



Laird in Focus Phase 2 Report

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LEGEND

- Leaside (context)
- Planning & Urban Design Focus Area
- Transportation Study Area
- LRT Station/Stop

Figure 1: Study Area

EXECUTIVE SUMMARY

Project Overview

This report presents the findings of phase 2 of the Laird in Focus study, including the introduction of the Draft Emerging Preferred Alternative Plan for Study Areas A and B and scenarios for the road network evolution within the employment lands. Study Areas A and B consist of the lands along the south side of Eglinton Avenue East and the west side of Laird Drive, respectively, with the transportation component of the study also considering the employment lands to the south and east.

The objectives of phase 2 included developing the vision and guiding principles, preparing development and transportation network options through an iterative public process and evaluating the options to arrive at a Draft Emerging Preferred Alternative Plan, which is consistent with the vision and supported by the public.

Vision and Guiding Principles for Study Areas

Through the public process, a vision statement and guiding principles were developed, which form the basis of the future evaluation of development options. The vision statement is as follows:

“The Laird in Focus Study Area will integrate with Leaside. New forms of development will respect the character of the residential and business community, while evolving to meet the needs of future residents. The Study Area will be accessible to people of all ages, in all modes of travel. It will provide a diversity of uses and businesses set in a high quality public realm. Laird Drive will be a vibrant main street and pedestrian promenade. Development along Eglinton Avenue will have a connected public realm of streets, blocks, parks, and community amenities, and create a walkable, landscaped neighbourhood.”

Five guiding principles articulate how the development options will achieve the vision:

1. Create a vibrant and unifying main street that integrates with the broader Leaside community and is accessible to all people in all modes of travel.
2. Respect the historic character of Leaside, while evolving to meet the needs of future residents and businesses.
3. Establish a high quality and well-connected public realm, contributing to a walkable, cycle-able, and beautifully landscaped neighbourhood.
4. Ensure there is an appropriate link between the consideration of development proposals and the required investments in service infrastructure and community facilities.
5. Support the investment in transit and ensure that the consideration of development proposals is linked to the ability of the transportation network to accommodate growth.

Design Charrette Options

Two half day workshops were held in June 2017 for stakeholders and community members to contribute to the development of options for the two study areas, the area-wide transportation network and streetscape designs and to learn about the work completed to date.

Transportation

This discussion centered on the employment lands and their surrounding contextual relationship. Input was received with respect to truck routes, opportunities for alternative transportation modes, off-street and on-street parking, operational opportunities and density implications of transit investment.

Study Area A

Three base conditions were considered for the development of Study Area A options, with factors including the OMB-approved application at 939 Eglinton Avenue East, the application under review for 815-845 Eglinton Avenue East and the Eglinton Connects framework.

Option 1 – Base conditions included the applications for 939 Eglinton Avenue East and 815-845 Eglinton Avenue East. Aspirations from participants included planning for a highly connected network, ensuring the built form creates walkable environments with taller building located to the interior, building upon the open space network and incorporating a community facility.

Option 2 – Base conditions included the application for 939 Eglinton Avenue East and the Eglinton Connect framework. Aspirations from participants included creating a mid-block open space network, including employment uses along Vanderhoof and ensuring taller buildings are set back from the surrounding streets.

Option 3 – Base conditions included the application for 939 Eglinton Avenue East. Aspirations from participants included creating a strong open space and pedestrian network, incorporating a community facility and ensuring taller buildings are sited mid-block.

Study Area B

The discussion for Study Area B focused on three representative sites along Laird Drive, with “mixed use” as the underlying consideration. The option explorations consisted of a mixture of low and mid-rise buildings and consideration of vehicle access and the relationship of buildings to the street. The third site was determined to be too constrained in shape to accommodate mid-rise buildings.

Streetscapes

Participants emphasized the importance of Vanderhoof Avenue as a green connector and Laird Drive for accommodating a full range of active transportation modes and enhanced streetscaping.

Alternative Demonstration Plans

The results of the workshops formed the basis for scaled and articulated plans of the same sites, which retained the conceptual intentions.

Transportation

The transportation framework looks at three possible scenarios that consider the evolution of the study area over time. The short term scenario is not dependent on future triggers and improves the current road system with active transportation facilities and truck routes. In the mid-term, the catalyst of emerging retail along the east side of Laird and a grade separation at Wicksteed and the rail corridor could result in extended cycling infrastructure and a finer grained road network. The long-term catalyst, higher order transit and higher density employment further extends the cycling network, fine grained road network and connections across the rail corridor.

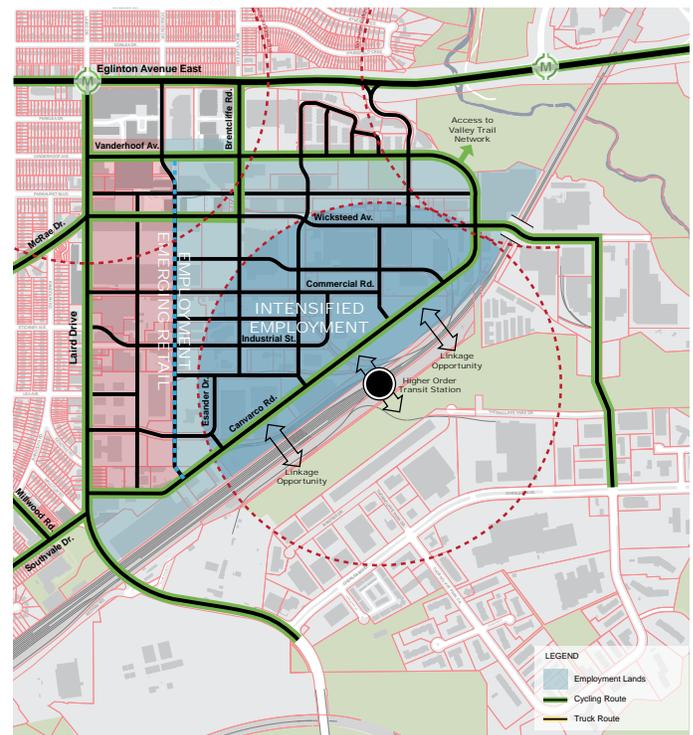


Figure 2: Transportation Framework Long-term

Study Area A

The options developed with the public were refined to better reflect appropriate built form dimensions, required building separations and street rights-of-way, while reflecting the same base conditions. **Alternative 1** includes a more interconnected, but offset, street network and

open space concentrated along Vanderhoof Avenue. **Alternative 2** provides a mid block open space system and a concentration of employment uses along Vanderhoof Avenue. **Alternative 3** includes a linear park along Vanderhoof Avenue and a linear east-west road connection.



Figure 3: Study Area A Alternative 1



Figure 4: Study Area A Alternative 2



Figure 5: Study Area A Alternative 3

Study Area B

For Study Area B, each of the three sites was considered based on two parking scenarios, where parking was accommodated below-grade or at-grade only. This exercise concluded that mid-rise mixed-use buildings could only be accommodated with below-grade parking. The third site could not accommodate below-grade parking and therefore two at-grade parking options were developed.

Cultural Heritage Resources

The Laird in Focus study is being carried out concurrently with a separate Cultural Heritage Resource Assessment. This Assessment will make recommendations on sites along Laird Drive and Vanderhoof Avenue regarding their heritage value and their designation. To be further articulated in phase 3 of this study, these recommendations will contribute to the development of urban design guidelines and planning and heritage policies.



Figure 6: Study Area B Alternatives - Laird Drive & Parkhurst Boulevard



Figure 7: Study Area B Alternatives - Laird Drive & Stickney Avenue

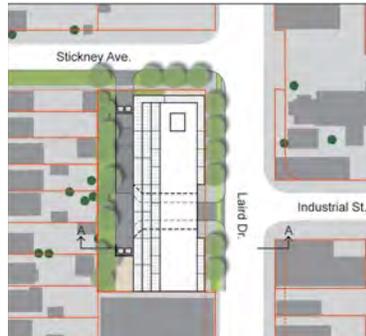


Figure 7: Study Area B Alternatives - Laird Drive & Malcolm Road



Evaluation

Study Area A

The three options were evaluated to determine their relative merit using a matrix derived from the guiding principles. As no single option scored the highest in all categories, the Draft Emerging Preferred Alternative Plan incorporates the best elements of each. The evaluation included criteria relating to urban design, built form, open space, transportation and servicing. None of the options scored well with respect to transportation and servicing due to the limitations of the existing car-centric built environment; however their similar population yields meant their scores were similar.

Study Area B

Criteria for the analysis of alternatives for sites along Laird Drive were predicated on each site's ability to support development aligned with the City's Mid-rise Guidelines. Sites with a minimum property depth of 36 metres would be capable of accommodating mid-rise development with parking provided below-grade. Shallower sites would be more appropriately redeveloped for low-rise built form with parking allocated at-grade.

Alternative Draft Emerging Preferred Plan

The Draft Emerging Preferred Alternative Plan provides the foundation for the development of a new mixed use community, a high quality public realm and an accessible open space network, all linked by stronger multi-modal connections. The Plan is guided by a structural framework, supported by 10 key elements as follows:

1. Focusing density to protect community character
2. Laird Drive – A place to live and linger
3. Eglinton Avenue – A pedestrian promenade
4. Leaside's link to the ravine
5. A new alternative connection
6. Considering the needs of cyclists
7. Building an accessible green network
8. A new community facility to serve both North and South Leaside and the emerging new community
9. Considering the context for building heights
10. Support a vibrant business community

Movement Network/Connectivity

The evolution of the transportation network will evolve over time as improved connections to adjacent areas are realized, expanded retail and higher density employment uses develop and a higher order transit stop is introduced along the rail corridor. This evolution will include the introduction and expansion of a cycling network, establishing truck routes, implementing a complete streets approach and introducing a finer grain road network through the employment area.

Study Area A

The structure plan for Study Area A provides a framework for development through the introduction of new streets and pedestrian routes, an open space system extending along Vanderhoof Avenue and a generously wide

tree-lined boulevard. Buildings will be mid-rise with heights responding to the City's "Mid-rise Guidelines", and setbacks along Eglinton Avenue consistent with approved development. Low-rise buildings will front onto Aerodrome Crescent at a height consistent with the existing townhouse community to the east while taller buildings will be located within the interior of the site. Land uses will be consistent with the Official Plan, which permits employment and employment related uses along Vanderhoof Avenue and mixed uses for the remainder of the site. A significant component of the plan will be a community recreation facility to serve the new residential community and those of North and South Leaside.

Study Area B

Lots with a depth of 36 metres or greater will be developed with mid-rise buildings and vehicular and service access is recommended to be provided by a rear lane. Consideration in the design of these buildings has been given to ensuring appropriate soil volumes for street trees and continuing the existing development pattern of discrete buildings rather than a continuous wall. Low-rise development will be focused to the southern end of the study area and be a maximum of 3 storeys.

Streetscapes

The streetscape component will play an important role in connecting Study Areas A and B, including through streetscape improvements along Laird Drive and the enhanced public realm along Vanderhoof Avenue. The streetscape component of the study is tightly linked to the movement analysis of the street network and therefore will require revisions as transportation recommendations come forward.

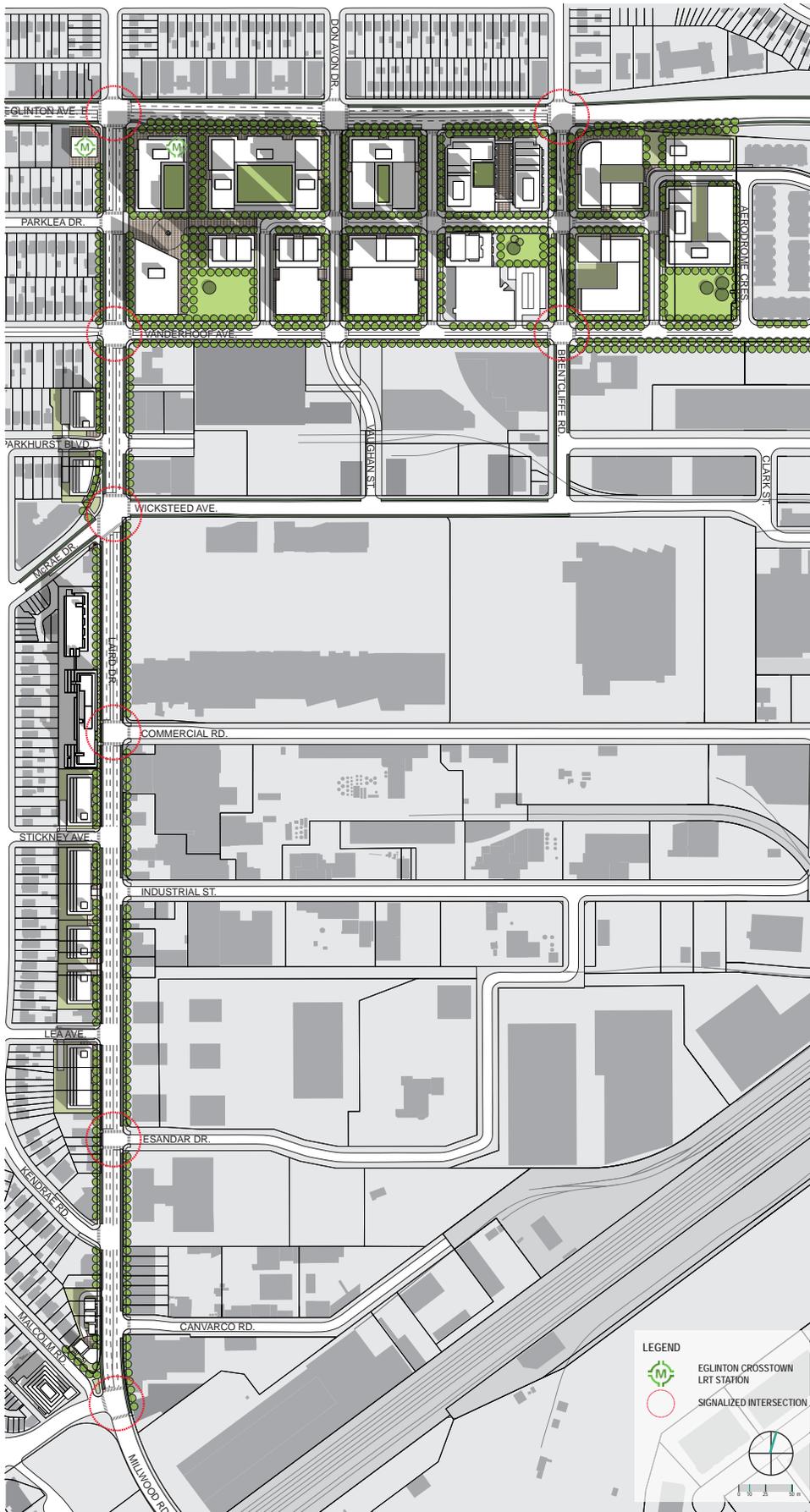


Figure 8: Illustrative Streetscape Master Plan

Initial Multi-Modal Transportation Analysis

The iterative multi-modal transportation analysis was conducted in conjunction with the development of the land use and built form options, providing high level guidance in their refinement. Once the Draft Emerging Preferred Built Form Structure Plan was developed, all modes were assigned to the transportation network and the Plan was tested at a range of potential modal splits. The total multi-modal trips were preliminarily compared to the available existing and planned roadway and transit network capacities, including an assessment of the targets for active transportation/transportation demand management. The final multi-modal analysis, considering the Eglinton Crosstown and feeder bus network, will be included in Phase 3.

This analysis found that the Plan would result in Eglinton Avenue eastbound (AM) and Laird Drive northbound (PM) being over capacity. It further highlighted the importance of direct and high-quality active transportation linkages to the LRT station and bus network and improved porosity within the Part A study area for pedestrians. Several potential mobility improvements to create a more functional transportation network were also identified, to be explored during Phase 3.

Servicing Analysis

The Emerging Preferred Alternative Plan was used in the assessment of servicing requirements and opportunities. With respect to water, the model simulation results show that the system pressures are within the recommended range of 40 psi to 100 psi (275 kpa to 690 kpa) in most

of the area. However, under Max day and Peak Hour demand scenario some areas indicate low pressures, generally corresponding to those noted in the existing conditions. The fire flow analysis indicates that suitable fire flows are generally available in most areas, however there are areas with inadequate fire flows suggesting that the existing system needs some improvements. System improvements are required along these alignments in order to increase the hydraulic capacity of the system.

From a sanitary servicing perspective, it was determined that development within Study Area B does not adversely affect existing conditions. However, the local sewers leading up to Eglinton Avenue East are undersized for the expected flow generated from the development, based on the proposed densities. Potential mitigation options are being contemplated as part of the overall assessment of the Study Area, to be completed during phase 3.

Community Outreach

The following meetings were held to share information, generate ideas and gather feedback for the study:

- Local Advisory Committee Meeting No. 2
- Public Consultation Meeting No. 2: Alternative Development Options
- Business Owners' Drop-in No. 2
- LAC Meeting No. 3: Draft Emerging Preferred Alternative
- Public Consultation Meeting No. 3: Draft Emerging Preferred Alternative



Figure 9: June Charrette

1.0 PROJECT OVERVIEW

1.1 Background Overview

The Laird in Focus Study Area is defined as the lands bounded by the CP rail corridor that runs along its eastern and southern edges, Laird Drive to the west, and Eglinton Avenue East to the north. Of the 117 hectares that comprise the Study Area, 103 hectares are designated for “Employment” uses, with most of the remaining

land being designated for “mixed use”. The entire 117 hectares and its immediate adjacencies comprise the basis of the transportation component of the study. Two sub-areas, one along Eglinton Avenue East, the other along the west side of Laird Drive, are predominantly “mixed use” in land use designation, and are the subject of the planning, urban design, and servicing component of the study.



Figure 1.1: Study Area

LEGEND

- Leaside (context)
- Planning & Urban Design Focus Area
- Transportation Study Area
- LRT Station/Stop



- Study Initiation
- Background Analysis
- Consultation
- Visioning
- Design Charrette

- Design
- Analysis
- Testing of Alternatives

- Preferred Design Alternative
- Final Consultation Report
- Plan Development

- Implementation by the City

Figure 1.2: Study Process

Developed in tandem with the construction of the Eglinton Crosstown Light Rail Transit, this study is tasked with establishing a vision and framework for implementation that will guide new development in the area. This study will provide recommendations concerning planning, built form, public realm, heritage, movement, and servicing, which will provide a basis for subsequent policies to be drafted by City staff.

The study's first phase provided a historical, planning, physical, transportation, and infrastructure context upon which the current phase builds. The details of this initial work can be found in "Laird in Focus: Background Report". Key findings of this report include the following:

- The physical framework and land uses for Leaside were determined in the 1913 Todd Plan, commissioned for the York Land Company, the real estate division of the Canadian Northern Railway;
- Laird Drive has evolved into a "seam" with mixed use and residential uses on the west side, and employment uses on the east side;
- Blocks are larger in the employment lands, with a majority of streets offset along Laird Drive;
- Truck traffic utilizes Brentcliffe Road, Eglinton Avenue, Wicksteed Avenue, and Laird Drive;
- There is a lack of cycling infrastructure within the Study Area;
- The current and projected populations in Leaside are underserved by existing community facilities;

- Watermain upgrades may be required in order to intensify the area, which will be determined once intensification nodes have been identified;
- While the sanitary and storm sewer system operates under normal conditions during the dry weather flows, further study and alternative servicing strategies, including new, fully separated storm sewers, may be required to accommodate future intensification;
- Approved developments along Laird Drive are taking the form of mid-rise, residential developments; and
- The approved development for 939 Eglinton Avenue East is a mixed-use development that includes 16-, 20-, and 28-storey residential buildings.

1.2 Phase 2 Objectives

The second phase of the study is tasked with engaging the public and key stakeholders in a dialogue that will result in the Draft Emerging Preferred Alternative Plan. To accomplish this the following objectives were identified:

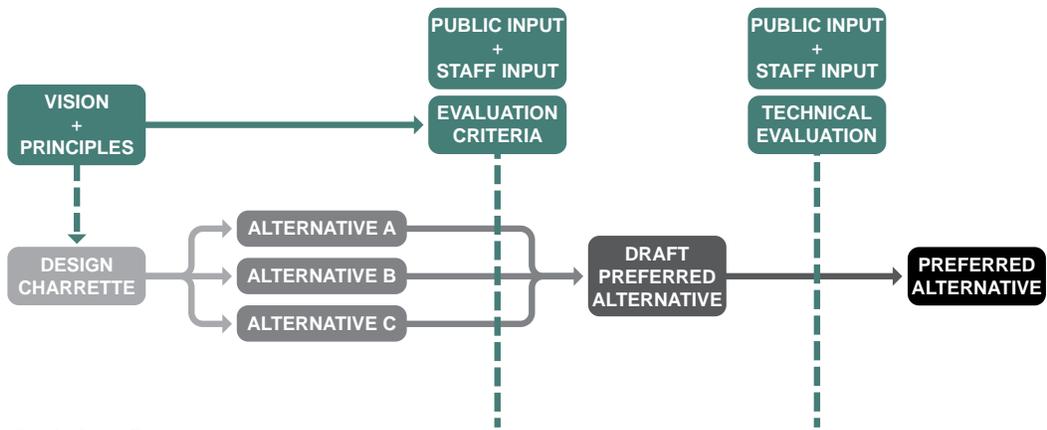
- Develop a Vision for the Study Area in its entirety as well as a set of underlying Guiding Principles;
- With public input arrive at a set of options, or alternatives, that explores the potential of Study Areas A and B, as well as the larger Transportation Study Area; and
- Evaluate the alternatives and, in doing so, recommend a Draft Emerging Preferred Alternative Plan that adheres to the Vision and is representative of public consensus.

1.3 Description of Methodology and Process

Phase 2 of the study, and the subject of this report, introduces the Draft Emerging Preferred Alternative Plan for Study Areas A and B, as well as potential scenarios for road network evolution within the Employment Lands. The first stage of Phase 2 called for the crafting of the Vision and Guiding Principles for the Study Area. These guiding principles formed the basis for the establishment of evaluation criteria against which development options were measured. Two half-day design charrettes held in late spring 2017 provided the foundational structure from which the development options were fleshed out. These options were evaluated, with the most favourable elements carried forward in the crafting of the Draft Emerging Preferred Alternative Plan.

Throughout its entirety public participation shaped key components of the study, contributing to the creation of the Vision, Guiding Principles, and Development Alternatives, while also offering feedback during their refinement. This participation was facilitated through meetings, workshops, and open houses. Initial ideas that were introduced to the Technical Advisory Committee (TAC) were refined with the Local Advisory Committee (LAC), prior to being presented to the public at large. This iterative process identified issues and concerns of importance to the community, allowing the consultant team to better calibrate its work in building towards the Draft Emerging Preferred Alternative Plan.

While consensus on certain specific elements of the Plan was elusive, the above public process resulted in a broadly supported framework and vision for future development in Study Areas A and B and a movement network throughout the larger Study Area.



Study Area B Evaluation Process

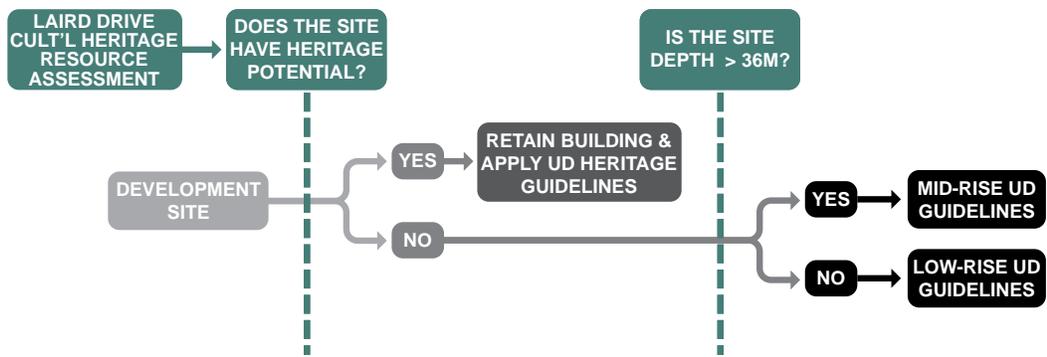


Figure 1.3: Study Area A Evaluation Methodology

1.4 Alignment with the City's Official Plan

Study Areas A and B are primarily designated for “mixed use” in the City of Toronto’s Official Plan, with the southernmost portion of Study Area A designated for “employment”. The Official Plan envisions areas designated for “mixed use” to accommodate a broad range of uses, including residential, commercial, institutional and open space, permitting residents to live, work and shop in the same area. Mixed use areas are also intended to create animated streets and communities, create a pleasant pedestrian environment, take advantage of transit services and reduce car dependency.

Employment areas are recognized for their role in supporting business growth. To this end, the Official Plan includes policies which permit a broad range of employment uses, as well as uses which are supportive of employment activities.

The Draft Emerging Preferred Alternative Plan supports the intent of the Official Plan by providing for a broad mix of uses, both throughout the study areas and on individual sites, which are supported by a new community facility and an enhanced open space network. Further, the Plan provides a strong framework for improving the public realm and pedestrian experience, encouraging street activity and fostering an animated community. In consideration of the planned Eglinton Crosstown LRT, the most significant density is directed to the area closest to the future station, to support this transit investment and promote alternative travel modes. Further, the lands along the north side of Vanderhoof Avenue are planned to accommodate employment and parkland (employment supportive use), consistent with their “employment” designation.

2.0 VISION AND GUIDING PRINCIPLES FOR STUDY AREAS

2.1 Vision for the Laird in Focus Study Area

Based on working sessions with the TAC, LAC, and the public, the following statement was crafted to reflect the aspirations and expectations of the area as it undergoes change:

The Laird in Focus Study Area will integrate with Leaside. New forms of development will respect the character of the residential and business community, while evolving to meet the needs of future residents. The Study Area will be accessible to people of all ages, in all modes of travel. It will provide a diversity of uses and businesses set in a high quality public realm. Laird Drive will be a vibrant main street and pedestrian promenade. Development along Eglinton Avenue will have a connected public realm of streets, blocks, parks, and community amenities, and create a walkable, landscaped neighbourhood.

2.2 Guiding Principles

Supporting the Vision for the Laird in Focus Study Area are a number of principles. These criteria also serve as an evaluation metric when measuring the ability of alternative plans to fulfill the expectations expressed in the Vision Statement.

1. Create a vibrant and unifying main street that integrates with the broader Leaside community and is accessible to all people in all modes of travel. This Plan shall ensure that new forms of compatible development will:
 - Accommodate a mix of uses, densities, and building heights to create a liveable, dynamic community; and
 - Include animated street frontages in a mixed-use built form.
2. Respect the historic character of Leaside, while evolving to meet the needs of future residents and businesses. This plan shall ensure that new forms of compatible development will:
 - Transition appropriately to adjacent residential neighbourhoods; and
 - Incorporate excellence in architecture and urban design.



