

URBAN DESIGN REPORT

FOR
2462357 ONTARIO INC.



(Images are for illustration purpose only)

A Proposed Development

at

1745, 1765, 1775 THORNY BRAE PLACE, MISSISSAUGA, ONTARIO, ONTARIO



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1.0 Introduction

1.1 Executive Summary

2462357 ONTARIO Inc. has proposed to re-develop a total of 2.10 hectare of land at the south-east intersection of Eglinton Avenue West and Mississauga Road in the City of Mississauga, Ontario. The focus of the re-development is to create a balanced, yet intensified residential community, that provides a compatible architectural flavor and taste of local character and massing to the existing community and to the wider market.

RN design have prepared the following Urban Design Study on behalf of 2462357 ONTARIO Inc. in relation to their lands located at 1745, 1765, 1775 Thorney Brae Place, Mississauga, Ontario, herein referred to as the “subject property”. The subject property is located on the south side of Eglinton Avenue West and east side of Mississauga Road in the City of Mississauga. Refer to figure-1 for an aerial photograph showing the site in context.

The purpose of the Urban Design Study is to provide an urban design framework for a proposed medium-density development on the subject property consisting primarily of 3 storey townhouse blocks, and one two-storey single family house.

The purpose of the Urban Design Study is also to demonstrate the implementation of key urban design principles of low-rise multiple dwellings as advocated by the City of Mississauga. These principles provide guidance to new developments ensuring they achieve connectivity and compatibility with the surrounding neighbourhoods.

This Urban Design Report outlines the following guiding principles to complement and support municipal policies on low-rise and medium density multiple dwellings that fits into the surrounding neighbourhood.

- Ensure Compatibility with Neighbourhood
- Build Pedestrian Focused Development
- Create Attractive Streetscapes
- Ensure Highest Quality of Light, View and Privacy
- Develop Community with Character and identity
- Promote Environmental Sustainability
- Ensure Community Safety

1.2 Location and Surrounding Area

The subject property is located at the south-east corner of Eglinton Ave West and Mississauga Road, municipally known as 1745, 1765, 1775 Thorny Brae Place. The property is located within a “residential low density I” area along Eglinton Avenue West corridor. The subject property is mostly surrounded by single family and residential detached buildings at north and west of the main roads, greenlands at east, and a Church at south. The subject property is well connected with the major public transport network of the city along both Eglinton Avenue west and Mississauga Road. The proposed development is also within proximity of basic civic services including general hospital (Credit Valley Hospital), church, education facilities and retail facilities.



Figure 1. Aerial view of Site and surrounding context

1.3 Transportation network

The proposed development is situated in a transit supportive neighborhood with bus stops located approximately 190 meters to the subject site and within comfortable walking distance (i.e. 2-minute walk). The route services in the immediate area are described below:

- MiWay Bus Route 9 Rathburn-Thomas: The 9 Rathburn-Thomas bus route operates every 30 minutes between City Centre Transit Terminal Drop Off and Erin Centre Boulevard at Longford Drive, generally in an east-west direction.
- MiWay Bus Route 34 Credit Valley: The 34 Credit Valley bus route operates every 23 minutes between Erin Mills Town Centre Bus Terminal and City Centre Transit Terminal Drop off, generally in an east-west direction.
- MiWay Bus Route 35 Eglinton: The 35 Eglinton bus route operates every 10 minutes between Islington Subway Bus Terminal Platform A and Erin Centre Boulevard at Longford Drive, generally in an east-west direction.
- MiWay Bus Route 44 Mississauga Road: The 44 Mississauga Road bus route operates every 15 minutes between Erin Mills Town Centre Bus Terminal and City Centre Transit Terminal Drop off, generally in a north-south direction.
- MiWay Bus Route 305 Streetsville-Falconer: The 305 Streetsville-Falconer bus route operates a single service daily between Joymar Drive at Tannery Street and Falconer Drive at Plainsman Road, Monday to Friday.
- GO Bus Route 21D Milton: The 21D GO bus route operates every 20 minutes between Lisgar GO and Union Station Bus Terminal, generally in an east-west direction.

Based on the study prepared by the Ministry of Transportation Ontario entitled: 'Transit Supportive Guidelines', dated January 2012, transit users are generally willing to walk 400 meters to a local stop or 800 meters to a rapid transit station. The Mississauga Road at Eglinton Avenue bus stop is approximately 190 meters from the proposed subject site.

