.8 m²]

ISSUES:

No.	Date	Description

REVISIONS:

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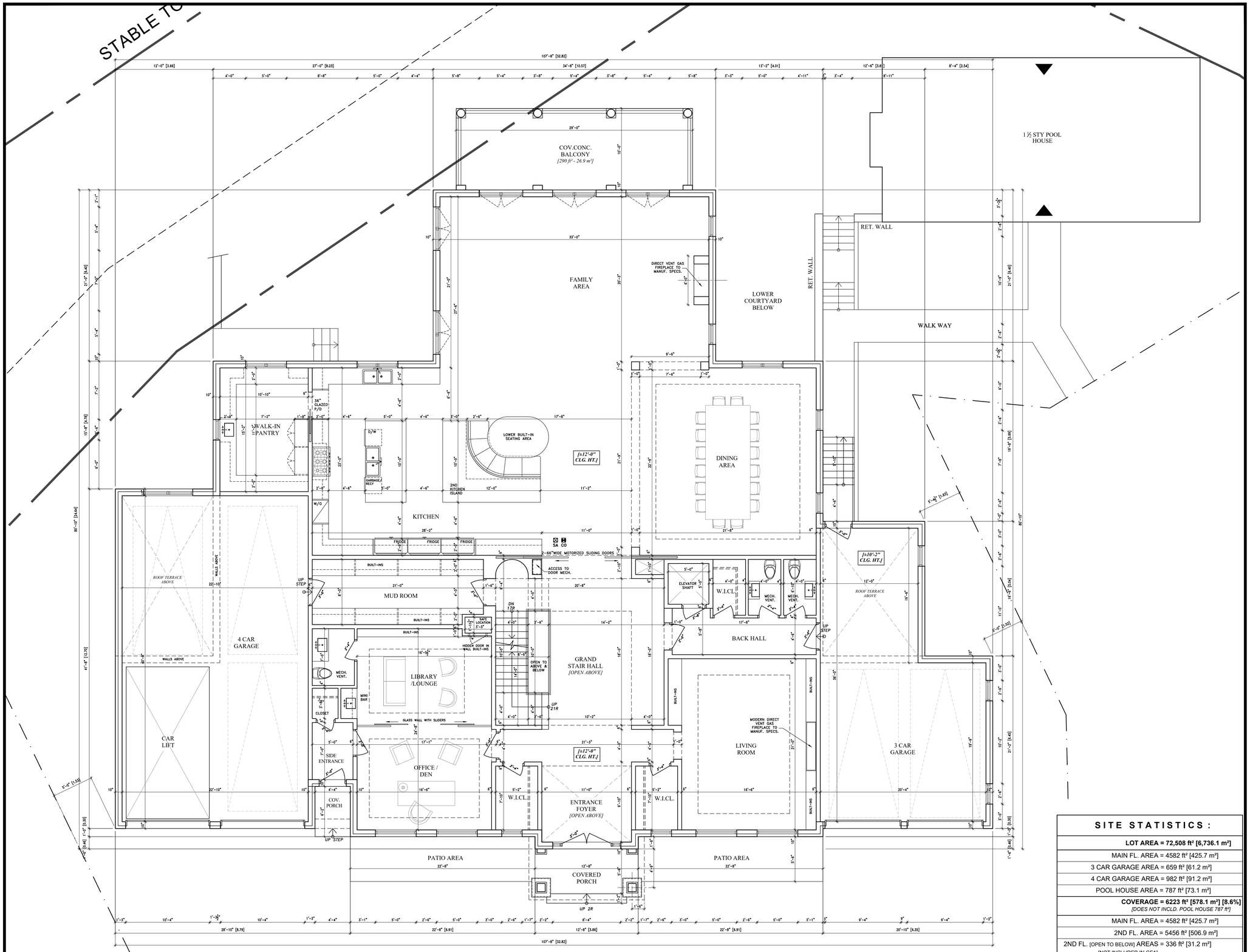
RUBINOFF DESIGN GROUP — FIRM NAME — 27293 — BCIN/BCDN

CLIENT:
PRIVATE RESIDENCE

PROJECT:
8 MAIN STREET
VAUGHAN, ONTARIO

DRAWING:
PROPOSED NEW
BASEMENTFLOOR PLAN

PROJECT DESIGNER: G.RUBINOFF	PROJECT NO.	DRAWING NO. A1
DRAWN BY: P.NARANJO	DATE: FEB/24/2025	
CHECKED BY: G.R.	SCALE: 3/16" = 1'-0"	



MAIN FLOOR PLAN
- 8 MAIN STREET -

SITE STATISTICS :
LOT AREA = 72,508 ft² [6,736.1 m²]
MAIN FL. AREA = 4582 ft² [425.7 m²]
3 CAR GARAGE AREA = 659 ft² [61.2 m²]
4 CAR GARAGE AREA = 982 ft² [91.2 m²]
POOL HOUSE AREA = 787 ft² [73.1 m²]
COVERAGE = 6223 ft² [578.1 m²] [8.6%] *[DOES NOT INCLD. POOL HOUSE 787 ft²]*
MAIN FL. AREA = 4582 ft² [425.7 m²]
2ND FL. AREA = 5456 ft² [506.9 m²]
2ND FL. [OPEN TO BELOW] AREAS = 336 ft² [31.2 m²] *[NOT INCLUDED IN GFA]*
GFA MAIN HOUSE = 10038 ft² [932.6 m²] **GFA POOL HOUSE = 1574 ft² [146.2 m²]**
TOTAL GFA [POOL HOUSE + MAIN HOUSE] **= 11,612 ft² [1078.8 m²]**

ISSUES:

No.	Date	Description

REVISIONS:

No.	Date	Description

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RUBINOFF DESIGN GROUP	27293
FIRM NAME	BCIN/BCDN

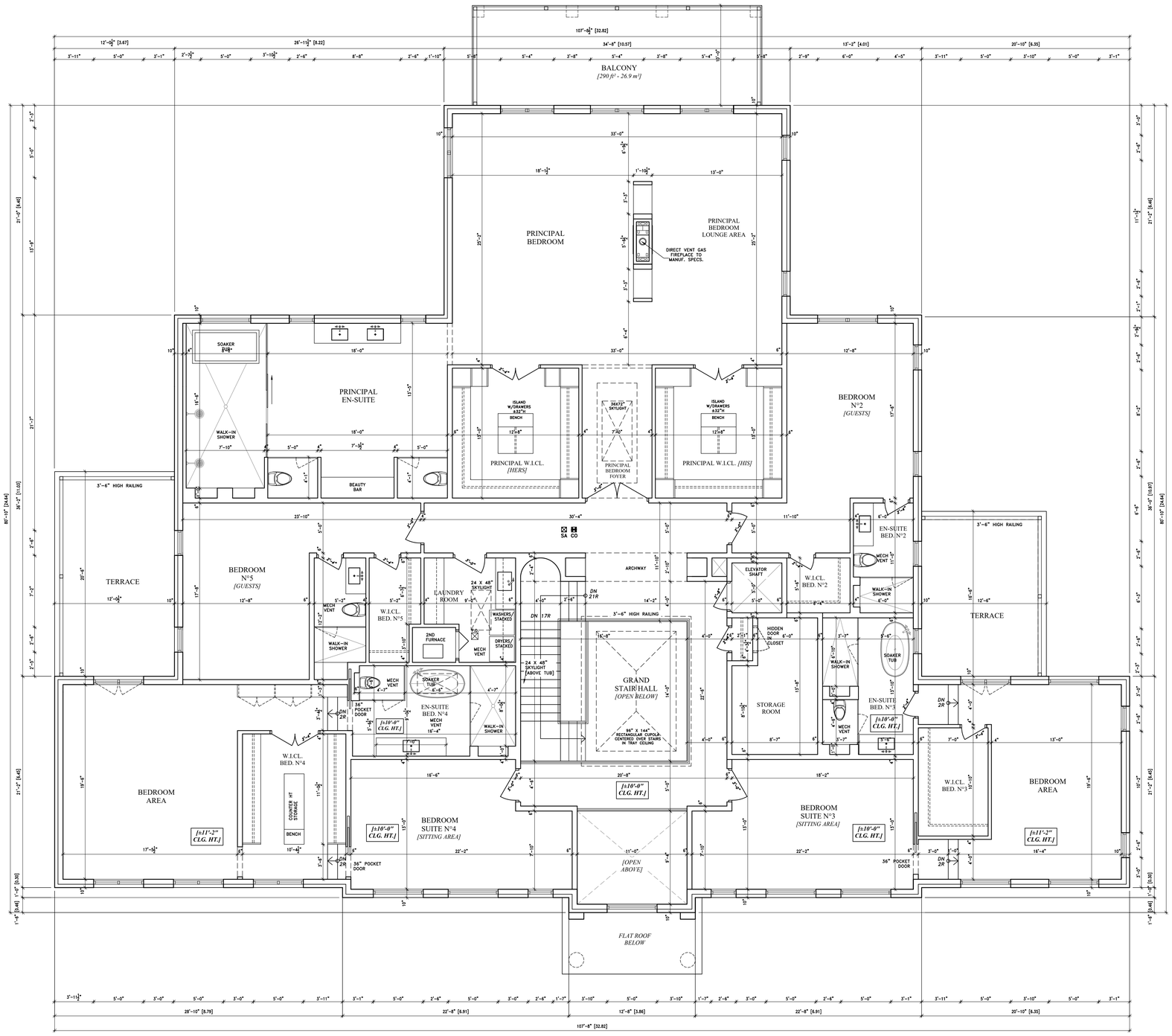
N

CLIENT:
PRIVATE RESIDENCE

PROJECT:
8 MAIN STREET
VAUGHAN, ONTARIO

DRAWING:
PROPOSED NEW MAIN FLOOR PLAN

PROJECT DESIGNER: G.RUBINOFF	PROJECT NO.	DRAWING NO. A2
DRAWN BY: P.NARANJO	DATE: FEB/24/2025	
CHECKED BY: G.R.	SCALE: 3/16" = 1'-0"	



SECOND FLOOR PLAN

- 8 MAIN STREET -

2ND FL. AREA = 5456 ft² [506.9 m²]
2ND FL. [OPEN TO BELOW] AREAS = 336 ft² [31.2 m²] [NOT INCLD. IN GFA]

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RUBINOFF DESIGN GROUP — FIRM NAME — 27293 — BCIN/BCDN

CLIENT:

PRIVATE RESIDENCE

PROJECT:

8 MAIN STREET

VAUGHAN, ONTARIO

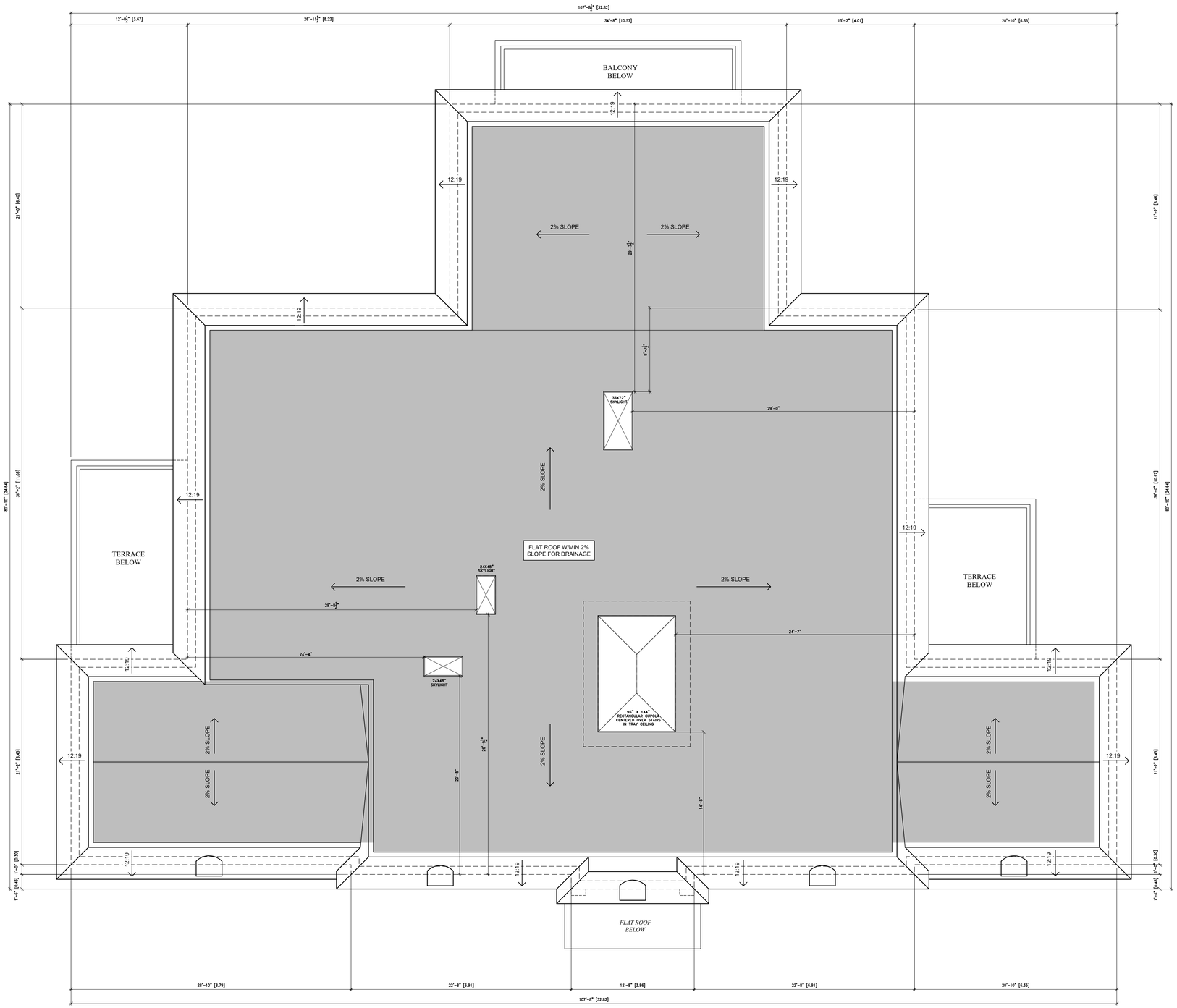
DRAWING:

PROPOSED NEW SECOND FLOOR PLAN

PROJECT DESIGNER: G.RUBINOFF	PROJECT NO.
DRAWN BY: P.NARANJO	DATE: FEB/24/2025
CHECKED BY: G.R.	SCALE: 3/16" = 1'-0"

DRAWING NO.

A3



ROOF FRAMING PLAN

- 8 MAIN STREET -

ISSUES:

No.	Date	Description

REVISIONS:

No.	Date	Description

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RUBINOFF DESIGN GROUP — FIRM NAME — 27293 BCIN/BCDN

CLIENT:
PRIVATE RESIDENCE

PROJECT:
8 MAIN STREET
VAUGHAN, ONTARIO

DRAWING:
PROPOSED NEW ROOF FRAMING PLAN

PROJECT DESIGNER: G.RUBINOFF	PROJECT NO.	DRAWING NO. A4
DRAWN BY: P.NARANJO	DATE: FEB/24/2025	
CHECKED BY: G.R.	SCALE: 3/16" = 1'-0"	

FRONT ELEVATION

* 8 MAIN STREET *
[SOUTH ORIENTATION]

LIMITING DISTANCE CALCULATION; [1.63 m]
WALL FACE AREA = 2204 ft² [204.8 m²]
7% WINDOW ALLOWANCE = 154.3 ft² [14.3 m²]
WINDOW AREAS [132.5 x 0.9] = 119 ft² [11.1 m²]

RIGHT SIDE ELEVATION

* 8 MAIN STREET *
[LESTER B. PEARSON STREET SIDE]
[EAST ORIENTATION]

ISSUES:

No.	Date	Description

REVISIONS:

No.	Date	Description

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RUBINOFF DESIGN GROUP — FIRM NAME — 27293 BCIN/BCDN

CLIENT:
PRIVATE RESIDENCE

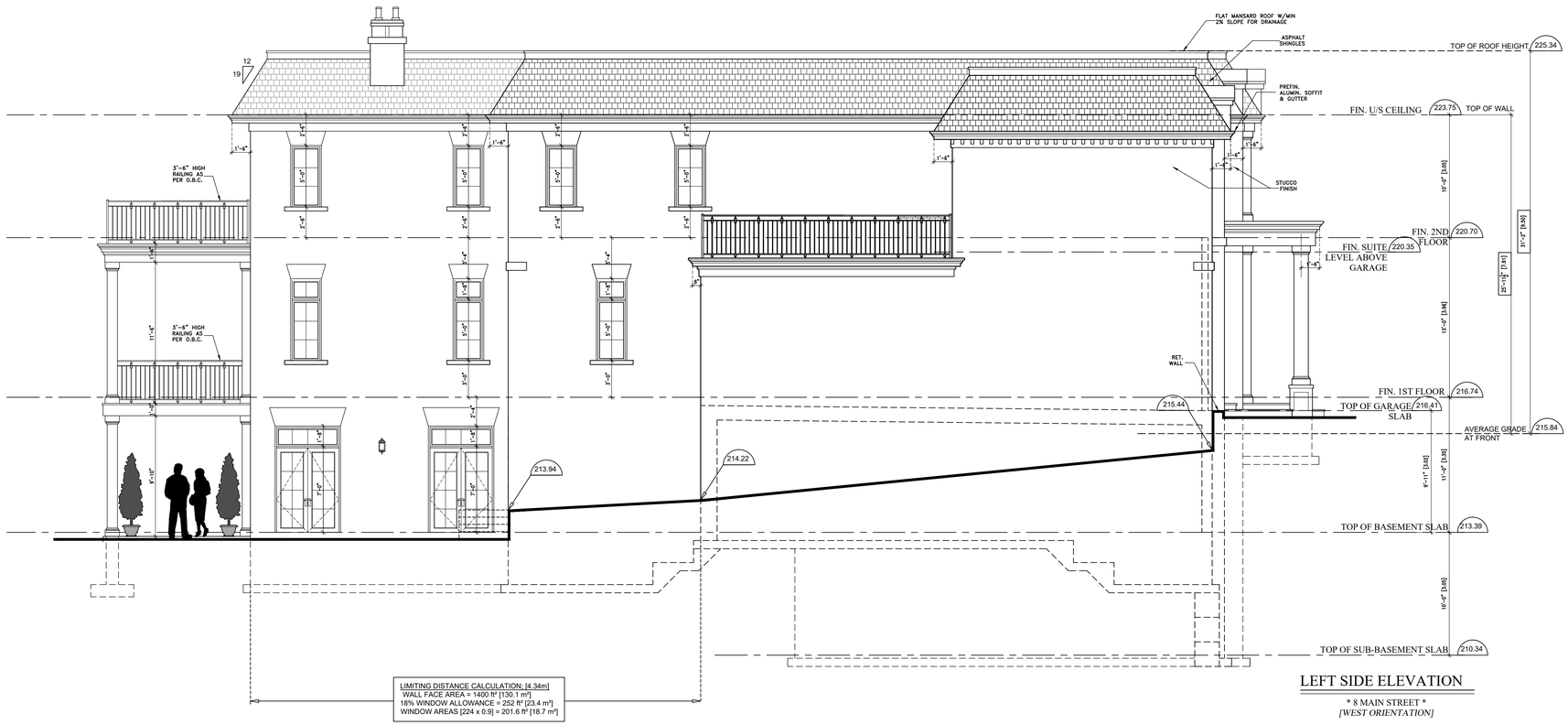
PROJECT:
8 MAIN STREET
VAUGHAN, ONTARIO

DRAWING:
PROPOSED NEW FRONT ELEVATION OPTIONS

PROJECT DESIGNER:	PROJECT NO.	DRAWING NO.
G.RUBINOFF		A5
DRAWN BY: P.NARANJO	DATE: FEB/24/2025	
CHECKED BY: G.R.	SCALE: 3/16" = 1'-0"	

REAR ELEVATION

* 8 MAIN STREET *
[NORTH ORIENTATION]



LEFT SIDE ELEVATION

* 8 MAIN STREET *
[WEST ORIENTATION]

ISSUES:

No.	Date	Description

REVISIONS:

No.	Date	Description

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GLENN RUBINOFF (NAME) (SIGNATURE) 22370 BCIN/BCDN

REGISTRATION INFORMATION
REQUIRED UNLESS DESIGN IS EXEMPT UNDER 2.17.4.1. OF THE BUILDING CODE

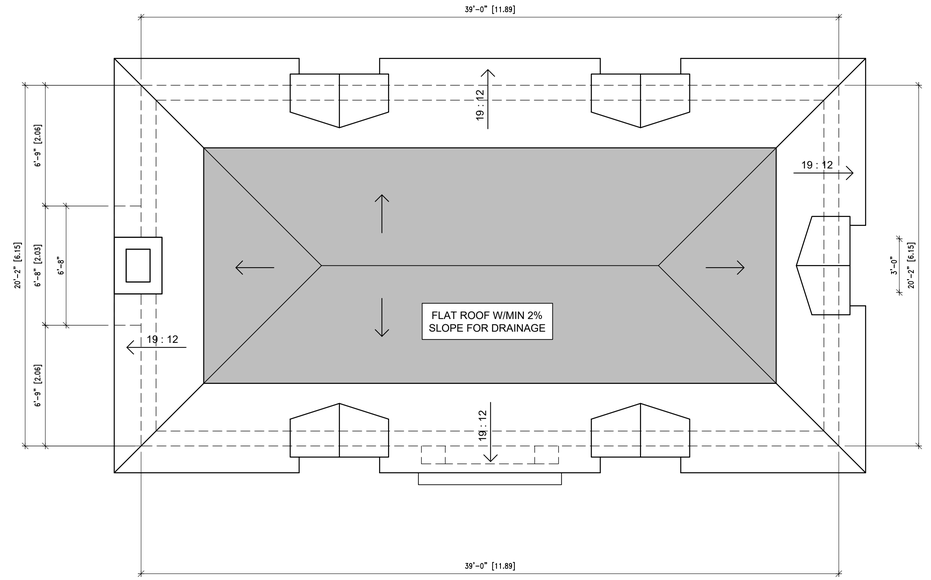
RUBINOFF DESIGN GROUP (FIRM NAME) 27293 BCIN/BCDN

CLIENT:
PRIVATE RESIDENCE

PROJECT:
8 MAIN STREET
VAUGHAN, ONTARIO

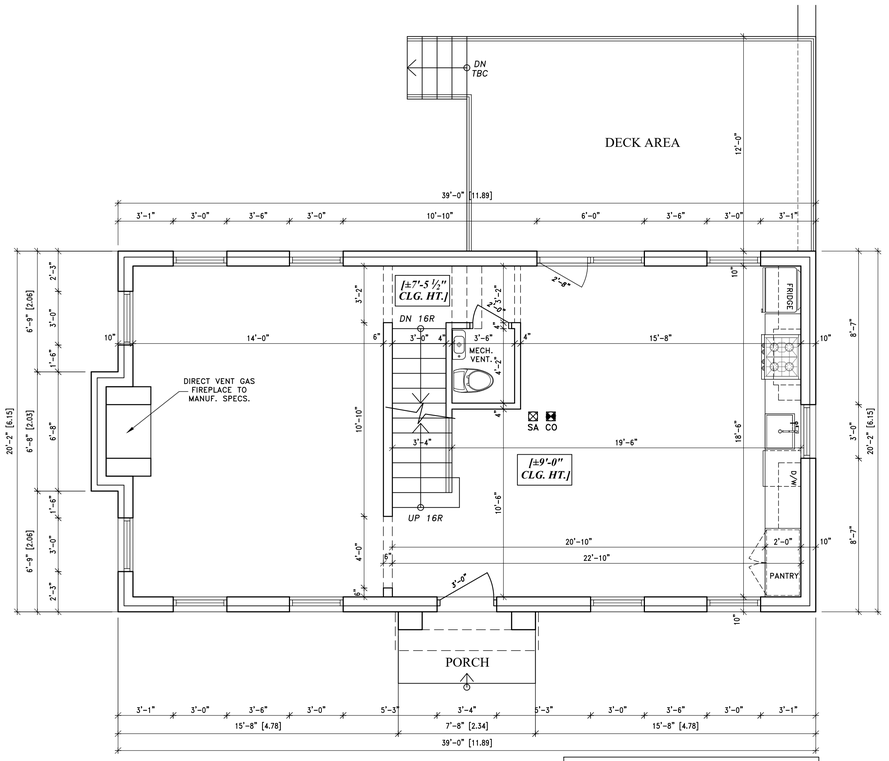
DRAWING:
PROPOSED NEW FRONT & RIGHT SIDE ELEVATIONS

PROJECT DESIGNER:	PROJECT NO.	DRAWING NO.
G.RUBINOFF		A6
DRAWN BY: P.NARANJO	DATE: FEB/24/2025	
CHECKED BY: G.R.	SCALE: 3/16" = 1'-0"	



ROOF PLAN

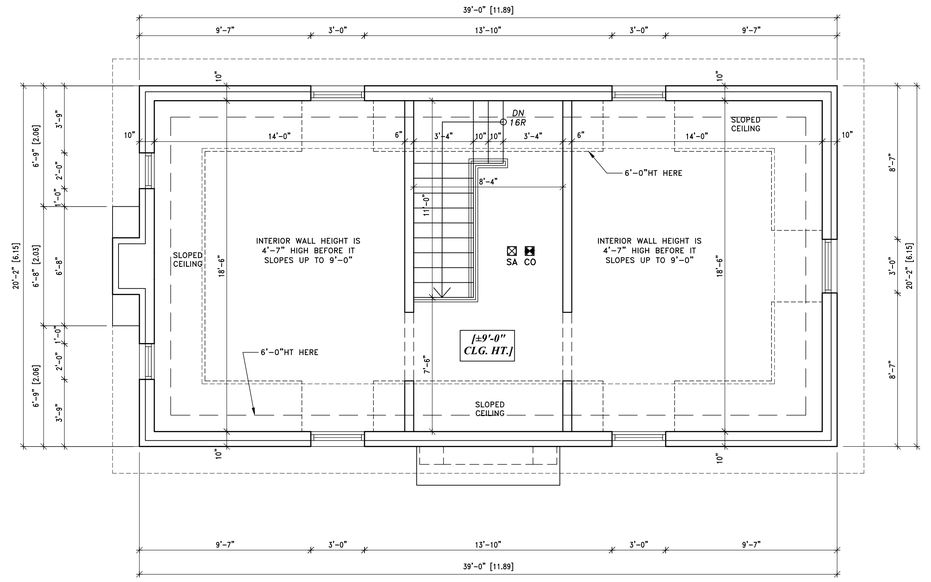
* 8 MAIN STREET - POOL HOUSE *



GROUND FLOOR PLAN

* 8 MAIN STREET - POOL HOUSE *

GROUND FL AREA = 787 ft² [73.1 m²]
2ND FL AREA = 787 ft² [73.1 m²]
TOTAL GFA = 1574 ft² [146.2 m²]



SECOND FLOOR PLAN

* 8 MAIN STREET - POOL HOUSE *

2ND FL AREA = 787 ft² [73.1 m²]

ISSUES:

No.	Date	Description

REVISIONS:

No.	Date	Description

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NAME	SIGNATURE	BCIN/BCDN
GLENN RUBINOFF		22370