Community Event: Shkoder, Albania



Port Credit, Mississauga



Figure 2.1: Vision - Reykjavik, Iceland



Eglinton Avenue (Metrolinx)



Greenville, North Carolina



Figure 2.2: Vision (cont'd) - Atlanta, Georgia

3. Establish a high quality and well-connected public realm, contributing to a walkable, cycle-able, and beautifully landscaped neighbourhood. This Plan will ensure that the public realm will:
 - Be accessible to people of all ages and abilities;

- Connect to adjacent ravines, parks, and open spaces; and
 - Leverage under-used space and introduce new public spaces that can welcome and accommodate residents, workers, and visitors.
4. Ensure there is an appropriate link between the consideration of development proposals and the required investments in service infrastructure and community facilities. This Plan shall ensure that new forms of compatible development and investments in service infrastructure and community facilities will:
 - Optimize the use of existing infrastructure and facilities;
 - Provide new infrastructure and facilities that promote innovation and sustainability in a fiscally responsible manner; and
 - Ensure that new infrastructure and facilities are planned to allow flexibility for the accommodation of future development potential.
 5. Support the investment in transit and ensure that the consideration of development proposals is linked to the ability of the transportation network to accommodate growth. This Plan will ensure that the public realm and new and innovative transportation network investments will:
 - Seamlessly connect to, and integrate with, the Eglinton Crosstown LRT;
 - Implement the important elements of “complete streets”;
 - Promote a safe and accessible active transportation system; and
 - Integrate new mobility strategies with the existing transportation network.

Supportive documentation of the public involvement in deriving the Vision Statement and accompanying Guiding Principles can be found in Section 8.4 “Community Workshop No. 2: Visioning & Emerging Principles” of the Phase 1 Background Report.

3.0 DESIGN CHARRETTE OPTIONS

3.1 Charrette Introduction

On June 2nd, 2017 the consulting team and City staff hosted two, half-day workshops for interested stakeholders and community members. After a brief presentation outlining an analysis of existing conditions, reviewing the draft vision statement and emerging principles, and describing the structure for the day's exercises, participants engaged at individual tables discussing and drawing up options for Study Area A and for selected sites in Study Area B. Alternatively, participants could elect to contribute their thoughts to a table focused on either streetscapes or to an area-wide transportation network. Further description of the day's event can be found on the "Laird in Focus" web-site (www.toronto.ca/city-government/planning-development/planning-studies-initiatives/laird-in-focus/).



Figure 3.1: June Charrette

3.2 Charrette Results: Transportation Study Area

With respect to the transportation network, the two charrette sessions focused on the employment lands and their surrounding contextual relationship. The following observations and long-term interventions were identified:

- Promote road connectivity to facilitate truck movement;
- Encourage improved modal opportunities (pedestrian and cycling), identify key destinations, and improve aesthetics, comfort, and safety;
- Define the role of the Toronto Parking Authority in providing more off-street parking options as development occurs;
- Remove on-street parking along Laird Drive;
- Discuss other location opportunities with CBM, Tremco, House of Metal, and White Management;
- Explore operational opportunities along Laird Drive, Eglinton Avenue East, Wicksteed Avenue, and Vanderhoof Avenue: additional traffic lights, left turn lanes, and adequate turning radii; and
- Understand land-use density implications of future GO station, as well as connectivity opportunities with Thorncliffe Park.

3.3 Charrette Results: Study Area A

Study Area A is bounded by Eglinton Avenue East to the north, Vanderhoof Avenue to the south, Laird Drive to the west, and Aerodrome Crescent to the east. It is comprised of four properties. Applications have been submitted for two of the sites: 815-845 Eglinton Avenue East is currently under review; 939 Eglinton Avenue East has been approved by the Ontario Municipal Board. While most of the study area is designated "mixed use", a 50-metre deep strip of land extending along Vanderhoof Avenue from Laird Drive to Brentcliffe Road is designated "employment".

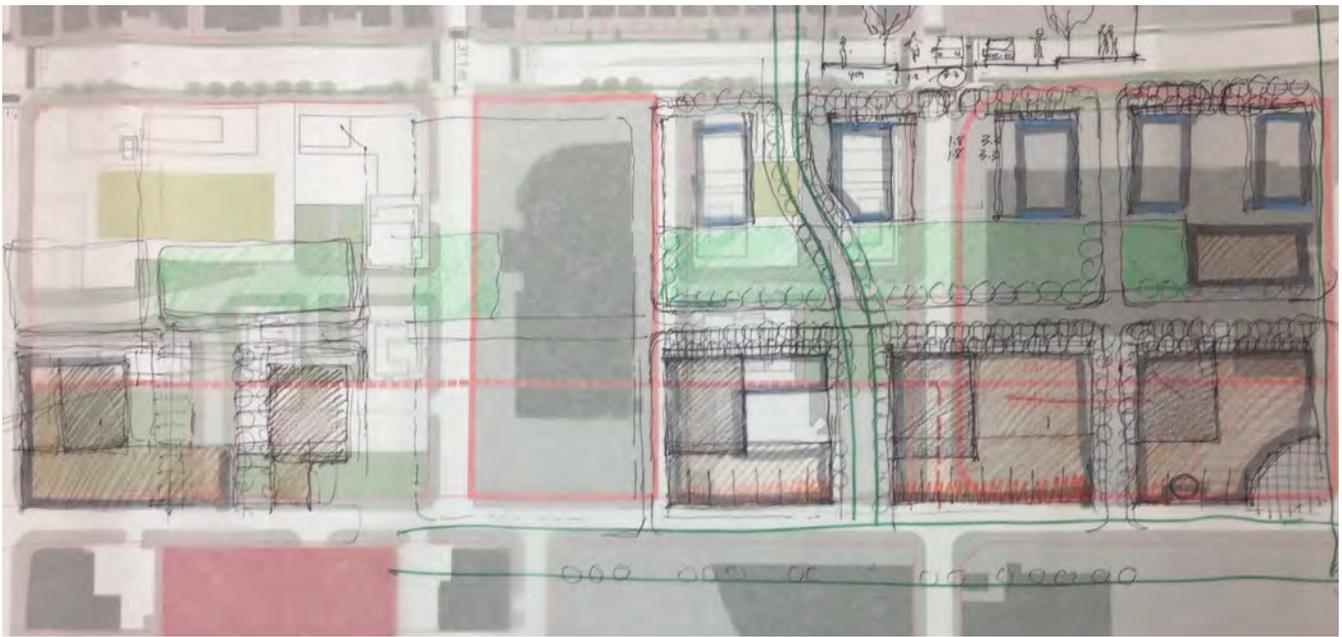


Figure 3.3: June Charrette Results for Study Area A
Options incorporating “Eglinton Connects” Framework

3.3.2 Option 2

The base condition for Option 2 was the approved 939 Eglinton Avenue East application and the framework of “Eglinton Connects”, which provided for a series of mid-block open spaces framed by mid-rise buildings to the north and taller buildings to the south. Participants at the charrettes proposed:

- Providing a combined open space and street system mid-block linking Laird Drive to Aerodrome Crescent;
- Employment use buildings arrayed along the

- Vanderhoof Avenue property frontages;
- Preventing east-west through movement at Laird Drive and Parklea Drive by either offsetting the intersection or by having no street connection; and
- Ensuring mid-rise buildings front onto Eglinton Avenue East with taller buildings set back, and lower buildings front onto Laird Drive, Vanderhoof Avenue, and Aerodrome Crescent.

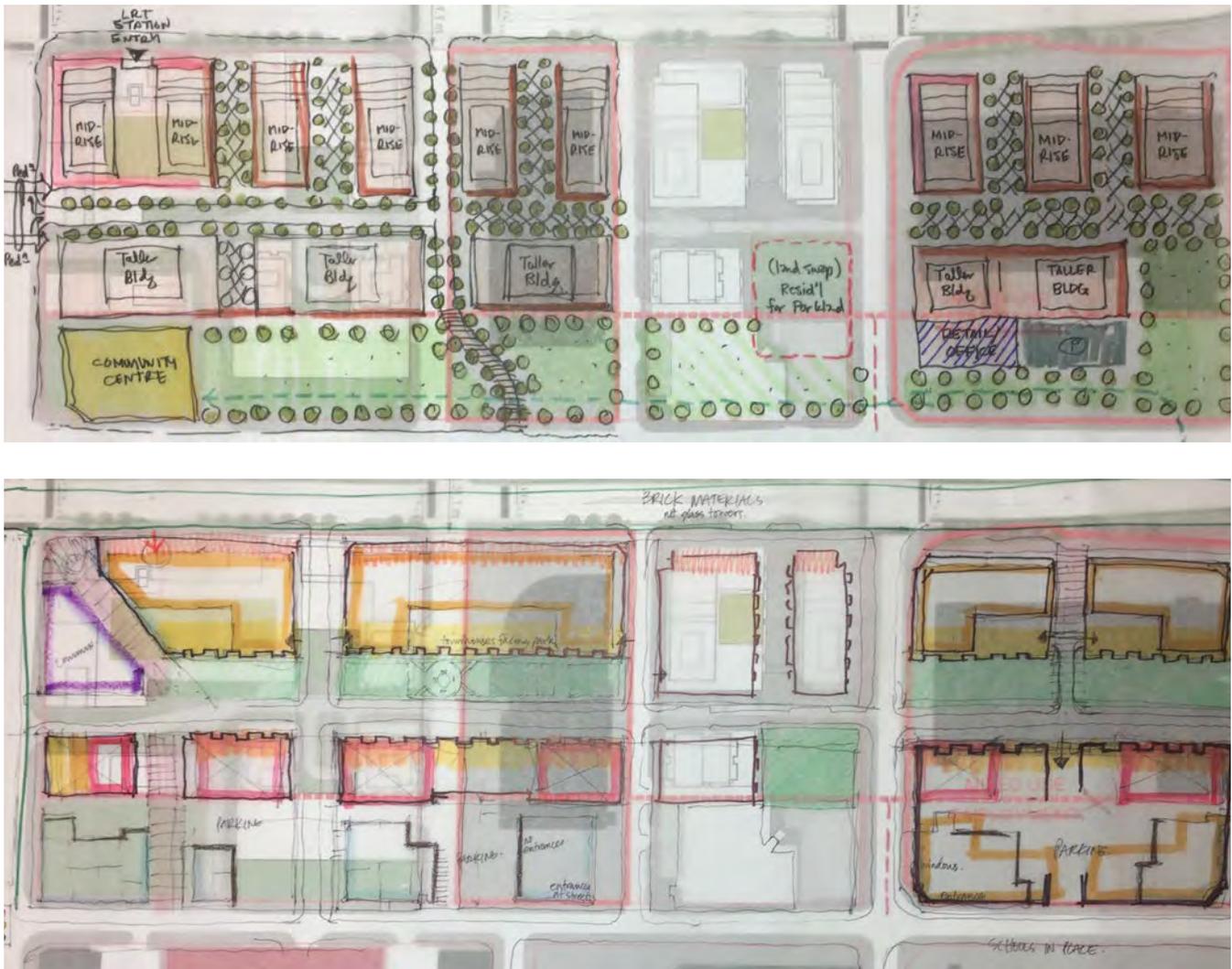


Figure 3.4: June Charrette Results for Study Area A
Options incorporating “Blue Sky” Approach

3.3.3 Option 3

The singular criteria for inclusion was the approved application for 939 Eglinton Avenue East. The “blue sky” results included:

- Providing north-south pedestrian linkages, including potential to create diagonal connection from corner of Eglinton Avenue East and Laird Drive into centre of the site;
- Strong, continuous open space system
- extending east-west and either mid-block or along Vanderhoof Avenue;
- Designing for a safe pedestrian crossing at Parklea Drive and Laird Drive;
- Providing a north-south connection between Don Avon Drive and Vaughan Street;
- Including a community facility on site; and
- Ensuring mid-rise buildings align Eglinton Avenue East with taller buildings sited mid-block.

3.4 Charrette Results: Study Area B

Three sites formed the basis for the exploration of options along Laird Drive. Each possessed different attributes that were representative of the various characteristics found within the study area. The sites were also distributed along the length of Laird Drive and offered a range of contextual conditions to consider. Site 1 is comprised of 3 properties under one ownership extending from Vanderhoof Avenue to Parkhurst Boulevard. Site 2 is located at the corner of Stickney Avenue and Laird Drive. Site 3 is comprised of 3 properties located north of the intersection of Malcolm Road and Laird Drive. The participants explored the development potential for each site with “mixed use” as the underlying consideration.

3.4.1 Site 1

Both morning and afternoon sessions yielded a similar development outcome with a mid-rise and low-rise building anchoring the site. Development of the site included:

- 6- to 8-storey mid-rise mixed-use building at the corner of Parkhurst Boulevard and Laird Drive;
- 2- to 3-storey building to the north;
- Access to below-grade parking and servicing provided via a driveway off of Parkhurst Boulevard.

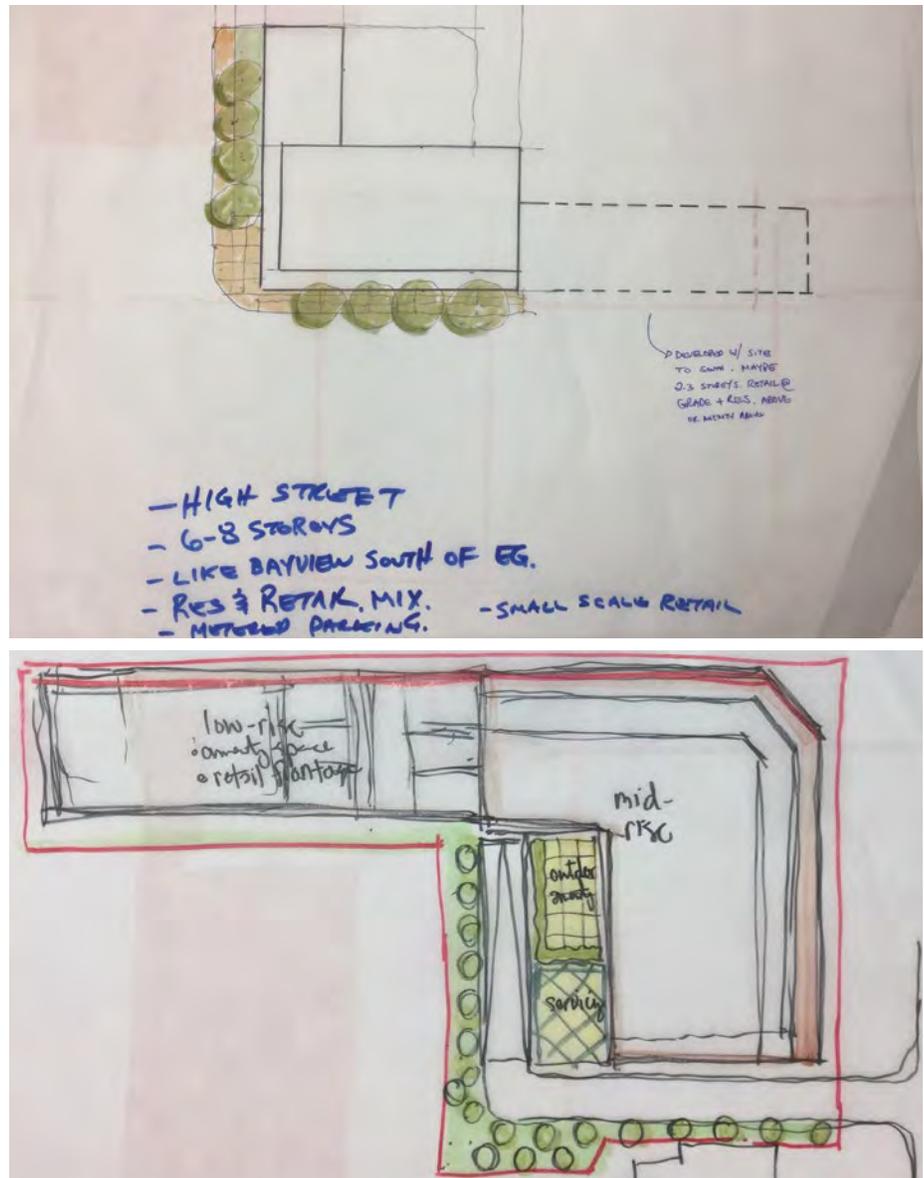


Figure 3.5: June Charrette Results for Study Area B
Options for Laird Drive & Parkhurst Boulevard

3.4.2 Site 2

The site's depth and length lent itself to a mid-rise built form. Both morning and afternoon sessions suggested a built form response at the intersection of Laird Drive and Industrial Street. Other considerations included:

- Building set back from the property line of 3 metres (accommodating terrace uses and

- providing additional space for street trees);
- Building step back at either 4th or 5th floors;
- Articulation of building at intersection of Laird Drive and Industrial Street by either building recess or by provision of driveway access; and
- Rear lane off of Stickney Avenue that could be extended southward should the adjacent property be redeveloped at some future time.

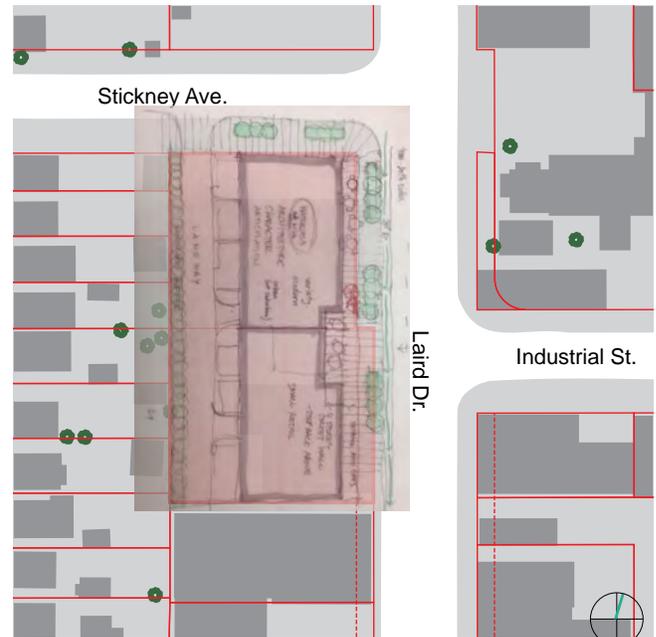


Figure 3.6: June Charrette Results for Study Area B
Options for Laird Drive & Stickney Avenue

3.4.3 Site 3

Due to its constrained dimensions low-rise options were explored for Site 3. The following development scenarios were explored:

- Live/work or residential buildings of 2- to 3-storeys;
- Building at corner or parkettes to address intersection of Laird Drive and Malcolm Road;
- Buildings set back from Laird property line to permit front gardens; set back along Malcolm Road to align with adjacent houses;
- Access possible via rear lane from either Laird Drive, Malcolm Road or both.



Figure 3.7: June Charrette Results for Study Area B
Options for Laird Drive & Malcolm Road

3.5 Charrette Results: Streetscapes

Participants explored the desired character and function of streets in the study area. The group discussed how streets were experienced by way of industrial heritage and by the defining buildings adjacent to the rights-of-way. Community generators were identified: these included restaurants, shopping destinations, grocery stores, and community facilities. Key destinations such as Sky Zone Trampoline Park and Amsterdam Brewery along with potential new destinations were noted. Each of the blocks that abutted the street were categorized: “grey” for unpleasant, “blue” for pleasant. As a result, more than half of the study area was deemed “not pleasant”. The streets specifically explored included Laird Drive and Vanderhoof Avenue with the following results:

- Vanderhoof Avenue is seen as a potential great and green connector for existing condominium development, lined with trees on both sides;
- It is important that Vanderhoof Avenue be lined with trees;
- The west side of Laird Drive is least favourable; and

- There is a long-term opportunity for Laird Drive to have cycle tracks, curb-side trees, and widened sidewalks.

The participants also discussed opportunities for key connections through the Leaside Business Park, while also highlighting significant intersections.



Figure 3.8: June Charrette Results for Streetscapes

4.0 ALTERNATIVE DEMONSTRATION PLANS

The transportation framework for the study area in its entirety looks at three possible scenarios that are not alternatives so much as they are an evolutionary continuum along a long-range timeline. Without the availability of specific details concerning the future evolution of the employment lands and related development, the translation of the charrette's results into a graphic format was more generalized than the smaller planning/urban design study areas.

The concepts derived at the charrette formed the basis for scaled and articulated plans of the same sites. While the details were modified the conceptual intention of each option was retained throughout the refinements. With respect to Study Area A (Eglinton Avenue East sites) three different built form, open space, and street network schematics emerged that could be evaluated based on their merits.

Study Area B (Laird Drive sites) was approached in a somewhat different manner. Two variants for each of the three sites presented themselves for consideration, based on vehicular parking approaches. Specifically, what would be the built form, based on a plan where only surface parking was possible? What would that form take on should below-grade parking be enabled coupled with the City's mid-rise guidelines for mixed use and residential developments?

The streetscape plans, while rooted in the results of the June 2017 charrette, are nonetheless tempered by existing and projected right-of-way widths as well as by technical requirements concerning traffic volume, sidewalk and cycle lane widths, utility placement, and soil volume requirements for healthy tree growth. The cross-sections developed from the charrette also informed the approach to built form along the shared property line separating private from public property. While not immediately evident in the rendering of the alternative demonstration plans, this interplay between public and private realms was played out when developing the Emerging Draft Preferred Alternative Plan.

4.1 Transportation Framework

The movement component of the study encompasses both Study Areas A and B as well as the Employment Lands directly to the south and east. The primary objective is to facilitate movement of all modes with an emphasis on a rebalanced modal split that encourages pedestrian activity, cycling, and transit use. The framework proposes an evolving network of streets based on possible catalysts of an indeterminate timeframe. At a minimum, in the absence of these triggers, the base condition recommended improves on the current road system.

Short Term:

- Create a cycling route and enhanced sidewalk and boulevard along Vanderhoof Avenue;
- Provide safe and all-weather access from Vanderhoof Avenue to the Don Valley trail network;
- Provide cycling routes along Laird Drive and Eglinton Avenue;
- Explore a Don Avon Drive-Vaughan Street linkage with extension to Wicksteed Avenue; and
- Implement designated primary and secondary truck routes using major/minor arterial roads only (i.e. Laird Drive, Eglinton Avenue, Industrial Road, Wicksteed Avenue, Brentcliffe Road).

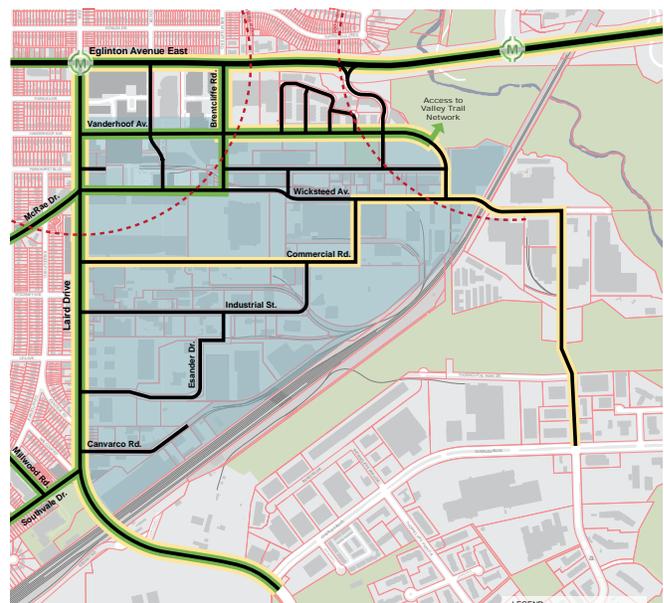


Figure 4.1: Transportation Framework Short-term

Midterm (Catalysts: emerging retail along east side of Laird Drive, grade separation at Wicksteed Avenue/rail corridor):

- Continue cycling route eastward along Vanderhoof Avenue to Wicksteed Road and across rail corridor; and
- Extend existing streets throughout employment lands to create finer grain network provider greater movement options.

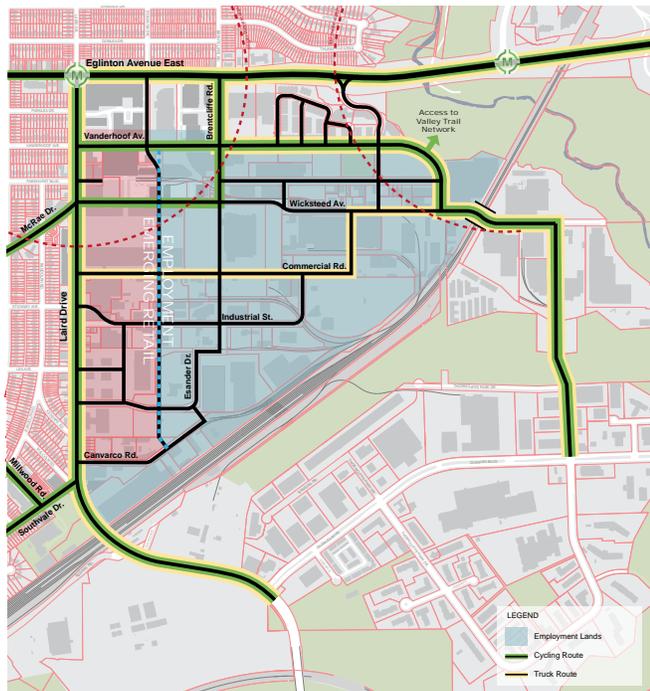


Figure 4.2: Transportation Framework Mid-term

Long term (Catalysts: higher order transit station with accompanying intensified employment uses):

- Further extension of cycling network within employment lands;
- Introduction of additional streets to better service evolving employment uses; and
- Exploration of multi-modal connections across the rail corridor providing improved linkages between Leaside Business Park and Thorncliffe Park.

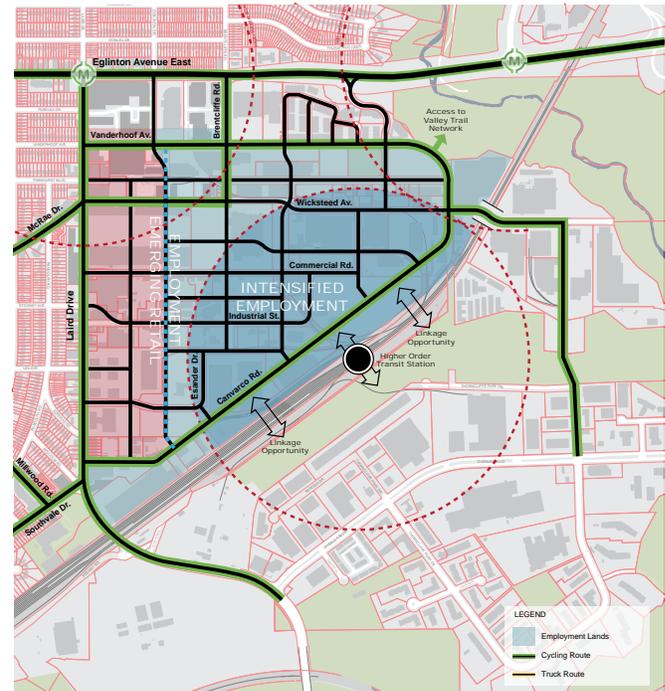


Figure 4.3: Transportation Framework Long-term

The framework scenarios described above are supportive of the derived alternatives for Study Areas A and B. Pedestrian, cycling, vehicular (including goods movement) circulation are all considered in both the boundaries of each study area as well as in the larger, encompassing lands that include the Leaside Business Park and adjacent Leaside neighbourhoods. These movement modes were considered in greater detail when preparing the Draft Emerging Preferred Alternative Plan, described in Section 6 of this report.

4.2 Study Area A

The options derived at the June charrette have been refined to better reflect appropriate built form dimensions, required building separations, and street rights-of-way. The charrette provided common underlying themes shared by all three options:

- Finer grain street network;
- Frequent north-south pedestrian linkages between Eglinton Avenue East and Vanderhoof Avenue;
- Provision of a strong open space system; and
- Mid-rise buildings with ground floor commercial uses along Eglinton Avenue, with taller buildings set back from the street.