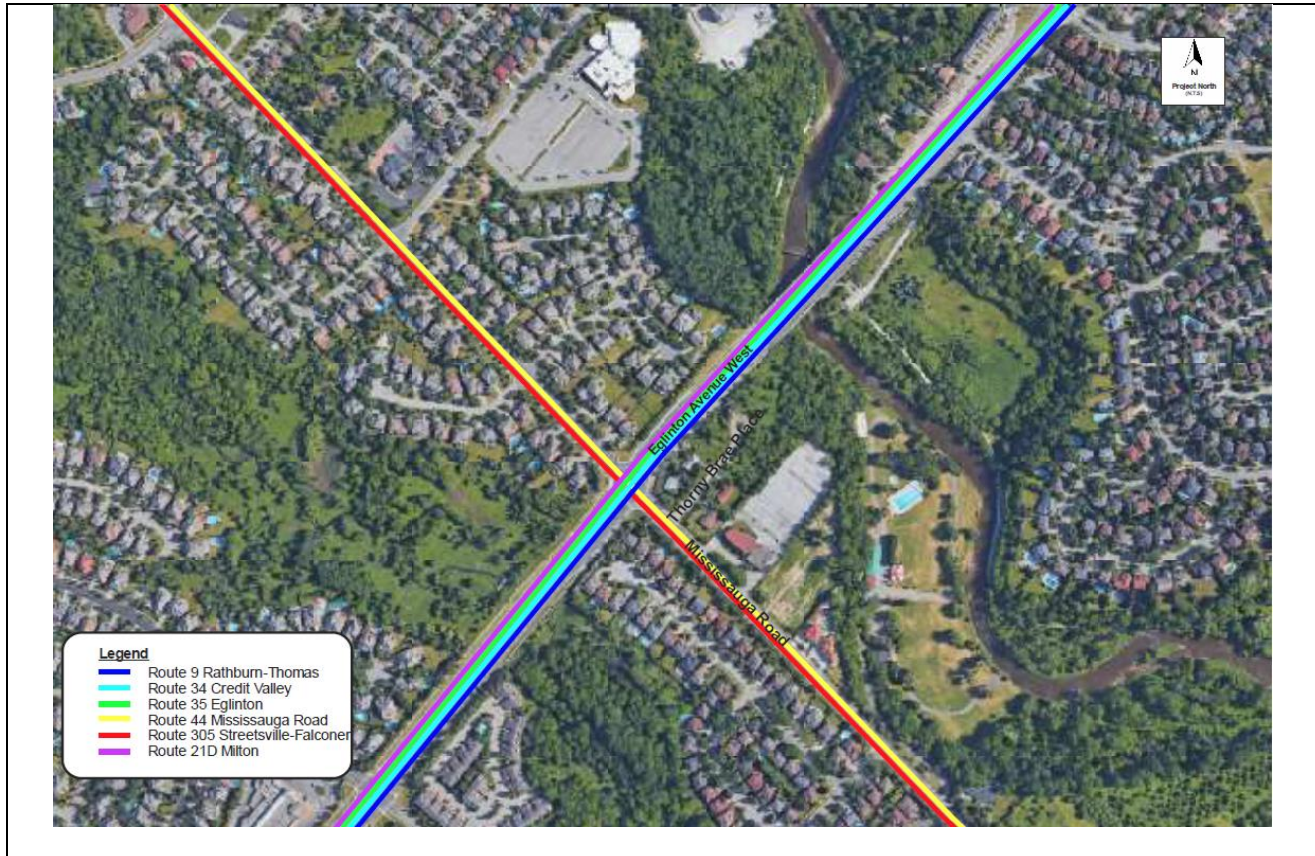


Figure 2: Existing transport network adjacent to the proposed site

1.4 Development Proposal

The proposed development consists of one single detached house and seven street-townhouse blocks with a total of 37 townhouse units. Of the 37 units, 26 three-storey townhouses have dual frontage on Eglinton Avenue West and Thorny Brae Place. The rest of the 11 townhouses are conventional three storey units. All vehicular accesses are from Thorny Brae Place. Thorny Brae Place is an existing cul-de-sac; and the proposed development includes a proposal of partially re-alignment of this road to accommodate required driveways and setbacks of the townhouse units.