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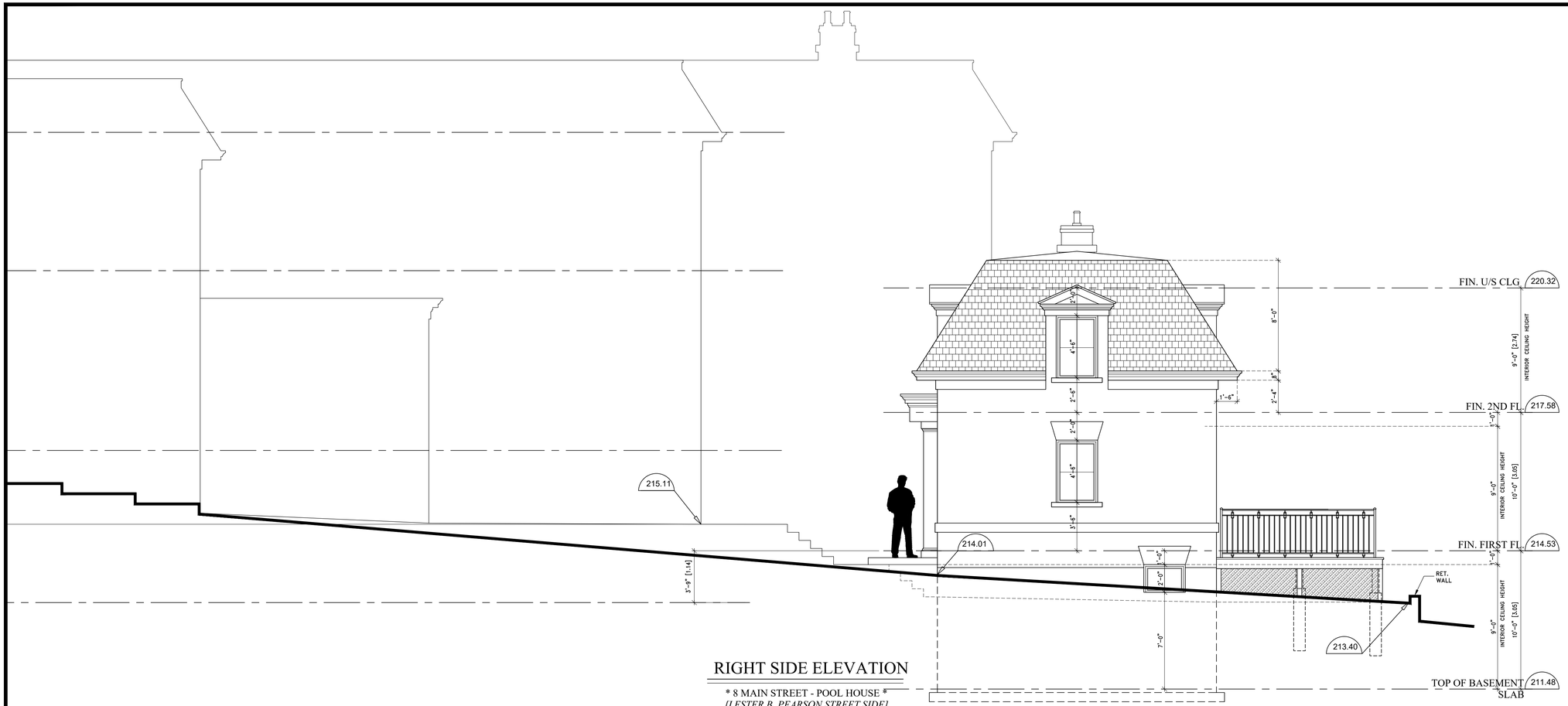
FIRM NAME	BCIN/BCDN
RUBINOFF DESIGN GROUP	27293

CLIENT:
PRIVATE RESIDENCE

PROJECT:
8 MAIN STREET
VAUGHAN, ONTARIO

DRAWING:
PROPOSED NEW POOL HOUSE FLOOR PLANS

PROJECT DESIGNER:	PROJECT NO.	DRAWING NO.
G.RUBINOFF		A7
DRAWN BY: P.NARANJO	DATE: FEB/24/2025	
CHECKED BY: G.R.	SCALE: 3/16" = 1'-0"	



RIGHT SIDE ELEVATION

* 8 MAIN STREET - POOL HOUSE *
[LESTER B. PEARSON STREET SIDE]
[WEST ORIENTATION]

FRONT SIDE ELEVATION

* 8 MAIN STREET - POOL HOUSE *
[LESTER B. PEARSON STREET SIDE]
[SOUTH ORIENTATION]

ISSUES:

No.	Date	Description

REVISIONS:

No.	Date	Description

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REGISTRATION INFORMATION
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RUBINOFF DESIGN GROUP	27293
FIRM NAME	BCIN/BCDN

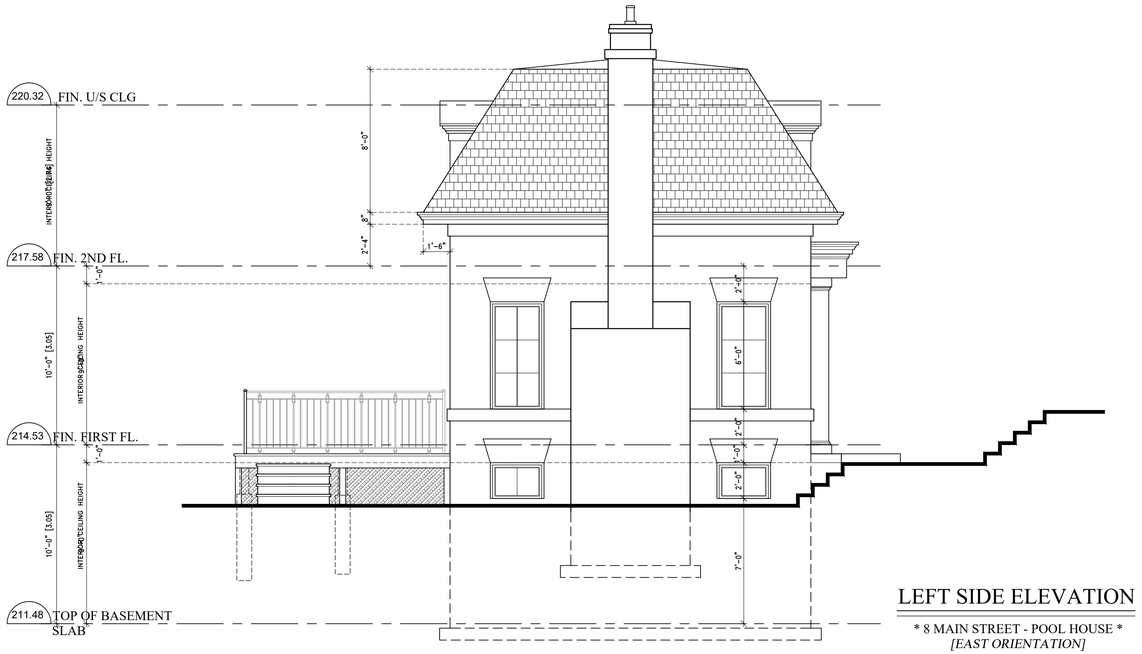
N

CLIENT:
PRIVATE RESIDENCE

PROJECT:
8 MAIN STREET
VAUGHAN, ONTARIO

DRAWING:
PROPOSED NEW POOL HOUSE ELEVATIONS

PROJECT DESIGNER: G.RUBINOFF	PROJECT NO.	DRAWING NO. A8
DRAWN BY: P.NARANJO	DATE: FEB/24/2025	
CHECKED BY: G.R.	SCALE: 3/16" = 1'-0"	



LEFT SIDE ELEVATION

* 8 MAIN STREET - POOL HOUSE *
[EAST ORIENTATION]

REAR ELEVATION

* 8 MAIN STREET - POOL HOUSE *
[NORTH ORIENTATION]

ISSUES:

No.	Date	Description

REVISIONS:

No.	Date	Description

Rubinoff Design Group
2 St. Clair Avenue West, Suite 1836
Toronto, Ontario M4V 1L5
TEL. 416.667-0322 FAX.416.667.0751 EMAIL. info@rubinoffdesign.com

THE UNDERSIGNED HAS REVIEWED AND TAKES RESPONSIBILITY FOR THIS DESIGN, AND HAS THE QUALIFICATIONS AND MEETS THE REQUIREMENTS SET OUT IN THE ONTARIO BUILDING CODE TO BE A DESIGNER

QUALIFICATION INFORMATION
REQUIRED UNLESS DESIGN IS EXEMPT UNDER 2.17.5.1. OF THE BUILDING CODE

GLENN RUBINOFF — SIGNATURE — 22370 BCIN/BCDN

REGISTRATION INFORMATION
REQUIRED UNLESS DESIGN IS EXEMPT UNDER 2.17.4.1. OF THE BUILDING CODE

RUBINOFF DESIGN GROUP — 27293 BCIN/BCDN

CLIENT:
PRIVATE RESIDENCE

PROJECT:
8 MAIN STREET
VAUGHAN, ONTARIO

DRAWING:
PROPOSED NEW POOL HOUSE ELEVATIONS

PROJECT DESIGNER: G.RUBINOFF	PROJECT NO.	DRAWING NO. A9
DRAWN BY: P.NARANJO	DATE: FEB/24/2025	
CHECKED BY: G.R.	SCALE: 3/16" = 1'-0"	

APPENDIX D Tree Protection Plan

CONSTRUCTION ARBORIST REPORT

8 Main Street, Vaughan, ON L4H 3N5

Date: April 11th,2024
Prepared for: homeowner(s)

Prepared by: **Ivan Mitev**, M.Sc. Ecologist
ISA Certified Arborist® #-2297A
Consulting Arborist – *Lothlorien Garden Consulting*
https://www.lothloriengarden.com/

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INTRODUCTION

Lothlorien Garden Consulting was retained by owner/s to prepare a Construction Arborist Report and Tree Preservation Plan (TPP) in support of a development application for the properties located at 8 Main Street, Vaughan, Ontario.

ASSIGNMENT

An on-site inspection was undertaken by the arborist most recently on March 7th, 2024 in order to:

- Prepare an inventory of all bylaw-protected trees. The inventory includes all private trees measured 20 cm in diameter at breast height (DBH) or greater, on or within 6 meters of the subject site, as well as all trees of all diameters located on the City road allowance;
- Document each tree's condition, location, and minimum protection requirements;
- Evaluate potential site plan modifications in the interest of tree preservation;
- Establish and illustrate the required hoarding layout to be maintained for the duration of construction activities;

SUMMARY

- The tree inventory documented a total of twenty-one **(21)** individual trees, on/or within 6 meters of the subject sites. No at risk or endangered species were encountered during the site assessment.
- A total of fourteen **(14) regulated trees** are proposed for removal in this application i.e., **T1, T2, T4, T6, T7, T8, T9, T10, T11, T13, T17, T18, T19 & T20** due to the proposed new development. Additionally, two **(2)** undersized trees will be removed to allow the construction of the new circled driveway and house. All proposed tree removals are marked with "**X**" symbol in the TPP-L1 and the section "**Pictures**" in this report.
- The removal approval must be conditional upon the provision of satisfactory replacement planting. Please see the section titled "Post Construction Replanting Plan" on **page #27**, in this report, for more details regarding the required compensation for tree's loss.
- A total of two **(2)**, permitted trees i.e., **T3 &T14** partially conflict with the proposed new development. It is the consultant's opinion that the above-noted trees have the potential to recover from the construction disturbance, provided that protection measures outlined in this report, tree protection plan are carefully followed and enforced.
- In our professional opinion, all other trees will remain undisturbed under this proposal, given that construction work associated with the proposed new development is situated at sufficient distances back from their tree protection zones.

PURPOSE AND USE

This report is provided to homeowner(s), Rubinoff Design Group and shall be used in whole and as provided to the City of Vaughan's Urban Forestry Planning staff and other stakeholders as it relates

solely to this project. This report should be shared with all contractors responsible for site development.

METHODOLOGY

A **Basic Tree Assessment** (**Level 2**) was undertaken on all bylaw-protected trees. Bylaw-protected trees include all private trees measured with a diameter at breast height (DBH) of 15 cm or greater, all trees located on the City road allowance. The BTA method is used to evaluate the health and structural condition of each tree and the site in which it grows. This method is recognized as a Limited Visual Inspection by the International Society of Arboriculture. The primary limitation of a basic assessment is that it includes only conditions that can be detected from a ground-based visual inspection. Internal, below-ground, and upper-crown factors may be impossible to see or difficult to assess, thus remaining largely undetected or unevaluated.

Tree resources were assessed based on the following parameters:

Tree #: identification number assigned to the tree, corresponding to the location plotted of the *Tree Protection Plan.*

Species: common and botanical names provided in the inventory table.

DBH: stem diameter measured 140 cm above grade. In cases where a tree has two or more stems, the diameter of the largest stem is provided. In cases where a tree has two or more stems, the combined based diameter is provided.

Condition: condition of tree considering trunk integrity, crown structure

Condition: condition of tree considering trunk integrity, crown structure, and crown vigour.

Condition ratings are defined as follows:

1. Excellent – High vigor and nearly perfect health with little or no twig dieback, discoloration, or defoliation.
2. Good – trees in good overall health and condition with desirable structure.
3. Fair – trees in moderate health and condition with less desirable structure.
4. Poor – trees displaying prominent health issues such as decay and disease and/or poor form and structure.
5. Very Poor– trees appear to be dying and in the last stages of life. Little live foliage.
6. Dead – trees that have no living tissue.

More details regarding tree assessment criteria can be found in *Table 1* on the next page.

Trees have been assigned one of the following ownership categories:

1. Trees with base diameters of 20 cm or more, situated on private property, within 6 m of the subject site.
2. Trees with base diameters of 20 cm or more, situated on a neighbouring property, within 6 m of the subject site.
3. Trees of all diameters situated on City-owned parkland within 6 m of the subject site.
4. Trees located in TRCA or naturalized areas of all diameters situated within 12 m of construction activity.

   Trees of all diameters situated within the City road allowance, on or within 6 m of the subject site

Table 1: Assessment of plant condition considers health, structure, and form

Rating category	Condition components			Percent rating
	Health	**Structure**	**Form**	
Excellent	High vigor and nearly perfect health with little or no twig dieback, discoloration, or defoliation.	Nearly ideal and free of defects.	Nearly ideal for the species. Generally symmetric. Consistent with the intended use.	81% to 100%
Good	Vigor is normal for the species. No significant damage due to diseases or pests. Any twig dieback, defoliation, or dis-coloration is minor.	Well-developed structure. Defects are minor and can be corrected.	Minor asymmetries/deviations from species norm. Mostly consistent with the intended use. Function and aesthetics are not compromised.	61% to 80%
Fair	Reduced vigor. Damage due to insects or diseases may be significant and associated with defoliation but is not likely to be fatal. Twig dieback, defoliation, discoloration, and/or dead branches may comprise up to 50% of the crown.	A single defect of a significant nature or multiple moderate defects. Defects are not practical to correct or would require multiple treatments over several years.	Major asymmetries/deviations from species norm and/or intended use. Function and/or aesthetics are compromised	41% to 60%
Poor	Unhealthy and declining in appearance. Poor vigor. Low foliage density and poor foliage color are present. Potentially fatal pest infestation. Extensive twig and/or branch dieback.	A single serious defect or multiple significant defects. Recent change in tree orientation. Observed structural problems cannot be corrected. Failure may occur at any time	Largely asymmetric/abnormal. Detracts from intended use and/or aesthetics to a significant degree	21% to 40%
Very Poor	Poor vigor. Appears to be dying and in the last stages of life. Little live foliage.	Single or multiple severe defects. Failure is probable or imminent.	Visually unappealing. Provides little or no function in the landscape.	6% to 20%
Dead				0% to 5%

TREE PROTECTION BY-LAW

In accordance with: THE CITY OF VAUGHAN BY-LAW NUMBER 052-2018 Last consolidated on November 17, 2020.

A By-law to regulate the planting, maintenance and removal of trees on public and private property in the City of Vaughan

PROHIBITED ACTIVITIES

5. No Person shall on Public Property do or cause or permit to be done, any of the following:
(a) Abuse, attach, burn, cut down, carve, damage, Destroy, Injure, paint, paste, peel, prune, pull up, remove, scrape, tack, top, transplant or trim all or any part of a Tree, including a Public Tree;
(b) Attach any object to all or any part of a Tree including, without limiting the generality of the foregoing, a birdhouse, cable, light, nail, poster, rope, sign, twine, wire or other contrivance;
(c) Pour any substance that will Injure a Tree within the drip line of the Tree, being the area at the outer edge of the spread of the Tree's branches.
6. No Person shall Injure or Destroy or cause or permit any Trees on Private Property, having a diameter of twenty (20) centimetres or more or having a base diameter of twenty (20) centimetres or more, to be Injured or Destroyed unless authorized by a Tree Removal Permit to do so, pursuant to this By-law.
7. If a Tree is Injured or Destroyed in violation of section 6, the Owner and, if applicable the Applicant or Permit Holder, shall be presumed to have permitted such activity.
8. Despite section 6, a Tree Removal Permit is not required:
(a) for Emergency Work;
(b) for the Pruning of a Tree;
(c) for the removal of dead branches;
(d) to Injure or Destroy Trees located on rooftop gardens, interior courtyards, or solariums; or
(e) to Injure or Destroy Trees on a Nursery or Golf Course.
9. No Person shall undertake any unauthorized activities, including but not limited to the placing of materials, vehicles, equipment or other things, within a Tree Protection Zone of a Tree.

ENCROACHMENT OF TREES ONTO PUBLIC PROPERTY

10. The City may Prune any portions of Trees on Private Property that extend over a Highway or other Public Property and may remove any decayed or Dangerous Tree that has been deemed so by the Director of Forestry**.**

TREE REMOVAL PERMIT APPLICATIONS

11. An Applicant who applies for a Tree Removal Permit shall submit to the Director of Forestry the following:
(a) a completed Application, in a form satisfactory to the Director of Forestry;
(b) a plan or drawing of the Lot, to the satisfaction of the Director of Forestry, illustrating which Trees are to be Injured or Destroyed;
(c) payment of the required fees as prescribed in Fees and Charges By-law No. 171-2013, as amended, or its successor by-law;
(d) an Arborist Report, if required by the Director of Forestry;
(e) where the Tree subject to the Application is not a Public Tree and any portion of the base of the Tree falls within six (6) metres of the property line, the written consent to the Tree Removal

Permit issuance from the affected adjacent Owner;
(f) where the Application is not made and submitted by the Owner, the written authorization of the Owner consenting to the Application;
(g) any other documentation, reports or information required by the Director of Forestry.
12. A Tree Removal Permit shall be valid for only six (6) months from the date of issuance. In extenuating circumstances, a Tree Removal Permit may be extended by, and at the discretion of, the Director of Forestry.
13. The City shall not issue a Tree Removal Permit for the Injury or Destruction of Trees where the Director of Forestry has determined that:
(a) the Application is not complete, the required fee has not been paid, or the documentation and other information required has not been provided to the satisfaction of the Director of Forestry;
(b) the information received from the Applicant is false or incorrect;
(c) an alternative planting plan approved by the Director of Forestry has not been submitted;
(d) environmentally sensitive areas, ecological systems, natural landforms or contours will not be adequately protected and preserved;
(e) the removal of one or more of the subject Trees will have a negative impact on erosion or flood control;
(f) significant vistas will not be adequately protected and preserved; or
(g) the removal of one or more of the subject Trees is contrary to or in conflict with any other bylaws, policies, designations, or agreements of the City or the Regional Municipality of York, or any Acts of the Province of Ontario.

OFFENCES AND PENALTIES

22. Every Person who contravenes a provision of this By-law and every director or officer of a corporation who concurs in such contravention by the corporation, is guilty of an offence and, upon conviction, is liable to the following fines, exclusive of Expenses:
(a) a fine no less than $500 and not more than $10,000 for every offence committed; and
(b) a fine not less than $500 and not more than $10,000 for every day or part of a day that the offence continues.
23. Where a Person Injures or Destroys a Tree or Trees, in contravention of this By-law, the Person guilty of the offence or offences, upon conviction, is liable to the following fines, exclusive of Expenses:
(a) on a first conviction, a fine not less than $250 per Tree and not more than $2,500 per Tree; and
(b) on any subsequent conviction, a fine not less than $500 per Tree and not more than $5,000 per Tree.
24. In addition to any other fines, in the event that a Person is found guilty of an offence involving the Injury, Destruction or otherwise removal of Trees and the offence is determined to have occurred in the support of a development, a special fine of $25,000 per Tree shall apply.

OBSERVATION AND COMMENTS

The subject property is located on the north side of Main Street, southeast of Islington Avenue and King's Highway 27. The rear of the designated lot falls within the TRCA Regulated Area of the Humber River watershed. Lot topography is relatively flat at the front of the site and becomes undulating and rolling across the turf covered backyard on the property. The existing site is occupied by a 1- story single-family frame dwelling, a gravel driveway fronting Lester B. Pearson Street and several old wooden shed at the rear of the property. Tree resources appear to be comprised of landscape plantings and naturally occurring trees. Trees on site include the following species: Norway maple *(Acer platanoides),* Silver maple *(Acer saccharinum),* Manitoba maple *(Acer negundo),* Austrian pine *(Pinus nigra),* White spruce *(Picea glauca),* Colorado Blue spruce *(Picea pungens 'Glauca'),* Horse-chestnut *(Aesculus hippocastanum),* Japanese lilac *(Syringa reticulata),* Purple Fountain Weeping Beech *(Fagus sylvatica 'Purple Fountain'),* Japanese maple *(Acer japonicum)*, Willow *(Salix spp.)* and Crab apple *(Malus spp.).* Canopy cover is estimated at 90 percent of the lot. The hardwood dominant forest north of the stable top of bank, however, is comprised mostly of non-native tree cover, mainly Manitoba maple *(Acer negundo),* Austrian pine *(Pinus nigra),* and several native species such as Eastern Black walnut *(Juglans nigra),* Eastern White pine *(Pinus strobus)* and Willow *(Salix spp.).* It should be noted, that most of the trees beyond the slope are covered by wild grape vine.

Figure 1: shows an aerial view of the property along with the existing vegetation, as of 2023

PROPOSED DEVELOPMENT

The proposed development, as illustrated in the Proposed Site Plan (A) prepared by Rubinoff Design Group on February 20th, 2024, includes a proposal to demolish the existing house and rear sheds and construct a new two-storey single-family dwelling with integral garages to the east and west side, new permeable driveways fronting Main Street and 1½ storey pool house at the rear. The accompanying Tree Protection Plan includes an overview of the site plan details.

TYPES OF TREE DAMAGE

The tree injures outlined below reflect the policy of Toronto Council following *"Tree Protection Policy and Specifications for Construction Near Trees published March 2009- City of Toronto Urban Forestry".*

Physical injury to the main stem or branches of a tree will occur if construction equipment is permitted close to the trees or if structures are built into the growing space of a tree. Physical injuries are permanent and can be fatal.

Root cutting is another type of injury that can significantly impact the health of a tree. Excavation for foundations or utility installation may cut tree roots if the excavation is too close to the trees. The majority of tree roots are found in the upper 30 to 60 cm of soil. Trees can also become destabilized and may fail if structural support roots are severed. Prior to commencing with any excavation, an exploratory dig should be undertaken using a low-pressure hydro vac system, with water pressure less than 20 p.s.i. This method of non-intrusive excavation will determine the presence or absence of roots and provide guidance to design construction projects with tree protection in mind.

Compaction of the soil in which tree roots grow is one of the leading causes of tree decline in Toronto's urban forest. Soil compaction occurs primarily from vehicles and equipment moving across the root zones. Often, you cannot see the damage being done and unless you have some arboricultural background you are likely not aware of the damage that can occur. Soil compaction causes the pore space in the soil, which contains air and water necessary for root growth, to be reduced. Without space available for oxygen and water, tree roots will suffocate and the decline of the tree will follow. Adding soil on top of tree roots can smother them by reducing the amount of oxygen and water they are accustomed to receiving. Only a few centimetres of added soil can have a significant and sometimes detrimental impact on the health of a tree.

DISCUSSION

The following section of the report provides discussion and analysis of the construction-related impact on the existing trees on site, tree removal requirements, and tree preservation and pruning measures relative to the proposed development and existing conditions. The following trees conflict with the proposed construction:

TREES PROPOSED FOR REMOVAL

Construction related reasons:

Tree #1: 34 cm Norway maple - Request Permit to Remove Private Tree

Tree #2: **39 cm Austrian pine - Request Permit to Remove Private Tree**
Tree #4: **28 cm European Weeping beech - Request Permit to Remove Private Tree**
Tree #5: **6 cm Japanese lilac - Undersized; To be removed; No Permit Required**
Tree #6: **23 cm Colorado Blue spruce - Request Permit to Remove Private Tree**
Tree #7: **36 cm Colorado Blue spruce - Request Permit to Remove Private Tree**
Tree #8: **42/41/39 cm European Horse-chestnut - Request Permit to Remove Private Tree**
Tree #9: **75 cm Apple tree - Request Permit to Remove Private Tree**
Tree #10: **45 cm White spruce - Request Permit to Remove Private Tree**
Tree #11: **122 cm Silver maple - Request Permit to Remove Private Tree**
Tree #13: **80 cm Manitoba maple - Request Permit to Remove Private Tree**
Tree #17: **50 cm Manitoba maple - Request Permit to Remove Private Tree**
Tree #18: **78 cm Silver maple - Request Permit to Remove Private Tree**
Tree #19: **90 cm Silver maple - Request Permit to Remove Private Tree**
Tree #20: **32 cm Norway maple - Request Permit to Remove Private Tree**

Construction impact

The above-noted trees are located within the proposed limit of excavation required to build the new development and cannot be preserved.

Conclusion

The proposed removals, excluding **T5** do not qualify for an exemption from the standard tree removal permit requirements, necessitating an Application to Injure or Destroy Trees. The removal approval must be conditional upon the provision of satisfactory replacement planting. Please see the section titled “Post Construction Replanting Plan” on **page #27**, in this report, for more details regarding the required compensation for tree loss.

Tree removal notes:

We recommend that all tree removal work be performed by a reputable tree care company following generally accepted arboricultural standards.
The tree removals are marked with “**X**” symbol in the section **Pictures** in this report and the TPP-L1.

TREES REQUESTED A PERMIT TO INJURE DUE TO PROPOSED CONSTRUCTION

Tree #3: **74 cm Manitoba maple - Request Permit to Injure Private tree**
Tree #14: **95 cm Silver maple - Request Permit to Injure Private tree**

Potential Construction impact

The Site plan indicates demolition/excavation activities within mTPZ of **T3 &T14**, associated with the new development. To mitigate the construction impact to the minimum possible degree, the following measures shall be strictly enforced:

Excavation activities within mTPZ of T14

The Site plan indicates that a new retaining wall is to be built north of the proposed dwelling. The proposed retaining wall partially encroaches within the mTPZ of **T14.** The limit of the excavation, at its closest point to the subject tree, is a distance of **2.05 m.**
In order to mitigate the construction impact to the minimum possible degree, the following measures will be strictly enforced and followed:
All excavation activities within mTPZ of the tree will be supervised by an ISA Certified Arborist.
In our professional opinion, the tertiary roots disturbed within injured zone of the above-noted tree are likely to be no larger than **10-40mm** in diameter. Root pruning shall be permitted to roots less

than **50mm** in diameter unless found in dense matts. Any roots within injured zone or which extend beyond the TPZ (if encountered) which require pruning, must be pruned by a qualified Arborist or other tree professional as approved by Urban Forestry. All pruning of tree roots must be in accordance with good arboricultural standards. This will allow a proper pruning cut and minimize tearing of the roots.

Tree Protection notes to T3 during new driveway installation

The Site plan indicates that a new driveway is to be built within the mTPZ of **T3.**

It is the consultant's recommendation permeable materials to be used for the construction of the proposed new driveway within mTPZ of the above-noted tree.

Permeable pavements are ideal for roadways with infrequent vehicular traffic, such as residential feeder streets, low-intensity commercial parking lots, roadway shoulders, and bicycle paths. Permeable paving allows for filtration, storage, or infiltration of runoff, and can reduce or eliminate surface stormwater flows compared to traditional impervious paving surfaces like concrete and asphalt. Urban trees also benefit from being surrounded by permeable pavement rather than impervious cover, because their roots receive more air and water.

The installation of the new driveway within mTPZ of **T3** shall be supervised by an ISA Certified Arborist. In our professional opinion, the tertiary roots disturbed within injured zones of the above-noted trees are likely to be no larger than **10-40mm** in diameter. Root pruning shall be permitted to roots less than **50mm** in diameter unless found in dense matts. Any roots within injured zone or which extend beyond the TPZ (if encountered) which require pruning, must be pruned by a qualified Arborist or other tree professional as approved by Urban Forestry. All pruning of tree roots must be in accordance with good arboricultural standards. This will allow a proper pruning cut and minimize tearing of the roots.

Permeable pavements notes:

Non-woven Geotextile fabric

Install geotextile over the bottom of the sub-base layers once infiltration rates have been verified. The geotextile should extend up the sides of the base to the pavement surface and be anchored approximately 1 ft outside of the system footprint. Excess can be cut to below the pavement surface after aggregate installation.

Geogrid Placement

A Plastic Biaxial Geogrid application is to be used as a base reinforcement within the same footprint associated with the proposed new permeable driveway.

Plastic biaxial geogrid is the ideal geotechnical material in situations where stresses are applied in two directions, it is the ideal geotechnical product used to reinforce the pavement base and improve the subgrade for any soil stabilization and reinforcement applications such as access roads, parking driveways, lots, etc.