4.2.1 Alternative 1

This option uses as a base the application layout under consideration by City staff for 815-845 Eglinton Avenue East and the approved plan for 939 Eglinton Avenue East. This option also incorporates the existing office building at 849 Eglinton Avenue East. Key elements that distinguish this option are:

- Movement: mid-block east/west street offset from Parklea Drive, extension of Don Avon Drive offset from Vaughan Street;
- Open Space: park and Privately-Owned Publicly-Accessible Spaces (POPS) located at Vanderhoof Avenue east of Laird Drive, open space that extends the approved park at 939 Eglinton Avenue East across Brentcliffe Road with park and linear green POPS;
- Built Form: large floorplate podium at 815-845 Eglinton Avenue East, mid-rise buildings along Eglinton Avenue, lower buildings along Aerodrome Crescent, taller buildings clustered around park;
- Uses: proposed community facility at 815-845 Eglinton Avenue East, existing office building retained at 849 Eglinton Avenue East, existing commercial building retained at 939 Eglinton Avenue East, remainder of sites incorporate mix of uses (retail/commercial and residential).

Key Statistics	
FSI	3.72
GFA	361,311 m ²
Office GFA	9,800 m ²
Commercial GFA	22,938 m ²
Community Facility GFA	701 m ²
Residential GFA	327,872 m ²
No. of Residential Units	4,150
No. of 3-bedroom Units	415
No. of 2-bedroom Units	1,245
No. of 1-bedrooms Units	2,490
Total Population	8,834

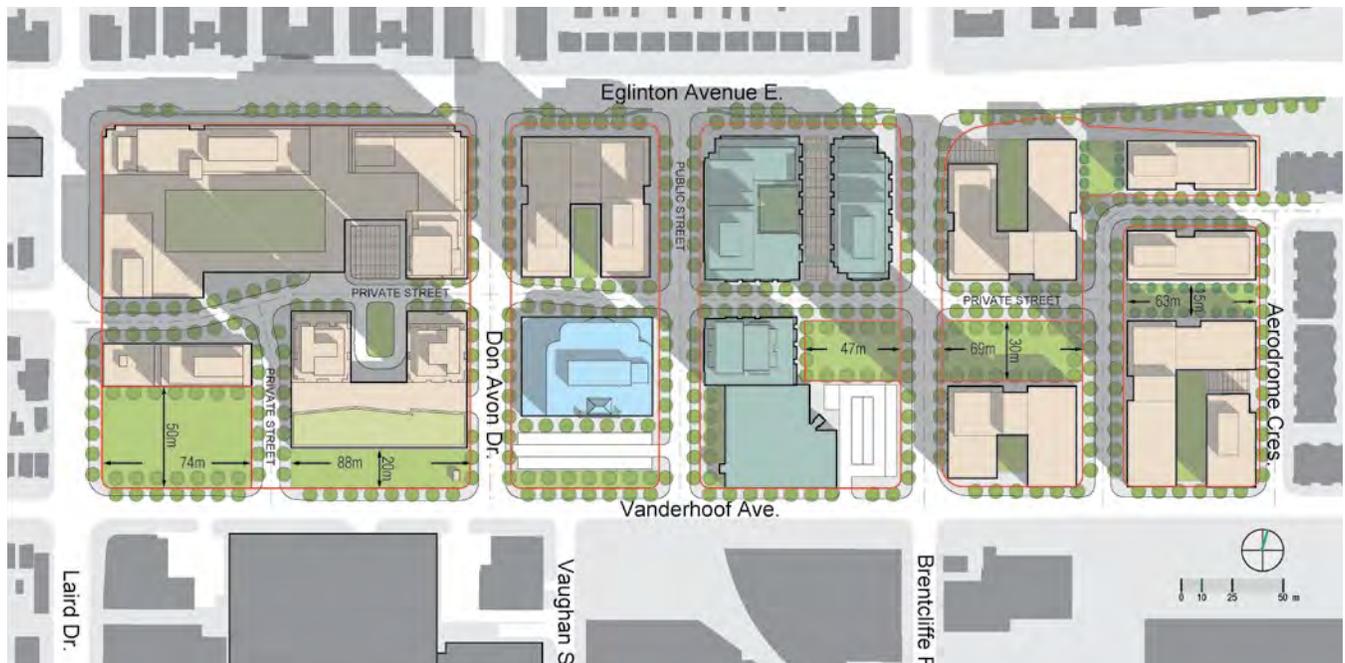


Figure 4.4: Study Area A Alternative 1

4.2.2 Alternative 2

This option builds upon the approved application at 939 Eglinton Avenue East and the City’s “Eglinton Connects” conceptual framework. Key elements defining this concept include:

- Movement: provision of a mid-block east/west street that does not extend to Laird Drive, extension of Don Avon Drive to mid-block street;
- Open Space: mid-block, east/west open space system comprised of parks and POPS extending from Laird Drive to Aerodrome Crescent;
- Built Form: mid-rise buildings along Eglinton Avenue East, lower buildings adjacent to Aerodrome Crescent, taller buildings clustered around open spaces; and
- Uses: employment-related uses aligned along Vanderhoof Avenue east of Brentcliffe Road, mixed uses distributed elsewhere.

Key Statistics

FSI	3.67
GFA	357,030 m ²
Office GFA	43,930 m ²
Commercial GFA	14,655 m ²
Community Facility GFA	0 m ²
Residential GFA	298,445 m ²
No. of Residential Units	3,778
No. of 3-bedroom Units	378
No. of 2-bedroom Units	1,133
No. of 1-bedrooms Units	2,267
Total Population	9,171



Figure 4.5: Study Area A Alternative 2

4.2.3 Alternative 3

Building upon the June 2017 charrette outcome, the refined option proposes strong east/west character zones on either side of the approved 939 Eglinton Avenue East development. The key elements for this option are identified as:

- **Movement:** linear mid-block east/west street extending from Parklea Drive to Aerodrome Crescent, extension of Don Avon Drive from Eglinton Avenue to mid-block street;
- **Open Space:** green network aligned along Vanderhoof Avenue comprised of parks and POPS;
- **Built Form:** mid-rise buildings along Eglinton Avenue East, lower buildings adjacent to Aerodrome Crescent, taller buildings aligned between mid-block street and open space system; and
- **Uses:** community facility use at Laird Drive, existing commercial building retained at 939 Eglinton Avenue East, mixed uses distributed elsewhere.

Key Statistics	
FSI	3.78
GFA	367,580 m ²
Office GFA	2,150 m ²
Commercial GFA	16,010 m ²
Community Facility GFA	2,160 m ²
Residential GFA	347,260 m ²
No. of Residential Units	4,396
No. of 3-bedroom Units	440
No. of 2-bedroom Units	1,319
No. of 1-bedrooms Units	2,637
Total Population	8,868



Figure 4.6: Study Area A Alternative 3

4.3 Study Area B

The June 2017 charrette focused on development scenarios based on, where possible, mid-rise built form and, otherwise, low-rise buildings. While these primary options were further refined and are described below, a secondary option looked at the development potential of deeper sites based on the accommodation of parking at-grade only.

4.3.1 Site 1 (Parkhurst Boulevard and Laird Drive)

This option explored the development potential based on the provision of parking at-grade or below-grade, with the following results:

- At-grade parking: low-rise, townhouse-format units, low-rise commercial use at corner of Vanderhoof Avenue and Laird Drive; and
- Below-grade parking: mid-rise mixed use building at corner of Parkhurst Boulevard and Laird Drive with driveway access from Parkhurst Boulevard, low-rise building and associated commercial surface parking at Vanderhoof Avenue.



Figure 4.7: Study Area B Alternatives: Laird Drive & Parkhurst Boulevard

4.3.2 Site 2 (Stickney Avenue and Laird Drive)

This option explored the development potential based on the provision of parking at-grade or below-grade, with the following results:

- At-grade parking: stacked townhouse-format units, decked parking between, parking accessed from Stickney Avenue; and
- Below-grade parking: mid-rise mixed-use building with driveway access from Laird Drive across from Industrial Street and from Stickney Avenue.

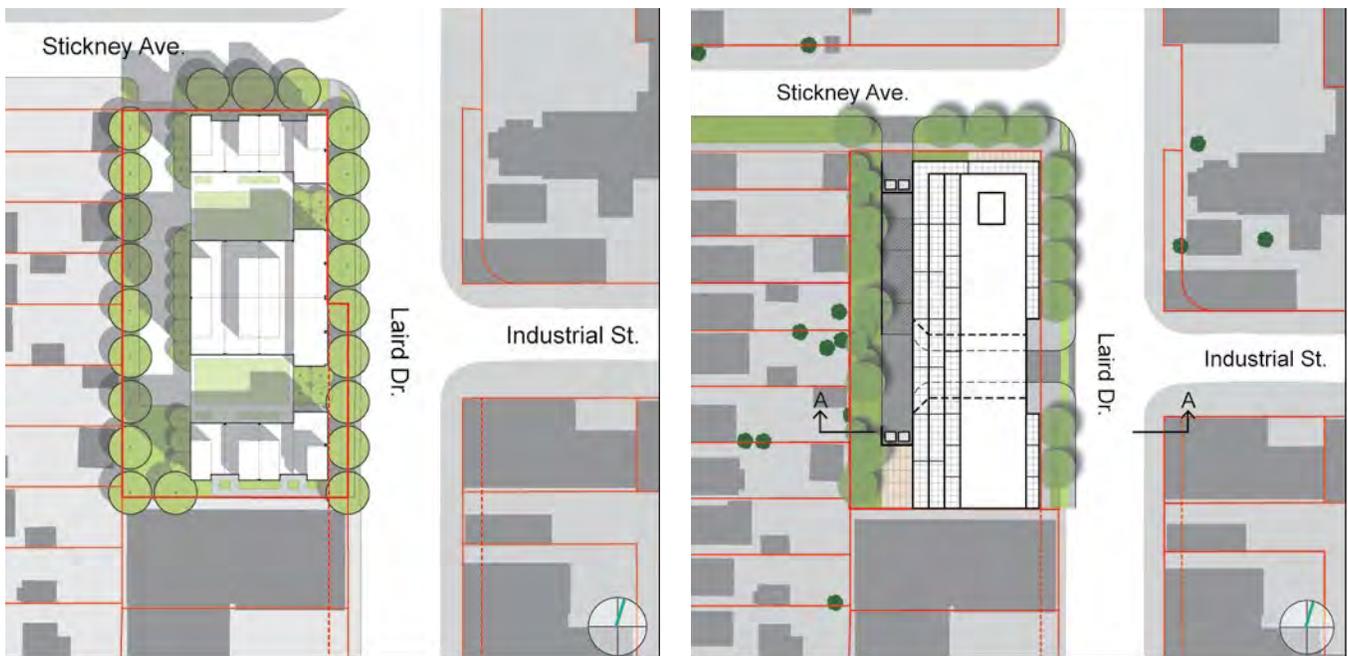


Figure 4.8: Study Area B Alternatives: Laird Drive & Stickney Avenue

4.3.3 Site 3 (Malcolm Road and Laird Drive)

Due to the site's irregular configuration and shallow depth, development options are constrained to surface parking and low-rise building forms. The resulting options are described as:

- At-grade parking: low-rise, townhouse-format units, low-rise commercial use fronting parkette at corner of Malcolm Road and Laird Drive, driveway access from Laird Drive; and
- At-grade parking (alternative): low-rise, townhouse-format units with parkette at corner of Malcolm Road and Laird Drive, driveway access from Malcolm Road.



Figure 4.9: Study Area B Alternatives: Laird Drive & Malcolm Road

4.4 Streetscape Approach

All four of the major streets that were considered (Eglinton Avenue East, Brentcliffe Road, Vanderhoof Avenue, and Laird Drive) will share the following objectives:

- Accommodation of cyclists on cycling facilities safely separated from vehicular traffic;

- Wider sidewalks that will encourage pedestrian activity;
- Street tree plantings that will improve the streetscape character while also providing beneficial shading in the warmer months; and
- Building and below-grade structural setbacks from the property line to encourage street-related activities that enliven the public realm.

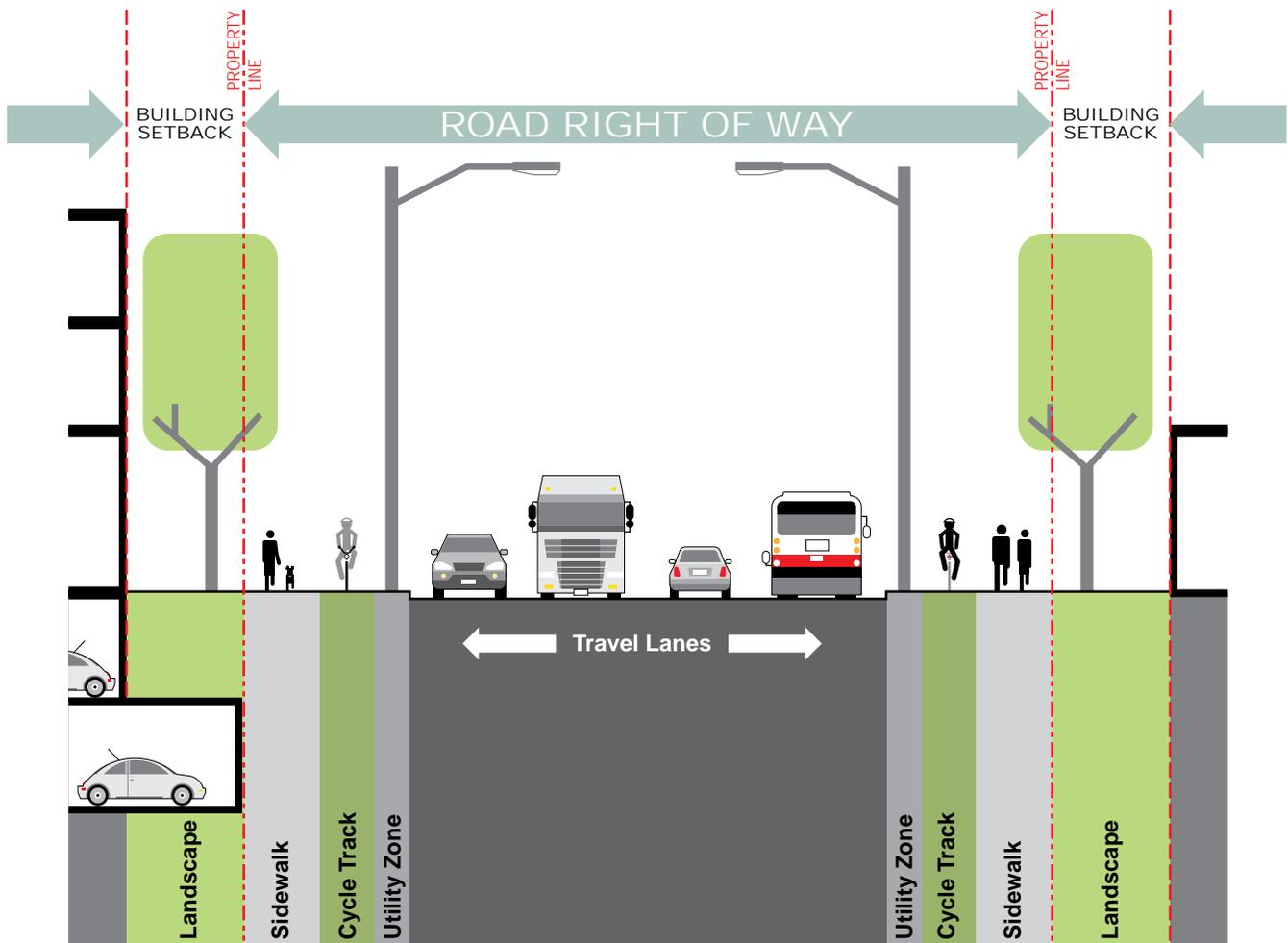


Figure 4.10: Streetscape Approach

4.5 Cultural Heritage Resources

The Laird in Focus Study is being carried out concurrently with a separate Cultural Heritage Resource Assessment. Commissioned independently by the City Planning Heritage Preservation Services team, the Cultural Heritage Resource Assessment will make recommendations on sites along Laird Drive

regarding their heritage value and their inclusion on the City of Toronto's Heritage Register. These recommendations will be incorporated into the Laird in Focus Study in the form of urban design guidelines as well as planning and heritage policies.

4.5.1 Identification of Cultural Heritage Resources

The urban structure of Leaside, which incorporates Study Areas A and B, originated in the 1912 masterplan prepared by landscape architect Frederick Todd, for the Canadian Northern Railway. The plan provided a street network influenced by the Garden City movement, with most of the employment area simply indicated as the “shops”. The first houses were built in the early 1900’s and were in relation to the industrial investment that was occurring along Laird. Residential development was slow until the late 1930’s, where it experienced a dramatic climb to a population of over 6,000. No meaningful open space was included in the original masterplan and the area was always challenged by a lack of accessibility, depending on Bayview Avenue for access from the south until 1927. Eglinton was not extended eastward over the Don Valley until 1956.



Figure 4.11: 150 Laird Drive - former Durrants' Offices

4.5.2 Outcomes of the Cultural Heritage Resource Assessment

EVOQ Architecture was commissioned to undertake a detailed Cultural Heritage Resource Assessment of the properties located on the east and west sides of Laird Drive, between Vanderhoof Avenue and Millwood Road, as well as three properties along Vanderhoof Avenue. As part of this work, EVOQ conducted a review of the historic context and development of the study area, identified and evaluated potential cultural resources and prepared recommendations to inform the planning framework of the Laird in Focus Study.

The assessment began with archival research to document the historical evolution of the development and the key historic, cultural and economic themes that led to its current built form. This was followed by a field and photographic survey of the study area to identify properties with potential cultural heritage value, and additional primary research. EVOQ then presented these initial findings to the Heritage Focus Group, and gathered feedback and additional information.

Of the properties which merited further in-depth research, a heritage evaluation as per Ontario Regulation 9/06 was then completed, which was reviewed by the City. A consultation meeting was then held with a Local Advisory Committee, followed by an open public meeting to present the findings and proposed recommendations, and to gather feedback. The final stage of this assessment included outlining proposed management and protection mechanisms for the identified cultural heritage resources.

5.0 EVALUATION

5.1 Study Area A Evaluation Methodology

The three development scenarios described in Section 4 were analyzed and evaluated to determine their relative merits. The matrix used to assess the options originated from the guiding principles of Section 2.2. For each principle a set of criteria was established against which specific aspects of each alternative could be measured relative to the others. No single scenario scored highest in all categories and thus, the Draft Emerging Preferred Alternative Plan represents a composition of the optimal elements from all three.

Key urban design criteria used in the evaluation of the three scenarios included the following:

- **Setback:** as per Eglinton Connects, 6-metre setback is required of all development fronting Eglinton Avenue East;
- **Angular Plane:** a 45-degree angle measured from the furthest edge of the road ROW is used to determine the maximum height of development;
- **Coverage:** in order to encourage greater pedestrian movement through a development site, smaller floorplate buildings are preferred;
- **Massing:** building height combined with its floorplate size in relation to its context;
- **Tower Separation and Stepback:** distance between taller buildings and their placement in relation to the podium upon which they are sited, as proscribed in the City’s Tall Building Design Guidelines; and
- **Shadow Impact:** measuring the extent of shadowing on adjacent properties from 9 am to 6 pm on March 21st, June 21st, and September 21st.

It should be noted that none of the three options scored well when evaluated through the lenses of servicing and transportation. This can be attributed to the current auto-centric environment which provides a transportation network that is unprepared to accommodate a dramatic reduction in vehicle trips to support higher density development. As all three options yielded similar population numbers, all three

were similar in their performance evaluation when measured against servicing and movement criteria.

Due to the limited differences in total population and employment for the three alternatives, Scenario 1 was considered the base case for the transportation analysis as it would produce a similar number of potential trips. It should be noted that changes in land use and built form would primarily affect Study Area A, whereas Area B has limited development block sizes; thus, there are limited options available. The following table shows the populations in Area A, with a breakdown by land use type:

Scenario	Total Pop.	Res.	Office	Commercial	Comm. Facility
Scenario 1	8,834	7,886	363	573	12
Scenario 2	9,171	7,178	1,627	366	0
Scenario 3	8,868	8,352	80	400	36

Along with the proposed land use, further permutations of mode splits and development sizes for Study Area A were considered to provide guidance towards a draft emerging preferred alternative plan.

With respect to water/wastewater servicing, based on the review of existing conditions, the following actions will be required to accommodate a significant amount of development within Study Area A. Please refer to Section 8.0 for the detailed analysis of the Draft Emerging Preferred Alternative Plan.

- Establishment of an area-wide servicing strategy that utilizes the existing infrastructure, where possible, to service the entire Study Area;
- As the Eglinton Avenue East sanitary sewers currently surcharge during wet-weather conditions, review the downstream infrastructure to determine what infrastructure upgrades are required: this may form part of the area-wide servicing review; and
- While the water network is understood to operate within prescribed parameters around the Study Area, a detailed water analysis for the full build-out condition is recommended in order to establish whether domestic and fire flow requirements can be met.

PRINCIPLE	CRITERION	STUDY AREA	
		Option 1	Option 2
1 Create a vibrant and accessible streets and pedestrian realm	A. Does the option provide for a mix of uses?	●	●
	B. Is there a mix of site-specific densities/building heights?	●	○
	C. Is there a variation of building types?	●	●
	D. Does the option accommodate commercial or residential activity that supports streets?	●	●
	D. Does the option accommodate commercial or residential activity that supports open spaces?	●	●
	E. Does the option define and support Eglinton Ave. E., Laird Dr., and Vanderhoof Avenue?	●	●
	PRINCIPLE 1: SUMMARY EVALUATION	●	●
2 Respect the historic character of Leaside while permitting its evolution	A. Does the option provide built form transition to adjacent neighbourhood to the North? to the East? to the West?	● ● ●	○ ● ○
	Criterion 2A: Summary Evaluation	●	○
	B. Does the option demonstrate urban design excellence as determined by: Site Porosity?	○	●
	Built Form relationship to the public realm?	●	●
	Building Stepbacks?	●	○
	Scale of Building (i.e. height)?	●	○
	Scale of Building (i.e. coverage)?	○	●
	Criterion 2B: Summary Evaluation	○	●
	C. Does the option acknowledge the character of the community?	○	○
	D. Does the option promote a spacious landscape character that integrates with Leaside?	○	●
	E. Does the option promote new employment within lands designated for employment uses?	●	●
	F. Does the option's shadows impact adversely on adjacent neighbourhoods, parks, and open spaces?	●	○
	PRINCIPLE 2: SUMMARY EVALUATION	○	●
3 Establish a high quality, well-connected, safe and comfortable public realm	A. Is the option accessible to people of all ages and abilities?	●	●
	B. Does the option facilitate pedestrian and cycling movement within?	○	●
	C. Does the option facilitate pedestrian and cycling movement to adjacent destinations?	●	●
	D. Does the option provide for street trees and landscaped setbacks?	●	●
	E. Does the option provide/strengthen connectivity to adjacent ravines, parks, & open spaces?	●	●
	F. Does the option provide a variety of new parks and open spaces?	○	●
	H. Does the option meet the mid-rise and tall building guidelines in reducing shadow impact, allowing skyviews, and promoting pedestrian comfort in terms of scale and wind impact on city streets and open spaces?	●	○
	PRINCIPLE 3: SUMMARY EVALUATION	○	●
4 Ensure growth is co-ordinated with investments in infrastructure and community facilities	A. Does the option require new or significant improvements to existing capital infrastructure?	○	○
	B. Does the option provide necessary new infrastructure & facilities (as identified through Eglinton Connects)?	●	○
	C. Is new infrastructure provided in an innovative, sustainable, & resilient manner as measured by efficient use of space, required capital investment, storm water management potential, etc.?	●	○
	D. Does the option accommodate for future population and job growth?	●	●
	PRINCIPLE 4: SUMMARY EVALUATION	●	○
5 Support recent and continued investment in rapid transit	A. Does the option seamlessly connect to/integrate with the Eglinton Crosstown LRT?	○	●
	B. Does the option maximize the percentage of residents and employees with acceptable walking distance of rapid transit?	●	●
	C. Does the option demonstrate a "Complete Streets" approach?	○	●
	D. Does the option promote a multi-modal, innovative, safe, & accessible active transportation network?	●	●
	E. Does the option improve transportation network connectivity?	●	●
	F. Does the option reduce traffic pressure at Laird and McRae, and at Eglinton and Brentcliffe?	●	●
	G. Does the option minimize the share of single vehicular uses?	●	●
	H. Is the option supportive of/complementary to employment area uses?	●	●
PRINCIPLE 5: SUMMARY EVALUATION	●	●	

Figure 5.1: Evaluation Matrix (Study Area A)

A Option 3	COMMENTS
○	Option 2 provides greatest mix with employment & mixed use
●	Option 1 provides greatest range of heights; all 3 have similar densities
○	Option 2 mix of building typologies distributed throughout
○	Option 2 has active grade-related uses on along all major streets
○	Active uses frame open space in Option 2
●	All 3 options similar
○	Option 2 will best create vibrant and accessible streets & public realm
●	Option 3 provides consistent mid-rise buildings; Options 1 and 2 have taller buildings closer to Eglinton
●	Option 3 provides parkland that serves to transition from existing townhouses to development to the west
●	Option 1 provides least abrupt transition in heights adjacent to Laird Drive
●	Option 3 provides best built form transition to surrounding neighbourhoods
●	Option 3 provides greatest porosity with streets and pedestrian linkages (including park pathways); Option 1's larger building footprint impedes pedestrian movement between destinations as does Option 2's surface parking
○	Option 2 frames open space with buildings on both sides
●	Option 3 locates buildings and heights based on 45-degree angular plane from Eglinton Ave. & Laird Dr.
●	Option 3 provides most consistent podium base and hence, consistent ground relationship
●	Option 1 provides greatest ground floor coverage
●	Options 2 and 3 demonstrate similar equivalents of urban design excellence
●	Options 1, 2 & 3 extend Don Avon Dr. southward; Option 3 extends Parklea Dr. to Aerodrome Cres.; none of the options have a built form and massing that is characteristic of the adjacent community
●	Option 3 provides greatest potential for spacious landscape both in parkland and public streets
○	Option 2 provides greatest quantum of employment uses
●	Due to tall building proximity to Eglinton Avenue, Option 2 will have greatest shadow impacts to the north
●	Option 3 will best respect the historic character of Leaside while permitting its evolution
●	All 3 options possess the potential for accessibility
●	Option 3 possesses the greatest potential to facilitate pedestrians and cyclists within through streets & park paths
●	Options 2 & 3, through combined public street and park network, provide better links to adjacent destinations
●	Options 2 & 3 have greater, consistent setbacks along Eglinton Avenue E. and north/south streets; Option 3 will have greater and consistent setbacks along Vanderhoof Ave. followed by Option 1
●	All 3 options provide potential to link to adjacent and nearby open spaces
●	Option 3, through the scale and continuity of its open spaces, provides the greatest potential for variety
●	Option 3, with a majority of its open space situated south of proposed taller buildings, will be least impacted by shadows and wind
●	Option 3 best provides a high quality, well-connected, safe & comfortable public realm
○	All 3 options yield similar populations; hence all 3 will require similar infrastructure upgrades
●	Option 1 provides a moderately sized community facility; Option 3 provides a stand-alone facility
●	Options 1 & 2 provide similar scaled open spaces and hence opportunities for passive storm water storage; however, Option 2 has larger surface run-off due to at-grade parking; Option 3 provides largest green areas to accommodate stormwater storage
○	Option 2 provides opportunity for employment growth via re-use of surface parking areas
●	Option 3 best provides investment in infrastructure and community facilities
●	Option 1 will require entry from south through private building
○	All 3 options provide similar population yields; however, Option 2 provides a larger percentage of employment uses followed by Option 1
●	Option 1 reliant on private east-west streets for 815-845 and 939 Eglinton Avenue E.
●	Option 3 provides a cycle track along Vanderhoof Ave.
○	Option 2 provides greatest porosity with maximum number of public streets
○	Based on porosity Option 2 will dissipate traffic the most
○	Option 2 provides best balance between uses; hence best live/work/shop opportunity
○	Option 2 provides greatest quantum of employment uses
○	Option 2 best provides support for recent and continued rapid transit investment

Key
● ● Good
● ○ Moderate
○ ○ Poor

5.2 Study Area A Summary Evaluation

The following represents a synopsis of the evaluation of the three options with respect to movement, open space, and built form:

Movement: All three options provide improved circulation of all modes of movement compared to current conditions. All three, to varying extents, connect to the surrounding road network. However, Option 2 provides the best street network, primarily by not extending the mid-block street to Laird Drive and hence not constraining vehicle movements south of Eglinton Avenue, nor impacting bus movements close to the LRT station.