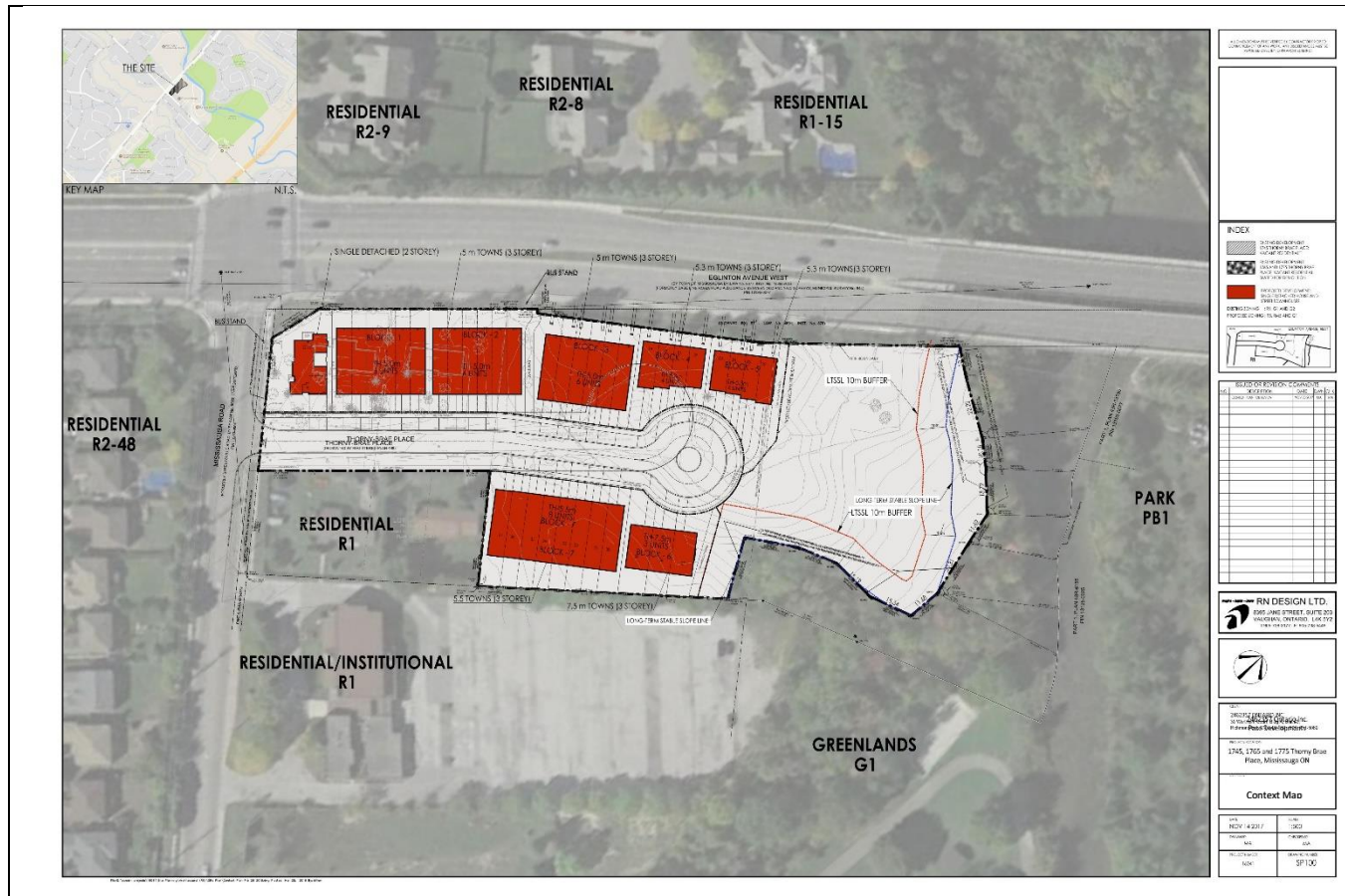


Figure 3. Context Map of the proposed Development

The proposed development will consist of the following:

DEVELOPABLE AREA:	8659 SQ.M. (0.86HA.)
BUILDING COVERAGE:	4628.0 SQ.M. (53.4%)
PAVED AREA:	2983.6 SQ.M. (34.5%)
LANDSCAPE AREA:	1047.4 SQ.M. (12.1%)

UNIT TYPES	NUMBER OF STOREY	NUMBER OF UNITS
SINGLE FAMILY HOME	2 STOREY	1
5 METER TOWNS (Dual Frontage)	3 STOREY	26
5.5 METER TOWNS (Conventional)	3 STOREY	8
7.5 METER TOWNS (Conventional)	3 STOREY	3
TOTAL UNITS		38

2.0 Compatibility

One of the guiding principles of this urban design report is “compatibility” which refers to how well the proposed development ‘fits in’ with the neighbourhood. The proposed development is located at an importation junction of low density residential area and “Urban System” corridor (Along Eglinton Avenue West) which led the concept to be transitional in nature. The proposed development also applied careful consideration of building massing, height and setbacks that reflect streetscape character and compatibility with adjacent developments.

2.1 Siting

The placing of new buildings is carefully developed to respect and enhance existing streetscape and character matching setbacks of adjacent developments. The single dwelling unit facing Mississauga Road is consistent with neighbouring residential properties. The City of Mississauga Official Plan Amendment No. 64, regarding “Mississauga Road Scenic Route” and passed by Council on June 7, 2017, impacts the proposed single dwelling abutting Mississauga Road on the subject site. The proposed development on this lot meets the general intent of OPA 64. This dwelling is positioned between Eglinton Avenue West, Mississauga Road and Thorny Brae Place with three facades that front onto a public street reinforcing the public realm, however, consistent with OPA 64, The principle building elevation, door and fenestrations of this dwelling are facing Mississauga Road.