Bedding Coarse Requirements

The bedding coarse layer applies to a Granite High-Performance Base or Granite ¾ aggregate only. These fillers are acceptable within the TPZ of trees impacted by construction activities. Granite HPB is a free draining product and will allow for oxygen and water to the tree roots. Granite is also non-alkaline and will not burn off roots like limestone screen and concrete which contain traces of Lye.

Compaction

The sub-base layers shall be tamped by light soil compacting equipment (such as Rammers, Vibrating

Plate Compactors) to grade within TPZ of the injured tree.
*For additional information, please refer to PDTD-1 on TPP-1 for construction details and specifications.

Tree Protection Notes

Construction and development activities have the potential to seriously harm trees. Common injuries that occur during construction are root damage or loss during grading and trenching, soil compaction, trunk, and branch impact injuries, and/or heat and chemical damage. Compaction of the soil in which tree roots grow is one of the leading causes of tree decline in Toronto's urban forest. Soil compaction occurs primarily from vehicles and equipment moving across the root zones. To mitigate the construction impact to a minimum, the following measures shall be strictly enforced:

Vertical hoarding

A vertical tree protection hoarding to enclose the protected trees shall be installed prior to any construction or demolition occurring on the property to prevent the entry of any construction materials within the tree protection zone. Inside the TPZ no construction, storage or disposal of material of any kind, adding of fill, or excavation may occur.
Please refer to the TPP L1, and L2 for the required hoarding layout, details and specifications.

Erosion and Sediment Control Protection

Sediment control fencing shall be installed in the locations as indicated in the approved TPP-L1 and/or Sediment Control plan. The sediment control fencing must be installed to Standard Sediment Control Fence (OPSD 219.130) or TRCA ESC Design Detail (04) unless otherwise specified, to the satisfaction of TRCA.

Ground Root Protection (T14)

The ground protection has been carefully designed to enclose as much as possible from the mTPZ of the above-noted tree.
The purpose of the ground protection is to protect the roots from compaction and contamination during the construction process, as well as to allow exterior work within proximity to the new retaining wall.
The ground protection shall be installed as specified below:

Light Root Zone Compaction Protection

Where limited non-vehicular access in the TPZ is anticipated (e.g., occasional foot traffic, wheelbarrow), the Light Root Zone Compaction Protection specification shall be implemented, as described below:

1. Installation of permeable geotextile over area to be protected
2. Installation of a minimum of 150 mm of wood chip mulch over area of potential impact
3. Optional: installation of ¾" plywood over mulch (to facilitate movement over mulch, if required)

In our professional opinion, all other trees on this lot will remain undisturbed under this proposal, given that construction work associated with the installation of the proposed new development is situated at sufficient distances back from their tree protection zones.

Prescribed Irrigation during construction (T3 &T14)

It is the consultant's opinion that the excavation may cause some water-stress symptoms to the above-mentioned trees due to the potential root loss. In order to mitigate this risk to the minimum possible degree, if the excavation occurs during the vegetation period (early June to late September), irrigation must be engaged.

General notes:

The irrigation will be applied within the mTPZ immediately following the completion of the excavation. The frequency and volume of irrigation may vary and depends on the time, season and weather conditions. Since most of the absorbing roots are situated within the first 45cm of the soil level, the irrigation water should wet thoroughly the surface until this depth is achieved.

Post-construction prognosis for the above-noted injured trees

Accepted arboricultural best management practices and acceptable thresholds for percent root disturbance state that a 0-25% TPZ encroachment will have a minor impact with little to no negative impacts on tree health, vigour, structural integrity and no impacts on tree survivability. A 35% - 40% TPZ encroachment will have a definite impact to tree health, vigour, structural integrity and tree survivability and a >40% - Significant impact to health, vigour, structural integrity and overall survivability and therefore removal permit is required.

Tree #3: 74 cm Manitoba maple – encroachment within mTPZ ≈30%

Following "*Ranking of common tree species in tolerance to construction damage by (Matheny & Clark 1998)",* this species shows good tolerance.

*Tolerance: P= poor, M= moderate, G= good.

Since the excavation depth associated with the new driveway does not exceed 40cm, and this species is very hardy and resilient to construction impact, minimal impact on its health and vigour are expected, provided that the protection measures outlined in this report and TPP are carefully followed and enforced.

Tree #14: 95 cm Silver maple – encroachment within mTPZ ≈30%

In accordance with the Georgina Forestry Commission research, *''a 30% loss of the critical root zone would be considered enough to kill or significantly destabilize the tree".*

In case that roots can be retained and/or no structural roots greater than or equal to 50mm in diameter are severed, the tree is expected to be preserved with minor impact on its health and vigour, provided that the protection measures outlined in this report and TPP are carefully followed and enforced.

In our professional opinion, all other inventoried trees on this lot will remain undisturbed under this proposal, given that construction work associated with the installation of the proposed new development is situated at sufficient distances back from their tree protection zones.

INVENTORY AND PROTECTION REQUIREMENTS

Table 2: Detailed Tree Inventory Table

65Tree ID	Common	Botanical	DBH (cm) 1.4 m	Ownership Category	Heavy Duty/HTP Hoarding	Light Duty Hoarding	Removal (R)	Encroachment mTPZ (%)	mTPZ (m)	Overall Condition	Observations and Preservation Comments
1	Norway maple	*Acer platanoides*	34	1. Private	**n.a.**	**n.a.**	**R**	100%	**n.a.**	Good	Upright growth habit; good crown density and twig elongation observed **Remove – tree location within the development footprint**
2	Austrian pine	*Pinus nigra*	39	1. Private	**n.a.**	**n.a.**	**R**	100%	**n.a.**	Fair	Pyramidal growth habit; reduced crown density and colour observed; **Remove – tree location within the development footprint**
3	Manitoba maple	*Acer negundo*	74	1. Private	☑	**n.a.**		30%	**4.8**	Fair	Upright growth habit; crown reduction in the past; epicormic growth present **To be protected as indicated on TPP-L1; an ISA Certified Arborist on site during driveway installation**
4	Purple Fountain Weeping Beech	*Fagus sylvatica 'Purple Fountain'*	28	1. Private	**n.a.**	**n.a.**	**R**	100%	**n.a.**	Good	Weeping growth habit; botanical vigour appears good; no visible defects observed **Remove – tree location within the development footprint**
5	Japanese lilac	*Syringa reticulata*	6	1. Private	**n.a.**	**n.a.**	**R**	100%	**n.a.**	Good	Recently planted tree; no visible defects observed **Remove – tree location within the development footprint; Undersized; No permit required**
6	Colorado Blue spruce	*Picea pungens 'Glauca'*	23	1. Private	**n.a.**	**n.a.**	**R**	100%	**n.a.**	Good	Pyramidal growth habit; good crown density and colour observed **Remove – tree location within the development footprint**
7	Colorado Blue spruce	*Picea pungens 'Glauca'*	36	1. Private	**n.a.**	**n.a.**	**R**	100%	**n.a.**	Good	Pyramidal growth habit; good crown density and colour observed **Remove – tree location within the development footprint**

65Tree ID	Common	Botanical	DBH (cm) 1.4 m	Ownership Category	Heavy Duty/HTP Hoarding	Light Duty Hoarding	Removal (R)	Encroachment mTPZ (%)	mTPZ (m)	Overall Condition	Observations and Preservation Comments
8	European Horse chestnut	*Aesculus hippocastanum*	42 41 39	1. Private	**n.a.**	**n.a.**	**R**	100%	**n.a.**	Good	Multi-stemmed growth habit; good crown density and twig elongation observed; **Remove – tree location within the development footprint**
9	Apple	*Malus spp.*	75	1. Private	**n.a.**	**n.a.**	**R**	100%	**n.a.**	Fair	Multi-stemmed growth habit; central stem removed or fallen; **Remove – tree location within the development footprint**
10	White spruce	*Picea glauca*	45	1. Private	**n.a.**	**n.a.**	**R**	100%	**n.a.**	Good	Pyramidal growth habit; good crown density and colour observed **Remove – tree location within the development footprint**
11	Silver maple	*Acer saccharinum*	122	1. Private	**n.a.**	**n.a.**	**R**	100%	**n.a.**	Fair	Mature tree; co-dominant growth habit; large longitudinal crack below main branch union **Remove – tree location within the development footprint**
12	Manitoba maple	*Acer negundo*	≈40	2. Neighbour	☑	**n.a.**		**n.a.**	**2.4**	Fair	Reduced crown density due to excessive pruning in the past **To be protected as indicated on TPP-L1**
13	Manitoba maple	*Acer negundo*	80	1. Private	**n.a.**	**n.a.**	**R**	100%	**n.a.**	Poor	Structurally unsound tree; large cavity visible from the west side; **Remove – tree location within the development footprint**
14	Silver maple	*Acer saccharinum*	95	1. Private	☑	**n.a.**		30%	**6.0**	Good	Multi-stemmed growth habit; good radial growth and crown density observed; **To be protected as indicated on TPP-L1; an ISA Certified Arborist on site during retaining wall installation required**
15	Willow tree	*Salix spp.*	33 30	1. Private	☑	**n.a.**		**n.a.**	**4.2**	Fair	Co-dominant growth habit; reduced crown density observed; **To be protected as indicated on TPP-L1**
16	Austrian pine	*Pinus nigra*	35	1. Private	☑	**n.a.**		**n.a.**	**2.4**	Fair	Co-dominant growth habit; good crown density observed; **To be protected as indicated on TPP-L1**
17	Manitoba maple	*Acer negundo*	50	1. Private	**n.a.**	**n.a.**	**R**	100%	**n.a.**	Fair	Southern stem removed; evidence of previous branch failures **Remove – tree location within the development footprint**

65Tree ID	Common	Botanical	DBH (cm) 1.4 m	Ownership Category	Heavy Duty/HTP Hoarding	Light Duty Hoarding	Removal (R)	Encroachment mTPZ (%)	mTPZ (m)	Overall Condition	Observations and Preservation Comments
18	Silver maple	*Acer saccharinum*	78	1. Private	**n.a.**	**n.a.**	**R**	100%	**n.a.**	Good	Upright growth habit; good crown density and twig elongation present; **Remove – tree location within the development footprint**
19	Silver maple	*Acer saccharinum*	90	1. Private	**n.a.**	**n.a.**	**R**	100%	**n.a.**	Good	Upright growth habit; good crown density and twig elongation present; **Remove – tree location within the development footprint**
20	Norway maple	*Acer platanoides*	32	1. Private	**n.a.**	**n.a.**	**R**	100%	**n.a.**	Good	Upright growth habit; good crown density and twig elongation present; **Remove – tree location within the development footprint**
21	Crab apple	*Malus spp.*	15	1. Private	☑	☑			**3.0**	Fair	Multi-stemmed growth habit; southern leader previously removed; botanical vigour appears good **To be protected as indicated on TPP-L1**

*In cases where private or neighboring trees have a DBH of < 20 cm, but are within proximity of the site disturbance, they have been included in the inventory and Tree Assessment and Protection Plan in the interest of preserving a private asset. All undersized trees proposed for retention are outlined in green colour on the inventory table.

TREE PROTECTION PLAN

The tree protection policies and specifications outlined below reflect the policy of Toronto City Council as per *"Tree Protection Policy and Specifications for Construction Near Trees. March 2009- City of Toronto Urban Forestry, as well as Best Management Practices- Managing Trees During Construction-2016 by Kelby Fite; E Thomas Smiley;*

Tree Protection and Landscape Plan Details

The Tree Protection and Landscape Plan attached to this report (TPP L1, L2 and L3) include the following information:

1. Identified size and species of all existing trees on or within 6 metres of the subject site. Shown extent of the crown of all existing trees.
2. Indicated trees to be injured or removed.
3. Highlighted and labeled tree protection barriers and tree protection zones. (See Table 3 to determine size of tree protection zone. Distances are measured from base of tree).
4. Established and illustrated the required hoarding layout to be maintained for the duration of construction activities;
5. Indicated vehicular access and construction staging areas.
6. Indicated location of any excavation that requires root pruning.
7. Specified Post-Construction Restoration measures.
8. Designated guidelines of practices for the purpose of interpreting tree care standards.
9. Indicated location of all new trees proposed for replanting.

TREE PROTECTION SPECIFICATIONS AND DETAILS

Tree Protection Zones

No construction activity including grade changes, surface treatments or excavations of any kind is permitted within the area identified on the Tree Protection Plan or Site Plan as a Tree Protection Zone (TPZ). No root cutting is permitted. No storage of materials or fill is permitted within the TPZ. No movement or storage of vehicles or equipment is permitted within the TPZ. The area(s) identified as a TPZ must remain undisturbed at all times. The following is a chart showing minimum required distances for determining a Tree Protection Zone (TPZ) for City-owned trees located on a City Street, in parks and trees on private property subject to either the Ravine and Natural Feature Protection By-law or the Private Tree By-law. Some trees and some site conditions may require a larger TPZ.

Determining the Structural Root Zone (SRZ)

The SRZ is the area required for tree stability. A larger area is required to maintain a viable tree. The SRZ only needs to be calculated when major encroachment into a TPZ is proposed. There are many factors that affect the size of the SRZ; e.g. tree height, crown area, soil type, soil moisture etc. The

SRZ may also be influenced by natural or built structures, such as rocks and footings. An indicative SRZ radius can be determined from the trunk diameter measured immediately above the root buttress using the following formula:

SRZ radius = (D x 50) ^0.42 x 0.64

Where - D = trunk diameter, in m, measured above the root buttress.

The SRZ for trees with trunk diameters less than 0.15m will be 1.5m.

It needs to be emphasized that this is an indicative calculation which generalizes all the conditions influencing the estimate. SRZ is often less than the indicated calculation. An Exploratory Root Excavation (ERE) or root investigation according to *Best Management Practices- Managing Trees During Construction-2016*, may provide more information on the extent of these roots.

TPZ and SRZ Encroachment

Any encroachment into TPZ should be advised and supervised by a qualified Arborist.

Minor encroachment: *If the proposed encroachment is less than 10% of the area of the TPZ and is outside the SRZ detailed root investigations should not be required. The area lost to this encroachment should be compensated for elsewhere and contiguous with the TPZ.*

TPZ encroachment considerations: *When determining the potential impacts of encroachment into the TPZ, the project arborist should consider the following:*

I. *Location and distribution of the roots to be determined through non-destructive investigation methods (pneumatic, hydraulic, hand digging or ground penetrating radar). Photographs should be taken and a root zone map prepared.* **NOTE:** *Regardless of the method, roots must not be cut, bruised or frayed during the process. It is imperative that exposed roots are kept moist and the excavation back filled as soon as possible.*
II. *The potential loss of root mass resulting from the encroachment: number and size of roots.*
III. *Tree species and tolerance to root disturbance.*
IV. *Age, vigour and size of the tree.*
V. *Lean and stability of the tree.* **NOTE:** *Roots on the tension side are likely to be most important for supporting the tree and are likely to extend for a greater distance.*
VI. *Soil characteristics and volume, topography and drainage.*
VII. *The presence of existing or past structures or obstacles affecting root growth.*

Tree sensitive construction measures such as pier and beam, suspended slabs, cantilevered building sections, screw piles and contiguous piling can minimize the impact of encroachment.

When siting a structure near to a tree, the future growth of the tree, both above and below ground should be taken into account. Precautions should be taken at the planning and design stage to minimize potential conflict between trees and new structures.

When the root zone is reactive clay, techniques such as localized pier and beam (bridged), screw pile footings or root and soil moisture control barriers may be appropriate to minimize effects on structures.

NOTE: *Collaboration may be required between the project arborist and the geotechnical or structural engineer.*

Table 3: Tree Protection Zones

City of Vaughan Minimum Tree Protection Zones (TPZ)		
Trunk Diameter DBH[1]	City Owned and Private Trees[2]	Trees in Naturalized Areas *Whichever is greater*
< 10 cm	1.2 m	Dripline[3] or 1.2 m
10 – 20[4] cm	1.2 m	Dripline or 1.2 m
21 – 30 cm	1.8 m	Dripline or 3.6 m
31 – 40 cm	2.4 m	Dripline or 4.8 m
41 – 50 cm	3.0 m	Dripline or 6.0 m
51 – 60 cm	3.6 m	Dripline or 7.2 m
61 – 70 cm	4.2 m	Dripline or 8.4 m
71 – 80 cm	4.8 m	Dripline or 9.6 m
81 – 90 cm	5.4 m	Dripline or 10.8 m
91 – 100 cm	6.0 m	Dripline or 12.0 m
> 100 cm	6 cm per 1 cm DBH	12 cm per 1 cm diameter or the dripline[5]

[1] Diameter at breast height (DBH) is the measurement of the tree trunk taken at 1.4 metres above ground level.

[2] Tree Protection Zone distances are to be measured from the outside edge of the tree base.

[3] The dripline is defined as the area beneath the outer most branch tips of a tree

[4] Base diameter (20 cm) at which trees qualify for protection under the private tree by-law.

[5] Converted from the ISA Arborist Certification Study Guide, general guideline for tree protection barriers of 30.4 cm of diameter from the trunk for each 1 cm of trunk diameter

- Tree Protection Plans are to include a description of tree protective measures (e.g. hand digging, compaction reduction plans, hoarding installations, etc.)
- Trees being protected are to be shown on all plans.
- Tree protection hoarding locations must be shown along with Tree Protection Zones (TPZ).
- TPZ distances from trees are shown in Table 1
- Areas within the TPZ are considered “no touch areas”. Grading, excavation, machinery access and material storage are prohibited within “no touch areas”.
- Machinery access and storage sites must be shown on plans.
- If access is required through TPZ areas, a compaction reduction plan is required as part of the report. The compaction reduction plan is to include materials and installation techniques to be employed, along with post construction treatments.

Tree Protection Barriers

Prior to the commencement of any site activity the tree protection barriers specified on this plan must be installed and written notice provided to Urban Forestry. The tree protection barriers must remain in effective condition until all site activities including landscaping are complete. Where required, signs as specified in Section “Tree Protection Signage” must be attached to all sides of the barrier. Written notice must be provided to Urban Forestry prior to the removal of the tree

protection barriers. In some instances, where the tree is healthy and the management of the tree or forest cover has not been addressed to the satisfaction of Urban Forestry, requests received by Urban Forestry may be forwarded to a Community Council and City Council for approval.

For City-owned Trees

Tree protection barriers for trees situated on the City road allowance where visibility must be maintained, can be 1.2m (4ft.) high and consist of chain link, or orange plastic web snow fencing on a 2" x 4" wood frame. All supports and bracing used to secure the barrier should be located outside the TPZ. All supports and bracing should minimize damage to roots outside the TPZ. Where some fill or excavate has to be temporarily located near a tree protection barrier, plywood must be used to ensure no material enters the TPZ. If the TPZ needs to be reduced to facilitate construction access, the tree protection barrier must be maintained at a lesser distance and the exposed TPZ protected with plywood and wood chips. This must first be approved by Urban Forestry.

For trees on private property situated on or adjacent to construction sites

Tree protection barriers must be installed around trees to be protected using plywood clad hoarding or an equivalent approved by Urban Forestry. All supports and bracing to safely secure the barrier should be outside the TPZ. All such supports and bracing should minimize damage to roots outside the TPZ.

Tree Protection Hoarding in the Ravine & Natural Feature Protected Areas

The applicant/owner shall protect all trees in the protected area that have not been approved for removal or injury, throughout development works to the satisfaction of Urban Forestry.
Plywood (or chain link fence, if agreed to by Urban Forestry) tree protection hoarding shall be installed in the locations as indicated in the Urban Forestry approved tree protection plan. Tree protection hoarding shall be installed to standards as detailed in the City's Tree Protection Policy and Specifications for Construction near Trees and to the satisfaction of Urban Forestry.
Tree protection hoarding must remain in place and in good condition during demolition and/or construction and must not be altered or moved until authorized by Urban Forestry. Established tree protection zones must not be used as construction access, storage or staging areas. Grade changes are not permitted within established TPZ. All additional tree protection or preservation requirements, above and beyond the required tree protection hoarding, must be undertaken or implemented as detailed in the Urban Forestry approved arborist report and/or the approved tree protection plan and to the satisfaction of Urban Forestry.

Site Accessibility

When site accessibility is necessary within or through Tree Protection Zone proper care must be taken when performing such activities. Site accessibility methods must be pre-approved and documented with Urban Forestry. The following methods are acceptable but must be recommended by a Certified Arborist and documented within the Tree Preservation Report and Plan. Mitigating measures such as horizontal hoarding/compaction alleviation measures must be under taken when such activities occur within the Tree Protection Zone. Depending upon the intensity of encroachment, Light, Moderate or Heavy root zone compaction protection may be required, as specified below:

Light Root Zone Compaction Protection

Where limited non-vehicular access in the TPZ is anticipated (e.g., occasional foot traffic, wheelbarrow), the Light Root Zone Compaction Protection specification shall be implemented, as described below:

4. Installation of permeable geotextile over area to be protected
5. Installation of a minimum of 150 mm of wood chip mulch over area of potential impact
6. Optional: installation of ¾" plywood over mulch (to facilitate movement over mulch, if required)

Moderate Root Zone Compaction Protection

Where more frequent non-vehicular access or occasional light vehicle (e.g., pickup truck) access across the TPZ is anticipated, the Moderate Root Zone Compaction Protection specification shall be implemented, as described below:

1. Installation of staked-down permeable geotextile over area of potential impact
2. Installation of a minimum of 200 mm of wood chip mulch over geotextile
3. Installation of ¾" plywood over mulch

Heavy Root Zone Compaction Protection

In areas where regular vehicle access or similar impacts are anticipated in the TPZ, the Heavy Root Zone Compaction Protection specification shall be implemented, as described below:

1. Installation of staked-down permeable geotextile over area of potential impact
1. Installation of 100 mm of clear stone over geotextile
2. Installation of permeable geotextile over stone layer
3. Installation of a minimum of 150 mm of wood chip mulch over geotextile
4. Installation of ¾" plywood or steel plate over mulch

Snow-Fence & Plywood Clad Hoardings for Perimeter Control

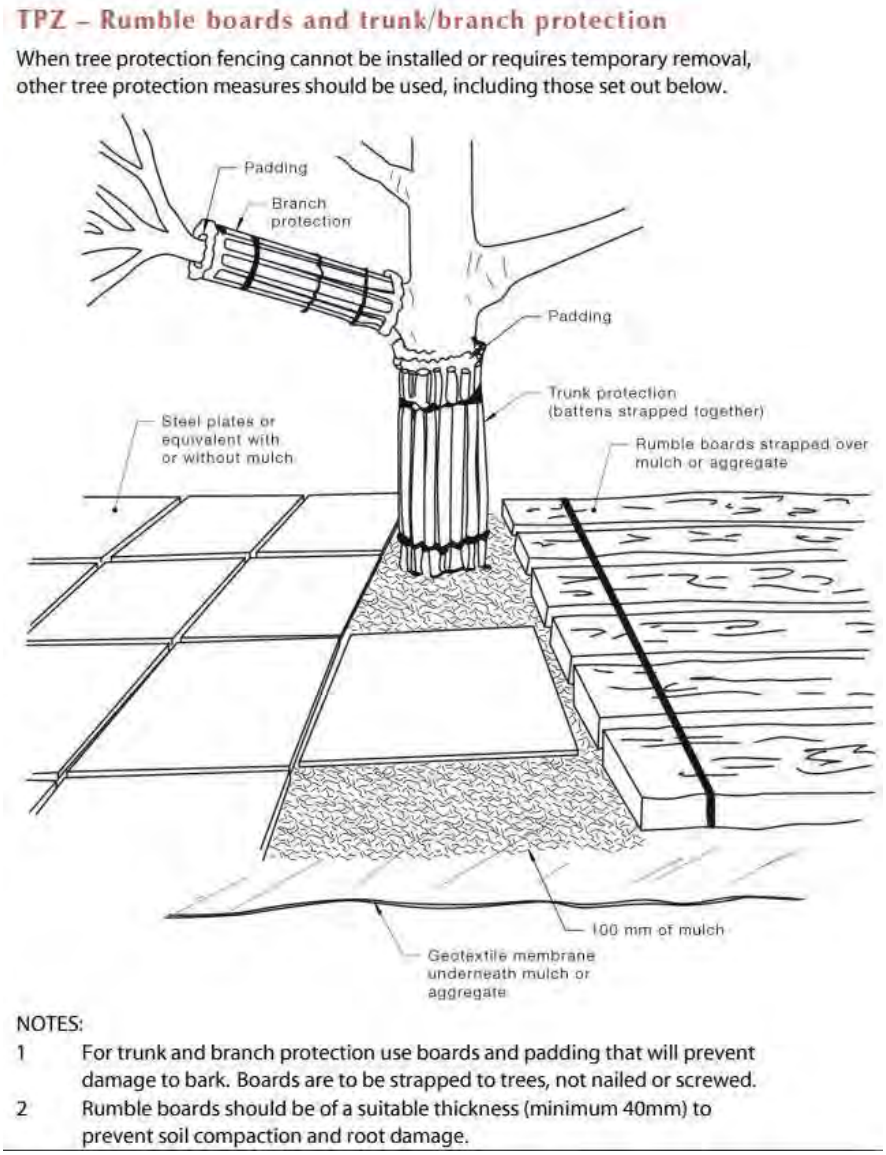
Tree Protection Signage

A sign that is similar to the illustration (right) may be required to be mounted on all sides of a Tree Protection Barrier for trees protected by the Trees on Town Streets By-law and the Private Tree By-law. The sign should be a minimum of 40cm x 60cm and made of white gator board or equivalent material.

Trunk and Branch Protection

Trees impacted upon by construction works should be protected as per the Sketch to the right. It is suggested that suitable rubberized padding material be used under 75 by 50 hardwood timber which is strapped with galvanized tin strapping approximately 30 mm wide at 900 mm spacing from bottom of trunk upwards and nailed or screwed to the hardwood timber with 25 mm long galvanized fasteners. The rubberized padding material should be perforated to allow air to the
trunk, and not soak water into itself. No nails or screws are to enter the tree trunk or branches and care must be taken to ensure that no materials bite into the tree surface and scar or damage its surface in any way.

Trunk and Branch Protection Detail



Ground Protection

The planking to the right in the sketch following is an example of the planking that could be used. If temporary access for machinery is required within the TPZ, ground protection measures will be required. The purpose of ground protection is to prevent root damage and soil compaction within the TPZ. Measures should include a permeable membrane such as Geo-textile fabric beneath a layer of mulch or crushed rock, below rumble boards as per sketch for Trunk and Branch Protection Details on previous page. Rubber matting and packing plywood may also be used. Under this planking or sheeting within the TPZ, a 75 mm layer of leaf mulch or similar, aged for at least 12 weeks and proven to contain no toxic substances must be installed. These measures may also be applied to root zones beyond the TPZ. Rumble boards should be of a suitable thickness to prevent soil compaction and root damage.

Root Protection during Works within the TPZ

Some approved works within the TPZ, such as regrading, installation of piers or landscaping may have the potential to damage roots. If the grade is to be raised the material should be coarser or more porous than the underlying material. Depth and compaction should be minimized.

Manual excavation is the preferred method and should be carried out under the supervision of an arborist to identify roots critical to tree stability and determine the actual extent of the SRZ. An ERE may be used with photographs and maps to serve as a guide for designers and workers. Relocation or redesign of construction works may be required.

Where the project arborist identifies roots to be pruned within or at the outer edge of the TPZ, they should be pruned with a final cut back to undamaged wood. Pruning cuts should be made with sharp tools such as secateurs, pruners, handsaws or chainsaws. Pruning wounds should not be treated with dressings or paints. It is not acceptable for roots within the TPZ to be 'pruned' with machinery such as backhoes or excavators.

Where roots within the TPZ are exposed by excavation, temporary root protection should be installed to prevent them drying out. This may include jute mesh or hessian sheeting as multiple layers over exposed roots and excavated soil profile, extending to the full depth of the root zone. Root protection sheeting should be pegged in place and kept moist during the period that the root zone is exposed.

Other excavation works in proximity to trees, including landscape works such as paving, irrigation and planting can adversely affect root systems. The project arborist should be consulted and supervise any works.