Open Space: Option 3 offers the optimal arrangement of open space in terms of location and contextual considerations. Sited south of any tall building elements the open space system would be free of shadow impacts. It would also provide a foundation for future green link extending along Vanderhoof Avenue to Leonard Linton Park and further eastward to a formalized entrance into the Don Valley trail network. However, any parkland allocation should conform with the City's rate based on size of parcel and type of land use.

Built Form: Options 2 and 3 provide the preferred approach to massing. While Option 2 proposes office-type uses within the designated "employment lands" Option 3 provides a preferential arrangement of mid-rise and tall buildings.

For a more detailed understanding of the evaluation of the three options please refer to the Evaluation Matrix included as part of this report's appendices.

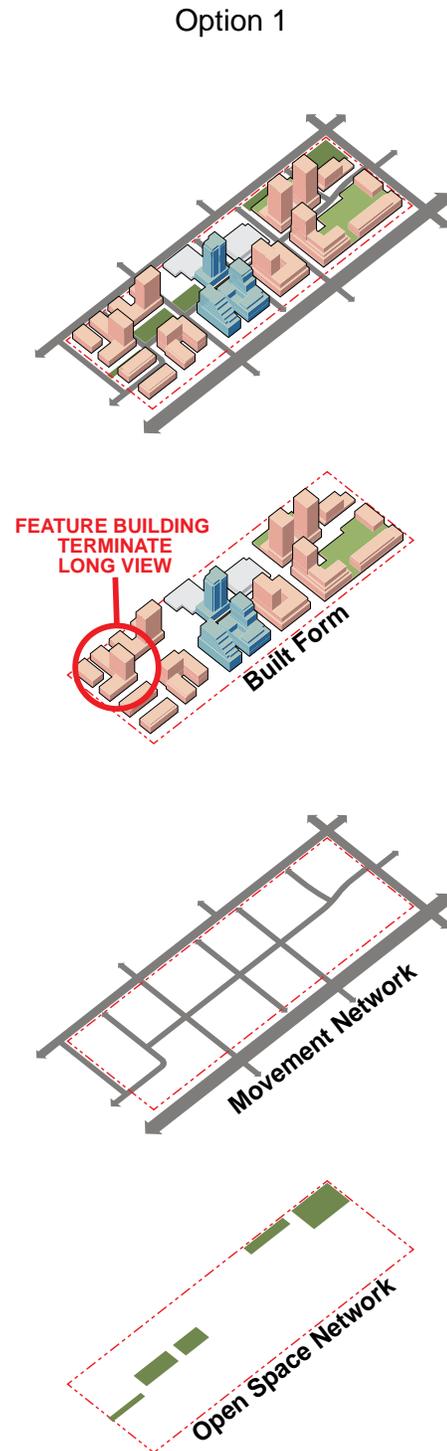
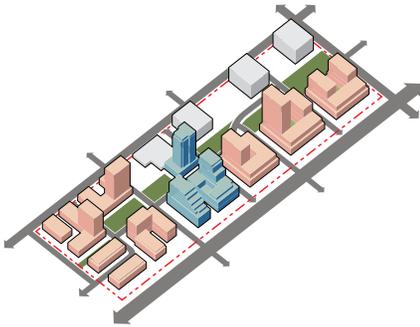
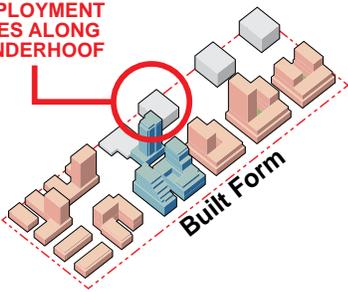


Figure 5.2: Study Area A Summary Evaluation

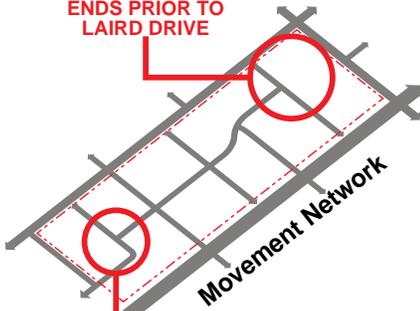
Option 2



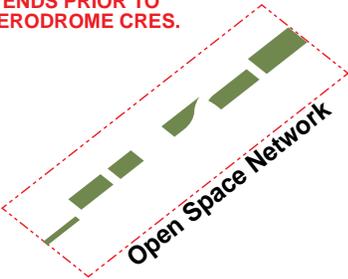
EMPLOYMENT USES ALONG VANDERHOOF



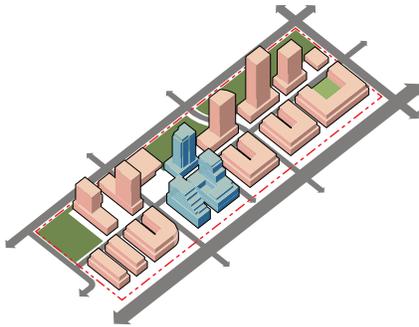
MID-BLOCK STREET ENDS PRIOR TO LAIRD DRIVE



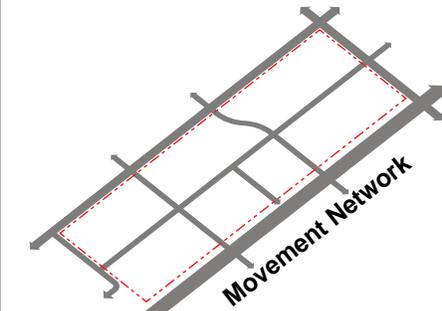
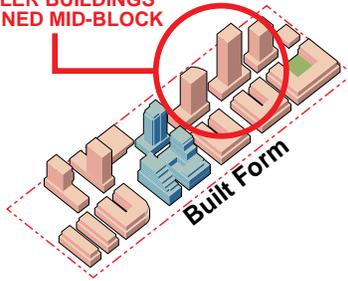
MID-BLOCK STREET ENDS PRIOR TO AERODROME CRES.



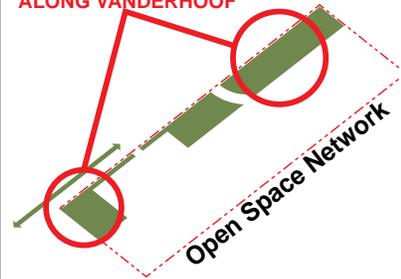
Option 3



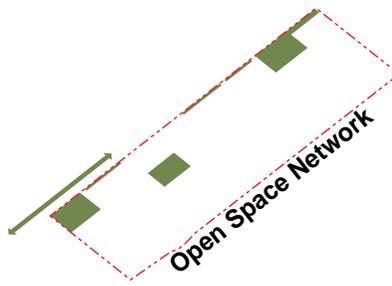
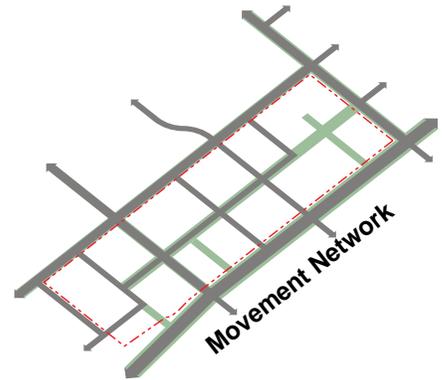
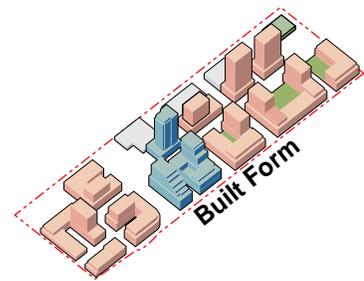
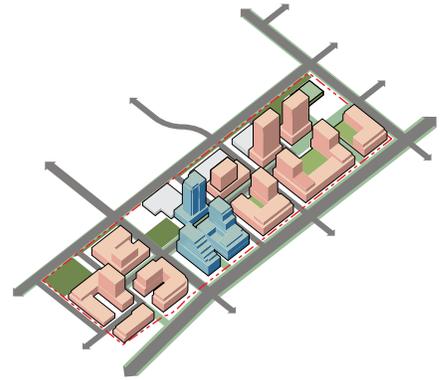
TALLER BUILDINGS ALIGNED MID-BLOCK



ARRANGE PARK SPACE ALONG VANDERHOOF



Emerging Draft Preferred Alternative



5.3 Study Area B Summary Evaluation

Criteria for the analysis of alternatives for sites along Laird Drive were predicated on each site's ability to support development aligned with the City's Mid-rise Guidelines. Sites with a minimum property depth of 36 metres would be capable of accommodating mid-rise development with parking provided below-grade. Shallower sites would be more appropriately redeveloped for low-rise built form with parking allocated at-grade.

A number of properties have been evaluated for heritage consideration. At the time of writing this report the City had yet to confirm the listing of any or all of these sites. Urban design guidelines will be prepared in the subsequent phase of this study to provide direction on their redevelopment.

Further refinement of the public realm will be tied to the allocation of vehicular, cycling, and pedestrian modes of movement within the road right-of-way. Travel lanes (the number of which is currently being studied), provision of vehicle turn lanes, cycle tracks, widened sidewalks, and utility zones all occupy a section of the Laird Drive right-of-way. Street trees and the provision of an appropriate volume of soil to sustain growth may or may not be assigned within the ROW. This is predicated on the amount of space available after the above considerations are accounted for within the 27 metres width. Should there not be enough physical space within the road right-of-way to support viable street trees, the alternative would be to plant trees on private property adjacent to the property line; therefore requiring a set back of the building and the below-grade parking.

LEGEND

-  Study Area B
-  Approved Development
-  Potential Mid-rise Site

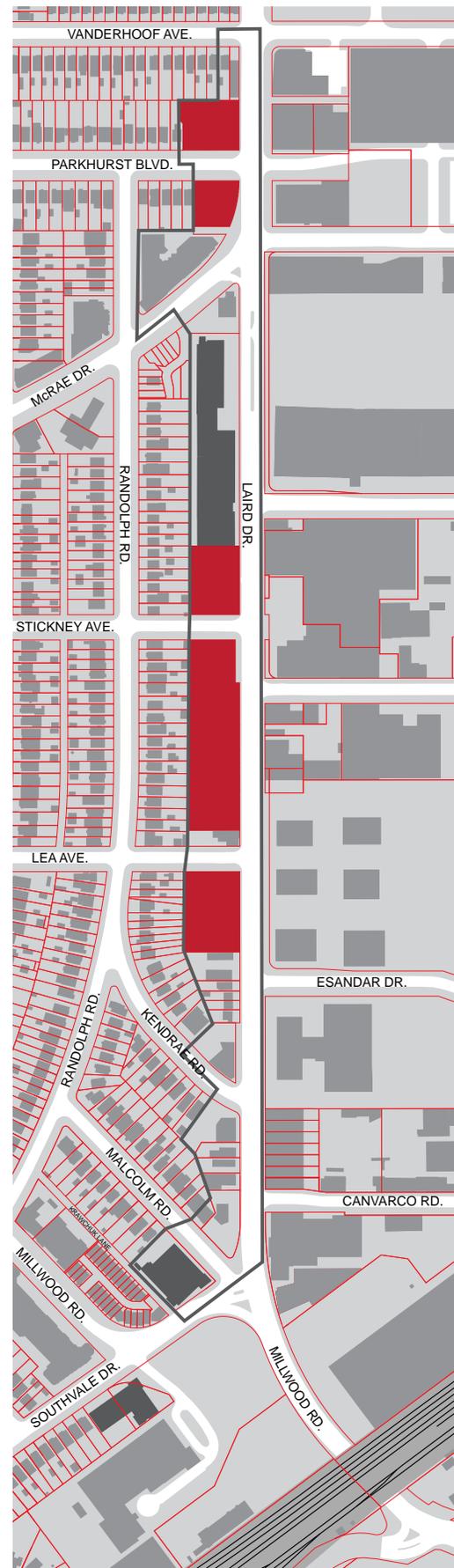


Figure 5.3: Study Area B Potential Mid-rise Sites

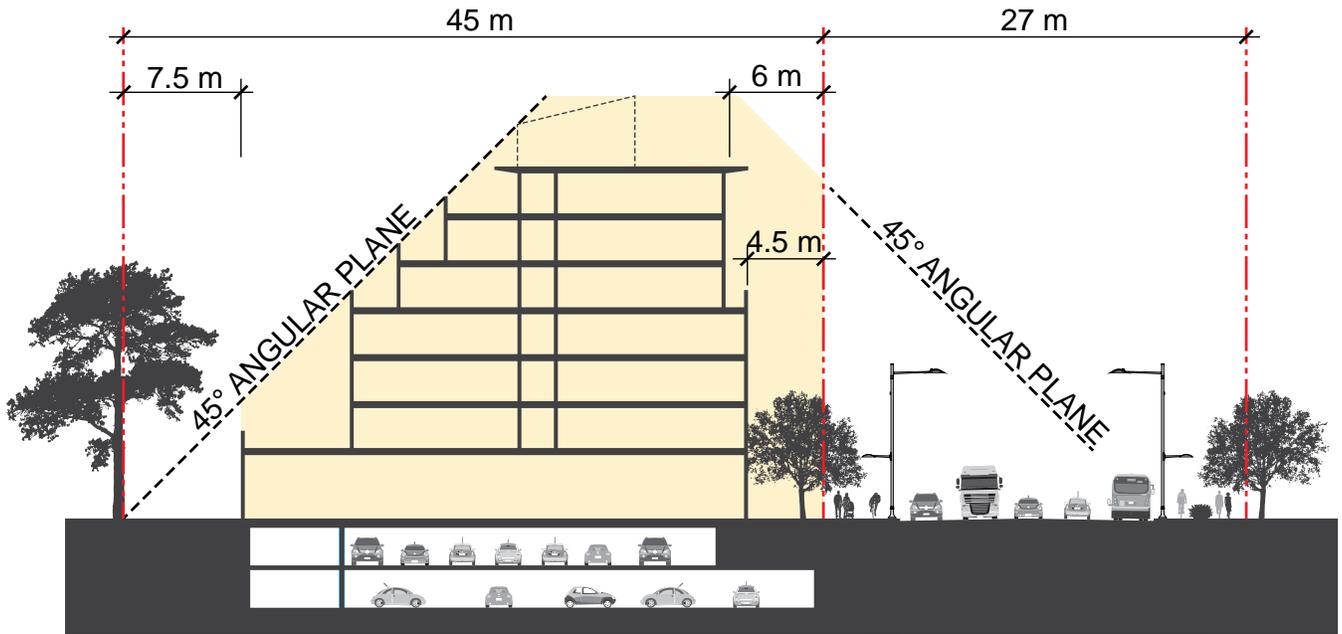


Figure 5.4: Angular Planes applied to 45-metre depth property

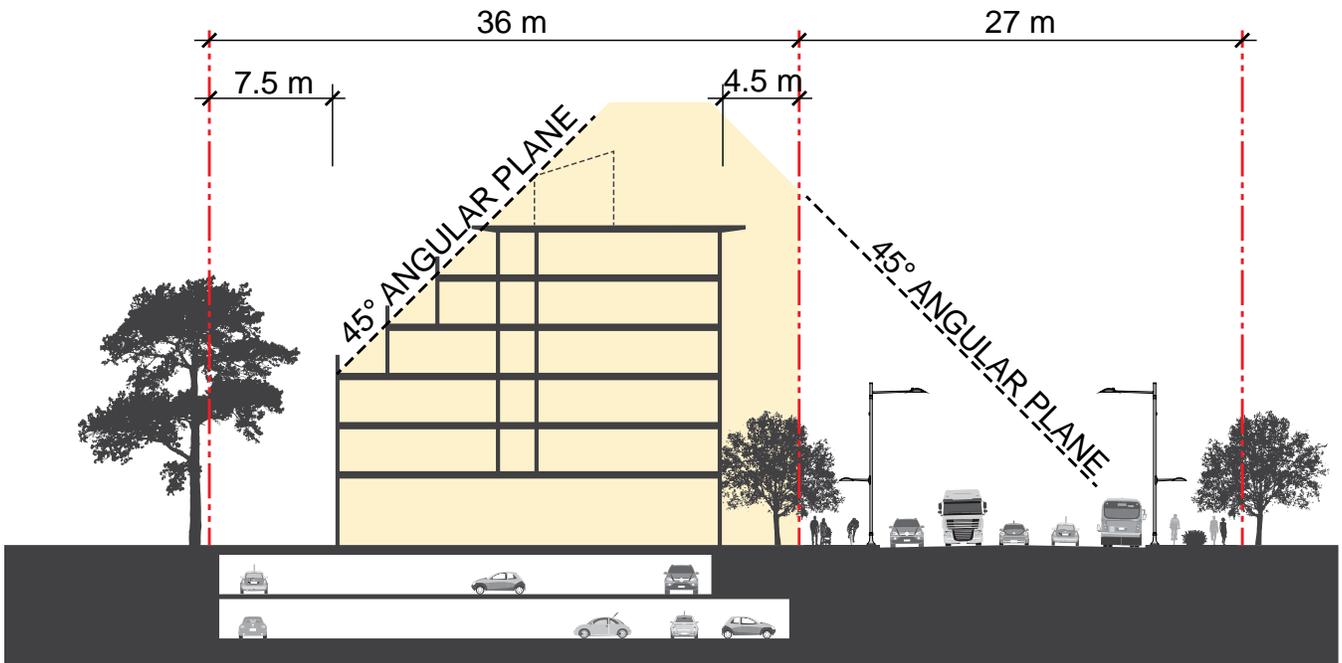


Figure 5.5: Angular Planes applied to 36-metre depth property

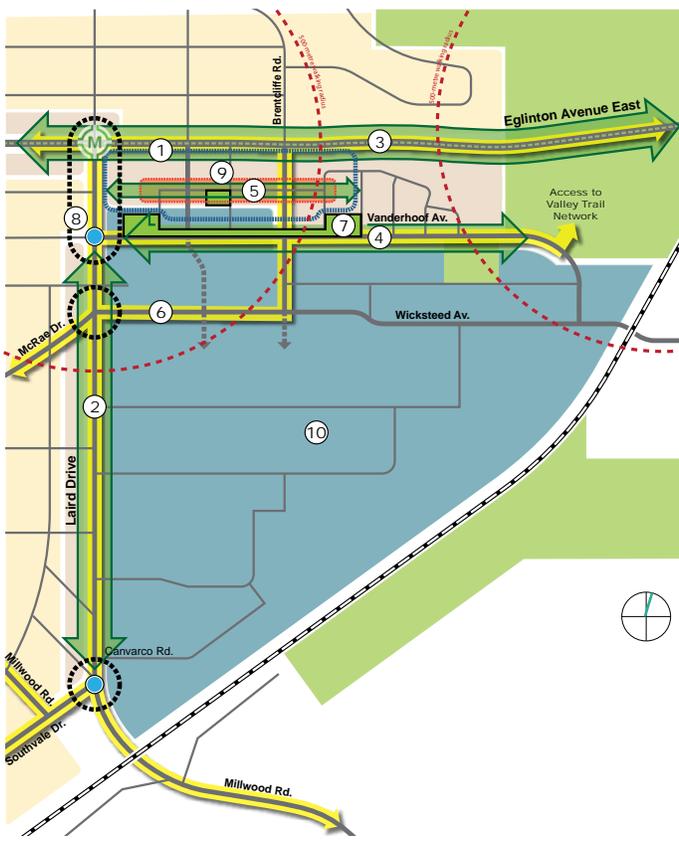
6.0 DRAFT EMERGING PREFERRED ALTERNATIVE PLAN

The Draft Emerging Preferred Alternative Plan incorporates the best elements of the various scenarios, as determined through the evaluation process described in Section 5.0, and reflects the Vision and Guiding Principles developed for this study. The Plan provides the foundation for the development of a new mixed use community transitioning towards existing residential neighbourhoods, a high quality public realm and an accessible open space network, all linked by stronger multi-modal connections. This Plan supports the continuing viability of the business park while also envisioning Laird Drive as an accessible, dynamic main street, supporting a built form which both respects the existing uses and

provides important opportunities for growth at this emerging transit node. A high level overview of the Draft Emerging Preferred Alternative Plan is illustrated in the structural framework, described in the following section.

6.1 Structural Framework: 10 Big Ideas

The structural framework for the study area is supported by 10 key elements. Together they form a comprehensive conceptual armature upon which development can contribute to creating an attractive, liveable, identifiable urban community.



- ① Growth in Leaside will be focused in one area reducing development pressures elsewhere.
- ② Laird Drive's will be a vibrant, mixed use street with a beautiful streetscape that accommodates cyclists, strollers, and lingerers.
- ③ Eglinton Avenue East is re-imagined as an attractive, tree-lined boulevard with a variety of active, at-grade uses.
- ④ Vanderhoof Avenue will be transformed into a beautiful greenway linking Laird to the Don Valley Ravine.
- ⑤ A new mid-block Main Street will provide a quiet interlude from the busyness of Eglinton Avenue.
- ⑥ Throughout Leaside cycling will be accommodated along safe, dedicated routes.
- ⑦ Parks will be integral to new development, be accessible to all, and contribute to a larger open space network.
- ⑧ A new facility will serve the communities of North and South Leaside along with the emerging new neighbourhood.
- ⑨ Buildings will be massed with a sensitivity to adjacent neighbourhoods: taller buildings will be located internal to development sites.
- ⑩ The Employment Lands will be supported with improved infrastructure that facilitates growth and evolution.

Figure 6.1: Structure Plan for Laird in Focus Study Area

1. Focusing density to protect community character:

The Provincial Growth Plan calls for a minimum density of 160 people and jobs per hectare within a 500-metre radius of a light rail transit station. If the majority of that density is accommodated in the southeast quadrant of Laird Drive and Eglinton Avenue, it will reduce the development pressure on the remaining three quadrants and preserve community character, recognizing that mixed use development on the west side of Laird Drive between Vanderhoof Avenue and Eglinton Avenue may be considered in the future.

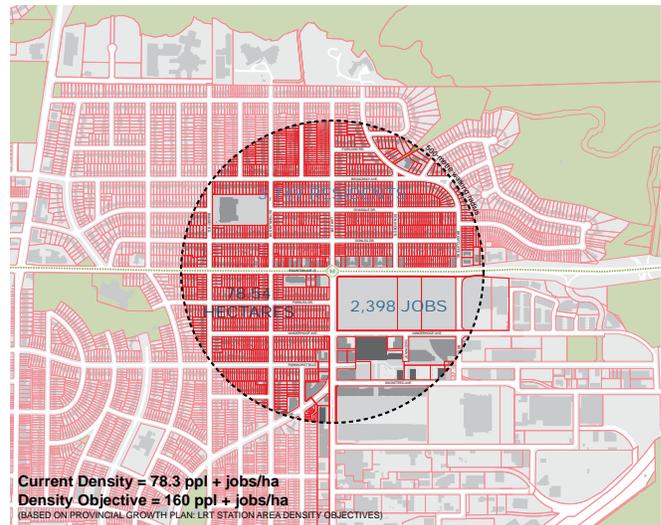


Figure 6.2: Structural Framework 10 Big Ideas: Focus Development within Study Area A

2. Laird Drive – A place to live and linger:

Laird Drive, when fully realized, has the potential to be a dynamic, people-oriented street. Families will be able to stroll along wide, tree-lined sidewalks; ground-level businesses will provide amenities that encourage pedestrians to stop and linger; cyclists of all ages and abilities will ride comfortably along a buffered cycle track. And at key intersections, parkettes and neighbourhood squares will act as gateways to the community as well as provide opportunities to share the history of Leaside. Residences above shops and cafés will add to the vibrancy of the street life.



Figure 6.3: Structural Framework 10 Big Ideas Laird as a Vibrant, Mixed-use Street

3. Eglinton Avenue – A pedestrian promenade:

A wide boulevard with a double row of trees will entice pedestrians to stroll along the street and window browse. Periodic breaks between buildings will be occupied by outdoor café seating in intimate squares. Cyclists will ride beside the street along dedicated cycle tracks providing an east-west connection between communities along Eglinton Avenue.



Figure 6.4: Structural Framework 10 Big Ideas Eglinton as an Attractive, Wide, Tree-lined Boulevard

4. Leaside's link to the ravine:

Vanderhoof Avenue will be the green east-west spine for the Leaside community, connecting new park spaces to existing open spaces spanning from Laird Drive to the Don Valley, and including a new community centre. The critical component of this infrastructure will be a multi-use path along the north boulevard.



Figure 6.5: Structural Framework 10 Big Ideas
Vanderhoof becomes a Beautiful Greenway

5. A new alternative connection:

Mid-block, between Eglinton and Vanderhoof Avenues will be a quiet, landscaped street lined with 3-storey buildings. Their ground floors will be occupied with residential units or small, neighbourhood-related shops. The street's character will encourage strolling and lingering, providing a respite from the busier environment of Eglinton Avenue and contrasting with the passive nature of Vanderhoof Avenue.



Figure 6.6: Structural Framework 10 Big Ideas
A new Main Street with an Attractive Public Realm

6. Considering the needs of cyclists:

Today, there is no accommodation of cyclists along Laird Drive, Eglinton Avenue, or the Leaside Business Park. In the future, cycling will be planned for and integrated into the redesign of streets with the objective of providing safe and efficient routes that connect places where people want to go. Future and existing community facilities, the new LRT station, retail and work destinations, and residential communities will all be accessible by new cycling infrastructure that will entice people to reconsider driving in favour of riding a bicycle.



Figure 6.7: Structural Framework 10 Big Ideas
Cycling Infrastructure as Part of Leaside's Movement System

7. Building an accessible green network:

With an increasing population comes the expectation of new park space. The depth of the Eglinton properties provides an opportunity to plan for parks large enough to accommodate a range of programmatic needs aimed at a full range of ages and abilities. These green spaces will augment the role played by Leonard Linton Park and will serve the new, emerging community, as well as the existing neighbourhoods that flank it. Park blocks will complement new development while maintaining their own public identity so that they read as publicly accessible spaces.



Figure 6.8: Structural Framework 10 Big Ideas
New Parks will be part of the New Community

8. A new community facility to serve both North and South Leaside and the emerging new community:

The hub for social gathering and interaction will be located in proximity to the intersection of Laird Drive and Vanderhoof Avenue. This facility will complement the adjacent park space and be easily accessible by foot, bicycle, and transit. Its activities will spill out beyond its walls and energize the community with its programming and its multi-generational users.