Dual frontage 3 storey street townhouses are proposed along Eglinton Avenue West to align with city’s “Urban System” corridor adding density that is pedestrian friendly and transit supportive. These 3-storey dual frontage towns provide a street edge to the adjacent Eglinton Avenue W and Thorny Brae Place and have been placed to fit harmoniously within the existing and proposed context. The proposed development also includes relatively smaller footprint of 3 storey townhouses at the north and east side of the property adjacent to Greenland area and adjacent church lands. A visual connection between Thorny Brae Place and the greenspace will be an amenity to residents while a physical mid-block connection between Eglinton Avenue West and Thorny Brae place will increase connectivity of the site.



Figure 4. Placing of new buildings reflecting neighbourhood character

In contrast of other existing less desirable streetscape such as reverse frontage, the proposed development encourages new development to improve character of the neighbourhood with a defined street edge and an animated and pedestrian friendly streetscape. The proposed development also addresses the general intent of the Urban System policies as it will provide more compact form of housing while considering the characteristics of transit corridors such as increased density, easy access to public transport and pedestrian permeability.

2.1.1 Design Guidelines

- 1) Single detached building(s) will be located along Mississauga Road to align with existing neighbourhood character and reflect the design principles of “Mississauga Road Scenic Route” urban design guidelines.
- 2) Site buildings with front façade facing the public street and dual frontage as appropriate. Avoid rear yards fronting the public street.
- 3) Provide consistent and desirable front yard setback to reflect appropriate street edge.
- 4) In case of “Urban System” corridor provide direct connection between the front door and existing pedestrian pathways/sidewalks incorporating porch feature and front yard landscaping
- 5) Reflect natural topography and existing grade where possible.
 - Minimize alteration to existing grades and natural topography
 - Match natural drainage and general compatibility with the surrounding context
 - Minimize the use of retaining wall particularly along street frontages
- 6) Incorporate landscape elements and preserve existing trees where possible.

2.2 Building Mass and Height

The massing and height of the proposed development ensures compatibility with the existing and planned pattern of the development of the community. The building mass and height of the proposed buildings are carefully articulated to address:

1. 2 storey single detached houses to align with existing street edge and comparable building massing of nearby buildings along Mississauga Road

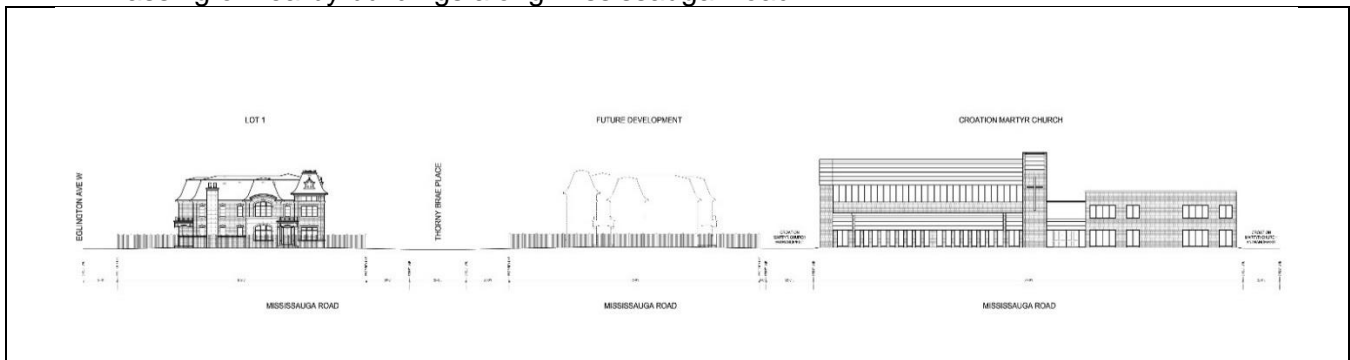


Figure 5: Proposed single detached house and possible future development



Figure 6: Existing single detached houses on similar lots within the proximity
2. Active street edge with compact medium density street townhouses to support “Urban System” corridor along Eglinton Avenue West.



Figure 7: proposed street edge of 3-storey street townhouse and single detached house

2.2.1 Design Guidelines

- 1) Respect the height and massing of the developed and planned pattern of the neighbourhood
- 2) Create a well-defined street edge and sense of enclosure
- 3) Incorporate sloped rooflines
- 4) Provide flexibility to add or subtract storeys, if necessary, to provide transition in building massing.
- 5) Arrange building mass with a vertical emphasis
- 6) For corner sites, articulate building mass to define and wrap around the corners.