TPZ Encroachment Over 10%

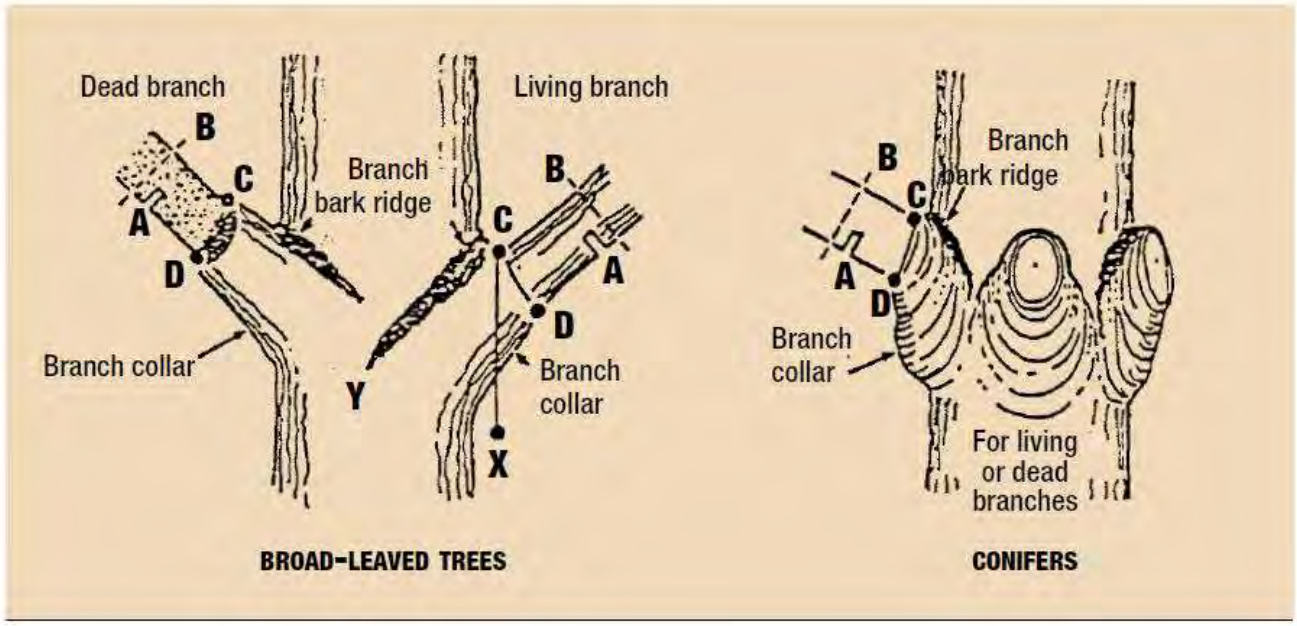
If the proposed building footprint encroaches into the TPZ more than 10%; either the building footprint will have to change to reduce the encroachment to 10% or an Exploratory Root Excavation (ERE) could be carried out by an Arborist to determine the exact location of any roots present. Prior to an ERE make certain to contact the Urban Forestry Department to see if permission is required. If roots are discovered belonging to the tree that are under 40 mm diameter, they could be cut by an arborist to allow either the entire building footprint to be accommodated, or if that is not possible, a smaller redesigned building footprint to be accommodated. If the TPZ is varied following an ERE room must be allowed for the lost area to be compensated for elsewhere. Roots greater than 40 mm diameter and fibrous root mats or clumps greater than 50mm diameter should not be cut but need to be worked around. A well-qualified arborist may cut a root greater than 40 mm diameter, but not greater than 50 mm diameter unless given permission to cut from the Urban Forestry Department. Alternatively, if an ERE shows it is impossible to vary the TPZ, alternative "tree friendly" construction methods could be employed, such as installing a building slab above grade, pier and beam methods, or building on stumps. Piers and stumps can be relocated to avoid damage to any significant roots discovered by the ERE. These alternative building methods should be specified by a suitably qualified person.

Irrigation

During warmer periods the Tree Protection Zones should be irrigated with 1 litre of clean water for every 1 cm of trunk girth measured at the soil / trunk interface on a weekly basis.
No persons, vehicles or machinery are to enter the Tree Protection Zones unless authorized to do so, preferably with permission from the Determining Authority.

Crown protection

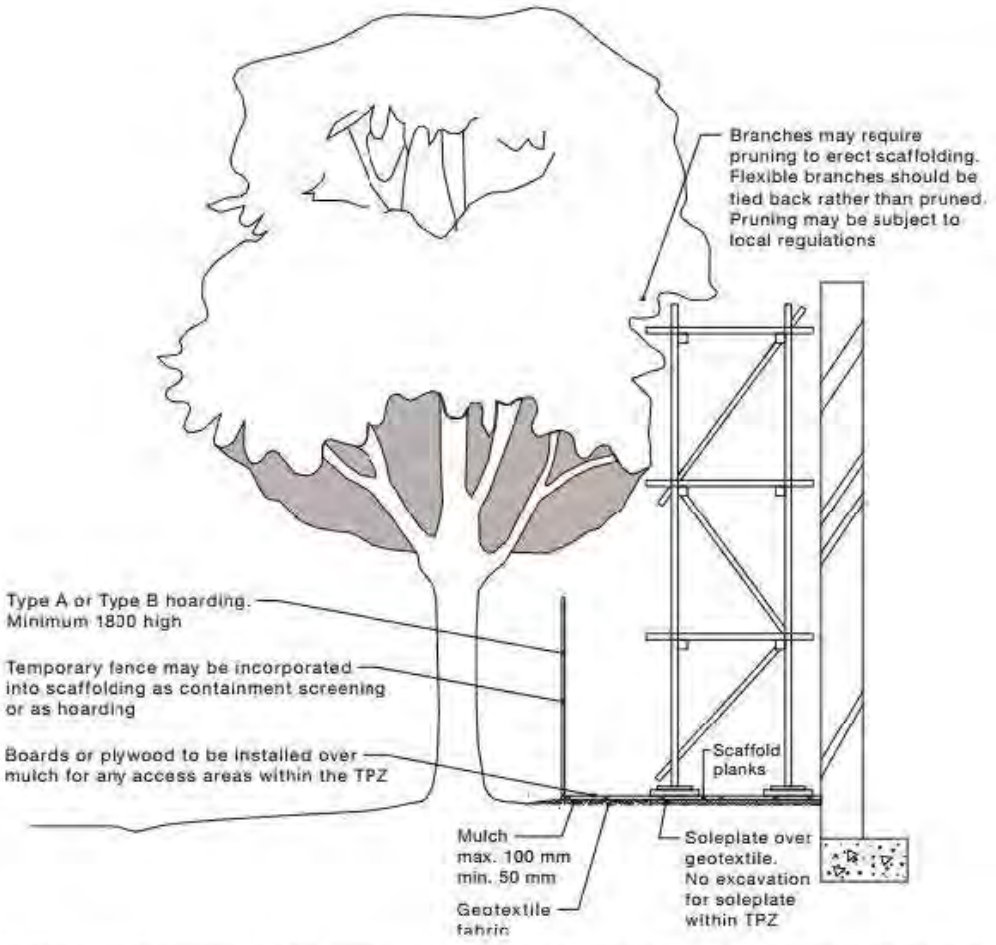
Tree crowns may be injured by machinery such as excavators, drilling rigs, cranes, trucks, hoarding installation and scaffolding. The TPZ may need to include additional protection of above ground parts of the tree. Where crown protection is required, it will usually be located at least one metre outside the perimeter of the crown. The erection of scaffolding may require an additional setback from the edge of the crown. Crown protection may include pruning, tying-back of branches or other measures. Any branches which extend beyond the TPZ indicated on this plan which require pruning, must be pruned by a qualified Arborist or other tree professional as approved by Urban Forestry. All pruning of tree and branches must be in accordance with good arboricultural standards.
The Arborist/tree professional retained to carry out crown pruning must contact Urban Forestry no less than 48 hours prior to conducting any specified work. **NOTE:** *Prior to the pruning of or removal of any tree the Determining Authority, usually the local council must be consulted to be certain the pruning or removal is allowed by them and is lawful.*
Proper Pruning Principles



Natural Target Pruning properly removes a branch while protecting the branch collar, which is essential for wounds to heal. First cut A, second cut B, and third cut C-D.
as per: '' A Guide to Preserving Trees in Development Projects© The Pennsylvania State University 2005"

Scaffolding

Scaffolding Details



Where scaffolding is required, it should be erected outside the TPZ. Where it is essential for scaffolding to be erected within the TPZ, branch removal should be minimized. This can be achieved by designing scaffolding to avoid branches or tying back branches. Where pruning is unavoidable it must be specified by the project arborist in accordance with the Best *Management Practices- Managing Trees During Construction-2016 by Kelby Fite; E Thomas Smiley;*

NOTE: *Pruning works may require approval by the determining authority.*

Ground below the scaffolding should be protected by boarding (e.g. scaffold board or plywood sheeting) as shown in **Trunk and Branch Protection** earlier. Where access is required, a board walk, or other surface material should be installed to minimize soil compaction. Boarding should be placed over a layer of mulch and impervious sheeting to prevent soil contamination. The boarding should be left in place until the scaffolding is removed.

There is a risk of materials falling off the scaffold decking and into the TPZ, damaging the tree. Care must be exercised, and solid walls or mesh barriers be installed on any scaffolding over the TPZ. Impervious membrane, mulch, boards or plywood must be used under the scaffold soleplates and no excavation is to be performed for the soleplates. It may be possible to erect secondary fencing inside the general TPZ fencing to further protect the tree from damage.

Additional notes

The applicant/owner shall protect all bylaw regulated trees in the area of consideration that have not been approved for removal throughout development works to the satisfaction of Urban Forestry.
Prior to site disturbance the owner must confirm that no migratory birds are making use of the site for nesting. The owner must ensure that the works are in conformance with the Migratory Bird Convention Act and that no migratory bird nests will be impacted by the proposed work.
It is the applicants' responsibility to discuss potential tree injury of trees on shared property lines with their neighbours. Should such trees be injured to the point of instability or death the applicant may be held responsible for removal and such issues would be dealt with in civil court or through negotiation. The applicant would be required to replace such trees to the satisfaction of Urban Forestry.
Urban Forestry does not have the authority to issue a permit to injure or remove a heritage tree. Such requests would be forwarded to a Community Council and/or City Council for approval.
Butternut (*Juglans cinerea,* L.) is an endangered species. Butternuts and their habitat are protected under Endangered Species Act (S.O. 2007, c.6) available on the Government of Ontario website at http://www.ontario.ca/laws/statute/07e06/v1
A permit to injure or remove a butternut tree must be obtained from the Ministry of Natural Resources and Forestry Ontario.

Contravention of the Tree by-law

The City's enforcement officers may enter and inspect lands to ensure the by-law and permit is being complied with. Any person violating the by-law may be fined up to $10,000 for first offences. Subsequent offences may be charged up to $25,000. Any corporation violating the by-law may be fined up to $100,000.

POST-CONSTRUCTION REPLANTING PLAN

Replacement Trees are required as a condition of all Individual tree removals. The applicants understand the replanting requirements:

- Evergreen (coniferous) trees must be at least 200 cm tall;
- Leafy (deciduous) trees must have a caliper of at least 60mm;
- If fruit-bearing trees are desired, two trees must be planted to substitute each evergreen or leafy tree replacement;
- Must be planted within one year of the issuance of the tree removal permit;
- Must not be a shrub or a low growing tree;
- Must not be an invasive species;
- Must be good quality, number one (1) grade, nursery-grown stock and installed as per City approved details and standards;

- Shall meet the highest horticultural standards of the Canadian Nursery Trades Association with respect to grading and quality, and shall be in strict accordance with the approved Plant List and Specifications.

Table 4. Ratio of Tree Replacement for Private Trees

Tree Removed Diameter of Trunk (DBH) in centimetres	**Replacement Tree Ratio**
20-30	**1**
31-40	**2**
41-50	**3**
51 or greater	**4**

Table 5: Compensatory Tree Planting table

Tree ID	Common	Botanical	DBH (cm)	Ownership Category	Condition	Injured	Removals	Urban Forestry Compensation
1	Norway maple	*Acer platanoides*	34	1. Private	Good	☑	☑	2
2	Austrian pine	*Pinus nigra*	39	1. Private	Fair	☑	☑	2
4	Weeping European beech	*Fagus sylvatica 'Purple Fountain'*	28	1. Private	Good	☑	☑	1
5	Japanese lilac	*Syringa reticulata*	6	1. Private	Good	☑	☑	0
6	Colorado Blue spruce	*Picea pungens 'Glauca'*	23	1. Private	Good	☑	☑	1
7	Colorado Blue spruce	*Picea pungens 'Glauca'*	36	1. Private	Good	☑	☑	2
8	European Horse chestnut	*Aesculus hippocastanum*	60	1. Private	Good	☑	☑	4
9	Apple	*Malus spp.*	75	1. Private	Fair	☑	☑	1
10	White spruce	*Picea glauca*	45	1. Private	Good	☑	☑	3
11	Silver maple	*Acer saccharinum*	122	1. Private	Fair	☑	☑	4
13	Manitoba maple	*Acer negundo*	80	1. Private	Poor	☑	☑	0
17	Manitoba maple	*Acer negundo*	50	1. Private	Fair	☑	☑	3
18	Silver maple	*Acer saccharinum*	78	1. Private	Good	☑	☑	4
19	Silver maple	*Acer saccharinum*	90	1. Private	Good	☑	☑	4
20	Norway maple	*Acer platanoides*	32	1. Private	Good	☑	☑	2
REQUIRED NEW PLANTINGS (under provisions of the Tree By-Law)								**33**
PROPOSED NEW PLANTINGS (on the subject site)								**10**
CASH IN LIEU OF REPLANING @ $550.00/tree as of 2021								**23**
LEGEND Invasive species	Native species	Non-native species	Dying/Dead trees					

A total of ten **(10)** large/medium-growing shade trees shall be planted on the subject lot, post-construction, as required under provisions of the City of Vaughan **Tree By-Law.** The trees will be planted according to the methodology outlined for balled and burlapped trees in turf by Urban Forestry. Please keep in mind that a new tree should not be planted any closer than 5 meters apart,

or 1.5 meters to fences, property lines, sidewalks or driveways and far enough away from structures and existing trees to allow it to grow to full maturity.
**All wire baskets shall be carefully removed prior to planting of the above-noted new trees.*
Please refer to Table 6 below, as well as TRP -L1 and L3, attached to this report for the proposed species location, selection, and maintenance requirements.

Table 6: Recommended Tree Species for Post-Construction Replanting Plan

PLANT LIST						
DECIDUOUS TREES						
Tree ID, R#	**Key**	**Qty**	**Botanical**	**Common**	**Type**	**Size/Caliper**
1, 2, 3	Co	3	*Celtis occidentalis*	Common hackberry	W.B./pot	50mm
5, 6, 7	Cc	3	*Carpinus caroliniana*	Blue beech	W.B./pot	50mm
8, 9	Qr	2	*Quercus rubra*	Northern Red oak	W.B./pot	50mm
10	Ar	1	*Acer rubrum*	Red maple	W.B./pot	50mm
CONIFEROUS TREES						
4	Ps	1	*Pinus strobus*	Eastern White pine	W.B./pot	1.75-2.50 m

CASH-IN-LIEU CONTRIBUTION: "*In instances where more replacement trees are required than can reasonably be accommodated on the development site, a 'cash-in-lieu' payment may be made to the Forestry Tree Reserve Fund (Account #6830100.3550.05) to fund tree planting on city owned properties in the same community."*

DISCUSSION:
As previously stated, a total of ten **(10)** large/medium-growing shade trees shall be planted on the subject lot to retore the canopy loss. Since the rear of the lot falls within TRCA jurisdiction as a part of the permit process, a Landscape Restoration Plan has been prepared and submitted to the TRCA. A total of seventeen **(17)** native species (trees &shrubs) will be planted on the subject site to support functioning, diverse and self-sustaining communities of native plants and wildlife. Please refer to the Post-Construction Restoration prepared by *Lothlorien Garden Consulting March 27th,2024* for species selection, location, quantity, etc., of all new trees/shrubs proposed for replanting.
With the above in mind, it is consultant's opinion that the proposed new vegetation will support functioning, diverse and self-sustaining communities of native plants and wildlife in the subject site.

Due to site limitation, any additional compensation in the form of replacement planting(s), (if required) shall be determined by City of Vaughan Urban Forestry staff and shall be provided as a cash payment.

PICTURES

An on-site inspection was undertaken by the arborist most recently on March 7th, 2024. During the site investigation, photographs of the Site were taken and observations of wildlife and vegetation were thoroughly recorded. **Tree removals are marked whit "**X**" symbol*

Figure 2: The existing vegetation along Lester B. Pearson Street, viewed from the east

Figure 3: The existing vegetation along Main Street, viewed from the south

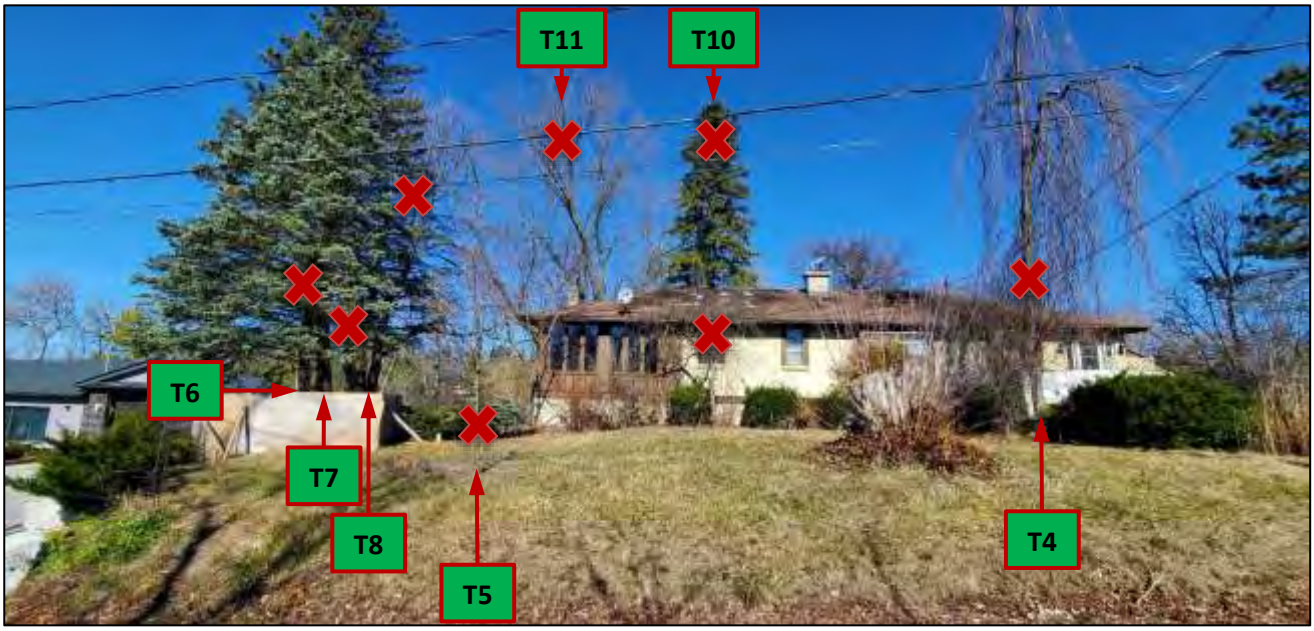


Figure 4: The existing vegetation at the rear of the lot viewed from the west

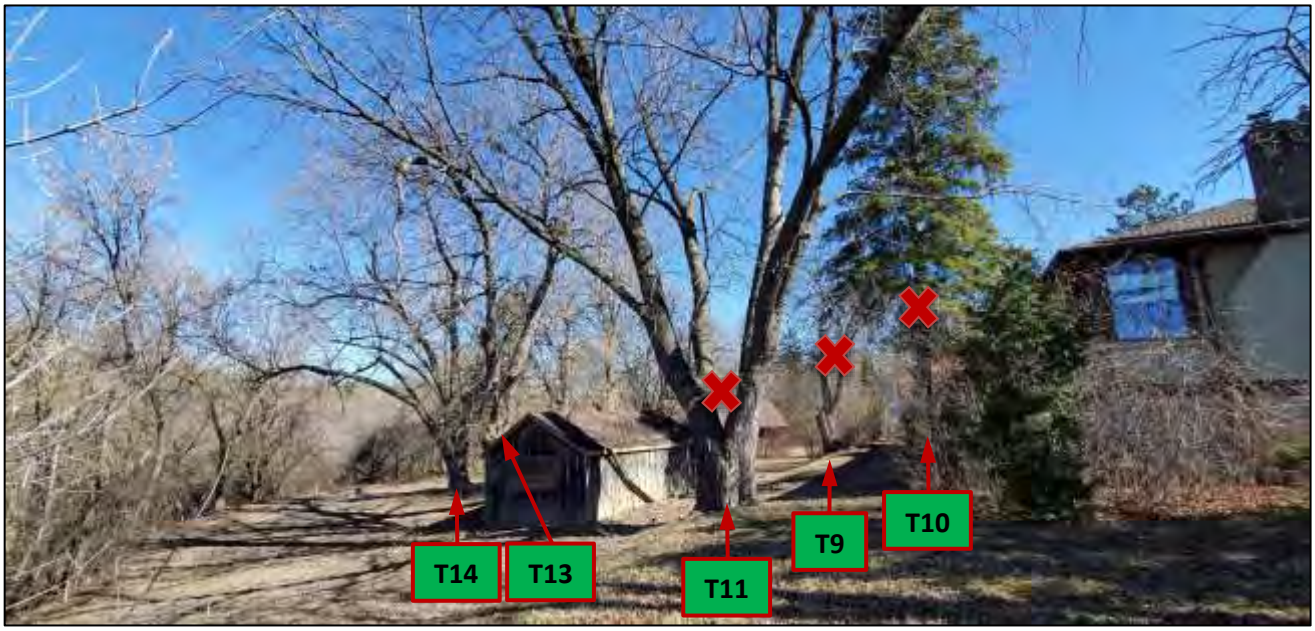


Figure 5: The existing vegetation at the rear, viewed from the east

Figure 6: The existing vegetation at the rear of the lot, close to the stable top of bank, viewed from the west

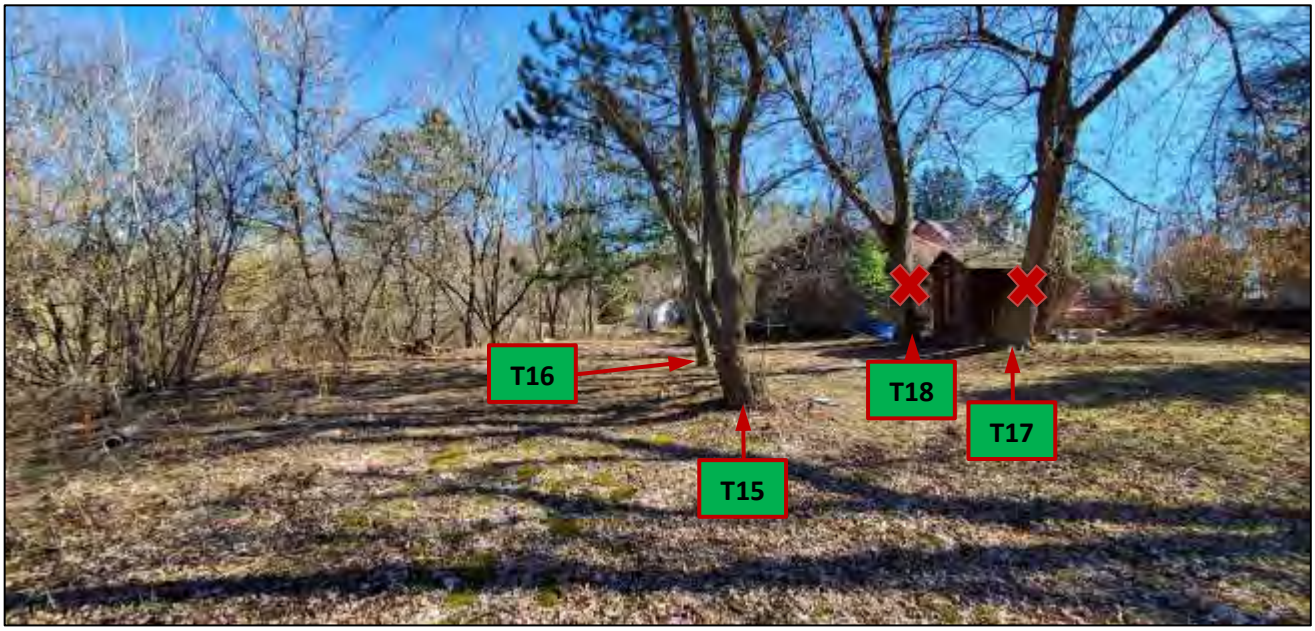
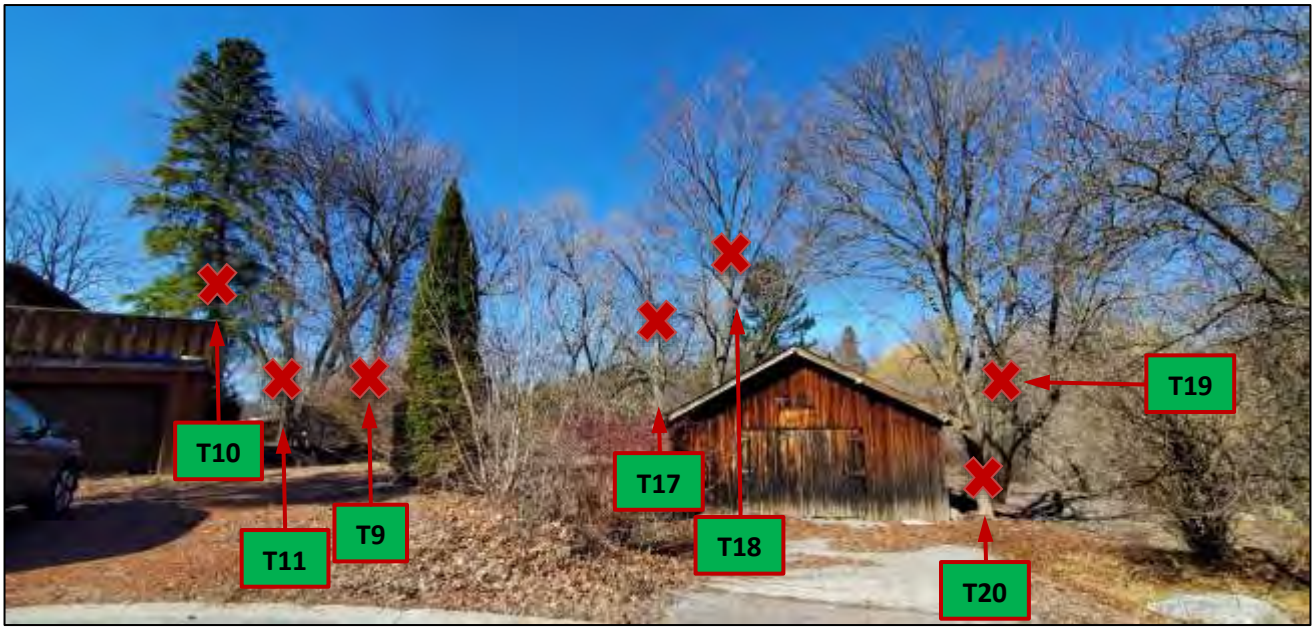


Figure 7: The existing vegetation north of the house, viewed from Lester B. Pearson Street



**Detailed pictures of the proposed tree removals may be found on the next page*

Fig.8: Norway maple (T1)

Fig.9: Austrian pine (T2)

Fig.10: Apple tree (T9)

Fig.11: Silver maple (T11)

Fig.12: Base of T11, close up

Fig.13: White spruce (T10)

Fig.14: Manitoba maple (T13)

Fig.15: Silver maple (T19)

Fig.16: Norway maple (T20)

Fig.17: Manitoba maple (T17)

Fig.18: Silver maple (T18)

Fig.19: Silver maple (T19) close up

ASSUMPTIONS AND LIMITING CONDITIONS

1. Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible; however, the arborist can neither guarantee nor be responsible for the accuracy of the information provided by others.

2. Loss or alteration of any part of this report invalidates the entire report.

3. Possession of the report or copy of thereof does not imply right of publication or use for any purpose by anyone other than the person to whom it is addressed, without the prior expressed written or verbal consent of the consulting arborist.

4. The consulting arborist shall not be required to give testimony or to attend court by reason of the report unless subsequent contractual arrangements are made, including payment of an additional fee for such services as described in the fee schedule and contract engagement.