Figure 6.9: Structural Framework 10 Big Ideas
New Community Facility to be located along Laird Drive

9. Considering the context for building heights:

Taller buildings will be located inboard of sites and transition upward in height from both Laird Drive and Aerodrome Crescent. Lower buildings will flank Laird Drive, Eglinton Avenue, and Aerodrome Crescent at a scale responsive to their context. The tallest buildings will be located closest to and within 500 metres of the LRT station.

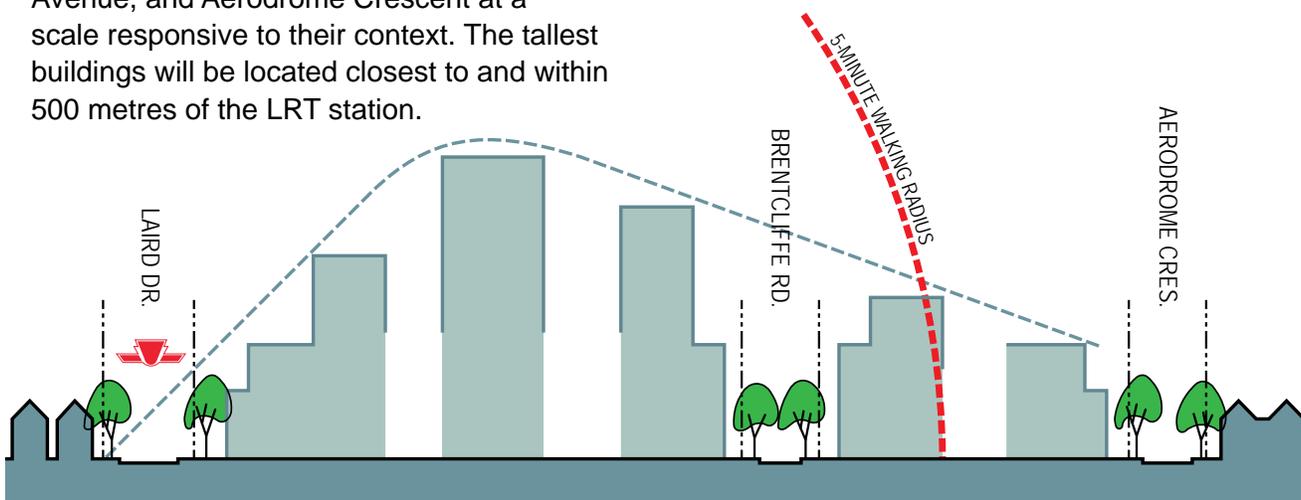


Figure 6.10: Structural Framework 10 Big Ideas - New Community Facility to be located along Laird Drive

10. Support a vibrant business community:

Employment has played a crucial role in the growth and vitality of Leaside. As such, it is important to support the businesses functioning today and to provide the necessary infrastructure to allow the area to grow and evolve into the future. Anticipating what that future may look like will help with being proactive in preparing for change when it comes.

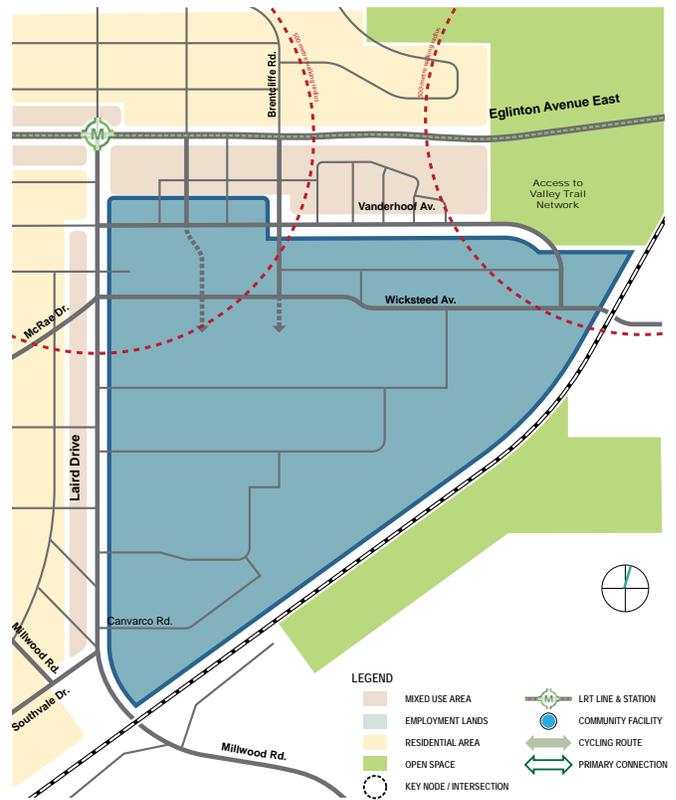


Figure 6.11: Structural Framework 10 Big Ideas
Leaside Business Park will Continue to be Supported

6.2 Movement Network/ Connectivity

While the street initiatives proposed largely focus on the Leaside Business Park, they also take into account future development opportunities in Study Areas A and B. Despite the difficulty in predicting with certainty the future direction of the Employment Lands there is an opportunity to conceptually posit the evolution of the movement network triggered by future public investment in infrastructure.

6.2.1 Status Quo/Near Term

The existing network shall be refined to formally accommodate trucking routes carrying heavy vehicles to and from the Employment Lands and onto arterial roads towards the highway system. Connecting local streets will be re-designed to discourage longer-distance vehicular trips. Cycling will be incorporated into the street

network as a safe and clearly articulated part of the movement system, requiring dedicated and separate facilities which will require augmentation to and modification of the City's 10-year Cycling Masterplan. A proposed route along Vanderhoof Avenue would end with a formal and safe entry point into the Don Valley trail system. The pedestrian environment will be improved, including cub-side trees and an emphasis on safety.

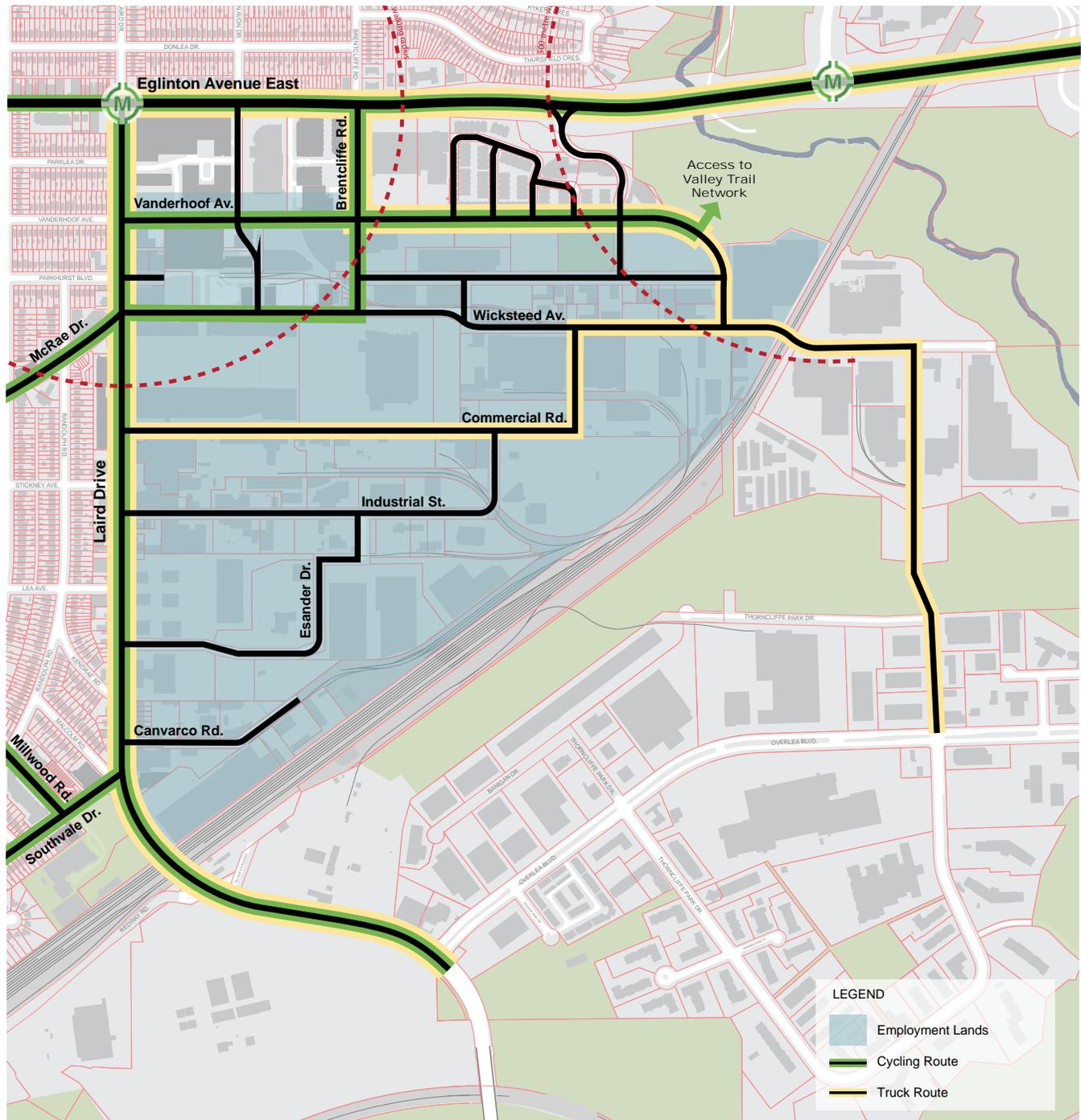


Figure 6.12: Transportation Framework Short-term

6.2.2 Medium Term

Medium term opportunities would be triggered by the grade separation of the intersection of Wicksteed Avenue with the rail corridor and/or the extension of retail/commercial uses along the east side of Laird Drive. A dedicated cycling route along Vanderhoof Avenue would be extended

to include Beth Neelson Drive. Extension of existing streets will provide greater ease of movement through the Leaside Business Park, unlocking redevelopment potential for future employment uses. New and modified existing streets will adopt complete street principles to ensure an improved cycling and pedestrian environment.

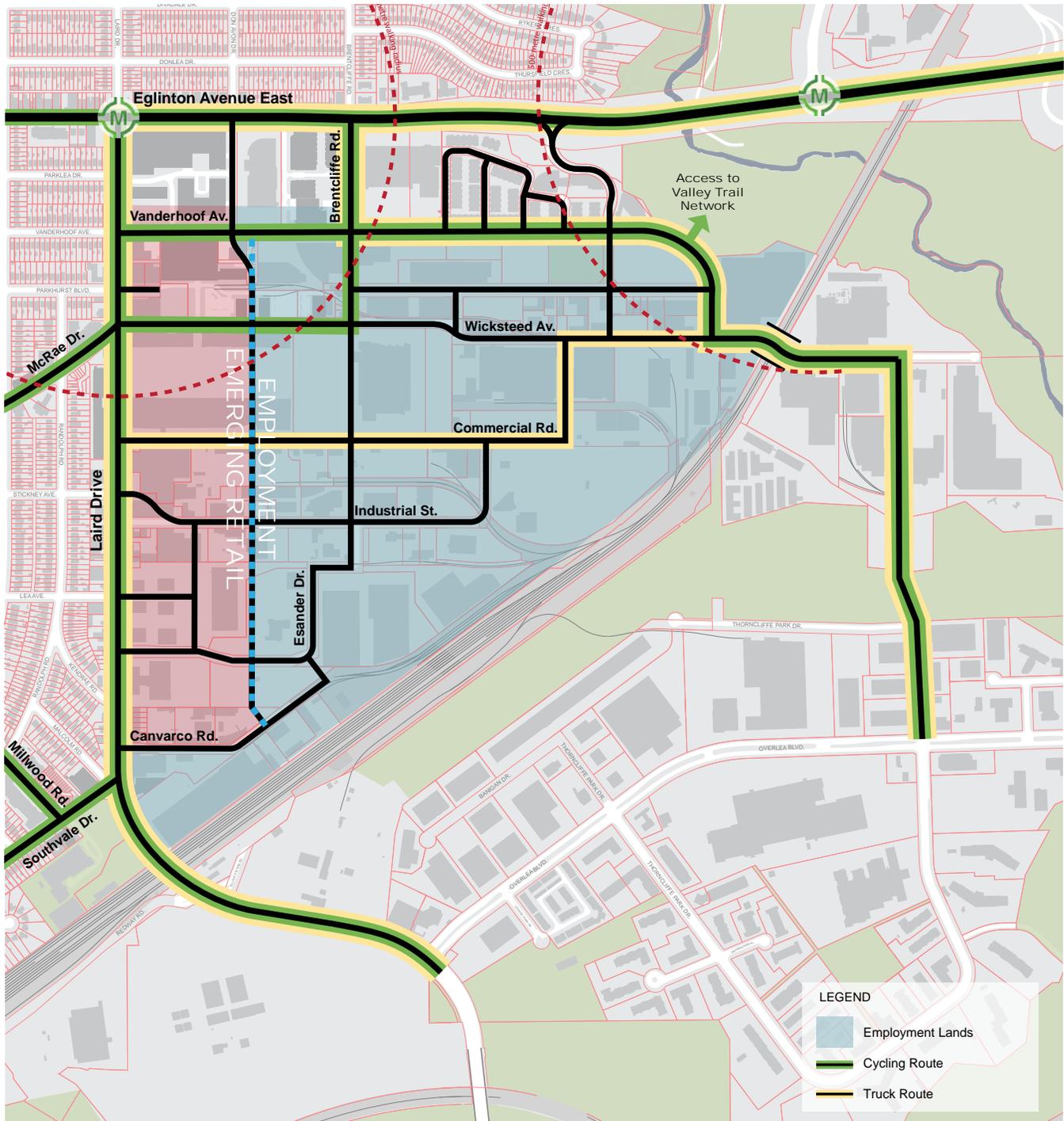


Figure 6.13: Transportation Framework Mid-term

6.2.3 Long Term

A future higher order transit station along the rail corridor would provide the catalyst for a shift in the types of uses within a 500-metre radius. More intensified employment uses are envisaged which would be accompanied by a tightly gridded street

network to better facilitate all forms of movement, particularly pedestrian. Cycling routes would be extended to better service the employment area. With transit improvements will come the opportunity to explore additional linkages between the Leaside Business Park and Thorncliffe Park to the south, providing greater connectivity and porosity throughout the area.

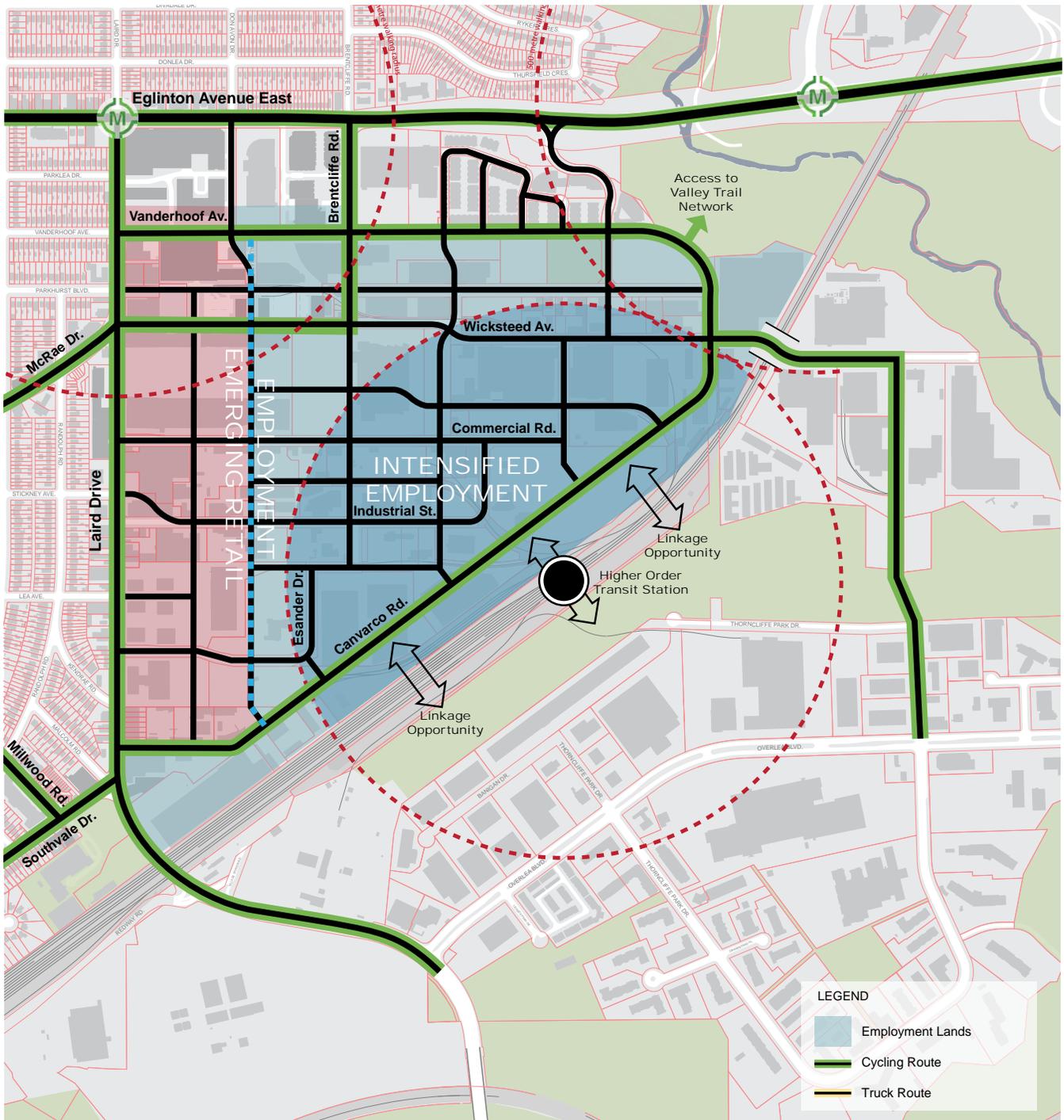


Figure 6.14: Transportation Framework Long-term

6.3 Study Area A

6.3.1 Structure Plan

The Structure Plan for the Eglinton Avenue sites provides a framework for development through the introduction of new streets and pedestrian routes. These linkages provide opportunities for public art, heritage interpretation, seating, and wayfinding (secondary nodes). They will also provide enhanced connections to the LRT station entrance to be located within the 815-845 Eglinton Avenue East redevelopment. Bicycle parking will also be an important requirement.

An open space system extends along Vanderhoof Avenue with programmable parks anchoring the two ends of the study area and a generously wide tree-lined boulevard connecting both. The open space system will contribute to the overall greening of Vanderhoof Avenue and act as the first phase of this initiative that will over time extend eastward, linking to Leonard Linton Park and to a formalized entrance into the Don Valley ravine trail network. Additionally, opportunities for expanding existing parks in the vicinity, such as Leonard Linton Park, will be explored.

As part of any development application, parkland provision will follow a land-first approach and be required in the following order of priority:

1. Unencumbered on-site;
2. Unencumbered off-site; where on-site parkland dedication is not feasible, an off-site parkland dedication that is accessible to the area where the development site is located may be substituted for an on-site dedication, provided that:
 - a. The off-site dedication is a good physical substitute for any on-site dedication;
 - b. The value of the off-site dedication is equal to the value of the on-site dedication that would otherwise be required; and
 - c. Both the City and the applicant agree to the substitution; and
4. Cash-in-lieu.

Buildings will be mid-rise in character with heights responding to the City's "Mid-rise Guidelines", and setbacks along Eglinton Avenue consistent with approved development. Low-rise buildings will front onto Aerodrome Crescent at a height consistent with the existing townhouse community to the east while taller buildings will be located within the interior of the site.

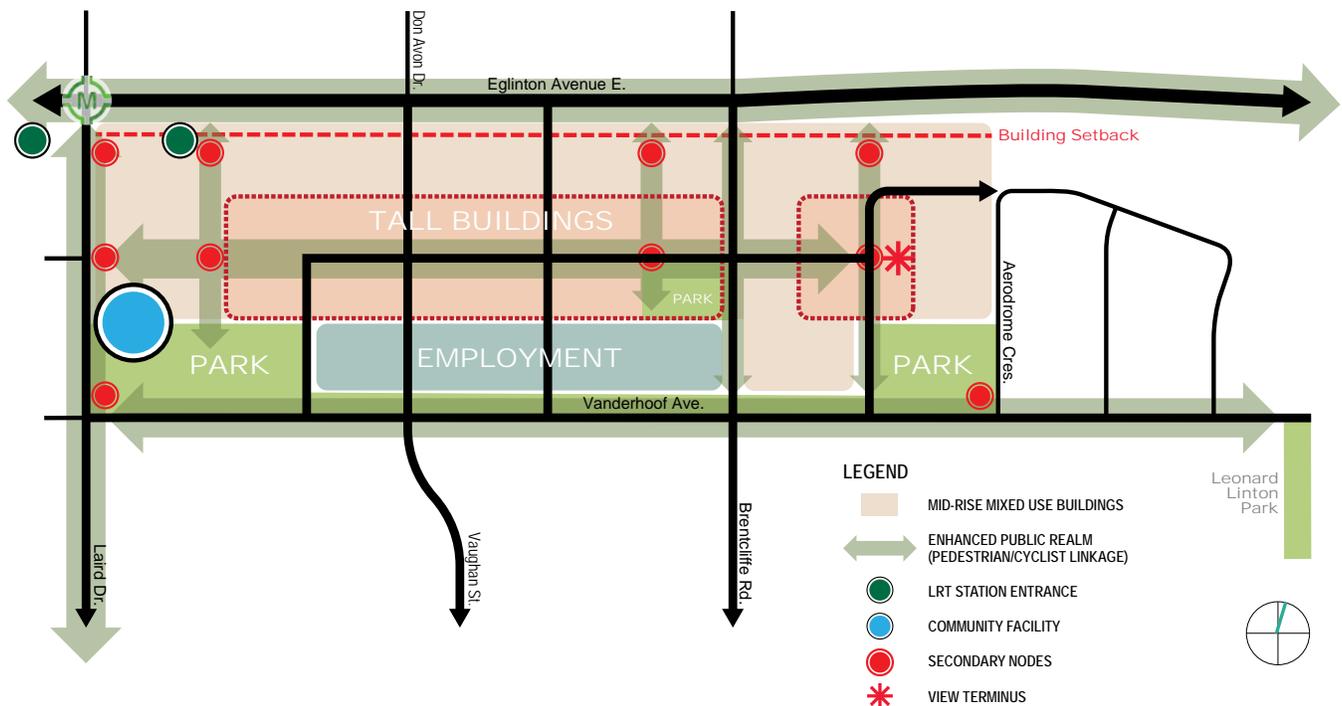


Figure 6.15: Study Area A Structure Plan

A significant component of the plan will be a community recreation facility to serve the new residential community and those of North and South Leaside. Key considerations for its location should include accessibility from a public street and adjacency to a new park to which it can directly contribute. Further, it should also be sited to provide direct connections to transit, both the LRT and the local bus service, and to the emerging cycling network.

6.3.2 Land Use

Land uses are predicated on OPA 231 which identifies the types of permitted uses within specific areas. As such, employment and employment-related uses, such as parks, retail, restaurants and small-scale services, are allowed within a 50-metre band of land extending along the north side of Vanderhoof Avenue between Laird Drive and Brentcliffe Road. The remainder of Study Area A is designated “mixed use”. The “mixed use” designation permits a wide range of residential, commercial, institutional and office uses.

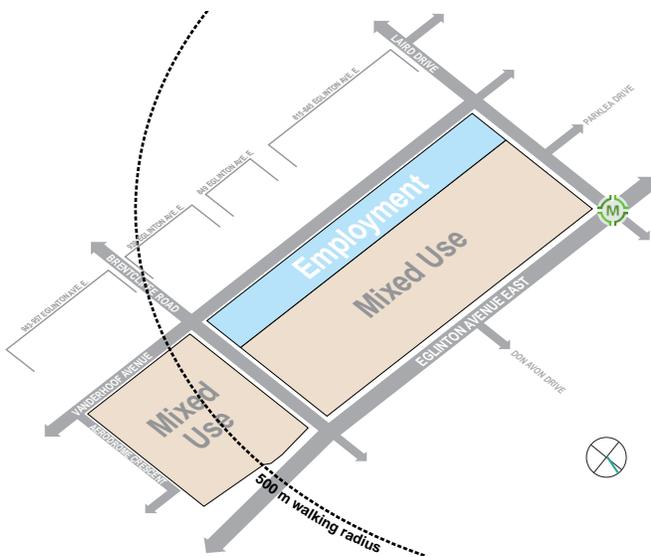


Figure 6.16: Study Area A Land Use

6.3.3 Movement

The proposed movement network features a mid-block east/west connection extending from Laird Drive to Aerodrome Crescent comprised of pedestrian and vehicular elements. The new “Main Street” will provide animation to the heart of the new community through active ground floor activities, such as restaurants, cafés and retail stores, as well as intimacy through its scale and greening. This will offer a contrast to the busier character envisaged along Eglinton Avenue.

Frequent north/south connections create numerous pedestrian options with clearly delineated and safe walking and informal cycling routes, thereby increasing activity through the study area. Eglinton Avenue East, Laird Drive, Vanderhoof Avenue, and Brentcliffe Road will all be enhanced to better accommodate pedestrians and cyclists through improvements in streetscaping and at road crossings.

In close proximity to the LRT station and the planned community centre, a public (i.e. TPA) underground parking structure should be incorporated within the development, which will also support local commercial uses.

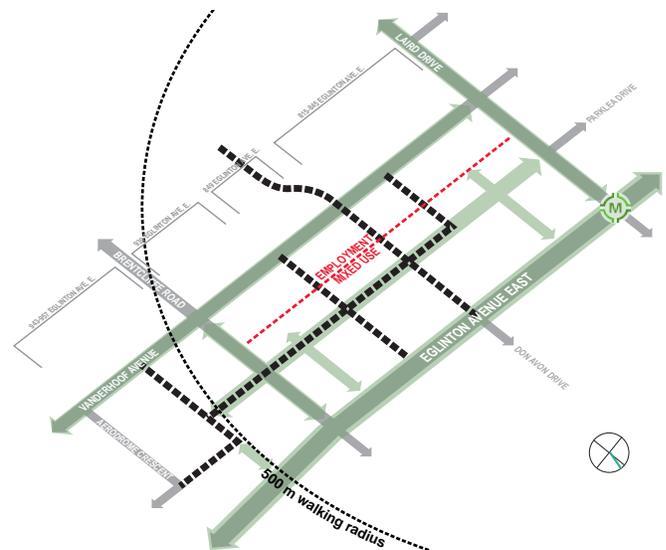


Figure 6.17: Study Area A Movement

6.3.4 Public Realm

As noted above, the open space system will form the first phase of a re-imagining of lands along Vanderhoof Avenue. Focused on the southern half of Study Area A the new parks will provide needed programmable space for the newly forming community as well as provide a public destination for the existing communities of North and South Leaside.

Streetscapes contribute to the public realm through the quality of their environment by means of viable trees and general greenery, width of sidewalk, lighting, wayfinding, and furnishings that are supportive of cyclists and pedestrians.

Privately Owned, Publicly-Accessible Spaces (POPS) play a complementary role to the parks and street public realm providing connectivity between the two. They also provide amenity space for activities that extend outside of, but are related to, ground floor commercial uses, such as restaurants and cafes.

New development should face park blocks by providing active openings (entrances) at the ground floor level to provide overlook and promote regular activity in the park. New development shall avoid placing, where possible, loading spaces, loading entrances and other back or house operations beside park block(s). Where

such active openings (front doors of residential units, front doors of commercial or retail units, for example) directly abut public parks, their entrances, such as steps, landings, and walkways, should be outside of the park block.