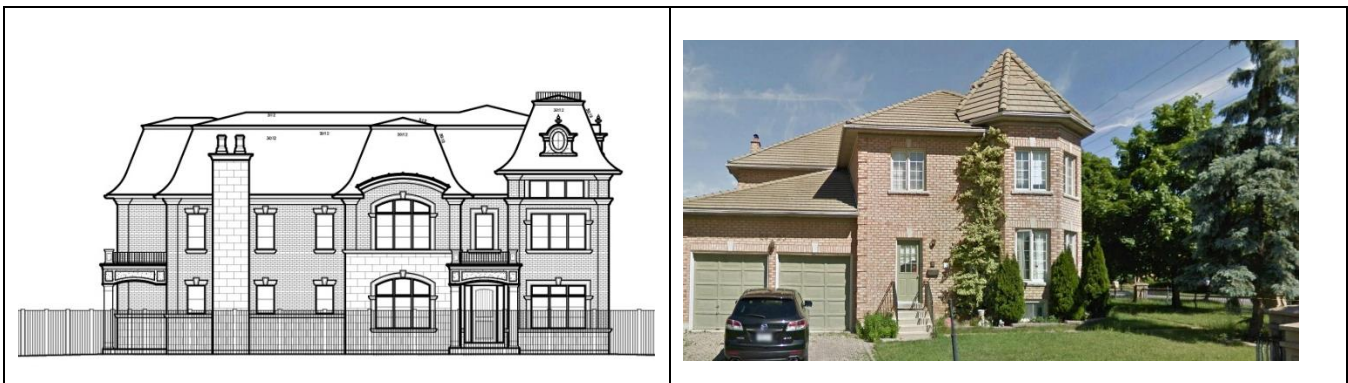


Figure 8: Proposed and existing wrap around treatment on single detached house

2.3 Light, Views and Privacy

The proposed development will confirm the provision of ample natural light throughout the internal spaces of all new buildings while minimizing overlook onto neighbouring properties. The proximity to the Credit River and Greenlands offers a unique opportunity for natural views of protected areas. There is a direct visual connection where the Greenlands meet Thorny Brae PI (there will be a fence); all owners/the public will benefit from this visual connection. The dual frontage townhouses along Eglinton Avenue West are carefully designed with lawns on both side of the buildings shared between paired units. Figure 9 illustrates the green areas on both side of the buildings providing passive amenities and opportunity for natural light inside the buildings. The revised version of the site plan carefully considered maximization of landscape areas at the rare lane of dual frontage towns by avoiding double car garage or continuous driveway. All units are revised to single car garage with paired porches to maximize landscape areas.



Figure 9: Dual frontage towns along Eglinton Avenue West with paired driveway and landscaping on both side of the building

2.3.1 Design Guidelines:

Maintain light, views and privacy with adequate separation distance between buildings and adjacent properties:

- 1) Minimum 7.5m rear yard will be maintained to the towns which have standard front and rear yard.
- 2) Minimum 6m rear setbacks to the towns which have dual frontage
- 3) A minimum 6 m front yard except block 4 and 5, and 6 m rear yard will be maintained to provide buffer and landscaping where appropriate.
- 4) Provide views into streets and open spaces without compromising privacy of adjacent properties.
- 5) Provide landscape elements between public street and private dwellings as appropriate.
- 6) Minimize or stagger side yard windows to avoid direct alignment with adjacent windows.
- 7) Where overlook occurs due to deck and balcony placement, screen views with landscaping and privacy fencing.
- 8) Preserve and enhance public views to natural features and other open spaces.

3.0 Connectivity

The proposed development is well connected with pathways/sidewalks, visually connected with natural areas and well-integrated with existing local and regional networks. The proposed development offers an improved pedestrian connectivity between the site and surrounding areas. From a city-wide perspective, a low rise medium density compact development is well aligned with the City's "Urban System" to achieve an urban structure, form and density that is pedestrian friendly and transit supportive.

3.1 Public Right of Way

Thorny Brae Place is a municipal road terminating in a cul-de-sac; The proposed development contemplates the extension of this road by approximately 20 meters, ending in a new cul-de-sac. This will allow all homes proposed within this development to have direct access from Thorny Brae Place. No private driveways should be directly connected to either Eglinton Avenue West or Mississauga road.

A mid-block connection between Eglinton Avenue west and Thorny Brae Place will ensure easy pedestrian access in support of active transportation and the Mississauga Transit System (MiWay).