5. Sketches, diagrams, graphs, and photographs in the report, are intended as visual aids, and are not necessarily to scale and should not be construed as engineering or architectural reports or surveys.

6. Unless expressed otherwise: 1) the information contained in this report covers only those items at the time of inspection; and 2) the inspection is limited to visual examination of the accessible items without dissection, excavation, probing or coring. There is no warranty of guarantee, expressed or implied, that problems or deficiencies of the plants or property in question may not arise in the future.

CERTIFICATE OF PERFORMANCE

I Ivan Mitev, of Lothlorien Garden Consulting, do certify:

That I have personally inspected the subject tree(s) and/or the property defined in the “Assignment” found within this report, and have stated my findings accurately. The extent of the evaluation and/or appraisal is stated in the attached report and Terms of Assignment.

That I have no current or prospective interest in the vegetation or the property that is the subject of this report, and I have no personal interest or bias with respect to the parties involved.

That the analysis, opinions and conclusions stated herein are my own.

That my analysis, opinions, and conclusions were developed and this report has been prepared according to commonly accepted Arboricultural practices.

That no one provided significant professional assistance to the consultant, except as indicated within the report.

That my compensation is not contingent upon the reporting of a predetermined conclusion that favors the cause of the client or any other party, nor upon the results of the assessment, the attainment of stipulated results, or the occurrence of any other subsequent events

I further certify that I am an International Society of Arboriculture Certified Arborist® and that I acknowledge, accept and adhere to the ISA Code of Ethics. I have been involved with the practice of Arboriculture and the care and study of trees since 2005.

Ivan Mitev,
M.Sc. Ecologist
ISA Certified Arborist® #-2297A
Consulting Arborist – *Lothlorien Garden Consulting*
lothloriengardenconsulting@gmail.com

REFERENCES AND RESOURCES

- ISA, 2001-2011. Best Management Practices, Books 1-9, Companion publications to ANSI A300
- ANSI A300 (Part 6) – 2005. Tree, Shrub, and Other Woody Plant Maintenance –Standard Practices (Transplanting)
- ANSI A300 (Part 1) – 2008. Tree, Shrub, and Other Woody Plant Management –Standard Practices (Pruning)
- Canadian Nursery Landscape Association. 2006. Canadian Standards for Nursery Stock – 8th Edition
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- City of Toronto Urban Forestry. Tree Protection Policy and Specifications for Construction Near Trees. March 2009
- Cornell University. 2005. Using CU-Structural Soil TM in the Urban Environment- Dirr, Michael A. 1998. Manual of Woody Landscape Plants. Stipes Publishing, Champaign, IL.
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- Grand River Conservation Authority. Salt Resistance of Trees and Shrubs
- Pennsylvania State University. College of Agricultural Sciences. A Guide to Preserving Trees in
- Development Projects
- Kelby Fite, E. Thomas Smiley Managing Trees During Construction Second Edition 2016
- Dujesiefken, Dr. Dirk, 2012. Director of the Institute for Tree Care in Germany, The CODIT Principle, research presented on cambial regrowth on trees after injury at the Annual ISA Conference in Kingston Ontario
- Sinclair and Lyon, 2005. Diseases of Trees and Shrubs, Second Edition
- ISA, 2010. Glossary of Arboricultural Terms
- Neely and Watson, ISA, 1994 and 1998. The Landscape Below Ground 1 and 2
- Matheny and Clark, ISA, 1994. A Photographic Guide to the Evaluation of Hazard Trees in Urban Areas, 2nd Edition
- VERTICAL MULCHING OF TREES: EFFECTS ON ROOTS AND WATER STATUS by P.J. Kalisz, J.W. Stringer, and R.J. Wells
- AS 4970-2009 PROTECTION OF TREES ON DEVELOPMENT SITES
- Installation Guide Spectra® Roadway Improvement System ©2005, Earth Technologies, Inc.
- Tree Protection By-Laws TORONTO MUNICIPAL CODE CHAPTER 813, TREES
- THE CITY OF VAUGHAN BY-LAW NUMBER 052-2018
- THE CITY OF VAUGHAN BY-LAW NUMBER 185-2007 A by-law to prohibit or regulate the destruction or injuring of trees located on private property in the City of Vaughan.
- Tree Protection Protocol, City of Vaughan, 2018
- CITY-WIDE URBAN DESIGN GUIDELINES City of Vaughan, January 09, 2018

PLAN

183'-4" [55.88 M]

288'-1 1/2"

EDGE OF TREES

TOP OF SLOPE

STABLE TOP OF SLOPE PER GEO-TECH REPORT [SEPT 08, 2023]

PROPOSED NEW PLANTINGS AS PER LANDSCAPE RESTORATION PLAN PREPARED BY LOTHLORIEN GARDEN CONSULTING (MARCH 26,2024)

LIGHT ROOT ZONE COMPACTION PROTECTION NHF404
REVIEW DETAIL DRAWING ON TPP-L2 FOR CONSTRUCTION METHOD
TO BE INSTALLED IMMEDIATELY FOLLOWING DEMOLITION OF REAR SHEDS
TO REMAIN IN PLACE UNTIL THE CONSTRUCTION IS COMPLETED

NOTE RE TREE PROTECTED AREA
CONTRACTOR TO AVOID STORING ANY TOPSOIL, EQUIPMENT AND CONSTRUCTION MATERIAL IN THE PROTECTED AREA
NO GRADE CHANGES ARE PERMITTED IN THIS AREA

PROPOSED TREE PROTECTION BARRIER ULA 110A
TO BE INSTALLED PRIOR TO CONSTRUCTION ACCESS
REVIEW DETAIL DRAWING ON TPP-L2 FOR CONSTRUCTION METHOD
NO CONSTRUCTION ACTIVITY INCLUDING GRADE CHANGES,
SURFACE TREATMENTS OR EXCAVATIONS OF ANY KIND IS
PERMITTED WITHIN THE DESIGNATED AREA

PROPOSED SEDIMENT CONTROL BARRIER
OPSD219.103 OR FILTER SOCK
UNLESS OTHERWISE APPROVED
REVIEW DETAIL DRAWING ON TPP-L3
FOR CONSTRUCTION METHOD

6.00M SETBACK FROM TOP OF STABLE SLOPE

PROP. 1 1/2 STY POOL HOUSE

PROP.RET WALL

BACKFILL AREA

CONC. BALCONY

OVER DIG LIMIT

WALK WAY

AREA OF TREES

PROPOSED TREE PROTECTION BARRIER ULA 110B
TO BE INSTALLED PRIOR TO CONSTRUCTION ACCESS
REVIEW DETAIL DRAWING ON TPP-L2 FOR CONSTRUCTION METHOD
NO CONSTRUCTION ACTIVITY INCLUDING GRADE CHANGES,
SURFACE TREATMENTS OR EXCAVATIONS OF ANY KIND IS
PERMITTED WITHIN THE DESIGNATED AREA

N°8 MAIN ST.
PROP. 2 STY DWLG

27
1 STOREY
FRAME
DWELLING
DG=214.16

EXIST. 1 STY FRAME DWELLING TO BE DEMOLISHED

4 CAR GARAGE

3 CAR GARAGE

1 STY AREA

DRIVEWAY

LANDSCAPING

COV PORCH

UNDISTURBED TREE

DOES NOT EXIST

NEW CURB CUT

DEPRESSED CURB

CENTER LINE OF PAVEMENT

BUSH

CURB

SIDEWALK

MH

HP/LP

BF

TOP OF SLOPE

43'-7" [13.28 M]

39'-4 1/2" [12.00 M]

89'-4" [27.23 M]

21'-4" [6.50 M]

16'-11" [5.16 M]

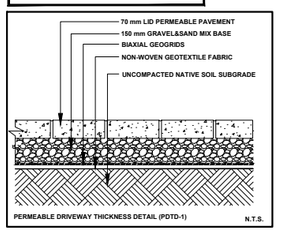
PROPOSED PERMEABLE DRIVEWAY
REVIEW DETAIL DRAWING ON PDTD-1 FOR CONSTRUCTION METHOD

PRIMARY CONSTRUCTION ACCESS ROUTE

ENSURE LOCATES ARE COMPLETED AND SET BACKS ARE FOLLOWED PRIOR TO INSTALLATION OF R1, R2 & R3

GENERAL NOTES
- It is the applicants' responsibility to discuss potential impacts to trees located near or wholly on adjacent properties or on shared boundary lines with their neighbours. Should such trees be injured to the point of instability or death the applicant may be held responsible through civil action. The applicant would also be required to replace such trees to the satisfaction of Urban Forestry
- Tree protection barriers shall be installed to standards as detailed in this document and to the satisfaction of Urban Forestry
- Tree protection barriers must be installed using plywood clad hoarding (minimum 19mmor ¾" thick) or an equivalent approved by Urban Forestry
- Where required, signs as specified in Section 4, Tree Protection Signage must be attached to all sides of the barrier
- Prior to the commencement of any site activity such as site alteration, demolition orconstruction, the tree protection measures specified on this plan must be installed to the satisfaction of Urban Forestry
- Once all tree/site protection measures have been installed, Urban Forestry staff must be contacted to arrange for an inspection of the site and approval of the tree/site protection requirements. Photographs that clearly show the installed tree/site protection shall be provided for Urban Forestry review
- Where changes to the location of the approved TPZ or sediment control or where temporary access to the TPZ is proposed, Urban Forestry must be contacted to obtain approval prior to alteration
- Tree protection barriers must remain in place and in good condition during demolition,construction and/or site disturbance, including landscaping, and must not be altered,moved or removed until authorized by Urban Forestry
- No construction activities including grade changes, surface treatments or excavation of any kind are permitted within the area identified on the Tree Protection Plan or Site Plan as a minimum tree protection zone (TPZ). No root cutting is permitted. No storage of materials or fill is permitted within the TPZ. No movement or storage of vehicles or equipment is permitted within the TPZ. The area(s) identified as a TPZ must be protected and remain undisturbed at all times
- All additional tree protection or preservation requirements, above and beyond the installation of tree protection barriers, must be undertaken or implemented as detailed in the Urban Forestry approved arborist report and/or the approved tree protection plan and to the satisfaction of Urban Forestry
- If the minimum tree protection zone (TPZ) must be reduced to facilitate constructionaccess, the tree protection barriers must be maintained at a lesser distance and the exposed portion of TPZ must be protected using a horizontal root protection method approved by Urban Forestry
- Any roots or branches indicated on this plan which require pruning, as approved by Urban Forestry, must be pruned by an arborist. All pruning of tree roots and branches must be in accordance with good arboricultural practice. Roots that have received approval from Urban Forestry to be pruned must first be exposed using pneumatic (air)excavation, by hand digging or by a using low pressure hydraulic (water) excavation.The water pressure for hydraulic excavation must be low enough that root bark is not damaged or removed. This will allow a proper pruning cut and minimize tearing of the roots. The arborist retained to carry out crown or root pruning must contact Urban Forestry no less than three working days prior to conducting any specified work
- The applicant/owner shall protect all by-law regulated trees in the area of consideration that have not been approved for removal throughout development works to the satisfaction of Urban Forestry
Convictions of offences respecting the regulations in the Street Tree By-law and Private Tree By-law are subject to fines.

NOTE RE TREE PROTECTED AREA
CONTRACTOR TO AVOID STORING ANY TOPSOIL, EQUIPMENT AND CONSTRUCTION MATERIAL IN THE RAVINE PROTECTED AREA. NO GRADE CHANGES ARE PERMITTED IN THIS AREA



LESTER B. PEARSON
(BY BY-LAW NO. 215-97 INST. #R706266)
(FORMERLY CENTRE STREET, BY REGISTERED PLAN 268)
PIN 03347-0118 (LT)

MAIN STREET
(BY REGISTERED PLAN 268)

LOTHLORIEN GARDEN DESIGN CONSULTING
1502-111 Inverlochy Blvd. Thornhill,
ON, L3T 3R7
Phone: 647 351 2631
www.lothloriengarden.com

TRUE NORTH

ISSUED	REVISION	COMMENTS	DATE

NOTES:

TREE PROTECTION and REPLANTING PLAN

ADDRESS:

8 Main Street, Vaughan, ON L4H 3N5

CLIENT NAME: M5V THE NIAGARA INC.

SITE PLAN: ubinoff Design Group
697 Mount Pleasant Rd.
Toronto, Ontario M4S 2N4
TEL. 416.667-0322 FAX.416.667.0751 EMAIL. info@rubinoffdesign.com

TPP DRAWN BY:

IVAN MITEV
M.Sc. Ecologist
ISA Certified Arborist® ON-2297A
Consulting Arborist - Lothlorien Garden Consulting
lothloriengardenconsulting@gmail.com

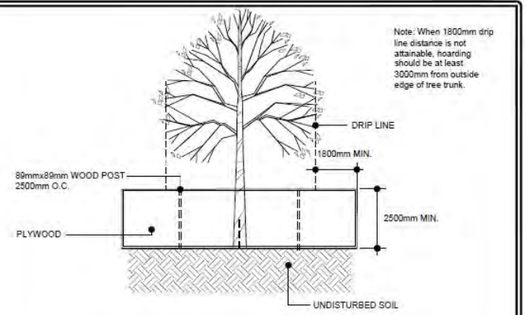
DATE: 04/11/2024

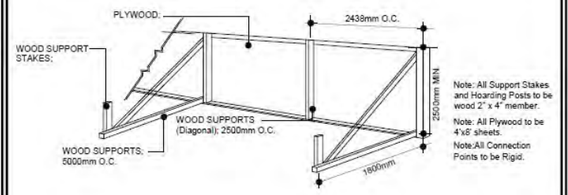
SCALE: 1:250 (17" x 11") N.B. Print on 11"x17"without fitting

SHEET NUMBER: TPP- L1

LEGEND

- TREES TO REMAIN protected root zone (TPZ) EXISTING TREE KEY (T #)
- TREES TO BE REMOVED
- TREES TO BE INJURED
- 2x4 FRAME AND SNOW-FENCE-CLAD HOARDING (TEMPORARY STAGE I, STAGE II, PERMANENT)
- 2x4 FRAME AND PLYWOOD-FENCE-CLAD HOARDING (TEMPORARY STAGE I, STAGE II, PERMANENT)
- BIAXIAL GEOGRID
- PERMEABLE PAVERS
- HORIZONTAL ROOT PROTECTION (TEMPORARY, PERMANENT)
- STRUCTURAL ROOT ZONE
- TRCA LIMIT
- DEEP ROOT TREATMENT
- ROOTS STUDY (R.S.E.)
- OVER DIG LIMIT
- DEMOLITION LIMIT
- TREES IN DECLINE PROPOSED FOR REMOVAL
- SILT BARRIER FENCE (TEMPORARY, PERMANENT)
- TREE REPLANTING LOCATION (R #)





NOTES:

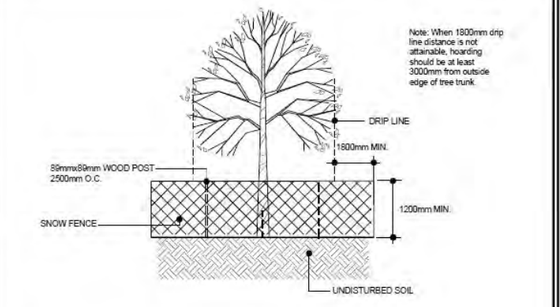
1. Attachment of fence to trees to be preserved is not allowed.
2. Ensure fence is continuous and is located beyond the drip line of trees to be preserved.
3. Fencing to be installed prior to start of construction.
4. All supports and bracing should be inside the Tree Protection Zone. All such supports should minimize damaging roots outside the Tree Protection Barrier.
5. No Construction activity, grade changes, surface treatment or excavations of any kind is permitted within the Tree Protection Zone.

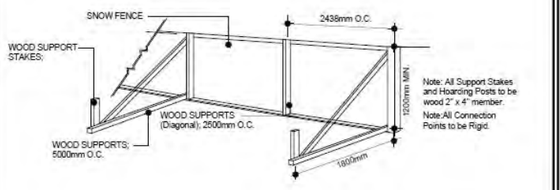
VAUGHAN
DEVELOPMENT PLANNING DEPT.
URBAN DESIGN DIVISION

HEAVY DUTY TREE HOARDING PROTECTION DETAIL (PLYWOOD)

NOTE: THIS TYPICAL DETAIL IS INTENDED TO PROVIDE DESIGN DIRECTION AND IS FOR REFERENCE ONLY. IT MAY BE USED AS PART OF THE CONSTRUCTION DRAWINGS ON SITE PLAN APPLICATION PROVIDED THE DETAIL IS CERTIFIED BY A REGISTERED LANDSCAPE ARCHITECT OR PROFESSIONAL ENGINEER AS APPLICABLE

DRAWN & DESIGNED: URBAN DESIGN	STD. DWG. NO.
NOT TO SCALE DATE: 04 / 07 / 2016	ULA 110A





NOTES:

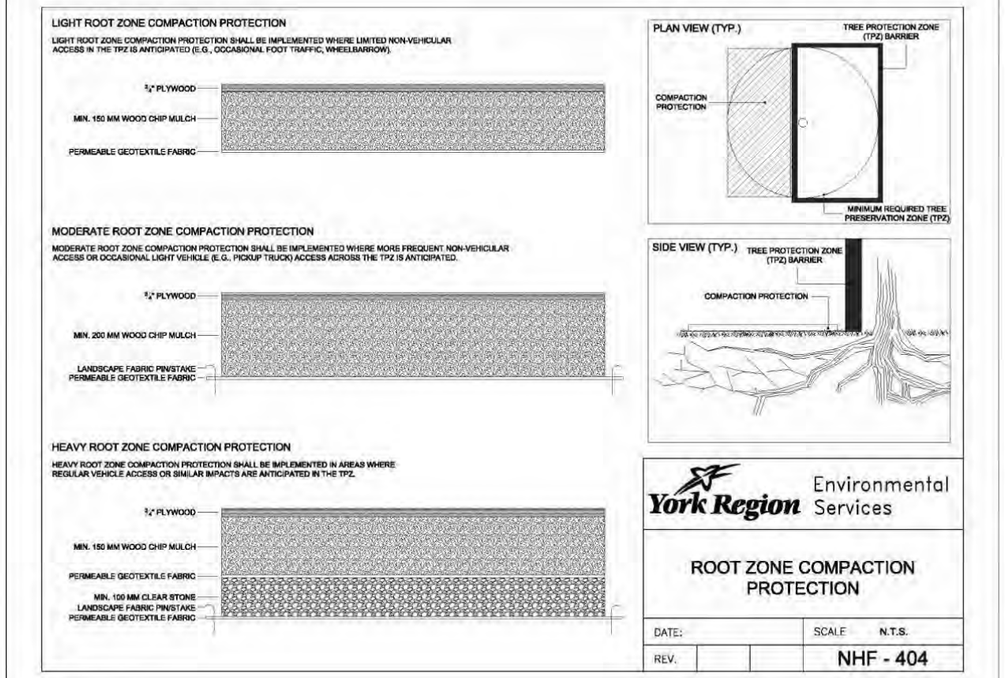
1. Attachment of fence to trees to be preserved is not allowed.
2. Ensure fence is continuous and is located beyond the drip line of trees to be preserved.
3. Fencing to be installed prior to start of construction.
4. All supports and bracing should be inside the Tree Protection Zone. All such supports should minimize damaging roots outside the Tree Protection Barrier.
5. No Construction activity, grade changes, surface treatment or excavations of any kind is permitted within the Tree Protection Zone.

VAUGHAN
DEVELOPMENT PLANNING DEPT.
URBAN DESIGN DIVISION

LIGHT DUTY TREE HOARDING PROTECTION DETAIL (SNOW FENCE)

NOTE: THIS TYPICAL DETAIL IS INTENDED TO PROVIDE DESIGN DIRECTION AND IS FOR REFERENCE ONLY. IT MAY BE USED AS PART OF THE CONSTRUCTION DRAWINGS ON SITE PLAN APPLICATION PROVIDED THE DETAIL IS CERTIFIED BY A REGISTERED LANDSCAPE ARCHITECT OR PROFESSIONAL ENGINEER AS APPLICABLE

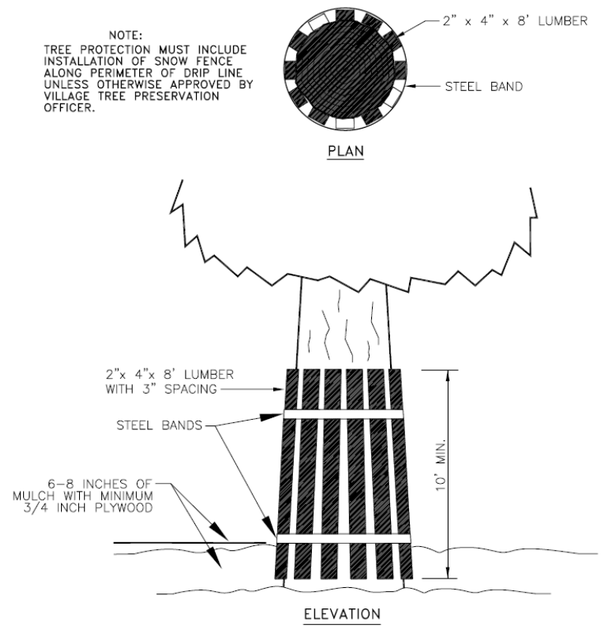
DRAWN & DESIGNED: URBAN DESIGN	STD. DWG. NO.
NOT TO SCALE DATE: 04 / 07 / 2016	ULA 110B



York Region Environmental Services

ROOT ZONE COMPACTION PROTECTION

DATE:	SCALE N.T.S.
REV.	NHF - 404



TREE PROTECTION
WOOD PLANK DETAIL

Table 2: Minimum Tree Protection Zone Determination

Diameter at Breast Height [1] in centimeters	Minimum Protection Distances Required [2] (Public and Private Trees)	Minimum Protection Distances Required Trees in Naturalized Areas
<10	1.2	The drip line[3] or 1.2 m
10-29	1.8	The drip line or 3.6 m
30-40 [4]	2.4	The drip line or 4.8 m
41-50	3.0	The drip line or 6.0 m
51-60	3.6	The drip line or 7.2 m
61-70	4.2	The drip line or 8.4 m
71-80	4.8	The drip line or 9.6 m
81-90	5.4	The drip line or 10.6 m
91-100	6.0	The drip line or 12.0 m
>100	6 cm protection for each 1 cm diameter	12 cm protection for each 1 cm diameter or the drip line

1. Diameter at breast measurement of tree trunk taken at 1.4 meters (m) above the ground
2. Minimum Tree Protection Zone distances are to be measured from the outside edge of the tree base
3. The drip line is defined as the area beneath the outer most branch tips of a tree
4. Converted from ISA (International Society of Arboriculture) Arborist Certification Study Guide, general guidelines for tree protectionbarriers of 0.3 meters of diameter from the tree stem for each centimeter of tree trunk diameter

Tree Protection Plan Notes

Trees within or adjacent to a construction site, that have been selected for preservation by an arborist or City staff, must be protected during pre-development construction by means of a barrier installed in accordance with the Table 2 and meet the following specifications:

• Tree protection barriers must be erected prior to the commencement of any grading activity, development, site alteration and/or construction activity that may injure a tree on the site and must remain in place throughout the duration of the construction of the project. The applicant shall notify the Urban Forestry division of the City of Vaughan in writing prior to commencing any such activities to confirm that the tree protection barrier(s) is in place;
• The tree protection barriers specified herein must remain in a condition satisfactory to the City until all site activities including landscaping are complete;
• Authorization from the Urban Forestry Department must be obtained prior to the removal of tree protection barriers;
• If some fill or excavated material must be temporarily located near the tree protection barrier, a wooden barrier (See the link below) must be used to ensure no material enters the TPZ.

TREE PROTECTION ZONE:

No construction activity including grade changes, surface treatments or excavations of any kind is permitted within the area identified on the Tree Protection Plan or Site Plan as a Tree Protection Zone (TPZ). No root cutting is permitted. No storage of materials or fill is permitted within the TPZ. No movement or storage of vehicles or equipment is permitted within the TPZ. The area(s) identified as a TPZ must remain undisturbed at all times.

TREE PROTECTION BARRIERS:

For City-owned Trees:
Tree protection barriers for trees situated on the City road allowance where visibility must be maintained, can be 1.2m (4ft.) high and consist of chain link, or orange plastic web snow fencing on a 2" x 4" wood frame. All supports and bracing used to secure the barrier should be located outside the TPZ. All supports and bracing should minimize damage to roots outside the TPZ.
Where some fill or excavate has to be temporarily located near a tree protection barrier, plywood must be used to ensure no material enters the TPZ.
If the TPZ needs to be reduced to facilitate construction access, the tree protection barrier must be maintained at a lesser distance and the exposed TPZ protected with plywood and wood chips. This must first be approved by Urban Forestry.
For trees on private property situated on or adjacent to construction sites:
Tree protection barriers must be installed around trees to be protected using plywood clad hoarding or an equivalent approved by Urban Forestry. All supports and bracing to safely secure the barrier should be outside the TPZ. All such supports and bracing should minimize damage to roots outside the TPZ.
Tree Protection Hoarding in the Ravine & Natural Feature Protected Areas
The applicant/owner shall protect all trees in the protected area that have not been approved for removal or injury, throughout development works to the satisfaction of Urban Forestry.
Plywood (or chain link fence, if agreed to by Urban Forestry) tree protection hoarding shall be installed in the locations as indicated in the Urban Forestry approved tree protection plan. Tree protection hoarding shall be installed to standards as detailed in the City's Tree Protection Policy and Specifications for Construction near Trees and to the satisfaction of Urban Forestry.
Tree protection hoarding must remain in place and in good condition during demolition and/or construction and must not be altered or moved until authorized by Urban Forestry. Established tree protection zones must not be used as construction access, storage or staging areas. Grade changes are not permitted within established TPZ.
All additional tree protection or preservation requirements, above and beyond the required tree protection hoarding, must be undertaken or implemented as detailed in the Urban Forestry approved arborist report and/or the approved tree protection plan and to the satisfaction of Urban Forestry.
Sediment control fencing shall be installed in the locations as indicated in the Urban Forestry approved sediment control plan. The sediment control fencing must be installed to Ontario Provincial Standards (OPSD-219.110) and to the satisfaction of Urban Forestry.

General Note:

Prior to the commencement of any site activity the tree protection barriers specified on this plan must be installed and written notice provided to Urban Forestry. The tree protection barriers must remain in effective condition until all site activities including landscaping are complete. Where required, signs as specified in Section 4 "Tree Protection Signage" must be attached to all sides of the barrier.
Written notice must be provided to Urban Forestry prior to the removal of the tree protection barriers.

ARBORICULTURAL WORK:

Any roots or branches which extend beyond the TPZ indicated on this plan which require pruning, must be pruned by a qualified Arborist or other tree professional as approved by Urban Forestry. All pruning of tree roots and branches must be in accordance with good arboricultural standards. Roots located outside the TPZ that have received approval from Urban Forestry to be pruned must first be exposed by hand digging or by using a low pressure hydro vac method. This will allow a proper pruning cut and minimize tearing of the roots. The Arborist/tree professional retained to carry out crown or root pruning must contact Urban Forestry no less than 48 hours prior to conducting any specified work.

TREE DAMAGES:

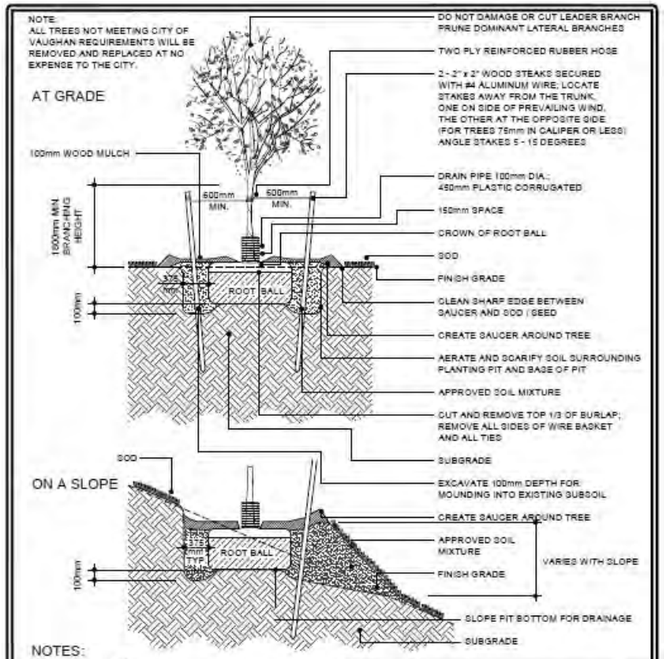
Physical injury to the trunk, crown and roots of a tree will occur if construction equipment is permitted too close to trees or if structures are built into the growing space of a tree. Inappropriate pruning may also result in tree injury. Physical injuries are permanent and can be fatal.
Root cutting is a type of physical injury that can significantly impact the health of a tree. The majority of tree roots are found in the upper 15 -25 cm of soil. Excavation for foundations or utility installation may cut roots if the excavation is too close to trees. Trees can become destabilized and may fall over if anchor roots are severed and may result in safety concerns.
Compaction of the soil in the tree root zone is one of the leading causes of tree decline. Soil compaction occurs primarily from vehicles and equipment moving across the root zones. Piling or storing materials or debris on top of the root system can also result in soil compaction. Soil compaction causes a reduction in the pore spaces in the soil, which contain air and water necessary for root growth Without space available for oxygen and water, tree roots will suffocate and a decline in tree health will follow. With rutting, a form of intense compaction, roots are severed by the tires of equipment. Root destruction can also be caused by changes to the existing grade. Adding soil on top of tree roots can smother them by reducing the amount of oxygen and water they can receive. Only a few centimeters of added soil can have a detrimental impact on tree health.