6.3.5 Built Form

The built form basis for Study Area A is the mid-rise building. The heights of this element are aligned with mid-rise guidelines and, as such, with street right-of-way widths. Further articulation is indicated in the form of contextual considerations through stepbacks and setbacks from the property line. Such measures will contribute to the enhancement of the public realm as well as provide appropriate transitions to adjacent residential communities. Buildings adjacent to parks shall achieve the Ontario Building Code (OBC) setbacks related to fire separation on their own site on the portions where new buildings abut parkland.

Taller buildings are to be located mid-block with the tallest being sited closer to the LRT station. However, maximum height should be comparable to that approved at 939 Eglinton Avenue East and also provide a transition downwards when approaching the Leaside community west of Laird Drive. Maximum height is determined by extending a 45-degree angular plane from the north side of Eglinton Avenue East road right-of-

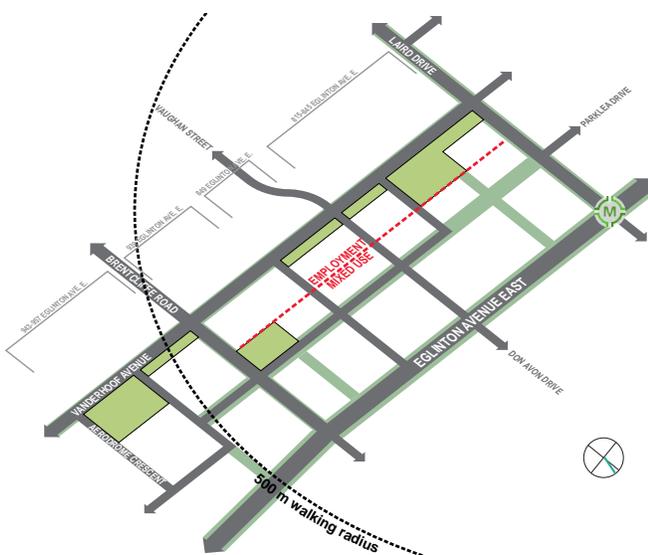


Figure 6.18: Study Area A Open Space

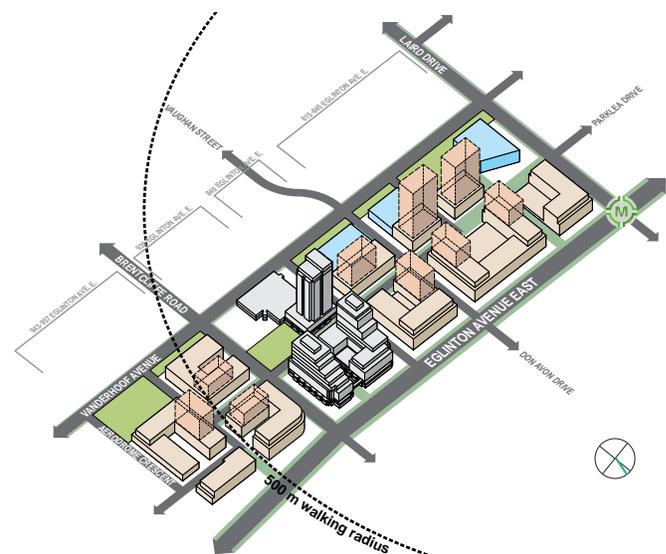


Figure 6.19: Study Area A Built Form



Figure 6.20: Study Area A Illustrative Plan

way, as well as from the west side of Laird Drive’s right-of-way. Tall buildings should not exceed those planes in order to minimize shadow impacts while also providing a contextual relationship with the approved 939 Eglinton Avenue East development.

6.3.6 Illustrative Plan for Study Area A

The plan indicated below illustrates the potential buildout of Study Area A, combining land use, movement, open space, and built form components into a singular comprehensive vision. The plan provides a technical test for development potential while also balancing contextual, public realm, and transportation considerations. The plan situates new buildings in an enhanced urban environment to create a unique identity for this emerging community, while also providing a bridge to its adjacent neighbours.

6.4 Study Area B

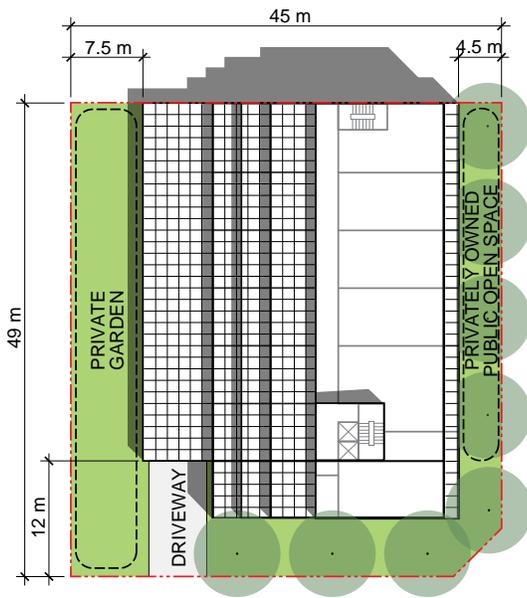
Sites along Laird Drive can be categorized into three groupings: those that can support a mid-rise development, those that will redevelop as low-rise projects, and those that will be identified for and enhanced as heritage properties.

6.4.1 Mid-rise Approach

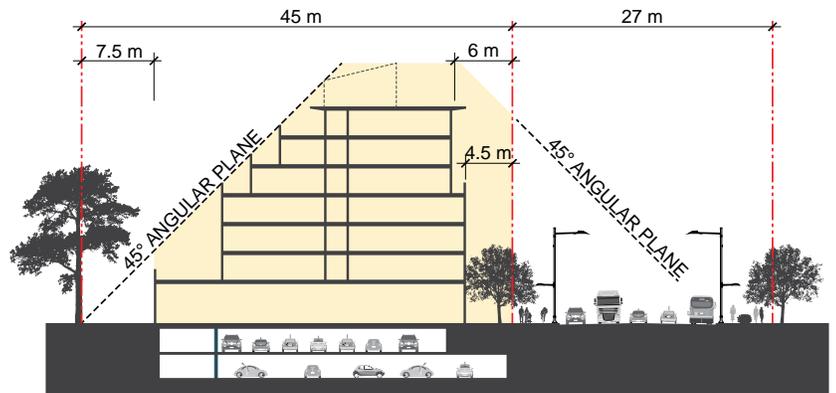
Mid-rise sites are those identified with a lot depth of 36 metres or greater. In order to accommodate street trees and the associated supportive soil volume along Laird Drive, both the building and the first level of below-grade parking have been set back 4.5 metres. Together with a rear yard setback of 7.5 metres (minimum) and the application of mid-rise guidelines, this will result in a mixed-use built form of between 6 storeys (36-metre lot depth) and 7 storeys (44-metre lot depth).

Considerations have been made to avoid the creation of a continuous street wall along Laird Drive. This is in keeping with the current development pattern of discretely separated buildings. Future mid-rise developments built adjacent to one another will also provide building separations which can function as access and servicing areas or as amenity spaces while also lessening their visual impact on the existing residential neighbours to the west.

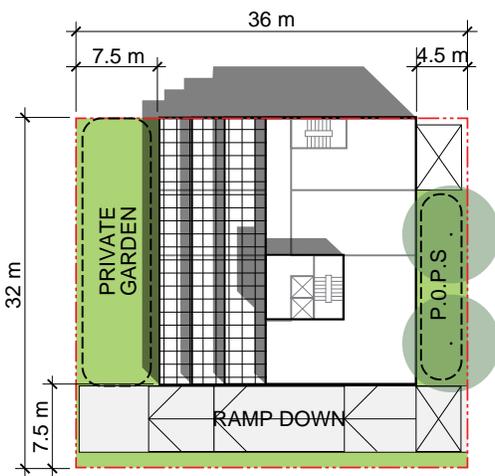
Vehicular and servicing access is recommended to be provided by a rear lane. However, this will require the co-ordination of development to ensure mid-block sites are fully accessible if developed earlier than end sites.



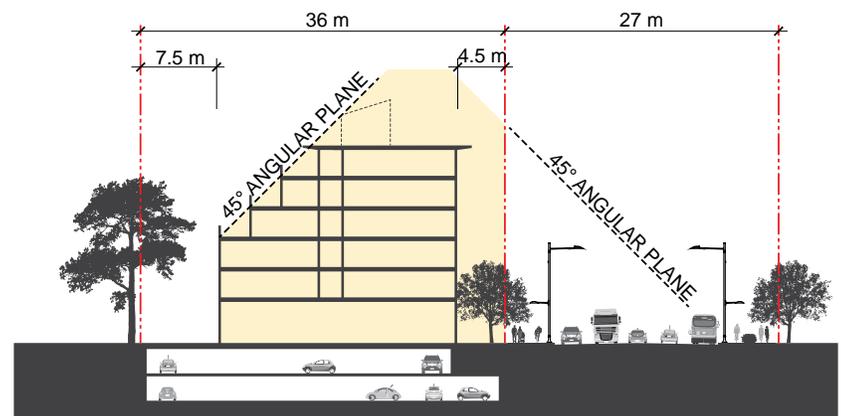
Site Plan



Site Section



Site Plan



Site Section

Figure 6.21: Study Area B Mid-rise Approach

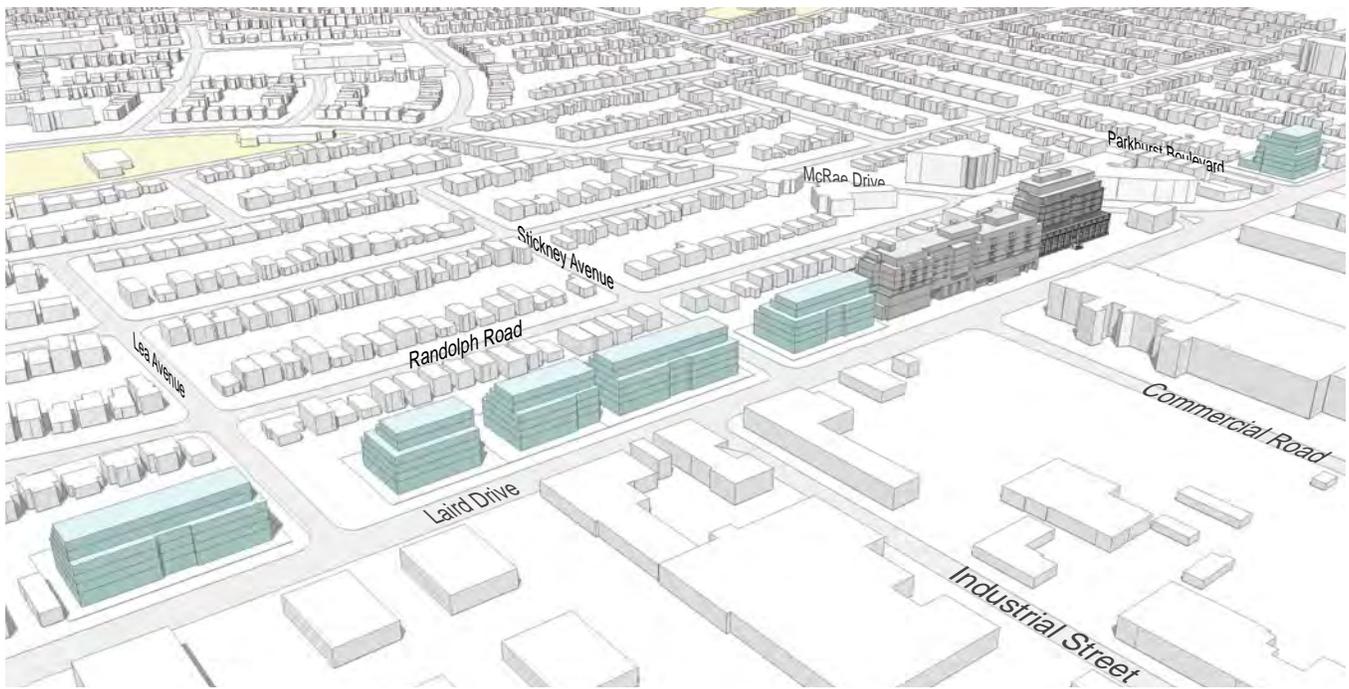


Figure 6.22: Study Area B Mid-rise Build Out Potential

6.4.2 Low-rise Approach

Low-rise developments (maximum 3 storeys) will be largely focused to the southern end of Laird Drive, across from Esander Drive to Malcolm Road. These sites will be redeveloped individually or as assembled properties. Preferred access will be via a rear lane accessed from the side street. Building setbacks will be a minimum of 4.5 metres to ensure both street tree planting and appropriate transitional space between public and private realms.

6.5 Streetscapes

The plan shown below illustrates the potential and holistic redevelopment of the “Laird in Focus” Study Area. Study Areas A and B are interconnected not only by streetscape improvements along Laird Drive, but also by an enhanced public realm along Vanderhoof Avenue. Key elements of this composite plan include:

- Cycle lanes on the boulevards of Laird Drive and Brentcliffe Road;
- Multi-use path along the north boulevard of Vanderhoof Avenue;

- Tightened intersection and eastbound right-turn restriction at McRae Drive and Laird Drive in order to facilitate pedestrian crossings; and
- Signalized intersection at Vanderhoof Avenue and Laird Drive.

The streetscape component of the study is tightly linked to the movement analysis of the street network. As such, this involves an iterative process that will require revisions to the streetscape plan as transportation recommendations come forward. These will provide direction as to the number of required vehicle lanes and intersection considerations that protect for the safe passage of pedestrians, cyclists, and vehicles.

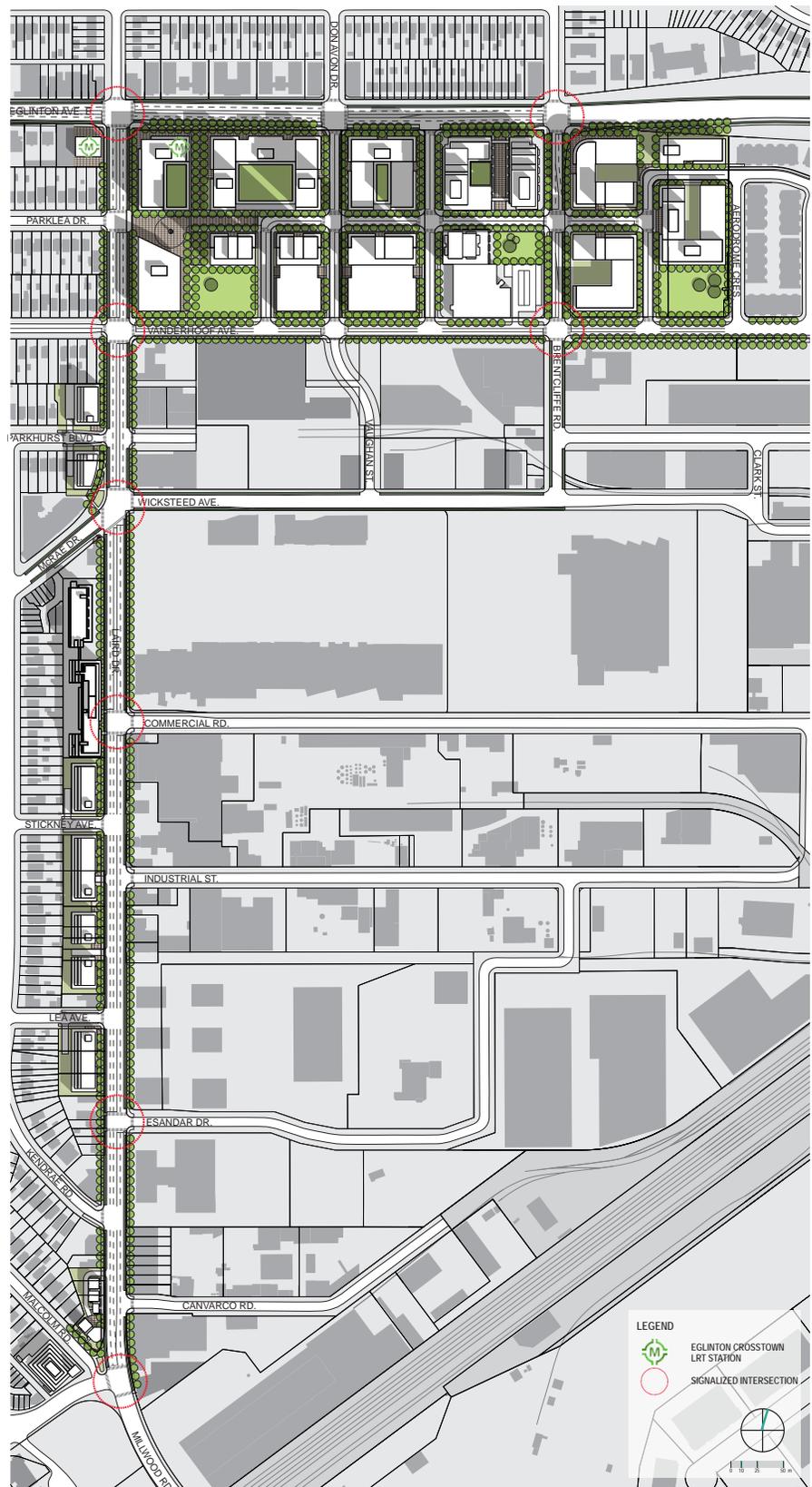


Figure 6.23: Illustrative Streetscape Masterplan

6.5.1 Identification & Character of Potential Nodes

Key nodes that will be subject to further study in Phase 3 will include the following intersections:

- Malcolm Road at Laird Drive and Millwood Road;
- McRae Drive, Wicksteed Avenue, and Laird Drive;
- Vanderhoof Avenue and Laird Drive;
- Eglinton Avenue East and Laird Drive; and
- Eglinton Avenue East and Brentcliffe Road.

Each of these represents a form of gateway either into the community or as a transition between communities. As such, their character and role in providing identity and orientation will be explored and described in the subsequent phase of this study.

6.5.2 Considerations for Streetscape Elements and Layout

Within the Laird in Focus Study Area the street right-of-way consists of the following proposed elements:

- Travel lanes;
- Utility zone (lighting, traffic signal, and utility poles, fire hydrants, signal control boxes, etc.);
- Cycle track and sidewalk (or multi-use path); and
- Landscape/Street furniture (benches, trash receptacles, bicycle locking posts, transit shelters, wayfinding kiosks, etc.).

The main variable is the number and width of travel lanes. This is dependent on the study's transportation analysis and will affect the location of street trees (within or adjacent to the ROW), given the fixed dimensions of the utility zone, cycle track, and sidewalk as well as the overall right-of-way width. With respect to Laird Drive, due to the anticipated number of travel and turn lanes combined with dedicated cycling infrastructure and wider sidewalks, the expectation is that trees will need to be accommodated outside of the road right-of-way, hence requiring a setback of new development from the property line.

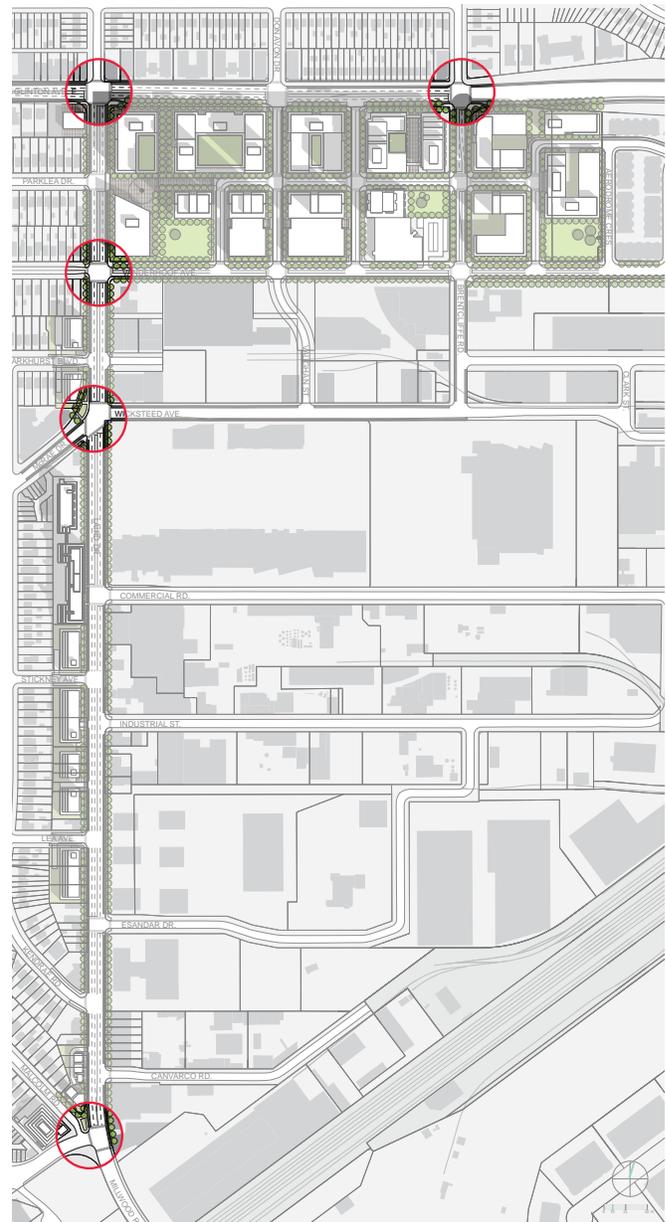


Figure 6.24: Potential Placemaking Nodes

6.5.3 Streetscape Right-of-way Cross-Sections

As noted above, the street right-of-way cross-sections are affected by the transportation analysis component of the study and will therefore be subject to modification as recommendations concerning the number of lanes and their widths come forth. Additionally, through working sessions with the Technical Advisory Committee, recommendations for the location and width of cycling facilities, bus transit routing and lay-bys will affect the design of rights-of-way which in turn will impact on building setbacks and the overall Illustrative Streetscape Masterplan. Rights-of-way for the following streets have been studied and designed for:

- a. Eglinton Avenue East
- b. Brentcliffe Road
- c. Vanderhoof Avenue
- d. Midblock Street
- e. Laird Drive

Further study will explore the design of key intersections that ensure safe crossings for pedestrians and cyclists while also facilitating the movement of vehicles.

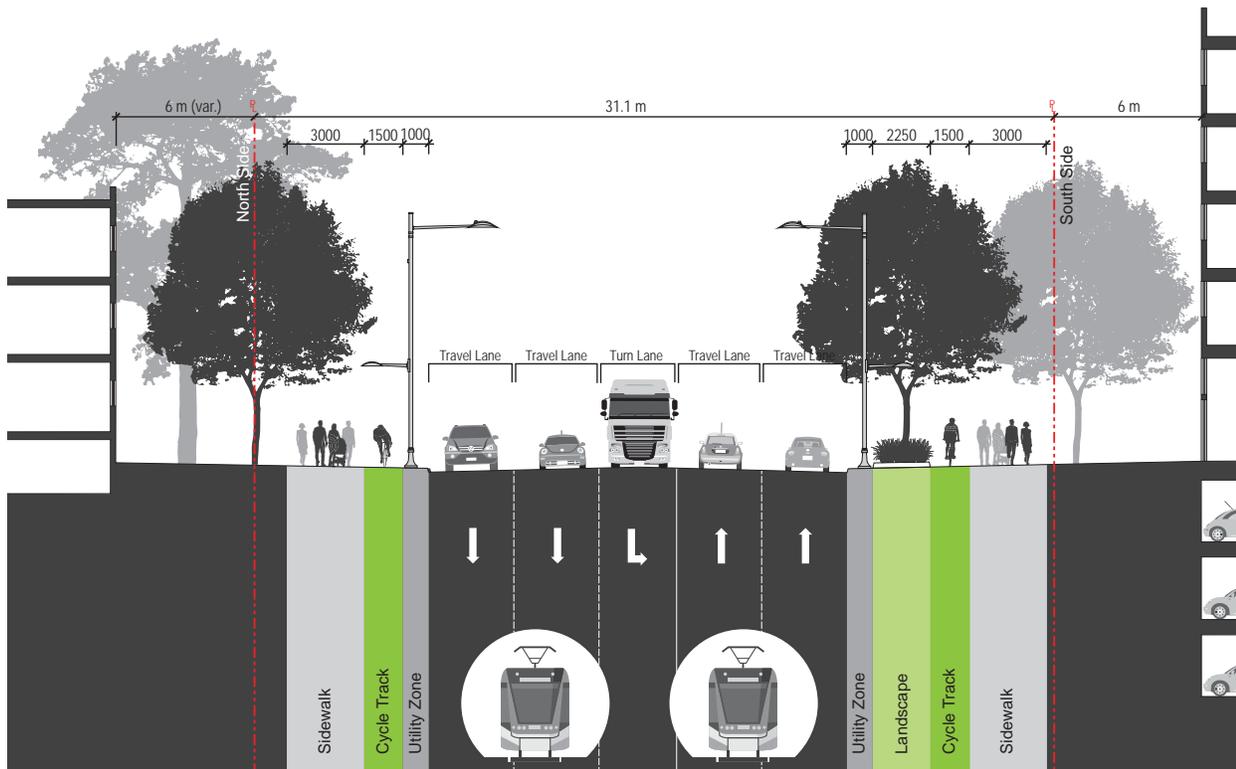
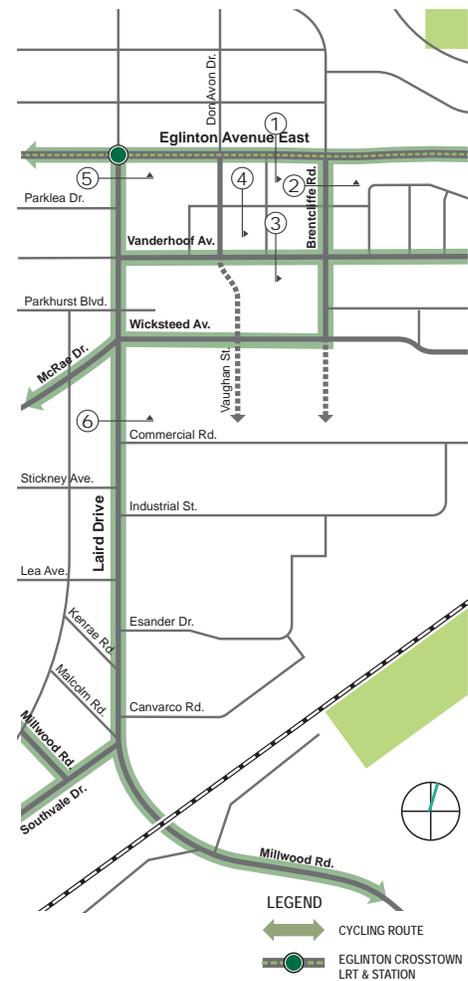