3.1.1 Design Guidelines

- 1) Ensure pedestrian connections with sidewalks/pathways incorporate universal accessibility.
- 2) Provide short block widths (6 units or less) and mid-block connectivity where appropriate to promote walking and transit use.
- 3) Public right-of-way should be sufficiently sized and designed to include the following:
 - Allow vehicles to safely pass.
 - Accommodate trees and landscape on both side of the road.
 - Include sidewalks of minimum 1.5 m in width.
 - Encourage bicycle use.
 - Support on-street parking where appropriate.

3.2 Streetscape

A comprehensive tree planting plan will be developed to create consistent and vigorous streetscapes that achieve:

- Variation in the type and form of selected species to introduce visual interest.
- Seasonal variation for colour interest.
- Significant scale and form to add structure to the street environment.
- Biological diversity to safeguard against potential failure of mono-culture plantings due to disease, insects, drought, and/or damage from winter de-icing agents.
- Salt tolerant species.
- Wherever possible, the mature existing trees will be retained and integrated with additional landscape features. Placement of new Street Trees are to follow The City of Mississauga's standard details.

3.2.1 Design Guidelines

- 1) Enhance and reflect the streetscape by consistent setbacks, landscaping and parking pattern
- 2) Improve the quality of street environment by implementing the following:

- Provide continuous sidewalks, street trees, landscaping, pedestrian scale lighting as appropriate
- 3) Create a consistent street edge and sense of enclosure.
- 4) Provide windows, doors with glazing, porches and other features for visual interest and natural surveillance
- 5) Preserve existing trees where possible and plant new trees with following specifications as recommended in City of Mississauga's Urban Design Handbook or as otherwise approved by the City:
 - Space street trees evenly at approximately 8 metres (25 feet) intervals, depending on the length and width of the boulevard.
 - Provide a minimum area of 15 square metres (161.5 square feet), with a 1 meter (3 feet) depth of suitable soil, where possible, to ensure healthy tree growth.
 - Locate street trees in the public boulevard, offset a minimum 1 metre (3 feet) from the curb (and/or splash drip), to minimize damage from snow, salt and large vehicles.
 - Place trees in a manner that does not obstruct regulatory traffic signs and lights.
 - Coordinate tree locations with lighting, utility boxes, sight triangles and underground services (preferably under the sidewalk).

3.3 Pedestrian Pathway/Sidewalk Connections

Pathways should provide linkages between blocks to increase convenience and encourage walking. The proposed development integrates an interconnected pathway and sidewalks network to enhance permeability, convenience and encourage walking and natural surveillance.

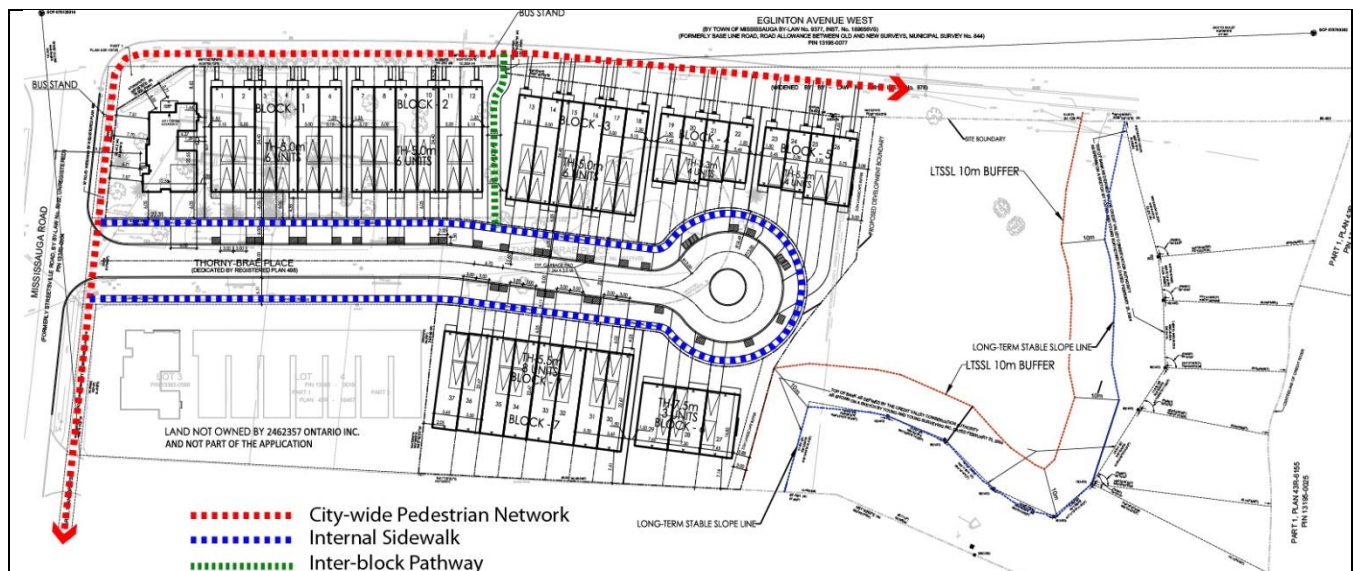


Figure 10: Proposed sidewalk and pathway connectivity with wider pedestrian network