LOTHLORIEN GARDEN DESIGN CONSULTING
1502-111 Inverlochy Blvd. Thornhill,
ON, L3T 3R7
Phone: 647 351 2631
www.lothloriengarden.com

NOTES:

TREE PROTECTION HOARDING DETAIL AND SPECIFICATION

SCALE:	NTS
SHEET NUMBER:	TPP- L2



NOTES:

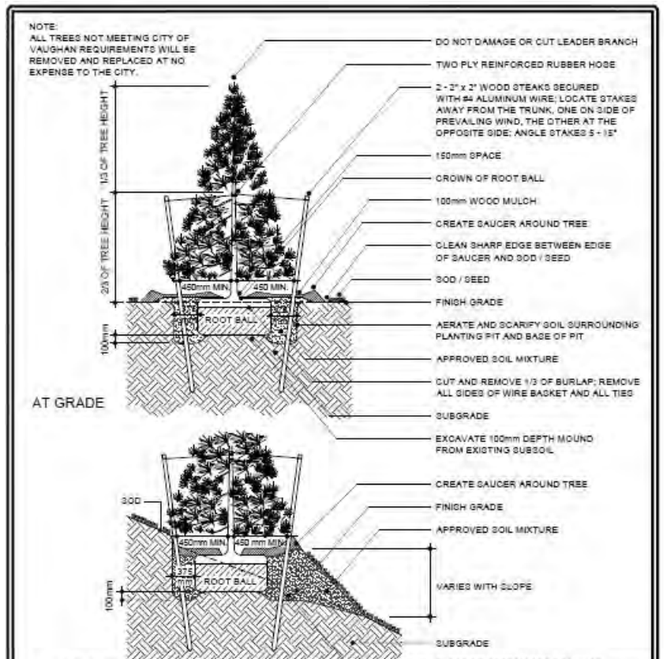
1. Position crown of root ball 50mm above finish grade to allow for settling.
2. Do corrective pruning to retain natural form of tree as directed by City Forestry Supervisor.
3. Water all plant material sufficiently to maintain vigorous, healthy growth from time of delivery/ installation until the end of the specified guarantee period.
4. Stake height shall be a minimum of 1.5 metres above finish grade.
5. For trees planted within planting or shrub beds, delete saucer around base of tree.
6. Remove all tree guards/ stakes 12 months after acceptance/ assumption or as specified.
7. No tree pits shall be left open overnight.
8. Do not allow air pockets when backfilling.
9. All dimensions are in millimeters.

VAUGHAN
DEVELOPMENT PLANNING DEPT.
URBAN DESIGN DIVISION

DECIDUOUS TREE
PLANTING DETAIL FOR
TREES UNDER 90mm IN CALIPER

NOTE: THESE TYPICAL DETAILS IS INTENDED TO PROVIDE GENERAL DIRECTION AND AS A FOR REFERENCE ONLY. IT MAY BE USED AS PART OF THE CONSTRUCTION PACKAGE OR WITH PLAN APPLICATION PROVIDED THE DETAILS CONTRIBUTED BY A REGISTERED LANDSCAPE ARCHITECT OR MECHANICAL ENGINEER AS APPLICABLE.

DRAWN & DESIGNED: URBAN DESIGN	STD. DWG. NO.
NOT TO SCALE DATE: 03 / 01 / 2011	ULA 101



NOTES:

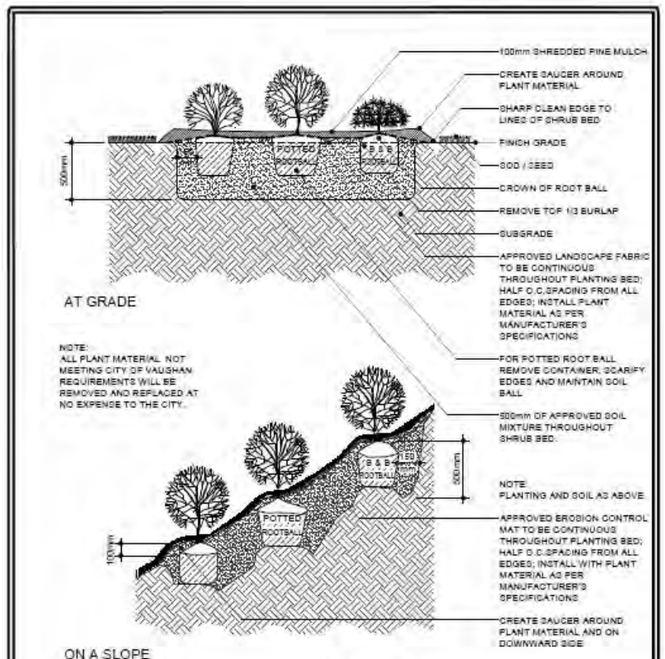
1. All dimensions are in millimeters.
2. No tree pits shall be left open overnight.
3. Do not allow air pockets when backfilling.
4. Position crown of root ball 50mm above finish grade to allow for settling.
5. Water all plant material sufficiently to maintain vigorous, healthy growth from time of delivery/ installation until the end of the specified guarantee period.
6. For trees planted within planting or shrub beds, delete saucer around base of tree.
7. Remove all tree guards/ stakes 12 months after acceptance/ assumption or as specified.

VAUGHAN
DEVELOPMENT PLANNING DEPT.
URBAN DESIGN DIVISION

CONIFEROUS TREE
PLANTING DETAIL FOR
TREES 2500mm IN HEIGHT OR LESS

NOTE: THESE TYPICAL DETAILS IS INTENDED TO PROVIDE GENERAL DIRECTION AND AS A FOR REFERENCE ONLY. IT MAY BE USED AS PART OF THE CONSTRUCTION PACKAGE OR WITH PLAN APPLICATION PROVIDED THE DETAILS CONTRIBUTED BY A REGISTERED LANDSCAPE ARCHITECT OR MECHANICAL ENGINEER AS APPLICABLE.

DRAWN & DESIGNED: URBAN DESIGN	STD. DWG. NO.
NOT TO SCALE DATE: 03 / 01 / 2011	ULA 103



NOTES:

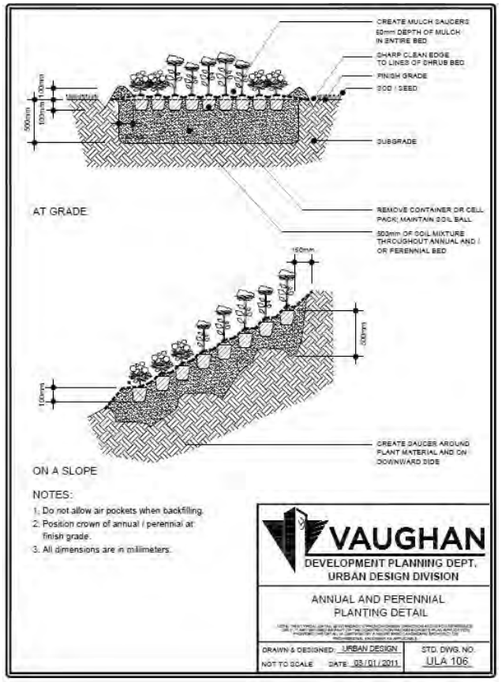
1. All dimensions are in millimeters.
2. Do not allow air pockets when backfilling.
3. Position crown of root ball 50mm above finish grade to allow for settling.
4. For bare root planting.
5. Water all plant material sufficiently to maintain vigorous, healthy growth from time of delivery/ installation until the end of the specified guarantee period.

VAUGHAN
DEVELOPMENT PLANNING DEPT.
URBAN DESIGN DIVISION

SHRUB
PLANTING DETAIL

NOTE: THESE TYPICAL DETAILS IS INTENDED TO PROVIDE GENERAL DIRECTION AND AS A FOR REFERENCE ONLY. IT MAY BE USED AS PART OF THE CONSTRUCTION PACKAGE OR WITH PLAN APPLICATION PROVIDED THE DETAILS CONTRIBUTED BY A REGISTERED LANDSCAPE ARCHITECT OR MECHANICAL ENGINEER AS APPLICABLE.

DRAWN & DESIGNED: URBAN DESIGN	STD. DWG. NO.
NOT TO SCALE DATE: 03 / 01 / 2011	ULA 105



NOTES:

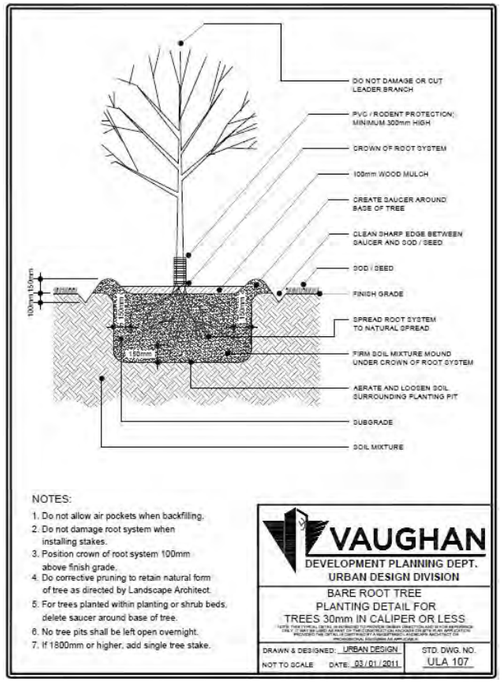
1. Do not allow air pockets when backfilling.
2. Position crown of annual / perennial at finish grade.
3. All dimensions are in millimeters.

VAUGHAN
DEVELOPMENT PLANNING DEPT.
URBAN DESIGN DIVISION

ANNUAL AND PERENNIAL
PLANTING DETAIL

NOTE: THESE TYPICAL DETAILS IS INTENDED TO PROVIDE GENERAL DIRECTION AND AS A FOR REFERENCE ONLY. IT MAY BE USED AS PART OF THE CONSTRUCTION PACKAGE OR WITH PLAN APPLICATION PROVIDED THE DETAILS CONTRIBUTED BY A REGISTERED LANDSCAPE ARCHITECT OR MECHANICAL ENGINEER AS APPLICABLE.

DRAWN & DESIGNED: URBAN DESIGN	STD. DWG. NO.
NOT TO SCALE DATE: 03 / 01 / 2011	ULA 106



NOTES:

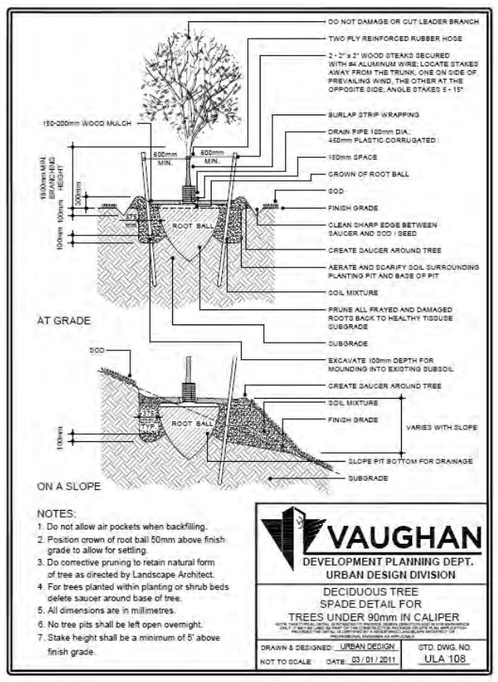
1. Do not allow air pockets when backfilling.
2. Do not damage root system when installing stakes.
3. Position crown of root system 100mm above finish grade.
4. Do corrective pruning to retain natural form of tree as directed by Landscape Architect.
5. For trees planted within planting or shrub beds, delete saucer around base of tree.
6. No tree pits shall be left open overnight.
7. If 1800mm or higher, add single tree stake.

VAUGHAN
DEVELOPMENT PLANNING DEPT.
URBAN DESIGN DIVISION

BARE ROOT TREE
PLANTING DETAIL FOR
TREES 30mm IN CALIPER OR LESS

NOTE: THESE TYPICAL DETAILS IS INTENDED TO PROVIDE GENERAL DIRECTION AND AS A FOR REFERENCE ONLY. IT MAY BE USED AS PART OF THE CONSTRUCTION PACKAGE OR WITH PLAN APPLICATION PROVIDED THE DETAILS CONTRIBUTED BY A REGISTERED LANDSCAPE ARCHITECT OR MECHANICAL ENGINEER AS APPLICABLE.

DRAWN & DESIGNED: URBAN DESIGN	STD. DWG. NO.
NOT TO SCALE DATE: 03 / 01 / 2011	ULA 107



NOTES:

1. Do not allow air pockets when backfilling.
2. Position crown of root ball 50mm above finish grade to allow for settling.
3. Do corrective pruning to retain natural form of tree as directed by Landscape Architect.
4. For trees planted within planting or shrub beds delete saucer around base of tree.
5. All dimensions are in millimetres.
6. No tree pits shall be left open overnight.
7. Stake height shall be a minimum of 5' above finish grade.

VAUGHAN
DEVELOPMENT PLANNING DEPT.
URBAN DESIGN DIVISION

DECIDUOUS TREE
SPADE DETAIL FOR
TREES UNDER 90mm IN CALIPER

NOTE: THESE TYPICAL DETAILS IS INTENDED TO PROVIDE GENERAL DIRECTION AND AS A FOR REFERENCE ONLY. IT MAY BE USED AS PART OF THE CONSTRUCTION PACKAGE OR WITH PLAN APPLICATION PROVIDED THE DETAILS CONTRIBUTED BY A REGISTERED LANDSCAPE ARCHITECT OR MECHANICAL ENGINEER AS APPLICABLE.

DRAWN & DESIGNED: URBAN DESIGN	STD. DWG. NO.
NOT TO SCALE DATE: 03 / 01 / 2011	ULA 108

Post-Construction Restoration General notes:

1. The proponent is responsible for ensuring that all plantings are native species and are suitable given the soil, moisture, and light conditions of the site, as well as any specific stresses. Cultivars of native species are generally not acceptable. While invasive species are not permitted, non-invasive exotic species may be used in some limited areas. Plantings should also be compatible and complementary to the existing vegetation communities.
2. Early successional species should be used alone or in concert with shade tolerant (i.e. late-seral species) to allow natural succession to ensue. Shade tolerant species can be used if conditions are favourable and in areas where a source of late-seral seed does not exist in order to promote succession.
3. In general, woody plantings should follow the standard densities of 1 metre on centre for shrubs and 5 metres on centre for trees. However, higher densities may be required depending on the situation (e.g. live staking, use of stock 100 cm or smaller, edge management, sensitive areas, or other site- specific situations).
4. Indicate that site stabilization will occur during or immediately following construction to avoid unacceptable levels of erosion. Depending on their suitability, various techniques may be employed including hydroseeding, or installing straw mulch or jute mats, etc. Although sod is acceptable as an interim measure, it will not be permitted as a permanent groundcover in natural areas and associated buffers.
5. Seeding mixtures should consist of quick-growing, non-invasive species. Manufacturers offer an assortment of mixtures that are suited to various conditions, including a slope stabilization mix, meadow mix, and wetland mix. In particularly sensitive areas, a seed mix consisting entirely of native species should be used to avoid the invasion of aggressive vegetation. Please refer to the TRCA Seed Mix Guidelines for further details. In areas where invasive species are a particular problem, eradication of these species may become a component of the restoration initiative.
6. Ensure that riparian planting coverage for a stream extends from the watercourse edge to a minimum of 10 metres on either side. For a valley, coverage should include plantings within the entire feature plus an additional 10 metres. Generally, we only require restoration in areas being disturbed.
7. Riparian plantings should be installed after the spring freshet to avoid being uprooted during high flows if planted the previous autumn. Mulch application may not be appropriate in riparian zones as this material can be easily washed away during high water periods. Alternative methods of dealing with competitive vegetation should be considered, however herbicide application is not desirable.
8. The objective is to establish at least 50% woody coverage through restoration in areas where the desired vegetation community is forest.
9. When selecting vegetation for plantings, try to achieve a degree of structural and species diversity.
10. If the area is very grassy, mulch and rodent guards may be needed to protect young tree stems. Larger planting stock may be required in these areas to due to competing herbaceous vegetation. Maintenance plans should include watering during summer dry spells for the first 2-3 years after planting.
11. Other than in sites with competing herbaceous vegetation, we generally have no size requirements for vegetation to be planted. Typically, we prefer greater numbers of smaller-sized vegetation over fewer numbers of larger-sized vegetation. Planting large vegetation may cause more disturbance to the site.
12. Plans should indicate timing of the restoration works, as well as phasing if applicable.
13. Indicate how existing vegetation to be retained will be protected. Please refer to the TRCA Edge Management Guidelines for further detail.
14. Drawings should include a plan view showing planting locations, species and numbers, a detail showing the installation, and a note listing the species, size, and condition (i.e. bareroot, balled and burlapped, potted). The latter will ultimately dictate the season when works can be done. Bareroot stock should only be installed while dormant in spring or after leaf fall in autumn. Planting of balled and burlapped and container-grown stock can be installed at any time during the growing season if adequate water is supplied.

LOTHLORIEN
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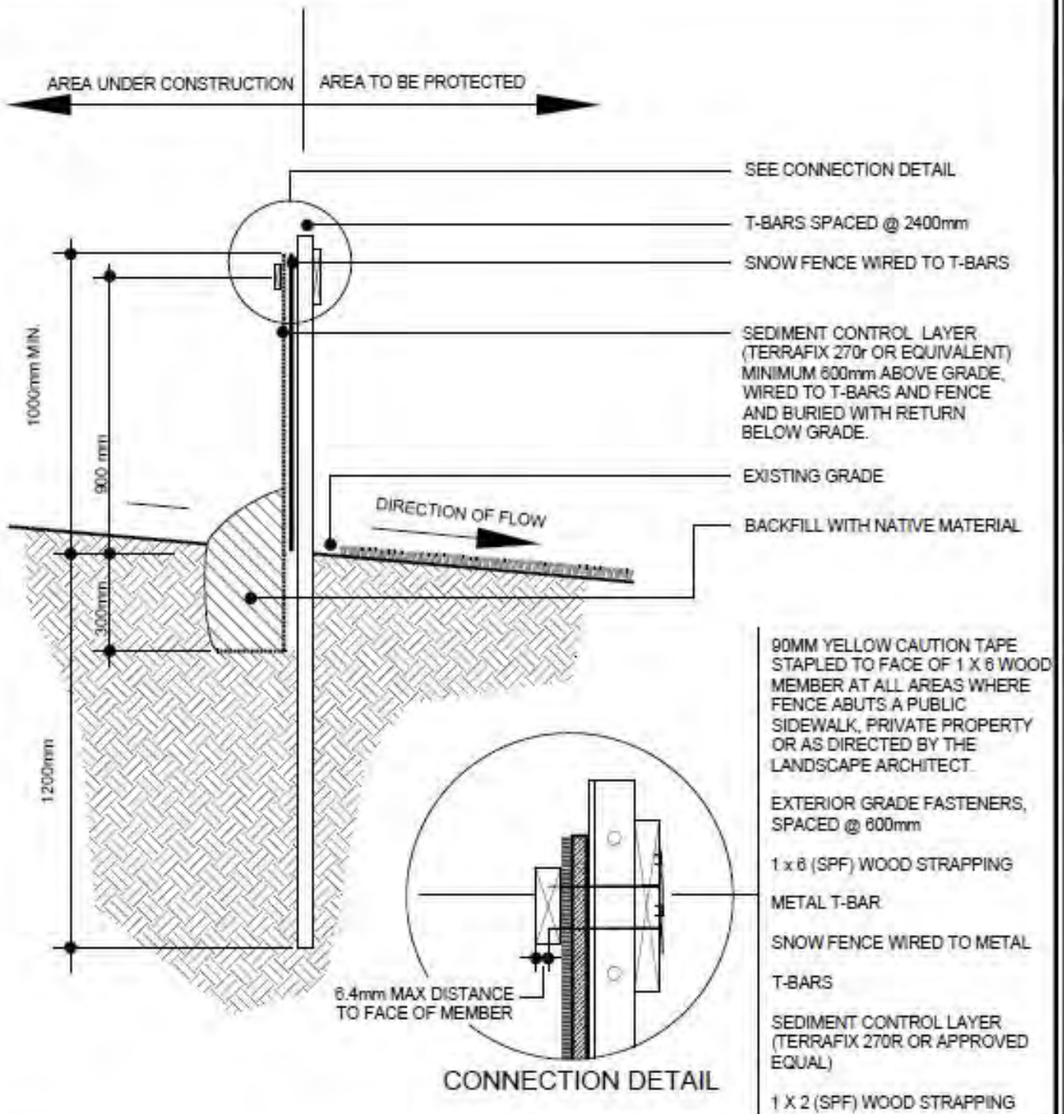
Phone: 647 351 2631
www.lothloriengarden.com

NOTES:

TREE REPLANTING DETAIL AND SPECIFICATION

SCALE:	NTS
SHEET NUMBER:	TPP- L3



CONNECTION DETAIL

NOTES:

1. SEDIMENT CONTROL FABRIC TO HAVE HORIZONTAL OVERLAP OF 1000mm @ ALL JOINTS

2. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR THE RESTORATION AND COST OF REPLACING ALL AREAS AND MATERIAL AFFECTED BY THE EXCAVATION FOR THE SEDIMENT CONTROL FENCE.

3. ALL FASTENERS ARE TO BE FLUSH WITH FACE OF MEMBERS. THE GENERAL CONTRACTOR IS RESPONSIBLE TO GRIND OR REMOVE ALL FASTENERS THAT PROJECT THROUGH FACE OF MEMBERS

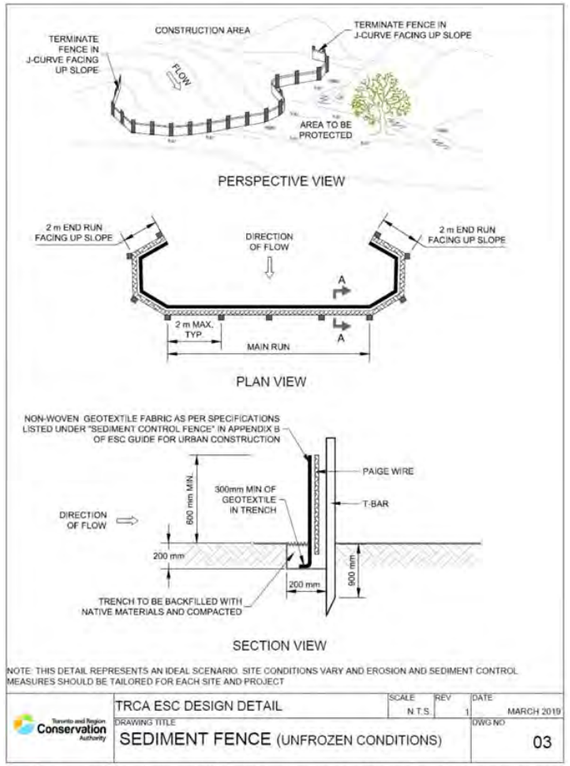
4. ALL DIMENSIONS SHOWN IN MILLIMETERS

VAUGHAN
DEVELOPMENT PLANNING DEPT.
URBAN DESIGN DIVISION

SEDIMENT CONTROL CONSTRUCTION FENCING DETAIL

NOTE: THIS TYPICAL DETAIL IS INTENDED TO PROVIDE DESIGN DIRECTION AND IS FOR REFERENCE ONLY. IT MAY BE USED AS PART OF THE CONSTRUCTION PACKAGE OR SITE PLAN APPLICATION PROVIDED THE DETAIL IS CERTIFIED BY A REGISTERED LANDSCAPE ARCHITECT OR PROFESSIONAL ENGINEER AS APPLICABLE

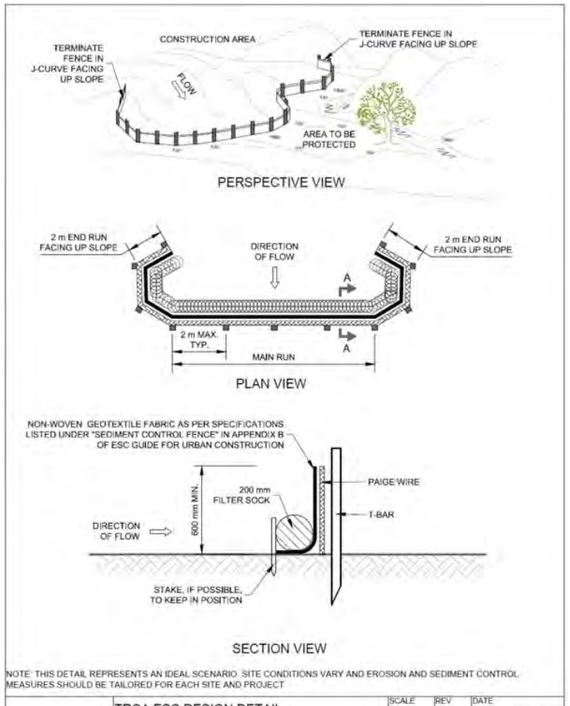
DRAWN & DESIGNED: URBAN DESIGN	STD. DWG. NO.
NOT TO SCALE DATE: 03 / 01 / 2011	ULA 111



NOTE: THIS DETAIL REPRESENTS AN IDEAL SCENARIO. SITE CONDITIONS VARY AND EROSION AND SEDIMENT CONTROL MEASURES SHOULD BE TAILORED FOR EACH SITE AND PROJECT

Toronto and Region Conservation Authority	TRCA ESC DESIGN DETAIL	SCALE N.T.S	REV 1	DATE MARCH 2019
	DRAWING TITLE: SEDIMENT FENCE (UNFROZEN CONDITIONS)			DWG NO 03

DISCLAIMER: TORONTO AND REGION CONSERVATION AUTHORITY (TRCA) IS NOT LIABLE FOR INFORMATION SHOWN ON THIS DRAWING. PLEASE USE IT FOR REFERENCE ONLY



NOTE: THIS DETAIL REPRESENTS AN IDEAL SCENARIO. SITE CONDITIONS VARY AND EROSION AND SEDIMENT CONTROL MEASURES SHOULD BE TAILORED FOR EACH SITE AND PROJECT

Toronto and Region Conservation Authority	TRCA ESC DESIGN DETAIL	SCALE N.T.S	REV 1	DATE MARCH 2019
	DRAWING TITLE: SEDIMENT FENCE (FROZEN CONDITIONS)			DWG NO 04

DISCLAIMER: TORONTO AND REGION CONSERVATION AUTHORITY (TRCA) IS NOT LIABLE FOR INFORMATION SHOWN ON THIS DRAWING. PLEASE USE IT FOR REFERENCE ONLY

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Phone: 647 351 2631
www.lothloriengarden.com

NOTES:

SILT FENCE BARRIERS DETAILS AND SPECIFICATIONS

SCALE:	NTS
SHEET NUMBER:	TPP- L4

SEDIMENT FENCE INSTALLATION GUIDE

1. Support posts should be no more than 2 metres apart and driven into the ground to a depth of at least 90 cm.
2. Brace the fence posts diagonally in areas where deep ponding is anticipated.
3. Geotextile fabric should be stretched tight across the structural fencing with no sagging and extend up from the ground to a minimum height of 60 cm. Fabric should be fastened to the structural support fencing and support posts with wire ties tied at the posts.
4. Where the geotextile is joined to provide a continuous run, the ends should be overlapped at least 50 cm and securely fastened to posts.
5. The bottom 30 cm of the geotextile should be tied into soil, using either static slicing or trenching methods, to ensure there is no space between the bottom of the geotextile and the ground. The trench should be constructed to
be at least 20 cm deep an 40 cm wide.
6. The trench should be backfilled and compacted to ensure structural stability of the fence.
7. In frozen soil conditions, if trenching cannot be achieved the geotextile should be secured with a filter sock (recommended diameter of 450 mm) staked into place along the upstream side of the fence.
8. Double row sediment control fence should be installed with straw bales or a similar measure to provide structural support in between the fence rows.