Figure 6.25: Streetscape Right-of-way Cross-Sections - Eglinton Avenue East

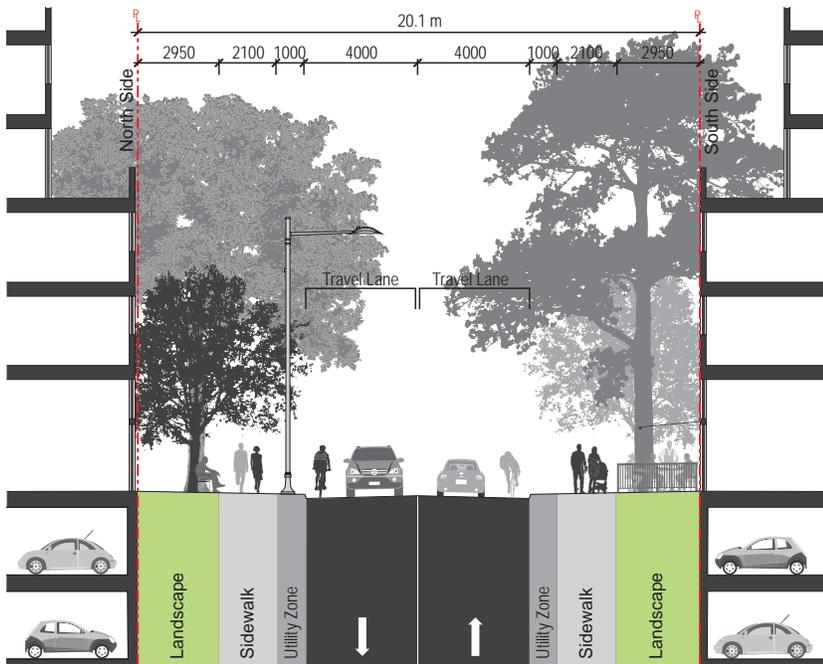
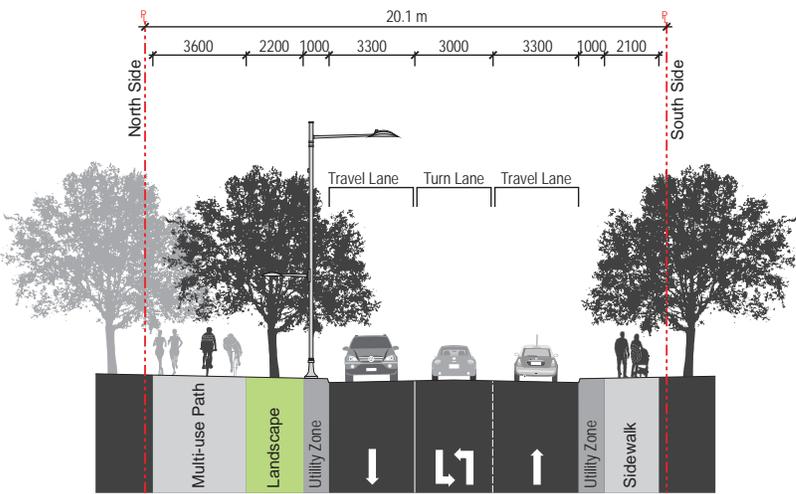
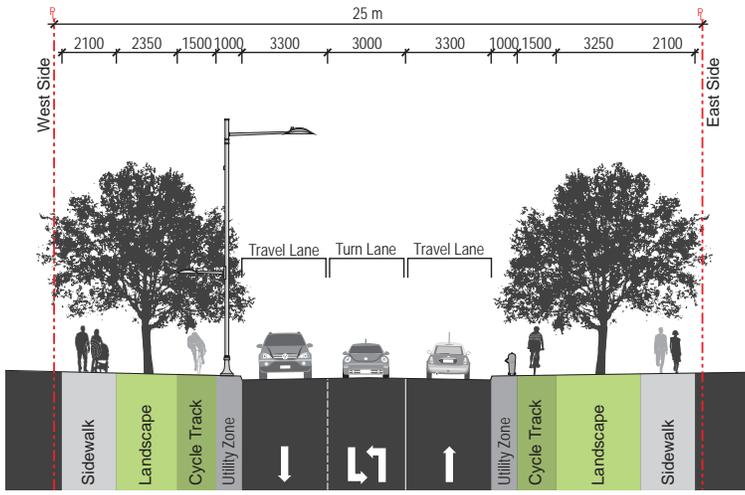


Figure 6.26: Streetscape Right-of-way Cross-Sections - Brentcliffe Rd. (top), Vanderhoof Ave. (middle) & Laird South of Eglinton Mid-block (bottom)

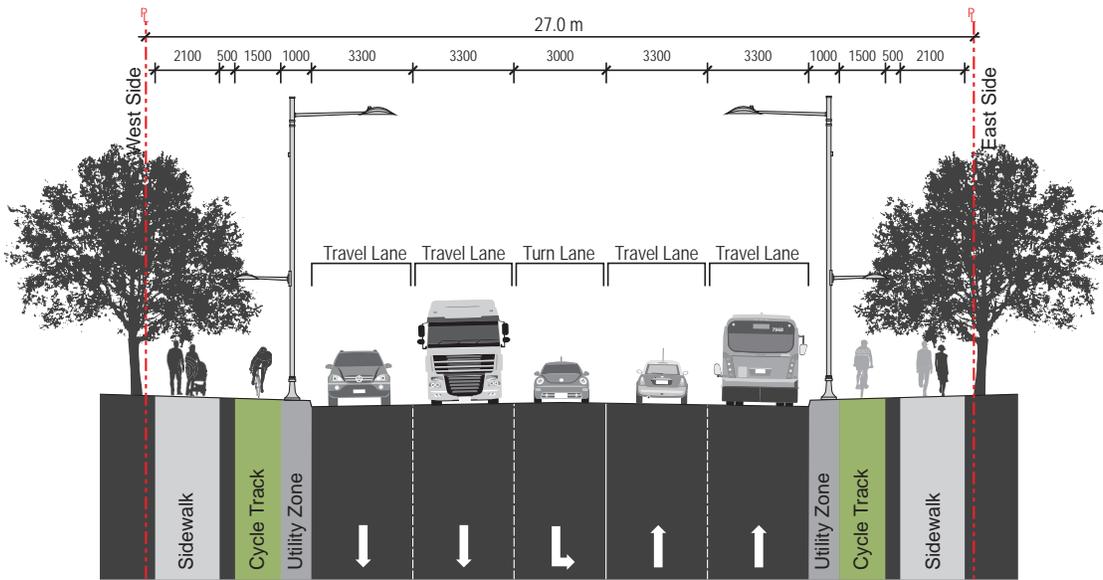
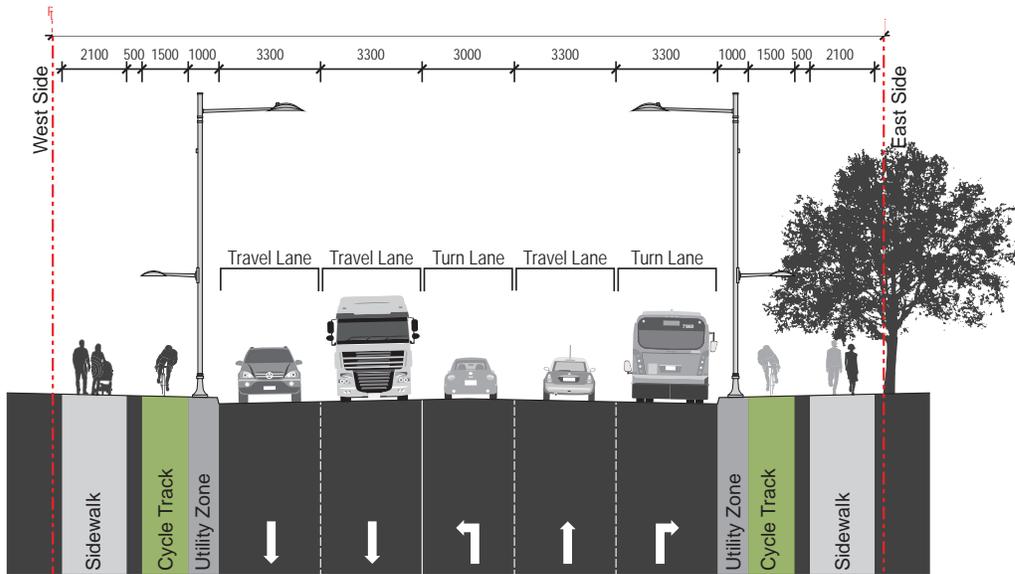


Figure 6.27: Streetscape Right-of-way Cross-Sections - Laird Drive South of Eglinton Ave. (top) & Laird Drive-typical (bottom)

7.0 INITIAL MULTI-MODAL TRANSPORTATION ANALYSIS

To guide the development and assessment of alternative built form scenarios, as presented in the preceding sections, an initial multi-modal analysis was undertaken. This initial analysis not only considered alternative built forms and various building heights, but also different mode split assumptions. As a result, a range of generated and distributed trips was developed for each mode for various combinations of built form / building height and mode splits. These development-related trips per mode were added to the existing mode trip volumes to provide a resulting total mode trips for the envisioned Part A and Part B development scenario.

The total multi-modal trips were then preliminarily compared to the available existing and planned roadway and transit network capacities. Preliminary assessment for active transportation / transportation demand management modes were also conducted, considering achievable targets based on the Toronto / Leaside context, evolving techniques and best practices, and potential design and policy responses for the identified built form alternatives.

The following sections briefly outline the following:

- Initial multi-modal transportation analysis approach;
- Key findings following the preliminary initial multi-modal analysis, including the iterative process undertaken;
- Key findings following the refined initial multi-modal analysis; and
- Other multi-modal transportation network considerations based on the analysis, consultation, and best practices .

This report does not provide a detailed description of the multi-modal analysis methodology, or provides a comprehensive multi-modal analysis and associated summary. Once a preferred built form for the Part A and Part B developments has been determined in Phase 3, the multi-modal analysis will be finalized and documented, including supporting detailed methodology and assumptions. Also, to be noted, the preliminary comparison to the available network capacities was primarily with the existing and planned roadways. Transit network capacities, including both the Eglinton Crosstown and the feeder bus network, will be addressed in Phase 3 as required.

7.1 Assessment Approach

As mentioned above, an iterative multi-modal transportation analysis approach was adopted in conjunction with development of the land use and built form options as shown in Figure 7.1. Although multiple iterations and refinements were completed, a simplified view of the process is shown in Figure 7.2.

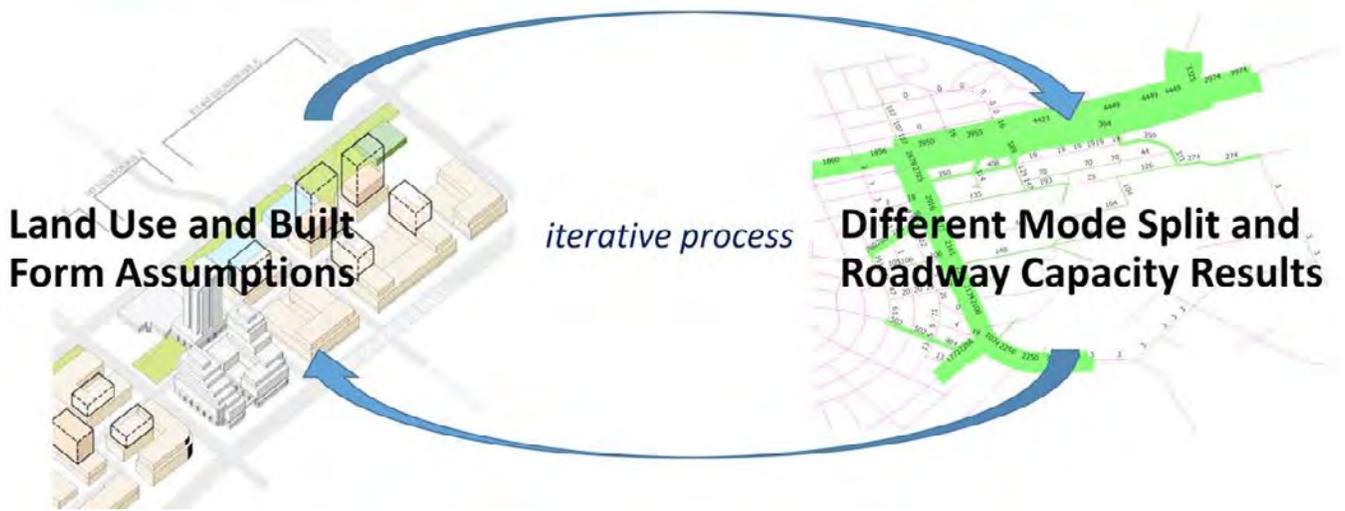


Figure 7.1: Land Use and Transportation Collaborative Approach

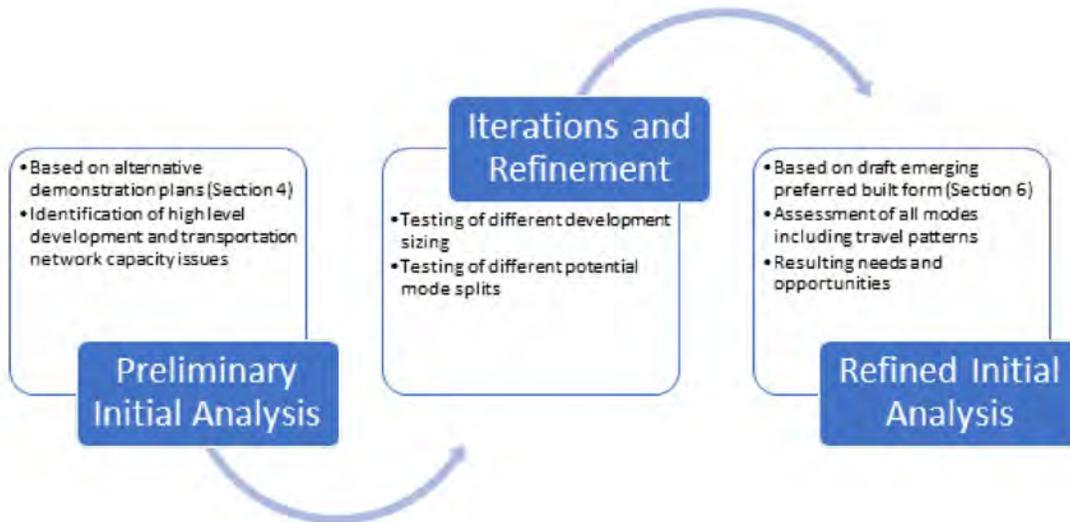


Figure 7.2: Initial Analysis Process

The multi-modal analysis methodology for the initial analysis was based on a simplified demand model with 3 major steps as shown in Figure 7.3. The proposed study area was broken into development blocks and trips were generated for each block, then split into each mode. Based on GPS location-based data, Transportation Tomorrow Survey (TTS) and existing transit ridership, distributions to and from the different blocks were determined. Trips were then distributed to areas outside the study area, and finally, trips were assigned to the appropriate network for each travel mode.

The initial mode share of the new residents was assumed to be 41% vehicular, 41% transit, and 18% active transportation based. This was based on the City of Toronto’s Eglinton Connects – Avenues and Mid-Rise Buildings Travel Survey, which surveyed travel characteristics along Eglinton in mid-rise and higher density buildings. Existing travel patterns based on TTS data was used for all existing development blocks given that their current characteristics would not be consistent with the surveyed demographics.



Figure 7.3: Model Process

7.2 Preliminary Initial Transportation Analysis

To begin the iterative assessment process, the first step was to develop an assessment of the alternative demonstration built form plans as documented in Section 4.0. Due to the limited differences in total population and employment for the three alternatives, Scenario 1 was selected (i.e. as all alternatives would produce a similar number of potential trips). The intent of this step was to provide some high-level guidance towards the further development of the built form and land use alternatives. The following table shows the provided population for Part A scenarios, with a breakdown by land use type.

Scenario	Total Population	Residential	Office	Commercial	Community Facility
Scenario A	8,834	7,886	363	573	12
Scenario B	9,171	7,178	1,627	366	0
Scenario C	8,868	8,352	80	400	36

During this stage, only vehicular traffic was assigned to the proposed road network given that it is the primary capacity constraint in the area with marginal opportunities for improvement (refer to Phase 1 Existing Conditions Report). Other modes were considered indirectly, with an actual assignment completed for the draft emerging preferred land use and build form option.

As it can be seen in Figure 7.4 and Figure 7.5, with the increase in population within the study area, significant vehicular traffic is added along Laird Drive and Eglinton Avenue during the AM and PM peak hours. In particular, Eglinton Avenue eastbound in the AM peak hour and Laird Drive northbound in the PM peak hour appear to be over capacity. As such, the initial conclusion was that development sizes should be lowered to fit the existing transportation infrastructure available, primarily the road network.

As a result, an iterative process ensued where further refinements to the development plans (i.e. built form and land use) ensued and corresponding transportation analysis undertaken. To be noted that changes in land use and built form were limited to the Part A development. The envisioned Part B development is limited by available block sizes, thus presenting minimal refinement to the development characteristics.

The following table summarizes the iterative process findings assuming a 40% vehicular and 60% transit and active transportation mode split, which was agreed upon as an achievable target, and a test of different potential Part A

development resident populations. A key finding was that approximately 75% of the potential residential trips, in addition to the assumed mixed-use trips, could be reasonably accommodated on the existing road network (noting that Eglinton eastbound present challenges).

This input was used to further guide the draft emerging preferred built form and land use structure. As noted elsewhere in this report, other key considerations included required densities adjacent to transit stations (i.e. Places to Grow legislation) and previously approved adjacent development applications.

Scenario	Link/ Segment Volumes - AM (PM)	Roadway Capac- ity Available Per Direction	Residential Percentage of Part A							
			25%		50%		75%		100%	
			1970 Residents		3940 Residents		5915 Residents		7885 Residents	
			SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB	SB/WB	NB/EB
Scenario 1 (40/60 Mode Split)	Laird South of Vanderhoof	1000-1500	1180 (1040)	1380 (1590)	1200 (1060)	1390 (1620)	1230 (1080)	1390 (1650)	1260 (1090)	1400 (1670)
	Eglinton East of Laird	2000-2500	1520 (2050)	2210 (1940)	1530 (2070)	2260 (1940)	1530 (2090)	2320 (1960)	1530 (2120)	2370 (1970)
	Eglinton East of Brentcliffe	2000-2500	1600 (2050)	2330 (2070)	1600 (2100)	2470 (2070)	1600 (2150)	2620 (2080)	1610 (2210)	2760 (2090)

7.3 Refined Initial Multi-Modal Transportation Analysis

Once a draft emerging preferred built form and land use structure was determined, with transportation-related guidance noted in the above section), subsequent additional multi-modal transportation analysis was undertaken. This refinement analysis included testing a range of potential modal splits, ranging from a conservative estimate of 45% vehicular and 55% transit plus active modes, to 30% vehicular and 70% transit plus active modes.

This was undertaken to evaluate the sensitivity of the proposed development to changes in travel behavior, identifying potential development phasing triggers, and establish targets and baselines for future monitoring / analysis works as developments are completed.

The following table shows the vehicular traffic along key links within the study area, with various mode splits to test sensitivity to changes in travel behaviour.

Alternative Vehicle / Transit + Active Mode Splits for Testing	Link/Segment Volumes - AM (PM)	Roadway Capacity Available Per Direction	Emerging Preferred Built Form (Part A - 7135 Residents)	
			SB/WB	NB/EB
45%/55%	Laird South of Vanderhoof	1000-1500	1360 (1150)	1420 (1740)
	Laird South of Industrial	1000-1500	1050 (850)	1230 (1380)
	Eglinton East of Laird	2000-2500	1600 (2160)	2410 (2030)
	Eglinton East of Brentcliffe	2000-2500	1730 (2270)	2780 (2200)
40%/60%	Laird South of Vanderhoof	1000-1500	1340 (1120)	1400 (1710)
	Laird South of Industrial	1000-1500	1030 (840)	1220 (1350)
	Eglinton East of Laird	2000-2500	1590 (1160)	2380 (1600)
	Eglinton East of Brentcliffe	2000-2500	1710 (2240)	2710 (2170)
35%/65%	Laird South of Vanderhoof	1000-1500	1320 (1100)	1370 (1700)
	Laird South of Industrial	1000-1500	1000 (830)	1190 (1350)
	Eglinton East of Laird	2000-2500	1570 (2140)	2320 (2000)
	Eglinton East of Brentcliffe	2000-2500	1690 (2240)	2610 (2160)
30%/70%	Laird South of Vanderhoof	1000-1500	1290 (1060)	1340 (1650)
	Laird South of Industrial	1000-1500	970 (800)	1170 (1280)
	Eglinton East of Laird	2000-2500	1560 (2090)	2270 (1970)
	Eglinton East of Brentcliffe	2000-2500	1670 (2160)	2530 (2120)

The following figures, Figures 7.6 to 7.11, show the actual flows of vehicles, pedestrians, and cyclists on the road network using a 40% vehicular and 60% transit and active transportation mode split assumption. It should be noted that the pedestrian and cyclist assignments include users that are destined to transit stops.

Key findings of this refined multi-modal transportation analysis are as follows:

- Vehicular traffic along Eglinton Avenue eastbound in the AM peak hour is over-capacity, likely destined towards Don Mills Road or the Don Valley Parkway;
- Vehicular traffic on Laird Drive northbound in the PM peak hour is over capacity, likely reflecting the lack of alternative routing (to be noted, the analysis does capture the potential fine-grained road network within the Part A development which would reduce the Laird volumes);

- Direct and high-quality active transportation linkages to both the LRT station and to the local bus network are critical;
- Pedestrian flows are quite high along Laird Drive and Vanderhoof Avenue due to residents accessing transit and amenities along Eglinton Avenue, indicating a need for improved porosity to Eglinton Avenue and Laird Drive within the Part A development; and
- Cycling volumes are low, however, due to the limited nearby employment options, cycling demand would be more likely to occur during off-peak hours, where non-work trips are more prevalent.

7.4 Multi-modal Transportation Network Considerations

The identified Draft Emerging Preferred Built Form Structure Plan, as outlined elsewhere in this report, was also influenced by land use factors (i.e. Places to Grow legislation) and nearby approved developments applications. As a result, there are transportation impacts - specifically for the ultimate Part A development implementation, where Eglinton eastbound in the AM peak would be over capacity.

The initial analysis shows that approximately a 20% reduction in residential development size would be required to allow traffic to remain within the anticipated capacity along Eglinton Avenue east of Brentcliffe Road. Alternatives to reducing development size would include some combination of the following:

- Increasing east-west capacity (i.e. implementing a Wicksteed Avenue grade separation to cross the rail corridor, including a roadway re-classification to a minor arterial for its entire length);
- Further changes in mode shares, potentially to 30% vehicular and 70% transit plus active transportation, supported by incorporating appropriate policies;
- Development phasing and associated monitoring to appreciate potential regional shifts in travel patterns, evolving technologies / policies, and travel demand management strategies.

Due to the uncertainties of some of these factors, it is recommended that a development phasing plan be considered, with an associated established monitoring program to identify the actual vehicular capacity and traffic along Eglinton Avenue.

Other mobility considerations were identified as key principles, based on Phase 1 findings, Phase 2 consultation and analysis, and best practices within the Toronto / Leaside context, summarized below:

Road Network and Associated Right-of-Way

- Fine-grained road network within the Part A development be implemented to provide alternative access points to Eglinton Avenue in addition to Laird Drive, but avoiding a direct access onto Laird Drive
- Promote implementing a Wicksteed Avenue grade separation to cross the rail corridor, including a roadway re-classification to a minor arterial for its entire length, in order to achieve the ultimate Part A development

Transit Network

- Local feeder bus network be considered in the layout of the Part A development, including ensuring high quality / transit priority access in the vicinity of the station and the proposed community centre / parks
- Ensure that internal roadways / laneways in the Part A development, provide a high level of connectivity and visibility, including ample space for amenities and bike parking

Parking

- Discourage on-street parking along Laird Drive to maximize road right-of-way for active transportation and associated streetscaping
- Further along Laird Drive, promote Part B development to have side street access to rear parking facilities
- For Part A development, parking maximum policies will be utilized to achieve the desired 40% vehicular and 60% transit and active transportation mode split, including considering joint partnership with the community facilities and the TPA

Cycling and Pedestrian

- Laird Drive cycle tracks and an attractive pedestrian environment be implemented along its entire length to provide high quality linkages to the transit station and bus stops, to existing and planned community facilities / parks, and to complete the envisioned network (i.e. connect to Eglinton cycle tracks to the north, to the Millwood Road bike lanes to the south, and to the on-street facilities within the adjacent residential communities)
- Implement an east-west multi-use trail along Vanderhoof Avenue, to provide a neighbourhood connection to the planned community centre / parks and to the Don Valley Ravine trails (the intent is to provide a more family-compatible route as opposed to the Eglinton cycle tracks, while also acting as buffer between the new developments to the north and the remaining employment lands to the south)

Goods Movement

- Recognizing the importance of maintaining access to the employment lands, arterial roadways (Eglinton, Laird, Wicksteed and Brentcliffe) will remain as the key routes, and designed accordingly
- In the longer term, with the implementation of a potential Wicksteed Avenue grade separation, it is anticipated that truck movements could be altered over time in order to provide a safe and attractive environment along Brentcliffe Road and Eglinton Avenue

TDM

- Transportation demand management strategies will be an, important component in achieving the desired modal splits, and appropriate measures will be investigated during Phase 3 including discussions with key stakeholders

All of the above, and other considerations, will be included in the detailed multi-modal analysis to be undertaken and documented during Phase 3.

8.0 SERVICING ANALYSIS OF DRAFT EMERGING PREFERRED ALTERNATIVE

8.1 Assumptions and Preliminary Results

8.1.1 Water Network

Our consulting team has developed an InfoWater model for this Study Area. The main components of the model are described below.

- The City provided GIS shapefiles for the water system (watermains and valves), which were used to generate the pipe network for the InfoWater model
- The average consumption/billing data from the geocoded meter data provided has been used as the modelled average day demands for each parcel. These demands have been assigned to the closest node in the pipe network to create an average day demand set.
- Based on City of Toronto guidelines, the Maximum Day peaking factor is 1.8 and the Peak Hour factor is 2.5. The average consumption from the meter data was multiplied by the peaking factors to create the Maximum Day and Peak Hour demand sets.
- Fire demands were assigned to junctions in the network based on the land use.
- Since the model developed is for the local area only, additional system data was collected to provide a suitable boundary condition at the study area limits. A fixed head reservoir has been established west of Don River and east of Overlea Boulevard and Thorncliffe Park Drive servicing the 400-mm transmission main along Overlea Boulevard.
- A field testing program was developed to calibrate the model. These tests involved five hydrant flow tests along major water mains to calibrate the roughness coefficients along these primary feeds. Also, pressure loggers were installed at two locations (Overlea Blvd

and Parkhurst Blvd) to track normal pressure variations over the course of a typical week.

- The fire flow test analysis was performed for all the five locations using NFPA 291 Extrapolation Methodology.
- The hydraulic information in the model regarding pipe roughness (Hazen Williams Coefficient) and the boundary conditions (HGL for Fixed Head Reservoir) were initially assumed based on standard values. The model was calibrated by adjusting the primary network model parameters (i.e. pipe roughness coefficients and Reservoir HGL) until the model results closely approximate actual observed conditions as measured from field data.
- The pipe roughness was adjusted along the mains in order to reduce the difference in residual head between model and field data. The adjusted pipe roughness coefficient is within the range specific by City of Toronto Standards.

The existing conditions were simulated with the calibrated model to establish the residual pressures under several demands scenarios throughout the Study Area. The model was simulated for the following scenarios and the pressure and head loss in system can be analyzed to understand the existing system capacity. Model output for the existing condition analysis is summarized in the following table.