3.2.1 Design Guidelines

- 1) Provide sidewalks on both sides of every street as appropriate
- 2) Provide through-block pedestrian connections (street sidewalks or mid-block pathways)

- 3) Ensure that mid-block connections are coordinated to minimize unsafe pedestrian movement across streets.
- 4) Designate a minimum 3 metre (9.8 feet) wide corridor for mid-block pedestrian connections.
- 5) Provide a minimum paved width of 1.5 metres (5 feet) on all pedestrian pathways.
- 6) Complement pathways with attractive paving, architectural features, landscaping and pedestrian-scale lighting as appropriate.
- 7) Site buildings to enclose pedestrian pathways, and position windows and openings to provide activity and eyes onto the walkways for natural surveillance.
- 8) Include privacy fencing and landscape screening as appropriate adjacent to private amenity spaces.
- 9) Provide convenient and direct pedestrian access between building entrances and public transit.

4.0 Mississauga Road Scenic Route Guidelines:

The following principles are considered when designing the single detached dwelling abutting the Mississauga Road Scenic Route.

1. New residential lots abutting Mississauga Road will be developed as detached dwellings. Considering the flankage façade along Mississauga road and to align with existing adjacent dwellings, there is a minimum 7.0 m setback provided along Mississauga road.
2. Lots abutting Mississauga Road should have direct vehicular access to Mississauga Road. However, considering the subject lot is located at the proximity of Elglinton Avenue West intersection and having a flankage façade along Mississauga Road, the driveway deems more appropriate through Thorney Brae Place.
3. The Lot abutting Mississauga Road will have upgraded building elevations with a variety of building materials, building articulation, windows, roof forms and visual interest including prominent porch feature, substantial fenestration, walkway connection and enhanced landscaping.
4. The development of lands will not be permitted if it results in an increase of the road pavement width, such as slip-off lanes, centre median left-turn lanes or other pavement widenings. The driveway access to the proposed single detached dwelling is located on Thorney Brae Place which allows to retain the original pavement of the Mississauga Road.
5. As discussed in section 2.2, The proposed building along Mississauga Road shall not be greater than 2 storeys high and shall be designed to reflect the existing residential character in terms of scale and massing.
6. New buildings should have generous flankage yard and front yard that align with the adjacent properties and should reflect the existing character.
7. New development shall have minimal impact on its adjacent neighbours with respect to overshadowing and overlook.
8. Garages should be flush or located behind the main building façade and shall be less than 40% of the overall house width.
9. Tree preservation and enhancement will be provided on both public and private lands on the proposed development. Hard surface shall be setback wherever possible to ensure existing trees are preserved.
10. A minimum 3 m wide landscaped buffer shall be provided around all property lines except internal side yard for the single detached dwelling on Mississauga Road.
11. Heritage designated and listed properties (if any) shall be maintained and enhanced.
12. The location of above and below grade utilities should be considered early in the site design to ensure that they do not impact public or private existing trees or heritage features (if any).
13. The grading of new development will be designed to match and be compatible with the

grades of the adjacent properties.

14. New development should contribute to, support and enhance pedestrian routes, the cycling network and multi-use trails. This is elaborated in section 3.3 and illustrated how internal and mid-block connections support access between Mississauga Road, transit corridor along Eglinton Avenue West and the Credit River Valley corridor.

5.0 Characteristics

In this section, the urban design guidelines focus on the treatment of the building and site, including architectural features to characterize the proposed development defined through established context and neighbourhood characteristics. Furthermore, these guidelines illustrate how to accommodate the functional requirements of a development such as parking, servicing and utilities.

4.1 Architecture

The development at 1745, 1765, 1775 Thorny Brae Place embraces a traditional approach to the Architectural Design, in keeping with the traditional residential character of the surrounding area.



Figure 11: Conceptual Elevation of single detached house with traditional flavour and treatment



Figure 12: Conceptual Elevation Street townhouse along Eglinton Avenue west

Architectural Treatment: The detailing of the front and exposed side elevations will provide a level of interest by incorporating elements such as bay windows, porches, dormers. A variety of building materials such as brick, stone and stucco are proposed to provide elevations with their own identity while keeping consistency with surrounding neighbourhood.



Figure 13: A variety of building materials such as brick, stone and stucco is proposed to provide elevations with strong heritage flavour (Images are for illustration purpose only)

4.1.1 Design Guidelines

1) Use a variety of architectural features and façade details to create visual interest, provide continuity with neighbours and uphold overall human scale:

- Articulate building mass with projections, recesses, varied rooflines, chimneys, windows, entrances, balconies and/or porches.