APPENDIX E Post-Construction Restoration Plan

POST-CONSTRUCTION RESTORATION PLAN

8 Main Street, Vaughan, ON L4H 3N5

Date: March 27th,2024
Prepared for: Sherard McQueen
On behalf of Rubinoff Design Group

Prepared by: **Ivan Mitev**, M.Sc. Ecologist
ISA Certified Arborist® #-2297A
Consulting Arborist – *Lothlorien Garden Consulting*
lothloriengardenconsulting@gmail.com

TABLE OF CONTENTS

INTRODUCTION

Lothlorien Garden Consulting was retained by owner(s) to prepare a Post-Construction Restoration Plan in support of a development application for the property located at 8 Main Street, Vaughan, Ontario. This report provides an overview of the proposed for restoration zone, adjacent to the valley corridor associated with a tributary of the Humber River located northwest of the subject lot. The proposed new development is to be located within an anthropogenic area on the tableland portion of the subject property. The area North of the existing house will be restored to mitigate the edge effects of the proposed new construction, as well as to provide a protective and adequate buffer between the natural feature and the new development.

ASSIGNMENT

The objectives of the restoration/replanting plan can be summarized as follows:

- Establish a healthier buffer zone with enhanced species diversity, understory and wildlife habitat;
- Control introduction and establishment of invasive species;
- Provide a long-term Biodiversity Net Gain;

POTENTIAL IMPACTS OF DEVELOPMENT ON FOREST EDGE, VALLEY AND STREAM CORRIDORS

The construction process can damage or kill trees in many different ways. Typically, impacts to the remaining forest community may include, but are not limited to:

- Decreased biodiversity;
- Reduced landform stability due to addition of unconsolidated material;
- Heat damages by burning debris near trees or by hot equipment exhaust;
- Tree root damage or stress due to re-grading or the placement of fill along forest edges;
- Mechanical injury to the trunk and/or crown by equipment used for land clearing, grading;
- Soil compaction in the forest edge due to vehicle traffic and other operations;
- Soil and /or water contamination;

PURPOSE AND USE

This report is provided to homeowner(s), Rubinoff Design Group., and shall be used in whole and as provided to the TRCA Planning staff and other stakeholders as it relates solely to this project. This report should be shared with all contractors responsible for site development.

BY-LAWS, PERMITS, REGULATIONS

Early in 2010, Credit Valley Conservation (CVC) in partnership with the Toronto and Region Conservation Authority (TRCA) produced the Low Impact Development Stormwater Management Planning and Design Guide. The guide was developed to provide engineers, landscape architects, designers, ecologists and planners with up-to-date information and direction on the design of low impact development (LID) stormwater management (SWM) practices, and thereby help ensure the continued health of the streams, rivers, lakes, fisheries and terrestrial habitats in the CVC, TRCA watersheds and throughout Ontario.

"Restoration is required when disturbance in a natural area is unavoidable and requires clearing of vegetation. Every effort should be made to avoid these impacts, however the following guidelines should be followed in instances where this is not possible. It is critical to the success of the restoration planting that the range of site conditions be assessed as some level of site preparation will likely be required prior to planting. Site preparation is paramount as soil compaction, grading, altered hydrology, herbivory, and inadequate topsoil depths can seriously inhibit planting success of even the hardiest species and can limit the process of regeneration. There are also a suite of urban stresses that can hinder the growth of plantings including salt spray, pollution, pests, and altered micro-climate. These issues need to be dealt with on a site-by-site basis, but should be considered when developing restoration plans. ***(TRCA Post-Construction Restoration Guidelines July 2004)****"*

SITE CONDITIONS

The subject property is located on the north side of Main Street, southeast of Islington Avenue and King's Highway 27. The rear of the designated lot falls within the TRCA Regulated Area of the Humber River watershed. Lot topography is relatively flat at the front of the site and becomes undulating and rolling across the turf covered backyard on the property. The existing site is occupied by a 1- story single-family frame dwelling, a gravel driveway fronting Lester B. Pearson Street and several old wooden shed at the rear of the property. Tree resources appear to be comprised of landscape plantings and naturally occurring trees. Trees on site include the following species: Norway maple *(Acer platanoides),* Silver maple *(Acer saccharinum),* Manitoba maple *(Acer negundo),* Austrian pine *(Pinus nigra),* Colorado Blue spruce *(Picea pungens 'Glauca'),* Horse-chestnut *(Aesculus hippocastanum),* Japanese lilac *(Syringa reticulata),* Purple Fountain Weeping Beech *(Fagus sylvatica 'Purple Fountain'),* Japanese maple *(Acer japonicum)* and Crab apple *(Malus spp.).* Canopy cover is estimated at 90 percent of the lot.

The hardwood dominant forest north of the stable top of bank, however, is comprised mostly of non-native tree cover, mainly Manitoba maple *(Acer negundo),* Austrian pine *(Pinus nigra),* and several native species such as Eastern Black walnut *(Juglans nigra),* Eastern White pine *(Pinus strobus)* and Willow *(Salix spp.).* It should be noted, that most of the trees beyond the slope are covered by wild grape vine.

Figure 1: shows an aerial view of the property along with the existing vegetation, as of 2023

PROPOSED DEVELOPMENT

The proposed development, as illustrated in the Proposed Site Plan (A) prepared by Rubinoff Design Group, dated February 20th, 2024, includes a proposal to demolish the existing home and construct a new two storey single family detached dwelling with an integral garage, a circled driveway fronting Main Street and a 1½ storey pool house at the rear of the lot. The accompanying Edge Restoration Plan includes an overview of the site plan details.

IMPLEMENTATION OF THE RESTORATION PLAN

The proposed part for restoration is irregular in shape and has an approximate area of **651 m².** The designated area will be restored to support functioning, diverse and self-sustaining communities of native plants and wildlife. An understory of small trees, shrubs and herbaceous species will be established primarily within the 10-metre transition zone (see a typical restoration area on RRP L-2). The width of the restoration zone is approximately between 8 to 10 metres.

Notes:

1. The proponent is responsible for ensuring that all plantings are native species and are suitable given the soil, moisture, and light conditions of the site, as well as any specific stresses. Cultivars of native species are generally not acceptable. While invasive species are not permitted, non-invasive exotic species may be used in some limited areas. Plantings should also be compatible and complementary to the existing vegetation communities.
2. Early successional species should be used alone or in concert with shade tolerant (i.e. late-seral species) to allow natural succession to ensue. Shade tolerant species can be used if conditions are favourable and in areas where a source of late-seral seed does not exist in

order to promote succession.

3. Woody plantings should follow the standard densities of **1 metre** on centre for shrubs and **5 metres** on centre for trees. However, higher densities may be required depending on the situation (e.g. live staking, use of stock 100 cm or smaller, edge management, sensitive areas, or other sitespecific situations).
4. Indicate that site stabilization will occur during or immediately following construction to avoid unacceptable levels of erosion. Depending on their suitability, various techniques may be employed including hydroseeding, or installing straw mulch or jute mats, etc. Although sod is acceptable as an interim measure, it will not be permitted as a permanent groundcover in natural areas and associated buffers.
5. Seeding mixtures should consist of quick-growing, non-invasive species. Manufacturers offer an assortment of mixtures that are suited to various conditions, including a slope stabilization mix, meadow mix, and wetland mix. In particularly sensitive areas, a seed mix consisting entirely of native species should be used to avoid the invasion of aggressive vegetation. Please refer to the CVC Seed Mix Guidelines for further details. In areas where invasive species are a particular problem, eradication of these species may become a component of the restoration initiative.
6. Ensure that riparian planting coverage for a stream extends from the watercourse edge to a minimum of 10 metres on either side. For a valley, coverage should include plantings within the entire feature plus an additional 10 metres.

The following specifications are recommended for edge restoration planting:

- A qualified restoration landscaping company should be contracted to complete plantings.
- Where restoration works are likely to disturb existing vegetation, no mechanized equipment should be used; all plantings should be hand-dug.
- Plantings should be in an asymmetrical, random mix.
- Trees should be planted 3 to 5 metres apart and shrubs 1 metres apart.

Trees should not be planted during unseasonably wet or dry weather.

INSTALLATION

TOPSOIL:

- ✓ Use evenly mixed topsoil of fertile, friable natural loam containing not less than 4% organic matter for clay loam and minimum 2% minimum organic matter for sand loams with an acidity range of 5.5 to 7.5 pH. All topsoil should be free of subsoils, clay, stones, roots, excess water frost and other extraneous matter.

PLANTING:

- ✓ Prepare planting soil by evenly mixing four parts sandy topsoil, one-part organic soil additive with 500 g bone meal and 750 commercial fertilizer per cubic meter.
- ✓ Excavate and provide planting soils as per planting details.
- ✓ Provide all shrubs and trees according to the guide specification for nursery stock of the Canadian Nursery Trade Association with regard to quality and grading and sized as per plant list.
- ✓ Spray all plantings in leaf with antidesiccant. Provide trees with stakes.

- ✓ Trees are to have sturdy, straight trunks with well-developed branches not less than 1.8 m above the ground.
- ✓ All shrubs are to be planted in continuous beds.
- ✓ Do not sod between plants. Excavate entire area of shrub bed uniformly to specified depth and fill with specified planting soil.

SODDING:

- ✓ Prepare a minimum 200mm depth of topsoil with 30-10-20 commercial fertilizer at 7.3 kg/100 sq. m. The proportions specified are subject to adjustment depending on topsoil analysis report. Immediately after installation, sod must be watered and rolled.

HYDRO SEEDING:

- ✓ Hydroseeds all disturbed areas as well as areas indicated on plans.
- ✓ Use appropriate seed mix in areas as specified.
- ✓ Ensure that areas to be seeded have been cultivated to a depth of 25 mm and are moist to depth of 150mm before seeding, fine grade area free of humps and hollows if required.
- ✓ Obtain lead Ecologist/Architect's approval of topsoil grade and depth before starting to seed.
- ✓ Fertilizer to be 8-32-16 and to be applied at a rate of 300 kg/hectare.
- ✓ Apply seed mix at rate of 22 - 25 kg/ha or at a rate of 250g/90 sq. m for smaller areas.
- ✓ Seeding to be completed between April 1 and May 15 or between August 15 and September 30.

RODENT PROTECTION:

- ✓ The contractor shall be responsible for the protection of all trees and shrubs from rodent injury for the duration of the guarantee period. Protective wire mesh guards shall be installed around all deciduous trees. Guards shall be installed prior to the application of mulch and should be placed a minimum of 50 mm out from the tree trunk on all sides. Sufficient mesh should be cut to complete this circumference as well as to provide a minimum of 25mm overlap.
- ✓ The wire mesh guards must be of galvanized steel 12mm squire mesh, 19 gauge and supplied in 600mm rolls. All trees and shrubs shall have an application of 'Scoot' of approved equivalent rodent formula, to be applied at the end of October.

PROPOSED PLANTS FOR RESTORATION

A total of seventeen **(17)** native species, i.e., four **(4)** large/medium-growing shade trees and thirteen **(13)** shrubs shall be planted on the subject site to support functioning, diverse and self-sustaining communities of native plants and wildlife.
The upland community species recommended for planting are outlined in Table 1 and 2 on the next pages. Please also refer to the provided Restoration Replanting plan (RRP-L1) for species selection, location, quantity, etc., of all new trees/shrubs proposed for replanting.

Table 1. Native Species Recommended for Planting

PLANT LIST							
DECIDUOUS TREES							
Key	**Qty**	**Botanical**	**Common**	**Type**	**Size**	**L-rank April-22**	**Wetland Status (OWES)**
Qr	3	*Quercus rubra*	Northern Red oak	container	80 cm	L4	upland
Qa	3	*Quercus alba*	White oak	container	80 cm	L2	upland
Ta	3	*Tilia americana*	American basswood	container	80 cm	L5	upland
Ur	3	*Ulmus rubra*	Slippery elm	container	80 cm	L3	upland
CONIFEROUS TREES							
Key	**Qty**	**Botanical**	**Common**	**Type**	**Size**	**L-rank April-22**	**Wetland Status (OWES)**
Jv	10	*Juniperus virginiana*	Eastern Red cedar	container	80 cm	L5	upland
Pr	5	*Pinus resinosa*	Red pine	container	80 cm	L1	upland
SHRUBS							
aa	10	*Amelanchier amabilis*	Large-flowered serviceberry	container	60 cm	L3	upland
coa	15	*Cornus alternifolia*	Alternate leaf dogwood	container	60 cm	L5	upland
ca	15	*Corylus americana*	American hazel	container	60 cm	L3	upland
pv	10	*Prunus virginiana*	Choke cherry	container	60 cm	L5	upland
va	10	*Viburnum acerifolium*	Maple-leaved viburnum	container	60 cm	L3	upland
vl	20	*Viburnum lantanoides*	Hobblebush	container	60 cm	L2	upland
eo	30	*Euonymus obovatus*	Running strawberry-bush	container	60 cm	L3	upland
gm	80	*Geranium maculatum*	Wild Geranium	container	60 cm	L4	upland
hd	20	*Helianthus decapetalus*	Thin-leaved sunflower	container	60 cm	L3	upland
jh	20	*(Juniperus horizontalis*	Creeping juniper	container	60 cm	L3	upland
FERNS							
Key	**Qty**	**Botanical**	**Common**	**Type**	**Size**	**L-rank April-22**	**Wetland Status (OWES)**
dfm	10	*Dryopteris filix-mas*	Male fern	container	30 cm	L3	upland

Table 2. TRCA Upland Slope Mix (TRCA-SD-3) Use on dry slopes

TRCA Upland Slope Mix (TRCA-SD-3)			
L-Rank	**Scientific Name**	**Common Name**	**%**
L3	*Andropogon gerardii*	Big bluestem	**16.0%**
L5	*Asclepias syriaca*	Common milkweed	2.0%
L5	***Symphyotrichum novae-angliae***	New England aster	1.0%
L5	*Desmodium canadense*	Showy tick-trefoil	2.0%
L4	*Elymus canadensis*	Canada wild rye	15.0%
L2	*Heliopsis helianthoides*	Oxeye	3.0%
L5	*Monarda fistulosa*	Wild bergamont	3.0%
L3	*Panicum virigatum*	Switch grass	15.0%
L3	*Pycnanthemum virginianum*	Virginia mountain mint*	2.0%
L4	*Rudbeckia hirta*	Black eyed Susan	3.0%
L2	*Schizachyrium scoparium*	Little blue stem	15.0%
L5	*Solidago canadensis*	Canada goldenrod	1.0%
L4	*Solidago juncea*	Early goldenrod*	1.0%
L2	*Sorghastrum nutans*	Indian grass	20.0%
L3	*Symphyotrichum laeve*	Smooth aster	1.0%
Total			**100.0%**

***% of seed mix refers to % by weight**

The Upland Slope Restoration Mix shall be used along the proposed new plantings in order to establish a healthier buffer zone between the proposed development and the Ravine Natural Protected Area at the rear of the lor. The proposed part for restoration is irregular in shape and has an approximate area of **265 m².**

Native seed mixes do best when planted in the fall, typically between Oct. 15th and Nov. 15th. A late fall sowing allows the seed to be stratified naturally over the winter and early spring. An early spring sowing in April can work but due to the possibility of unseasonable weather preventing decent seed stratification, there is a greater chance that seed will remain dormant and not germinate until the spring of the following year.

Application rate

These seed mixes should be applied at a rate of 22 - 25 kg/ha (21-23 lbs/acre) or at a rate of 250g/90m2 (1/2lb/1000 sq. ft) for smaller areas.

Site Preparation.

While there is little you can do to deal with the seeds of undesirable plants that are already in the soil, to help minimize unwanted competition in the seeding area, remove existing weeds by hand or apply an organic non-selective herbicide. Once all unwanted vegetation has been taken care of, loosen soil to 2.5 cm (1") depth with a stiff rake, cultivator or hoe. Prairie flowers and grasses germinate and establish themselves much better when the seed is planted into a bed of loose, well drained soil rather than dense, compacted topsoil. Broadcast the seed evenly and let Mother Nature do the rest. Smaller seed can be mixed with dry sand to improve distribution when sowing. Rain, snow and frost-heaving of the soil will work the seed down into the soil bed. If you do choose to do a spring planting, it is imperative to make sure the seed comes into good contact and with the soil. Irrigate as needed during the first growing season. Be prepared to cut the site at a height of 20 cm (8") twice during the first growing season and possibly once earlier in the second season to help keep aggressive weeds in check while the native plants work through their establishment period. Hand removal of pockets of aggressive weeds may be required during the establishment period. Keep in mind that establishing a native planting from seed typically takes three to four years. Sow at 500 g/180 m2 or 25 kgs/ ha.

MAITENANCE DURING ESTABLISHMENT

Transplant shock is fairly common in newly transplanted trees. A tree can lose as much as 90% of its root system when it is removed from the nursery. This causes a great deal of stress on the plant as it is tries to reestablish itself. Research has shown that approximately one year of recovery is needed for every inch of tree diameter. Starting a regular plant maintenance and inspection program to head-off problems early, and providing good after-care will help maintain the health and vigor of your newly planted trees and shrubs. Maintenance during establishment shall be ongoing throughout the guarantee period and is the responsibility of the Contractor and Landscape Architect under supervision and inspection of the Developer. Maintenance of newly planted trees should focus on producing healthy plant growth toward desired mature form and increased size.

WATERING:

Water is probably the most important element in caring for new trees and shrubs. Since a newly transplanted tree or shrub has not extended its roots into the existing soil, adequate moisture needs to reach the root ball. Soil type and the amount of rainfall govern the amount of watering necessary. On most well drained soil, one inch of water per week throughout summer and fall is required to establish and maintain good growth. In sandy soils, as much as two inches of water per week is needed.

MULCHING:

Mulch is another important element in good plant health care maintenance. Apply a 3-to-4-inch layer of organic, composted mulch (wood chips, leaves, or pine bark) extending from the base of the plant out past the drip line (end of the branches). Do not let the mulch rest against the trunk of the plant. All plants benefit from mulch, because, as the mulch breaks down, it provides an excellent

growing medium for roots, and acts as a slow-release fertilizer. Mulch will also help conserve moisture, moderate soil temperatures, eliminate weeds, and protect the trunk from mechanical injury, especially weed whips and lawn mowers.

FERTILIZING:

Fertilization at the time of planting is generally not recommended. It is ineffective until the root system has a chance to reestablish. It is usually advisable to wait two or three years before applying fertilizer, and then it is recommended to get a soil test first.

PRUNING:

Pruning after planting should be limited to removing dead, rubbing, or broken branches only. Wait at least a year before removing any larger limbs or shaping the structure of the tree or shrub. Remember, pruning encourages growth, so cut only where you need growth, and try to maintain the natural shape of the plant.

SUPORT SYSTEM: for trees should be inspected regularly to ensure that the ties are not damaging the trunk. Stakes, guy wires and ties shall be maintained for one full growing season. Ties shall be checked at least every three months to ensure that they are not rubbing against the bark, and shall be loosened, repaired or replaced as necessary. After one full growing season, the Contractor shall remove all staking and associated ties. Trees shall be inspected to ensure that they are secure in the ground. Trees that cannot sufficiently support themselves without stakes after one full growing season shall be checked to confirm adequate soil consolidation around the root ball and be restaked for an additional growing season. Stabilization material shall be removed no later than the end of the guarantee period.

PEST AND DISEASE CONTROL: All planted areas shall be inspected for pests and diseases at least once a month throughout the growing season from May to October. The principles and methods of Integrated Pest Management (IPM) and Plant Health Care (PHC) should be applied in controlling pests and diseases.

GUARANTEE PERIOD AND REPLACEMENT

A minimum two-year guarantee period is required for all tree planting from the date of acceptance.

- The Developer's Landscape Architect shall carry out inspections of the planting at least once per month during the growing season from June 1 to October 31.
- The TRCA can request replacements at any time based on periodic inspections during the guarantee period of two consecutive calendar years.
- The Contractor shall remove and replace, without costs, and as soon as weather conditions permit, and within a specified planting period, all plants not in a healthy and flourishing condition as determined by the Developer's Landscape Architect and/or TRCA staff any time during the guarantee period. Replacement shall be subject to all requirements in the original specifications.

RESTORATION MONITORING

To ensure that new planted material survives and fulfills its future function, plantings will be monitored for a period of two consecutive calendar years following installation. Monitoring specifications are as follows:

- An ISA Certified arborist or biologist will visually inspect the restoration planting area, immediately following installation, once following the first growing season and winter, and again at the end of the second year.
- Following each monitoring event, a letter report will be submitted to the Municipality and TRCA Conservation Authority.

PICTURES

Figure 2: Proposed for restoration area outlined in red below, viewed from the east

Figure 3: Proposed for restoration area outlined in red below, viewed from the west

ASSUMPTIONS AND LIMITING CONDITIONS

1. Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible; however, the arborist can neither guarantee nor be responsible for the accuracy of the information provided by others.

2. Loss or alteration of any part of this report invalidates the entire report.

3. Possession of the report or copy of thereof does not imply right of publication or use for any purpose by anyone other than the person to whom it is addressed, without the prior expressed written or verbal consent of the consulting arborist.

4. The consulting arborist shall not be required to give testimony or to attend court by reason of the report unless subsequent contractual arrangements are made, including payment of an additional fee for such services as described in the fee schedule and contract engagement.

5. Sketches, diagrams, graphs, and photographs in the report, are intended as visual aids, and are not necessarily to scale and should not be construed as engineering or architectural reports or surveys.

6. Unless expressed otherwise: 1) the information contained in this report covers only those items at the time of inspection; and 2) the inspection is limited to visual examination of the accessible items without dissection, excavation, probing or coring. There is no warranty of guarantee, expressed or implied, that problems or deficiencies of the plants or property in question may not arise in the future.

CERTIFICATE OF PERFORMANCE

I Ivan Mitev, of Lothlorien Garden Consulting, do certify:

That I have personally inspected the subject tree(s) and/or the property defined in the “Assignment” found within this report, and have stated my findings accurately. The extent of the evaluation and/or appraisal is stated in the attached report and Terms of Assignment.

That I have no current or prospective interest in the vegetation or the property that is the subject of this report, and I have no personal interest or bias with respect to the parties involved.

That the analysis, opinions and conclusions stated herein are my own.

That my analysis, opinions, and conclusions were developed and this report has been prepared according to commonly accepted Arboricultural practices.

That no one provided significant professional assistance to the consultant, except as indicated within the report.

That my compensation is not contingent upon the reporting of a predetermined conclusion that favors the cause of the client or any other party, nor upon the results of the assessment, the attainment of stipulated results, or the occurrence of any other subsequent events

I further certify that I am an International Society of Arboriculture Certified Arborist® and that I acknowledge, accept and adhere to the ISA Code of Ethics. I have been involved with the practice of Arboriculture and the care and study of trees since 2005.

Ivan Mitev,
M.Sc. Ecologist
ISA Certified Arborist® #-2297A
Consulting Arborist – *Lothlorien Garden Consulting*
lothloriengardenconsulting@gmail.com

REFERENCES AND RESOURCES

TRCA

- Toronto and Region Conservation Authority - Rouge River State of the Watershed Report
- Toronto and Region Conservation Authority 2004 Forest Edge Management Plan Guidelines
- Toronto and Region Conservation Authority Seed Mix Guidelines July 2004
- Toronto and Region Conservation Authority Forest Edge Management Plan Guidelines July 2004
- Toronto and Region Conservation Authority Post-Construction Restoration Guidelines July 2004
- Toronto and Region Conservation Authority Flora Species Native to the TRCA Jurisdiction (October 2022)
- Toronto and Region Conservation Authority A MONITORING & MAINTENANCE GUIDE FOR NEWLY PLANTED SITES

CVC

- LANDSCAPE DESIGN GUIDE FOR LOW IMPACT DEVELOPMENT, CVC, June 2010
- Plant Selection Guideline, CVC 2018
- LOW IMPACT DEVELOPMENTCONSTRUCTION GUIDE, CVC 2012
- Canadian Nursery Standards Association. Canadian Standards for Nursery Stock, Eight Edition.
- http://www.canadanursery.com/
- ISA, 2001-2011. Best Management Practices, Books 1-9, Companion publications to ANSI A300
- ANSI A300 (Part 6) – 2005. Tree, Shrub, and Other Woody Plant Maintenance –Standard Practices (Transplanting)
- ANSI A300 (Part 1) – 2008. Tree, Shrub, and Other Woody Plant Management –Standard Practices (Pruning)
- Canadian Nursery Landscape Association. 2006. Canadian Standards for Nursery Stock – 8th Edition
- AS 4970-2009 PROTECTION OF TREES ON DEVELOPMENT SITES
- Tree Preservation & Protection Standards- The Urban Tree Management Group 2017-05-15
- THE CORPORATION OF THE CITY OF MISSISSAUGA PRIVATE TREE PROTECTION BY-LAW 254-12
- AS 4970-2009 PROTECTION OF TREES ON DEVELOPMENT SITES
- Installation Guide Spectra® Roadway Improvement System ©2005, Earth Technologies, Inc.
- Tree Protection By-Laws TORONTO MUNICIPAL CODE CHAPTER 813, TREES
- Ministry of Natural Resources, 2013. Biodiversity – Terrestrial invasive species.