Water Demand Modeling Scenario	Minimum Water System Requirements	Modelling Results
Average Day Demand	Recommended System Pressures = 40 psi to 100 psi	Model System Pressure = 46.8 psi to 95.3 psi
Maximum Day Demand	Recommended System Pressures = 40 psi to 100 psi	Model System Pressure = 38.3 psi to 90.1 psi
Peak Hour Demand	Recommended System Pressures = 40 psi to 100 psi	Model System Pressure = 33 psi to 87.3 psi
Required Fire Flow to be provided at a residual pressure of no less than 20 psi		
Maximum Day Demand plus Fire Flow	Residential Fire flow requirements per City of Toronto Standards, Qf >64 L/s to 189 L/s	Model Residential Available Fire flow = 56.5 L/s to 318.3 L/s
	Employment Fire flow requirements per City of Toronto Standards, Qf = 189 L/s to 317 L/s	Model Employment / High Rise Available Fire flow 80.6 L/s to 792.5 L/s

The model simulation results show that the system pressures are within the recommended range of 40 psi to 100 psi (275 kpa to 690 kpa) in most of the area, although under Max Day and Peak Hour demand scenario, there are areas with low pressures. However these areas are at the higher elevation range of the current pressure district. The fire flow analysis performed suggests that these flows are generally suitable in most areas, although some areas are indicated has inadequate. It is not clear whether these areas would be supplemented by additional water supply (and therefore increased pressures) from PD4 through the existing pressure reducing valves (PRV) along Bayview Avenue. This should be confirmed by the City.

8.1.2 Sanitary and Combined Sewer Network

There are three existing “Foul” subcatchments in the vicinity of Study Area A. These subcatchments are identified as SAC06, SAC09 and SP2S25. All three have no assigned population and include a baseflow or “Additional Foul Flow”. Furthermore there is no visible relationship with the baseflow or “additional foul flow” and the area of the subcatchments.

Subcatchment ID SP2S25 drains to the combined system on Laird Drive while subcatchment ID SAC06 and SAC09 drain to the foul system on Eglinton Ave.

For the purposes of modelling the preliminary developments, the existing subcatchments were removed entirely in advance of the proposed Study Area A intensification.

The Study Area A development will likely consist of 16 buildings over four addresses along Eglinton Avenue East. To accommodate these new buildings in the model, new foul subcatchments were created which are summarized in the table below:

Subcatchment ID	Address	Building Numbers Included
A1-1	815-845 Eglinton Ave	1-3
A1-2	815-845 Eglinton Ave	4
A1-3	815-845 Eglinton Ave	5-6
A2-1	849 Eglinton Ave	1-2
A2-2	849 Eglinton Ave	3
A3-1	939 Eglinton Ave	1-4
A4-1	943-957 Eglinton Ave	1-2
A4-2	943-957 Eglinton Ave	3
A4-3	943-957 Eglinton Ave	4

The sanitary flow rates for the revised models were based on the City of Toronto's criteria as noted in the following table:

	Generation Rate	Peaking Factor
Residential	240 Lpcd	Harmon
Commercial, Office, Retail, Community Centre	180,000 L/ha/day	None

Using the provided densities and generation flow rates noted above, peak sanitary flows for each proposed development were calculated and are summarized in the following table.

Address	Building No.	Population	Res. Flow (L/s)	Peak Res. Flow (L/s)	Office Area (m ²)	Office Flow (L/s)
815-845 Eglinton Ave	1	375	1.04	4.20	3,200	0.67
	2	1,056	2.93	11.10	6,950	1.45
	3	565	1.57	6.20	0	0
	4	0	0	0	8,990	1.87
	5	636	1.77	6.93	0	0
	6	198	0.55	2.28	5,340	1.11
849 Eglinton Ave	1	508	1.41	5.61	4,370	0.91
	2	475	1.32	5.26	0	0
	3	307	0.85	3.47	8,250	1.73
939 Eglinton Ave	1	638	1.77	6.94	1,285	0.27
	2	327	0.91	3.69	555	0.12
	3	671	1.86	7.27	0	0
	4	0	0	0	4,300	0.90
943-957 Eglinton Ave	1	596	1.66	6.51	1,400	0.29
	2	203	0.56	2.33	0	0
	3	552	1.53	6.06	0	0
	4	641	1.78	6.97	0	0

In total, the proposed intensification in Study Area A will likely generate approximately 85 L/s to the existing infrastructure on Eglinton Avenue East.

The hydraulic grade line (HGL) profiles from the existing conditions were reviewed and analyzed for both main reaches (Eglinton Avenue East and Laird Drive) and for all four of the modelling scenarios. The branch along Eglinton Avenue East is part of the foul system and the branch along Laird Drive is part of the combined system.

- Under the “Baseline DWF (dry weather flow)” scenario, the Eglinton Avenue East HGL is completely eliminated, suggesting that the HGL is largely produced from the inflow and infiltration (I/I) along this branch. Similarly, the Laird Drive is largely contained within

the pipes, equally suggesting that that the surcharging conditions are a direct result storm flows within the combined system.

- Under “Baseline 2-year” scenario, the Eglinton Avenue East HGL shows significantly less surcharging while the backwater condition is still occurring along the end of this branch. The Laird Drive HGL shows some surcharging along the northern part of the branch and near the limit of the study area however, the surcharging is below the 1.8m limit.
- Under the “Baseline 100-year” scenario, the Eglinton Avenue East HGL shows surcharging to ground on Eglinton Avenue, and a backwater condition within the valley. The Laird Drive HGL shows slight surcharging along the entire branch however the surcharging conditions meet the requirements of the City of Toronto and does not reach the 1.8 m limit below existing road centerline grades. Note that assessment of this scenario for combined sewers is not a requirement of the City of Toronto.
- Under the “Baseline May 12, 2000” scenario, the Eglinton Avenue East HGL shows surcharging at or below the surface along Eglinton Avenue, while the Laird HGL indicates surcharging near the upstream portion of the study area. The surcharging conditions remain below the 1.8m threshold. Note that assessment of this scenario for combined sewers is not a requirement of the City of Toronto.

8.2 Servicing Impact Summary

8.2.1 Water

The Emerging Preferred Alternative Plan provided by the consulting team was used in the assessment of servicing requirements and opportunities. The Study Area focuses on two distinct development areas:

- Study Area A consists of three major blocks fronting on Eglinton Avenue East which generally include high-density mixed use developments. The flow generation design criteria used for this area is 191 L/c/D for residential units and 180,000 L/Ha/D for ICI development.
- Study Area B consists of seven smaller blocks along the west side of Laird Drive which generally include medium density mixed use developments. The flow generation design criteria used for this area is 320 L/c/D for residential units and 180,000 L/Ha/D for ICI development

Based on the above, preliminary water demand calculations for the two areas were prepared and are summarized below.

Study Area	ICI Area (m2)	Residential Units	Residential Population	Avg Day Demands		Max Day Demands		Peak Hour Demands	
				ICI (L/s)	RES (L/s)	ICI (L/s)	RES (L/s)	ICI (L/s)	RES (L/s)
Area “A”	44,670	3,755	6,684	9.31	14.78	10.24	19.21	11.17	36.94
Area “B”	21,090	1,017	2,102	4.39	7.78	4.83	12.84	5.27	19.30

The model was updated to reflect the preliminary development conditions. The existing meter-based demands for the proposed redevelopment addresses were removed from the appropriate nodes and the preliminary future design demands were assigned to new nodes. The model was thus

modified to revise average day, Max day and Peak hour demand scenarios for the post development conditions.

The preliminary post development conditions were simulated with the modified calibrated model to establish the residual pressures under several demand scenarios throughout the Study Area. The model was simulated for the following scenarios and the pressure / head loss in system was evaluated to understand the impact of the preliminary development on the existing system capacity. The model output for the post development condition analysis is summarized as follows.

Water Demand Modeling Scenario	Minimum Water System Requirements	Modelling Results
Average Day Demand	Recommended System Pressures = 40 psi to 100 psi	Model System Pressure = 43.4 psi to 93.1 psi (Ref Fig 8)
Maximum Day Demand	Recommended System Pressures = 40 psi to 100 psi	Model System Pressure = 30.6 psi to 87 psi (Ref Fig 9)
Peak Hour Demand	Recommended System Pressures = 40 psi to 100 psi	Model System Pressure = 19.4 psi to 81.8 psi (Ref Fig 10)
Required Fire Flow to be provided at a residual pressure of no less than 20 psi		
Maximum Day Demand plus Fire Flow	Residential Fire flow requirements per City of Toronto Standards, Qf >64 L/s to 189 L/s	Model Residential Available Fire flow = 50.2 L/s to 269.5 L/s (Ref Fig 7)
	Employment Fire flow requirements per City of Toronto Standards, Qf = 189 L/s to 317 L/s	Model Employment / High Rise Available Fire flow 75.3 L/s to 742.9 L/s (Ref Fig 7)

The model simulation results show that the system pressures are within the recommended range of 40 psi to 100 psi (275 kpa to 690 kpa) in most of the area. However, under Max day and Peak Hour demand scenario some areas indicate low pressures, generally corresponding to those noted in the existing conditions.

The fire flow analysis indicates that suitable fire flows are generally available in most areas, however there are areas with inadequate fire flows suggesting that the existing system needs some improvements.

In general, the areas that do not meet the City's requirements are:

- Future peak hour demand flows will not meet conditions west of Hanna Road to Bayview Ave.
- Future fire flows will not meet conditions West of Bessborough Dr and South of Eglinton Ave as well as the central part of the study area along Laird Drive, Eglinton Ave and Vanderhoof Ave

The head loss through the network was reviewed to understand the potential hydraulic bottlenecks

in the system which are limiting the fire flow availability. Two areas were identified and are listed below:

- Overlea Boulevard west of Don River to Throncliffe Park Drive: The head loss in this area is attributed to the low friction factor required during model calibration; and
- Wicksteed Avenue from Beth Neelson Drive to Leslie Street: The head loss in this area is attributed to a reduction in pipe diameters along this alignment.

In order to reduce the hydraulic losses sufficiently to maintain the required hydraulic grades to service the preliminary densities, system improvements are required along these alignments in order to increase the hydraulic capacity of the system.

8.2.2 Sanitary

The simulations were reviewed on two branches: the combined sewer along Laird Drive and the foul sewer along Eglinton Avenue East, referred to as Run 1 and Run 2 respectively. The HGL for both branches were reviewed for the 2-year and 100-year events, and it was observed that both show similar results when existing conditions and post-development conditions are compared. Additional discussions for each run follows.

Run 1: The results of the combined system modelling along Laird Drive indicate no adverse impacts to redeveloping the various sites along the west side of Laird (Study Area B). The 2-year storm HGL is similar under existing conditions and post-development conditions; that is to suggest that the development flow was similar to the existing flow removed. Similarly the 100-year storm HGL also looks comparable under existing conditions and post-development condition, suggesting that the development flow was similar to the existing flow removed. In terms of the risk of basement flooding, the freeboard is lower than 1.8m on the first two pipe segments for both existing and future conditions. Therefore development within Study Area B does not adversely affect existing conditions.

Run 2: The 2-year storm HGL looks very similar under existing conditions and post-development conditions (a similar situation occurs for the 100-year storm event). It is assumed that this is attributed to the fact that existing conditions generate runoff to the existing sanitary sewers in excess of the inflow and infiltration (I/I) allowance. The overall flow at the boundary of the study area is approximately the same in pre and post development conditions, suggesting that the development flow added was similar to the existing flows removed – perhaps attributed to reduction of I/I in the post-development conditions. Based on the proposed densities, the local sewers leading up to Eglinton Avenue East are undersized for the expected flow generated from the development.

8.3 Servicing Mitigation Options

The following servicing mitigation options are currently being contemplated as part of the overall assessment of the Study Area which will be completed at the Phase 3 report stage. The recommendations noted below will be explored in greater depth with the report's final recommendations:

- The City of Toronto must confirm if PD3 is supplemented by PD4 during fire flow conditions.
- Upon confirmation of final densities and population, the water model will be updated to confirm required infrastructure upgrades in order to provide sufficient fire flows to PD3.
- Each development must implement lot level controls in accordance with the City's wet weather flow management guidelines in order to reduce I/I to the sanitary sewer on Eglinton Avenue East and the combined sewer on Laird Drive.
- Baring new local infrastructure within Study Area A development, local sewers on Vanderhoof Avenue, Brentcliffe Road and Aerodrome Crescent will need to be improved to safely convey the flows from the proposed development. Additional measures to reduce I/I within the sewers should also be implemented to ensure I/I reduction.

9.0 COMMUNITY OUTREACH

9.1 Local Advisory Committee Meeting No. 2

October 10, 2017

The purpose of this meeting was to provide an overview of the work in progress on the Heritage Study, to present the emerging vision and results of the design charrette, the alternative development options for the Eglinton study area, the alternative development options for the Laird study area test sites, the streetscape concept and the results of the transportation analysis. Following the presentation, a round table discussion followed, providing input on the elements of the development options. A number of items requiring further clarification were identified including:

Eglinton Avenue study area development options

- The amount of parking required for each scenario
- How the various land uses are confirmed and attributed across the site
- The useability of a long park through the centre of the study area
- Context for 40 storey buildings and confirmation of the size of the units

Laird Drive study area test sites

- Relation to the heritage character buildings
- Impact of narrowing the lanes on Laird
- What happens at the underpass

9.2 Public Consultation Meeting No. 2: Alternative Development Options

October 17, 2017

The purpose of this meeting was to present the planning and urban design scenarios for each of the study areas and to gather feedback to inform the next steps of the study process.

The session included a presentation from the team followed by an open house and one-on-

one conversations at the display panels to obtain input. A total of 18 panels were on display during this public consultation meeting. Participants were invited to write out their comments on the panels and speak with City staff and members of the project team. The panels provided information on the following topics:

- Emerging vision and principles
- Charrette results
- Eglinton Avenue study area scenarios
- Laird Drive study area intersection and streetscape scenarios
- Leaside Business Park traffic and truck movement
- Options evaluation framework

The key themes of input received include the following:

- Ensure that proposed densities do not negatively impact and are sensitive to the existing residential neighbourhoods.
- There are significant traffic issues in the area, both vehicular and truck traffic; the proposed plan needs to ensure that traffic issues are not worsened and does result in increased traffic within residential neighbourhoods.
- Future development must reflect a true mix of residential and employment uses.
- There is significant support for increased park and community facilities to meet the needs of current and future residents.
- It is important to create an environment that supports pedestrians and cyclists, including dedicated infrastructure, an attractive streetscape and a high number of local destinations.
- New development along Laird Avenue should serve a diverse population, including providing a range of residential unit types, local businesses/shops and live/work opportunities.

9.3 Business Owners' Drop-in No. 2

October 19, 2017

A breakfast drop-in and networking event was planned for the review of alternative development options for the Eglinton study area and the Laird Drive test sites.

9.4 LAC Meeting No. 3: Draft Emerging Preferred Alternative

November 21, 2017

The focus of this meeting was to present the results of the evaluation of alternative development options and the draft emerging preferred alternative for the Eglinton Avenue study area, the draft emerging preferred urban design approach for the Laird Drive test sites and to provide a transportation update. The following summarizes the common themes of the input received:

Eglinton Avenue Study Area

- Traffic infiltration north of Eglinton
- Pedestrian safety crossing Eglinton
- Allocation of density across the study area and elsewhere in the area
- Concern about tall buildings and preference for mid-rise buildings
- Need design guidelines for Vanderhoof to make sure there is an appropriate interface with the park

Laird Drive Study Area

- Preference for more green space on Laird Drive
- Clarification on truck routes
- Pedestrian safety
- Safe cycling routes

Other

- Need to manage construction
- By concentrating development on arterial roads, it protects residential neighbourhoods
- Will have an active pedestrian realm on Eglinton – now will have a very vibrant high street
- Need a better understanding of what will make this new development a benefit to Leasiders

9.5 Public Consultation Meeting No. 3: Draft Emerging Preferred Alternative

December 5, 2017

The purpose of this session was to present the draft emerging preferred alternative for the

Eglinton Avenue study area, the draft emerging preferred urban design approach for the Laird Drive test sites and to provide a transportation update. A late afternoon and evening session were held. Both began with a presentation from the team followed by a brief question and answer period, and focused discussions on the draft emerging preferred alternative for the Eglinton Avenue study area, the urban design approach for Laird Drive and the Laird Business Park transportation network. Participants were invited to join a discussion group of their interest and to speak with City staff and members of the project team. The following is a summary of the common themes of input received:

- Emphasis should be placed on the public realm and enhancing pedestrian and cyclist connectivity and safety;
- Ensure traffic and servicing issues in the area are not worsened;
- Consider the impact on existing parks, schools and daycares in the area and future requirements; and
- Built form should reflect a mixture of uses and be sensitive to the surrounding local neighbourhood context.

Height and Density:

- Understand that change is coming, but wish that it didn't have to be so much;
- Laird Drive starts and ends in residential communities, we need to be aware of that;
- Six storeys is better than what was approved at 150 Laird Drive;
- Consider the transitions to backyards and shadowing;
- There is a disconnect between what developers want and what the City wants;
- Owners want to build to the lot line;
- Property at Parkhurst Boulevard and Laird Drive was formerly one lot. Concerned that 17 storey building will remove future building potential on other lots;
- This is not an accomplishment. You've egg crated 7,000 people into an area. This should be driven by LRT demands, driven by humanity. This will destroy the city in 20 years. There are no schools and the parks are too small to hit a ball in;

- Concerned about what the (seemingly inevitable) intensification that is planned particularly for Study Area A (the Eglinton/Vanderhoof, and Laird/Aerodrome block) means for the traffic conditions in the Business Park;
- How are the density targets developed, and are they appropriate?
- It would appear that only the mid-rise/tall building model is open for discussion, and the densities are to be in line with the one parcel for which approval has already been given;
- Intensification along Eglinton is to be expected given the public dollars being put into the Crosstown LRT Line. This does not mean that the tall building portion of the proposed model is appropriate for all the parcels fronting on Eglinton within the study area. Obviously as one gets further away from the Laird station, one would expect densities to drop off significantly; and
- We would recommend that the Study consider the approach taken in Midtown in Focus (Proposals Stage) where specific buildings locations and specific heights are attached to those buildings. It is felt that this will provide the City with much stronger ability to hold on to its height and massing recommendation at the OMB, compared with a general building type (mid-rise/high-rise) heights or range of heights recommendations.

Transportation:

- Like the servicing and access off of Laird Drive. Don't like the laneway at the rear;
- Worried about servicing capacity/roads;
- There needs to be more parking in the area. Vehicles and movement should be taken into consideration. People who buy these condos will have to drive to stores, drive to the new LRT station, and will park in the area to take transit. Those without parking spots will find other places to park in the area. People drive and park in the area to take the bus;
- How will parking for retail and existing buildings be addressed?
- No on-street parking;
- Concerned about the Study's apparent direction to date of encouraging use of

Wicksteed/Laird for truck traffic to exit the Park, and the lack of attention to the Beth Neilson/Overlea route;

- Lack of attention to developing links to the Leslie LRT station which for the establishments east of the railway tracks is far closer than the Laird Station; and
- Leaside Business Park at this point is the remaining industrial area (that is still largely industrial) that is closest to downtown. Transportation is key to maintaining the Leaside Business Park as a major employment district in Toronto.

Community Facilities:

- Where will kids go to school?
- What are the impacts on hospitals?
- The display panels indicated that the south-east corner of Laird and Eglinton would be occupied by a private building and immediately south of it a community centre and a green space. I see this approach as a missed opportunity considering that this intersection could provide a unique and rare chance to develop a civic space that would work at both the community and city scales;
- Placing the Community Centre and the adjacent open space at the south/east corner of Laird and Eglinton would create a Civic Node - envision a community piazza, framed by the new transit pavilions for Laird Station serving as a grand entrance to the new iconic Leaside Community Centre;
- At a City scale, this minor but significant change, of switching the location of the piazza/community centre with the private building, would provide a dynamic visual break which would not only mark our Leaside Community but also celebrate transit along the Eglinton Corridor. At a Community level, it would provide the long-needed connection and neighbourhood hub that would unify the North and South communities of Leaside – perhaps it will become our future Civic Centre; and
- The Community currently experiences traffic congestion, lack of school space, pressures on public infrastructure (hydro, water, sewage and storm water facilities) and on community services (libraries, parks, recreational facilities,

etc.), and needs to see how such matters are to be addressed in any emerging development scenario. Unfortunately there's still no information on how these impacts will be addressed.

Public Realm:

- Need to pay special attention to the base of buildings. Triviso Condo at Lawrence and Dufferin is a good example;
- Generally agree that density along Laird Drive should be focused and tapered down;
- Laird Drive is currently not an attractive street;
- How do we cross Laird Drive safely?
- Consider the small town, Leaside character; and
- I think that this is good progress and is in the right direction. Laird and Eglinton offer an incredible opportunity for city building. It's a rare opportunity to have LRT stations and civic uses. You should consider a park at the corner framed by transit and civic buildings/ node. There is nothing linking the north Leaside neighborhood and south Leaside neighborhood.

Land Use:

With the coming of the Costco warehouse store, the north side of Overlea Boulevard is essentially facing pressures for Mixed Use/Commercial similar to that of Laird Drive:

- Laird Drive and Millwood Road intersection has choked commercial;
- Be conscious of how decisions and construction affect businesses;
- Minimize impacts on businesses in the short term;
- I want the buildings and businesses in my neighbourhood to stay; and
- Large amounts and high proportion of residential uses compared with employment (industrial) uses.

Heritage:

- Heritage is important; and
- What are the heritage recommendations for other areas outside the Laird study area?

Other:

- High water table;
- Extend the Transportation Study to include the eastern part from the CP Rail tracks to Overlea Boulevard and the Don Valley. The railway track splits the Business Park; it does not form an edge. Today the "divide" is more between properties fronting on Laird, and the rest of the Park than between different sides of the railway;
- Apparent lack of consideration for the huge investment in infrastructure (such as electric power installations) represented by the existing industries in the Business Park, such as Tremco, Siltech and Lincoln Electric; and
- Phase 3's "10 big moves" seem to be reasonable and appropriate, and we can support them in principle, however they are quite high level and lacking in definition and detail.

10.0 NEXT STEPS

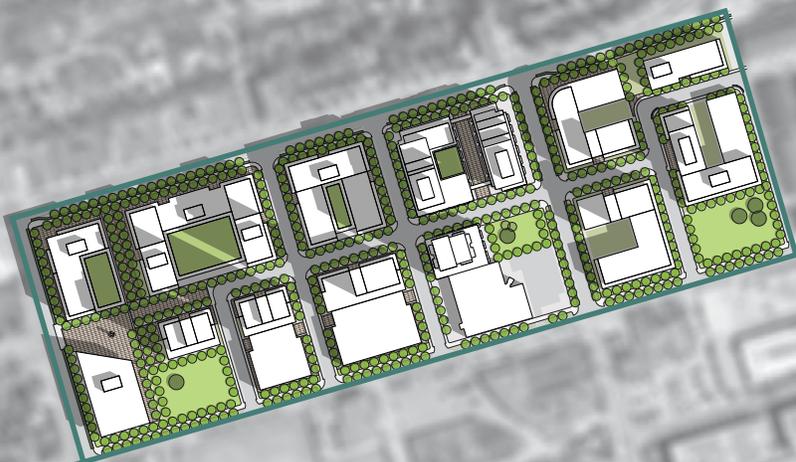
10.1 Considerations for Refinement of Draft Emerging Preferred Alternative Plan

Moving forward the consulting team will work with city staff, the technical advisory committee, the local advisory committee, key stakeholders, and the public in refining the draft plan and its constituent parts. The modifications will be based on feedback from interested parties as well as updated technical analysis. Aspects of the study that will be clarified include:

- Building heights and population yields for Study Area A;
- Servicing upgrades required for Study Area A;
- Traffic analysis finalized for the preferred plan;
- Identify transportation design related elements;
- Transportation Demand Management (TDM) recommendations;
- Recommended properties to be considered for inclusion on the City's Heritage Register; and
- Urban Design Guidelines for Study Areas A and B.



Figure 10.1: Aerial View of Study Area



A. APPENDIX

The following tables summarizing the development yields for each alternative indicate similar overall gross floor areas and development densities (Floor Space Indices, or FSI). While the development yields are relatively consistent, the allocation of gross floor area differs by use. As a result, the residential population also varies by 800 units.

Study Area A SCENARIO 1				
Zone	A1	A2	A3	SUMMARY
Address	815-845 Eglinton Avenue East	849 / 939 Eglinton Avenue East	943-957 Eglinton Avenue	TOTALS
Parcel Area (m ²)	35,551	14,136 / 20,235	27,296	97,218
FSI	3.74	3.39 / 3.66	3.89	3.72
GFA (m ²)	132,941	47,960 / 74,140	106,270	361,311
Office GFA (m ²)	0	7,650 / 2,150	0	9,800
Commercial GFA (m ²)	16,133	2,025 / 3,990	790	22,938
Community Facility GFA (m ²)	701	0 / 0	0	701
Residential GFA (m ²)	116,107	38,285 / 68,000	105,480	327,872
No. of Residential Units	1,470	485 / 861	1,335	4,150
No. of 3-bedroom Units	147	48 / 86	134	415
No. of 2-bedroom Units	441	145 / 258	401	1,245
No. of 1-bedrooms Units	882	291 / 516	801	2,490
Total Population	3,207	1,255 / 1,815	2,557	8,834
Residential	2,792	921 / 1,635	2,537	7,886
Office	0	283 / 80	0	363
Commercial	403	51 / 100	20	573
Community Facility	12	0 / 0	0	12

Study Area A SCENARIO 2				
Zone	A1	A2	A3	SUMMARY
Address	815-845 Eglinton Avenue East	849 / 939 Eglinton Avenue East	943-957 Eglinton Avenue	TOTALS
Parcel Area (m ²)	35,551	14,136 / 20,235	27,296	97,218
FSI	3.52	3.65 / 3.66	3.89	3.67
GFA (m ²)	125,050	51,570 / 74,140	106,270	357,030
Office GFA (m ²)	30,520	11,260 / 2,150	0	43,930
Commercial GFA (m ²)	7,850	2,025 / 3,990	790	14,655
Community Facility GFA (m ²)	0	0 / 0	0	0
Residential GFA (m ²)	86,680	38,285 / 68,000	105,480	298,445
No. of Residential Units	1,097	485 / 861	1,335	3,778
No. of 3-bedroom Units	110	48 / 86	134	378
No. of 2-bedroom Units	329	145 / 258	401	1,133
No. of 1-bedrooms Units	658	291 / 516	801	2,267
Total Population	3,411	1,388 / 1,815	2,557	9,171
Residential	2,085	921 / 1,635	2,537	7,178
Office	1,130	417 / 80	0	1,627
Commercial	196	51 / 100	20	366
Community Facility	0	0 / 0	0	0

Study Area A SCENARIO 3				
Zone	A1	A2	A3	SUMMARY
Address	815-845 Eglinton Avenue East	849 / 939 Eglinton Avenue East	943-957 Eglinton Avenue	TOTALS
Parcel Area (m ²)	35,551	14,136 / 20,235	27,296	97,218
FSI	3.62	4.15 / 3.66	3.88	3.78
GFA (m ²)	128,705	58,725 / 74,140	106,010	367,580
Office GFA (m ²)	0	0 / 2,150	0	2,150
Commercial GFA (m ²)	8,080	1,980 / 3,990	1,960	16,010
Community Facility GFA (m ²)	2,160	0 / 0	0	2,160
Residential GFA (m ²)	118,465	56,745 / 68,000	104,050	347,260
No. of Residential Units	1,500	718 / 861	1,317	4,396
No. of 3-bedroom Units	150	72 / 86	132	440
No. of 2-bedroom Units	450	215 / 258	395	1,319
No. of 1-bedrooms Units	900	431 / 516	790	2,637
Total Population	3,087	1,414 / 1,815	2,551	8,868
Residential	2,849	1,365 / 1,635	2,502	8,352
Office	0	0 / 80	0	80
Commercial	202	50 / 100	49	400
Community Facility	36	0 / 0	0	36