- Employ building materials, colours, textures and wall treatments consistent with the surrounding area.
- Design new façades to relate to the rhythm and proportion of neighbouring façades.
- Continue architectural features, such as window and cornice lines, to relate to adjacent buildings.
- Position entrances and living spaces close to grade with windows facing the streets

2) Provide windows, doors, porches and balconies to help animate street frontages and promote natural surveillance.

3) Include windows, doors, where appropriate, and other façade details on the flanking wall exposed to the public realm comparable in composition and quality with the main building façade.

4) Avoid long, unbroken building façades in the following manner:

- Arrange buildings into blocks no wider than 6 attached units.
- Create a differentiation in building units within and between blocks through horizontal and vertical articulation of the façade, a change of material, colour, roofline or other architectural details.

5) Design new buildings located on corner lots with two street frontages in the following manner:

- Employ architectural façade treatments and details on the flanking street that display a similar and comparable level of quality and composition to the main façade.
- Use special architectural elements, such as towers, corner bays, wrap-around porches and gable roofs to emphasize the corner where appropriate.

4.2 Location of Garages and Driveways: Both conventional front-loaded towns and rear loaded street town houses will incorporate single car garages paired with the adjacent units with minimum driveway depth of 6m. This will allow at least 4.5-meter-deep rear-lane lawns with proper landscaping as shown in figure 15. Garages will either be flush with the building face or recessed behind the projecting porch area.



Figure 14: Single Garage paired with adjacent unit



Figure 15: Landscaping at the rear lawn

4.2.1 Design Guidelines

- 1) Locate primary parking to the rear of all buildings along Eglinton Avenue West and to the front of all other buildings.
- 2) When parking for new development is proposed in the rear soft landscaping for both environmental and aesthetic value.
- 3) When parking is in front of new development, limit driveway widths and frequency of curb cuts, to increase opportunities for street trees and on-street parking, while minimizing pedestrian/vehicle conflicts.
- 4) Minimize the appearance of front garages as follows:
 - Recess garage doors and emphasize other façade elements such as building entrances and bay windows.

4.3 Building Height

All buildings within the proposed development are either 2-storey or 3-storey designs with traditional pitched roof architecture. The height of both front loaded and rear loaded towns will provide a transition from adjacent two storey single detached houses located within the neighborhood.

4.4 Landscape

The proposed landscape design will provide sustainable concept and approach to create a conducive and responsive environment of this development. The landscape design will strategically increase privacy, reduce noise, enhance and contribute to natural views and provide an aesthetically pleasing environment.

4.4.1 Design Guidelines

- Strategically plan and design variety of trees, plants and other landscaping elements that are active and attractive year-round to improve the aesthetics and environmental benefits.
- Preserve existing native trees wherever possible.

- Utilize landscape screening to create privacy and security.
- Soften the appearance of fencing and noise walls if any.
- Non-invasive native species should be considered.
- Seek opportunities for permeable surfaces wherever possible.

6.0 Sustainability Design Strategies

5.1 Site: In promoting sustainable design which will meet the objectives of the Mississauga Official Plan, the project proposes the following strategies to contribute to the greening of the community:

- Intensification – the proposed development aims to intensify the site, in conformity with Provincial, Regional and City policies;
- Cut-off Site lighting – reduced glare to sky;
- Construction Waste Management program – During construction, a construction waste management program will separate of waste; recycle wood, plastics and drywall thereby diverting and reducing landfill.

5.2 Building: The following strategies are proposed for the construction of the buildings on the site to reduce energy consumption, reduce greenhouse gases and reduce water consumption:

- upgraded building envelope – higher insulation (Roxul insulation-recycled),
- upgraded windows (energy star),
- low flow water fixtures: shower heads, faucets, toilets,
- Low VOC paints, glues and varnish finishes,
- upgraded roof shingles (30-year life),
- energy star appliances (Stoves, clothes dryers and front load clothes washer),
- LED or other low energy light bulbs,
- integrated mechanical systems,

7. Conclusion

With its proposal at 1745, 1765, 1775 Thorney Brae Place, Mississauga, 2462357 ONTARIO Inc. has conceived a development which balances the compatibility of the City's long term growth plan, reflects existing development trends and embodies sound and achievable Urban Design practices. The proposed development and architectural design is sensitive to and respectful of, the existing character of the area. Given the designation of low density residential area and as part of "Urban system" corridor, the proposed development has addressed a desired continuity and progress of the adjacent low and medium density developments. By celebrating rich heritage flavor in architecture and appearance, the proposed development offers a sustainable, humane scale and pedestrian friendly residential community, close to public transit and major transit corridor.