PLAN

183'-4" [55.88 M]

268

STABLE TOP OF SLOPE PER GEO-TECH REPORT (SEPT 08, 2023)

TOP OF SLOPE

EDGE OF TREES

NO-MOW ZONE BEYOND THIS LINE

6.00M SETBACK FROM TOP OF STABLE SLOPE

10M SETBACK FROM TOP OF STABLE SLOPE

PROP.RET WALL

PROP. 1 1/2 STY POOL HOUSE

AREA OF TREES

DRIP LINE

CONC. BALCONY

WALK WAY

N°8 MAIN ST.
PROP. 2 STY DWLG

1 STY AREA

4 CAR GARAGE

3 CAR GARAGE

COV. PORCH

LANDSCAPING

DRIVEWAY

EXIST. 1 STY FRAME DWELLING TO BE DEMOLISHED

27
2 STOREY FRAME DWELLING
214.16

288'-11½" [87.82 M]

BUSH

CURB

CULVERT

DEPRESSED CURB

CENTER LINE OF PAVEMENT

MH

HP/LP

NEW CURB CUT

89'-4" [27.23 M]

21'-4" [6.50 M]

16'-11" [5.16 M]

43'-7" [13.28 M]

39'-4½" [12.00 M]

182'-4" [54.97]

MAIN STREET

LESTER B. PEARSON (BY BY-LAW NO. 215-97 INST. #R706266) (FORMERLY CENTRE STREET, BY REGISTERED PLAN 268) PIN 03347-0118 (LT)

LEGEND					
PLANTING LIST	Symbol	Plant key	Qty.	L-rank April-22	Wetland Status (OWES)
Red pine *(Pinus resinosa)*		Pr	8	L1	upland
Eastern Red cedar *(Juniperus virginiana)*		Jv	10	L5	upland
Large-flowered serviceberry *(Amelanchier amabilis)*		aa	10	L3	upland
Alternateleaf dogwood *(Cornus alternifolia)*		coa	15	L5	upland
American hazel *(Corylus americana)*		ca	15	L3	upland
Choke cherry *(Prunus virginiana)*		pv	10	L5	upland
White oak *(Quercus alba)*		Qa	3	L2	upland
Northern Red oak *(Quercus rubra)*		Qr	3	L4	upland
American basswood *(Tilia americana)*		Ta	3	L5	upland
Slippery elm *(Ulmus rubra)*		Ur	3	L3	upland
Maple-leaved viburnum *(Viburnum acerifolium)*		va	10	L3	upland
Hobblebush *(Viburnum lantanoides)*		vl	20	L2	upland
Male fern *(Dryopteris filix-mas)*		dfm	10	L3	upland
Running strawberry-bush *(Euonymus obovatus)*		eo	30	L3	upland
Wild Geranium, *(Geranium maculatum)*		gm	80	L4	upland
Thin-leaved sunflower *(Helianthus decapetalus)*		hd	20	L3	upland
Creeping juniper *(Juniperus horizontalis)*		jh	20	L3	upland
Native Seed Mix *(TRCA Upland Slope Mix TRCA-SD-3)*					upland

TRCA Local Rank (L-Rank)
L1 – L3 SPECIES OF REGIONAL CONSERVATION CONCERN
L4 SPECIES OF CONSERVATION CONCERN IN URBAN AREA
L5 SPECIES NOT OF CONSERVATION CONCERN AT THIS TIME

WETLAND STATUS (OWES)
FAC WETLAND PLANT (BUT NOT RESTRICTED TO WETLANDS)
OBL WETLAND INDICATOR (OBLIGATE; RESTRICTED TO WETLANDS)
REV SUSPECTED WETLAND (SENT TO MINISTRY FOR REVIEW)
UPL UPLAND PLANT (NOT IN WETLANDS)
S STATUS APPLIES TO S. ON (INCLUDING TRCA)

LOTHLORIEN GARDEN DESIGN CONSULTING
1502-111 Inverlochy Blvd. Thornhill,
ON, L3T 3R7
Phone: 647 351 2631
www.lothloriengarden.com

TRUE NORTH

ISSUED	REVISION	COMMENTS	DATE

NOTES:

RESTORATION REPLANTING PLAN

ADDRESS:

8 Main Street, Vaughan, ON L4H 3N5

CLIENT NAME:

SITE PLAN: ubinoff Design Group
697 Mount Pleasant Rd.
Toronto, Ontario M4S 2N4
TEL. 416.667-0322 FAX.416.667.0751 EMAIL. info@rubinoffdesign.com

TPP DRAWN BY:

IVAN MITEV
M.Sc. Ecologist
ISA Certified Arborist® ON-2297A
Consulting Arborist - Lothlorien Garden Consulting
lothloriengardenconsulting@gmail.com

DATE: 03/27/2024

SCALE: 1:275 (17" x 11")

SHEET NUMBER: RRP- L1

LEGEND

- TREES TO REMAIN protected root zone (TPZ) EXISTING TREE KEY
- TREES TO BE REMOVED
- TREES TO BE INJURED
- PLANT KEY (Species qty)
- PROPOSED ZONE FOR RESTORATION
- SHRUB SYMBOLS
- NATIVE SEED MIX
- PROPOSED CONIFEROUS TREE
- PROPOSED DECIDUOUS TREE
- MOW LIMIT
- DEMOLITION LIMIT
- TREES IN DECLINE PROPOSED FOR REMOVAL
- TRCA LIMIT
- TREE REPLANTING LOCATION (R #)

EDGE TRANSITION AND
RESTORATION ZONE

TREE INSTALLATION

Careful selection of a tree species that is well matched to the site and the use of vigorous, healthy nursery stock with a well-developed root system are essential, but do not compensate for poor or improper planting procedures.

Timing of Planting

- Acceptable planting times depend on plant species, type of stock, climate and weather.
- Spring, after the ground thaws and before the tree buds break, is the best time to plant most species. With care and proper techniques, planting may also be feasible in the summer.
- Trees are planted throughout the year unless the soil is frozen. Some species favour spring planting such as oaks. Trees dug in the dormant season and container grown trees can be held for planting throughout the growing season with proper care.
- Bare root trees are dug and planted when trees are dormant and water stress is lowest.
- The following recommendations are the optimal planting times. Weather and other circumstances may require variance from these dates.
- Planting shall be done within the following dates:
  - o Deciduous: May 1 to June 31 or September 1 to November 1
  - o Coniferous: May 1 to June 31
  - o Exceptions: seasons may be shorter than expected depending on weather conditions
- If special conditions exist that warrant a variance from the recommended planting dates, a written request shall be submitted by the Contractor to the Contract Administrator stating the special conditions and the proposed variance.

Planting Hole Preparation

- The Contractor shall ensure that the layout has been reviewed by the Landscape Architect and the CVC. The Contractor shall be responsible for all costs associated with transplanting plant material that is deemed to have been pl
anted in conflict with utilities or setback requirements.
- The Contractor shall ensure that all utility locates are complete. The Contractor shall be responsible for all damage resulting from neglect or failure to comply with this requirement.
- Excavation may be done by shovel, backhoe or stump grinder. Note: a soil auger or tree spade may not be used.
- Surrounding clay soil may restrict root transition from an amended planting pit to the, effectively limiting their growth to the amended area. The planting pit edges must be sufficiently scarified to allow for roots to penetrate parent soil.
- Research has shown that a wider planting hole improves establishment, particularly in heavy soils.
  - Option 1 – the planting hole shall be at least 3 times the diameter of the soil ball and the soil shall be loosened beyond the edge of the planting hole.
  - Option 2 – The planting hole shall be at least 2 times the diameter of the soil ball and the soil shall be loosened at least one ball diameter's distance beyond the hole to a depth of 20-30cm using a rotary tiller.
  - Planting depth shall result in the top of the root collar being even with or a maximum of 50mm above the surrounding grade after planting.
- Holes shall be dug at the time of planting. Excavation holes shall not be left unattended or open over night.
- Proper water drainage must be assured. The Contractor shall notify the Contract Administrator, in writing, of any soil conditions or other obstructions that the Contractor considers detrimental to tree growth. Such conditions shall be described, as well as suggestions for correcting them.
- Where soil conditions or below ground obstructions which cannot be remedied are encountered, the Contract Administrator shall designate alternate planting locations. The Contract Administrator shall not bear any costs associated with such relocation.

Soil Preparation

- Existing soil shall be used to backfill planting holes wherever possible. Backfilled soil shall be cultivated, removing any large clods or extraneous material.
- Amendment may be required on sites with poor quality soil or lack of sufficient parent soils.
- Test pits shall be conducted in 5% of the planting locations for topsoil depth, soil structure, bulk density, and subsoil drainage.
- Existing topsoil and all imported soils shall be tested for pH, Organic Matter, Nutrient Levels, % Sand, % Silt, %Slay, Cation Exchange Capacity (CEC) and sodium absorption ratio (SAR).
- Suggested amendments for clay soil are coarse sand and coarse organic matter such as compost or aged manure. Finer sands may compound soil structure problems.
- Avoid fine-textured material such as peat moss or packaged manures.

Planting

- Plants must be centred and plumb in the hole.
- Plant in the same orientation as marked in the nursery unless otherwise directed by the Contract Administrator.
- Plant so that the top of the root collar is even with or a maximum of 50mm above finished grade. Plants shall be set so that they will be at the same depth 1 year after planting. Planting too deep may result in trunk disease or girdling roots. If the root collar is deep in the ball, excess soil may be removed from the trunk using hands, not tools.
- Bare root plants shall have their roots spread into a natural position, free of bunching, kinking, or circling. No root pruning shall be done.
- Plants in containers shall have containers removed completely before planting. If roots are crowded or coiled on the bottom, sides or surface of the root ball, they shall be gently separated from the edges or surface. The plant material is rejectable if excessively girdled or pot bound.
- For plants moved with tree spades, all holes and cavities between the ball and the surrounding soil shall be filled. The planting hole surfaces shall be sufficiently roughened prior to backfilling.
- Cut and remove all material from the top ⅓ of the rootball.
- All plastic ties, ropes, strings, wire baskets, burlap and other wrappings must be removed from the tree and hole. The ball shall be in the hole and well supported before the material is removed.
- Planting holes shall be backfilled with cultivated excavated soil, tamped in 150mm lifts. When holes are approximately two-thirds full, they shall be watered thoroughly.
- Backfill soil to the top of the root ball and form a 10cm soil ring to direct water to the rootball. Backfill shall not filled around the trunk or above the root flare.
- Remove all trunk wrap immediately after planting.

Support Systems

- Tree support may be required to provide anchorage for roots while they become established, to maintain trunk in a vertical position, provide support for trunk and crown and provide protection to the trunk.
- Should trees move 10% or more from vertical plane throughout the guarantee period, the contractor shall stake within one week of notification at their own expense.
- Where required, trees shall be staked using two 1.8m long 50mm x 50mm (2"x2") wood stakes. Ensure that stakes are driven into undisturbed soil and never driven through the root ball.
- Tree tie to be ArborTie or approved equivalent material that is a minimum of 25mm wide and will remain soft and pliable under all weather conditions.
- Tree supports shall be monitored and maintained throughout the guarantee period.

Mulching

- Mulch shall consist of aged or composted wood chips or shredded bark with no pieces larger than 25mm in length and shall be free of material injurious to plant growth.
- Place mulch to a consolidated depth of 15cm throughout the entire planting pit area and kept back no less than 5cm and no more than 10cm from the trunk.

Watering (Performance Standard)

- The Contractor shall submit a watering plan for approval by the CVC prior to installation of any plant material detailing the water source, method of application and quantity and frequency of watering for the first two growing seasons.
- The contractor shall surface water each tree immediately following planting with minimum 40 litres of water.
- Water shall be free of contaminants which could adversely affect the trees survival and growth.

Trunk Protection

- Trunk protection may be required to protect from sunscald, frost crack, animal and maintenance equipment damage. Trunk protection may also be required to protect trees during establishment in densely populated and high traffic areas.
- Tree guards shall be made of a perforated material such as mesh or chicken wire kept back a minimum of 50mm from the trunk to allow for air circulation and sun penetration. The tree guard shall be installed from the top of mulch to 500mm up the trunk. Tree guard material and installation shall be approved by the Town. Mulch shall not be trapped between the guard and trunk. Tree guards must be monitored for damage and interference with tree growth.
- Tree grates may be used to protect soil and increase pedestrian right of way. Tree grates are only appropriate when they are easily removable and their condition is monitored to allow for tree growth. Tree grate opening shall be adjustable and removable to allow for trunk growth.

LOTHLORIEN GARDEN DESIGN CONSULTING
1502-111 Inverlochy Blvd. Thornhill,
ON, L3T 3R7
Phone: 647 351 2631
www.lothloriengarden.com

TRUE NORTH

ISSUED	REVISION	COMMENTS	DATE

NOTES:

RESTORATION PLAN CONCEPTUAL DESIGN

8 Main Street, Vaughan, ON L4H 3N5

LEGEND

EXISTING MATURE TREE

PROPOSED CALIPER TREE

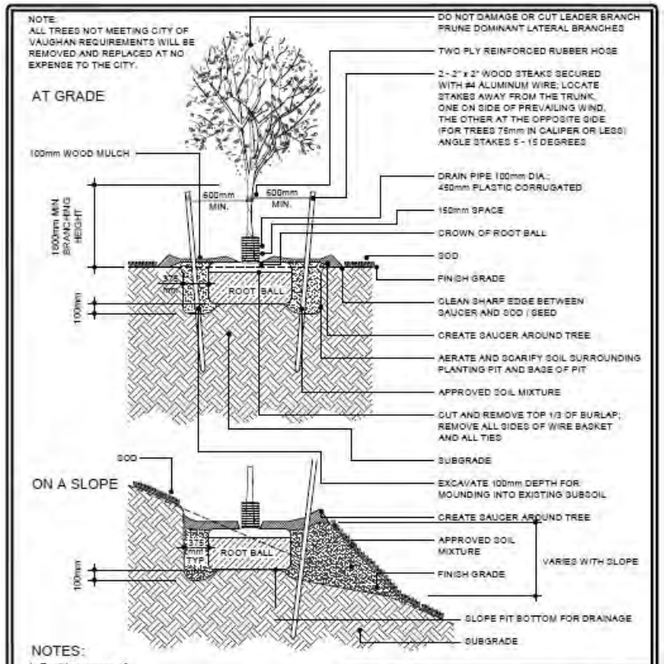
PROPOSED CONIFEROUS TREES AND SHRUBS

PROPOSED DECIDUOUS SHRUBS

RESTORATION MIX

SCALE: 1:100 (17" x 11")

SHEET NUMBER: RRP- L2



NOTES:

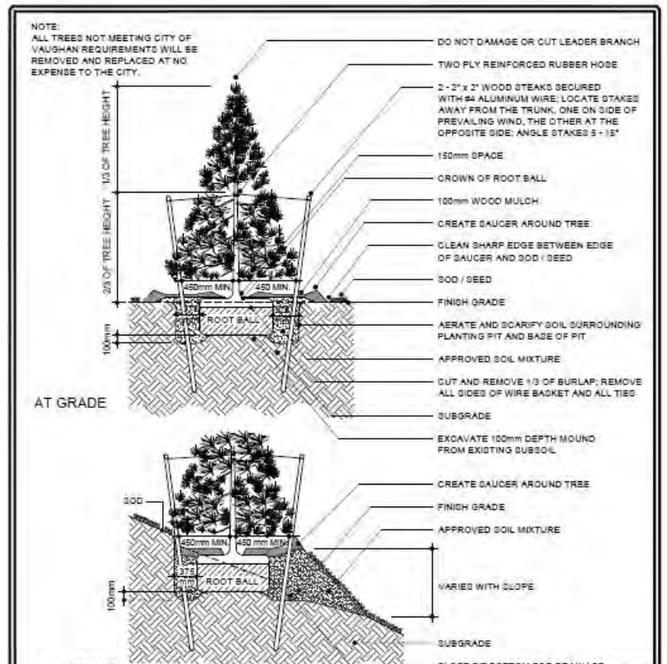
1. Position crown of root ball 50mm above finish grade to allow for settling.
2. Do corrective pruning to retain natural form of tree as directed by City Forestry Supervisor.
3. Water all plant material sufficiently to maintain vigorous, healthy growth from time of delivery/ installation until the end of the specified guarantee period.
4. Stake height shall be a minimum of 1.5 metres above finish grade.
5. For trees planted within planting or shrub beds, delete saucer around base of tree.
6. Remove all tree guards/ stakes 12 months after acceptance/ assumption or as specified.
7. No tree pits shall be left open overnight.
8. Do not allow air pockets when backfilling.
9. All dimensions are in millimeters.

VAUGHAN
DEVELOPMENT PLANNING DEPT.
URBAN DESIGN DIVISION

DECIDUOUS TREE
PLANTING DETAIL FOR
TREES UNDER 90mm IN CALIPER

NOTE: THESE TYPICAL DETAILS IS INTENDED TO PROVIDE GENERAL DIRECTION AND AS FOR REFERENCE ONLY. IT MAY BE USED AS PART OF THE CONSTRUCTION PACKAGE OR APPLICATION PROVIDED THE DETAILS IS CERTIFIED BY A REGISTERED LANDSCAPE ARCHITECT OR MECHANICAL ENGINEER AS APPLICABLE.

DRAWN & DESIGNED: URBAN DESIGN	STD. DWG. NO.
NOT TO SCALE DATE: 03 / 01 / 2011	ULA 101



NOTES:

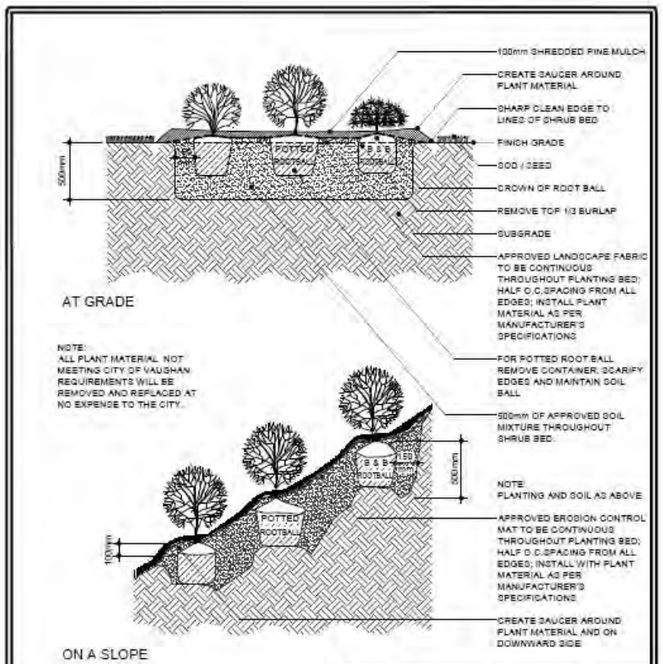
1. All dimensions are in millimeters.
2. No tree pits shall be left open overnight.
3. Do not allow air pockets when backfilling.
4. Position crown of root ball 50mm above finish grade to allow for settling.
5. Water all plant material sufficiently to maintain vigorous, healthy growth from time of delivery/ installation until the end of the specified guarantee period.
6. For trees planted within planting or shrub beds, delete saucer around base of tree.
7. Remove all tree guards/ stakes 12 months after acceptance/ assumption or as specified.

VAUGHAN
DEVELOPMENT PLANNING DEPT.
URBAN DESIGN DIVISION

CONIFEROUS TREE
PLANTING DETAIL FOR
TREES 2500mm IN HEIGHT OR LESS

NOTE: THESE TYPICAL DETAILS IS INTENDED TO PROVIDE GENERAL DIRECTION AND AS FOR REFERENCE ONLY. IT MAY BE USED AS PART OF THE CONSTRUCTION PACKAGE OR APPLICATION PROVIDED THE DETAILS IS CERTIFIED BY A REGISTERED LANDSCAPE ARCHITECT OR MECHANICAL ENGINEER AS APPLICABLE.

DRAWN & DESIGNED: URBAN DESIGN	STD. DWG. NO.
NOT TO SCALE DATE: 03 / 01 / 2011	ULA 103



NOTES:

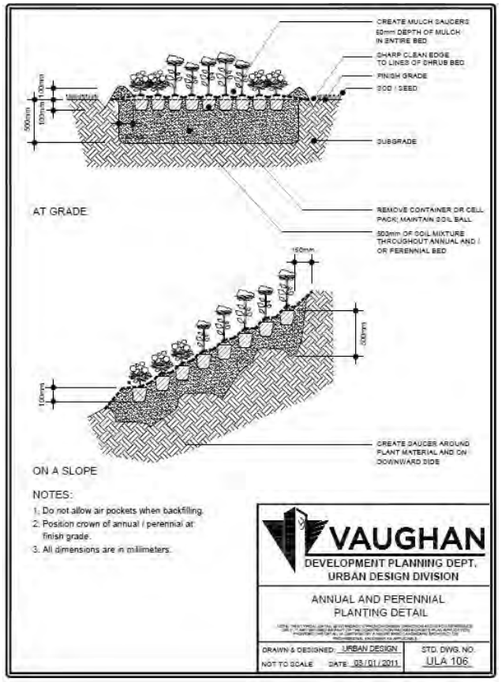
1. All dimensions are in millimeters.
2. Do not allow air pockets when backfilling.
3. Position crown of root ball 50mm above finish grade to allow for settling.
4. For bare root planting.
5. Water all plant material sufficiently to maintain vigorous, healthy growth from time of delivery/ installation until the end of the specified guarantee period.

VAUGHAN
DEVELOPMENT PLANNING DEPT.
URBAN DESIGN DIVISION

SHRUB
PLANTING DETAIL

NOTE: THESE TYPICAL DETAILS IS INTENDED TO PROVIDE GENERAL DIRECTION AND AS FOR REFERENCE ONLY. IT MAY BE USED AS PART OF THE CONSTRUCTION PACKAGE OR APPLICATION PROVIDED THE DETAILS IS CERTIFIED BY A REGISTERED LANDSCAPE ARCHITECT OR MECHANICAL ENGINEER AS APPLICABLE.

DRAWN & DESIGNED: URBAN DESIGN	STD. DWG. NO.
NOT TO SCALE DATE: 03 / 01 / 2011	ULA 105



NOTES:

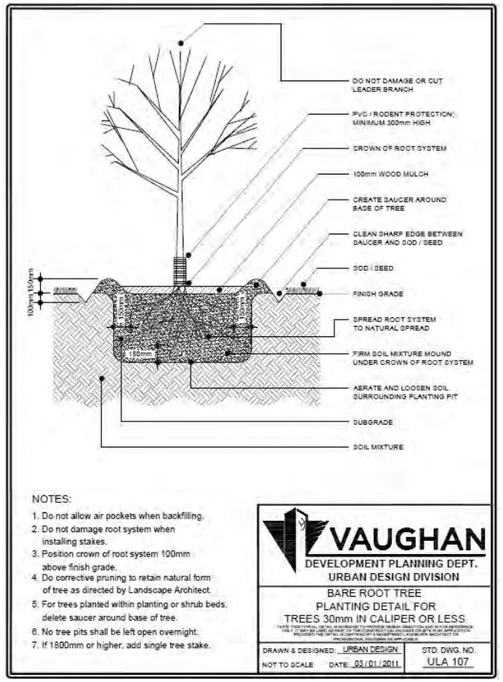
1. Do not allow air pockets when backfilling.
2. Position crown of annual / perennial at finish grade.
3. All dimensions are in millimeters.

VAUGHAN
DEVELOPMENT PLANNING DEPT.
URBAN DESIGN DIVISION

ANNUAL AND PERENNIAL
PLANTING DETAIL

NOTE: THESE TYPICAL DETAILS IS INTENDED TO PROVIDE GENERAL DIRECTION AND AS FOR REFERENCE ONLY. IT MAY BE USED AS PART OF THE CONSTRUCTION PACKAGE OR APPLICATION PROVIDED THE DETAILS IS CERTIFIED BY A REGISTERED LANDSCAPE ARCHITECT OR MECHANICAL ENGINEER AS APPLICABLE.

DRAWN & DESIGNED: URBAN DESIGN	STD. DWG. NO.
NOT TO SCALE DATE: 03 / 01 / 2011	ULA 106



NOTES:

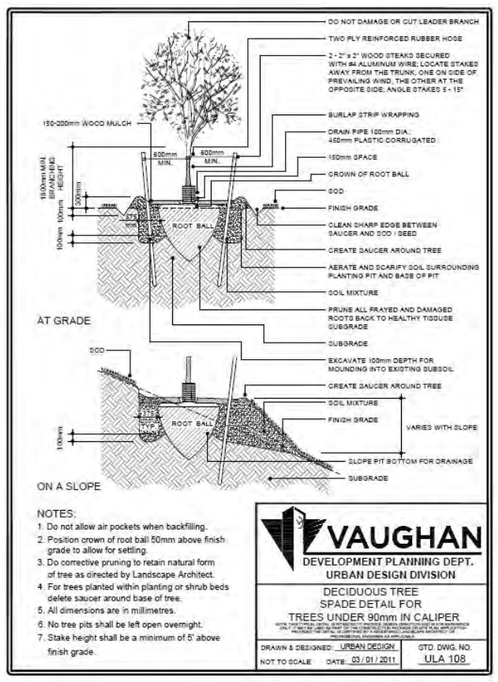
1. Do not allow air pockets when backfilling.
2. Do not damage root system when installing stakes.
3. Position crown of root system 100mm above finish grade.
4. Do corrective pruning to retain natural form of tree as directed by Landscape Architect.
5. For trees planted within planting or shrub beds, delete saucer around base of tree.
6. No tree pits shall be left open overnight.
7. If 1800mm or higher, add single tree stake.

VAUGHAN
DEVELOPMENT PLANNING DEPT.
URBAN DESIGN DIVISION

BARE ROOT TREE
PLANTING DETAIL FOR
TREES 30mm IN CALIPER OR LESS

NOTE: THESE TYPICAL DETAILS IS INTENDED TO PROVIDE GENERAL DIRECTION AND AS FOR REFERENCE ONLY. IT MAY BE USED AS PART OF THE CONSTRUCTION PACKAGE OR APPLICATION PROVIDED THE DETAILS IS CERTIFIED BY A REGISTERED LANDSCAPE ARCHITECT OR MECHANICAL ENGINEER AS APPLICABLE.

DRAWN & DESIGNED: URBAN DESIGN	STD. DWG. NO.
NOT TO SCALE DATE: 03 / 01 / 2011	ULA 107



NOTES:

1. Do not allow air pockets when backfilling.
2. Position crown of root ball 50mm above finish grade to allow for settling.
3. Do corrective pruning to retain natural form of tree as directed by Landscape Architect.
4. For trees planted within planting or shrub beds delete saucer around base of tree.
5. All dimensions are in millimetres.
6. No tree pits shall be left open overnight.
7. Stake height shall be a minimum of 5' above finish grade.

VAUGHAN
DEVELOPMENT PLANNING DEPT.
URBAN DESIGN DIVISION

DECIDUOUS TREE
SPADE DETAIL FOR
TREES UNDER 90mm IN CALIPER

NOTE: THESE TYPICAL DETAILS IS INTENDED TO PROVIDE GENERAL DIRECTION AND AS FOR REFERENCE ONLY. IT MAY BE USED AS PART OF THE CONSTRUCTION PACKAGE OR APPLICATION PROVIDED THE DETAILS IS CERTIFIED BY A REGISTERED LANDSCAPE ARCHITECT OR MECHANICAL ENGINEER AS APPLICABLE.

DRAWN & DESIGNED: URBAN DESIGN	STD. DWG. NO.
NOT TO SCALE DATE: 03 / 01 / 2011	ULA 108

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NOTES:

TREE REPLANTING DETAIL AND SPECIFICATION

SCALE:	NTS
SHEET NUMBER:	RRP- L3

Post-Construction Restoration General notes:

1. The proponent is responsible for ensuring that all plantings are native species and are suitable given the soil, moisture, and light conditions of the site, as well as any specific stresses. Cultivars of native species are generally not acceptable. While invasive species are not permitted, non-invasive exotic species may be used in some limited areas. Plantings should also be compatible and complementary to the existing vegetation communities.
2. Early successional species should be used alone or in concert with shade tolerant (i.e. late-seral species) to allow natural succession to ensue. Shade tolerant species can be used if conditions are favourable and in areas where a source of late-seral seed does not exist in order to promote succession.
3. In general, woody plantings should follow the standard densities of 1 metre on centre for shrubs and 5 metres on centre for trees. However, higher densities may be required depending on the situation (e.g. live staking, use of stock 100 cm or smaller, edge management, sensitive areas, or other site- specific situations).
4. Indicate that site stabilization will occur during or immediately following construction to avoid unacceptable levels of erosion. Depending on their suitability, various techniques may be employed including hydroseeding, or installing straw mulch or jute mats, etc. Although sod is acceptable as an interim measure, it will not be permitted as a permanent groundcover in natural areas and associated buffers.
5. Seeding mixtures should consist of quick-growing, non-invasive species. Manufacturers offer an assortment of mixtures that are suited to various conditions, including a slope stabilization mix, meadow mix, and wetland mix. In particularly sensitive areas, a seed mix consisting entirely of native species should be used to avoid the invasion of aggressive vegetation. Please refer to the TRCA Seed Mix Guidelines for further details. In areas where invasive species are a particular problem, eradication of these species may become a component of the restoration initiative.
6. Ensure that riparian planting coverage for a stream extends from the watercourse edge to a minimum of 10 metres on either side. For a valley, coverage should include plantings within the entire feature plus an additional 10 metres. Generally, we only require restoration in areas being disturbed.
7. Riparian plantings should be installed after the spring freshet to avoid being uprooted during high flows if planted the previous autumn. Mulch application may not be appropriate in riparian zones as this material can be easily washed away during high water periods. Alternative methods of dealing with competitive vegetation should be considered, however herbicide application is not desirable.
8. The objective is to establish at least 50% woody coverage through restoration in areas where the desired vegetation community is forest.
9. When selecting vegetation for plantings, try to achieve a degree of structural and species diversity.
10. If the area is very grassy, mulch and rodent guards may be needed to protect young tree stems. Larger planting stock may be required in these areas to due to competing herbaceous vegetation. Maintenance plans should include watering during summer dry spells for the first 2-3 years after planting.
11. Other than in sites with competing herbaceous vegetation, we generally have no size requirements for vegetation to be planted. Typically, we prefer greater numbers of smaller-sized vegetation over fewer numbers of larger-sized vegetation. Planting large vegetation may cause more disturbance to the site.
12. Plans should indicate timing of the restoration works, as well as phasing if applicable.
13. Indicate how existing vegetation to be retained will be protected. Please refer to the TRCA Edge Management Guidelines for further detail.
14. Drawings should include a plan view showing planting locations, species and numbers, a detail showing the installation, and a note listing the species, size, and condition (i.e. bareroot, balled and burlapped, potted). The latter will ultimately dictate the season when works can be done. Bareroot stock should only be installed while dormant in spring or after leaf fall in autumn. Planting of balled and burlapped and container-grown stock can be installed at any time during the growing season if adequate water is supplied.